

ᓄᓇᕗᑦ ᐅᒪᔨᓕᕆᔨᖅᑎᑦ ᑲᑎᒪᔨᖏᑦ
ᑲᑎᒪᔨᐅᑎᖅᑕ: ᑲᑎᒪᓂᒧᑦ 002-2022
ᔨᓂ 15, 2022
ᐊᖏᖅᓂᒃ ᑐᔨᑎᐃᓐᓇ



	ᓇᒻᒪ:	ᑲᑎᒪᔨᐅᑎᖅᑕ	ᓇᓂᑎᒋ:	ᐅᖃᓕᒪᔨᖅ	ᐊᑯᓂᐅᓂᖓ
9:00 - 9:02 AM	1	ᒪᑐᐃᖅᑕᐅᓂᖓ ᑲᑎᒪᓂᐅᐸ		ᐃᒃᓱᕈᐅᑕᖅ	2 ᒥᓂᖅ
9:02 - 9:04 AM	2	ᐃᒻᒥᒧᑦ ᐊᑲᑐᓗᐊᕈᑎᖃᖅᓂᒧᑦ ᓇᓗᓇᐃᖅᓱᓂᖅ		ᐃᒃᓱᕈᐅᑕᖅ	2 ᒥᓂᖅ
9:04 - 9:05 AM	3	ᑲᑎᒪᔨᐅᑎᖅᑕ: ᖃᐅᔨᑭᐳᐅᓂᖏᑦ ᐊᖏᖅᑕᐅᓂᖏᓪᓗ ᑲᑎᒪᓂᒧᑦ RM002-2022	1	ᐃᒃᓱᕈᐅᑕᖅ	1 ᒥᓂᑦ
9:05 - 10:00 AM	4	ᑲᑎᒪᔨᓕᐅᕈᐊᕆᐊᖃᓂᓂᖓ Gulf of Boothia-Γ ᓇᓐᓄᑦᑕᖅᑕᓪᓗᓂ ᐃᓗᐃᑦᑐᓴᖅᓯᒪᔪᓕ ᐅᒪᔨᖅᑕᐅᔪᓇᖅᑐᑦ ᑭᒡᓕᖏᑦ (ᐃᓱᒪᓕᐅᑭᐅᑎᖅᑕ)	2	ᐅᒪᔨᓕᕆᔨᖅᑎᑦ	55 ᒥᓂᖅ
10:00 - 10:15 AM		**ᖃᑲᑲᐃᓇᖅ**			15 ᒥᓂᖅ
10:15 AM - 12:00 PM	4	ᑲᑎᒪᔨᓕᐅᕈᐊᕆᐊᖃᓂᓂᖓ Gulf of Boothia-Γ ᓇᓐᓄᑦᑕᖅᑕᓪᓗᓂ ᐃᓗᐃᑦᑐᓴᖅᓯᒪᔪᓕ ᐅᒪᔨᖅᑕᐅᔪᓇᖅᑐᑦ ᑭᒡᓕᖏᑦ (ᐃᓱᒪᓕᐅᑭᐅᑎᖅᑕ)	2	ᐅᒪᔨᓕᕆᔨᖅᑎᑦ	1 ᐃᑲᖏᖅ & 45 ᒥᓂᖅ
12:00 - 1:30 PM		**ᐅᓪᓗᑭᒻᒥᔨᖃᖅ**			1 ᐃᑲᖏᖅ & 30 ᒥᓂᖅ
1:30 - 2:30 PM	5	ᐃᓇᖏᑎᔨᓕ ᐃᓕᓴᕆᐅᖏᓪᓗᓂᓗᑎᒃ ᑐᐸᓂᖏᑦᑐᖅᑭᒧᑦ ᐊᓕᔨᖅᑕᐅᖏᓪᓗᑐᖅᑭᒧᑦ ᑎᑎᖏᖅᑕᐅᕈᐊᕐᓇᖅᑐᑦ ᐃᓕᓴᕆᐅᖏᓪᓗᑐᖅᑭᒧᑦ ᐃᓕᓴᕆᐅᖏᓪᓗᑐᖅᑭᒧᑦ ᐃᓕᓴᕆᐅᖏᓪᓗᑐᖅᑭᒧᑦ ᑎᑎᖏᖅᑕᐅᕈᐊᕐᓇᖅᑐᑦ ᐃᓕᓴᕆᐅᖏᓪᓗᑐᖅᑭᒧᑦ ᐊᑐᓂᖓᓪᓗᑎᒃ ᐅᓂᒃᑳᖅᑎᑦ ᐊᑐᓂᖓᓪᓗᑎᒃ ᐃᓕᓴᕆᐅᖏᓪᓗᑐᖅᑭᒧᑦ

4:30 - 5:00 PM	8	ᐃᓗᒪᓕᐅᕕᑐᖅᑎᓄᖅ/ᐅᖃᐅᓵᔨᒋᐊᕐᓂ ᐱᔪᓕᒋᓂ Redfish ᑕᑏᐅᖅᑎᐅᑕᓂ ᐃᖃᓗᓂ ᐱᔨᐅᑲᓗᐊᖅᑎᑦᑐᑦ ᐃᖃᓗᓄᑕᐅᖃᑦᑕᕐᓂᖅᑎᓂ ᐱᖓᓱᓐᓇᖅᓂ ᑲᓇᓐᓇᖅᓂᓕ ᖃᐅᔨᓴᐃᓚᐸ (ᐃᓗᒪᓕᐅᕕᑐᖅᑎᓄᖅ ᐊᒻᒪ ᐅᖃᐅᓵᔨᒋᐊᕐᓂ)	6	ᐃᖃᓗᓕᓕᓵᓂ ᐃᒪᖅᑎᐅᑕᓕᓕᓵᔨᒃᑯᓂ ᑲᓇᑕᒥ	30 ᒥᓂᖅ
5:00 - 5:30 PM	9	ᐅᖃᐅᓵᔨᒋᐊᕐᓂ ᐃᓕᐃᑦᑐᓰᓇᖅᑐᑦᓯᐊᓂᓇᖅᑐᑦ ᐊᖏᓴᐅᓇᖅᑐᑦ ᑭᖏᖅᑕᑦ ᐃᓕᐊᓂ ᑭᖏᖅᑕᖓᓂᕐᓂᖅᑎᐊᖅᑐᑦ 0 (ᐅᖃᐅᓵᔨᒋᐊᕐᓂ)	7	ᐃᖃᓗᓕᓕᓵᓂ ᐃᒪᖅᑎᐅᑕᓕᓕᓵᔨᒃᑯᓂ ᑲᓇᑕᒥ	30 ᒥᓂᖅ
	10	ᓄᖅᑲᖅᓂᖅ RM002-2022 ᑲᑎᒪᓂᐅᕐᐸ		ᐃᑲᓴᐅᑕᖅ	



ᓄᓇᕗᑦ ᐅᒪᔨᓕᓇᔭᖅᑕᑦ ᑲᑎᒪᔨᖏᑦ

ᑲᑎᒪᖅᑎᑦ: ᑲᑎᒪᓂᒧᑦ 002-2022

ᐋᓂ 16, 2022

ᐊᖏᖑᓂᑦ ᑐᔨᒋᒥᕐᖓᓪᓚ



	ᓇᒻᒪ:	ᑲᑎᒪᖅᑎᑦ:	ᓇᓂᑎᓂ	ᐅᖃᓕᒪᔨᖅ	ᐊᑯᓂᐅᓂᓪᓚ
9:00 - 9:02 AM	11	ᒪᑐᐃᖅᑕᐅᓂᓪᓚ ᑲᑎᒪᓂᐅᐳᐸ		ᐃᑲᔪᕕᐅᑕᖅ	2 ᒥᓂᕐᓂ
9:02 - 9:04 AM	12	ᐃᒻᒥᒧᑦ ᐊᑲᑐᓗᐊᕈᑎᖅᑐᓂᖏᒧᑦ ᓇᓗᓇᐃᖅᓱᓂᖅ		ᐃᑲᔪᕕᐅᑕᖅ	2 ᒥᓂᕐᓂ
9:04 - 9:05 AM	13	ᑲᑎᒪᖅᑎᑦ: ᖃᑎᖅᑭᐅᓂᖏᑦ ᐊᖏᖅᑕᐅᓂᖏᓪᓗ ᑲᑎᒪᓂᒧᑦ RM002-2022	1	ᐃᑲᔪᕕᐅᑕᖅ	1 ᒥᓂᑦ
9:05 - 10:00 AM	14	ᖃᑭᖅᑕᓗᒍ ᑐᑲᑐᒃᑲᓂ ᐃᓗᐃᓂᑐᓇᖅᓱᒪᔨᑦ ᐅᒪᔨᖅᑕᐅᔨᓇᖅᑐᑦ ᑭᒃᓕᖏᑦ (ᐃᓱᒪᓕᐅᕈᑎᒃᑲᖅ)	8	ᓄᓇᕗᑦ ᒪᓕᒪᓄᖏᑦ ᐊᒻᒪ ᖃᑭᖅᑕᓗᒍ ᐅᒪᔨᓕᓇᔭᑦ ᑲᑎᒪᔨᖏᑦ	55 ᒥᓂᕐᓂ
10:00 - 10:15 AM		**ᖃᑲᖏᓇᖅ**			15 ᒥᓂᕐᓂ
10:15 AM - 12:00 PM	14	ᖃᑭᖅᑕᓗᒍ ᑐᑲᑐᒃᑲᓂ ᐃᓗᐃᓂᑐᓇᖅᓱᒪᔨᑦ ᐅᒪᔨᖅᑕᐅᔨᓇᖅᑐᑦ ᑭᒃᓕᖏᑦ (ᐃᓱᒪᓕᐅᕈᑎᒃᑲᖅ)	8	ᓄᓇᕗᑦ ᒪᓕᒪᓄᖏᑦ ᐊᒻᒪ ᖃᑭᖅᑕᓗᒍ ᐅᒪᔨᓕᓇᔭᑦ ᑲᑎᒪᔨᖏᑦ	1 ᐃᑲᖏᕐᖅ & 45 ᒥᓂᕐᓂ
12:00 - 1:30 PM		**ᐅᓪᓗᕈᒪᒃᖏᓇᖅ**			1 ᐃᑲᖏᕐᖅ & 30 ᒥᓂᕐᓂ
1:30 - 3:00 PM	14	ᖃᑭᖅᑕᓗᒍ ᑐᑲᑐᒃᑲᓂ ᐃᓗᐃᓂᑐᓇᖅᓱᒪᔨᑦ ᐅᒪᔨᖅᑕᐅᔨᓇᖅᑐᑦ ᑭᒃᓕᖏᑦ (ᐃᓱᒪᓕᐅᕈᑎᒃᑲᖅ)	8	ᓄᓇᕗᑦ ᒪᓕᒪᓄᖏᑦ ᐊᒻᒪ ᖃᑭᖅᑕᓗᒍ ᐅᒪᔨᓕᓇᔭᑦ ᑲᑎᒪᔨᖏᑦ	1 ᐃᑲᖏᕐᖅ & 30 ᒥᓂᕐᓂ
3:00 - 3:15 PM		**BREAK**			15 ᒥᓂᕐᓂ
3:15 - 3:30 PM	15	ᐃᓱᒪᓕᐅᓗᐊᖅᑐᑦ ᐱᓪᓗᒋᑦ ᐸᖏᓇᐅᑎᓕᐅᑐᐃᓐᓇᓗᐊᖅᑐᖏᒪᑦ ᑐᓴᕋᔭᐊᖅᑕᓄᑦ ᓄᓇᕗᒻᒥ ᐊᒻᒪᓗ ᐃᓱᒪᓕᐅᕈᑎᒃᑲᖅᑐᖏᒪᑦ ᐃᓕᓴᐅᑐᐃᓐᓇᓗᐊᖅᑐᖏᑦ Sei Whale ᐊᖏᐃᐅᐸ ᐊᐅᕆᖏᖓ ᑎᑎᕋᖅᑕᐅᒪᔪᖏᓪᓗᓂᑦ ᐅᒪᔨᑦ ᐃᓇᐃᓐᓇᐊᓗᐊᖅᑐᑦ ᐊᑦᑕᓗᕆᐅᓕᖅᑐᑦ ᐱᖏᓂᕋᐊᖅᖓ ᐊᑐᖏᓐᓇᑐᑦ (ᑐᓴᕆᖏᖅ)	9	ᐃᖃᓐᓇᓗᐊᑦ ᐃᒪᕋᑎᐅᑕᐅᓐᓇᐅᑉᓂᑦ ᑲᓇᑕᒥ	15 ᒥᓂᕐᓂ

3:30 - 3:45 PM	16	ᓱᒪᓕᐅᕆᐊᖅᖅᑐᑦ ᐱᓵᓗᓂᑦ ᕿᖏᐅᑎᓕᐅᑐᑐᑐᐃᐧᓇᕆᕆᐊᖅᖏᒪᑕ ᑐᕿᕋᓱᐊᖅᐊᕐᓂᖅᓗᓂᑲᑎᑦ ᐅᓇᕽᒥ ᐊᓱᒪᓕᐅᑭᑕᐅᑐᐃᐧᓇᕆᕆᐊᖅᖏᒪᑕ ᐃᓕᓴᐅᑐᐃᐧᓇᕆᕆᐊᖅᓂᖓᑦ ᑎᑎᕋᖅᑕᐅᒪᐃᖅᓗᒍ ᑲᓇᕐᓂᑦ ᐊᒪᓪᓚᑦ ᐃᓱᒪᓕᐅᑭᑕᐅᐃᐧᓇᕆᕆᐊᖅᓂᖓᑦ ᐃᓕᓴᐅᑐᐃᐧᓇᕆᕆᐊᖅᓂᖓᑦ ᑎᑎᕋᖅᑕᐅᒪᐃᖅᓗᒍ ᐊᑐᐧᓗᓂᑦ ᐅᒪᓐᓂᑦ ᐃᓕᓴᐅᑐᐃᐧᓇᕆᕆᐊᖅᓂᖓᑦ ᑎᑎᕋᖅᑕᐅᒪᐃᖅᓗᒍ ᐊᑐᐧᓗᓂᑦ ᐅᒪᓐᓂᑦ ᐃᓅᓕᐊᓗᐊᕆᐊᖅᓂᖓᑦ ᐊᑎᓂᕆᐅᓕᖅᑕᖅᑐᑦ ᐱᐧᐊᕐᕆᐊᖅᓂᖓᑦ (ᑐᐊᓚᑲᐊᖅ)	10	ᐃᖅᓱᓂᓕᓵᓂ ᐃᓚᖏᐅᑕᓕᓕᓵᑲᐧᐊᑦ ᑲᓇᑕᒫ	15 ᒥᓂᔪ
3:45 - 4:00 PM	17	ᐊᐧᐲᓴ ᓯᓗᓯᐊᓕᔪᐅᓂᓄᑦ ᑐᐊᓚᑲᐊᖅᑦ, ᖃᑎᖏᒥᐅᓂ (ᑐᐊᓚᑲᐊᖅᖅ)	11	ᐃᖅᓱᓂᓕᓵᓂ ᐃᓚᖏᐅᑕᓕᓕᓵᑲᐧᐊᑦ ᑲᓇᑕᒫ	15 ᒥᓂᔪ
4:00 - 4:15 PM	18	ᑐᐊᓚᑲᐊᖅᖅ ᑐᑦᓯᐊᐅᑎᑦ ᐊᖏᕐᕋᓂᑦ ᑭᖑᑦᐸᓚᑲᐊᖅᓂᑦ ᐊᖏᕐᕋᔪᒧᑦ ᓄᑕᒧᑦ ᓄᑎᖅᑕᐅᖏᓐᓂᓗᑎᑦ ᑲᑎᕋᖅᑕᐅᖏᓐᓂᓗᑎᑦ ᑭᑐᐃᓐᓇᖅᑐᓂᒃᑯᑦ ᑭᑐᐃᓐᓇᖅᑐᓂᒃᑯᑦ ᖃᐅᔨᓴᓇᖅᓯᒪᓂ (ᑐᐊᓚᑲᐊᖅᖅ)	12	ᐃᖅᓱᓂᓕᓵᓂ ᐃᓚᖏᐅᑕᓕᓕᓵᑲᐧᐊᑦ ᑲᓇᑕᒫ	15 ᒥᓂᔪ
4:15 - 4:30 PM	19	ᑕᕆᐅᖅ ᐃᓚᖓᓂ ᐱᐅᖅᓯᐊᖏᓂᐊᖅᓄᑦᑐᒍᑦ ᐱᓕᕆᔨᐊᑭᑎᑦ (ᐃᓚᖏᐅᑕᓕᓕᓵᑲᐧᐊᑦ)	13	ᐃᖅᓱᓂᓕᓵᓂ ᐃᓚᖏᐅᑕᓕᓕᓵᑲᐧᐊᑦ ᑲᓇᑕᒫ	15 ᒥᓂᔪ
4:30 - 4:45 PM	20	ᐃᓚᖏᐅᑕᐧᓂᐊᐧᓂᐧᒧᑦ ᐊᐅᓪᓕᑎᐢᔨᑎᖅᓐᓄᓂᓐᓂᑦ ᐅᓪᓗᒋᔨᐅᑎᑦ ᑐᐊᓚᑲᐊᖅᑦ (ᑐᐊᓚᑲᐊᖅᖅ)	14	ᐃᖅᓱᓂᓕᓵᓂ ᐃᓚᖏᐅᑕᓕᓕᓵᑲᐧᐊᑦ ᑲᓇᑕᒫ	15 ᒥᓂᔪ
	22	ᓄᖅᑲᐧᓂᖅᓚ RM002-2022 ᑲᑎᒪᓂᐅᐸᑦ		ᐃᑲᓴᐅᑕᖅ	

ᑐᓂᔨᐅᔪᖅ ᓄᓇᕗᑦ ᐅᒪᔪᓕᓐᓇᕐᔪᐊᑦ ᑲᑎᒪᔨᖏᑦᓱᓄᑦ

ᐃᒪᐃᓕᑦᑐᓪᓗᒍ

ᑐᓴᖅᓴᖅ: **ᐃᓱᒪᓕᐅᕈᑎᖅᓴᖅ: X**

ᐅᑭᓪᓗᐊᑦ: ᒪᐃ 12, 2022

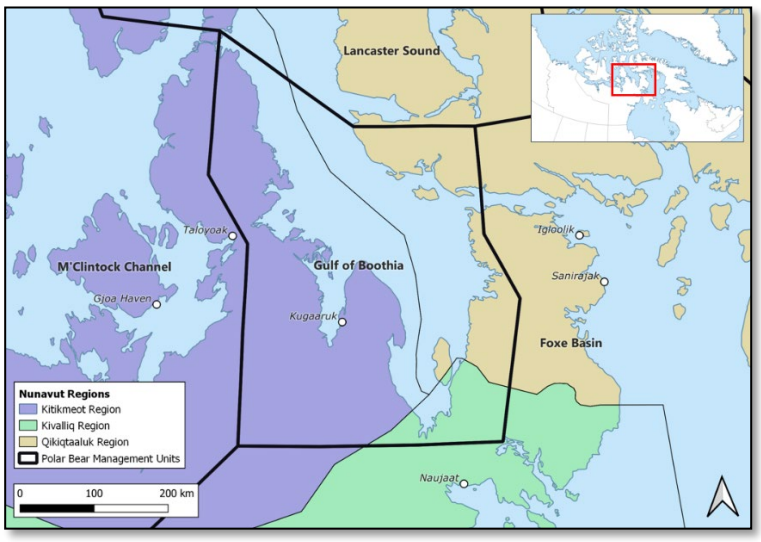
ᓄᓇᕗᑦ ᓴᓚᖅᑯᖏᑕ ᐊᑐᓵᑯᓕᐊᖏᑦ ᓄᓇᕗᑦ ᐅᒪᔪᓕᓐᓇᕐᔪᐊᑦ ᑲᑎᒪᔨᖏᑦᓱᓄᑦ ᐱᑭᓗᒍ ᐃᓗᐃᑦᑐᐃᓐᓇᖅᑯᓯᒪᔪᑦ ᐅᒪᔪᖅᑕᐅᔪᓱᖅᑐᑦ ᑭᓚᖏᑦ Gulf of Boothia ᓯᑯᓴᓄᐊᖅᑕᖅᑐᑦ ᓇᓄᖏᓱᓄᑦ ᓇᓄᓴᓴᓴᑦ

ᐱᖁᐅᑎ

ᑕᐃᑦᓯᒪᓂ ᓄᓇᕗᑦ ᐅᒪᔪᓕᓐᓇᕐᔪᐊᑦ ᑲᑎᒪᔨᖏᑦ ᑲᑎᒪᐃᖅᓴᓐᓄᒍᑦ ᑲᑎᒪᑦᓴᓂᑦ (RM001-2021) ᐅᓴᓗᐊᓂ ᒪᑦᓯ 10, 2021, ᓄᓇᕗᑦ ᓴᓚᒪᑯᖏᑦ ᑐᐱᓯᕆᐅᖅᓯᒪᓕᒡᒐ ᓄᓇᕗᑦ ᐅᒪᔪᓕᓐᓇᕐᔪᐊᑦ ᑲᑎᒪᔨᖏᑦ ᐊᓯᔨᖅᓯᓯᑯᓕᑦ ᐃᓗᐃᑦᑐᐃᓐᓇᖅᑯᓯᒪᔪᑦ ᓇᓄᓴᓴᓴᓂᖅ 74-ᓂᖅ ᑕᐅᔭᓐᓴᑦ Gulf of Boothia ᓇᓄᖏᓱᓄᑦ (ᓄᓇᕗᑦ ᓴᓚᒪᑯᖏᑕ 2021-Γ ᑐᐱᓯᕆᐅᑎᓕᐊᓕᐅᕈᑎᖅᑕᓴᑦ).

ᑲᓇᐃᔪᖅᑐᑯᑦ ᑲᑎᒪᑎᓕᒡᒐ (IC001-2021) ᐅᓴᓗᐊᓂ ᒪᑦᓯ 11, 2021, ᓄᓇᕗᑦ ᐅᒪᔪᓕᓐᓇᕐᔪᐊᑦ ᑲᑎᒪᔨᖏᑦ ᐃᓱᒪᓕᐅᕈᐅᕈᖅᑐᑦ ᑭᖑᔭᕆᐊᖅᑕᐅᕐᓯᓕᒡᒐ ᑲᑎᒪᒃᓴᑕᐅᓂᖏᑦ Gulf of Boothia-ᒧᐊᖅᑕᖅᑐᑦ ᓇᓄᓴᓴᓴᑦ ᐃᓗᐃᑦᑐᐃᓐᓇᖅᑯᓯᒪᔪᑦ ᑭᓱᐊᓂ ᓇᓄᓴᓴᓴᓄᑦ ᐊᐅᓚᓕᑎᓐᓂᑦ ᐊᐅᓚᑦᑎᒃᓴᓂᖅ ᐊᐅᓚᓕᑎᒃᓴᓂᖅ ᐊᒻᒪᓕᒪᓂᖅ ᐊᐅᓚᓕᑎᒃᓴᓂᖅ ᐊᐅᓚᓕᑦᓴᓕᑎᒃ ᐊᖏᑭᑲᓇᐃᔪᖅᑐᑦ (HACCS –ᑕᐃᒪᐅᐅᔪᑦ ᓇᓄᓴᑕᐅᓴᓄᑦ ᐊᑦᓚᓄᓕᒡᒐ ᐊᐅᓚᓕᑦᓴᓕᑎᒃ ᐊᐅᓚᓕᑦᓴᓕᑎᓂᑦ) ᐊᖏᔪᑕᐅᓚᐅᑎᓪᓗᒍ ᑭᖑᔭᕆᐊᖅᑕᐅᓂ. ᓄᓇᕗᑦ ᐅᒪᔪᓕᓐᓇᕐᔪᐊᑦ ᑲᑎᒪᔨᖏᑦ ᐃᓱᒪᓕᐅᕈᑎᖅᓴᖅᑐᑦ ᐊᐅᓚᑦᑎᒃᓴᓂᖅᑐᑦ ᑲᑎᒪᑦᓴᓂᑦ ᑎᑎᕋᖅᑕᐅᓂᖅ 2021-Γ ᑲᓇᐃᔪᖅᑐᑯᑦ ᑲᑎᒪᑦᓴᓂᑦ ᐊᐅᓚᑦᑎᒃᓴᓂᖅᑐᑦ ᑕᑎᓴᒃᑲᓂ ᑭᓂᒡᒍᑦ ᐃᓱᒪᓕᐅᕈᑎᒋᓂᖅ ᐅᓴᓗᐊᓂ ᐃᓕᓴᕐᓂ 1, 2021. ᒥᓂᑦ ᐊᖏᔪᖅᑕᐅᓴᖅᑐᓴᖅ ᓄᓇᕗᑦ ᐅᒪᔪᓕᓐᓇᕐᔪᐊᑦ ᑲᑎᒪᔨᖏᑦ ᐃᓱᒪᓕᐅᕈᑎᒋᓐᓂᖅ ᐅᓴᓗᐊᓂ ᐃᓕᓴᕐᓂ 7, 2022. ᐃᓐᓇᐅᓕᖅᑐᑦᓯᓕ ᓇᓐᓂᑕᐅᔪᓕᒡᒐ ᐊᐅᓚᓕᑦᓴᓕᑎᓂ ᑎᑎᕋ ᐊᒻᒪᓕᒪᓂᖅᓂᒡᒐ ᐊᐅᓚᓕᑦᓴᓕᑕᐅᓂᐊᖅᑐᑦ ᐃᓱᒪᓕᐅᕈᑕᐅᓱᒪᓕᕆᓚᒪᑦ, ᓄᓇᕗᑦ ᐅᒪᔪᓕᓐᓇᕐᔪᐊᑦ ᑲᑎᒪᔨᖏᑦ ᐅᑎᓕᖅᑐᑦ ᓄᓇᕗᑦ ᑲᑎᒪᔨᖏᑦ ᐃᓱᒪᓕᐅᕈᑎᖅᓴᖅᑐᑦ 2021-ᖃᐅᔨᓴᓗᒍ ᐃᓕᓴᕐᓂᑲᓇᐃᔪᖅᑐᑦ ᓇᓄᓴᓴᓴᓂᖅ ᓇᓄᖏᓱᓄᑦ Gulf of Boothia-Γ ᑲᑎᒪᔨᖏᑦᓱᓄᖅᑲᓇᐃᔪᖅᑐᑦ ᓴᐅ 2022-ᖃᓚᖅᐸᑦ ᑲᑎᒪᓂᖅᑎᓂᓂ. ᓄᓇᕗᑦ ᐅᒪᔪᓕᓐᓇᕐᔪᐊᑦ ᑐᓴᖅᑎᑎᕐᕕᖅᑕᐅᑦ ᑐᓂᔨᐅᔪᑦ ᑲᑎᒪᓗᒍ ᐱᓕᒪᓂᖅᑐᑦ ᐊᑐᓵᑯᓕᐊᖏᑦ ᑎᑎᕋ ᐃᓐᓇᕐᓂᖅᑐᑦ ᓄᓇᕗᑦ ᐅᒪᔪᓕᓐᓇᕐᔪᐊᑦ ᑲᑎᒪᔨᖏᑦ ᐃᓗᐃᑦᑐᐃᓐᓇᖅᑯᓯᒪᔪᑦ ᑲᑎᒪᔨᖏᑦᓱᓄᑦ ᐃᓕᓴᕐᓂᑲᓇᐃᔪᖅᑐᑦ ᐊᑐᓵᑯᓕᐊᖏᑦ ᑲᑎᒪᔨᖏᑦ ᐅᓂᒡᒍᑦ ᓄᓇᕗᑦ ᑲᑎᒪᔨᖏᑦ ᑐᓴᖅᑎᑎᕐᕕᖅᑕᐅᑦ ᓄᓇᕗᑦ ᑲᑎᒪᔨᖏᑦ ᐃᓱᒪᓕᐅᕈᑎᖅᓴᖅᑐᑦ ᑐᓴᖅᑎᑎᕐᕕᖅᑕᐅᑦ ᑲᑎᒪᔨᖏᑦᓱᓄᑦ ᐃᓕᓴᕐᓂᑲᓇᐃᔪᖅᑐᑦ ᐃᓱᒪᓕᐅᕈᑎᖅᓴᖅᑐᑦ ᑲᑎᒪᔨᖏᑦ ᐃᓱᒪᓕᐅᕈᑎᖅᓴᖅᑐᑦ ᑲᑎᒪᔨᖏᑦᓱᓄᑦ ᐃᓕᓴᕐᓂᑲᓇᐃᔪ

ᑎᑭᓪᓗᒍ 2019, ᓇᓄᓕᕆᔨᐊᑎᖅᑕᐅᑦᑐᖅᑐᑦ ᓄᓇᖅᑎᒥ ᐊᑐᖅᑕᐅᓪᓗᓂᓂ 2:1 ᐊᖏᓇᓪᓗᑦᓴᓕᖏᑦ ᐊᖓᔪᓪᓗᑦᓴᓕᖏᑦᓪᓗ ᐊᖅᑭᑫᓂᓪᓗᑎᑦ ᑕᐃᒪᓐᓇ, ᒪᖏᖕᖓᓂᑦ ᐊᖓᔪᓪᓗᓂᑦ ᓄᓇᖅᓗᑎᑦ, ᐊᑕᐅᓂᖏᑦ ᐊᖏᓇᓪᓗᒍᓐᓇᖅᓗᑎᑦ. ᑕᐅᔨᑯ ᐊᖏᓇᓪᓗᔭᓂᓐᓂᑦ ᐊᖓᔪᓪᓗᔭᓂᓐᓂᑦᓴᓪᓗ ᐊᑐᖅᑐᑦ 2:1 ᐊᐅᓪᓚᑎᔨᔪᑎᑦ ᐊᓂᔨᖅᑕᐅᓪᓚᐅᖅᓂᒪᔪᑦ 1:1-ᖃᓄᖅᑕᐅᓪᓗᑎᑦ ᐊᖏᕐᕋᔭᐅ 2019/2020 ᓇᓐᓂᐊᖏᓐᓇᖅᑎᑦ.



ᓇᓗᓇᐃᖅᓯᔪᑦ 1.
ᓄᓇᓐᖓᐊᖅ ᑕᑯᓴᐅᑎᑕᑎᔪᖅ Gulf of Bothia ᑕᐅᓂᖓ ᑎᑭᑕᖅᑐᓂᒃ ᓇᓄᖏᓐᓂᒃ (ᖃᕐᓂᖅᑕᖅ ᑭᓪᓕᓕᐊᓚᐅᔾᔨᓕᔪᖅ ᖃᕐᓂᔪᓐᓂᖅᓴᐅᓪ ᐃᓗᐊᓂ) ᐊᓚᒪᓗ ᓄᓇᕆᐅᔪᑦ ᑕᑯᓄᓐᓇᖅᑐᑦ ᓇᓐᓄᓕᔪᐊᖅᑐᑦ ᐊᓱᔪᖅᑐᖅᓯᒪᓂᕐᓂᑦ ᐱᖓᓱᓂᑦ ᓄᓇᖃᖅᑐᑦ ᐊᖏᓚᐅᖅ.

ᓄᓇᓂᑦ ᐅᒪᔪᕆᓚᓕᔪᐊᑦ ᑲᑎᒪᔨᖏᑦ ᑲᑎᒋᓪᓗᑦ ᑲᑎᒪᓂᖅ (RM001-2021) ᐅᓪᓗᐊᓂ ᐃᑦᔪ 10, 2021, ᓄᓇᓂᑦ ᓴᖅᓚᑯᒋᖏᑦ ᑐᓴᔪᕐᕕᑎᕆᐅᓪᓗᑦᓴᓕᖏᑦ ᓄᓇᓂᑦ ᐅᒪᔪᕆᓚᓕᔪᐊᑦ ᑲᑎᒪᔨᖏᑦᓂᓄᑦ ᐊᔪᔨᖅᔪᔪᓕᐊᓚᑎᒃ ᐃᓗᐃᑦᑐᐃᓐᓇᖅᑎᔪᒪᑦ ᓇᓪᓂᒋᑦᑐᑦ 74-ᓂᒃ ᑕᐅᖅᓂ Gulf of Boothia ᓇᓄᖏᓐᓂᒃ ᐊᑐᓪᓗᑎᒃ 1:1-ᒥ ᐊᖏᓚᐅᓚᑎᑦ ᐊᑎᓪᓗᓚᑎᑦᓴᓪᓗ ᐊᐅᓪᓚᖅᓴᓂᒃ. ᓄᓇᓂᑦ ᓴᖅᓚᑯᒋᖏᑦᑕ ᑐᓴᔪᕐᕕᑎᖅᓴᓐᓇ ᖃᐅᔨᓴᕐᕕᓂᓂᓐᓇ ᖃᐅᔨᓴᐃᓪᓚᕆᐅᓂᑦ ᑕᖃᔪᖅᔪᐃᖅᑕᑦᑎᓐᓂᑦ ᑎᑐᔪᕐᕕᑎᕆᐅᓪᓗᑎᒃ ᑎᐃᔨᐅᑦᓴᖅᑕᖅᑕᑦᑎᓐᓂᑦ ᐊᐅᖅᑎᐱᑦ ᖃᐅᔨᓴᓚᖅᓴᓂᒃ ᐃᓪᓚᓐᖏᑎᖅᑎᓂᑯᓂᒃ ᓇᓄᖏᓐᓂᒃ Gulf of Boothia, ᑕᐃᒪᓐᓇ ᖃᐅᔨᓴᖅᑕᐅᓪᓚᐅᖅᓴᓕᔪᑦ 2015-ᒥᑦ 2017-ᒧᑦ, ᓄᑕᒥᒃ ᐅᓄᓂᓕᖅᑐᓄᑦ ᒥᓴᐅᔨᓴᑕᐅᔨᔪᐊᑎᖃᓕᖅᑐᑦ 1,525-ᓂᒃ (ᖃᓄᖅᑲᖅᑐᓄᑦᑕᑦᑐᓕᖅᐅᔪᑦ = 1,231–1,819) ᑕᑯᔪᐊ ᑕᑯᓴᐅᑎᓯᓚᐅᖅᑐᑦ ᓯᓚᖏᓪᓗᐊᖅᑐᓄᑦᑐᓄᒃ ᓇᓄᐃᑦ ᐅᓄᓂᓕᖅᑲᖅᑐᑦ. ᓄᓇᓂᑦ ᓴᖅᓚᑯᒋᖏᑦ ᑐᓴᔪᕐᕕᑎᖅᑎᑦ (TAB2B) ᐱᖃᓕᐅᔨᔪᓚᐅᖅᑐᖅ ᐅᔪᓂᖓ: (1) ᐅᓂᒃᑲᓕᐊᓂᒥᒃ ᐊᖏᓴᐃᖅᑐᓄᑦ 2015–2017 ᓄᓇᓂᑦ ᓴᖅᓚᑯᒋᖏᑦᑕ ᖃᐅᔨᓴᕐᕕᑎᖅᑐᑦᓴᓕᖏᑦ ᒥᑎᖅᑐᓂᑦ Gulf of Boothia-ᒧᐊᖅᑕᖅᑐᑦ ᓇᓄᐃᑦ ᐅᓄᓂᓕᖅᑐᓄᒃ ᐊᓚᒪᓗ
(2) ᑎᑎᕋᖅᑕᐅᔪᓚᑎᑦ ᓄᓇᓂᑦ ᓴᖅᓚᑯᒋᖏᑦ ᑕᑯᓇᖅᑕᑦᑕᐅᑎᓪᓗᑎᑦ ᓄᓇᓕᖅᓂ ᐊᖏᓇᔭᑐᑦᑕᓪᓗᑎᓯᒪᑦ ᑎᒥᖏᓐᓂᓂ ᑐᓴᕐᕋᓂᓕᕆᓚᐅᖅᑕᖏᓐᓂᓂ ᓄᓇᓕᖅᓂ ᐊᖏᓇᔭᑐᑦᑕᓪᓗᑎᓯᒪᓂᑦ ᑕᐃᑲᓇᖅᑐᓂᑦ ᓄᓇᓕᖅᓂ (ᐅᖅᔪᓴᐃᖅ, ᓴᓂᕋᖅᓱ, ᐃᓚᖏᓗᒃ, ᓇᓕᐸᓂ ᐊᓚᒪ ᑕᓗᕐᕋᐊᖅ).

ᑕᐃᑦᓯᒪᓂ ᓄᓇᓂᑦ ᐅᒪᔪᕆᓚᓕᔪᐊᑦ ᑲᑎᒪᔨᖏᑦ ᑲᑎᒪᓚᓂᑦ ᒥᑦ 10, 2021 ᑲᑎᒪᓚᕐᓴᒍᔪᑦ, ᑐᓂᔨᐅᓕᐅᖅᑐᑦ ᖃᐅᔨᓴᒪᑦᑎᑎᕆᐅᔨᔪᑦ ᓇᓄᖅᑐᖅᓯᒪᓂᑦ ᐊᖓᔪᖅ ᐊᐃᓂᐅᑎᑎᕆᔨᔪᑦ ᐅᓄᓂᑦ ᓄᓇᓂᑦ ᐊᖏᓇᔭᑐᑦᑕᓪᓗᑎᓯᒪᓂᑦ ᑎᑎᕋᖅᑕᐅᔪᓚᑎᑦ ᖃᐅᔨᓴᑲᓇᖅᑐᓂᑦ ᖃᐅᔨᓴᐃᓚᖅᑐᓂᑦ ᑐᓴᕐᕋᓂᓕᕆᓚᐅᖅᑕᖏᓐᓂᓂ ᐅᓄᓂᓕᖅᑲᖅᑐᑦ ᑎᑎᕋᖅᑕᐅᔪᓚᑎᑦ ᓄᓇᓂᑦ ᓴᖅᓚᑯᒋᖏᑦ ᑐᓴᕐᕋᓂᓕᕆᓚᐅᖅᑕᖏᓐᓂᓂ ᓄᓇᓕᖅᓂ ᐊᖏᓇᔭᑐᑦᑕᓪᓗᑎᓯᒪᓂᑦ ᑕᑯᓇᖅᑕᑦᑕᐅᑎᓪᓗ

ᖃᐅᔨᓴᕐᖃᖅᓯᓗᓂ ᖃᐅᔨᓴᐃᓚᖅᑎᑦᑕᐅᔪᖅ ᑕᐅᔾᔨᓄ Gulf of Boothia ᓇᓗᖏᓪᓗᓂ ᑎᓕᓯᐊᑎᕐᓴᐅᓕᐅᖅᓯᒪᔪᖅ ᓄᓇᕗᑦ ᓴᖅᓯᒪᔨᖏᓪᓕᓂ (TAB2C), ᑕᐃᔨᓇ ᐊᑐᐃᔨᓇᐅᓕᐅᖅᓯᒪᖏᑦᓯᒪᓕᑦ ᓯᓚ ᑐᑭᓯᐅᑎᑎ ᑎᑎᕆᖅᑕᐅᑎᓪᓗᒍ ᑭᓯᐊᓂᓚ ᑭᓴᕐᓯᒪᔪᑦ ᑕᓂᕆᐅᓕᐅᖅᓯᒪᔪᖅ ᐃᑦᕈᒍ 2, 2021-ᖁᑎᓪᓗᒍ ᐊᓯᒪᓗ ᐃᓱᒪᓴᖅᓯᐅᑕᐅᓪᓗᓂ ᓄᓇᕗᑦ ᐅᒪᔪᓚᓐᓴᕐᔪᐊᑦ ᑲᑎᒪᔨᖏᓪᓕᓂ[1].

ᐱᖓᔪᑎᓪᓗᑎᑦ ᑎᑎᕆᖅᓯᒪᖏᑦᑐᑦ ᐅᖃᐅᓯᑦ ᑐᓂᔅᐅᓕᐅᖅᑐᑦ, ᐊᐠᖓᑎᓕᓚᓴᖅᑯᑦ ᓯᓚᑦᐅᓴᖅᑭᓪᓕᐊᓂᖏᓪᓕᓂ ᐱᓕᓚᓐᓇᖏᑦ ᖃᓄᐃᓕᓕᐅᖅᑐᑦ ᖃᐅᔨᓴᖅᑭᑦᑕᐅᓕᐅᖅᑐᑦᑕᐅᔪᓕᐅᖅᑭᑦᑐᓗᒃ ᐊᑦᑕᓪᓚᕆᐊᓕᐅᖅᑐᑦ ᖃᐅᔨᓴᖅᑭᑦᑕᐅᓕᐅᖅᑐᑦᑕᐅᔪᓕᐅᖅᑭᑦᑐᓗᒃ ᐊᑦᑕᓪᓚᕆᐊᓕᐅᖅᑐᑦ ᐊᓯᔾᔨᖅᑭᑦᑕᐅᑐᒃᓴᖅᑭᑦ 2:1-ᒥᑦ ᐊᑐᖏᓕᖅᑭᑦ 1:1 ᐊᐠᖓᓪᓕᐊᑎᖅᓂᖅ ᐊᖏᔪᓪᓕᐊᑎᖅᓂᓪᓗ ᐃᖅᑲᐅᓪᓚᕆᐊᖃᖅᑐᖏᓗ. ᒪᓕᒃᓚᑦᑕ ᐊᐠᖓᑎᓕᓚᓴᖅᑯᑦ ᓯᓚᑦᐅᓴᖅᑭᑦᑐᓗᒃ ᐱᓚᐃᑦᑐᐃᓇᖅᑯᓯᓚᖅᑐᑦ ᐃᓚᐃᑦᑐᐃᓇᖅᑯᓯᓚᖅᑐᑦ ᐱᓕᓚᓐᓇᖏᑦ 74-ᑲᑎᓪᓇᖅᑎᓪᓚᑦᑕ ᓇᓂᖅᑐᑦ 1:1 ᐊᑐᖅᑕᐅᓚᓂ ᐊᖏᔪᓪᓕᐊᑎᖅᓂᖅᑐᑦᑕᐅᔪᓕᐅᖅᑭᑦᑐᓗᒃ ᐃᓚᐃᑦᑐᐃᓇᖅᑯᓯᓚᖅᑐᑦ

ᓇᓵᓂᑦᓴᑦ ᐊᐅᓪᓚᑕᐅᓵᕕᑎᕐᓯᑦ ᐊᓗᓪᓕᓇ ᐊᒥᐊᑯᕐᓵᓂᑦ ᐊᐅᓪᓚᑎᓵᕕᐅᔪᑦ (TAB2G) ᑭᖑᕙᓱᓂᔪᓂᑦ 2019-ᒥ ᐊᓂᔨᖅᑕᒍᓇᖅᑐᑦ ᑯᑕᑦ ᐊᐅᓪᓚᑎᓵᕕᐅᑕᖅᑕᖓᓵᓂᓄᑦ, ᑕᓵᓇ ᐊᑐᖅᑕᐅᔪᓚᕐᑐᑦ ᓄᓇᒃᒥ 2005-ᒥᓂᑦ. ᓇᓵᓂᑦᓴᑦ ᐊᐅᓪᓚᑎᓵᕕᐅᑎᓯᑦ ᐊᓗᓪᓕᓇ ᐊᒥᐊᑯᕐᓵᓂᑦ ᐊᐅᓪᓚᑎᓵᕕᐅᓯᑦ ᐱᓚᕆᓵᓂᑦ ᓄᓇᒃᒥ ᑲᙳᖏᑯᕐᓯᓂᑦ ᐊᐅᓪᓚᑎᓵᕕᐅᓯᑦ ᐱᓚᕆᓵᓂᑦ ᐃᓚᖅᑎᑦᓯᐊᓵᓂᑦ ᐃᓗᐊᓪᓕᑦᓴᖏᓚᕐᔪᑦ ᑭᓴᖏᑐᓂᑦ ᓄᓇᓂᓴᓇᓵᓂᑦ ᐊᐅᓪᓚᑎᓵᕕᐅᓯᑦ ᐱᓚᕆᓵᓂᑦ ᐃᓗᐊᓪᓕᑦᓴᖏᓚᕐᔪᑦ ᐅᓪᓗᒥᒃ ᐃᓗᐊᓪᓕᑦᓴᖏᓚᕐᔪᑦ ᐊᐅᓪᓚᑎᓵᕕᐅᓯᑦ ᐱᓚᕆᓵᓂᑦ

ᓄᓇᕗᑦ ᐅᒪᔨᓕᕆᔨᖅᑎᑦ ᑲᑎᒪᔨᖅᑎᑦ ᐊᖏᕐᕋᓱᒪᓕᕐᓂᑦ ᓄᓇᕗᒻᒥ ᓇᓐᓂᐊᖅᑐᖅ ᐊᐅᓪᓚᐅᑎᓂᖅᓴᓐᓂᖅ ᐊᐅᓚᓂᕆᔨᖅᓴᓐᓂᖅ ᐊᖏᓪᓗ ᑐᑭᖅᑎᑦᑎᓚᐅᖅᓯᒪᔨᑦ ᒥᓂᑦᑎᒃ ᐅᓪᓗᐊᓂ ᐃᓕᓴᕐᕕᒃ 1, 2022. ᑕᓐᓇ ᐃᓱᒪᓕᐅᕐᓯᑎᐅᓪᓚᐅᖅᑐᓂ ᓄᓇᕗᑦ ᐅᒪᔨᓕᕆᔨᖅᑎᑦ ᑲᑎᒪᔨᖅᑎᑦᓴᓐᓂᖅ ᐅᖃᓕᒫᒥ Gulf of Boothia-ᒧᐊᖅᑕᖅᑐᓂᒃ ᐃᓗᐃᑦᑐᐃᓐᓇᖅᓯᒪᔨᑦ ᐱᓪᓚᒋᓂᐊᖅᑕᖅᓴᓐᓂ ᑕᖅᑭᖅᓴᓐᓂ ᐊᐱᖓᓱᒃ 2021. ᓄᓇᕗᑦ ᐅᒪᔨᓕᕆᔨᖅᑎᑦ ᑲᑎᒪᔨᖅᑎᑦ ᑐᑭᖅᑎᑦᑎᓚᐅᖅᑐᑦ ᐊᐅᓚᑦᔨᐅᖅᑎᒋᔭᖅᑎᑦᓯᒪᓂᖅᐹᒃᑐᒃ ᐊᑐᖅ 21, 2022, ᑲᑎᒪᔨᐸᑎᖅᑲᓂᕐᓂᐊᓚᑦᓂᖅᑎᓂᒃ Gulf of Boothia-ᒧᐊᖅᑕᖅᑐᓂᒃ ᓇᓐᓄᑦᑎᐊᖅᓂᒃ ᐃᓗᐃᑦᑐᐃᓐᓇᖅᓯᒪᔨᑦ ᐅᒪᔨᓕᕆᔨᖅᑕᐅᓵᓇᖅᑐᑦ ᑭᓱᓕᕐᓂᖅᓴᓐᓂᖅ ᐃᓕᓴᕐᕕᖏᓐᓇᖅᑐᑦ. ᑕᒃᑯᐊ ᑐᓴᖅᑎᑎᕐᓂᐸᑎᑦ ᐃᓗᐊᖅᑐᓂ, ᓄᓇᕗᑦ ᐅᒪᔨᓕᕆᔨᖅᑎᑦ ᑲᑎᒪᔨᖅᑎᑦ ᐃᓇᑦᑎᓪᓚᐅᖅᑐᑦ ᑎᒥᖅᑐᓄᑦᑎᓂᖅᓴᓐᓂᑦ ᐅᒪᔨᓕᕆᔨᑦ ᑎᒥᖅᑐᓄᑦᑎᓂᖅᓴᓐᓂᑦ ᓄᓇᓕᓪᓗ ᐊᖏᔪᓂᖅᓴᓐᓂᑦ ᐊᖏᓪᓗᐊᓂ ᐊᓯᖏᓪᓕᐊᓂᖅᓴᓐᓂᑦ ᐅᒪᔨᓕᕆᔨᖅᑎᑦ ᑲᑎᒪᔨᖅᑎᑦ ᓄᓇᕗᑦ ᐅᒪᔨᓕᕆᔨᖅᑎᑦ ᑲᑎᒪᔨᖅᑎᑦ ᐊᑐᖅᑕᐅᓵᓇᖅᑐ

ⵊⵙⵖⵏⵔⵍⵕ

ⵙⵙⵣⵛ ⵏⵍⵔⵛⵒⵚⵔⵔⵃⵛ ⵠⵎⵍⵚⵖⵕⵙⵙⵛ

ⵃⵍⵙⵃⵊⵇⵛⵔⵏⵚⵊⵊⵔⵛ

ⵊⵔⵍⵛⵔⵏⵚⵕⵛ: ⵃⵔⵍⵛⵔⵏⵚⵕⵎⵛ: X

ⵔⵚⵠⵛⵔⵏⵚⵒⵃⵛ: ⵠⵎⵊⵎⵎ ⵍⵚⵏⵔⵚⵖⵙⵊⵎⵛ ⵃⵔⵍⵛⵔⵏⵚⵎⵎⵎⵚⵏⵔⵚⵏ ⵏⵊⵖⵍ ⵃⵚⵔⵔⵚⵎⵊⵇⵛⵔⵏⵚⵊⵊⵔⵛ (Gulf of Boothia) ⵙⵙⵚⵙ

ⵏⵚⵠⵛⵔⵏⵚⵒⵃⵛ:

- ⵏⵙ ⵃⵚⵔⵔⵚⵎⵊⵇⵛⵔⵏⵚⵊⵊⵔⵛ (GB) ⵙⵙⵃⵃⵛ ⵛⵏⵠⵠⵍⵏⵠⵠⵎⵛ ⵔⵏⵠⵛⵔⵏⵚⵔⵛ ⵙⵠⵠⵛ (ⵔⵒⵚⵍⵠⵔⵔ 1). ⵚⵍⵊⵛⵔⵔⵔⵔ ⵔⵏⵠⵚⵒⵔⵔⵛⵔⵏⵚⵔⵎ ⵏⵙⵚⵔⵔⵚⵍⵠⵔⵔⵛ ⵃⵛⵔⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛ 1998-2000 ⵔⵔⵍⵠⵔⵔⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛ ⵔⵔⵍⵛ ⵔⵏⵠⵚⵒⵔⵔⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛ 1592-ⵛ ⵙⵙⵔⵔⵚⵛⵔⵔⵚⵍⵠⵔⵔⵛ. ⵠⵍⵛ ⵃⵚⵔⵔⵚⵎⵊⵇⵛⵔⵏⵚⵊⵊⵔⵛ (GB) ⵙⵙⵃⵃⵛ ⵏⵙⵚⵛⵔⵏⵚⵔⵛ ⵙⵔⵔⵔⵚⵍⵙⵔⵔⵚⵍⵠⵔⵔⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛ 2000-ⵛ ⵏⵍⵠⵙⵛⵛ ⵏⵙⵚⵔⵔⵚⵍⵠⵔⵔⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛ.
- ⵙⵙⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛ ⵏⵔⵔⵔⵚⵍⵠⵔⵔⵛ ⵃⵔⵍⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛ, ⵏⵔⵔⵚⵍⵠⵔⵔⵛ, ⵏⵙⵚⵔⵔⵚⵍⵠⵔⵔⵛ, ⵏⵔⵔⵚⵍⵠⵔⵔⵛ, ⵏⵔⵔⵚⵍⵠⵔⵔⵛ ⵔⵔⵍⵛ ⵔⵏⵠⵚⵒⵔⵔⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛ ⵏⵙⵚⵔⵔⵚⵍⵠⵔⵔⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛ. ⵏⵙⵚⵔⵔⵚⵍⵠⵔⵔⵛ ⵏⵙⵚⵔⵔⵚⵍⵠⵔⵔⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛ (TAH) ⵏⵙⵚⵔⵔⵚⵍⵠⵔⵔⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛ 74 ⵙⵙⵃⵃⵛ ⵏⵙⵚⵔⵔⵚⵍⵠⵔⵔⵛ. ⵙⵙⵃⵃⵛ ⵏⵙⵚⵔⵔⵚⵍⵠⵔⵔⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛ ⵏⵔⵔⵚⵍⵠⵔⵔⵛ 2004/2005 ⵔⵔⵍⵛ 2018/2019 63-ⵛ ⵙⵙⵃⵃⵛ ⵔⵔⵍⵛ ⵏⵙⵚⵔⵔⵚⵍⵠⵔⵔⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛ ⵏⵙⵚⵔⵔⵚⵍⵠⵔⵔⵛ (ⵔⵒⵚⵍⵠⵔⵔⵛ 2). ⵏⵙⵚⵔⵔⵚⵍⵠⵔⵔⵛⵔⵏⵚⵔⵔⵚⵍⵠⵔⵔⵛ

- ᑭᖅᓯᓕᓂᖅᓴᓪᓕ ᐅᓂᒃᑲᓕ ᐊᓚᒪ ᖃᐅᔨᔪᑎᑎᐅᔾᔨᓕ 2015-2017 ᖃᐅᔨᓴᖅᓂᓕᕐᒥᒃ ᐱᐊᓂᑕᐅᑕᐅᔾᔨᓯᓗᔾᔨᖅ ᐊᓚᒪᓗ ᑐᓂᐅᖃᖅᑕᐅᑕᓕᓗᑎᒃ ᑕᒪᑐᒍᖅᑐᑦ ᐱᐅᓕᕐᓂᖅᓴᓪᓕ ᐱᓕᕐᓂᖅᑕᐅᔾᔨᓂᖅ 2020 ᐊᐅᔪᖅᓱᓂ. ᐅᓇ ᐅᓄᖅᓂᖅᑎᓄᑦ ᐃᓕᓴᕐᔪᐊᖅᖢᖅ ᓄᓇᕗᒻᒥᐅᑦ 1525 ᓇᓄᐃᑦ ᖃᐅᔨᓴᖅᑐᑐᒪᓂᐅᓕᒃ ᐊᓯᑎᑐᐊᖓᕐᑕᖅᓱᒃ ᐅᓄᖅᓂᖅᑎᓄᑦ ᐃᓕᓴᕐᔪᐊᖅᑕᐅᔾᔨᓯᓗᒃᑐᒃ ᐃᒪᐅᑦ 1592 (1998-2000).
- ᐅᑯᐊ ᓄᑦᑦ ᖃᐅᔨᔪᐅᔪᑎᑦ ᑕᒥᓐᓂᑦ ᓇᓄᐃᑦ ᓱᓚᖃᓂᕐᓂᐅᓂᒃ ᐊᓚᒪᓗ ᐅᓄᖅᓯᐅᑲᓂᐅᑕᐅᓇᖅᓂᐊᖅᑐᒃ. ᒪᑯᓄᖅᓱ ᐊᑎᖅᑕᓯᓄᑦ ᐊᖓᕐᑎᑎᓂᖅᓂᕐᑎᔪᑦ ᐅᑯᓇᑕ 2015-2017 ᐊᓐᓂᐅᑦᑐᖅ 1.61 (95% ᐱᑕᖃᕐᑎᐊᖅᓂᖅᓂᕐᑎᔪᑦ [CI] = 1.51 – 1.70) ᐊᓚᒪ 1.53 (95% CI = 1.41 – 1.64), ᖃᐅᔨᔪᖅᑕᐅᓕᓗᑎᒃ ᓯᕐᓂᐅᔪᑦ ᖃᐅᔨᔭᕐᑕᑎᖅᑕᑎ ᐅᑯᐊ ᐊᓯᐊᔪᑦ 1998-2000.
- ᑎᒥᖏᓐᓄᑦ ᑕᐅᑐᓚᓴᐅᔾᔨ ᓇᓄᖅᓂ ᐅᐱᓐᓴᓱᑯᑦ ᐊᖏᕐᓚᓕᕐᓕᓂᔪᓚᑦ ᐅᑯᐊ ᐊᑯᓂᓂᖅᓱᓂᒃ 1998-2000 ᐊᓚᒪᓗ 2015-2017, ᑕᒪᓐᓇᓗ ᓯᑯᑦ ᖃᓄᐃᓕᓂᖅᓱᓂᖅᓱᒃ ᐊᓯᓐᓇᖅᑐᑦᓕᐊᓂᖅᓱᓂᓄᑦ (ᓯᑦᓗ ᒥᓕᕐᓕᓂᓂᖏᓐᓂᓂᒃ ᓯᑯᑐᖅᐃᓄᑦ) ᖃᐅᔨᔪᖅᓴᐅᔾᔨᖏᑦ. ᐊᓯᔾᔨᕈᑎᐅᔾᔨᑦ ᓯᑯᑐᖅᑎᓂᒃ ᐱᑕᖃᖅᑭᓂᓕᕐᓂᖅᓱᐅᔾᔨᓄᑦ ᐊᓚᒪᓗ ᐊᖅᑯᔭᒍᑦ ᓯᑯᑕᖃᖅᑎᓂᐅᓂᖅᓱᐅᓄᑦ ᐊᓂᓐᓇᖅᑐᓂᒃ ᐊᖅᑯᓂᖅᓴᐅᔪᑎᐅᓇᓯᑎᐅᔾᔨᖅ.
- ᐱᔾᔨᑎᑦᓯᒍ ᓇᒧᓐᓄᐅᕐᓕᓕᐊᓂᖓᓂᓄᑦ ᑲᑎᑕᐅᕐᓕᓕᐊᔾᔨ ᐱᑕᖃᓐᓂᑦᓯᐊᖅᓂᖓᓂᓄᑦ (ᓯᑦᓗ ᓂᐱᑕᐅᖅᓯᒪᓂᒃᑯᑦ/ᐅᓐᓄᓯᕐᓂᓕᒧᑦ) ᑕᐃᒪᓕ ᐊᔨᖅᓇᖅᑐᐱᓐᓴᒪᑦ ᓇᓯᓇᐃᓚᐊᒃᓴᖅ ᖃᑦᑎᔾᔨᐅᓂᖅᓱᓂᓄᑦ ᑕᒪᐅᕐᓂᓐᓴᖅᑭᑦᑕᐊᔨᖅ ᐊᓚᒪ ᑕᒥᐅᑯᓂᑦ ᐃᓕ ᐃᑦᓯᔪᓂᖅᑐᖅᓴᖅᑐᑦᓯᓗ (GB) ᐊᓚᒪ ᐊᓯᐊᓂᕐᑐᑦ ᓇᓄᐃᑦ. ᐱᑕᖃᕆᓗᐊᖅᑎᓯᓗᒍ ᑕᒪᐅᕐᓂᖅᓴᖅᑭᑐᑦ, ᐃᓄᐃᑦ ᐊᓯᐊᓂᒃ ᓄᓇᒋᑦᑐᑦ ᐅᑎᖅᑕᕆᐅᔾᔨᖃᖅᑕᕆᐅᔾᔨᓕᒡᒐ ᐃᓂᑎᑕᐅᑦ ᐊᑯᓂᖅᓴᐅᓕᕐᓂᖅᓱᓂᒃ ᖃᖅᓄᓯᐅᔾᔨᖅᓱᓂᓄᑦ ᓯᓚᐅᑦ. ᐅᓄᖅᓂᖅᑎᓄᑦ ᐃᓕᓴᕐᔪᐊᖅᖢᖅ ᓴᖅᑭᑎᑦᑎᓯᓚᖅ “ᐅᓄᓭᓴᑯᑦ” (ᓯᑦᓗ, ᐃᓕᐅᑎᑦᑎᓯᓚᖅ ᑕᒪᐃᐅᓂ ᓇᓄᖅᓂ ᐃᑦᓯᔪᓂᖅᓴᖅᑭᒡᒐ ᐊᐅᓕᑦᑎᐊᕐᓕᖅᑕᑦ).
- ᐅᓇ ᑲᑎᓗᑎᒃ ᐱᔾᐅᔾᔨᓇᖅᓴᑦ (TAH) 74 ᐅᓄᖅᓂᐅᔾᔨᖅ ᐋᖅᑭᑎᐊᖅᑕᐅᓯᒪᔾᔪᑎᑦᑕᖅ ᑕᒪᐅᔾᔪᖅᑕᖅᓴᐅᓕᕐᓂᖅ ᓇᓄᖅᓄᐃᑦ ᐊᖏᕐᔪᒍᑎᓕᕐᔪᐊᓂᖅᓱᓂᒃ ᖃᓄᐃᑦ ᓇᓄᐃᓕᓕᐅᑎᓂᒃᓴᓕᒃ ᑕᓪᓕᒪᓂᒃ ᐃᓕᓴᕐᔪᐊᖅ 64-ᓂ ᓇᐟᓄᔪᓇᖅᓴᓗᑎᒃ (ᐊᐱᖓᒪᐊᖅ 2).

ᐊᐱᖅᓯᖏᓐᓂᑦ:

- ᐅᐸᖅᑎᑎᐋᓐᓂᒃᑯᑦ ᓄᓇᕗᓐᓂ ᖃᐅᔨᓇᓯᒃᑕᓕᐅᔾᔨᑎᑦ ᒪᓕᑯᓐᓄ ᑭᓚᓱᖅᑐᐃᔨᐅᔾᔨᓯᓂᒃ ᐃᓕᓴᕐᔪᐊᖅᑐᖅᓴᖅᑭᑦᑐᒪᓕᕐᓂᖅᓱᒃ ᐊᓯᐅᓯᓂᑐᑦᓯᓂᒃᑐᒃ (HTO) ᐅᖃᐅᓚᓗ 20-ᓗ 28-ᓗ ᐊᑯᓂᓂᓚᓂᒃ 2020.
- ᐊᓐᓕᖅᑎᑎᐋᓐᓂᓕᖅᑎᑦᑕᖅᑐᖅ ᐊᓯᐅᓇᓯᒃᑐᑐᓚᓕᓂᒃ ᐅᑯᓂᓄᓐ ᖃᐅᔨᔪᐅᔾᔨᓕᔾᔨᓄᑦ ᓄᓇᕗᑦᑎᑯᓂ ᑲᓇᒪᔾᔪᑯᓂ ᐅᓂᒃᑲᓄᖓᓂᒃ, ᐃᓕᓐᓂᑦᓕ ᐊᓯᐅᓇᓯᒃᑐᑐᓚᓕᓂᒃ ᐃᓕᑎᔪᐅᔾᔨᑦ ᐊᐱᓚᓕᐅᑦᑐᖅᑐᒃ ᖃᐅᓄᖅ ᐅᓄᖅᑲᓂᓕᕐᓂᓗᒍ ᓂᓪᓕᐊᓂᖅᓴᖅᑭᑦᑕᐊᔨᖅ ᐊᓯᐅᓇᓯᒃᑐᑐᓚᓕᓂᒃ ᓄᓇᕗᑦᑎᑯᓂ ᐊᓯᐅᓇᓯᒃᑐᑐᓚᓕᓂᒃ ᐃᓕᑎᔪᐅᔾᔨᑦ ᐊᐱᓚᓕᐅᑦᑐᖅᑐᒃ ᖃᐅᓄᖅ ᐅᓄᖅᑲᓂᓕᕐᓂᓗᒍ ᓂᓪᓕᐊᓂᖅᓴᖅᑭᑦᑕᐊᔨᖅ ᓄᓇᕗᑦᑎᑯᓂ ᓇᓄᖅᓂᖅᓱᓂ.
- ᐃᓄᖅᑲᓇᐃᔾᔨᖃᖅᑕᐅᓯᒪᔾᔪᑎᑦᑕᖅᑐᖅ ᐊᓯᐅᓇᓯᒃᑐᑐᓚᓕᓂᒃ ᐅᑯᓂᓄᓐ ᖃᐅᔨᔪᐅᔾᔨᓕᔾᔨᓄᑦ ᐃᓕᓴᕐᔪᐊᖅᑐᖅᓴᖅᑭᑦᑐᒪᓕᕐᓂᖅᓱᒃ ᐊᓯᐅᓯᓂᑐᑦᓯᓂᒃᑐᒃ (ᐊᓯᐅᓇᓯᒃᑐᑐᓚᓕᓂᒃ ᐃᓕᑎᔪᐅᔾᔨᑦ ᐊᐱᓚᓕᐅᑦᑐᖅᑐᒃ ᖃᐅᓄᖅ ᐅᓄᖅᑲᓂᓕᕐᓂᓗᒍ ᓂᓪᓕᐊᓂᖅᓴᖅᑭᑦᑕᐊᔨᖅ ᓄᓇᕗᑦᑎᑯᓂ ᓇᓄᖅᓂᖅᓱᓂ) ᐃᓄᐃᑦ ᐊᓯᐅᓇᓯᒃᑐᑐᓚᓕᓂᒃ ᐃᓕᓴᕐᔪᐊᖅᑐᖅᓴᖅᑭᑦᑐᒪᓕᕐᓂᖅᓱᒃ ᐊᓯᐅᓯᓂᑐᑦᓯᓂᒃᑐᒃ ᐃᓕᑎᔪᐅᔾᔨᑦ ᐊᐱᓚᓕᐅᑦᑐᖅᑐᒃ ᖃᐅᓄᖅ ᐅᓄᖅᑲᓂᓕᕐᓂᓗᒍ ᓂᓪᓕᐊᓂᖅᓴᖅᑭᑦᑕᐊᔨᖅ ᓄᓇᕗᑦᑎᑯᓂ ᓇᓄᖅᓂᖅᓱᓂ).
- ᑭᓇᐅᔭᖅᑎᑦᓯᓂᒃᑐᒃ ᐊᓯᐅᓇᓯᒃᑐᑐᓚᓕᓂᒃ ᐃᓕᓴᕐᔪᐊᖅᑐᖅᓴᖅᑭᑦᑐᒪᓕᕐᓂᖅᓱᒃ ᐊᓯᐅᓯᓂᑐᑦᓯᓂᒃᑐᒃ (ᑕᒪᐃᓗᒍ ᓇᓗᓇᐃᔾᔨᖃᖅᑕᐅᓯᒪᔾᔪᑎᑦᑕᖅᑐᖅ ᐅᑯᐊ ᐃᓄᐃᑦ ᐅᑯᐊᐅᓂᖅᓱᓂᒃ ᐊᓯᐅᓇᓯᒃᑐᑐᓚᓕᓂᒃ ᓄᓇᕗᑦᑎᑯᓂ ᓇᓄᖅᓂᖅᓱᓂ ᐊᐅᒋᓕᖅᑐᑦᓯᓂᒃᑐᒃ).
- ᑭᐅᓂᖅ ᐅᓪᓗᑕ ᐊᓯᐅᓇᓯᒃᑐᑐᓚᓕᓂᒃ ᐃᓕᓴᕐᔪᐊᖅᑐᖅᓴᖅᑭᑦᑐᒪᓕᕐᓂᖅᓱᒃ ᐊᓯᐅᓯᓂᑐᑦᓯᓂᒃᑐᒃ (KWB) ᐅᐸᔪᓕᐅᑕᖅᑎᑦᑕᑦ.

ᐊᑐᓂᔨᐅᔾᔨᑦ:

1. ᐊᖏᑎᓕᓚᕆᔨᓄᑦ (DOE) ᐃᓱᒪᓕᐅᓚᐦᐊᑦ **ᐊᓱᖓᔭᕆᑎᐅᖏᑦᓴᓂᓄ ᐃᓐᓇ ᑲᑎᓴᑎᑲ ᐱᔭᐅᔨᓂᓇᖅᑐᑦ ᐅᓄᖅᓂᖏᑦ (TAH) 74 ᓇᓄᐃᑦ ᐃᓗᐃᓐ 1:1 ᐊᑕᐅᓱᖅ ᐊᖏᓴᓵᓴᖅ ᐱᔭᐅᔨᖅ ᓇᓕᒧᓵᓴᒍ ᐊᑕᐅᓱᖅᑎ ᐊᖅᓇᖅᓴᖅᒥ ᐱᔨᓂᓇᖅᓂᖅᒧᑦ.**

ᐱᔨᔪᑎᖏᑦ:

a. ᐃᓱᒪᓕᐊᓚᐅᐅᔨᖅ ᑲᑎᓴᑎᑲ ᐱᔭᐅᔨᓂᓇᖅᑐᑦ (TAH) ᐃᓱᒪᑎᔭᖅᑲᓂᓂᑲᓂᑦ ᐊᐅᓪᓚᑎᓂᖅᒧᑦ ᐱᓕᓚᐊᓄᑦ ᑕᒪᐃᓂᐊ ᓇᓄᐃᑦ ᐅᓄᖅᓂᖏᑎ ᐅᓇᓕᒫᖅ. ᖃᐅᐅᔨᔪᑎᑎᕕᓂᑦ ᓴᖅᑭᑎᕿᓱᒪᔨᑦ ᐅᓄᖅᓂᓚᐅᐅᔨᑦ ᓱᕐᓱᓗᐊᖅᓯᒪᓂᖏᓂᖏᓂᑲᑐ ᐅᓇ ᐊᑐᖅᑕᐅᓪᓗᓂ 74-ᓂ ᓇᓵᓄᔪᓇᖅᓂᖅ ᐅᕐᓇ ᑲᑎᓴᑎᑲ ᐱᔭᐅᔨᓇᖅᑐᑎᔪᑦ (TAH).

b. ᐃᓱᒪᓕᐊᓚᐅᐅᔨᖅ ᐃᓱᒪᑎᔭᖅᑭᑎᐅᕐᒥᔨᖅ ᐊᓱᖓᔭᖅᓯᓪᓕᐊᓂᖓᓗ ᓄᓇᐅᓪᓴ ᖃᓄᓇᐃᓴᓪᓕᐊᑎᓄᑦ, ᐊᓗᒪᓗ ᐅᑦᔪᐊ ᐃᓕᓴᐊᖅᑐᖅᓴᖏᑦ ᓇᓗᓇᖅ ᐃᑕᒥᔭᐅᒪᓚᑲᑎᑦ. ᓄᓇᐅᓴ ᖃᓄᓇᐃᓴᓪᓕᐊᓂᖓᓗ ᐊᓱᔨᖅᓯᓪᓕᐊᖏᓪᓇᐅᔭᖅᓯᒪᑦ ᓱᑕᐅᓴ ᐊᓱᖓᔭᖅᓯᓪᓕᐊᓂᖓᓗᓄᑦ ᐊᓗᒪᓗ ᐊᑯᓂᐅᓗᐊᖅ ᐊᐅᑐᐃᓗᑎᐊᐅᔨᓇᖅᑐᖅᓄᑦ, ᑕᒪᐅᑯᐊ ᐊᓱᖓᔭᖅᓯᓪᓕᐊᑎᑎ ᑭᓱᒧᑦ ᓇᓗᓇᖅᑐᒥᖅ.

c. ᐁᖃᑭᓱᐃᓂᖅ ᐃᓕᓴᐊᖅᑐᖅᓴᖏᒥ ᓇᓵᓄᑕᐅᔨᓇᖅᑐᑦ ᐊᓐᓇ ᖃᐅᔨᖏᓪᓕᐊᓂᖓᓗᓄᑦ ᐅᓗᓪᓚᐊᓇᓚᐅᐅᓐᒪᓗ ᐅᓄᖅᓂᓵᓗᐊᖃᖅᑎᑦᓴᓂᖅᓵᓂᖅ, ᐊᓂᑐᐃᓵᓇᖅᑐᖅᓴᖏᑦ ᑭᓱᓕᕆᓂᖅ ᐃᓕᓴᐊᖅᑐᖅᓴᖏᒥ ᐊᓂᒪᓗᐊᖅᑐᖅᓴᖏᓂᓄ, ᐊᓗᒪᓗ ᐊᑯᓂᐅᓗᐊᖅᑐᖅᓴᖏᓂᓄ/ᑕᒪᐅᓐᓄᖅᑐᖅᓴᖏᑦ ᐅᓄᖅᓂᖅᓵᓂᑦ.

d. ᐅᓇ ᑲᑎᓴᑎᑲ ᐱᔭᐅᔨᓇᖅᑐᑦ (TAH) 74 ᐅᓄᖅᓂᐅᔨᖅ ᐁᖃᑭᒋᐊᖅᑕᐅᓯᒪᓐᓕᕐᑕᑐᖅ ᑕᒪᐅᓐᓄᖅᑐᖅᓴᖅᓂᓄ ᓇᓄᐃᓂ ᐊᖏᖅᓯᔪᖅᑐᓂᖓᓂ ᖃᓄᐃᓂᓂᑦ ᐃᓕᓴᐊᖅᑐᖅᓴᖏᑦ ᐅᓄᖅᓂᖅᑎᑦᓴᓂᖅᓵᓂᑦ. ᐊᖏᖅᓯᔪᖅᑐᓂᖓᓂ ᑕᓪᓕᕐᓂᖓᓂ ᐊᓐᓇ ᐃᓕᓴᐊᖅᑐᖅᓴᖏᑦ ᐃᓚᖓᓕᒫᖅ 64-ᓂ ᓇᓵᓄᔪᓇᖅᓂᖅᑎᑦᓴᓂᖅ.

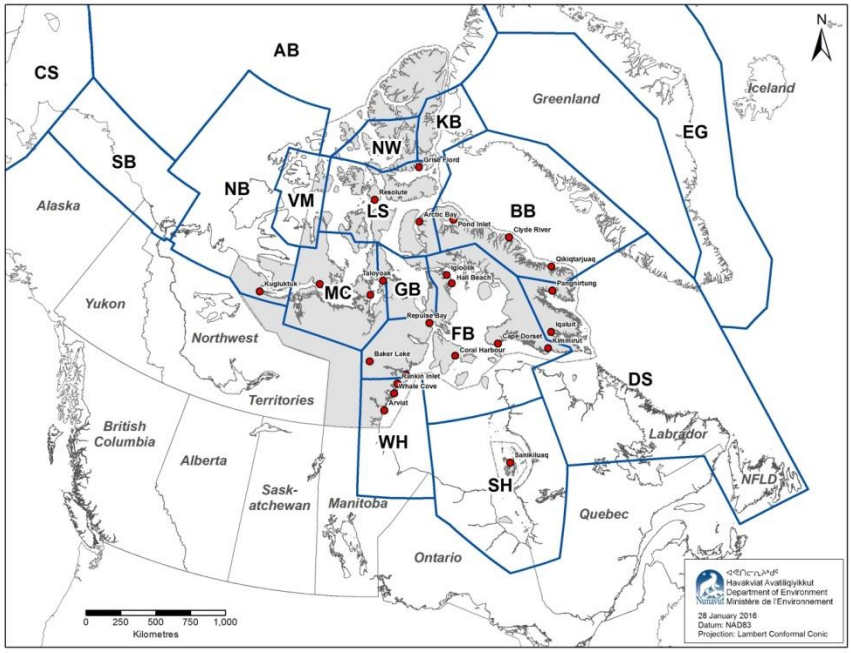
2. ᐊᖏᑎᓕᓚᕆᔨᓄᑦ (DOE) ᐃᓱᒪᓕᐅᓚᓕᐅᔨᓂᑦ ᑕᒪᐃᓂᐊ ᐱᓕᓚᐊᖅᑲᖅᑐᓕᒥᓱᑦ ᐊᖑᔨᑦᓴᓂᖅᑐᖅᓴᖏᑦ ᐅᐱᓕᓚᕆᔨᖅᓯᐊᕐᓂᖅᓴᖏᑦ ᐅᑦᑲᑦᓴᖅᑎᑎᒋᐊᖅᑐᑦ ᐃᓕᓴᐊᖅᑐᖅᓴᖏᑦ ᓇᓵᓄᑕᐅᔨᓇᖅᑐᖅᓴᖅᓂᓄ ᐃᓕᓴᐊᖅᑐᖅᓴᖏᑦ ᐅᓄᖅᓂᖅᑎᑦᓴᓂᖅᓵᓂᑦ ᓂᖖᓚᑦᓴᖅᓯᐊᕐᓂᖅᓴᖏᑦ ᐊᖑᔨᑦᓴᓂᖅᑐᖅᓴᖏᑦ, ᐃᓕᑦᑲᓂᓂᑦ ᓇᓵᓄᑕᐅᔨᓇᖅᑐᖅᓴᖅᓂᓄ ᓴᖅᑭᑎᕿᓱᒪᔨᑦ (M’Clintock Channel [MC]) ᓇᓗᐃᑦ.

ᐱᔨᔪᑎᖏᑦ:

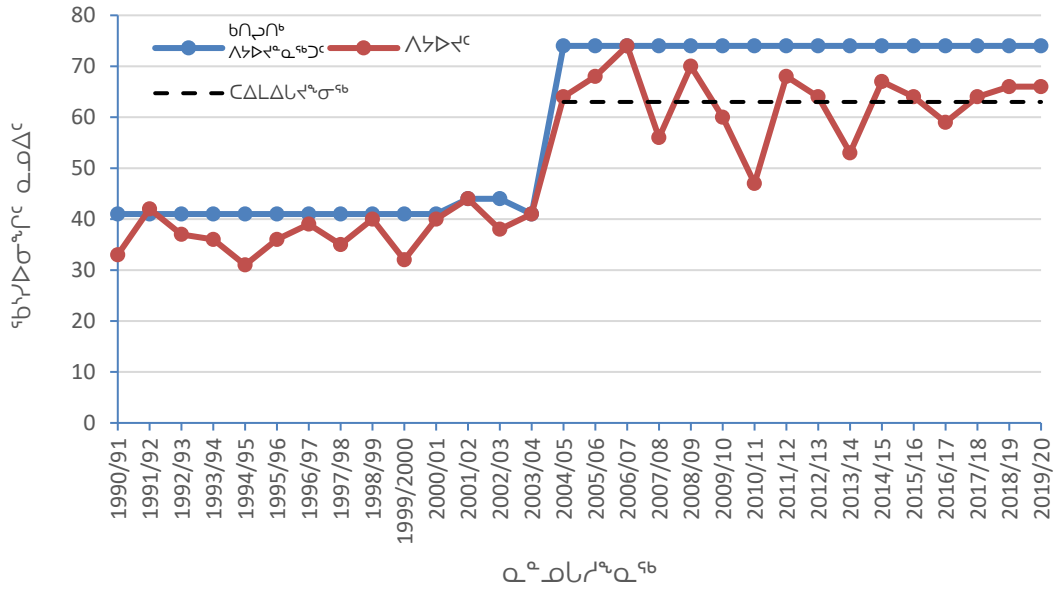
a. ᐅᑦᑲᑎᑎᑦᑲᑦᓴᖅᑎᑦ ᑲᑎᒪᑎᑦᓗᑎᑦ (ᐅᖅᑐᐃᓚᓪ 19-21,2020) ᐊᓱᔨᓕᑦᓴᖅᑎᑦᑲᓕᐅᔨᓂᑦ ᐊᑐᓂ ᓄᓇᓕᐅᔨᑦ ᐅᑎᖓᓗ ᒪᓐᓇᖅᑐᑦ ᓂᖖᓚᑦᓴᖅᑲᒡᒋᑦᓴᑎᑦᑎᓂᖅᓴᖅᑎᑦ ᐃᓕᓴᐊᖅᑐᖅᓴᖏᑦ ᐊᑐᓂ ᑲᑎᓴᑎᑲ ᐱᔭᐅᔨᓇᖅᑐᖅᓴᖅᓂᓄ ᐃᓕᓴᐊᖅᑐᖅᓴᖏᑦ ᓇᓵᓄᑕᐅᔨᓇᖅᑐᖅᓴᖅᓂᓄ ᐊᓂᒪᓗᐊᖅᑐᖅᓴᖏᑦ ᐊᑯᓂᐅᓗᐊᖅᑐᖅᓴᖅᓂᓄ ᐃᓕᓴᐊᖅᑐᖅᓴᖏᑦ ᐅᓄᖅᓂᖅᑎᑦᓴᓂᖅᓵᓂᑦ.

b. ᐅᓇ ᑲᑎᓴᑎᑲ ᐱᔭᐅᔨᓇᖅᑐᑦ (TAH) 74 ᐅᓄᖅᓂᐅᔨᖅ ᐁᖃᑭᒋᐊᖅᑕᐅᓯᒪᓐᓕᕐᑕᑐᖅ ᑕᒪᐅᓐᓄᖅᑐᖅᓴᖅᓂᓄ ᓇᓄᐃᓂ ᐊᖏᖅᓯᔪᖅᑐᓂᖓᓂ ᖃᓄᐃᓂᓂᑦ ᐃᓕᓴᐊᖅᑐᖅᓴᖏᑦ ᐅᓄᖅᓂᖅᑎᑦᓴᓂᖅᓵᓂᑦ. ᐊᖏᖅᓯᔪᖅᑐᓂᖓᓂ ᑕᓪᓕᕐᓂᖓᓂ ᐊᓐᓇ ᐃᓕᓴᐊᖅᑐᖅᓴᖏᑦ ᐃᓚᖓᓕᒫᖅ 64-ᓂ ᓇᓵᓄᔪᓇᖅᓂᖅᑎᑦᓴᓂᖅ.

ᐃᓕᓴᐅᔪᐅᓯᒪᔪᖅ 1



ᐊᖏᓐᓇᒍᐊᖅ 1. ᖃᑎᖅᑕᐊᖅᓂᖅ ᓄᓇᕗᑦ ᓇᓇᐃᑦ ᐅᓄᖅᓂᒃᑎᓂᒃ (GB = ᐃᖅᓱᐊᖅᑐᖅᓂᐹᒃ, MC = ᖃᒻᑎᐅᔾᔪᖅ).



ᐊᖏᓐᖓᔪᐊᖅ 2. ᖃᑎᖅᑕᐊᖅᓂᖅ ᐃᓕᓴᐊᖅᑐᖅᐲᒃ ᓇᓄᖓᑦ ᑲᑎᒪᓂᒃ ᐱᖁᐅᓱᓐᓇᖅᑐᑦ (TAH), ᐱᒡᓕᓚᐅᓂᒃᑯᑦ ᐊᒻᒪ ᐱᖁᐅᖅᑲᑦᓂᖓᑦᑎᒍ ᑕᐃᒪᓐᓇᓂᑦ 1990-ᒥᑦ.

ᑲᑎᒪᔨ ᓄᓇᕗᑦ ᐱᖃᓐᓇᕐᓂᖅᓯᒪᔪᑦ
Building Nunavut Together
Nunavuliuqatigiingniq
Bâtir le Nunavut ensemble

ᐊᓂᒍᓕᕆᔨᒃᑯᑦ
Department of Environment
Avatiliqiyikkut
Ministère de l'Environnement

ᐃᑭᖏᕋᐅᑦ ᐃᒪᓐᒐᓂ ᓇᓄᐃᑦ ᖃᐅᔨᓴᖃᑕᐅᓕᐅᖃᖅᑎᑦᓯᑐᑦ

ᖃᐅᔨᓴᕋᒥᓂᑦ ᓴᖃᑭᖃᓕᕐᓂ

ᑐᓴᓚᐊᖏᓴᖅᖃᑦ ᐊᒃᑐᐊᓂ 20-28, 2020

ᑐᓴᓚᐊᖏᓴᖅᓯᒪᔪᑦ ᓇᐃᓇᖃᓕᕐᓂ ᐅᓂᒃᑳᓕᓚᕆᐊᓕᓂᖓᓂ

ᐅᓂᒃᑯᐸ ᓇᐃᓐᓴᖅᓯᒪᓂᖅᑎᑦ

ᓄᓇᕗᑦ ᑲᕐᒪᖏᖅᑎᑦ, ᐊᐠᖓᑎᓕᕆᔨᒡᓂᒃ ᑭᖑᖏᖅᑐᐃᓐᓇᐸᑦ, ᐊᐠᒪᓗᑦᑕᐅᖅᖢᒃ ᐱᓕᕆᖏᑐᒃᓴᓕᐅᑎᒃᑐᑦ ᑭᑎᕐᒥᐅᑦ ᐅᒪᔨᓕᕆᔨᒡᓂᒃ ᑲᑎᒪᔨᖅᑎᑦ, ᓄᓇᕗᑦ ᑐᖓᑖᓪ ᑎᒥᖅᑐ, ᓄᓇᕗᒻᒥ ᐅᒪᔨᓕᕆᔨᕐᓴᐅᒃᑯᑦ ᑲᑎᒪᔨᖅᑎᑦ, ᐱᖅᑕᐅᔨᓂᐊᕐᓇᕐᐳᒪᒡᒐ, ᑐᓴᓇᖅᑐᕐᖢᓕᐅᖅᑐᑦ ᐅᒪᔨᖅᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔪᖅᑎᑎᕐᓂᓂᓂᓐ ᐊᐅᖅᐳᐅ 20-28, 2020-ᐅᑎᑦᓗᒍ. ᐱᓵᐋᑎᒋᓕᐅᖅᑕ ᑐᓴᓇᐊᖅᓴᖅᑲᖅᑎᑦᓗᒋᑦ ᐊᐅᓕᖅᑎᔪᐅᖅᑲᖅᑎᑦᑕᒋᓄ ᓇᓗᓇᐃᔪᐃᖅᑯᓕᕐᓂᒋᑦ ᐃᓐᓇᓕᖅᓴᓕᐅᑎᒃᑐᑦ ᓴᖅᑭᑦᓗᒍᓐᓇᖅᑐᑦ ᓴᖅᑭᔪᖅᓴᖅᑲᐃᔪᒃᑯᑦ ᓴᖅᑭᔪᖅᓴᖅᓯᒪᓂᖅᑎᑦ ᑕᐃᖅᑐᒥ ᐃᑭᕐᓴᖅᓯᒪᔪᑦ ᐃᓕᖅᑐᒃ ᓇᓄᐃᑦ ᐃᓕᖅᑐᒃ ᑐᓴᓇᐊᖅᓴᖅᑲᖅᑎᑦᑕᒋᓄ ᐊᐠᖓᑎᓕᕆᔨᒡᓂᒃ ᐊᐠᒪᓗᑦᑕᐅᖅᑐᑦ ᐊᐠᖓᑎᓕᕆᔨᒡᓂᒃ ᐃᓐᓇᓕᖅᓴᓕᐅᑎᒃᑐᑦ ᑕᐃᖅᑐᒥ ᐃᑭᕐᓴᖅᓯᒪᔪᑦ ᐅᓂᒃᑳᖅᑐᑦ ᑕᐃᖅᑐᒥ ᐃᓐᓇᓕᖅᓴᓕᐅᑎᒃᑐᑦ ᐊᐠᖓᑎᓕᕆᔨᒡᓂᒃ

ᑐᑭᓯᕆᑎᐅᓂᖅᓯᐅᑎᖓᓂᒃ ᐱᒋᐊᑭᐅᔪᓂᒃ

ᒎᒃᓯᐊ ᐅᓂᒃᑲᓂ ᑭᖑᓕᖅᑐᐃᔨᒃ ᐊᐅᑎᓪᓗᓴᒃᓯᑦ ᐱᓇᓯᐊᕆᑎᐊᕐᓂᓇᖅᓂᖓᓂ ᒪᓪᓕᐅᑎ ᐱᕆᑎᐊᖅᓯᒪᔪᒃᓯᑦ ᑕᓯᐅᕆᑎᓇᓯᐊᖅᓯᒪᓂᖅᓂᖓᓂ ᑕᒪᐃᓂᖓ ᑐᑭᓯᓯᐅᑎᓂ ᑐᑭᓯᐅᑦᑎᐊᓂᖓᓂ ᑕᒪᐃᓂᖓ ᑐᑭᓯᐅᑦᑎᐊᓂᖓᓂ

ᐃᓗᓕᖏᑦ

ᐅᓂᒃᑲᐊ ᓇᐃᔭᖅᓯᒪᓂᖏᑦ 2

ᑐᑭᓯᑎᑎᑕᐊᖕᖓᒪᐅᑎᖏᑦ ᐱᑎᐊᑭᑐᑦ 3

1.0 ᐅᓂᒃᑲᐊ ᐱᓱᑎᖏᑦ ᐊᒻᒪᓗ ᐊᑲᖅᑭᓯᖅᓯᒪᓂᖏᑦ 5

2.0 ᐱᓱᑎᖏᑦ ᑐᓴᓇᐊᖏᖅᑲᓂᕐᒧᑦ 5

2.1 ᐊᑲᖅᑭᓯᖅᓯᒪᓂᖏᑦ ᑲᑎᒪᓂᐅᕕᑦ 6

3.0 ᓇᐃᔭᖅᓯᒪᓂᖏᑦ ᓄᓇᓕᑎᒍᑦ 6

3.1 ᐅᖅᓯᖅᑐᑎᒥ ᑐᓴᓇᐊᖏᖅᑲᓇᐅᖅᑎᑦᓯᓚᑦ ᓇᐃᔭᖅᓯᒪᓂᖏᑦ 6

3.2 ᑕᓗᕐᕋᐊᖏᒥ ᑐᓴᓇᐊᖏᖅᑲᓇᐅᖅᑎᑦᓯᓚᑦ ᓇᐃᔭᖅᓯᒪᓂᖏᑦ 7

3.3 ᑯᒍᕐᔾᒥ ᑐᓴᓇᐊᖏᖅᑲᓇᐅᖅᑎᑦᓯᓚᑦ ᓇᐃᔭᖅᓯᒪᓂᖏᑦ 7

3.4 ᓇᐅᒃᓂ ᑐᓴᓇᐊᖏᖅᑲᓇᐅᖅᑎᑦᓯᓚᑦ ᓇᐃᔭᖅᓯᒪᓂᖏᑦ 8

3.5 ᓴᓂᕆᔨᒥ ᑐᓴᓇᐊᖏᖅᑲᓇᐅᖅᑎᑦᓯᓚᑦ ᓇᐃᔭᖅᓯᒪᓂᖏᑦ 8

3.6 ᐃᓐᓇᓕᖕᒥ ᑐᓴᓇᐊᖏᖅᑲᓇᐅᖅᑎᑦᓯᓚᑦ ᓇᐃᔭᖅᓯᒪᓂᖏᑦ 9

4.0 ᑕᒪᐃᔪᓂ ᓄᓇᓕᐅᔨᓂᑦ ᑐᓴᓇᐊᖏᖅᑲᓇᐅᖅᑎᑦᓯᓚᑦ ᓇᐃᔭᖅᓯᒪᓂᖏᑦ 9

Appendix 1: Complete Consultation Presentation of the Gulf of Boothia Polar Bear Study Results 2015-2017 11

Appendix 2: Complete Consultation Summary of the Gulf of Boothia Community Consultations 22

A: Gjoa Haven 23

B: Taloyoak 30

C: Kugaaruk 32

D: Naujaat 37

E: Sanirajak 48

E: Igloolik 50

1.0 ᐅᓂᒃᑲᐸ ᐱᓕᑎᖏᑦ ᐊᒻᒪᓗ ᐃᖅᑭᓯᖅᓯᒪᓂᖏᑦ

ᒎᓐᓄ ᐅᓂᒃᑲᖅ ᐃᖅᑭᓯᖅᑕᐅᓯᒪᔪᖅ ᐊᐃᔨᑐᐃᓐᓇᕐᓂᑐᐃᓐᓇᓗᐊᓗ ᓇᐃᐧᓴᖅᓯᓐᓇᕐᓂᑐᐃᓐᓇᓗᐊᓗ ᑕᐅᒃᑯᓂᓐᓄᑦ ᐅᖃᖅᑎᑕᐅᓯᒪᔪᓂᑦ, ᐊᐱᖅᑯᓂᑎᒥᓂᖅᓂᑦ, ᐃᓱᒪᓕᓚᑎᒥᓂᖅᓂᑦ ᐊᒻᒪᓗ ᖃᓄᐃᓕᑕᐅᖃᖅᑯᓂᖅᓂᑦ ᐅᑯᓄᖅ ᐅᖃᐅᑕᐅᓯᒪᔪᓂ ᐅᓂᒃᑲᐸᐅᓯᒪᔪᓂ ᐃᓕᓴᕐᓂᐊᕐᓇᖅᑎᒃᓴᑦ ᑲᔪᓯᐅᑦᑎᐊᖅᑐᑦ ᑲᑎᒪᔨᖅᑎᑦᑎᓂᖅᑐᑦ ᓴᖅᑭᑎᓯᒪᔪᓂᑦ ᑕᐃᒃᓯᒪᓂ 2015-2017–ᖃᓄᐃᓗᐊ ᐃᑭᑐᓴᐃᓇᖅᑐᑦ ᓴᖅᑭᑎᓯᒪᔪᓂᑦ ᑲᑎᒪᔨᖅᑎᑦᑎᓂᖅᑐᑦ ᓴᖅᑭᑎᓯᒪᔪᓂᑦ ᓴᖅᑭᑎᓯᒪᔪᓂᑦ ᓴᖅᑭᑎᓯᒪᔪᓂ

2.1 ᐊᑦᑭᓯᖏᓚᓂᖅᓯᒪᓕᐅᕐᓂ

ᑲᑎᓕᓂᖏᑦᑕᑕᓪᓕᐅᖅᓴᓪ ᐅᓐᓄᒃᑯᓪ (ᐅᓪᔅᑐᑎᑎᓪᔭᒍ ᐱᒋᐊᖅᑐᑎᓪ ᐊᑯᐅᖏᓐᓂᒃᓂ ᓯᓚᑦᓯᖅ 17:00–ᔪᖅᑎᓪᓕᔭᒍ ᐊᓖᓚᓐ 18:30–ᒥ) ᐊᑯᓂᐅᓂᖏᖅᓴᓪᓕᐅᖅᓴᓪᓕᓐᓄ ᑲᑎᓕᓂᖅᓯᒪᓂᖅ ᐃᓚᐅᑎᓂᐅᕐᓇᓂᖅ 2.5 ᑎᑭᓪᔭᒍ 4 ᐃᑲᖏᓪᓂ ᑐᖓᔪᓚᕐᓕᓪᓕᓂᖅ ᐅᓚᔾᔪᓂᐊᖅᑎᓯᑯᓂ ᑲᑎᓕᓂᖅᓯᒪᓂᖅ ᖃᐅᔨᓴᖅ. ᑲᑎᓕᓂᖅᓱᖅ ᐊᐅᓪᓚᕐᓇᓕᐅᖅᓴᓪᓕᖅ ᐊᓖᓚᓐ ᓯᓂᖅᑐᓪᓚᕐᓇᓕᐅᖅᓴᓪᓕᖅ ᓄᓇᓕᖅᑐᓪ ᓚ. ᑎᑲ ᐊᓚᓚᓐ ᔨ. ᑭᐃᐅᓪ. ᐃᓄᓕᓴᐃᓐ ᐅᓂᑲᐅᓯᖃᖅᓴᓪᓕᐅᖅᓴᓪᓕᓐᓄᒃ ᐅᐊᓯᑎᐊᑭᐳ ᐊᐅᓪᓚᕐᓇᓕᐅᖅᓴᓪᓕᖅᓯᒪᔭᖅᑐᓪᓕ ᐊᑦᑭᓯᖏᓚᓂᖅᓯᒪᓕᐅᖅᓴᓪᓕᖅᓯᒪᔭᖅᑐᓪᓕ, ᐊᓚᓚᓐ ᐅᓪᓴᐅᖃᖅᑐᓪᓕᖅᓯᒪᓕᐅᖅᓴᓪᓕᓐᓄᒃ ᐃᓄᓕᓴᐃᓐᓄᒃ ᓄᓇᓕᖅᑐᓪ ᓴᖅᑭᖅᓯᒪᔭᒍ 2015-2017 ᐃᓄᐃᑦ ᖃᐅᔨᓴᖅᑕᐅᓕᐅᖅᓯᒪᓂᖅᓯᒪᔭᖅᑐᓪᓕᖅᑕᑦ ᐃᑭᕐᕿᑦ ᐃᓚᖅᑎᑦ (ᐅᐃᒍᖅᑎ 1). ᑲᑎᓕᖅᑕᐅᔨᓪᓚ ᐊᐱᖅᓯᓂᐸᐅᓕᐅᖅᓴᓪᓕᖅ, ᐃᓯᓗᓐᔪᑎᒥᓂᖅ ᐅᓴᖅᑲᓯᓂᖅᓴᓪᓕᓐᓄᒃ, ᐅᕙᓕᓐᓂᐅᓂᖅ ᐊᑐᓕᓂᓂᓂᐸᐅᓕᐅᖅᓴᓪᓕᓐᓄᒃ ᑲᑎᓕᓂᖅᓯᒪᓂᖅᓴᓪᓕᖅᑎᓪᓕᓐᓄᒃ. ᐅᓴᖅᑕᐅᓕᐅᖅᓴᓪᓕᖅᓴᓪ ᓯᓚ ᑲᐸᓯᓂᖅᑕᐃᓂᖅᓂᓂᖅ ᐃᓚᐃᓂᖅᑐᓪᓕᖅ ᐊᑎᓯᖅᓴᓪᓕᖅᓯᒪᓂᖅ ᖃᐅᔨᓴᖅᑕᐅᓕᐅᖅᓴᓪᓕᖅᓯᒪᓂᖅ ᐊᑎᓯᖅᓴᓪᓕᖅᓯᒪᓂᖅ ᐃᓚᖅᑎᑦ ᐃᓚᖅᑎᑦ ᐊᑎᓯᖅᓴᓪᓕᖅᓯᒪᓂᖅ

- ᓄᓇᕗᑦ ᑲᖏᒻᒪᑦ–ᐊᖏᑎᓪᓗᓂᒃᑯᑦ, ᐅᒪᔨᖅᑎᐊᖅᑎᑐᖅ ᔪ. ᖃᓄᖅ
- ᓄᓇᕗᑦ ᑲᖏᒻᒪᑦ–ᐊᖏᑎᓪᓗᓂᒃᑯᑦ, ᐊᐃᕐᑐᖅᓯᒪᔨᒥ ᐊᐅᓪᓚᕆᔪᓕ, ᑭ. ᒥᑐᐊᵒ
- ᐅᖅᓯᖅᑐᑦᓴ ᐅᒪᔨᖅᑎᐊᖅᑎᖅᑎᐊᑦ ᑲᑐᔨᖅᑎᑎᕐᓂᕐᒥᑦ ᑲᑎᒪᔨᖅᑎᑦ

ᐅᖅᑲᐅᓯᒪᖏᑦ ᐊᓚᒪᓗ ᐊᐱᖅᑯᑎᒪᖏᑦ:

ᐅᓂᖅᑲᐅᓯᖅᑲᓚᐅᖅᑎᓪᓗᓂᑦ ᐃᑭᕋᓴᐹᑦ ᐃᒪᖓᑦᑐᑐᑦ ᓇᓄᐃᑦ ᒥᑦᓴᓄᑦ, ᑲᑎᒪᔨᐅᔨᑦ ᐅᖅᑲᐅᓯᖅᑲᓚᐅᖅᑐᑦ ᐊᑐᖅᑕᖅᓯᒪᔪᖓᑦ ᐊᖏᔪᒍᓂᖅᑐᓂᓴᓂᐅᑦᓂᐅᔨᓪᓗᑎᑦ ᓄᓇᕗᑦ ᓴᖅᑭᑎᑦ ᖃᐅᔨᓴᖅᑭᑦ. ᑕᒪᐃᓐᓂᒥ, ᑲᑎᒪᔨᐅᔨᑦ ᐊᖏᕈᑎᖅᑲᓯᒪᔪᖓᑦ ᓄᓇᕗᑦ ᓴᖅᑭᑎᑦ ᖃᐅᔨᓴᖅᑭᖓᓂᒥ ᖃᐅᔨᓴᓯᒪᔪᖓᑦ ᐅᑎᓪᓗᑎᑦ. ᓯᓯᑯᐃᓇᖅᑐᓴᖅᑲᐅᓪᓚᐅᖅᑎᓪᓗᖅᑐᑦ ᐅᖅᑲᐅᓯᖅᑲᖏᓐᓂᒥ ᑲᑎᒪᔨᐅᔨᑦ ᐅᓪᓗᒥ, ᐊᖓᔪᓚᐊᖅᑐᓚᖅᓴᖅᑕᒪᒫᓕᑦ ᐃᑭᕋᓴᐹᑦ ᐃᓚᖓᓂ ᐅᖅᑲᓯᒪᔪᖓᑦ ᐊᖓᔪᓇᓯᑎᖓᑎᓄᑦ ᓯᑯ ᐊᓯᔨᓗᐊᖅᑐᖅᑕᖅᑐᓗᒃᑐᑦ. ᐃᓚᖓᑎᑦ ᐅᖅᑲᐅᑕᐅᓚᐅᖅᑎᓪᓗᓂᑦ ᓂᐊᖏᓚᐅᓚᓯᖅᑐᓗᒃᑐᑦ ᐃᑭᕋᓴᐹᑦ ᐃᓚᖓᓂᒥ ᐊᖏᔪᒍᓂᖅᑐᓂᓴᓂᐅᑦᓂᐅᔨᓪᓗᑎᑦ, ᐱᓗᐊᖅᑐᒥᒃ ᐃᓐᓇᐅᔨᓴᖅ ᖃᑎᖅᑎᑦ ᐃᓚᖓᓂᒥ ᐊᑎᓯᓂᖅᑐᓂᓴᓂᐅᑦᓂᐅᔨᓪᓗᑎᑦ ᐊᖏᔪᒍᓂᖅᑐᓂᓴᓂᐅᑦᓂᐅᔨᓪᓗᑎᑦ ᐊᓚᒪᓗ ᐅᖅᑲᖅᑲᓇᑎᖅᑲᖅᑐᒥᒃ ᐊᑐᓂ ᐃᓇᓐᓇᑦᒪᑦ ᐅᖅᑲᐅᓯᖅᑲᖏᓐᓂᒥ ᐊᓯᔨᓗᐊᖅᑐᖅᑕᖅᑐᓗᒃᑐᑦ ᐊᖏᔪᒍᓂᖅᑐᓂᓴᓂᐅᑦᓂᐅᔨᓪᓗᑎᑦ ᐊᓚᒪᓗ ᐅᖅᑲᖅᑲᓇᑎᖅᑲᖅᑐᒥᒃ ᐊᑐᓂ ᐃᓇᓐᓇᑦᒪᑦ ᐃᓚᖓᓂᒥ ᓂᐅᔨᒋᓕᐅᑦᓂᐅᔨᓪᓗᑎᑦ ᐃᓇᓐᓇᑦᒪᑦ ᐃᓚᖓᓂᒥ ᐊᓯᔨᓗᐊᖅᑐᖅᑕᖅᑐᓗᒃᑐ

ᑲᑎᒪᖅᑕᐅᔪᓂ:

- ᓄᓇᕗᑦ ᓴᖅᓯᓐᓂ–ᐊᖅᑎᓕᕆᔨᒃᑯᑦ, ᓇᓄᓕᕆᔨᒃ L. ᑎᒃ, ᓴ. ᕗᐃᐅᕐ
- ᑯᐃᓚᖅᓴᖅ/ ᑯᖅᑕᐃᑭᓴᐊᖅ ᐅᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔨᖅᑕᑎᑦᓂᓐᓂᑦ ᑲᑎᒪᔨᖅᓂᑦ

ᕿᑎᖅᑯᑦ ᐊᖅᑐᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖅᓂᑦ ᕿᑎᐅᖅᑐᑦ ᐅᖃᖅᑐᒥᓂᖅ ᐃᓕᓴᐅᔪᖅ ᐃᐊᒪ ᖃᖅᖢᑯᑦᓴ.

ᐅᖃᐅᓯᒪᔪᑦ ᐊᓚᒐᓗ ᐊᐱᖅᑯᑎᒪᔪᑦ:

ᐅᓂᒃᑲᐅᓯᖅᑳᓕᐅᖅᑎᑦᓗᓂᒃ ᐃᑭᑦᓴᑦ ᐃᒪᓕᒐᒋᑦ ᓇᓄᐃᑦ ᒥᒃᓴᓗᓂ, ᑲᑎᒪᔨᐅᔪᑦ ᐅᖃᐅᓯᖅᑳᓕᐅᖅᓱᑦ ᐊᑐᖅᑕᖅᓯᒪᓕᖅᑎᑦ ᐊᖅᑭᔪᔭᓕᖅᑐᓂᑦ ᓇᓄᐃᑦ ᓴᖅᓯᓐᓂᑦ ᖃᐅᔨᓴᓕᓯᒪᓕᖅᑎᑦᑕ ᖃᐅᔨᓴᒥᓂᐅᔪᓂᑦ. ᑕᒪᐃᓐᓂᑦ, ᑲᑎᒪᔨᐅᔪᑦ ᐊᖅᑕᕐᑐᖅᑯᓯᒪᔪᑦ ᓇᓄᐃᑦ ᓴᖅᓯᓐᓂᑦ ᖃᐅᔨᓴᓯᒪᓕᖅᑎᑦᓂᑦ ᖃᐅᔨᓴᓕᐅᖅᑎᑦᓗᓂᑦ. ᐊᑯᓂᐅᓂᖅᓴᖅ ᐅᖃᖅᖢᑎᒃᑲᐅᓯᒪᔪᑦ ᑲᒪᕐᕈᐅᓂᖅᑎᑦ ᐊᖅᑐᓕ ᖁᓕᓯᕆᐅᑕᓕᕆᓯᖅᑕᐅᔪᓐᓇᖅᑎᑦ ᓇᓄᐃᑦ, ᐊᖅᑐᓕ ᑕᒪᐃᓐ ᐊᑐᖅᑕᐅᔭᐃᓐᓇᖅᑐᒃ ᓯᔪᓐᓂᖅᓴᖅ ᐅᒪᔪᑦᓂᓐᓂᑦ ᑲᑎᒪᔨᖅᑎᑦᓗᓂᑦ ᐊᐱᖅᑯᑎᒪᔨᖅᓂᑦ ᑲᑎᒪᔨᖅᑎᑦᓗᓂᑦ ᐅᐱᒃᖢᐅᔪᓂᑦ ᑲᑎᒪᔨᖅᓂᑦ ᐃᓚᖓᔪᖅᑎᑦᓗᓂᑦ ᐊᐱᖅᑯᑎᒪᔨᖅᓂᑦ ᐱᓕᕆᔨᒃᑯᑦ ᐅᓂᒃᑳᖅᑐᖅᓯᒪᓕᖅᑎᑦᓗᓂᑦ ᐊᐱᖅᑯᑎᒪᔨᖅᓂᑦ ᐊᖅᑭᔪᔭᓕᖅᑐᓂᑦ ᐊᓚᒐᓗ ᑲᑎᒪᔨᖅᑎᑦᓗᓂᑦ ᑲᑎᒪᔨᖅᑎᑦᓗᓂᑦ ᐊᖅᑭᔪᔭᓕᖅᑐᓂᑦ ᐊᓚᒐᓗ

- ᓄᓇᕗᑦ ᑲᖏᒪᖅᓯ–ᐊᖏᑎᓪᓗᓈᒃᑯᑦ, ᐅᒪᔨᖅᓂᐊᖅᑎᑐ ᖇ. ᔪᕐᕋᓄ
- ᓄᓇᕗᑦ ᑲᖏᒪᖅᓯ–ᐊᖏᑎᓪᓗᓈᒃᑯᑦ, ᐊᕐᕕᑐᖅᓭᒪᔨᓗ ᐊᐅᓪᓚᑎᐅᒃᐃᓄᓐᓇᖅᑐᖅᑐᖅ ᔨ. ᓂᓪᓕ
- ᓴᓂᕋᒃ ᐅᒪᔨᖅᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔨᖅᑎᑎᕐᓯᖅᓯ ᑲᑎᒪᔨᖅᓯ
- ᖁᑭᖅᑕᒍᓗᒥ ᐅᒪᔨᓪᓚᓈᒃᑯᑦ ᑲᑎᒪᔨᖅᓯ ᐃᒃᓯᖏᐅᑦᖅ ᓴ. ᖁᑭᓪᓚᖅ
- ᓄᓇᕗᑦ ᑐᖓᔪᓐᓇᒃ ᑎᒥᖅᑐ ᑐᑭᔪᕐᑎᕐᓂᒃᓴ ᐅᒪᒪᒍᓐᓇᖅᑐᑦ ᓴ. ᖁᑭᓪᓚᖅ
- ᓄᓇᕗᒥᒃ ᐅᒪᔨᓪᓚᔨᕐᐊᒃᑯᑦ ᑲᑎᒪᔨᖅᓯ ᑎ. ᐅᑎᓗ, ᓯ. ᒪᐸᓴᓪᓕᖅ, ᑲᓴ ᐃᖓᒪᓪ

ᐅᖅᑲᐅᓯᒃᓴᑦ ᐊᓚᒪᓗ ᐊᐱᖅᑯᑎᒃᓴᑦ:

ᐅᓂᒃᑲᒪᐅᖅᑎᓪᓗᑎᓕ ᓇᓄᓪᓚᓀᓵᒃ ᐃᑭᑐᓴᐸ ᐃᒪᖏᓕ ᓇᓄᐃᑦ ᐊᒥᓱᓂᖏᑦᑕ, ᑲᑎᒪᔨᐅᔨᑦ ᐅᖅᑲᐅᓯᖅᑲᒪᐅᖅᑐᑦ ᐃᑭᑐᓴᐸ ᐃᒪᖏᓕ ᐊᖏᔪᓯᖅᑲᓂᕐᓂᑯᓂᑦ ᖁᑲᐅᓯᖅᑲᒪᖏᖅᑐᑦ ᖁᓚᒃ ᐊᖅᑭᒍᓪᓚᖅᑐᓂ ᖁᑲᐅᓴᒥᓂᖅᑐᖅᑐᓂᑦ ᓇᓗᒍᓂᖅᓴᓕᓄᑦᓇᓗᒍᓪᓚᖅ ᑕᒪᒃᑯᐊ ᓄᓇᕗᑦ ᑲᖏᒪᖅᑕ ᖁᑲᐅᓴᖅᑲᒪᐅᖅᑐᑦ ᖁᑲᐅᓴᖅᒥᓂᐅᔨᓄᑦ. ᐃᓕᖅᑕ ᐅᖅᑲᐅᓯᒃᓴᖅᑲᒪᐅᖅᑐᑦ ᖁᑎᑎᓄᐃᓕᓐᓂᓗ ᓇᓄᐃᑦ ᓇᓄᓕᕐᓂᐅᓯᐅᒪᒪᑕᒍᖅ ᐃᑭᑐᓴᐸ ᐃᒪᖏᓕ ᓴᓂᕋᖅᑕᒥᓂᐅᔨᓄᑦ.

3.6 ᐃᒃᓗᓕᖅᑕ ᑐᓴᓚᖅᑎᑦ ᑐᓴᐊᕐᕋᖅᑲᒪᐅᖅᑎᓪᓗᓕ ᓇᐃᓵᖅᓯᒪᓂᖅᑕ

ᐅᓪᓗᖅ: ᐊᒃᑐᖅᓴ 28, 2020
ᓯᕿᖏᖓᖅ: 18:40 – 21:42

ᑲᑎᒪᖅᑲᒥᐅᔨᑦ:

- ᓄᓇᕗᑦ ᑲᖏᒪᖅᓯ–ᐊᖏᑎᓪᓗᓈᒃᑯᑦ, ᓇᓄᓪᓚᓀᓵᒃ ᒪ. ᑎᒃ, ᓴ. ᕕᐃᐅᕐ
- ᓄᓇᕗᑦ ᑲᖏᒪᖅᓯ–ᐊᖏᑎᓪᓗᓈᒃᑯᑦ, ᐊᕐᕕᑐᖅᓭᒪᔨᓗ ᐊᐅᓪᓚᑎᐅᒃᐃᓄᓐᓇᖅᑐᖅᑐᖅ ᔨ. ᓂᓪᓕ
- ᐃᒃᓗᓕᖅᑕ ᐅᒪᔨᖅᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔨᖅᑎᑎᕐᓯᖅᓯ ᑲᑎᒪᔨᖅᓯ
- ᖁᑭᖅᑕᒍᓗᒥ ᐅᒪᔨᓪᓚᓈᒃᑯᑦ ᑲᑎᒪᔨᖅᓯ ᐃᒃᓯᖏᐅᑦᖅ ᓴ. ᖁᑭᓪᓚᖅ
- ᓄᓇᕗᑦ ᑐᖓᔪᓐᓇᒃ ᑎᒥᖅᑐ ᑐᑭᔪᕐᑎᕐᓂᒃᓴ ᐅᒪᔨᓪᓚᔨᕐᐊᒃᑯᑦ ᑲᑎᒪᔨᖅᓯ ᑎ. ᐅᑎᓗ, ᐅᒪᔨᓪᓚᔨᕐᐊᒃᑯᑦ ᑲᑎᒪᔨᖅᓯ ᐃᒃᓯᖏᐅᑦᖅ ᐅᒪᔨᓪᓚᔨᕐᐊᒃᑯᑦ ᑲᑎᒪᔨᖅᓯ ᑎ. ᐅᑎᓗ, ᐅᒪᔨᓪᓚᔨᕐᐊᒃᑯᑦ ᑲᑎᒪᔨᖅᓯ ᑐᓴᐊᕐᕋᖅᑲᒪᐅᖅᑎᓪᓗᓕ ᓇᐃᓵᖅᓯᒪᓂᖅᑕ ᑲᑎᒪᔨᖅᓯ ᑎ. ᐅᑎᓗ, ᐅᒪᔨᓪᓚᔨᕐᐊᒃᑯᑦ ᑲᑎᒪᔨᖅᓯ ᐃᒃᓯᖏᐅᑦᖅ ᐅᒪᔨᓪᓚᔨᕐᐊᒃᑯᑦ

1) ᐊᖏᕐᕿᑎᖅᑕᑎᑦ ᖃᐅᔨᓴᒥᓂᕐᓂ ᓇᓄᐃᑦ ᐊᒥᓱᓂᖏᑦ ᐊᓯᔪᓕᐊᖅᓯᒪᖏᑦᒪᒪᑕ–ᐊᓯᔪᓕᐊᕋᓕᐅᓯᒪᖏᑦᑐᑦ ᒪᓕᕐᑐᑦ ᓄᓇᒥ ᑕᑯᐅᖃᕐᑕᕐᓂᑯᒥᓂᕐ–ᑕᐃᒪᖏᓂᕐ ᑭᖑᓪᓕᖅᑭᒥᒃ ᖃᐅᔨᓴᕆᔨᖏᑦ ᖃᐅᔨᓴᖃᓂᕐ 1998-2000–ᖃᐅᑎᖅᓕᐃᒍ, ᐊᓪᒪᓕᓗ

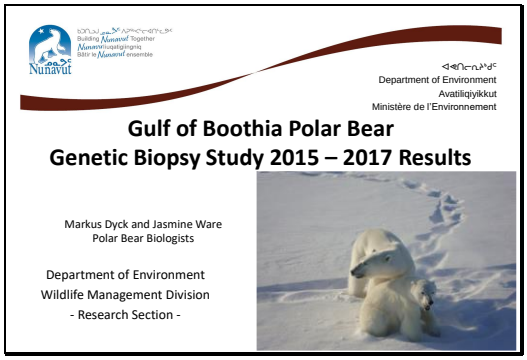
2) ᐃᑭᑐᖅᑉ ᐃᒪᖏᓂ ᓇᖏᓄᑕᐅᓚᓯᐊᑭᖏᓇᖅᑐᑦ ᐃᓕᓐᓄᖅᑲᖅᑕᐅᓂᖏᑦ ᐃᓯᐊᓵᑐᑕᐅᓚᓪᒪᓇᖅᓪᓕᑦ.

ᐱᓪᒪᓇᐅᖏᑭᓂᖅᓴᖅᓪᓕᓗ ᐅᖃᐅᑕᐅᕙᓪᓕᐅᖅᑐᑦ, ᐅᖃᐅᑕᒥᒋᓂᖅᑐᑦ ᓄᐊᑕᐅᓗᑎᑦ ᓄᑉᑦᓪᓕᐊᓂᖏᑦᑕ ᑭᖏᓪᓯᓂᐊᖅᑕᐅᓯᒪᔪᑦ ᑐᑭᓯᓯᓂᐊᖅᑕᐅᓯᒪᔪᑦ ᐊᑭᓱᑎᑭᑎᖏᑦ ᓇᓗᓇᐃᖅᓯᓯᓚᓂᑦ ᐊᑦᑐᐃᓂᖅᑭᓇᓂᖏᑦ ᐱᖓᓪᓚᐊᔪᓚᓂᐅᓂᖅᓪᓕᑦ ᐊᒪᓗᓐ ᐅᓱᖅᖁᓂᐅᔪᑦ ᐊᒪᓗᓐ ᐊᑎᖅᑕᓪᓕᓂ ᓇᓄᑦᓯᐊᕈᒪᖅᑕᖅᑐᑦ.

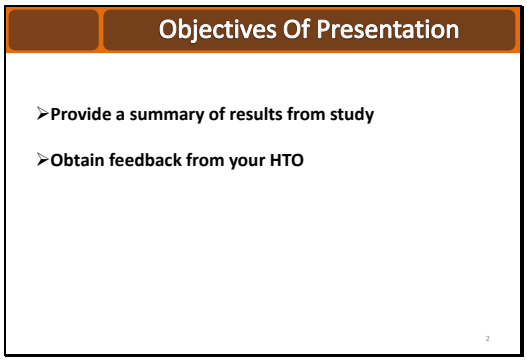
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Appendix 1: Complete Consultation Presentation of the Gulf of Boothia Polar Bear Study Results 2015-2017

Slide 1



Slide 2



Slide 3

Background

- First mark-recapture study between 1973-78
  - MC and GB treated as one unit, estimate of 1,081
- GB estimate increased to 900 in mid-90s based on local knowledge and biased sampling
- MC estimate decreased from 900 to 700 based on local knowledge in mid-90s
- Population boundaries in 1995 and 2001

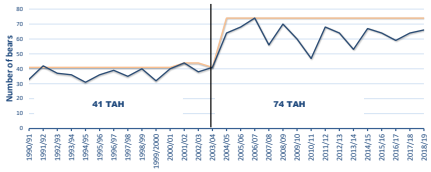


3

Slide 4

Background

- 1998-2000--Mark-recapture estimate for GB was 1592 bears
- TAH of 41 for GB until 2003/2004
- Increased TAH to 74 bears in 2004/2005
- Average harvest per year: 63 bears since 2005



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Slide 5

Background

- Population status unknown (stable? increasing?)
- Population boundaries of MC/GB/LS?
  Inuit Qaujimajatuqangit/genetics suggest movement between both units

5

Slide 6

Goals of study

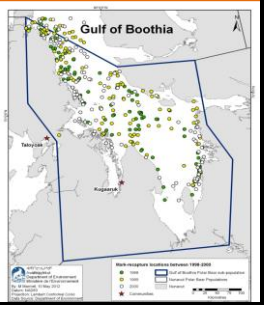
- Need for new information – current data was deficient
  - Re-assess population abundance
  - Evaluate population boundaries/movements of bears
  - Provide information for review of Total Allowable Harvest (TAH)
  - Observe effects of changing sea-ice conditions
  - Assess potential impacts of industrial activity

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Slide 7

Study method choices

- Co-management partners indicated concern about drugging & handling bears
  - Explore alternative population assessment methods
  - Better reflect Inuit societal values
- Balance with analysis needs –to properly monitor population



Slide 8

Study method chosen

- Co-management partners chose, and GN supported, less invasive choice:

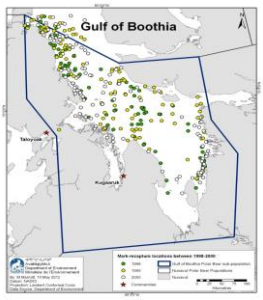
Genetic mark-recapture (biopsy sampling, no physical handling)



Slide 9

Genetic capture mark-recapture study goals

- Estimate polar bear abundance in GB
- Compare with 1998-2000 estimate
- Compare information on reproduction, survival
- Cannot estimate movement or boundaries with this method



Slide 10

Study funding and support

Environment and Climate Change Canada
Environnement et Changement climatique Canada

Nunavut

Nunavut General Monitoring Plan

WWF

HTOs from Gjoa Haven, Igloolik, Kugaaruk, Naujaat, Taloyoak, Sanirajak

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Slide 11

Study Design

Community Participation

- Survey design and method choice - 2013
- Survey observers – 2015 through 2017
- Review & evaluation of results - 2020



Slide 12

Study Design

- Method choice: genetic capture mark recapture
- Timing of study: mid-April to early June
- HTO participation on searching and sampling flights where available





- Used helicopters to search

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Slide 13

Study Design

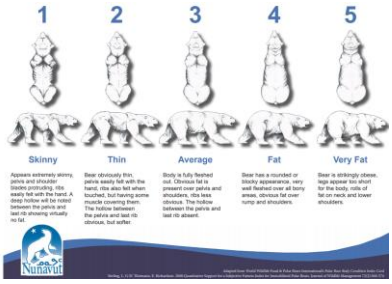
- Recording age class, sex, body condition, litter size, location of bears





Slide 14

Study Design



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Slide 15

Study Design

- Collected small tissue samples for genetic analysis (to genetically identify and "mark" an individual)
- No cubs-of-the-year sampled
- No drugging, no collaring
- No specific ages or samples for other studies (e.g., contaminants)



Slide 16

Study Design - Analysis

- Included all available information for analysis:
  - Genetic mark-recapture (biopsy) information 2015-2017
  - 1998-2000 capture mark-recapture information
  - Harvest recoveries (e.g., when an ear tag/lip tattoo is recovered by a hunter) 1976-2017
  - 1976-1997 capture mark-recapture information

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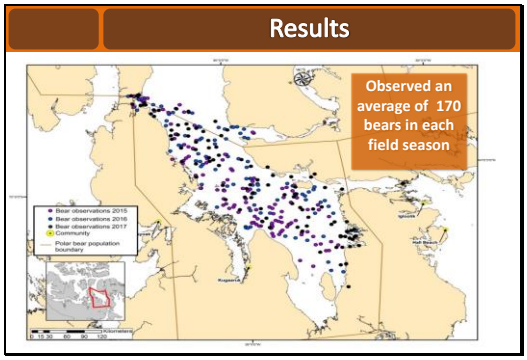
Slide 17

Analysis Goals

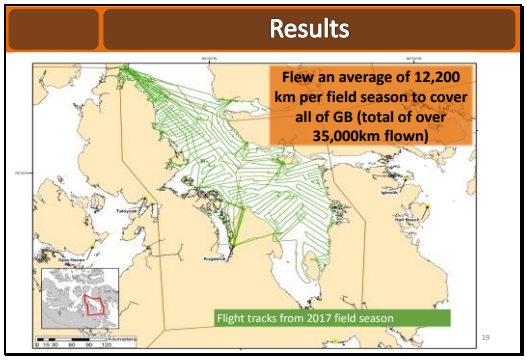
- Use all information to determine:
  1. Trends in abundance from 2000-2017
  2. Survival rates of different age classes and sexes over time
  3. Reproductive parameters such as size of litters, litter rate per adult female (how productive are the females/population)
  4. Population growth rate – determined using survival rates and litter production rates
  5. Evaluate body condition of bears across the entire GB area

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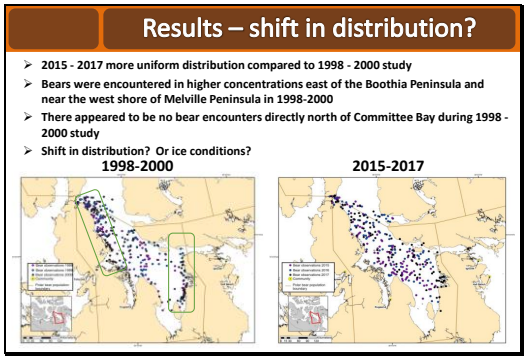
Slide 18



Slide 19



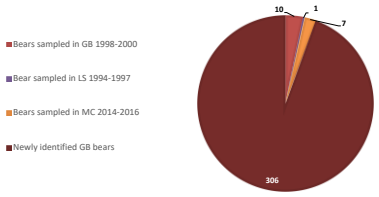
Slide 20



Slide 21

Results – mark-recapture samples

- 324 individual bears identified through genetic biopsy sampling using DNA
- 10 bears were previously marked in 1998-2000 study
- 1 bear previously marked in Lancaster Sound study in 1994-1997 study
- 7 bears marked in M'Clintock study 2014-2016



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Slide 22

Results – body condition

- Bears were in better condition (fatter) in 2015-2017 compared to 1998-2000
  - 30% chance of poor Body condition (1 or a 2 score) in 1998-2000
  - 7% chance of poor Body condition in 2015-2017
- Why? Your thoughts?

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Slide 23

Results – Reproduction

- What does "reproduction" mean? What do scientists look at?
- Litter size
  - data from 1998-2000 and 2015-2017
    - 99 females observed with COY litters
      - COY litter size: 1.61
    - 80 females observed with Yearling litters
      - Yearling litter size: 1.53

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Slide 24

Results – Reproduction cont.

- Number of offspring per adult female

1998-2000	2015-2017
0.51 COYs/adult female	0.43 COYs/adult female
0.37 yearlings/adult female	0.36 yearlings/adult female

- 85% chance that COYs per adult female was less in 2015-2017 compared to 1998-2000
- Number of yearlings per adult female is important because it shows how many cubs-of-the-year survive to be yearlings
  - good measure of reproduction
- The GB subpopulation has healthy reproduction

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Slide 25

Results – Survival

- Females and males separated
- Adults and subadults separated
- Data support similar survival across time
- Unsurprisingly, subadults have the lowest survival of these groups with subadult males lower than subadult females.
- There were fewer adult males than expected, but that is likely due to the past harvest with a 2 males for 1 female harvest system

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Slide 26

Results – Population growth rate

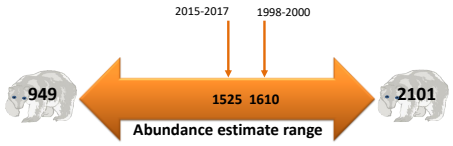
- Population growth rate similar to assessments from the last study
  (growth rate is simply the difference between what is added through births minus the deaths and takes into account how animals survive)
- Growth rate indicates strong potential for growth



Slide 27

Results – Abundance

- Assessment of number of bears in GB



- Stable over time

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Slide 28

Results – Interpretation

- GB is doing well, healthy subpopulation for now
- Because we don't have a quantifiable idea about movement, we are likely counting bears from other subpopulations like LS and MC as GB bears → increases the abundance assessment.





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Slide 29

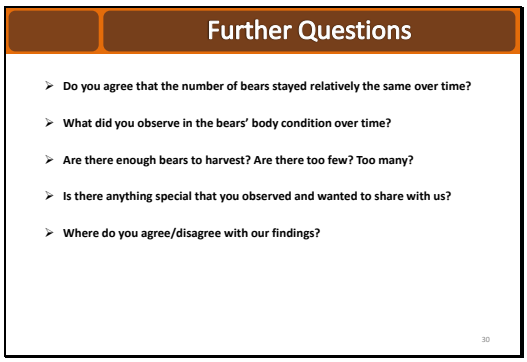
Further Questions

- Boundary between GB-MC-LS?
  - Genetic mark-recapture method does not provide data to answer these questions
  - Movement data are necessary
  - How important is the boundary issue to you and other users?
    - IQ says there is movement. How much? Where? When? Who?
    - Are bears changing where they choose to spend their time? Is this related to sea ice changes? Seals?

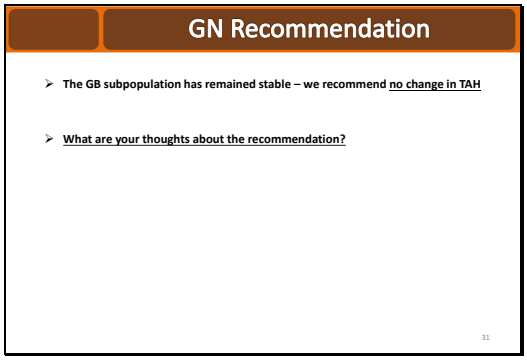
- Options:
- The Government of Nunavut is committed to surveying Lancaster Sound in the next few years
  - With your support, we could propose to put collars and satellite ear tags on a small number of bears in LS and MC/GB to gather info about bear movements between and among these areas.

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Slide 30



Slide 31



Slide 32



Appendix 2: Complete Consultation Summary of the Gulf of Boothia Community Consultations

Nunavut Community Consultations on the results from the 2015-2017 Gulf of Boothia Polar Bear Study

October 20-28, 2020

HTOs Consulted:
Gjoa Haven
Taloyoak
Naujaat
Kugaaruk
Igloolik
Sanirajak

Summary of Consultations:

A: Gjoa Haven
October 20, 2020

Time Start: 18:50

Time End: 21:15

Participants:

Enuk Pauloosie
William Aglukkaq
James Qitsualik via cell phone video chat
Simon Komangat
Jimmy Qirqqut
Roger Ekilik
Ben Putuguq
Jimmy Pauloosie
Ralph Porter Sr.
J. Skillings – GN-DOE
K. Metheun – GN-DOE
M. Dyck – GN-DOE
J. Ware – GN-DOE
Jacob Keanik - translator

- Markus introduced option to go over background of MC/GB or skip it? Question to the board---what would you prefer?

- Ralph: we don't need super detailed on the background so you can go through it quickly.

Background slides: review – our objective to provide new data for the co-management partners and the NWMB to make decisions on setting harvest levels. We are here to hear feedback.

Study methodology: review, no questions

Community participation: review; no questions

Study design: review; no questions

Study design analysis: explained why the amounts of data matter for getting the results; no questions

- Ben: Years ago, when the moratorium came I was one of the Board members back then and remember it. We used to go all the way to Prince of Wales Island before the quota system was put in place to harvest as much as we could.

- Markus: thank you, I'd like to hear about the ice back then.

- Ben: it's totally different. There isn't any ice really.

GB Results:

- Willy—the board isn't that interested in Gulf of Boothia because it is very rare that we go there to hunt. The ice conditions are too dangerous. Young hunters do not have any knowledge about that area. We are not that interested in this population.

- Ralph said if a bear doesn't want to show up, you can't see it. It is the knowledge of our ancestors.

- Ben: when our young hunters go to Gulf of Boothia, they don't have a clue about the ice conditions and it's very dangerous…the ice can just take them.

- Willy: that actually happened with a sport hunting group—the ice split and took the hunters out to sea.

- Ben: the hunters that were taken the sport hunters, I was there and I managed to get home before the ice split. The younger generation doesn't have a clue how the ice conditions.

- Markus: I can go over GB very quickly. It is my job; I have to tell you about it.

GB Results/TAH recommendation: Because its stable and there are no changes that we can detect, we are recommending that there is no change to the TAH. If the communities feel differently—want more meat or public safety is an issue, then that is an opportunity to discuss how the TAH could change.

- Willy: It doesn't affect us.

- Markus: That's pretty much it for the presentation for the MC/GB. Are there any questions that the community here has with regards to GB/MC/LS boundaries and movements? We can hear these comments and try to see if they can be incorporated into our future work. We are doing LS and are going to be analyzing those samples in the next 4-6 years and we will let you know what we find—were there MC bears up there that we marked in 2014-2016.

- I know there is no desire from this community for collaring, but there are some communities that are interested in movements because they are wondering about climate change, increased development, increased shipping. For example, NTI approached me once about impact on bears from a development project, but

I couldn't answer those questions because we don't have movement data. For now, maybe this is okay, but this may be important in the future.

- If there are specific questions from the communities or specific areas of interest, bring those forth to the regional wildlife board/NWMB priority—those priorities help the GN determine how they focus their resources and money along with our mandate to get updated information for the polar bear subpopulations.

- **Question Simon**: Peter DeGroot seems to be doing a lot of research in the last 20 years. What does he do with you guys?

- **Answer Markus**: He works for a university, not affiliated with GN. He is part of a big project, multiple universities, maybe 25 organizations supporting BearWatch – Peter is involved, but he is not the lead. It is looking at genetics, bacteria, developing a kit for fecal sampling. A lot of different projects but Peter is a tiny part of the bigger project. The GN supported Bearwatch because there are bits and pieces of this project that could help for management that we could not collect alone.

- **Question Willy:** Is this work they are doing helping us? It is helping the government…but what is it doing for us?

- **Answer Markus**: the samples are still being analyzed…from the many samples they are trying to determine if it's possible to see contaminants and genetics. As the GN, we could not do it. The idea was to be able to harness the resources of universities and their labs to gather information and develop potential new methods for non-invasive health monitoring of the bears.

- **Answer Jasmine:** also, we don't know if what BearWatch has proposed will work –it was an idea that had to be tested. The idea was to develop less invasive technologies and methods, but will it actually work? Don't know.

- **Question Ralph**: so whatever Peter does, it is not affiliated with the NWMB?

- **Answer Markus**: that is correct. Whatever Peter does is not counting bears and they are not primarily responsible to providing info to NWMB for management decisions.

- Willy: they are mostly doing contaminants, health, same as they are doing with the fish.

- Roger: Hunting bears in GB is too far—takes a lot of gas and people don't go there. Mostly MC.

- Markus: the GN is not responsible for allocation—the KRWB does that. For GB, all 3 regional wildlife boards are involved for GB—they all have to talk to each other. That requires a lot of discussion, I think. I think it requires involvement of all the RWOs.

- Ben: Bears in MC once it starts to freeze up, they start to come to town…that's because they are not being harvested due to the moratorium. Even during the summer, there are bear sightings now.

- Markus: Also probably not that much noise and traffic going out so they aren't afraid.

- Ben: it's because they aren't being harvested or disturbed by machines. They are even sighted far inland on King William Island. The population is healthy.

- Willy: Another thing is that between here and Taloyoak, there used to be a lot of traffic between the two communities even in the spring. Lately they have been seeing bears between here and Taloyoak. Seeing a lot of bears tracks, even wolf and wolverine around Clarence islands. Packs of wolves on the sea ice – Markus you've seen the wolves come into camp, two of them. Even going up to Boothia. But there are packs of wolves and they can also kill polar bears, from experience.

- Markus: the wolves could have an impact on the offspring of polar bears

- Willy: bottom line is that we saw a lot of bear sign and the 3 bears we got were very healthy and over 10 ft.

- Markus: that lines up with what we are seeing –that is really nice to hear.

- **Question Simon**: you were going to talk about sea ice Markus?

- **Answer Markus**: I think the way we looked at sea ice was that we included it our body condition analysis and how that might affect the body condition. We know from satellite imagery from last 30 years that ice has changed. We didn't do full analysis from satellite imagery or ice analysis on ice specifically. I don't' know if that's answering your question.

- Simon/Willy nod it was sufficient answer

- Ben: Used to have icebergs that even have cracks and there used to be abundance of seals and there were ice packs and they were easy to spot. Nowadays the bears are moving more because there are less icebergs –we don't see the icebergs anymore.

- Willy: we don't see much ice anymore.

- Markus: agree with the satellite imagery—barely any ice in MC channel in fall

- Willy: people that used to go harvest belugas to Prince of Wales, but as soon as they get westerly winds the ice would get pushed in and they'd be stuck for weeks---they have a hard time getting through because of ice, but now no problem…20 years a big difference in sea ice.

- **Question Markus**: that's the other question I have---if this northern area is free of ice, what's going on with bears? Do they stay on the little ice? Do they go on land? What do you guys see when you travel int eh summer?

- **Answer Ben**: northwest king William island, bears would be swimming miles away from sea ice and can catch seal in open water. They're still hunting even if it's free of ice. They're always traveling even when it's full of ice.

- Willy: During the summer months, July/Aug prince of Wales, I stood and counted 33 bears in Cunningham bay—this happens when the beluga whales are coming in with their calves.

- Markus: to Willy---we tried to figure something out with you remember?

- Willy: polar bears going after belugas staying in the mouth of the bay to catch them.

- **Question James** (via video on smartphone): Going to that old MOU, remember we had that issue with Taloyoak with them "stealing" our tags when the TAH went to 12. But maybe this is a RWO issue.

- **Answer Markus**: You are correct, this is definitely a point to bring up with the RWO.

- **Question James**: I'm trying to make the numbers more equal. I'm just trying to make the communities have a fair trade. If we want a higher TAH is that NTI?

- **Answer Jasmine**: that would be the NWMB to raise the TAH. The RWO decides how to allocate the TAH.

- **Question Willy**: Why is Taloyoak involved in the TAH for MC when they were not involved when we signed the MOU. Taloyoak can harvest from MC but Gjoa can't get to GB. What are bears considered when they are harvested—MC/GB

- **Answer Markus**: The boundary goes right through Taloyoak

- Willy: so if Taloyoak has a defense kill is that considered MC

- Ben: there was a big male harvested as defense and counted as GB -- happened last year

- Markus: that is something that Kevin/Jack look into

- Kevin: okay

- **Question Jack**: isn't within 30km of the management unit a buffer zone?

- **Answer Markus**: yes, there is a 30 km zone that they can go on both sides.

- Willy: to board---do you have any concerns on bears?—time to ask

- **Question**: ---is there going to be another polar bear survey again some time soon?

- **Answer Markus**: that is a very good question---we have seen with our experience that having these long empty data periods of many many years, it makes analysis very very challenging. Not just in MC, all the populations this is a struggle having these long gaps. That was the old system because it worked for money resources, bears are long-lived, and it was the management and monitoring plan initially, but now we have realized that 15–20-year gaps are not good for analysis. Ideally, we'd like to be back in a few years for a one-year effort to sample bears in MC. That would help us get better data and get better estimates for survival. That is where the HTO comes in—if you make it a priority and identify it to the RWO and NWMB---say it's not okay to have long huge gaps for population assessments---that helps then us and the GN to make our case to allocate time/funding.

- **Question Kevin**: question regarding the 30 km buffer zone – where did that come from?

- **Answer Markus**: that was originally from the MOU—because bears don't respect boundary and hunters may not have always a precise location.

- Willy: like the Hadley Bay population and with NWT

- **Question Jack**: does that get carried forwarded from the MOU into the new polar bear management plan?

- **Answer Markus**: not sure, probably, don't have it memorized, can check. Just want to thank you for allowing us to come in person and giving us your time. Just because we talking here, doesn't mean that we have to end the conversation…we are open for contact and can help any way we can.

- **Question Simon**: how often could you come to Gjoa Haven?

- **Answer Markus**: 2013 and now 2020 – so maybe twice in 7 years? We rotate through the 12 subpopulations – we have a better chance to make it to the regional AGM and we are certainly open to joining via video conference on an HTO meeting if you have interest or questions for us.

- Jasmine: Unfortunately, you are looking at all the biologists for Nunavut. What we'd like to do personally isn't always what we can do realistically. We would ideally be able to make regular visits and updates for all communities.

- Simon: reason I'm asking is because we've been waiting to hear since 2017

- Markus: I'll tell you the same thing I told Cambridge Bay—it was a long time to wait for these results I admit, it is not ideal --- MC was challenging because the data was so sparse, analysts really struggled to analyze the little bit of data, ransomware, and COVID. I wanted to be able to stand behind these numbers and support them and so it took longer than we predicted. We apologize for that.

- **Question Wally**: another comment/concern I'd like to mention is did you do MC then to GB? --

- **Answer Markus**: we did them at the same time

- **Question Wally**: could you do a survey in the summer?

- **Answer Markus**: No---because there is still ice enough for bears, but not enough for pilots. The pilots don't want to fly over open water and bears would still be in the water and on ice pans during that time—we would not be able to do proper coverage of the area. You'd have to have really low ice and bears would have to be on shore.

- Wally: it is good to hear that we are having a recommended increase and the population is healthy. Of course, we'd like a bit more. A lot of activity and population is increasing.

- End of meeting

B: Taloyoak

October 21, 2020

Start: 17:45

End: 20:15

Participants:

Joe Ashevak, Chairperson HTO
Tommy Aiyout
Bruce Takolik
Jayko Neeveacheak
Kovalak Kootook
J. Ware – GN-DOE
M. Dyck – GN-DOE
K. Methuen – GN-DOE
D. Anavilok – GN-DOE

- Joe: Board wanted to know whether there was going to be a public meeting and were under the impression that there was going to be a public meeting. It appears that Jimmy the manager forgot to bring this up to the GN (Joe asked Jimmy if he let the GN know that the HTO wanted a public meeting and Jimmy indicated that he forgot). *Note, the GN did not receive any notification or request for a public meeting prior to this meeting.

- This is very important to us and we can wait—sometime this winter would be good. We really want this and have been waiting a long time. M'Clintock is very important. Is this a possibility to do?

- Markus/Jasmine – This is possible to do, but we don't know if it is likely and we cannot commit at this moment because we need to discuss with our supervisors and figure out a schedule.

Background slides: review; no questions

Study design/methods slides: passed around biopsy dart; answered a few questions regarding how the dart sampled the bear. No other questions.

Community participation slides: review; no questions

GB results:

- **Question Joe**: what is the TAH for GB?

- **Answer Markus:** 74

- **Question Jayko:** are you guys getting new equipment –like cameras and stuff to take pictures that have the built in ability to see how big the bear are?

- **Answer Markus:** I think I know what you're saying and it might be a bit more complicated to determine actual size from a picture -- we would need to know altitude, distance, focal length. It might be possible to calculate size and do that. We could look into that.

- **Question Tommy**: talking about quota –all those communities Gjoa, Igloolik, Sanirajak, What the quota like before MC was shut down?

- **Answer Markus:** it was 42 until 2003/2004. It was increased to 74 in 2004/2005 because the study in 1998-2000 showed ~1600 bears instead of 900. I was around at that time of the moratorium in MC that communities were given a few tags for GB to preserve traditions during that moratorium and low harvest in MC.

- Joe: that was a big jump from 42 to 74.

- Markus: yes, I don't know how the recommendation went, but it seems that the 74 has been okay because the population has remained stable, though there may be some environmental changes that have helped the population---like the sea ice thinning/reduction in multi-annual ice and becoming better habitat for fish/seals/algae/etc.

- **Question Jimmy**: no colons being collected anymore?

- **Answer Jasmine:** correct, that was a collaborator project and they had funding for only a set number of years. That funding has run out and now they are working on analyzing the data. I am not sure when reports/information will be ready, but reports will be sent to communities with what they find.

- **Question Jimmy:** about credits? If we want to have a sport hunt, can we use our credits for sport hunts?

- **Answer Kevin:** Yes, that is not a problem. However, keep in mind that we haven't approved any outfitter licenses due to Covid. But, we can help support you for that if you have questions. Not much going on with sport licensing this year still with covid.

- **Question David A.:** with the feces and Peter DeGroot study ---maybe ask the HTO to make sure there was approval – we're not sure there was approval.

- **Answer Markus:** I'm pretty sure that all Bearwatch research had permits—they would have gone through our department.

- **Question Kevin:** do you know when that permit expires?

- **Answer Markus**: I'm not sure—probably multi-year

- Kevin: during the research permit review period that is a good time to bring up any concerns or comments---that is the time to bring that forward and decide if you support. If you don't say anything, it is assumed to be approval from the HTO.

- **Question Bruce**: Is it mostly the GN that counts bears or do other people do it?

- **Answer Markus**: mostly it is GN, but sometimes we have to have help because it is only me and Jasmine. There are a few people that have lots of experience that we bring on to help out on big projects. I'm in charge of the program and I only get people with experience to do the work. And there are locals involved—it's not just the biologists.

- Following the meeting after Jasmine/Markus left, Kevin remained for other agenda items and it was mentioned again that there was **a lot of disappointment that the public would not be hearing these results**. Kevin reiterated that it appears this was not communicated to the GN and the biologists were not able to plan for this.Tonight was the first it was brought up about the desire for a public meeting.

- End of meeting

C: Kugaaruk

October 22, 2020

Start: 18:50

End: 21:20

Participants:

Athol Ihakkaq
Jesse Apsaktaun
Mariano Uqqaraluk
Columban Pujuarajok
Mark Kutsiutikku
James Nasalik
Ema Qaqqutaq from KRWB
J. Ware – GN-DOE
M. Dyck – GN-DOE

Introduction and Objectives:

- mandate is to provide this information to co-management partners. Ideally, I would have liked to have both the science and IQ studies come out at the same time---unfortunately Covid impacted the IQ study researcher's ability to finalize the study at the same time.

Background:

- background of studies from 1970s to 2000. Heard from communities from last 3-4 days is that there have been a lot of changes in the environment and sea ice. Our obligation is to get new information to not just the GN, but also hunters, HTOs, RWOs, and to NWMB because they need the information to set the TAH; no questions

- The question that was important at the time—number of bears can be answered by the biopsy darting. However, with this method, we cannot answer questions about movement or industrial activity.

Community participation:

- incorporate the input from HTO/hunters to help us know where to look for bears---where were good places to search; no questions

Study Design/Methods: review; no questions

Study Design/Analysis: review; no questions

Results: shift in distribution? Why are there changes in the bear observations?

- Ema: that area in committee Bay was usually open water in 1998-2000

- Athol: Yeah, that is often open water near the floe edge

Results: body condition? Any thoughts or similar observations of you guys as to bear fatness? Are you seeing any skinny bears? No real comments---board seemed to agree

Results: reproduction – key measures we look at to help compare from old study to new study or to other populations

- **Question Jesse**: have the number of Coys per adult female gone down because there are more females in the population now than 1998-2000?

- **Answer Markus**: can't remember off the top of my head---will have to consult the report, but my memory is that the number of males has gone down slightly---likely because of the 2:1 harvest ratio. Females may have increased slightly.

- **Answer Jasmine** – cited report for female proportion – 57% in 98-00 and 61% in 15-17. That is in line with the 2:1 male to female sex ratio—that's why it's not 50:50.

Results: survival; no questions

Results: growth rate; no questions

Results: abundance; population is stable, even with changes in environmental changes. This is good news. This is a collective accomplishment among the hunters and government in managing this population.

GN Recommendation: we are not recommended a change in TAH.

- **Question Ema**: would you recommend to SARA to downlist?

- **Answer Markus**: there isn't anything to downlist because they look at polar bears as a whole. SARA and COSWIC looks at these data for the next assessment. The next assessment will be likely in 2025—I provide this information to them. Plus this information not only goes into Canadian assessment, but also internationally. I am defending the Nunavut polar bear numbers internationally. This is good information for the outside world. However, it is important to remember to that we, me and you, we cannot know for certain what the future holds---what do the environmental changes impact for bears do in 5, 10, 20 years. What do the communities want and feel? There are different communities in Nunavut that note public safety, levels of social tolerance, I hear the communities say those things. It is important for the community to come up with what you want to do with this population---having a management objective. The decision you make now, always keep in mind to keep the future in mind.

Shows video of biopsy darting

- One more thing to mention to be fair since I've mentioned to the other communities. This is about movement….I respect that communities and HTOs do not want collaring or handling. I have had, in the past, organizations have asked about impacts of development on polar bears, but I could not provide that information because we do not have it. There is no pressure from me or the GN for collaring, but it's important to think about what questions you have and the information you need---describes benefits of collaring.

- I know that we have not been able to visit communities and I regret that. You are looking at the 2 people, sometimes 1 person, and we can't be there or everywhere.

- Jasmine: also, as the future unfolds, if there are priorities from the communities, bring those forth to the RWO and NWMB priority meetings because the GN uses those to help determine how they allocate funding. We have a mandate for abundance, but for other priorities, knowing what communities wants is very helpful.

- Markus: addresses why it has taken so long for us to get here with results. DNA analysis, finding old samples, ransomware, covid

- Another thing we learned is that having long gaps of 15 years makes it very difficult to get survival. Doing one more year of marks/biopsy sampling would be helpful, maybe 5 years.

Questions:

- **Question Mariano**: did you see any bears that were wounded or sick?

- **Answer Markus**: in 3 years, I haven't seen any sick bears and no dead bears. I didn't see any dead cubs.

- Mariano: We had 4 bowhead whales die and was wondering if the bears were sick from that---not sure why the whales died.

- Jesse: going back to the topic of collars, I like the ideas of perhaps of collaring some bears because I do like seeing scientific data because it can tell a story. I'm not pushing back against IQ. But, I like to see the procedure – what are the pros and cons --- how many bears would you collar. I would want to see the positive and negative impact. Because it would be good to see where the bears are traveling. In the past 3 years, we are having bowhead whale issues since the cruise ships. Is the Northwest Passage gonna affect the bears?

- Jasmine: I feel like the IQ tells a story and the collars tell a story too –they together, tell a bigger story.

- Jesse: We need to get our residents to understand the positive and negative of bears. For example, if we have 10,000 bears and we collar 10 bears, what are the negative effects on those? I would recommend you providing a pros and cons. pamphlet

- Markus: Would it be helpful just to have a document, but that probably leads to more questions….it might be helpful to have a chat after you

- Athol: the Baffin area with the mine---they're going to put a shipping route in---that is going to affect the bears–we know that.

- Jesse: It's like we need the scientific data because we don't live out on the land like our grandparents did…I live in settlements 99% of the time. We have to educate ourselves and the future---like the shipping lanes.

- Markus: what you're exactly saying is similar to Baffin Bay and Kane Basin---communities saw climate change and wanted to know where the bears were going and what denning was doing. We worked with them and put out about 10 collars every year, a total of 30-35. And the data are huge

- Athol: the IQ and putting the collars together. I agree with the collars for the future.

- Markus: we are doing the LS starting next spring. We can maybe have communications to see what could work with the HTO. We have 3 years – maybe we could put a few collars out depending on your questions.

- Jasmine: to Jesse – maybe you could write your specific questions/concerns and that would help us design a study and collars.

- Mariano: I don't see any huge bears anymore 14-15ft bear.

- Markus: These are good observations to provide to Pam---that's the type of IQ that we need. When another study done in a few years, maybe there are different sizes and you document them.

- After board members left, GN representatives gave KRWB representative the MC presentation so that he also was informed about the study results.

D: Naujaat

October 26, 2020

Start: 18:10

End: 21:50

Participants:

NTI: Paul Irngaut
QWB Chairperson: James Qillaq
NWMB: Denis Ndeloh, KJ England, Steve Mapsalak
GN: Markus Dyck, Jasmine Ware, Jon Neely, Peterloosie Papatsie
HTO: Hugh Haqpi – acting manager
Paul Angotituar
David Ammaaq
John Ell Tinashlu
Peter Manniq
Dino Mablik
Mark Tigumiar – vice chairman

- Meeting started with introductions around the room

- Presentation
- GN representatives stressed that the IQ study is ongoing and has been delayed due to COVID because its results depend on ability of researcher, Pam Wong, being able to verify interviews and speak with interviewees. Ultimately, together the science and IQ will all go together to the NWMB for decisions for a bigger picture. Looking for a good discussion among everyone – we want to get feedback on what we present this evening.

- Paul Irngaut: Informing the group that NTI wasn't on the first leg of the consultations and explaining that he and James (QWB) are here as observers.

- Markus: asks board if they want to do background on GB and they agreed.
- **Background slide review:** no questions
- **Goals of Study/need for new info:** no questions

- **Question Hugh:** the boundary that you first showed is the boundary? What are the new boundaries that you show?

- **Answer Markus:** *reversed to previous slide showing 1970s boundary* Biologists back in the 1970s/Govt of NWT/local communities outlined as where there are a lot of bears and because they didn't know much about numbers of

bears for any areas, they decided to survey this area. So, this circle (*shows red circle) was in a way arbitrary.

- Paul I.: can I explain a little bit? Explains the role of the Range States, Polar Bear committees like the PBAC/PBTC.

- Markus: Further explains the management unit boundaries---The brown lines show boundaries based on movements of female bears with collars that were put on bears in the 1980s-1990s.

- **Question David**: Question about the boundaries -- that NWT boundary (*red circle) that is pretty big --- do the tags depend on the boundaries?

- **Answer Markus:** For each of the areas, we know how many bears there are in each of these areas and the NWMB has set a TAH based on that. Based on how many bears there are in total and based on what the management objective is --- some communities want a population to stay stable, so you can't harvest as many if you want to keep population stable. From the total # that is determined the TAH. For Gulf of Boothia, NWMB decided 74 total allowable harvest and then the RWO decides how the tags get distributed.

- Denis: I think what he was asking: Is there a relationship to the size of the management unit to the number of tags?

- **Answer Jasmine:** No, the size doesn't tell you how many bears there are. Some areas are quite big but don't have many bears. MC/GB for example. Tags are based only on how many bears there are in an area.

- **Study method choices slides:** Discusses how alternative options to traditional capture mark recapture were presented during initial consultations in 2013 (aerial survey, DNA biopsy). Reviews biopsy darting and how it works. Shows biopsy dart, passes it around. Explains how the method differs from traditional mark recapture and why we don't get as much data.

- **Question Hugh:** does the genetic DNA biopsy indicate age and health of the bear? Has there been any disease since the start of the mine?

- **Answer Markus:** Lots of good questions in there. We cannot get the exact age because we do not have a tooth. We cannot see anything for contaminants–our sample is too small. And no disease can be seen other than a big injury on the bear because we are not handling or touching the bear. The hunters can report back if they notice something weird or sick with the bears, disease – fills in gaps that we have with the science study.

- **Community participation slides:** no questions

- **Study design slides:** no question

- **Question:** From the 70s study to now --- how do you see the health from then to now?

- **Answer Markus:** good question---we are going to get to that in a minute---not really from the 70s cause we don't have tissue and samples from back then, but we were able to compare to the 1998-2000 study and we will get to that shortly.

- **Results:**
- **Question Hugh:** was there any changes in the biopsy based on climate change? Were bears getting fat, getting skinny, any disease

- **Answer Markus** – We can't see disease from this type of study. We rely on hunters to bring in anything that looks diseased. Body condition we do know and we will talk about that in a couple of slides.

- **Review of shifts in distribution slide:** Based on where we observed and sampled bears in 2015-17 compared to 1998/2000, appears to be a distributional change---maybe because of sea ice and seals? Bears have likely adjusted to these changes

- **Comment:** maybe more narwhal carcasses?

- **Peterloosie:** Those 2 high concentration areas in 2015-2017 – are two polynyas. Usually a polynya with open water around these areas that were empty of bear observations in 1998-2000.

- **Question Markus:** Do hunters notice changes in ice? How does ice look compared to 20 years ago?
- David: The ice is very thin and more drifting snow---it's not compacting and not making ice. Not forming properly.

- Markus: how is that for seals?

- John: When it is very thick, it is good for the seals. When it is very thin, it is not good for seals.

- **Results: Body condition**

- Comment: Bears back then were skinnier so this fits with what you're showing us.

- **Question Hugh:** Have you noticed difference in temperature and its effects on body condition? As in warmer temperatures make bears skinnier and the cooler temps get them fatter and ready for hibernation?

- **Answer Jasmine:** we haven't looked at that, but we could easily see what the average temps were during the field work for each of the study years and compare.

- Peterloosie: I think that the seal pups are getting bigger – saw one that was 3 ft long –huge. Maybe they are bigger and feeding bears.

- Jasmine: Describes thinning ice and changing productivity of ecosystems with decreasing ice thickness and more dynamic ice being potentially helpful for bears because the ecosystem is boosted in productivity (algae, fish, seals, bears). Theory because we do not have data on seals or fish for these areas. Markus is working with DFO to try and get information for seals.

- Markus: describes efforts to get seal info with DFO. The Lancaster Sound is where we are going to try to get seal info as a start.

- Hugh: I'm from Baker Lake where there are no polar bears. Back in the 60s and 70s, there were 4 or 5 bears caught super inland --- the bears were migrating to the west. Cause looking at LS and GB and comparing the distance from Gjoa Haven and Hudson Bay is about the same distance.

- Markus: There are some bears that move a long distance. Gives a couple of examples.

- **Question John:** I have a question about scientists---do you keep in contact with other provinces, territories? Or do you not talk to the other scientists?
- **Answer Markus:** There are 8 populations in Nunavut that are shared between jurisdictions/provinces/territories that I work with when there are studies – mentioned Baffin Bay and James Qillaq working with Greenland. Also Western Hudson with Manitoba. All the jurisdictions meet once per year, more frequently on the phone, so definitely in contact with other scientists and jurisdictions.

- I also present information gathered in Nunavut to international community and defend the Nunavut harvesters and Nunavummiut. We exchange this information with different countries.

- Paul I.: talked in Inuktitut for a while and explained he reviewed the PBTC and polar bear advisory committee and status table. That you guys meet once per year and review the polar bear populations.

- John: conversation in Inuktitut with Paul I.

- Paul I: John was asking about the ECCC ongoing mark-recapture study in Western Hudson and the effects of being handled/lack of hearing. At the Advisory Meeting where ECCC is a member, we voiced our concerns with handling bears, but also mentioned that that handling occurs in Manitoba which Nunavut has no control or jurisdiction over.

- Inuit have been opposed to handling of wildlife of any kind, especially polar bears. We have pushed for biopsy darting. We have made this known to our counterparts in Manitoba and ECCC. They know our concerns and to date we haven't seen any changes on their part.

- Peterloosie: I think John that was saying is that the bears are going partly deaf after so many helicopters getting close and then landing next to them. Then the partially deaf bears are moving north into Nunavut and causing issues.

- Steven: you came here to do a presentation to do Gulf of Boothia; I think that maybe we stick on topic.

- Markus: We are happy to answer to any questions and it's not like we are here that often so we are more than happy to entertain any questions on any topics for as long as you all want.

- Break --- 10 minutes ---
- **Reproduction slides:** coys/yrlgs – offspring per ad. Female

- **Question Hugh** - Are there more cubs with females in old study?
- **Answer Jasmine** – there are a few that have 2 cubs more than just 1; some hunters see 3 coys, none were seen during the study period, but maybe recently this is happening more?

- **Question Peterloosie** – reproduction is low with 1.6?

- **Answer Markus:** I know it looks low, but in context, it is not a low number. That is actually very good reproduction numbers in Gulf of Boothia *explains values that would be concerning. The observation you see represent localized observations; our number is averaged across the entire study area at the same time so *all the moms with single cubs and twins get counted and averaged.

- **Question Hugh** – pb numbers are low with low seal numbers?

- **Answer Jasmine –** we do not have seal numbers in Nunavut, likely it is the case when seals are poor, bears likely do not reproduce.
- **Survival slides:** -- no questions
- **Pop growth slide** – no questions
- **Abundance slide** – no questions; describe the range of the number and why there is a range – uncertainty in science because no one thing can know all. It reflects that there are likely biases and errors in places, that is why the result produces a range of numbers rather than an exact number.

- **Further questions slide:** other questions that the hunters/communities have regarding boundaries, denning, development (mines, shipping) --- if these become concerns, methods such as collaring would likely have to employed. IQ and DNA biopsy can inform parts of the puzzle, but each method provides its own information.

- Markus: further questions – do you see bears staying the same?

- Comment: feels like they are increasing around.

- Markus: That's definitely true – between 1850-1935 that's when a lot of whalers came to Canada/Nunavut and bears were shot. Not many bears in the 1950s and 1960s –but definitely more bears now.

- John: even berry picking, we have to bring our gun and be a safety guide

- Paul: Can't even go camping anymore.

- Markus: that's good information – need to talk to Pam and see if that's helpful to include and help us to understand the bigger picture – have bear distribution changed? ---could ask that for Pam to include

- Hugh: population going up, bears come more to community. IQ says there is bear movement and that is true – larger bears move farther out. Now and then, there is sometimes a 12 footer but average is 8 ft.

- Markus: do you see you big bears?

- Peterloosie: They are talking more Foxe Basin, not so much Gulf of Boothia for those big bears

- **GN Recommendation TAH slide**: with the info the government collected, and with the objective to maintain the subpopulation, we are not recommending a change in TAH.

- **Discussion with group about TAH Increase and Tag Allocations – originated organically from group and created lots of discussion with NTI, NWMB, QWB, and GN offering information on processes, options, and clarifications for how TAH increases or reallocation among communities may occur.**

- **Question:** about harvesting, can we have more than 5 tags?

- **Answer Markus:** There are a few options. The government is not recommending a change. However, depending what is presented to the NWMB, there are options for the Regional Wildlife Organizations and communities to talk ---have to be on the same page – the communities have to have the same objective –keep pop same, higher, lower. Then, the RWO, supported by HTO's needs, makes their submission to NWMB – may or may not be the same as the Governments.

- We have to understand that this is not black and white, we know that the population has stayed the same, but I don't have a crystal ball to know what the future holds. When the decision makers (RWO, NWMB, etc) increase the TAH, there is a risk that the system that you could screw up the system --- it is a question of how much risk are you willing to take. Are you willing to take a risk that is very high --- say TAH of 90-100? – but that is very very risky. We want to make sure we provide for future generations – that is our mandate in the Government. But, it is not for us to say what the management objective for a population should be. This is a decision for the communities to think about. It is not an easy decision.

- Another option is to bring forth a request for reallocation to the Regional Wildlife Organizations– based on concern or need. The RWOs can redistribute the tags at any time—does not need to be a new study or anything like that.

- Anything that is not clear, contact us, we give you information. Our door is open.

- Hugh: Looking at TAH by Minister, maybe redistribute the tags ---like Coral Harbour. Difficult to talk to Arviat, Coral Harbour

- Markus: You can only discuss reallocation of tags with the communities that harvest from the same subpopulation. So Gulf of Boothia communities. And Foxe Basin communities (Coral, Cape, etc)

- Comments: Naujaat suffering defense kills and impacts on their quota from hunters coming from Rankin and Arviat.

- Markus: we have to take a look at that and see. But harvests come off the hunter's home community – part of the Polar Bear Management Plan. MOUs are no longer in force

- *surprise comments from group indicating they are not aware of the Polar Bear Management Plan and have not seen it.

- Markus: *Explains the process the Polar Bear Management Plan went through before being ratified by the NWMB and Minister* --- The Polar Bear Management Plan was accepted after going through a multi-year process in which all HTOs across the territory were consulted. *NTI nods agreement* RWOs were consulted and part of it too. All partners were involved and – drafts sent back and forth and back and forth. Public hearing in fall 2018 and all HTOs invited.

- Denis: wanted to provide clarification for what Markus is talking about for the Polar Bear Management Plan – the wording about hunter's home community is part of an appendix that is approved on an interim basis right now.

- KJ: it is on the NWMB website.

- **Video of darting:** clapping from John – *not sure if sarcasm or true support of method/video*

- **Question Peterloosie:** what do you think of the 1:1 harvest ratio? I think that it will increase polar bear populations in the future.

- **Answer Markus:** This is something the communities wanted, maybe not every community, but the majority. Also, in the Polar Bear Management Plan hearings. There is a concern because the TAH was not adjusted when Nunavut went to 1:1. The TAHs were set to protect females and maximize sustainable harvest. But, when 1:1 went into effect, there is a chance that more females would be harvested and could be riskier. If there is a concern, the GN will bring those concerns to the NWMB. Just because it's 1:1 doesn't mean it has to stay that way if there is a conservation concern with consultation with community.

- Hugh: there was a concern we would like to know the male/female ratio, we want to have balance and not drive the population down and what happens with climate change in the future is not really known.

- Markus: When there are concerns, hunters raise the flag – like MC not being able to find males – that was a trigger to lower harvest in MC and to do study. We rely on hunters to provide information because it's not possible to do studies/surveys frequently – costly.

- **Question Paul I.:** Asking how much harvesting done from here.

- John: Yes 5

- **Question:** That's why I ask if we can get more than 5. More people are hunting up there. Would like more tags. And more people go camping to hunt in March. – mostly people go to the island in Committee Bay (Peterloosie – about half the hunters go to the big island in Committee Bay).
- Markus: You don't have to wait for a new study, you can raise this with the NWMB with information or bring up with RWO to reallocate.

- John/Paul: conversation in Inuktitut -- summarizes that HTOs can allocate half a tag for a cub – request has to come from HTO, then approved by someone, Superintendent maybe. Also, they have made requests to increase TAH to the KWB, but haven't heard anything. We have a committee, under NTI, Nunavut Inuit Wildlife Secretariat, the chairs sit on the committee and we can bring it up at the next meeting.

- James Qillaq – adds comments in Inuktitut

- Comments – Rob Harmer explained procedure in spring and we are just starting to put it on paper and we can't just have ask – we have to go through process.

- Paul I.: Six communities harvest from GB so it seems that the allocation isn't exactly fair. But if want an increase in TAH, will have to bring to RWO which brings it to NWMB. If you want a re-distribution, then RWO has to do that – KWB, QWB, KRWB – they all are responsible for allocating GB.

- Steve M.: I used to be the Chair for the HTO when the MOU, there was a decrease in the TAH, Mitch Taylor was the pb biologist. There was a quota of 3 for GB for Naujaat. When the quota went to 74, Naujaat went to 5. The way the tags are allocated is done by the Regional Wildlife Organizations – it's up to them. But they have to follow the TAH. *note – not clear what this reduction is referring to. MD is not aware that there was TAH reduction for GB while Mitch Taylor was working.

- **Question:** Do you know when this will be going to the NWMB?

- **Answer Markus:** We have to finish consultations first and we maybe are done by Wednesday, and we could get back to the office and be told to get something ready for the NWMB. I don't know though.

- Jasmine: And just to reiterate, even if nothing ever goes to the NWMB and this study never happened, the concerns and requests for redistribution of tags can go to the Regional Wildlife Organizations at any time. Technically, they can reallocate each year the tags. They usually don't but it is within their rights/responsibilities.

- Steve/John Ell/James: conversation in Inuktitut

- Denis: assuming the request comes from the GN to the NWMB at some point, what is going to happen very likely, because it is 3 regions and NWMB cannot set a TAH Nunavut-wide --- the Board will determine what the TAH is for Gulf of Boothia. The NWMB will then send a letter to the 3 RWOs and ask to know how the RWOs are going to share it. The RWOs will meet and decide and then provide that info to the NWMB and this will be sent to the Minister. This is also when the communities can have their voice heard.

- Paul I.: that is why I mentioned the committee at NTI that we will bring forth this issue. If communities want to increase the TAH within the already set TAH, then that is the RWO jurisdiction.

- John Ell: conversation in Inuktitut – about Foxe Basin – *not sure what was said. Left abruptly*

- Paul I.: I was explaining that communities get together to discuss and agree on what they want—if they bring that forth, it is much more powerful than a single request.

- KJ: because there are so many communities and regions are covered, the easiest option would be to request for a transfer of credits for a short term increase in quota. Another option would be going to the RWO, to advocate with the other RWOs, for a change in allocation. Thirdly, work with all the RWOs and advocate for a change in TAH.

- **Question:** when do you plan to study Gulf of Boothia again?

- **Answer Markus:** With the previous study plans, studies were done every 10-15 years. With this analysis, we realized that this long timeframe is too long. Makes the analysis really difficult to have that long period with nothing. We ideally would like to come back in 4 or 5 years after study completion to sample bears in

the entire area, but only for a single year. This would put more 'marks' as we call them into the population and give us better understanding of survival, reproduction. Four to five years after the single year sampling effort, we'd do another full study—where we survey the entire area 3-4 years in a row. But that depends on what information is coming in --- from communities, or the environment. NWMB sets regional priority and makes list --- get what you think is important on the priority list. Helps the GN allocate funding and know what is pressing priorities.

- **Question Hugh:** would 4 or 5 years be enough for you?

- **Answer Markus:** we would do a single year, cover the whole area between April/June. We'd do this in 4-5 years. In 5 years, we need to put more marks out because the bears marked in 2015-2017 are dying.

- We cannot get a full population abundance by putting 1 year of marks out. There is maybe a chance if we do genetic samples in 1 year, there is maybe a way to update the abundance – but there is no guarantee because it will be the first time. We are learning as we go.

- Jasmine: noted the increase in time for DNA biopsy analysis. DNA analysis takes significantly longer than traditional mark-recapture – by at least 9-10 months.

- Markus: we are open to communication and work for you.

- Jon Neely: I didn't realize that defense kills from residents from other communities might be counted on your quota so we can look at that. We also have money in the deterrence budget – HTOs can apply for up to 10k for bear deterrence equipment – bear bins, fence. If a bear does damage your cabin, we have another program that can pay up to a few k for repairs and such. Talk to Peterloosie a bit tomorrow.

- Peterlooise: We applied for scare cartridges in early June – but we haven't heard.

- Jon: We can look into that – I wasn't aware of this application. I do apologize – I did not see that program application this year. That is something we will fix on our side. We will make sure that program works better for you.

- KJ: thanked the biologists and their work, difficult to get around – only 2 of them. Thanks to the HTO for community sampling program.

End of meeting

E: Sanirajak

October 27, 2020

Start: 19:15

End: 21:15

Participants:

NTI: Paul Irngaut
QWB Chairperson: James Qillaq
NWMB: Denis Ndeloh, KJ England
GN: Markus Dyck, Jasmine Ware, Jon Neely, B. Grosset
HTO: Lizzie Phillip-Qanatsiaq – secretary manager
Jopie Kaernerk – Chairperson
Danny Arvaluk
Jaypeetee Audlakiak
Sam Arnardjuak
Zillah Piallaq
Cain Pikuyak
George Innuksuk

Introductions around the room

Question to the Board re: background – Markus asks Board how much detail on background

Question: how much time with all the background?

Markus—material about 2-2.5 hrs but depends on interaction and how many questions the members have. I think it's beneficial to have the background so we can go over it.

Objectives of Presentation: reminds Members that the IQ study is ongoing for Gulf of Boothia. We are hoping that the information you have is provided to Pamela. Ideally, the science and IQ would be together, but COVID has prevented the IQ and the fact that Sanirajak has not had a Manager for quite some time.

Background review slides: no questions

Goals of study slides: Refreshed commitment of MOUs that new research had to be conducted for GB in 2015. Review goals including how sea ice changes incorporated – see how bears are doing as sea ice changes. No questions.

Study method choices slides: Refresh that DNA biopsy method was supported by communities back in 2013. The DNA biopsy method gives us information about the abundance. Reminded about drawbacks of biopsy darting. No questions.

Community participation slides: review, no questions

Study design/analysis slides: review, remind that hunters bring muscle and fat that can be used to address contaminants questions; no questions

Results slides…map with dots, flight lines….map comparison old vs new distribution – no questions

Question Jasmine – are you seeing bears evenly distributed like in the 2015-17 study? Didn't catch answer…something with Naujaat

Who was sampled slide – tells us some bears are moving between areas – no questions

Jasmine question -- Body condition slides – have you noticed less skinny bears than 20 years ago?

Comment: Maybe more carcasses on shore than other areas?

Hunters are only over in GB in spring only – bears are skinnier due to mating, Sanirajak only goes there in spring

Some people do not hunt bears anymore because the hides are not worth a lot of money

Reproduction slides – review; no questions

Survival slides, review;– no questions

Growth rates slides – no question

Abundance slide – interpretation slide – no questions

Questions slide – questions: walrus on top of ice in September – did bears get counted in spring down there?

Answer Jasmine – we sample them when there is ice in spring, when there is open water we can't sample really – too dangerous for flying

Question was more about FB – when we do FB we actually do it in fall, Aug and Sep.

Review of slides and questions…are there too many bears in GB, too few?

Comment: not too many bears hunted in GB, not too many sport hunts; COVID-19 likely not much sport hunts

Question – seal populations is having an impact on pb population? Under water sonar…might have an impact on bear populations

Answer Markus – explained NWMB priority list, work with RWO to have seal abundance and impacts on priority list; I can also ask DFO biologists to see if there is a desire for research

TAH slide – question-in the winter when the quota is not completed; traditional hunting and bears taste better in summer – can we hunt in summer;

Jasmine Answer – when you hunt is an HTO decision; The GN does not care when hunts occur; season is July 1 – June 30…all year.

Question: when there are more bears in summer, and there are sport hunters, how can we harvest more?

Answer JNeely – we normally distribute tags in fall, but tags can be sent sooner in the season to assist with sport hunts if you want to have summer hunts

Movie – darting…..

Question: When you are doing your research – have you seen the bigger bears? 12-14 feet or more?

Question Markus - In FB? Or GB?

Question: they move in March, Sanirajak hunts in spring in GB…where are they moving to?

We asked hunters to show but they could not tell because of the ice conditions, changing too much

Question: is that the same in Hudson Bay bears from Churchill?…assumed the question relates to abundance(?).

Markus Answer – there are different numbers of bears in the populations, and not every area that is large does not necessarily have a large number of bears.

No more questions - End of meeting

E: Igloolik

October 28, 2020

Start: 18:40

End: 21:42

Participants:

NTI: Paul Irngaut
QWB Chairperson: James Qillaq
NWMB: Denis Ndeloh, KJ England
GN: Markus Dyck, Jasmine Ware, Jon Neely
HTO: Jacob Malliki
David Irngaut – Chairperson
Gideon Taqaugak
Daniel Akittirq
Michelline Ammaaq
Joannie Alaralak
Salomon Mikki
Natalino Piugattuk
Loyd Idlout
Janet Airut - translator

Introductions around the room

Background slides: review; no questions

Goals of Study: review and reasoning for new research study – MOUs obligations for updated information and Total Allowable Harvest information to decision-makers – RWO/NWMB; no questions

Study method choices: review when initial consultations occurred in 2013. Balance between methods and the trade-offs between different method choices. Review that all HTOs supported the less invasive method. Describe DNA biopsy and passed around dart. Explained how skin sample and genetics works to 'mark' or identify a bear so that we can track it through time. No questions.

Community participation slides: Review; no questions

Study design/goals slides: review; no questions

Results: maps – questions – shift in distribution?

Salomon: answer – count up to 47 family groups in summer – count bears in summer would be better;

Jasmine – is it new to see more than 2 cubs; usually 2 offspring, but recently seen 3 cubs, a bit rare but seen

Question Salomon – Could you monitor in summer time? Is that possible?

Answer Markus: The area you pointed on the map is Foxe Basin and we do our monitoring in the summer there. But for GB the ice doesn't go away completely so we do it in the spring when most bears will be on the ice hunting and breeding.

Natalino – ice comes from aqqu, ice transports animals, no more ice up there and around Moag Bay there are polar bear tracks, some come up to community (this past summer); not so much ice through Hecla and Fury strait

Salomon – are bears afraid of ships? Is it because there was a ship? Ship in Hecla Strait, ice breaker…..this summer there were lots of bears near the cabins

Comment: this summer saw lots of bears in that area , more than usual…during September

Question Jasmine – do hunters go in springtime to GB or mostly summer? Do hunters see GB much in the spring?…..

Michelline – recently less ice in that area, lots of tracks;

Paul I….shifting ice is likely;

Jasmine…if more ice is shifting, ice breakers are coming through, maybe this is a time to find out how bears are moving, maybe if it's important to the community?

Gideon – if there is less ice, less polar bears, but we do not see a negative effect yet

Salomon – bears are usually where there is food; ships were dumping in that area and the seal moved; the seals went further up, maybe bears are moving up there; same in Lancaster sound across Arctic Bay

Natalino – if area is researched the funding is always a problem; excuse is always there is no funding available……

Markus/Jasmine – nod in agreement that funding is always a challenge for big projects

Question Salomon – why are you not searching up there – points to BB and KB…bears are likely moving up there and are coming down into our areas?

Answer Markus – we did sampling and research in Baffin and KB, and we had collars, but we are doing LS in 2021 for several years; maybe some bears move between MC/GB and we pick them up –

Jasmine – we are doing LS work in spring—same as MC and GB so that also might help to find out how/where they move/are at that time of year. Sampling at the same time of year gives us information that is more comparable compared to spring vs. fall sampling.

Question: why does our quota never get an increase when we feel bears are increasing? *Interpreter struggling to translate conversation – following meeting, Inuktitut-fluent GN staff member indicated that the conversation also included that Igloolik area igunaq caches were being raided by bears in FB and that's one of the reasons the HTO wants to harvest more bears in the FB area.

Answer Jasmine: gave Baffin Bay example and how process went for increase there.

Answer Markus: Describes RWO allocation responsibility and NWMB responsibility of increasing TAH. The reason there has not been an increase for GB is that there has not been new scientific information since 1998-2000.

Paul – you can approach NWMB with requests, this information goes to the govt, you have to clarify why you want quota increased; because of the studies and the results they give to NWMB; there are 3 RWOs for GB; the quota is 74 for all the communities; for FB you would need to talk to that RWO and communities.

Gideon – there are NWMB reps here; concerned about seals, there are no caribou, they would deny us quota increase for bears because they've done it before.

Natalino – took sport hunter to hunt bear, caught collared when I was 7 years old; collar came off and they lost it; head was "separated from neck"??....*maybe no fur on neck?*...a bear was caught and hide was no good and he is asking for replacement of hide from GN

Question Daniel – in FB they wanted a cub, or a family group?

Answer Paul I…it comes out of the quota,

Requested a mother and a cub last year but we did not hear about it…anyone catches a cub it counts 0.5 of a tag; *HTO comments and discussion about what 'half a tag' means. In order to stay on topic of presentation, GN indicated that these questions they could answer at an HTO meeting since they live in Igloolik and would be happy to answer harvest-related questions during a regular meeting*

James…to NWMB send your request about cubs….to them;

Results slide – describe how many individual bears and recaptures there were for GB

Question Jacob - Where is MC?

Answer Markus – explained where it is on a map

Results body condition –

Question Jasmine: Why are bears in better condition?

David: When Paul was kid almost no bears around; whenever a bear came near community, it made the news; because if there are more bears, they get skinnier – not enough food and they fight; haven't seen skinnier ones; I think and what I see is we used to wait until quota is increased, there are less bears and they are not attacking each other; the numbers will decline; not so much on the ice, more time on land; they tend to be fatter now; when people went caribou hunting hunters saw no caribou but polar bear tracks; they sometimes tend to stay in one place-someone cried about what is going to happen about to polar bears, it was a biologist, GB area always had polar bears – there are hardly any bears because they are on the land – we think if funding is

available they should research sooner to get increase in quota; when they do research bears are not scared of machinery and people; the bears are not scared of people anymore; some hunters are aware of changes on bears; I would like to see more IQ being used;

Salomon – GB is being researched, I have been to Churchill and saw somebody attacked from bear; bears come into the community, up to 200 bears *unclear the time frame that the 200 observations came from*,

Natalino – went over quota, we were not penalized, we are grateful and there are lots of bears around

Paul I.…talked about that the MOU is replaced by new plan; quotas were increased in BB; when a female is caught the quota is decreased, now it is 1 male or 1 female for any overharvest; the federal govt is not always in agreement with increase in quota but we have the reports from the government.

Reproduction slides – no questions

Survival slides – no questions

Growth – no slides

Abundance slides – no comments

Did not go over slides with boundary issues

Recommendations – slides

Denis – explains the process of how it works with TAH decisions and the role of NWMB; different ways of decisions and what info is used for decision making; says the GN position is to keep TAH same; Denis also explain or asks what is the risk the GN is willing to take with a new TAH decision

Paul I: the last TAH was changed in 2003 – no change in TAH since then, what is it what the communities want, The GN position is only a recommendation; send a request to NWMB, no problem if you do not agree with the recommendation right now

Natalino: chose a little increase in TAH because we have to kill bears or family group for different reasons; or the yearling is left behind when she is having another cub

Daniel-the other communities have not been communicating of what they want, and we can negotiate about the 74 bears; meet with other communities to increase quota, or talk to them

Jasmine – we are taking notes, we send them around to the communities so you can see what was discussed among the communities

Paul – we visited different communities, in Naujaat they hunt in GB, but Hall Beach does not really harvest there; have not heard from other communities

Salomon-if we make a request about GB we need to ask QWB for support, and what government are they talking about? The Federal government, American government…?; would they say no about request immediately?

Paul explains process about how the RWOs need to discuss and decide how to split up the TAH and allocate among the communities. With NTI their is the NIWS that can assist; with NWMB you go take the request and then to RWO;

Film sampling

End of meeting

ASSESSMENT OF ABUNDANCE FOR THE GULF OF BOOTHIA POLAR BEAR SUBPOPULATION USING GENETIC MARK-RECAPTURE

Final Report

12 June 2020

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1.A) EXECUTIVE SUMMARY – ENGLISH -

Polar bears (*Ursus maritimus*) are managed across Nunavut, Canada, under a quota system that seeks to ensure harvest is sustainable. In recent decades, climatic changes across the Arctic have altered polar bear habitat at unprecedented rates. To retain viable polar bear subpopulations as part of the ecosystem ensure continued availability of a subsistence resource for Inuit, scientific research and monitoring studies are conducted to evaluate subpopulation status and whether management objectives are being met. Here we report the results of a population study for polar bears inhabiting the Gulf of Boothia (GB) conducted 2015 – 2017. Current samples were collected using less-invasive genetic biopsy darting without immobilizing or physically handling bears. Our analyses included 2015 – 2017 biopsy sampling data, live-capture data collected under a designed study 1998 – 2000, live-capture data collected opportunistically 1976 – 1997, and harvest recovery data over the entire period 1976 – 2017. Results of live-capture dead-recovery models fitted in Program MARK suggest that a mean abundance estimate of 1525 (standard error [SE] = 294) for the period 2015 – 2017 was similar to mean abundance in 1998 – 2000 (1610 [SE = 266] in this study; 1592 [SE = 361] in Taylor et al. [2009]). Mean cub-of-the-year and yearling litter sizes for the period 2015 – 2017 were 1.61 (95% confidence interval [CI] = 1.51 – 1.70) and 1.53 (95% CI = 1.41 – 1.64), respectively, with no apparent trend compared to 1998 – 2000. The mean number of yearlings per adult female for the period 2015 – 2017 was 0.36 (95% CI = 0.26 – 0.47) which suggests that GB is currently a productive polar bear subpopulation, despite sea ice change. This is consistent with our finding that polar bear body condition (i.e., fatness) in the spring increased between the periods 1998 – 2000 and 2015 – 2017. We detected sex- and age-specific variation in total survival rate (i.e., including harvest mortality) with higher estimates for adult females (0.95; 95% CI = 0.81 – 0.99) than adult males (0.85; 95% CI = 0.74 – 0.92) for the period 2005 – 2017. A potentially related effect was detected as an increase in the proportional abundance of females from 0.57 in 1998 – 2000 to 0.61 in 2015 – 2017. The asymptotic, intrinsic population growth rate calculated using a matrix projection model with estimates of total survival was 0.06 (95% CI = -0.06 – 0.12) for the period 2005 – 2017, suggesting strong

potential for growth. However, our results for subpopulation size and trend should be interpreted with caution because our estimate of abundance reflects the "superpopulation" (e.g., it includes all bears that use the GB management area, some of which spend time in other subpopulations as well) and our estimate of population growth rate does not account for permanent emigration from the GB management area. Overall, our findings suggest that the demographic status of the GB subpopulation is currently healthy, although we recommend that lower estimates of total and un-harvested survival for male bears warrant further investigation. We hypothesize that spatial and temporal reductions in sea ice may have provided transient benefits to the GB subpopulation due to increased biological productivity. Climate change is the primary long-term threat to polar bears and the threshold beyond which the GB subpopulation could be negatively affected by continued ice loss, like some other polar bear subpopulations, is currently unknown. This study represents the second structured population assessment in 22 years for the GB subpopulation. Based on experience garnered through this study and analysis, we submit several recommendations for consideration when planning future polar bear population studies. We suggest collecting additional data at approximately the midpoint between planned subpopulation assessments. In this case, that equals approximately 5 – 7 years from the 2017 completion of field work. Additionally, while the recommendation for movement data is not new, it continues to be highly recommended for subpopulations with known exchanges of bears between areas. In the absence of satellite telemetry data on polar bear movements, conducting a meta-analysis to investigate exchange between GB and nearby subpopulations (i.e., Lancaster Sound, GB, and M'Clintock Channel) may help alleviate some of the uncertainty around individual subpopulation estimates for these areas. Finally, when time, resources, and management objectives warrant it, we recommend conducting a quantitative harvest risk assessment to inform sustainable harvest levels.

1.B) EXECUTIVE SUMMARY INUKTITUT

ᖃᐅᔨᓴᖅᓯᓂᖅ ᐅᓄᖅᓂᖏᓐᓄᑦ Gulf of Boothia–Γ ᓇᓄᓚᐅᐳᖅᑲᓐᓂᖅᑐᓄᑦ ᐊᑐᖅᑐᖅᖃᖅᑕᓂ ᑎᒥᖏᑎᑎᔪᑦ ᓇᓗᓇᐃᒃᑯᑎᖅᓯᓂᖅᒥᒃ–ᐱᒃᑲᓂᖅᓯᓂᖅᒥᒃ

ᐊᐅᓪᓚᑎᔨᓂᖅᑐᑦ ᓇᐃᓱᖅᓯᒪᔪᖅ

ᓇᓄᐃᑦ (*Ursus maritimus*) ᐊᐅᓪᓚᑎᕕᐅᕙᒃᓴᑦ ᓄᓇᕐᓂᒪᒥ, ᑲᓇᑕᒥ, ᖃᑦᕿᓯᕐᓗᓂᑎᑦ ᐊᑐᖅᑕᐅᕙᒃᑐᑎᔪᑦ ᖁᓕᖅᑐᒃᑯᑯᑦ ᓇᓗᓀᑎᓪᓚᐊᕈᒪᓂᑎᑦ ᑕᒪᐃᓇ ᐊᓐᔪᓂᓚᕆᐅᕙᒃᑐᖅ ᑲᔪᓯᐃᓇᕐᓇᒪᓐᓕᑦ. ᐊᓂᔦᔪᑦᑲᒃᑐᓂ ᖃᑯᓂ, ᓯᓚᐅᐸ ᐊᓯᔨᓂᓚᖏᑎᑦ ᐅᑭᐅᖅᑕᕐᓂᖅᑐᑦ ᐊᓯᔨᖅᑎᑎᓪᓚᕆᐊᓕᖅ ᓇᓄᐃᑦ ᐃᓂᑎᑦᑎᓐᓂᖅᑐᑦ, ᑕᒪᐃᓇᓗ ᓯᖅᑲᓕᓚᓕᕆᓪᓕᒡᓗᓂ. ᐱᓯᒪᔪᒪᓗᓂ ᑲᑎᒪᔨᖅᑕᐅᓂ ᐅᑭᐅᖅᑕᕐᓂᖅᑐᑦ ᐃᓕᓴᕐᓂᖅᑐᑦ ᐊᓯᔨᖅᑎᑎᓪᓚᕆᐊᓕᖅ ᓇᓄᐃᑦ ᐃᓂᓯᕐᓂᖅᑐᑦ, ᑕᒪᐃᓇᓗ ᓯᖅᑲᓕᓚᓕᕆᓪᓕᒡᓗᓂ ᐃᓕᓴᕐᓂᖅᑐᑦ ᐊᑐᖅᑕᐅᔪᓂᖅᑐᑦ ᐊᑐᖅᑕᐅᕙᒃᑐᑎᔪᑦ ᐃᓕᓴᕐᓂᖅᑐᑦ ᓇᓗᓀᑎᓪᓚᐊᕈᒪᓂᑎᑦ ᐊᑐᖅᑕᐅᕙᒃᑐᑎᔪᑦ ᓇᓄᐃᑦ ᐃᓂᓯᕐᓂᖅᑐᑦ ᐊᑐᖅᑕᐅᔪᓂᖅᑐᑦ ᐊᑐᖅᑕᐅᕙᒃᑐᑎᔪᑦ ᐊᑐᖅᑕᐅᕙᒃᑐᑎᔪᑦ ᐊᑐᖅᑕᐅᔪᓂᖅᑐ

ᓇᓄᕆᓪᒋᓚᑦᐅᐊᓪᓕᑦ ᐊᕆᕃᒍᒪᑦ ᐊᕆᕃᓂᓕᓴᐃᓐᓗ ᐊᖏᑎᑎᓂᖏᑦ 2015 – 2017–ᒪᑦ 1.61–ᖃᒧᑕᐅᖅᓴᑦ (95%–ᒥᒃ ᑕᕐᓂᒪᓚᐅᓂᖏᓐᓂᒃ [CI] = 1.51 – 1.70) ᐊᒪᓚᓗ 1.53 (95% CI 1.41– 1.64), ᑭᖓᑕᓱᓪᓗᑎᒃ, ᐅᓴᕆᓇᖅᑐᒥᒃ ᖃᓄᐃᑕᓂᕐᑕᐊᓂᑲᕆᓂ ᑕᑯᓪᓗᒍ 1998 – 2000. ᖃᑦᓴᐅᓂᓚᖏᑦᑕ ᐊᕆᕃᓂᓕᓴᐃᑦ ᐃᓐᓇᓪᓕᑦ ᐊᕆᓇᒪᑦ 2015 – 2017–ᒪᑦ 0.36–ᖃᒧᑕᐅᖅᓴᖅ (95% CI = 0.26 – 0.47) ᑕᒪᓐᓇᓗ ᐃᒪᐃᑎᕆᖃᖅᑯᓴᓪᓗᓂ, ᑕᓐᓇ GB ᐊᓐᓇ ᕿᑐᕐᖁᑎᐅᕆᕕᐅᓪᓗᓂ ᓇᓄᕆᓂ, ᓴᑯᖏᑦ ᐊᓴᓴᖃᓴᒪᓕᕆᓕᖅᑎᓪᓗᒍ. ᑕᒪᓐᓇ ᐊᓴᕆᖃᖅᓴᖅ ᖃᑎᖅᑕᐅᓂᓕᓴᐃᓐᓗᓂ (ᓴᓐᓗ, ᖃᑯᐃᓂᓂᖏᑦᑐ) ᐅᐱᕐᖏᓚᑯᑯᓂ ᐊᖏᑕᓕᑎᕆᐊᓕᐅᖅᓴᒪᕐᓂᖅ ᐅᑯᐃᓂ, 1998-2000–ᒥ ᐊᒪᓚᓗ 2015-2017-ᒥ. ᖃᑎᐅᓕᐅᖅᓴᒧᑦ ᑭᓴᓂᑕᑦᑐᖅ ᖃᑦᓴᓴᓚᓗ ᐊᕆᕃᒍᖃᕆᓂᖏᑦᑐᖅ–ᐱᓪᔪᑎᖃᑦᓗᐊᕈᖅᑐᒥᒃ ᐊᓐᓄᕐᖏᑦᑐᖅᓂᕆᒥᒃ ᐃᑎᑦ ᓇᓄᕐᓗᑎᒃ ᐅᒪᔪᓐᓇᓂᕐᖏᑦᑐᓂ (ᓴᓐᓗ ᐃᒪᐃᓇ, ᐃᓕᑎᓪᐅᓗᓂ ᐊᖓᔪᖅᐅᓴᒪᔪᑦ ᑐᑯᑎᑕᐅᔪᑦ) ᑯᑦᑎᖏᓂᖅᓴᒥᒃ ᖃᑦᓴᐅᓇᓴᖏᑦᑐᖅᓴᓂᓐᓗ ᐃᖏᑦᓇᓂᖅ ᐊᖓᔪᖅ (0.95;95% CI=0.81-0.99) ᐃᖏᓇᓂᑦ ᐊᖓᑎᓂᑦ (0.85;95% CI=0.74-0.92 ᐊᕆᕎᒍᖅ 2005-2017. ᐊᐅᑐᐊᓂᖃᑐᐃᖏᓇᓕᓕᒥᒃ ᖃᓄᐃᑕᓚᓕᓂᓂᕆᒥᒃ ᖃᓄᐅᓴᐅᔪᑦᖃᓕᐅᖅᓴᖅ ᐅᓇᖅᓴᓕᐅᔪᓂᑦᑕᓂᓗ ᖃᑦᓴᐅᓂᓚᖏᑦᑐᓂᓇᓂ ᐊᕆᓇᖅ 0.57–ᒥᑦ 1998–2000-ᒥ 0.61–ᒪᑦ 2015–2017–ᒥ. ᖃᑦᓴᐅᓂᖏᑦᑐᓇᓂ ᐅᓇᖅᓴᐅᓕᑦᓭᐊᓂᖏᑦ ᖃᑦᓴᐅᓇᓴᕆᕕᐅᓂᖏᑦ ᐊᑐᖅᑐᖃᖅᓂᐊᓂᑕ matrix ᖃᓄᐅᑎᓄᖅᓴᑕᓂ ᐊᑐᖅᑕᐅᓇᕐᖃᑐᖅᑐᒥᒃ ᖃᑦᓴᐅᓇᓴᕆᕕᐅᓂᖏᑦᑐᖅᓴᑕᓂ ᑲᑎᑦᑎᓐᓂᑦ ᐅᒪᔪᓐᓇᓂᕐᖏᑦ 0.06-ᖃᒧᑕᐅᖅᓴᖅ (95% CI = 0.06 - 0.12) 2005-2007–ᒪᑦ, ᐃᒪᐃᑎᕆᑎᓄᑦᑐᓂᓗᑎᒃ ᓴᓐᖏᕐᓂᒥᒃ ᐊᓕᖏᑦᑐᓂᖅᑎᑦᓇᓂᕐᖏᓄᖅᓴᖅᓄᑦ ᐱᑦᓄᕐᕆᓪᓕᐊᓂᖅᑐᒥᒃ. ᑭᓴᐊᓂᓗᓪᓕᐅᖅ, ᖃᓄᖅᖁᑦ ᖃᑦᓴᐅᓂᖏᑦᑐᓂᓕᕆᓂᖏᑦ ᐅᓄᖅᓴᐅᓂᓕᕆᓂᖏᑦᑐᓂᓗ ᐅᑭᖅᑯᓂᖅᑐᐊᓂᓕᕆᓂᖏᑦᑐᓂᓗ ᐃᒪᐃᑐᓂᓄᑦ, ᖃᑦᓴᐅᓇᓴᕆᕕᐅᓂᖏᑦᑐᓂᖅᑎᑦᓇᓂᕐᖏᓄᖅᓴᖅ ᐅᓄᖅᓴᐅᓂᓚᖏᑦᑐᓂᓗ "ᐅᓄᖅᓴᐊᓂᓂᖏᑦᑐᓄᑦ" (ᓴᓐᓗ ᐃᒪᐃᑎᓗ, ᑕᒪᐃᑎᓗ ᐃᓕᖅᓴᖅᑐᖅᓴᖅ ᐊᑐᖅᑕᐅᓂᖅᓴᖅᑐᒥᒃ GB-ᒥᒃ ᐃᓂᒥᒃ ᐊᐅᓕᕆᑎᕃᐅᔪᒥᒃ, ᐃᓕᓐᓂᓗ ᐊᓴᒥᓂᕐᑕᐅᖅ ᐅᓇᓂᖅᑎᑎᕆᓂᓴᓂᖅᑐᖅᑐᖅ ᐅᓄᖅᓴᐅᓂᓚᖏᑦᑐᓂᓗ ᐃᓕᓐᓂᓗ ᐊᓴᒥᓂᕐᑕᐅᖅ) ᖃᑦᓴᐅᓇᓴᕆᕕᐅᓂᖏᑦᑐᓂᓗ ᖃᑦᓴᐅᓂᓚᖏᑦᑐᓂᓕᕆᓂᖏᑦᑐᓂᓗ ᐃᓕᑎᖏᓐᓄᑦᑐᖅ ᐊᓴᐊᓇᐊᕆᔨᓂᖏᑦᑐᖅ ᑕᐃᑲᓂᖏᓕᖅ ᐊᓴᐊᓇᐊᕆᔨᓂᖏᑦᑐᖅ ᑕᐃᑲᓂᖏᓕᖅᑐᒥᒃ GB–ᒥᑦ ᐊᐅᓕᕆᑎᓂᒪᑦ ᐃᓂᒥᒃ. ᐊᑕᓂᑦᓕᓪᓗᓂ, ᖃᑦᓴᐅᓇᓴᕆᕕᐅᓂᖏᑦᑐᓂᓗ ᑕᓯᐅᑎᑎᖏᓐᓄᑦᑐᓂᓗ ᓇᓂᐅᓂᖏᑦᑐᓂᓗ ᖃᑦᓴᐅᓂᓚᖏᑦᑐᓂᓕᕆᓂᖏᑦᑐᓂᓗ GB–ᒥᑦ ᓇᓂᐅᓂᖏᑦᑐᓂᓗ ᐃᓕᑎᖏᓐᓄᑦᑐᖅ ᐃᓐᓇᓪᓕᑦ ᐃᓐᓇᖅᑐᖅᓴᖅᑐᒥᒃ

ᖃᐅᔨᓴᖅᑕᐅᖅᑲᓐᓂᕐᓂᐅᕐᓂᖅᐸᑦᑐᑦᑎᓐᓄᑦ. ᐃᒪᓐᓇᐅᓇᓂᓐᓴᐅᔪᑦ, ᐃᓕᒥᓂ ᓇᓱᓐᓂᖏᓐᓄᓐᔪᑦ ᑎᑭᓚᒋᐊᖅᑐᖅ ᑐᐊᖏᑦ ᐱᑎᕆᑐᐃᓐᓇᕆᐊᖃᖅᖢᓂᕐᓄᑦ ᓄᓐᓂᒃ ᐱᖓᓱᓕᕆᔨᑦ GB-ᒥ ᓇᓄᕆᐅᐅᖅᑲᓄᑦ ᑕᐃᒪᐃᓱᐊᑎᖅᖢᓂᕐᒪᑎᒃ ᓄᓇᒥᐅᑕᐅᓂᕐᓂᒃ ᐅᓄᖅᓯᖏᓪᓕᐊᓂᖅᓯᒪᓕᐅᖅᓂᓄᑦ. ᓯᒡᒐᐅᑦ ᐊᓯᐅᖅᑕᑦᓚᐊᓂᖅᓴᓐ ᐱᑦᑐᐊᑕᐅᖅᓄᑦ ᐊᐅᖅᓯᒪᓂᖅ ᐊᑐᖅᑕᐅᓚᕐᖓᑦᑐᑎᒃ ᑎᑯᓂᖅᓴᖅᑎᓕᖅᑐᑦᑐᓂᒃ ᑕᒪᐃᓐᓇ GB-ᒥ ᓇᓄᕆᐅᐅᖅᑲᓄᑦ ᐱᐅᖅᓯᑐᓂᒃᑯᑦ ᐊᑐᖅᑕᐅᓚᕐᖓᑦᑐᓂᒃ ᑲᔪᓯᖅᑐᓂᒃᑯᑦ ᑐᖓᖅ ᓄᖖᑦᑕᑦᓚᐊᓂᕐᓂᖅᓴᖅᑐᓂᒃ ᐃᓕᓴᕆᔨᑦᑕᐅᓂᕐᓂᒃ ᐊᐅᓚᓂᖅᑐᓂᒃ ᑲᑎᕋᐅᖅᑐᓂᒃ ᑐᓴᕐᓂᖅᑐᓂᒃ ᐃᓕᓴᕆᔨᑦᑕᐅᓂᕐᓂᒃ ᐱᖓᓱᓕᕆᔨᑦ ᑲᑎᒪᔨᖅᑎᑦᑎᓂᒃ 22-ᓂ ᐊᖏᖅᔪᓂ GB-ᒥ ᓇᓄᕆᐅᐅᖅᑲᓄᑦ. ᑐᙵᓚᐅᑦᓗᔪ ᐱᓕᕆᑲᑦᑕᖅᓯᒪᓂᖅ ᐱᔨᐅᐊᖅ ᑕᙳᐅᓇ ᖃᐅᔨᓇᓯᓂᒃᑯᑦ ᖃᐅᔨᓴᖏᓂᒃᑯᑦᓗ, ᑐᓂᓗᐅᑦ ᖃᐅᔨᓴᒃᑎᓪᓗᒍ ᖃᐅᔨᓴᖅᓯᒪᓂᖅᓂᒃ ᐃᓯᒪᓂᕆᔨᑦᑕᐅᓂᕐᓂᖅᓴᖅᑐᓂᒃ ᐱᙵᓚᕐᓂᖅᑐᓂᒃ ᐊᐅᓚᓂᖅᑐᓂᒃ ᐃᓯᒪᓂᕆᔨᑦᑕᐅᓂᕐᓂᖅᓴᖅᑐᓂᒃ ᐱᓕᕆᔨᑦᑕᐅᓂᕐᓂᖅᓴᖅᑐᓂᒃ ᐊᙵᑲᓴᖅᑐᑦᑕᐅᓂᕐᓂᖅᓴᖅᑐᓂᒃ ᐃᓯᒪᓂᕆᔨᑦᑕᐅᓂᕐᓂᖅᓴᖅᑐᓂᒃ ᐱᓕᕆᔨ

1.C) EXECUTIVE SUMMARY INNUINAQTUN

Naunaiyaqni Amigaitpiaqni tapkuat Tariunga Boothia Nannut amigaitni llangi Atuqtauyut Aqnallut Anguhallut Titiqni-Angutqiktauyut

Aulapkaiyini Naittuq

Nannut (*Ursus maritimus*) aulatauyut humiliqak Nunavut, Kanata, atuqhugit haviktakhat havagutai pinahuat atuqpiaqni angutauyut ihuaqhihimanit. Taimaa 10nik ukiunik, hilaup aadlangurninnga tamainni Ukiuqtaqtumi aadlanguqtitait nanuit nayugangit aadlatqiiktumik nampanik. Pitariangi naamaktumik nannut amigaitni ilangi ilaunit tapkununga uumatyutit atuqpiaqni piyaunginnalaqnit niqikhanut piqaqnit tahapkununga Inuit, naunaiyainiq naunaiyaut munarinilu naunaiyautit havariyauyut naunairiangi amigaitni ilangi qanuritni aulatauninutlu ihumagini piyakhai. Hamani tuhaqhitautivut tapkuat qanuritni amigaitni naunaiyaut tapkununga nannut nayuqpaktat Tariunga Boothia (GB) havariyauyuq 2015-2017. Nutaat uuktuutingit katitiqtauyut aturhutik mikitqiamik-pittailiniq ihariagiyainnik niqinginnik piiyaqtauniq kapuqtauyut nutqaqtihimaittumik akhuraalukluuniit pilugit nanuit. Qauyihainivut ilalik 2015-2017 uumatyutit naunaiyautit tuhagakhat, uumatitlugit-tiguyauni tuhagakhat katitiqni atuqhugit hanatyuhikhat naunaiyaqni 1998-2000, uumatitlugit-tiguyauni tuhagakhat katitauni pilalirangata 1976-1997, angutauyutlu utiqtitni tuhagakhat tamaitnut pivigiyaini 1976-2017. Qanuritni uumatitlugit-tiguyaunituqungayut-utiqtitni pityuhit ihuaqhihimayut tapkunani Havagut MARK piniraqtai anginiqhamik amigaitni mikhautni tapkuat 1525 (atuqpakni ulamniqni [SE] = 294) pivigiyanut 2015-2017 ayyikkutapyagiya anginiqpaq amigaitni talvani 1998-2000 (1610 [SE = 266] uumani naunaiyaut; 1592 [SE = 361] talvani Taylor et al. [2009]). Anginiqpaq piarait-ukiumun tapkuatlu ukiulgit piarait aktilangi pivigiyanut 2015-2017 tapkuanguyut 1.61 (95% nalungitninut akunit [CI] = 1.51-1.70) tamnalu1.53 (95% CI = 1.41-1.64), tuklirinut, pitquhiqaqungitnit hutqikni tapkuat 1998-2000. Tamna anginiqpaq qaphiuni ukiulgit atuni iniqnit aqnallut pivigiyanut 2015-2017 tamnauyuq 0.36 (95% CI = 0.26-0.47) tapkuat piniraqtai tamna Tariunga

Boothia tatya piruttiaqtut nannut amigaitni ilangi, pigaluaqtitlugu tariup hikua allanguqnia. Una malikhaqmiya naunaiqtavut tapkuat nannut timingi qanuritni (naunaipkutariplugu, uqhuqaqnit) upingami ilagiaqtut akungani pivigiyai 1998-2000 tamnalu 2015-2017. Naunaiqtavut aqnallut anguhallut- ukiungilu-tainit allatqit katitlugit annaumani aktilat (naunaipkutariplugu, ilautitlugit angutat tuqutaunit) puqtutqiyautitlugit mikhautni iniqnit aqnallut (0.95; 95% CI = 0.81-0.99) tapkunangaunganit iniqnit anguhallut (0.85; 95% CI = 0.74-0.92) pivigiyanut 2005-2017. Atulaq turangayuq aktuania naunaiqtauyuq ilagiaqni avikhimaninut amigaitni qnallut talvanga 0.57 talvani 1998-2000 tikitlugu 0.61 talvani 2015-2017. Tamna ayyikkiquqni, taittiaqni amigaitni aglivaliani aktilat kititni atuqhugit kitityutit pinahuginit uuktut mikhauttaqnigut katitlugit annaktut tamnauyuq 0.06 (95% CI = -0.06-0.12) pivigiyanut 2005-2017, piniraqhugit akhut aglivalialaqni. Kihimik, qanuritnivut amigaitni ilangi aktilat pitquhitlu tukiliuqtakhat munarilugit piplugu mikhautnivut amigaitninut pihimani tapkuat “amigaitniqpanguni” (naunaipkutariplugu, ilalgit tamaita nannut atuqtat Tariunga Boothia aulatauvia inaa, ilangi nayuqtat ahii amigaitni ilangiluttauq) mikhautavutlu amigaitni aglivaliani aktilat piyaungittut ahiningartaqnit taphumanga Tariunga Boothia aulatauvia inaa. Tamaitnut, nalvaqtavut piniraiyut tapkuat amigaitni qanuritnit taphuma Tariunga Boothia amigaitni ilangi tatya nakuuyut, pinahuaquigaluaqhuta pukkitqiyat mikhautnit katitninut angutaungittutlu annaumani anguhalluit nannut naunaiyatqikharialgit. Pinahugiyavut tapkuat akuttuni mikhivallilaknilu tariup hikua piqarutaulat nuktiraqninut ikayuqtat tamna Tariunga Boothia amihuni ilangi piplugu ilagiaqni uumatyutit piaraniktaqni. Hilap allanguqnia tamna pityutauniqhaq hivituyumun hivuranauta nannut nayuqpaknitlu avataanut Tariunga Boothia amigaitni ilangi ihuittumik aktualaqni hikuiqpalianginnaqat, taimattauq ilai nannut amigaitni ilangi, tatya naunaqmata. Una naunaiyaut kivgaqtuta aipanik hanatyuhit amigaitni naunaiyaqni tapkunani 22 ukiut tahamunga Tariunga Boothia amigaiti ilangi. Piplugit atuqhimani piyauyut atuqhugu una naunaiyaut qauyihaqnitlu, tuniyavut qaphit aturahuaquni ihumagiyauyukhat parnaiyaititlugit hivunikhami nannut amigaitni naunaiyautit. Aturahuaquyavut katitiqni ilagiarutit tuhagakhat mikhaani qitqani akungani parnakhimayat amigaitni ilangi naunaiyaqni. Uumani piplugu, tamna piya mikhaani 5-7 ukiut talvanga 2017 iniqtauni maniqami havat. Ilagiaqhugu, pigaluaqtitlugit aturahuaquni nuktiraqnit tuhagakhat nutaungittut, huli

pinahuaquyauqpiaqtuq tapkununga amigaitni ilangi ilihimayqnut himmiqtautai nannut akungani inait. Piqangititlugu qangattaqhimayunik takukhautitni tuhagakhat nannut nuktiraqnit, havarinia angiyumik-qauyihaqni naunaiyautit himmiqtautai akungani Tariunga Boothia hanianilu amigaitni ilangi (naunaipkutariplugu, Lancaster Hanikgakhik, Tariunga Boothia, tamnalu M’Clintock Kangikhuakyuk) ikayulat naunairutai ilai naunaqtut piplugu ilikkut amigaitni ilangi tahapkuat inait. Kingulliqpamik, pikpat pivikhait, piqaqni, aulataunilu ihumagiyauyut piyaqaliqturini, aturahuaquyavut havarini amigaitninut angutat hivuranaqni naunaiyaqni tuhaqhittangi ihuaqhihimani angutat puqtunit.

2. INTRODUCTION

Wildlife managers face complex decisions when seeking to balance conservation and human priorities. Decisions and outcomes must be evaluated periodically so that new information can be fed back into an adaptive management framework (Holling 1978, Lancia et al. 1996, Johnson 1999). Accurate and up-to-date estimates of population abundance are often a key component of informed management decisions (Nichols and Williams 2006). Typically, new estimates of abundance are acquired periodically according to a monitoring interval that is determined by management objectives, resource availability, and species' biology (Gibbs 2008). As climatic changes affect many areas around the globe, shortened monitoring intervals may be required to understand the concurrent effects of management interventions and environmental change. Broadly, more frequent monitoring can increase the probability of meeting management objectives and reduce the severity of potential negative outcomes resulting from mis-specified management interventions (Taylor et al. 2007, Regehr et al. 2017).

One species that has received significant monitoring attention is the polar bear (*Ursus maritimus* Phipps 1774). Polar bears are characterized by having delayed maturation, small litter sizes, and high adult survival rates (Bunnell and Tait 1981). They are apex predators and as such bioaccumulate environmental contaminants (e.g., Derocher et al. 2003, Fisk et al. 2009, McKinney et al. 2009, 2011, Letcher et al. 2010, Routti et al. 2019). As a circumpolar species that depends on the sea ice for hunting, travel, mating, and in some instances denning (Amstrup 2003), sea ice loss resulting from climate change is predicted to impact polar bear subpopulations severely (Derocher et al. 2004, Stirling and Parkinson 2006, Amstrup et al. 2008, Durner et al. 2009, Stirling and Derocher 2012, Atwood et al. 2016, Regehr et al. 2016). The global polar bear population, consisting of 19 subpopulation units, is estimated to be approximately 26,000 polar bears (Obbard et al. 2010, Wiig et al. 2015). Currently there is no empirical evidence for declines in global abundance due to sea-ice loss (Regehr et al. 2016). However, some subpopulations have exhibited negative effects resulting from

climate change (e.g., Bromaghin et al. 2015, Lunn et al. 2016) and accurate assessment of global changes is complicated by poor data for many polar bear subpopulations (Durner et al. 2018, Hamilton and Derocher 2018), spatial and temporal variation in the effects of sea-ice loss (Rode et al. 2014), and the fact that some subpopulations have likely recovered in recent decades from overexploitation prior to the 1973 Agreement on the Conservation of Polar Bears (Honderich 1991, Larsen and Stirling 2009).

Despite the on-going research and monitoring efforts, reliable and updated abundance and demographic information about all subpopulations is still lacking (Obbard et al. 2010, Vongraven et al. 2012). Polar bear research is expensive and logistically challenging, especially for management jurisdictions that oversee multiple subpopulations. Nunavut, Canada, is home to 12 subpopulations (8 shared with other jurisdictions, 4 entirely within Nunavut; Obbard et al. 2010) and as such carries the major responsibility of polar bear research in Canada. In order to maintain healthy and viable polar bear subpopulations, population studies in Nunavut are carried out on average within a 10 - 15-year rotational cycle, which can vary depending on research needs, priorities, and available resource (Hamilton and Derocher 2018). Here we present findings from a 2015 - 2017 study to estimate abundance and evaluate the demographic status of the Gulf of Boothia (GB) polar bear subpopulation.

Gulf of Boothia (GB) is a relatively small polar bear subpopulation area that is entirely managed by Nunavut (Fig. 1). An initial physical mark-recapture study was carried out from 1973 - 78 for the M'Clintock Channel (MC) and the adjacent GB subpopulations, although at the time it did not identify these as separate management units. The total abundance estimate for both areas was 1081 bears (Furnell and Schweinsburg 1984, Urquhart and Schweinsburg 1984). The estimate was known to be biased by non-representative sampling and was subsequently increased to 900 for GB and 900 for MC (Furnell and Schweinsburg 1984, Aars et al. 2006) based on the fact that the entire area was sampled, and the knowledge of Inuit local hunters about polar bear abundance in the broader study area (Derocher et al. 1998, Aars et al. 2006).

The GB and MC subpopulations were later delineated based on movements of satellite radio-collared adult female bears, recoveries of research tags in the harvest (Taylor and Lee 1995, Taylor et al. 2001), Inuit knowledge about how local conditions may influence the movements of polar bears (Keith et al. 2005), and genetic analyses (Paetkau et al. 1999, Campagna et al. 2013, Malenfant et al. 2016).

Prior to this study, the most recent population inventory work for GB was completed in 2000, where abundance (mean ± SE) was estimated to be 1592 ± 361 polar bears (Taylor et al., 2009). Based on those results, the population was considered stable or very likely increasing during the early 2000s due to a high intrinsic growth rate and relative low harvest levels (Taylor et al. 1987, 2009, Durner et al. 2018). However, harvest rates for GB increased from an average of 40 bears per year (with a Total Allowable Harvest [TAH] of 41) as reported by Taylor et al. (2009), to 62 bears per year (22 females and 40 males on average annually with a TAH of 74 starting in 2004/2005; Government of Nunavut (GN), unpublished data), between 2005 and 2017 (GN, unpublished data). How this change in harvest may have affected the GB subpopulation abundance and status is unclear.

Polar bears in Nunavut are managed through a co-management system and memoranda of understanding (MOU) between each community's Hunters and Trappers Association and the territorial government[1]. These MOUs lay out harvest, management and research aspects for each polar bear subpopulation. Under the existing 2005 MOU, the GN committed to begin a new population study for GB in 2015. The new study had the objective to estimate the current subpopulation size and composition, and to compare these results to the former study. In addition, we sought to obtain data that would provide estimates on survival and reproductive parameters that can be used in population viability analyses and a quantitative harvest risk assessment. Lastly, by implementing a research method that was minimally-invasive and supported by local communities and stakeholders, we sought to evaluate whether genetic mark-recapture

[1] As of September 2019 the Nunavut Polar Bear Co-Management Plan is replacing the Memoranda of Understanding.

can be compared with traditional capture mark recapture studies previously done in GB in order to establish longer term trends for population monitoring (Vongraven and Peacock 2011, Vongraven et al. 2012).

3. STUDY AREA

The GB polar bear subpopulation lies entirely within Nunavut and encompasses an area of approximately 67 000 km^2 (excluding land; Taylor et al. 2001, 2009, Barber and Iacozza 2004, Hamilton and Derocher 2018; Fig. 1). The management unit is bound by the Boothia Peninsula to the west, and Brodeur Peninsula to the east. The geography of the study area is described in Schweinsburg et al. (1981). The current management boundary is mainly based on telemetry data for adult female bears that were fitted with radio-collars, tag returns from harvested bears (Schweinsburg et al. 1982, Bethke et al. 1996, Taylor et al. 2001), and genetic analyses (Campagna et al. 2013, Malenfant et al. 2016). Validity of the current boundary has been questioned by Inuit local knowledge (Keith et al. 2005).

Sea ice generally begins to form in early October and persists until July or August in most areas of GB (Schweinsburg et al. 1981). The most southerly area of GB, namely Committee Bay, remains mostly ice-covered throughout the year (Barber and Iacozza 2004). The presence of various ice types such as mobile, multi-year rubble, and first-year ice creates diverse seal habitat across GB (Barber and Iacozza 2004). Recent sea ice and climate data analyses indicate that the Arctic sea ice quality and abundance has changed during the past 30 years and that in most polar bear subpopulations, the sea ice melts sooner and forms later than in the 1980s (Stroeve et al. 2012, Stern and Laidre 2016, Regehr et al. 2016, Environment and Climate Change Canada 2019). Currently, sea ice persists across GB to various degrees throughout the year, but it is predicted that GB may be ice-free for 5 months each year by the late 21st century (Hamilton et al. 2014).

4. METHODS

Sampling – field collections

Our 2015 - 2017 study design was informed by the previous physical mark-recapture study conducted in GB 1998 - 2000 (Taylor et al. 2009; Fig. 2), although our study did not involve the immobilization and physical handling of bears. Inuit co-management partners in Nunavut expressed concern over wildlife capture and handling during a wildlife symposium in 2009 (Lunn et al. 2010, Department of Environment 2013). As a result, the responsible government management agency explored alternative research methods. Given the generally low densities of bears on the sea ice and the vast study area, genetic mark-recapture was selected since it is minimally invasive (Garshelis 2006) and has been successfully applied on various species, including bears (Brown et al. 1991 (right whales [*Eubalaena glacialis*]), Palsbøll et al. 1997 (humpback whales (*Megaptera novaeangliae*)), Boulanger et al. 2004, Olson 2009 (brown bear (*U. arctos*)), Pagano et al. 2014, SWG 2016 (polar bear)). From 2015 - 2017, our biopsy darting sampling sessions occurred between April to late-May each year where we searched the sea ice and near-shore areas for bears across the entire study area. We allocated approximately 100 hours of helicopter time for each field season to search for bears. We obtained genetic material for individual bears from a small sample of skin and hair collected via a remote biopsy dart (Pneudart Type C - Polar Bear) fired from a dart gun (Capchur Model 196) from inside a Bell 206 Long Ranger helicopter (Pagano et al. 2014). The extracted DNA was used to identify individual animals without the need for ear-tagging or lip-tattooing, which are typical methods for individual identification during live-capture studies (see section “Genetic analyses”). Recaptures occurred when a previously sampled bear was biopsy-darted on a later occasion or when a genetic sample was recovered through the Nunavut polar bear harvest-monitoring program. Every hunter in Nunavut is required to submit samples from each polar bear harvest so that age, gender and various other variables can be used in ecological and demographic assessments (Nunavut Wildlife Act, SNu 2003).

Search areas were initially discussed with hunters and local Hunters' and Trappers' Associations during pre-study consultations to gain insight about sea-ice conditions and bear distribution. We also took past capture locations (Taylor et al. 2009) into account when searching the sea ice, adjacent coastal areas, and small islands of our study area (Figs. 2b and 3).

Searches for bears were conducted at approximately 100 - 120 m above sea level, and at average speeds between 120 - 150 km per hour. To minimize potential sampling bias, and to allow replication of this study, we used a semi-structured sampling approach. Generally, we flew transect lines across the sea ice and small islands with search intensity proportional to apparent bear activity (or bear presence). When signs of bears (e.g., tracks, bears, seal kills) were rare or plentiful, search transect lines reflected that with further (i.e., 11 - 16 km) or nearer spacing (i.e., 7 - 10 km), respectively. In that fashion, we were able to cover large sections of the study area efficiently (Fig. 3). We decided to fly our survey transects from east to west and vice versa whenever possible, and to be perpendicular to suspected density gradients based on local knowledge, past capture and hunter-provided harvest locations.

Once we located a bear, a small sample of tissue (<5 mm diameter), mostly skin with some adipose tissue attached to it (Pagano et al. 2014), was taken using a biopsy dart. All bears except cubs-of-the-year (C0s) were darted in the rump area from an approximate distance (or altitude) of 3 - 7 m. C0s in early spring are still small and easily confused (Atkinson and Ramsay 1995, Robbins et al. 2012), and therefore were not darted to avoid possible injury and the splitting-up of family groups. Every bear that was biopsied received a unique field identification number so that the genetic results and our field data could be cross-referenced and linked.

The biopsy darts are designed to fall to the ground after impact and can be retrieved without handling a bear. The effectiveness of these darts for sampling polar bears has been previously demonstrated (Pagano et al. 2014, GN, unpublished data and reports, SWG 2016). The darts are quick and easy to use and require less pursuit

of bears than live-capture operations. On average, it took less than 4 minutes from when a bear was initially spotted to the time when the dart was picked up after darting a bear (GN, unpublished data). The design and relatively low velocity of the dart means that risk of injury to a bear is minimal. Typically, bears show no or very little response to the impact of the dart and are left with no obvious visible mark. In order to facilitate easy spotting of darts on the ice or in deeper snow, a 10 - 15 cm long and ~2 cm wide strip of brightly colored flagging tape (C.H. Hanson, Naperville, IL; or Johnson, Montreal, PQ) was tied and wrapped around the distal end of the dart.

In addition to collecting the biopsy sample, we recorded the date, time and location of each observed bear (or group of bears), body condition based on visual assessment using a standardized fat index (e.g., Stirling et al. 2008; a scale from 1 - 5 with 1 being skinny, 3 average and 5 obese), specific markings or characteristics, group size or litter size, the estimated field age class (e.g., C0, yearling (C1), 2-year old, subadult [approx. 2 - 4 years], adult [approx. ≥ 5 years]) and estimated gender. Both field age-class and gender estimated included a confidence qualifier (i.e., a = high confidence; b = low confidence). Field age-class and gender throughout this project were assessed remotely from the helicopter at altitudes between 3 - 7 m by four experienced observers. When we encountered mothers and their dependent young, we distinguished C0s, C1s, and 2-year old offspring based on their size relative to their mother and physical features (e.g., blood or fecal/urine stains, scars) to a) assign them to a field age class, and b) avoid sampling the same individual more than once. Additional cues such as body size of the individual bear in relation to its surrounding or group members, body shape and proportions, presence of scars, secondary sexual characteristics, observation of urination, and gait were all used to estimate gender and age-class. Genetic microsatellite analysis was used later to confirm the gender of each sampled bear (see section Genetic analysis).

When field age class and gender of a bear were initially assessed with low confidence, additional field notes were taken. For example, young subadult male bears and younger adult females are at times difficult to discern from the air when they are

solitary. If we thought that the encountered bear was a young adult female, but were uncertain (e.g., confidence classifier “b”) then we also noted what this bear could be as alternative – in this case “maybe a young subadult male”. When genetics confirmed the field estimate of sex, we assessed the identity of the bear as recorded initially. If the genetics returned a different sex, we reviewed our notes and concluded that the bear, in this example, must have been a young subadult male. Lastly, we recorded factors that may have influenced detection probability during sightings, including weather conditions (e.g., cloudy, clear, sun glare), bear activity when first observed, and sea-ice characteristics in general and within the immediate vicinity (~ 30 m) of an individual bear that may affect detection (e.g., sea ice type: flat, intermediate, rough multi-year ice).

Our work combined data collected during the genetic biopsy sampling sessions from 2015 - 2017, data from the previous capture-mark-recapture study conducted between 1998 - 2000, sporadic live-captures conducted from 1976 - 1997, and harvest recovery data for the entire period 1976 - 2017 (Peacock et al. 2012).

Sampling – recovering previously marked bears through harvest

To detect the recovery of previously individually identified bears (e.g., when bears were marked either during the initial mark-recapture study from 1998 - 2000, or from a previous biopsy-darting field season) by hunters, small muscle tissue samples were collected from all bears harvested in GB and surrounding subpopulations such as MC, Lancaster Sound (LS) and Foxe Basin (FB) throughout the duration of the current biopsy darting study (i.e., April 2015 - May 2017). Polar bear harvesting occurs throughout the year and these samples were stored in 2 ml cryovials (ThermoScientific, Nalgene long-term storage cryogenic tubes) at - 20˚C after submission to our laboratory until sample preparation and analyses.

Sampling - recovered bears from past population study

We examined captures and recaptures from the 1998 - 2000 population inventory, removed bears that we knew were dead (e.g., through a recovered ear tag or tattoo by harvest) and selected the remaining individuals that could be still alive (e.g., ≤ 34 years of age) in 2015 for genetic analyses. Samples (e.g., ear plugs from punching a hole through the pinna so that unique identification ear tags can be applied) of captured and re-captured bears from the initial study had been stored in cryovials at - 20˚C until preparation for genetic analyses.

Sample preparations

We used the same method to prepare all field and laboratory tissues or biopsy samples. Briefly, a lentil-size piece of skin (~ 1 - 1.5 mm thick) or tissue was obtained from either the biopsy sample, the ear plug, or the muscle tissue using a scalpel blade (# 20) then transferred onto a shipping card (Avery, 70 x 35 mm) and attached with scotch tape. Each sample card was labelled with the unique bear identification number, placed into a coin envelope (57 x 89 mm), and left to dry at room temperature for up to 3 days. The dried specimens where then sent to Wildlife Genetics International Inc. (Nelson, British Columbia) for individual genotyping and sex determination.

Genetic analysis

DNA was extracted from tissue with QIAGEN DNeasy Blood and Tissue Kits (Qiagen, Inc.). The tissue samples were genotyped at eight previously published dinucleotide microsatellite loci (REN145P07, CXX20, MU50, G10B, G10P, G10X, MU59, G10H; Paetkau and Strobeck 1994, Paetkau et al. 1995, 1998, Taberlet et al. 1997, Breen et al. 2001, Ostrander et al. 1993). Analysis of individual identity followed a 3-phase protocol previously validated for bears and described elsewhere (Paetkau 2003, Kendall et al. 2009).

To select markers for the analysis of individual identity, we used allele frequency data from approximately 1700 polar bears for which complete 20-locus genotypes existed before the genetic mark-recapture study began (GN, unpublished data). We ranked the 20 microsatellite markers in the dataset by expected heterozygosity. The eight most variable markers that could be analyzed together in a single sequencer lane were selected for use. These surpassed the required standard for marker variability (Paetkau 2003). In addition to the eight microsatellite markers, we analyzed sex, using a *ZFX*/*ZFY* marker. We searched the dataset for genotype matches that seemed unlikely based on our field data. In each case, three extra markers were added to the genotypes to lower the probability of chance matches between individuals. The extra loci confirmed these matches. Once the genotyping and error-checking was complete, we defined an individual for each unique eight locus genotype.

Sea-ice metrics

Other population studies have identified relationships between the spatial and temporal availability of sea ice and demographic parameters for polar bears (Regehr et al. 2007, Rode et al. 2012, Laidre et al. 2020). March and September mean ice concentrations were calculated for the entire GB area for each day sea-ice data were available and then averaged across 1979 - 2016 (Environment and Climate Change Canada 2018). We calculated the number of days between the sea ice retreat and sea ice advance in calendar year *t* using the transition dates when ice concentration dropped below, and exceeded, respectively, the midway point of sea ice concentration between the March and September mean (Environment and Climate Change Canada 2018). For the GB area, this transition sea-ice concentration was 63% (Environment and Climate Change Canada 2018). We describe the annual interval that sea-ice concentration was below the transition threshold as the “low-ice days” (Fig. 4). To evaluate the potential relationships between sea ice and the status of GB polar bears, we analyzed several metrics (e.g., body condition, recruitment, and survival) of bears in year *t* as a function of the duration of low-ice days in year *t*-1.

Body Condition Score

We compiled body condition score (BCS) data from two distinct time periods of mark-recapture population sampling in GB. Bears were assigned a BCS on a scale of 1 - 5 with 1 being skinny and 5 being obese (Stirling et al. 2008) through physical handling and capture (1998 - 2000) or aerial observation during biopsy sampling (2015 - 2017). All BCS observations occurred in April and May. Sex, age, and reproductive classes were assigned during physical handing during 1998 - 2000 and ages were determined based on previous capture history, known birth year, or from tooth analysis (Calvert and Ramsay 1998). During the biopsy sampling period, classification was done at approximately 3 - 7 m above the ground with sex verified by subsequent genetic analysis (SWG 2016). Observers who participated in classifying age class and sex during biopsy sampling had either participated in both sampling periods or were experienced in physical capture-mark-recapture studies.

The BCS raw scores were binned into 3 classes: ‘poor’ (1 - 2), ‘average’ (3), and ‘good’ (4 - 5) to follow recommended monitoring schemes (Stirling et al. 2008, Vongraven et al. 2012) and facilitate comparison with other studies (SWG 2016, Laidre et al. 2020). Like previous studies, we did not include dependent offspring in the BCS analyses because their body condition is dependent on maternal condition (SWG 2016). We excluded within-year observations of the same individual but retained observations of the same individual in different years.

We modeled BCS using ordinal logistic regression (Venables and Ripley 2002) and included *period* as an indicator of sampling period (early = 1998 - 2000 or late = 2015 - 2017). Reproductive status, age, and sex were combined into the four-level categorical variable *reproclass* (ADM = adult male, ADFI = independent adult female, ADFWO = adult female with offspring, and SUB = subadults of both sexes), and sampling day of year (*jul_cap_day)* were included as a continuous covariate to reflect the amount of time bears had on their preferred sea ice hunting platform before being sampled in year *t*. The sampling periods in this study also coincided with the annual

seal pupping period, which is known to be prime feeding period for bears (Pilfold et al. 2012, Reimer et al. 2019). Thus, we predicted that increased time on the ice prior to sampling would be associated with higher BCS. The number of low-ice days (*icetm1*$_{t-1}$) was included to evaluate the hypothesis that interannual variation in BCS was related to sea-ice availability in the previous year. We selected a global model that reflected biological and environmental variables we hypothesized, or that have been shown in other studies, to be related to BCS (Rode et al. 2012, SWG 2016, Laidre et al. 2020). Finally, given our interest in evaluating whether different reproductive classes and genders had varying BCS based on the amount of time they spent on the sea-ice during the months immediately prior to observation (*jul_cap_day)*, and whether this relationship was different between our two sampling periods (*period)*, we included a three-way interaction between *reproclass, jul_cap_day,* and *period.* Once the global model was selected, we performed a backwards and forwards model comparison (stepAIC; Package MASS in the R programming language [R Core Team 2019]) to obtain the best-supported final model (ΔAIC < 2) (Table 1). We performed Lipsitz and Hosmer-Lemeshow tests to evaluate fit of the global ordinal regression model ($p > 0.1$; Fagerland and Hosmer 2017). Best-supported model covariates were considered significant at $p < 0.05$ (Wald X^2 tests) and predicted probabilities for each BCS class were calculated based on the suite of final-model covariates.

Reproduction

We evaluated reproductive indices for polar bears in GB using data from physical captures 1998 - 2000 and biopsy sampling 2015 - 2017. We used reproductive metrics that have been identified as important for monitoring polar bears (Vongraven et al. 2012). First, we C0 and C1 litter size as a function of biological, environmental, and temporal factors using logistic regression. We considered litter size (*ls*) for adult female *i* in year *t* to be a binary response variable (i.e., ls_{it} = 1 or 2). Analyses for C0 and C1 litters were performed separately using a three-step modeling approach, although we note that the C0 and C1 litter size data were not independent due to potential repeated measures and correlations (i.e., C1 litter size in year *t* is likely a function of C0 litter size

in year *t*-1). We created a general model that included the main hypothesized sources of variation in the data. General models were simple due to small sample size. To ensure the general model was a suitable starting point for model selection, we evaluated goodness-of-fit (GOF) using Hosmer and Lemeshow tests (Hosmer et al. 2013). Second, we developed a candidate model set representing all combinations of main effects and interaction terms in the general model, with a marginality constraint to ensure that interactions were only included if the corresponding main effects were included. Third, we performed model selection using Akaike's Information Criterion adjusted for small sample size (AIC_c) and then estimated model-averaged parameters for all models with $\Delta AIC_c < 4$ (Burnham and Anderson 2002). Modeling was performed in the R programming language version 3.5.2 (R Development Core Team 2016) using package *MuMIn* (Bartón 2018) for multi-model inference.

The general model for C0 litter size was $ls_{it} = \beta_0 + \beta_1\, period_{it} + \beta_2\, icetm1_{it} + \beta_3\, BCS_{it} + \beta_4\, month_{it} + \beta_5 period_{it} \times month_{it}$, where $period_{it}$ is a two-level factor indicating whether the observation of adult female *i* in year *t* was in the early or late period (1998 - 2000 and 2015 - 2017, respectively); $icetm1_{it}$ is the duration of the low-ice days in calendar year *t*-1 (see section Sea-ice Metric) for a polar bear observed in calendar year *t*; BCS_{it} is a three-level factor representing the body condition score of the adult female at the time of observation (see section Body Condition Score); $month_{it}$ is a two-level factor indicating whether a bear was observed in April or May; and $period_{it} \times month_{it}$ is an interaction term allowing the month effect to potentially differ between the early and late periods (e.g., because within-year temporal variation in litter size could change due to changes in sea-ice conditions, den emergence date, etc.). We hypothesized that litter size would be negatively correlated with *icetm1* (Laidre et al. 2020), positively correlated with *BCS* (Derocher and Stirling 1998), and negatively correlated with *month* because observations later in the spring reflected additional time in which cubs could die.

The general model for C1 litter size was $ls_{it} = \beta_0 + \beta_1\, period_{it} + \beta_2\, icetm1_{it} + \beta_3\, BCS_{it}$, where definitions of the predictor variables are the same as in the model for C0s.

We did not include the predictor $month_{it}$ because individual C1 survival is generally high (e.g., Regehr et al. 2017) and we did not expect litter size to change between April and May.

After evaluating patterns in litter size, we calculated the mean number of dependent young (C0 or C1) per adult female and evaluated differences between time periods. We also evaluated litter production rate, defined as the proportion of adult females that are available to breed in year *t* that produce a litter of C0 in year *t*+1 (Taylor et al. 1987). These metrics have been used as indices of productivity for other polar bear subpopulations (e.g., Peacock et al. 2013, Regehr et al. 2015). We quantified uncertainty using a nonparametric bootstrap procedure with 1,000 iterations during which observations of individual polar bears were resampled with replacement and the three reproductive metrics were calculated from the resampled data.

Survival

We used the Burnham capture-recapture model (Burnham 1993) in Program MARK (Cooch and White 2019) to analyze live-observation and dead-recovery data for the GB subpopulation. Live observations consisted of physical captures during which bears were assigned an individual identification number, or the identity of a previously captured bear was recorded; and biopsy sampling during which individual identification was determined from genetic analysis of a tissue sample (see sections above about recovering samples of bears through harvest and from the previous study). Live observations were conducted under random sampling protocols that attempted to search the entire area within the GB subpopulation boundary in 1998 - 2000 (physical captures) and 2015 - 2017 (biopsy sampling). Additionally, bears were physically captured and released each year 1976 - 1978, and sporadically during the period 1979 - 1997. Because research conducted from 1976 - 1997 did not follow a sampling protocol designed to evaluate demography, we included initial captures from this period but did not include recaptures of previously marked bears. This approach has been used in other analyses (e.g., Taylor et al. 2009) to increase the number of marked bears without

introducing heterogeneity into recapture probabilities, which can result in biased parameter estimates (Peňaloza et al. 2014). Because recaptures were excluded or did not occur in some years, within the Burnham model we fixed recapture probability to 0 in 1976 - 1997 and 2001 - 2014. Throughout the entire study period 1976 - 2017, dead-recovery data were obtained from hunter reports of research-marked bears and genetic analysis of tissue samples from bears that were harvested.

The Burnham model is a common choice for estimating survival and abundance of polar bears (SWG 2016). Parameters in the model are survival (S; the probability of surviving interval *t* to *t*+1), recapture probability (p; the probability of re-observing a live marked animal), dead reporting probability (r; the probability that an animal which dies is killed by humans and reported to authorities), and fidelity (F; the probability that an animal does not permanently emigrate from the sampling area and remains available for live observation in future years). We limited our analyses to bears age ≥ 1 year (i.e., C1s and older) because in the 2010s most C0s were not biopsy darted or individually identified.

We developed a candidate model set based on combinations of parameter-specific submodels, with the structure of each submodel informed by hypotheses about polar bear biology and study design. We considered 16 submodels for *S* (Table 2). The temporal factor *year* allowed survival to differ between 1976 - 2004 and 2005 - 2017. We chose these year blocks to evaluate the potential influence of habitat changes in the past decade (Environment and Climate Change Canada 2018) and because total allowable harvest (TAH) for the GB subpopulation was increased in 2004 (see section Introduction). The two-level factors *sex* (female vs. male) and *sub* (C1s and subadults [2 - 4 year] vs. adults [age ≥ 5 year]) were included to allow sex- and age-specific variation in survival (e.g., Regehr et al. 2007). The covariate *icetm1*, calculated the same as for reproductive analyses, was included to evaluate the hypothesis that interannual variation in survival was related to sea-ice availability in the previous year. We considered five submodels for *r* that included *sex* and *year* to reflect sex-specific harvest and potential changes in harvest mortality associated with changes in harvest

level. The four submodels for *p* included *sex* to allow potential variation in recapture probability resulting from sex-specific habitat selection or movement patterns (Laidre et al. 2013), and *year* to accommodate different levels of sampling effort in the 1990s and 2010s. We did not include a submodel with annual variation in *p* because sample sizes were similar within each three-year block of intensive capture-recapture research. The four submodels for *F* included *sex* and *year*. Unlike Taylor et al. (2009), we estimated *F* rather than fixing it to 1 because bears captured in the GB management unit have been harvested in adjacent subpopulations, suggesting some degree of permanent emigration (see section Discussion - Abundance). Each submodel was constructed as a linear function, on the logit scale, of the various factors, covariates, and interaction terms discussed above. We fitted all possible combinations of the parameter-specific submodels in Program MARK (Cooch and White 2019) accessed through the R programming environment (R Core Team 2019) using the package RMark (Laake 2013).

We performed model selection and multimodel inference using $QAIC_c$ (Burnham and Anderson 2002). We used the overdispersion factor $\hat{c}$ = 1.2, calculated as the ratio of live observations of dependent cubs (i.e., C1s and two-year-old cubs still accompanying their mothers) to total live observations (Taylor et al. 2009). For validation, we derived a separate estimate of $\hat{c}$ using the parametric bootstrap procedure in Program MARK (Cooch and White 2019) with the general model *S*(*year*+*sex*+*year*:*sex*)*r*(*year*+*sex*+*year*:*sex*)*p*(*year*+*sex*)*F*(*sex*), where "+" represents an additive effect and ":" represents an interaction. The bootstrap estimate of $\hat{c}$ was 1.2, suggesting that our empirical estimate adequately reflected extrabinomial variation in the data. Model-averaged parameter estimates were derived from all candidate models with $\Delta QAIC_c < 4$. Our estimates of *S* reflected harvest mortality, so we derived estimates of un-harvested survival as $S^* = S + r \times (1 - S)$ (Peacock et al. 2013) and estimated variance via the delta method (Taylor et al. 2008). This equation assumes that harvest of all marked bears is reported, and that harvest mortality is additive (i.e., that no harvested bears would otherwise have died during a given interval).

Abundance

We used Horvitz-Thompson type estimators (McDonald and Amstrup 2001) to derive abundances in year *t* as $\widehat{N}_t = n_t/\hat{p}_t$, where n_t is the number of individually identified animals observed alive in year *t*, and $\hat{p}_t$ is a model-averaged estimate of recapture probability in year *t*. To estimate abundance of bears age ≥ 1 year we stratified the subpopulation by sex and summed the female and male estimates, which was necessary to accommodate sex effects in recapture probability. Finally, we adjusted annual abundances to include approximate numbers of C0s by adding the product $(\widehat{N}_t^{AFC0} \times \overline{ls}^{C0})$, where $\widehat{N}_t^{AFC0}$ is the estimated number of adult females with C0 litters in year *t*, and $\overline{ls}^{C0}$ is overall mean C0 litter size. We used the delta method to construct variance estimates for annual estimates of total *N* and for average estimates of total *N* over several years. In doing so, we assumed that estimates of recapture probability and C0 litter size were independent. Note that abundance estimates from a capture-recapture framework that allows permanent emigration, but not temporary emigration, may not represent the number of animals within the sampling area at a given point in time. Specifically, abundance estimates from the current study represent the "superpopulation", defined as the group of animals that are alive and have a non-negligible probability of occurring within the sampling area, regardless of their actual location at a particular time. In other words, the superpopulation estimate in year *t* reflects temporary emigrants (i.e., animals that are outside of the GB management unit in year *t* but may return in future years).

Population growth

We used estimates of *S* and *S** from live-recapture dead-recovery modeling, together with estimates of litter production rate and C0 litter size, to estimate intrinsic population growth rate (*gr*) using a 10-stage matrix-projection model based on the life history of polar bears (Regehr et al. 2017). Because we did not estimate C0 survival in the current study, we used the mean estimate of 0.889 (SE = 0.179) for the period 1976 - 2000 from Taylor et al. (2009) for all matrix calculations. We estimated var(*gr*) by generating

10,000 correlated samples of the input vital rates using the model-averaged variance-covariance matrix for sex- and age-specific estimates of survival. We assumed that the correlation structure for C0 survival was the same as for subadults, that litter production rate and C0 litter size had a correlation coefficient of 1, and that there was no correlation between survival and reproductive parameters. Estimates of *gr* represent asymptotic intrinsic growth rate at a stable stage distribution.

5. RESULTS

General overview

During research operations in 2015 - 2017, we spent an average of 103 hours of flying in April and May each year in search of polar bears across the sea ice, with an average distance flown per year of about 12,200 km (Table 3, Figs. 2 and 3). The number of bears encountered during each survey season was similar, with a mean of 170 observed bears per field season.

The GB study area is vast and consists of differing ice types (Barber and Iacozza 2004). The distribution of bears during the 2015 - 2017 study appeared to be more uniform across the study area as compared to 1998 - 2000 when bears were encountered in higher concentrations east of the Boothia Peninsula and near the west shore of Melville Peninsula (Figs. 1 - 3). Moreover, there appeared to be no bear encounters directly north of Committee Bay during the 1998 - 2000 study, in contrast to our recent observations. During both studies no bears were encountered in the lower section of Committee Bay (Fig. 2).

Samples examined

We collected a total of 406 biopsy samples during research operations in 2015 - 2017. Of these, 397 (97.8%) contained sufficient material for genetic analysis. We

identified 10 GB bears that were previously captured during the 1998 - 2000 study (Taylor et al. 2009), and 1 LS bear that was 22 years old in 2017 when it was sampled. We also identified 7 individuals that were previously sampled during the MC study between 2014 - 2016. Overall, 324 individual bears were identified from these field samples. Some bears were resampled within the same season: 18 bears were sampled twice, 2 bears were sampled three times, and 1 bear was sampled four times (representing 5% of all successful samples). Re-sampling of the same individual within the same field season was low and likely occurred because weather prevented coverage of a large area within a short time frame, allowing bears to move over longer distances. Biopsy sampling leaves no visible marks on the individual animal as is the case with traditional mark-recapture studies (e.g., Peacock et al. 2013) thus it is impossible to avoid some re-sampling.

Through the harvest sampling program, we submitted 1704 samples between 2005 - 2017 from GB and neighboring subpopulations (338 GB, 701 FB, 402 LS, 47 MC, and 216 with unknown subpopulation) for genetic analyses. Twenty-five bears from the biopsy sampling sessions were harvested and recovered, as well as 8 previously marked bears from the 1998 - 2000 study. Those 8 bears were recovered in GB (6), MC (1) and LS (1). The 6 recovered bears in GB were identified through genetic testing because no ear tags and tattoos were reported.

Field sampling activities

Biopsy sampling activities on the sea ice went very well. The darts do not leave a mark when bears are darted in the rump, and most bears do not react to the impact of the dart. Many of the adult males move very slowly away once darted, if at all. The colored flagging tape attached to the end of the dart makes dart retrieval easy and quick.

During our survey flights, additional observers besides the pilot and biologist were on board the helicopter. In order to safely maneuver during darting, some observers had to be safely dropped off once a bear was seen to reduce weight, but

before the darting activities began. It took the crew, on average, 4.3 min (± SE; 0.19; range: 2 - 8 min; n = 62) from the time a bear was observed for the first time (e.g., at times > 1 km from the helicopter) and when the additional observer was picked up again. The direct darting activities involving the safe approach of the bear, darting the bear, and dart retrieval took an average of 2.0 min (± SE; 0.11; range: 1 - 5 min; n = 62; GN, unpublished data).

Body condition score

Body condition scores were higher between 2015 - 2017 compared to 1998 - 2000 (n = 626; $\chi^2 = 5.5$, $p = 0.02$; Fig. 5, Table 4). This was reflected in a decrease in the proportion of bears in poor condition (P_{poor}) and an increase in the proportions of bears in average and good condition (i.e., $P_{poor} = 0.31$ for early period vs $P_{poor} = 0.07$ for the late period; Fig. 5; Table 4). Adult females with offspring ($P_{poor} = 0.28$) and subadults ($P_{poor} = 0.26$) were more likely to be in poor body condition compared to other age and reproductive classes (mean P_{poor} for ADFI and ADM = 0.11; $\chi^2 = 11.4$, $p < 0.01$, Fig. 6). For females with dependent offspring, increasing amounts of time on the ice before being sampled (*jul_cap_day*) was associated with higher BCS ($\chi^2 = 9.0$, $p < 0.05$).

In the early period, bears were more likely to be in poor condition as $icetm_{t-1}$ increased (*icetm* = 70 d: $P_{poor\ early\ period} = 0.24$ and *icetm* = 104 d: $P_{poor\ early\ period} = 0.39$; $\chi^2 = 13.5$, $P < 0.001$). The opposite was true in the late period; the probability of being in poor condition decreased as $icetm_{t-1}$ increased (*icetm* = 70 d: $P_{poor\ late\ period} = 0.12$ and *icetm* = 104 d: $P_{poor\ late\ period} = 0.03$).

Reproduction

We observed 99 adult females with C0 litters during intensive capture-recapture studies conducted in 1998 - 2000 and 2015 - 2017 (Table 5). The general model for C0 litter size provided an adequate fit to the data (Hosmer and Lemeshow test: $X^2 = 6.91$, $df = 8$, $P = 0.55$). The candidate model set included eight models with $\Delta AIC_c < 4$, from which

model-averaged parameter estimates were derived (Table 6). Low importance scores (i.e., sums of normalized AIC_c weights for models that included a variable) indicated a lack of support for variation in C0 litter size as a function of our proposed predictor variables (Table 6). The low-AIC_c model included one parameter (i.e., intercept only; β = 0.43, SE = 0.21, P = 0.04). Overall mean C0 litter size was 1.61 (95% CI = 1.51 - 1.70).

We observed 80 adult females with C1 litters during intensive capture-recapture studies conducted 1998 - 2000 and 2015 - 2017 (Table 5). The general model for C1 litter size provided an adequate fit to the data (Hosmer and Lemeshow test: X^2 = 5.96, df = 7, P = 0.54). The candidate model set included five models with $\Delta AIC_c < 4$, from which model-averaged parameter estimates were derived (Table 7). Low importance scores indicated a lack of support for variation in C1 litter size as a function of our proposed predictor variables (Table 7). The low-AIC_c model included one parameter (i.e., intercept only; β = 0.10, SE = 0.23, P = 0.65). Overall mean C1 litter size was 1.53 (95% CI = 1.41 - 1.64).

The other reproductive metrics for GB polar bears were similar, or slightly lower, in 2015 - 2017 compared to 1998 - 2000. Mean number of C0s per adult female was 0.51 (95% CI = 0.39 - 0.64) for the 1990s and 0.43 (95% CI = 0.32 - 0.44) for the 2010s, which corresponds to a probability of 0.85 that values were smaller in the 2010s. Mean number of C1s per adult female was 0.37 (95% CI = 0.27 - 0.48) for the 1990s and 0.36 (95% CI = 0.26 - 0.47) for the 2010s, which corresponds to a probability of 0.54 that values were smaller in the 2010s. Mean litter production rate was 0.76 (95% CI = 0.48 - 1.0) for the 1990s and 0.64 (95% CI = 0.41 - 0.98) for the 2010s, which corresponds to a probability of 0.71 that values were smaller in the 2010s. Note that the ratio estimator we used to calculate litter production rate was different from the estimator used by Taylor et al. (2009), which required assumptions about litter loss and population growth rate.

Demographic analyses

Survival - The capture-recapture data contained 987 live observations of individually identified polar bears and 139 dead recoveries of research-marked bears during the period 1976 - 2017 (Table 8). The candidate model set included 1280 live-recapture and dead-recovery models representing combinations of the parameter-specific submodels. Of these, 104 models had $\Delta QAIC_c < 4$, indicating relatively high model-selection uncertainty. To evaluate the explanatory power of the various factors, covariates, and interaction terms in each parameter-specific submodel, we calculated importance scores defined as the sum of $QAIC_c$ weights for all submodels containing a given term (Table 9). Importance scores for survival (*S*) suggested strong support for a sex effect and for a step change between the year blocks 1976 - 2004 and 2005 - 2017, relatively weak support for an age effect, and little or no support for interannual variation in survival in relation to our sea-ice metric. Importance scores for recovery probability (*r*) provided weak to moderate support for a sex effect and a step change between year blocks. Finally, importance scores for recapture probability (*p*) and site fidelity (*F*) provided little or no support for sex or temporal effects.

Our model-averaged parameter estimates were consistent with patterns that would be expected based on the importance scores for the various terms (Table 10). Point estimates of un-harvested survival (*S**) increased for females, and decreased for males, between the year blocks 1976 - 2004 and 2005 - 2017. Point estimates for *r* decreased slightly for females and increased slightly for males. Point estimates of *F* ranged between 0.93 - 0.99, suggesting relatively high fidelity to the GB management unit. Due to sampling uncertainty and potential process variation, no temporal changes in parameter estimates were statistically significant at an alpha level of 0.05.

Abundance - Mean model-averaged estimates of total subpopulation abundance, including numbers of C0s, were 1610 (SE = 266) for 1998 - 2000 and 1525 (SE = 294, 95% CI = 949 - 2101) for 2015 - 2017. Based on a randomization procedure, this corresponds to a probability of 0.57 that abundance of the GB subpopulation was

approximately stable or increasing (subjectively defined as $N_{2015\text{-}2017} \geq 0.9\times N_{1998\text{-}2000}$), and a probability of 0.43 that abundance was declining (defined as $N_{2015\text{-}2017} < 0.9\times N_{1998\text{-}2000}$). Our estimate of mean abundance for 1998 - 2000 was very close to the estimate of 1592 (SE = 361) for the same period from Taylor et al. (2009).

Population Growth – The time-constant estimate of asymptotic intrinsic population growth rate (*gr*) for the period 2005 - 2017, calculated using estimates of total survival (*S*), was 0.06 (95% CI = -0.06 - 0.12). The estimate of un-harvested growth rate for the period 2005 - 2017 was *gr* = 0.07 (95% CI = -0.05 - 0.13). This suggests a strong potential for growth in the absence of harvest, although precision was low. For the period 1976 - 2004, estimates of harvested and un-harvested *gr* were 0.03 (95% CI = -0.07 - 0.09) and 0.05 (95% CI = -0.04 - 0.10), respectively. Although comparison is complicated by different model structures and datasets, these values are similar to the corresponding point estimates of *gr* = 0.02 and 0.06 for the period 1976 - 2000 reported in Taylor et al. (2009).

6. DISCUSSION

General

The GB study area experienced drastic sea ice changes over the past decades (Barber and Iacozza 2004, Stern and Laidre 2016, Environment and Climate Change Canada 2018). The quantity of multi-year sea ice has declined across the Canadian Archipelago (Mudryk et al. 2018, Perovich et al. 2018, Richter-Menge et al. 2018) and the fall freeze and spring thaw cycles in GB changed significantly, extending the period between sea-ice retreat and sea-ice advance by 16 days per decade (Stern and Laidre 2016). Moreover, the mean summer sea-ice concentration (June to October) has been decreasing by 9% per decade (Stern and Laidre 2016). As recently as the 1980's, the GB region was characterized by 40 - 50% multi-year ice during the summer, but this amount has declined to less than 10% between 2011 and now (Environment and

Climate Change Canada 2018) and the shift is predicted to continue (Sou and Flato 2009, Hamilton et al. 2014). The observed changes from multi-year to annual sea ice result in declining sea ice thickness. Younger and thinner sea ice is more mobile and susceptible to mechanical wind forcing. Annual sea ice is also more vulnerable to complete melting in the summer which contributes to the observed decrease in summer sea ice extent. (Richter-Menge 2018, Perovich et al. 2018). This reduction in sea ice results in the absorption of more heat by the upper ocean (Richter-Menge 2018). While sea ice loss overall is considered detrimental to the persistence of polar bears, in the short term, it may have beneficial effects in some parts of the high Arctic since many of the observed sea ice changes have been associated with greater marine productivity (Derocher et al. 2004, Häder et al. 2014, Frey et al. 2018).

Abundance

Our estimate of mean abundance for the period 1998 - 2000 was 1610 (SE = 266), which is very similar to the estimate of 1592 (SE = 361) for the same period from Taylor et al. (2009). The new mean abundance estimate of 1525 (SE = 294) for the period 2015 - 2017 corresponds to a probability of approximately 0.57 that the GB subpopulation has remained approximately stable or increased despite observed sea-ice changes. We suggest that abundance estimates from 1998 - 2000 and 2015 - 2017 are likely an accurate portrayal of trends in abundance given the consistent methodology between the intensive capture-recapture efforts. Taylor et al. (2009) suggested that the subpopulation could sustain a quota increase from 40 to 74 bears per year which was instituted in 2004/2005. The 74-bear quota was rarely filled over the past 14 years with an average of 62 bears per year (22 females and 40 males) removed from the subpopulation. The sex ratio of removed bears was 64.3% male in keeping with the 2:1 sex selective harvest management system in place in Nunavut during that time (range: 56.7 - 72.1% male for the 2004/2005 – 2016/2017 harvest seasons; GN, unpublished data).

The mean point estimate of the proportion of females among independent polar bears (i.e., age ≥ 2 years) increased from 0.57 for the period 1998 - 2000 to 0.61 for the period 2015 - 2017. This appears consistent with the estimates of harvest recovery probability and the estimated differences in total, and un-harvested, survival between females and males. This finding may suggest that the selective harvest of polar bears at a 2:1 male-to-female ratio has resulted in a gradual depletion of adult males in the subpopulation, which is consistent with model-based predictions of declining male numbers under a sex-selective harvest (McLoughlin et al. 2005, Taylor et al. 2008, Regehr et al. 2015). We suggest that this effect could be mitigated by lowering the TAH while maintaining a sex-selective harvest. Alternatively, maintaining the current TAH, but switching to a 1:1 sex ratio for several years could also mitigate the gradual depletion of males but would increase the risks of overharvest given that adult female bears are the most important contributors to population growth (Eberhardt 2002, Hunter et al. 2010). We recommend that a more thorough harvest risk assessment be conducted to further investigate this and other issues related to the sustainability of current removal levels from the GB subpopulation (e.g., change in carrying capacity and environment over time; Regehr et al. 2017).

The GB study area has an estimated density of 8.9 bears per 1000 km^2 based on the current abundance estimate, which is the highest, currently known, density of polar bears within the subpopulation boundaries recognized by the IUCN Polar Bear Specialist Group (Durner et al. 2018). It is more than 5 times the median density of 14 subpopulations for which abundance estimates exist (Hamilton and Derocher 2018). It is also important to note that our estimates of abundance from the current study, as well as from the past study (Taylor et al. 2009), represent the “superpopulation”. A superpopulation is defined as all the animals with a chance (non-negligible probability) of occurring within the GB management boundary, regardless of where the animals were located at any given sampling occasion (e.g., Schwarz and Anarson 1996). Thus, estimates of superpopulation size in year *t* likely reflect some animals that were temporary emigrants in year *t*. We were not able to directly estimate temporary emigration from the sampling area (Cooch and White 2019) because our sample sizes

were not sufficiently large to do so, and there are no recent radio-telemetry data to provide location and movement data. However, recoveries of previously marked bears in other subpopulations through the harvest sampling program indicate that movement into and out of GB is likely occurring (Fig. 7). Therefore, our estimates of abundance are likely larger than the actual number of animals within the GB subpopulation boundary at any given time. This should be taken into consideration when using these findings to inform management decisions. For example, if capture-recapture analyses are performed independently for multiple adjacent subpopulations that experience exchange of animals, the sum of the estimates of superpopulation size will be larger than the actual total number of bears in the subpopulations (i.e., there will be “double counting” of some bears). This could lead to cumulative TAH levels that result in removal of a larger proportion of polar bears each year than was intended based on the TAH levels for the individual subpopulations.

Population Growth

Our estimates of the population growth rate (*gr*) for the period 2005 - 2017 based on total survival (gr = 0.06) and un-harvested survival (gr = 0.07) for the 2010s are high for polar bears, suggesting strong capacity for growth. Our estimates of *gr* for the 1990s were similar to estimates from Taylor et al. (2009), although a direct comparison is complicated by statistical uncertainty and different modeling structures and datasets. Note that our estimates of *gr* for the 1990s had more statistical uncertainty than that of Taylor et al. (2009) because we accounted for covariance among demographic parameters, whereas it appears that Taylor et al. (2009) considered variation in the different demographic parameters to be independent.

The high estimates of *gr* from this study should be interpreted with caution because they are based on estimates of total survival. Therefore, they reflect the potential for biological population growth but not necessarily the trend in the numbers of polar bears that remain within the GB subpopulation boundary. Indeed, when the harvested population growth rate for the period 2005 - 2017 is recalculated using

estimates of apparent survival (i.e., the probability of remaining alive and not permanently emigrating from the GB management unit) the point estimate is negative (*gr* = -0.024; i.e., suggesting that the number of bears within the GB subpopulation boundary may be decreasing). Direct interpretation is complicated by statistical uncertainty (e.g., the coefficient of variation for the estimate of *gr* based on total survival was 0.79). However, this may suggest that emigration from the GB region is one explanation for the apparently contradictory findings of (1) a lower point estimate of abundance for 2015 - 2017 compared to 1998 - 2000 and (2) high point estimates of *gr* for 2005 - 2017 that suggest the GB subpopulation was growing during this period. In other words, it is possible that high estimates of *gr* based on total survival do indeed reflect increasing numbers of bears (i.e., there are more births than deaths), but that a substantial proportion of these bears are permanently emigrating from the GB management area. As the ice becomes more dynamic in GB and the surrounding areas, bears may be more dynamic in their movements. Potentially high and variable levels of immigration and emigration across subpopulation boundaries can directly affect estimation and interpretation of population growth rate (Peňaloza et al. 2014). In some other subpopulation studies, radio-telemetry data have been critical to resolving these issues (e.g., Regehr et al. 2018). For regions where radio-telemetry is not available, we recommend that the best way to reconcile these interpretation challenges and provide accurate information to inform management is to perform a meta-analysis of the capture-recapture and harvest recovery data for all subpopulations within the region that are known to exhibit substantial levels of exchange (e.g., GB, MC, and LS).

Reproduction

Our estimates of reproductive indices (e.g., litter size, offspring per female) are on the higher end of the range of expected values for polar bears (Baffin Bay: SWG 2016, Foxe Basin: Stapleton et al. 2016, Western Hudson Bay: Dyck et al. 2017, Southern Hudson Bay: Obbard et al. 2018, Chukchi Sea: Regehr et al. 2018), suggesting that the GB subpopulation is currently capable of healthy reproduction. During our genetic biopsy sampling we were not able to collect data on the numeric age of most bears (i.e.,

through counting cementum annuli in teeth; Calvert and Ramsay 1998), hence we cannot comment on age of first litter for females or inter-birth intervals. However, our estimated number of C1 per adult female of 0.36 in 2015 - 2017 appears to be sufficient to maintain a viable subpopulation, provided that survival is within the normal range for healthy subpopulations (Regehr et al. 2015). The number of C1 per adult female (0.36 in this study) is considered a key reproductive parameter (Vongraven et al. 2012, Regehr et al. 2015) because it integrates cub production and cub survival. This is especially important when C0s cannot be sampled or handled, as in this study (see Method section above). Our estimates for 1998 - 2000 and 2015 - 2017 suggest that no significant change in recruitment occurred over time. Declines in reproductive performance in association with sea ice deterioration have been documented for some polar bear subpopulations (Derocher and Stirling 1995, Derocher 2005, Rode et al. 2010, Peacock et al. 2013, Rode et al. 2014). As spring sea ice break-up occurs earlier (which is also associated with later fall freeze-up; Stern and Laidre 2016, Regehr et al. 2016) feeding opportunities for polar bears presumably decrease, leading to poorer maternal body condition and reduced investment in reproduction. Despite changes in sea ice conditions over the past decades we did not detect any significant changes in reproductive output for GB polar bears, although if climate change continues as predicted (IPCC 2014) there will likely be a threshold beyond which reproduction declines (Laidre et al. 2020).

Survival

Opposite to what Taylor et al. (2009) found in their study, our estimated survival rates (total and un-harvested) demonstrated lower survival rates for males than females (Table 10). Estimates of total (i.e., including harvest mortality) survival for adult females of 0.95 for the period 2005 - 2017 were high relative to other subpopulations for which survival estimates are available (Regehr et al. 2018, their Table S3). However, direct comparison is complicated because most other estimates are of apparent survival which includes permanent emigration. Similar to our findings for the GB subpopulation, a recent study documented male survival rates to be reduced for the Baffin Bay

subpopulation (SWG 2016). We are unaware of why un-harvested male survival may be declining for GB bears and we recommend this as an important area for research and monitoring. There also was moderate support for a time-period effect on survival, with total survival increasing for females and decreasing for males. This should be interpreted with caution because confidence intervals had substantial overlap. There was relatively low support for an age class effect in survival, with point estimates of survival lower for subadults than for adults, although again the CIs overlapped. No support for variation in survival as a function of the sea-ice covariates we explored was detected.

Estimates of un-harvested survival for adult females for the period 2005 - 2017 (0.97) were also high. When considered along with the reproductive indices, these findings suggest that the GB subpopulation remains capable of strong growth. As a note, estimates of total survival (*S*) reflect the probability of remaining alive. Estimates of *S* directly from the Burnham models are not estimates of apparent survival (i.e., the probability of remaining alive and not permanently emigrating) because the Burnham model directly estimates the fidelity parameter *F*. Unlike Taylor et al. (2009), we did not fix the fidelity parameter (*F*) to 1 (i.e., no assumed permanent emigration) based on the evidence of some movement from GB garnered from harvest recoveries. These factors suggest that there is some permanent emigration, which should be estimated to reduce potential bias in estimates of survival and abundance. Estimates of the parameter *F* ranged between 0.93 and 0.99 depending on sex and time period, with very large confidence intervals. Collecting movement data through radiotelemetry would provide better understanding of the movement into and out of the GB boundaries allowing more precise estimation of survival and abundance.

Body condition

Bears in GB were in better body condition in the most recent survey from 2015 - 2017 compared to the previous survey in 1998 - 2000. This is in direct contrast to some other

subpopulation studies that have found decreasing body condition of bears in recent years (Rode et al. 2012, Stirling and Derocher 2012, SWG 2016, Laidre et al. 2020). However, polar bear subpopulation ecosystems vary widely. Within GB, multi-year sea ice predominated until recently (e.g., mid-1990s) when a shift to thinner, annual ice has occurred (Schweinsburg et al. 1981, Barber and Iacozza 2004, Howell et al. 2008, 2009, Sou and Flato 2009, Environment and Climate Change Canada 2018). This shift to annual ice may facilitate a short-term boost in hunting opportunities for bears as the ice is thinner and more prone to leads and cracks allowing access to bears' preferred prey, ringed seals (*Pusa hispida*). Indeed, we saw that in the recent time period, as the duration of low-ice days increased, bears were more likely to be in better condition. This is counterintuitive when thinking about polar bears' reliance on sea ice as a hunting platform. However, the GB ecosystem does not currently experience 100% ice-free periods and the low-ice days represented concentrations that were 63% or lower (see Methods: Sea-ice metrics) which are still within the range of preferred polar bear ice concentrations (Durner et al. 2009). It is worth noting that during the period 2009 - 2014 (Stern and Laidre 2016), the sea-ice area dipped to ~10%. Polar bears come onshore at concentrations of around 10-15% ice (Cherry et al. 2013) and thus, if sea ice coverage declines further, we may see a similar negative relationship of body condition and low sea ice concentration or extent as has been reported for other subpopulations (Regehr et al. 2007, Rode et al. 2012, SWG 2016, Laidre et al. 2020).

More favorable ice conditions relative to seal hunting, coupled with the seal pupping period that occurs roughly around mid-April, may account for our finding that body condition improved for bears sampled later in the field season (Stirling and Archibald 1977, Pilfold et al. 2014, Reimer et al. 2019). Females with offspring were much more likely to be in poor body condition compared to the other reproductive groups. When they were sampled earlier in the year, their probability of being in poor condition was highest which is unsurprising given the increased nutritional stress this reproductive class faces due to lactation and parturition. As time progressed, the likelihood of being in poor condition declined and they were more likely to be rated as

‘average’ suggesting that access to prey during the prime feeding period in the spring was beneficial for accumulating nutritional stores.

Similar to previous studies (SWG 2016, Laidre et al. 2020, GN unpublished data report MC 2020), the differences in body condition we observed are not likely related to the sampling method. Raw BCS scores were binned into 3 general categories to account for any potential small biases in observer classifications. Furthermore, in other similar studies in which comparisons in BCS were made for an earlier time period that used physical capture to determine BCS and a later time period in which aerial classifications were done, there were no trends of either method for BCS, suggesting that there is not an inherent bias in either method for BCS classification (e.g. Kane Basin: no change in BCS over time, Baffin Bay: decrease in BCS over time, M’Clintock: increase in BCS over time; SWG 2016, Laidre et al. 2020, GN unpublished data). In this study, the observer with the most sampling observations participated in both the early sampling period and recent one. The other observers were experienced and had participated both in physical capture studies and in aerial observation studies. The general application of our body condition index during physical handling has been shown to be a reliable indicator (Stirling et al. 2008). Moreover, there is the potential to assess the lipid content of the extracted adipose tissue from the biopsy darts (Pagano et al. 2014, McKinney et al. 2014) which could be used to verify the aerial condition assessments.

7. MANAGEMENT IMPLICATIONS

The need for continued monitoring

Climate change has affected the sea ice in every polar bear management unit (subpopulation) (Stern and Laidre 2016; Regehr et al. 2016), including GB. Over time, ice concentrations and thickness have declined, and the break-up and freeze-up dates have advanced and delayed, respectively (Stern and Laidre 2016). These changes in sea ice dynamics can elicit behavioural, nutritional, and demographic changes in bears. For example, studies in Baffin Bay documented that bears have reduced their home

range size and are spending more time on shore during the ice-free period with reduced denning periods (SWG 2016). In other subpopulations, the effects of climate change on polar bears have been exhibited through reduced body condition, survival rates, and litter sizes (Regehr et al. 2007, Stapleton et al. 2014, Lunn et al. 2016, Dyck et al. 2017, Obbard et al. 2016, 2018). These sea ice changes and their impact on bears have only become apparent because of concerted monitoring efforts of both sea ice and bear movements over long periods of time.

Body condition, reproduction, and survival may reflect changes on a finer temporal scale than abundance and can help understand the mechanisms through which environmental change affects polar bears. The GB subpopulation currently has several knowledge gaps that present challenges for informed decision making. It is currently unknown how bears in GB spend their time during the sea-ice minimum (e.g., July to October) due to the lack of movement data. Also, the delineation of this subpopulation is inferred based on movement of collared female bears during the 1990s (Bethke et al. 1996, Taylor et al. 2001), prior to the large-scale changes in sea-ice habitat. Recoveries of previously captured, and subsequently harvested, bears indicate that there is emigration into LS, MC, and FB (Fig. 7), although whether this is permanent or temporary is difficult to determine without movement data. Note also that our abundance estimate is for the superpopulation (see Discussion section) which likely reflects more animals than occur within the GB management boundary.

In respecting Inuit societal values and concerns over physically handling wildlife, the GN, Department of Environment, did not carry out any collaring to collect radio-telemetry data in GB, despite efforts to garner support for a collaring program and the associated valuable data. The GN, together with other co-management partners, will have to decide on how monitoring polar bears in this subpopulation will continue in order to provide adequate information to decision-makers.

Harvest management and considerations

The GB polar bear subpopulation experienced a mean annual harvest of approximately 62 bears between the harvest years 2004/2005 and 2016/2017 (roughly 40 males and 22 females; GN, unpublished data) with a TAH of 74 bears per year. Our current abundance estimate for the superpopulation, together with other demographic data, suggest that the subpopulation has likely remained stable or only declined slightly given the removal rates and observed climatic sea ice changes. We suggest that taken together this study provides evidence that the GB subpopulation is currently healthy and productive. We documented a potential decline in the male proportion of the subpopulation, which may reflect the harvest system in place (i.e., 2 males for every female). However, similar to the Baffin Bay subpopulation (SWG 2016), we also found evidence for a decline in un-harvested survival for males, which we cannot currently explain. Future research and monitoring should seek to understand the causes and potential ramifications of male survival rates.

Here we provide several considerations to aid in harvest management decisions:

- Conduct a meta-population analysis that includes all possible subpopulations where some exchange of bears occurs (e.g., with LS and MC). This is important because the current abundance estimate for the GB subpopulation of 1525 bears (SE = 294) likely includes bears that also spend time in other management units. Assessing each subpopulation individually could lead to overestimating the total number of bears available and increases the risk of overharvest.

- Determine harvest management objectives (e.g., to maintain, reduce, or increase the subpopulation), taking into account possible changes in environmental carrying capacity in the future and the observed reduction in male proportion and survival rates. Perform a quantitative harvest risk assessment so that scientific information is available to help inform and justify management decisions.

Research recommendations for GB

These recommendations reflect both newly gained insight from the experience of conducting and analyzing the GB data as well as continued awareness of the importance of certain research methods.

1. Seek support from co-management partners to implement a radio-telemetry study to collect movement data in GB to obtain emigration estimates, resolve boundary issues, collect missing demographic data, improve precision and accuracy of demographic estimates, and evaluate changes in habitat use and denning in light of the sea ice changes. Before starting such a study, it would be possible to identify the sample size and duration required to address information needs so that no more bears are physically captured than necessary;

2. a) Sample bears (i.e., introduce more marks into the GB subpopulation) 5 - 7 years post-completion of field portion of last study (e.g., in 2023 or 2024) until the next comprehensive population study will be conducted (~10 – 15 yrs post-completion of last inventory; 2027 - 2032) to increase the number of marked individuals, recaptures and recapture probability of marked individuals. These factors will assist in determining more realistic survival rates when the next comprehensive study is undertaken (note that a power analysis will likely aid in determining whether additional marks really provide more data, and if this endeavor is cost-effective);

   b) Monitor reproductive metrics at the time of mark introduction to assess reproductive performance of GB, and if there are significant changes in reproduction consider whether the timing of the next comprehensive subpopulation assessment should be changed;

3. Or, increase population study length to 4 - 5 years to ensure that it covers a full reproductive cycle and reduces potential biases and assumptions that are required during the modeling process;

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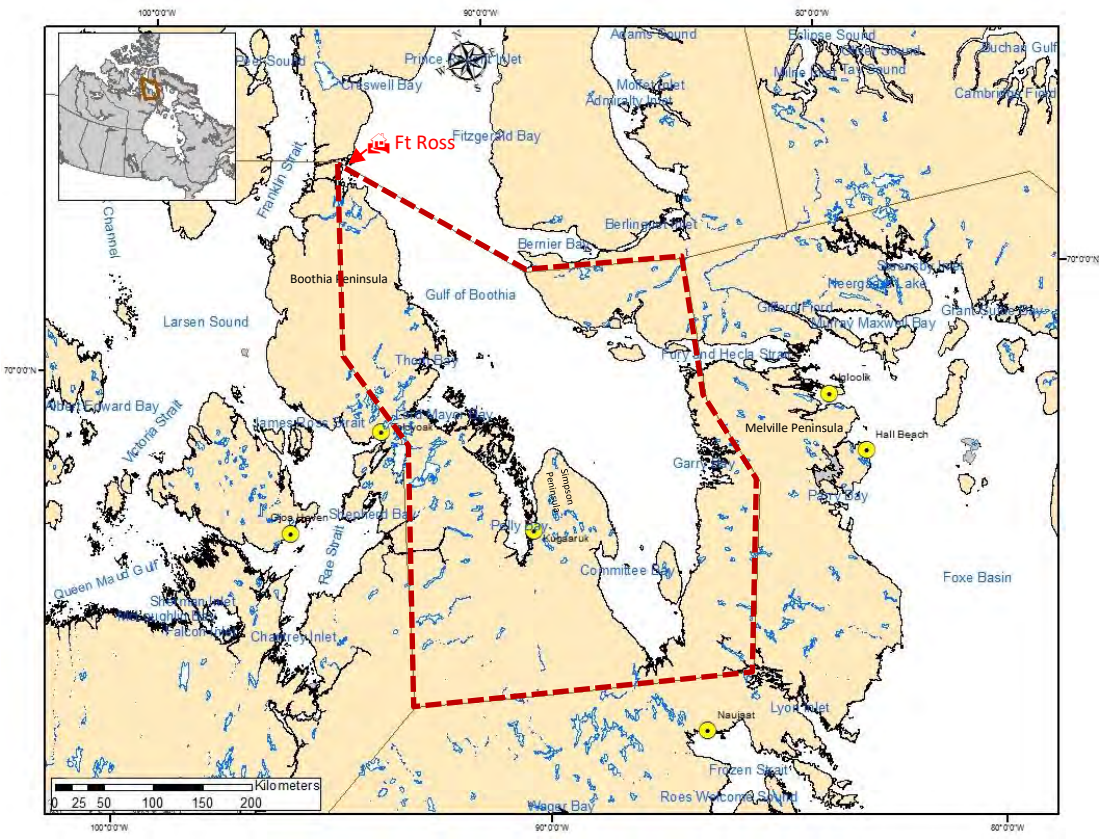


Figure 1. Basic overview and location of the Gulf of Boothia polar bear subpopulation delineated by red dashed line.

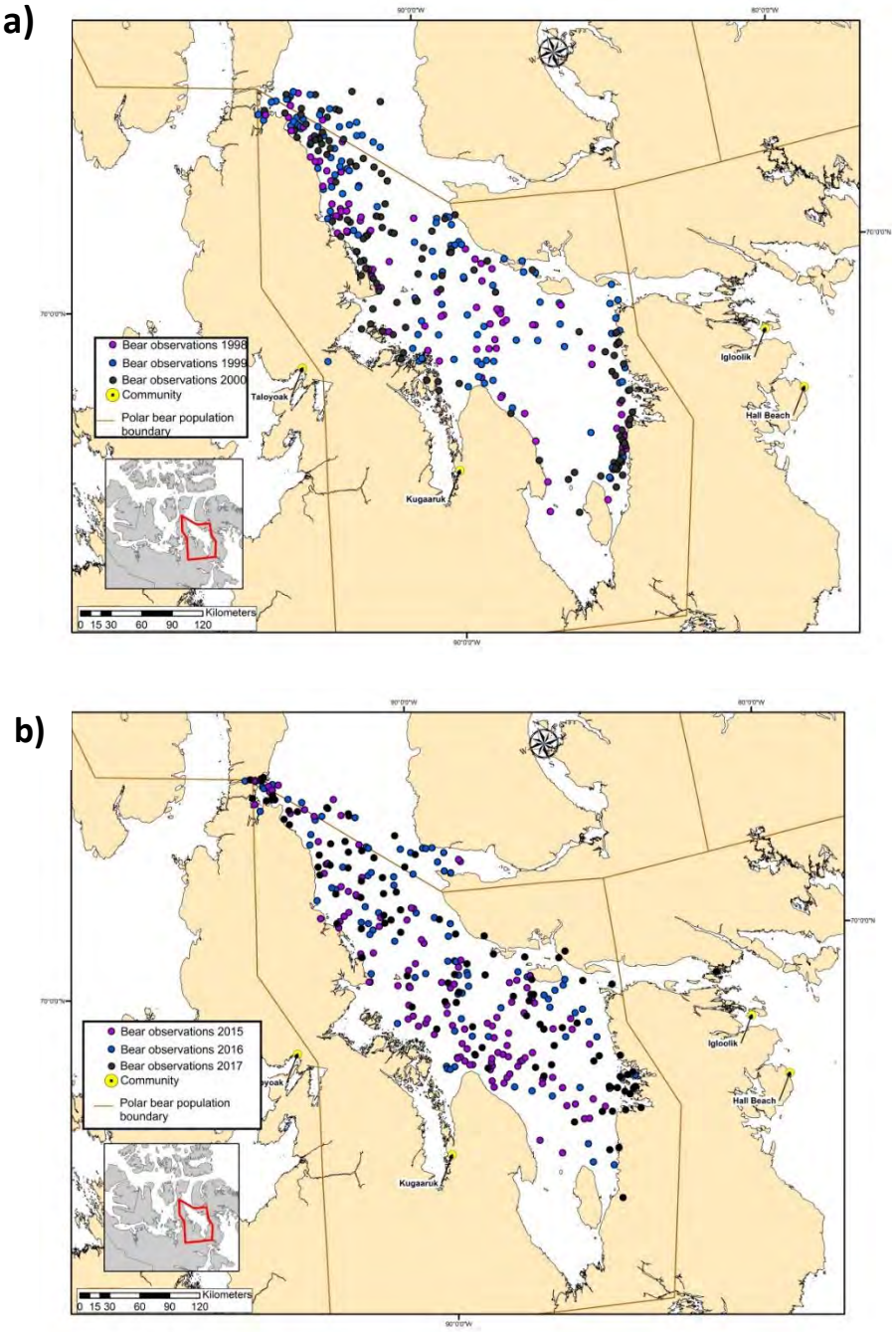


Figure 2. Locations of observed polar bears within the Gulf of Boothia study area during the 1998 - 2000 (a) and 2015 - 2017 (b) studies. Different colored dots indicate different years. Inset shows subpopulation boundary in red.

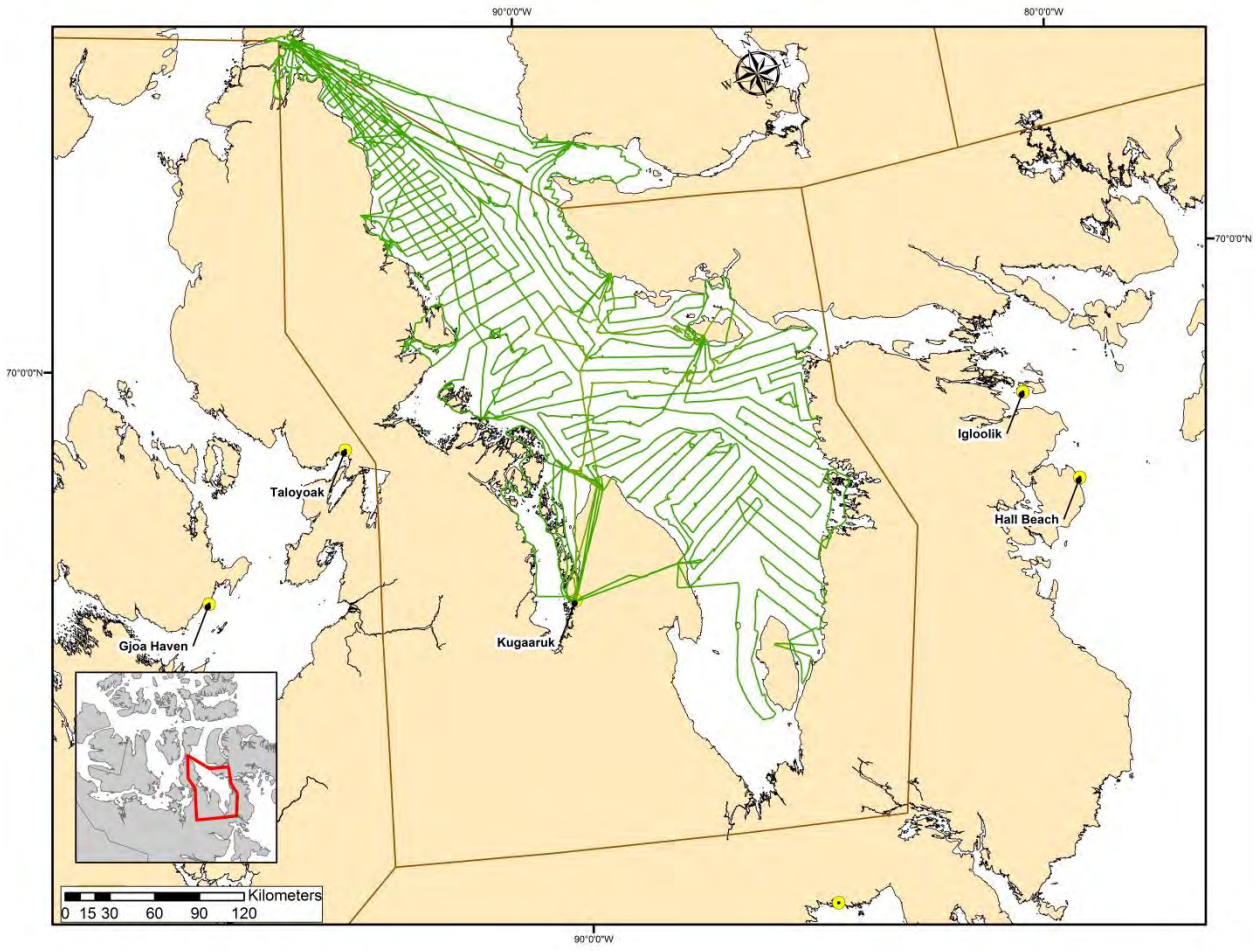


Figure 3. Flight tracks (green lines) of helicopter flown in search for polar bears in Gulf of Boothia, Nunavut, Canada, during April/May 2017. Inset shows subpopulation boundary in red.

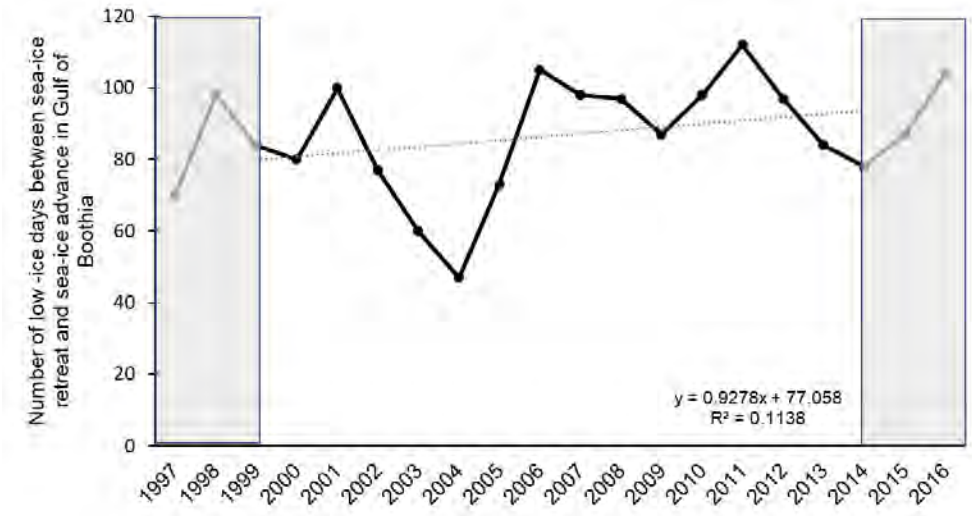


Figure 4. Sea-ice metric of 'low-ice days' calculated as the number of days between the sea ice retreat and sea ice advance in calendar year t *using the transition dates when ice concentration dropped below, and exceeded, respectively, the midway point of sea ice concentration between the March and September mean (Environment and Climate Change Canada 2018). Shaded boxes indicate sampling periods used in this study and intervening years are shown for context. Gray dotted line indicates the linear trend of low-ice days from 1997-2016.*

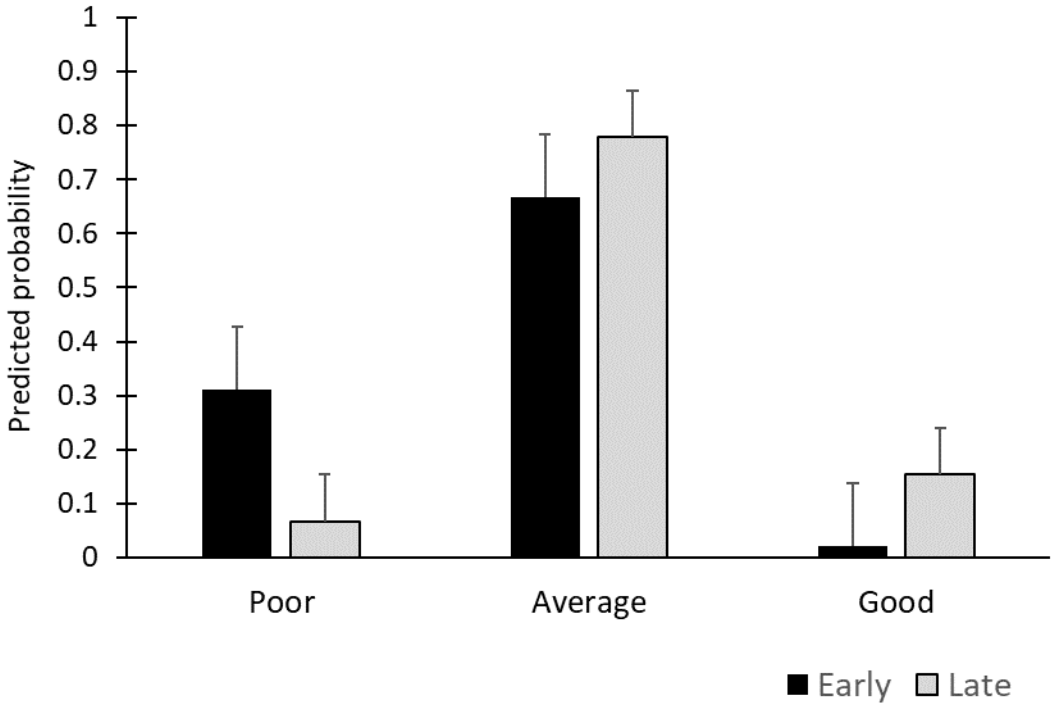


Figure 5. Predicted probability based on best-fit model parameter estimates of a bear being classified as poor, average, or good body condition for each time period (Early = 1998 - 2000; Late = 2015 - 2017).

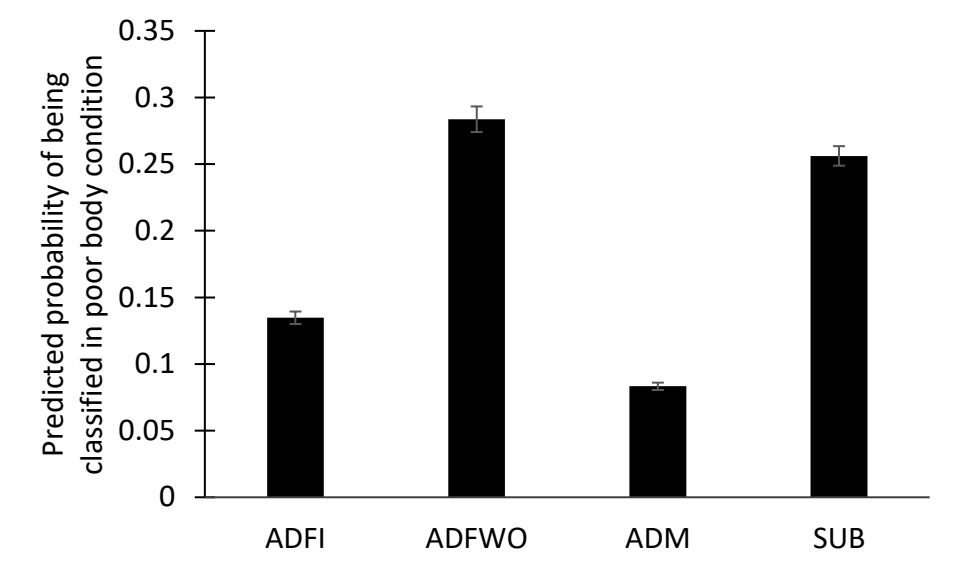


Figure 6. Predicted probability based on best-fit model parameter estimates of a bear being classified in poor body condition for each reproductive age class across both time periods. Adult females with offspring and subadults were more likely than other reproductive age classes to be classified in poor body condition at the time of sampling (ADFI = independent adult female, ADFWO = adult female with offspring, ADM = adult male, SUB = subadults of both genders).

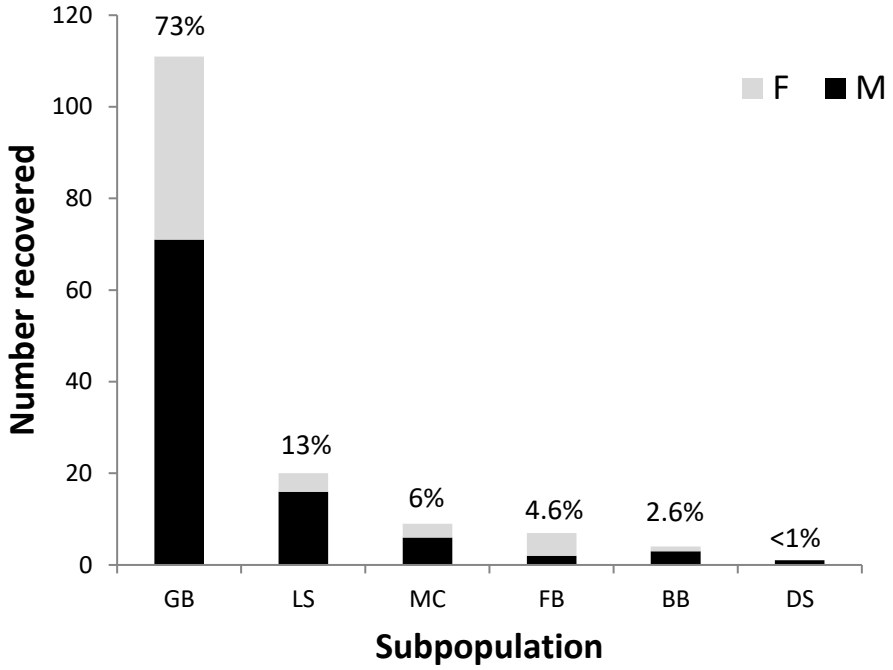


Figure 7. Number of polar bear tags that were initially deployed within the Gulf of Boothia subpopulation boundary and subsequently recovered through the harvest between 1972 and 2017. Percentages indicate the proportion of total recoveries that occurred in a given subpopulation (GB=Gulf of Boothia; LS = Lancaster Sound; MC=M'Clintock Channel; FB=Foxe Basin; BB=Baffin Bay; DS=Davis Strait).

Table 1. Parameter estimates for best-fit ordinal logistic regression model (reference level = “poor”/BCS = 1) for body condition score analysis of the Gulf of Boothia subpopulation.

Parameter	Estimate	SE	*p*
periodlate	3.77	1.61	0.02
reproclassADFWO	-5.70	3.12	0.07
reproclassADM	3.74	3.03	0.22
reproclassSUB	2.07	3.22	0.52
jul_cap_day	0.03	0.02	0.14
periodearly:icetm	0.04	0.01	0.001
periodlate:icetm	-0.02	0.01	0.08
reproclassADFWO:jul_cap_day	0.04	0.03	0.14
reproclassADM:jul_cap_day	-0.03	0.02	0.29
reproclassSUM:jul_cap_day	-0.02	0.03	0.35

Table 2. Parameter-specific submodels used to analyze live-recapture dead-recovery data for the Gulf of Boothia polar bear subpopulation.

Submodel name	Submodel structure
S1	.
S2	year
S3	icetm1
S4	sex
S5	sub
S6	year + sex
S7	year + sex + year:sex
S8	year + sub
S9	year + sub + year:sub
S10	icetm1 + sub
S11	icetm1 + sub + icetm1:sub
S12	sex + sub
S13	year + sex + sub
S14	year + sex + sub + year:sex + year:sub
S15	icetm1 + sex + sub
S16	icetm1 + sex + sub + icetm1:sex + icetm1:sub
r1	.
r2	year
r3	sex
r4	year + sex
r5	year + sex + year:sex
p1	.
p2	year
p3	sex
p4	year + sex
F1	.
F2	year
F3	sex
F4	year + sex

(*S* = survival; *r* = dead reporting probability; *p* = recapture probability; *F* = fidelity)

Table 3. Overview of descriptive field statistics of the Gulf of Boothia polar bear study 2015 - 2017.

Field Year	Search time (hr)	Number of bears/hr	Bears encountered[a]	Flown distance (km)	Duration
2015	96.0	1.90	185	11,737	29 April - 26 May
2016	99.3	1.62	161	12,867	20 April - 14 May
2017	115.0	1.40	162	12,200	26 April - 15 May

[a] The number of bears encountered does not represent the genetically corrected number of bears (e.g., some bears have been re-sampled within same sampling period)

Table 4. Body condition scores (BCS) for polar bears in the Gulf of Boothia subpopulation 1998 - 2000 and 2015 - 2017. Poor BCS corresponds to a thin bear and Good BCS corresponds to a fat/obese bear. Age classes are adult (≥ 5 years) and subadult (2 - 4 years).

	Body condition scores					
	1998 - 2000			2015 - 2017		
	Poor	Average	Good	Poor	Average	Good
Adult female without offspring	17	28	3	2	60	19
Adult female with offspring	30	40	2	5	86	4
Adult male	19	104	4	1	64	28
Subadult	25	34	2	4	43	2
Total	91	206	11	12	253	53

Table 5. Numbers and mean sizes of cub-of-the-year (C0) and yearling (C1) litters observed during capture-recapture studies on the Gulf of Boothia polar bear subpopulation.

	1998	1999	2000	2015	2016	2017
Number of C0 litters	20	13	20	12	22	12
Mean C0 litter size	1.60	1.54	1.70	1.75	1.50	1.58
Number of C1 litters	13	17	10	18	9	13
Mean C1 litter size	1.31	1.53	1.80	1.56	1.44	1.62

Table 6. Model-averaged parameter estimates for a binomial logistic regression on cub-of-the-year (C0) litter size for the Gulf of Boothia polar bear subpopulation.

Parameter	Estimate	SE	P	Importance
(Intercept)	0.78	1.12	0.49	NA
icefree.tm1	0.00	0.01	0.75	0.31
periodearly	0.02	0.19	0.90	0.18
month05	-0.01	0.18	0.98	0.17
BCS (level 1)	-0.07	0.27	0.79	0.15
BCS (level 3)	0.11	0.43	0.80	0.15

Table 7. Model-averaged parameter estimates for a binomial logistic regression on yearling (C1) litter size for the Gulf of Boothia polar bear subpopulation.

Parameter	Estimate	SE	P	Importance
(Intercept)	-0.74	1.53	0.63	NA
icefree.tm1	0.01	0.02	0.57	0.41
periodearly	-0.05	0.24	0.86	0.26
BCS (level 1)	0.02	0.13	0.91	0.06
BCS (level 3)	0.00	0.25	1.00	0.06

Table 8. Numbers of live-observations and dead-recoveries (in parentheses) of individually identified polar bears in the Gulf of Boothia subpopulation used in survival estimation.

Years	AFNC[a]	AFC0[b]	AFC1[c]	AM[d]	C1[e]	SF[f]	SM[g]
1976 - 1997	21 (18)	17 (0)	10 (0)	49 (23)	15 (0)	13 (4)	21 (0)
1998 - 2000	75 (3)	53 (0)	40 (0)	128 (6)	68 (0)	49 (3)	44 (5)
2001 - 2017	88 (5)	46 (0)	40 (0)	94 (19)	61 (0)	21 (1)	34 (5)

([a]AFNC = adult female no cubs; [b]AFC0 = adult females with cubs-of-the-year; [c]AFC1 = adult females with yearlings; [d]AM = adult male; [e]C1 = yearlings; [f]SF = subadult females; [g]SM = subadult males)

Table 9. Importance scores for the various factors and covariates within the parameter-specific survival submodels. Importance scores for interaction terms (e.g., year:sex) should be interpreted with caution because interactions can only appear in models with the corresponding main effects.

Factor or covariate	S	r	p	F
sex	0.82	0.33	0	0
year	0.71	0.35	0.06	0.16
year:sex	0.67	0.33	NA	NA
sub	0.23	NA	NA	NA
year:sub	0.23	NA	NA	NA
icetm1	0.05	NA	NA	NA
icetm1:sex	0	NA	NA	NA
icetm1:sub	0	NA	NA	NA

Table 10. Model-averaged parameter estimates for the Burnham model for survival and abundance.

Parameter	Class	Year block	Estimate	lci	uci
*S**	Adult female	1976-2004	0.94	0.90	0.98
*S**	Adult male	1976-2004	0.93	0.90	0.95
*S**	Subadult female	1976-2004	0.93	0.86	0.99
*S**	Subadult male	1976-2004	0.91	0.85	0.96
*S**	Adult female	2005-2017	0.97	0.91	1.00
*S**	Adult male	2005-2017	0.90	0.83	0.96
*S**	Subadult female	2005-2017	0.95	0.86	1.00
*S**	Subadult male	2005-2017	0.87	0.75	0.99
S	Adult female	1976-2004	0.92	0.86	0.96
S	Adult male	1976-2004	0.89	0.85	0.93
S	Subadult female	1976-2004	0.90	0.80	0.95
S	Subadult male	1976-2004	0.87	0.77	0.92
S	Adult female	2005-2017	0.95	0.81	0.99
S	Adult male	2005-2017	0.85	0.74	0.92
S	Subadult female	2005-2017	0.94	0.69	0.99
S	Subadult male	2005-2017	0.81	0.59	0.92
r	All female	1976-2004	0.26	0.17	0.38
r	All male	1976-2004	0.29	0.22	0.37
r	All female	2005-2017	0.22	0.08	0.46
r	All male	2005-2017	0.33	0.21	0.47
p	All female	1976-2004	0.11	0.08	0.15
p	All male	1976-2004	0.12	0.08	0.16
p	All female	2005-2017	0.10	0.07	0.14
p	All male	2005-2017	0.10	0.07	0.15
F	All female	1976-2004	0.95	0.71	0.99
F	All male	1976-2004	0.99	0.38	1.00
F	All female	2005-2017	0.93	0.79	0.98
F	All male	2005-2017	0.95	0.59	1.00

(S* = unharvested survival; S = total survival; r = dead reporting probability; p = recapture probability; F = fidelity)

INUIT QAUJIMAJATUQANGIT OF GULF OF BOOTHIA POLAR BEARS

FINAL REPORT

23 February, 2021

P.B.Y. Wong
Trailmark Systems Inc.

Report for Department of Environment
Box 209, Igloolik, NU, Canada X0A 0L0

Gjoa Haven Hunters and Trappers Organization, Gjoa Haven
Spence Bay Hunters and Trappers Organization, Taloyoak
Kurtairojuark Hunters and Trappers Organization, Kugaaruk
Aiviq Hunters and Trappers Organization, Naujaat
Igloolik Hunters and Trappers Organization, Igloolik
Hall Beach Hunters and Trappers Organization, Hall Beach

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1. Summary

In Nunavut, both science and Inuit *Qaujimajatuqangit* (IQ) support co-management decision-making. To complement their recent scientific assessment of the Gulf of Boothia polar bear subpopulation, the Government of Nunavut Department of Environment contracted Trailmark Systems Inc. consultants to conduct an IQ study led by Inuit communities who harvest polar bears from Gulf of Boothia. From May to August 2020, we interviewed active hunters and elders from Gjoa Haven, Taloyoak, Kugaaruk, Naujaat, Igloolik, and Sanirajak remotely to document their knowledge of polar bear ecology, population changes (including relationships to humans), and management perspectives and considerations. In-person interviews were not possible due to social distancing and travel restrictions resulting from the COVID-19 pandemic. Interview participants reported increasing bear numbers, females and young bears, and bear encounters. Interviewees also described how they make inferences on population changes. Interviewees were concerned about harvest regulations that fail to take into account increasing bear numbers and human relationships to bears, from a cultural perspective. An appreciation and better inclusion of IQ is needed in bear management, which will inform how decision-making impacts animals, as well as the livelihood of the communities who co-exist with them.

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2. Introduction

Accurate and reliable information on polar bear population status and trends are necessary for decision-making in polar bear management. Collaborative polar bear management among the Nunavut Wildlife Management Board, Government of Nunavut, Department of Environment (GN DOE), Nunavut Tunngavik Inc., Regional Wildlife Organizations, and Hunters and Trappers Organizations (HTOs) in Nunavut focuses on ensuring populations are viable so that Inuit can continue to harvest polar bears, in part through harvest regulations (e.g., Total Allowable Harvests [TAH] and non-quota limitations). Both conventional science and Inuit *Qaujimajatuqangit* (IQ) contribute to this process.

IQ includes knowledge of wildlife trends, as well as the values, opinions, concerns, traditional management practices, and perceived impacts to harvesting and livelihood that are held by Inuit (Wenzel, 2004). This unique characteristic of IQ differentiates it from conventional science, which tends to focus on wildlife data at the exclusion of human relationships and values. Incorporating IQ in polar bear management supports “Inuit harvesting rights and priorities and recognizes Inuit systems of wildlife management that contribute to the conservation of wildlife and protection of wildlife habitat” (Nunavut Agreement, Article 5). Documenting and using IQ require the direct inclusion and guidance of IQ holders in formulating research questions, analysing and validating results, and interpreting and presenting data (Wenzel, 2004). Culturally appropriate research methods are systematic yet informal and based on respectful communication, narrative discourses, subjective and personal engagement, and unhurried meeting styles (Ferrazzi et al., 2019).

GN DOE recently completed a biological survey and data analysis of the Gulf of Boothia polar bear subpopulation (GB; Fig. 1; Dyck et al., 2020). To complement this study, GN DOE sought to obtain IQ information, and contracted Trailmark Systems Inc. (Trailmark) Consultants to conduct an independent IQ study for the Gulf of Boothia, as well as M’Clintock Channel (Ekaluktutiak et al., 2020) polar bear subpopulations. The results from both scientific and IQ research may inform harvest recommendations to the Nunavut Wildlife Management Board—Nunavut’s main instrument of wildlife co-management. These data have the potential to guide TAH and management objectives for the two subpopulations. Here, we report on polar bear IQ documented from communities that harvest Gulf of Boothia polar bears.

3. Methods

We followed a grounded theory approach to guide this work, where hypotheses and patterns in information emerged inductively, without any pre-existing theory (Strauss & Corbin, 1994). This contrasts the deductive approach (Lewis, 1988) that is used in conventional wildlife science, where hypotheses are established and tested (Johnson, 2002).

Initially community visits were planned to conduct interviews with selected local knowledge holders. However, as the COVID-19 pandemic spread across Canada, we decided on an alternative and mutually agreed upon approach. A Trailmark consultant met remotely with Gjoa Haven, Spence Bay (Taloyoak), Kurtairojuark (Kugaaruk), Aivilik (Naujaat/Repulse Bay), Igloolik, and Hall Beach HTOs. HTOs suggested public community meetings be held in each community in March and April 2020 to document IQ. Trailmark staff drafted a list of guiding interview questions focusing on hunting experience, perceived population changes, knowledge of polar bear ecology, and management perspectives. This interview guide was circulated to each HTO and the GN before being finalized.

In March 2020, the COVID-19 pandemic restricted travel and community meetings were not possible. HTO staff suggested remote interviews over telephone and videoconferencing so that IQ research could continue. Because interviews occurred remotely and mostly through telephone, participatory mapping and GIS data collection was not possible; however, interview questions probed for place names to identify geographic locations when they were relevant for the discussion. HTO staff recruited all interview participants for their hunting experience, breadth of knowledge, and familiarity with polar bears, bear hunting, and hunting areas (i.e., purposeful sampling [Marshall, 1996]).

We interviewed participants in a semi-directive manner (Huntington, 1998; Huntington, 2000) remotely from May 21 to August 10, 2020. We interviewed five Taloyoak participants individually over Zoom videoconferencing. We interviewed all other participants over telephone: five as a group and one from Gjoa Haven; three from Naujaat; three from Igloolik; and five from Sanirajak (Hall Beach). Because interviews occurred as a group discussion in Gjoa Haven, the resulting information was interpreted as perspectives of the entire group, rather than individuals. It was not always possible to distinguish who was speaking over the telephone, so we identified individual interviewee's quotations where possible, and otherwise denoted quotations with "unidentifiable Elder". We replaced identifying names with alphanumeric codes ("GH", "T", "K", "N", "I", and "HB" to denote Gjoa Haven, Taloyoak, Kugaaruk, Naujaat, Igloolik, and Hall Beach home communities, respectively) to protect participant confidentiality.

We conducted interviews in English, and interpreters provided translation between English and Inuktitut for four Taloyoak interviews, the group interview in Gjoa Haven, two interviews in Naujaat, and one in Hall Beach. We audio recorded and auto-transcribed interviews using Sonix transcription software (http://sonix.ai). We manually edited transcripts and analysed them using conventional content analysis, where common themes and categories were determined from the data (Hsieh & Shannon, 2005). We identified quotations that represented common themes and reported on them. Additional quotations are listed in Appendix 1.

We sent community interview summaries (English and Inuktitut) through email to each HTO. Because of travel restrictions and the limited time available for this work, HTO board members validated the results remotely instead of the participants for accuracy and representativeness for their community. In-person validations with each participant would have strengthened engagement and data analysis. Results need to be interpreted with this consideration in mind and any uses or applications of these results need to be approved by HTOs and/or interview participants.

4. Results and discussion

4.1. Participant hunting experience

Participant experience provided context to and reliability of interview data. In Gjoa Haven, one participant was an active polar bear hunter (had been polar bear hunting in the area this year) and the other four participants were elders (no longer actively hunting due to old age). These elders had harvested an innumerable number of bears over their lifetime before quotas were implemented; since then, they reported having been able to harvest only up to five bears due to limited access. In Taloyoak, three interviewees were active polar bear hunters. Two interviewees were elders and had not visited polar bear areas in the last 20 years.

In Naujaat and Igloolik, all interviewees were active hunters who had visited the Gulf of Boothia area (Appendix 2) in the last 3 years. In Hall Beach, three interviewees were active polar bear hunters; one interviewee recently stopped hunting but had been to hunting areas earlier this year; and the other interviewee was still actively polar bear hunting but had not harvested from Gulf of Boothia since 1999. HTOs recommended non-active hunters and elders for inclusion in this project because of their unique experiences, wisdom and/or historical knowledge of geographic areas.

4.2. IQ of polar bear ecology

Remote interviews occurred in the spring and summer and recruitment was challenging due to limited in-person coordination (HTO staff were on annual leave) and hunter availability. It is possible some interview participants did not feel comfortable sharing information openly over telephone. Some interviewees expressed a preference for face-to-face meetings, where additional contextual information could have been gathered (e.g., through participant observation).

Gjoa Haven and Taloyoak interviews also contributed to a M'Clintock Channel IQ study (Ekaluktutiak et al., 2020) and interviewees shared knowledge of both M'Clintock Channel and Gulf of Boothia subpopulations. Where possible, we distinguished the populations that interviewees referred to by geographic area. Gjoa Haven interviewees did not consider Gulf of Boothia their traditional hunting area and, as a result, focused most of their interview discussions on M'Clintock Channel (reported in Ekaluktutiak HTO et al. [2020]). Taloyoak interviewees harvest most of their polar bears from the Gulf of Boothia area and, conversely, focused most of their discussions on Gulf of Boothia bears. However, interviewees referred to polar bear characteristics broadly across both populations.

> The polar bears and animals don't have any boundaries. For example, on the map you set up a boundary or a line, and the hunters not supposed to pass that line. Well, the polar bear has no lines to cross. (Interpreter translating for unidentifiable Gjoa Haven elder, 3 June 2020; Ekaluktutiak HTO et al., 2020)

> The government sets boundaries right. Polar bears don't have boundaries. They go anywhere. (GH1, 3 June 2020; Ekaluktutiak HTO et al., 2020)

> Inuit believe that the Boothia Channel or Boothia population and the M'Clintock polar bear populations are the same. (GH2, 16 June 2020; Ekaluktutiak et al., 2020)

Interviewees indicated polar bears are curious animals and their behaviour varies from individual to individual.

> Mostly bears seem more personality than other animals. We know, we know other animals have different personalities. But the polar bears seem to have more, almost like in tune with human. (T1, 21 May 2020; Ekaluktutiak et al., 2020)

> The polar bears has its own inclinations, it's like some of them run away from the disturbance, some of them don't run away from the disturbance. (K1, 26 May 2020)

> They are different. Some very mean polar bears, some are not mean polar bears. Some polar bears are friendly, some polar bears are not friendly. I don't know why, just like a human being. (HB1, 23 July 2020)

They indicated younger bears are generally more curious and tend to be encountered on the mainland (versus open water).

> It's the younger ones that are coming more closer to town, like the younger ones, anything, any animal. Caribou, wolf, polar bear, they're more curious to see. And coming closer to town. But the older, older ones, there they know. They know more...like they're going to be hunted if they come closer, or they're going to be shot. But the younger ones, they're more curious. (Interpreter translating for N1, 16 June 2020)

> It's usually the older ones that always running away. It's the juveniles that are curious like human beings, they'll do stupid things as well. And they would come into camps wandering on and also to look at what's happening, like whether it's a dangerous area to go to or not. Like any humans, the young people would take chances to go into certain areas. Most of the bears that do come through the community are juveniles. Inside the ages of one year old to three or four years old. Those are the ones that are most nuisance. But the older ones always stay away from the communities. (I1, 13 July 2020)

> *Tulajuittuq*, that's extra-large polar bear, live in the ocean. They hardly go to the land...big bears *tulajuittuq* harder to go around here, because I think there's too many polar bears...usually mother with the young cubs around mainland, people see them a lot and they hardly see big ones now because they protection is not to go to the main ocean because they were eaten by bigger bears. (I2, 10 August 2020)

Interviewees indicated polar bears prefer rough ice, where seals are more easily accessible.

> In rough areas, the packed areas, they tend to be in that area. And when seals are giving birth it's pretty much all over you can see them. In that area where there's seal holes, breathing holes and that will usually be in April, May. (HB2, 23 July 2020)

> They used to be more in the more rough ice...maybe there's more seal, because there's more snow back in the more ice, and the rough ice. So, the snow builds up on the rough ice. (HB3, 23 July 2020)

Interviewees also reported polar bears prey on a range of species, including other polar bears.

> They go after bearded seals and other sea mammals but when they're hunting for them, when they see other polar bears, cannibalism comes into play to due to hunger. (Interpreter translating for HB4, 29 July 2020)

Interviewees indicated polar bears can be encountered all year round.

> Mostly summertime, when we're boating, they're on our shore. And in the fall too, they're on the shore, and some in the water. Sometimes we hear [about] them miles from land, swimming. And fall time there's quite a bit near our hometown now. Wintertime, there's less to see, and early spring, you can see them on the sea ice. I mean the sea ice, yes, and there is more [captured] on the sea ice near where I go. And they, all winter, I think they stop moving, I don't know, maybe they go down to the ice, moving ice, pack ice. (N2, 15 June 2020)

Some interviewees described seasonal patterns in feeding, distribution, and denning.

> In the summertime, when they're swimming along, they get fatter, they eat more. I know that they eat more, refuelling. And in the wintertime they're mostly in the den, some of them, and they get fat mostly in summertime 'cause there's more prey, their prey is ringed seal. And they would also need, I've seen some bears eating grass in the summertime, or even in the winter they dig the grass. (K2, 13 May 2020)

> Polar bears are mostly noticed in maybe the open area, like open water area. Most polar bears go after seal in the water or on the ice for seal, make a hole in the ice all winter long. Polar bears, they tend to come in the area [south of] community in the fall time. Not so much in the springtime. They're more out north of us in the springtime hunting seal. (Interpreter translating for K3, 19 May 2020)

> Normally polar bears den in the fall time through October, beginning of October, that's for the pregnant female. But the males tend to den through in November, which is a bit

> later than the female. But there are a lot of people that don't bother denning all through their winter. (Interpreter translating for K3, 19 May 2020)

Even though bears are known to travel across population boundaries (Ekaluktutiak et al., 2020), some interviewees described differences between M'Clintock Channel and Gulf of Boothia populations.

> In M'Clintock Channel where we studied, before the bears over there are mostly always skinny and the bears on Gulf of Boothia are fatter bears, healthy bears, and they're more yellow because they're healthy and over on the other side of the ocean is because they're more skinnier. They're fur is more white. (K2, 13 May 2020)

> I've always noticed the M'Clintock Channel's bears are not as aggressive as the bears in Boothia. But that may be due to the size of the populations because the bears I get from the M'Clintock Channel have a lot less scars. They don't look as beat up and they're healthier...whereas the bears in Boothia, they tend to have a lot more scars. I guess there's too much competition for food or they seem to be a beat up a bit more in Boothia. (GH2, 17 June 2020; Ekaluktutiak et al., 2020)

> Bears on M'Clintock Channel area seems to be more slender, less fat. And it's always been that way, they always heard of it. And it's still like that today. And for Gulf of Boothia, you have the open floe edge area behind Astronomical Islands. The ice would close up, freeze, and then through the cycle of the strong current following the moon, the ice would open up. And there's many seals. And wherever you have a floe edge or open water, there's known to be more seals and more bears in those areas. And that is the difference and we've known it for a long, long time. (Interpreter translating for T2, 21 May 2020; Ekaluktutiak et al., 2020)

Hall Beach and Igloolik interviewees also distinguished Gulf of Boothia from Foxe Basin polar bears by their migration patterns, body size, and how avoidant they are of humans.

> I think the Gulf of Boothia I see more bull, bigger bears, male bears than here in Foxe Basin. That's the only thing I could really discuss, the difference between Gulf of Boothia and Foxe Basin. I see more bigger bears over at the Gulf of Boothia. (HB2, 23 July 2020)

> The one around there, they are a bit more scared. And on this side, the Foxe Basin, they don't get scared much. (HB3, 23 July 2020)

> Gulf of Boothia they only migrate once a year and they go back up again to the Gulf of Boothia once they are down here, and there's a big difference between the Gulf of Boothia polar bear and the Foxe Basin polar bear, so polar bear from the Gulf of Boothia they migrate down to Foxe Basin, they migrate back when it by the fall time. But these Foxe Basin polar bears are just on the Foxe Basin area. (HB5, 27 July 2020)

Interviewees indicated bears travel between Gulf of Boothia and Foxe Basin management boundaries.

> The ones that come from Foxe Basin and Gulf of Boothia, they change places. Like the one from Gulf of Boothia goes to Foxe Basin and the one from Foxe Basin goes to Gulf of Boothia. Yes he can tell that the one from Gulf of Boothia who's been there for a long time, you can tell it's been there for a while because of the back of the palm of his hand and (running) out of skin from hunting too much. But he can, all he can see is that he sees them same. From Gulf of Boothia and Foxe Basin. (Interpreter translating for N1, 16 June 2020)

Information on polar bear ecology and behaviour, as well as patterns, is learned through hunting experience and travelling and living on the land. This knowledge is important for hunting success, as well as hunting shared prey.

> How I know there's seal is if I can find polar bear tracks on the ice. They're hunting there. If I want to catch seals, I will try to look for polar bear tracks. They are the ones that know seals more than we do. (I3, 27 July 2020)

4.3. Description of hunting

Interviewees described polar bear hunting using tags (Appendix 3). Other animals such as caribou, wolverine, wolves and fish are harvested in polar bear hunting areas. In the past, polar bears were harvested using dog teams.

> The dog teams be using to hunt harvest polar bear besides snowmobile because they know the polar bear then and they have a little bit of like not a sound at all, not like a machine. (Interpreter translating for HB4, 29 July 2020)

Today, polar bears continue to serve as an important source of accessible food, as well as clothing and income from their hide.

> Polar bears are very important because in those days, the polar bears were everything to us. The fur itself would be used for clothing or you know, as well as the meat which was never wasted. It is very important to us to this current time. (K4, 26 May 2020)

> Currently, with the polar bears, how important to people, it's like when we catch a polar bear, it’s very important about the meat, where there's meat. And in those days, they were always important and still today, still important because we Inuit eat lots of country food and meat, and so because of polar bears’ meat that's how important it is. And with the hide, with the polar bear hide, the skin, we used them too in those days, but usually we kept them...today, with the hide, we try and make everything with the polar bear hide and that's how important it is to us. (Interpreter translating for K5, 26 May 2020)

> Polar bears are used as a mattress or they can use them for a wind pants because the fur will never, ever absorb moisture. It just never absorbs moisture. So, it's the best thing for to use is as a mattress or a wind pants, for Inuit style wind pants. And the meat we eat, it's like baby pork ribs. (Interpreter translating for N3, 4 July 2020)

In this manner, hunters are knowledgeable of and select for certain bear characteristics depending on what they harvest them for.

> I prefer younger than older. I didn't believe my parents when they were alive, now that I'm older, I prefer younger bears, because the meat is more tender, but they mostly go for bigger polar bear so some people today...most of them always look for bigger bear. Like sport, lots of people, the hunters I call sport hunter, they want bigger ones and some people, most of the people they sometimes, when they see a bear, they don't mind them if it's sow [female] with cubs even though if they're same size, they just leave them and look for bigger ones. (K2, 13 May 2020)

> Polar bears or any animals, the meat, they taste better in the winter season than in the springtime and that is why nobody really wants to catch polar bear around the springtime season. (K4, 26 May 2020)

> If I want to go polar bear hunting, male or female, I'm going to shoot the fat one and the very clean fur. That's what I'm always after, I don't kill skinny ones and bad furs. So, I shoot, more like that, I shoot for food, young and clean. Not very often, sometimes, if I see a polar bear, I'll just shoot it and sometimes if I go to Gulf of Boothia, I have to choose what I want. One time I was going polar bear hunting to Gulf of Boothia I saw many polar bears and I never get one, I go back empty handed. (HB1, 23 July 2020)

Older, more experienced polar bear hunters are able to discern polar bear characteristics.

> There's two different hunters now, the older one that's been hunting for polar bears for long period of time, they learn about how polar bears move. They have different movements, male and female. So, they watch and learn about the bear to see if it's a male or female. But these younger one now too that are starting to just hunt. When they go hunt, they as soon as you see a bear, there's a bear, so they just shoot it without noticing or learning about the bear. There's two types, I would say. But the older hunters, they can for sure tell if it's a female, or a male...the young hunters, all they know is if it's a big one that must be a big male. But if it's a female size, it's really hard to tell. (Interpreter translating for N1, 16 June 2020)

Uses of polar bears have shifted and, as a result, so have hunting practices. Hunting for the sale of hides encourages hunters to select for bigger bears.

> We catch a polar bear by a big size. The bigger size it is, the height will add more money into it. The meat we keep but due to the fact of fundamentally speaking, like even *qablunaaq*, the white people likes to have a bigger—they like to have a big polar bear skin around their home so we do the same thing, you know, we try catch a bigger

> polar bear just because of the size of the hide that will you know, benefit. (Interpreter translating for K1, 26 May 2020)
>
> In more old bears, the polar bear skins are important for their pants, for the mitts, or kamiks. But now, only for few people use them now. So not much polar skin goes there now. (HB3, 23 July 2020)

However, fewer community members harvest bears for their hide today, due to their lower economic value.

> The polar bear hide is not very pricey around this time. Not too many people outside of Nunavut want to buy the hides of polar bear. Actually, there is a place where people sell down south for the polar bear hides and today's market is down. There's no interest in selling the polar bear hides to many people. (Interpreter translating for K3, 19 May 2020)
>
> Nobody wants the polar bear hide anymore, it's very cheap, that's why in Gulf of Boothia nobody goes hunting, maybe five years, nobody goes hunting so we got right now lots of credit in Gulf of Boothia, nobody goes hunting because of highest risk route and the gas is so expensive, the food is expensive, nobody wants to go spend the money for nothing. I mean last spring, three hunters went polar bear hunting from Hall Beach to Gulf of Boothia, they got three more polar bears. And so that's the first in maybe 5 years someone go hunting polar bears to Gulf of Boothia. (HB1, 23 July 2020)

Income generated from selling hides is usually reinvested into hunting. Today, the lower market prices for hides can no longer support increasingly expensive hunting supplies.

> When it's fat, they were eaten by the people and the fur, the pelt, was sold to the Hudson's Bay, I believe was the only place they sold furs anyway and it didn't cost very much. The last time I remember my mom, let's say my father caught one in early spring, and my mom did the fur, and she said, I remember she sold it for $40 at Hudson's Bay company. Later on, when I was a teenager, there were more bears. And people would sell the pelts and a good polar bear, a good size one would cost enough to buy a machine, like the early Bombardier machine. But those were really kind of small bills and one bear, let's say a small bill, were about $700, $800 for a machine, when I was a teenager. And people would buy a machine right away from the Co-op store or in order by the Hudson's Bay. Now, in the 90s, bears became more and in 2000, there were quite a bit around. So, I think the price went down a bit and then it grew, but I think the folks know about it. It was just a fraction of what you earned from the bear skin to buy a machine, that's around $18,000 worth now. (N2, 15 June 2020)

Expensive hunting equipment and supplies can limit access to hunting.

> Not all of them have snowmobiles, all the equipment. Not a whole lot of people have the opportunity to go and catch a polar bear. (HB5, 27 July 2020)

> Oh my goodness, for my trip this past May it costs me just over $2000 out of my own pocket. You know, the gas is getting expensive, the grubs is getting expensive. All the bullets and whatnot are pretty much expensive. So, it's quite an expensive, would be an expensive hunting trip nowadays. That's what I experienced in May. It's quite far so you need other snowmobiles, like other guys that you need to go with too. So, it's a costly hunting. (HB5, 27 July 2020)

Hunting is also limited by employment.

> Most that are not working hunt polar bear either in fall or winter or like around this time, springtime. But whenever a person working, who has a full-time job just get a chance to maybe stay around on the weekend, they would go after that opportunity. (Interpreter translating for K3, 19 May 2020)

The practice of polar bear hunting alone is demanding and requires a lot of work to prepare and distribute meat.

> To be honest, catching a polar bear, a big game, is a lot of work and butchering the skin and preparing the meat and cutting up all the pieces into pieces. Make sure it's grabable for people to just grab without, you know, cutting themself a piece of meat. (HB5, 27 July 2020)

Polar bears can be harvested on the sea ice or land, depending on season and location.

> During the winter season we wouldn't have polar bears out on the sea ice. But during early fall about October November, we would catch polar bears, the ones that are mostly on the land. (Interpreter translating for K5, 26 May 2020)

> Everybody knows that bears can be in the ice or on the land, it's more like where you go hunting...on the ice is the best time because bears like to be on the ice most. But that [I have] hunted bears on the land. (N2, 15 June 2020)

> During summertime, you can catch a polar bear sooner than winter. During winter you're going to have to search for the polar bear. It depends on the season and it depends on the polar bear. (Interpreter translating for N3, 4 July 2020)

For Gjoa Haven (Ekaluktutiak et al., 2020), Naujaat, Hall Beach, and Igloolik communities, Gulf of Boothia bears are farther away than the other polar bear populations that they can access. Hunting in Gulf of Boothia areas requires considerable time, experience, safety precautions, and fuel.

> It's pretty far away from Hall Beach. Maybe the hunter is just going out for the weekend or spending the whole week over there. They really decide, oh well, they get first bear they see, or any bear that they see or if they're spending more time over, they will pick and choose which bear really like and really try to get the fatter ones. (HB2, 23 July 2020)

> They want to go polar bear hunting on the other side it usually lots of food and lots of gas. So not much people go up there. (HB3, 23 July 2020)

> The polar bears skin is too low now to sell the polar bear hide. That's the point and the point is the Gulf of Boothia is kind of far from our community. (Interpreter translating for HB4, 29 July 2020)

However, some community members prefer to make the trip.

> I prefer hunting in the Committee Bay region [Gulf of Boothia] because it's quite a trip and also hunting caribou at the same time and taking my time and that's what my father used to hunt as well, so I think that's one of the reasons why I enjoy hunting more on Committee Bay area. Or the west coast of Melville Peninsula. And also, around Frederik Island and in that area. Normally there's a lot of bears there and I could choose what type of bear that I would want and mostly males, and also there is all kinds of bears around there. (I1, 13 July 2020)

The considerations and risks involved with polar bear hunting shed light on the deep relationships between Inuit and polar bears. Barriers to accessing Gulf of Boothia bears might explain why the quota for the population has rarely been filled (Dyck et al., 2020). However, polar bears continue to play an important role for community members from a cultural, ecological, and economic standpoint. This importance is an incentive to preserve traditions, gather knowledge, and learn how to hunt. Being able to access harvesting also permits younger hunters to learn how to hunt and, through selection, distinguish polar bear characteristics.

4.4. Changes in abundance

Interviewees reported an increase in the polar bear population in the last two decades. This change was noted in comparison to the distant past, when bear encounters were rare and more time and effort were required to pursue them.

> When I was a child, polar bears were very scarce in the area. They've been scarce, not too many polar bears are spotted 50, 60, 70 miles around the area. One polar bear may have been spotted maybe [few times], once. Maybe four or five years at a time. Back then that was 1950s, 1960s. But today, there are polar bears being spotted in the area five miles, 10 miles 20 miles, something like that. (Interpreter translating for K3, 19 May 2020)

> When I was a kid ‘till when I was a teenager, there was almost no bears. We couldn't see one for a whole year. And I do a lot of traveling, I did a lot of traveling with my parents anywhere on the winter and summertime. We didn't get any bears in summertime, fall time, winter when we travelled. Now, you will see them everywhere in the summertime. Summertime, fall time, even near town. And when I was a small,

> small kid I could walk around anywhere without a gun and my parents wouldn't even worry about me for the whole day I used to go out hunting. And like, talking [about] hunting, bear hunting. And my parents wouldn't even get worried about me and right now, you cannot even go camping without a dog or something or a tent. You have to have a cabin now if you go about, so many are out going camping...you can't get enough sleep because there will be bears when you're sleeping. There's bears all over right now. (N2, 15 June 2020)

> When she was growing up, she didn't really mind about polar bears or be concerned of them. But these days, these early 2020s, right now, polar bears are so many that she is scared for her grandkids now. That's her concern, is that there's too many polar bears now. Because when she was growing up, there was hardly polar bears that you can see, but now there are so many polar bears to be concerned of that because they're just coming to town. (Interpreter translating for N3, 4 July 2020)

The increase in bear numbers can be noticed when they gather during mating season.

Hunters are also aware of these changes while traveling on the land over years.

> When we travel we see more bears. And nowadays we can see much bears when we are traveling, today we see them everywhere when we are traveling. (HB3, 23 July 2020)

> They gather more on the shorelines. And during mating seasons, pretty much in May, April, May, females are out more and so I would say that when it comes to mating season, they gather and once they gather, after that, they hunt and so once the solid ice is gone, they just go on the shore of the beaches, and you know not be solitary anymore and be with other polar bears. I guess that's also, perhaps something to do with the population increase too. (HB5, 27 July 2020)

Interviewees attributed the population increase to harvesting limitations.

> Due to the fact of the tags being placed after the tags being placed, that's how we see increasement of polar bears, now, more polar bears now because of the tags being in place. Now we cannot even catch a female polar bear with cubs because of the tags….hardly anyone is catching them nowadays and than in the past. (Interpreter translating for K1, 26 May 2020)

> They're like human beings. And in the past, back in the 1960s, the population of Inuit was very low and because of a better health system and also better food and welfare coming in, there's a lot more people. And exactly the same with polar bears. They're now being looked after and they're well looked after. There's not as many in the past, but now there's more. And that could be part of it. And the purpose of the quota system was to bring more bears in. And now we have more bears. (I1, 13 July 2020)

> In the old days, they don't have a quota and there is no law in the old days, if they see a polar bear with a cub, they kill it right away and use them for food or dog food, the skin, use it for clothing, and back in the 1970's, we got the quota system, we have a

> quota in 1960's or the 70's so we are not allowed to shoot the cubs anymore so we never shot a cub, with a cub before. If we have to we shoot sometime for safety and now, they don't kill them anymore so the population is growing up. (HB1, 23 July 2020)

Interviewees also indicated that bears are aware of how human relationships to them are changing.

> The change is that's the bear seems to know that the females with cubs are not to be shot. So, they're coming, they're more coming to town. 'Cause they know they're not supposed to shoot the female and the cubs. But the big one, male one, they don't really come closer to town. The female ones are getting more. (Interpreter translating for N1, 16 June 2020)

> These days, there's more female polar bears with the cubs that's going to town because they're just being scared with loud bullets or being scared with guns not being killed. So, I think the females are used to getting to town because they're not getting killed when they go to town. But just being scared, so I think they're used to it now. Because polar bears in Naujaat goes right to our house under the steps. That's how bear is in Naujaat, like they go right under the steps. Or they're just four feet away... her concern is that there's too many females now that are just being shot at, not killed, but being scared with those bullets that just crack bullet. So, they're used to being to town now and then they go, and then about a year later, they come back. With female cubs, with baby cubs. And the polar bears are very hungry when they get to town. (Interpreter translating for N3, 4 July 2020)

More females are being encountered on the land versus male bears.

> I seem to notice that there are a whole lot of females, more female than male. (Interpreter translating for K3, 19 May 2020)

> I think I see some little bit of changes here on polar bears regarding the genders. I like to say that there's more female polar bears now than male polar bears. That's what I see. (K4, 26 May 2020)

Some interviewees added they can distinguish gender by observing tracks, body shape, and behaviour, as well as taste.

> We're not allowed to get bears with small cubs anymore. I see more females; I can tell by the tracks 'cause I can tell by the track now. I don't like calling myself an elder, but I know just by looking at the tracks. I could even tell these boys that's a female and male. Young male, female, so I've seen more female tracks than young male bear so I think there's more female than male these days. (K2, 13 May 2020)

> It's really easy to tell when there's a female or a male because of the feet, you know their feet, and the female polar bear has longer neck. (K4, 26 May 2020)

> The female polar bears' meat, it's tender than the male polar bears' meat. The meat of the male polar bears'...after you cook the meat, it tends to be stone hard. With the female polar bear, when you boil the meat, it's more tender, and it tastes more better. (K4, 26 May 2020)

> Males are more skinnier now, and females I guess they save their energy and the males tend to be more aggressive than females. And that's how we recognize them. (HB5, 27 July 2020)

Interviewees reported seeing more young bears.

> There seems to be more younger polar bear than older polar bears in the area...hunters go for more big male bears than the younger bears. But nowadays, people seem to go for the younger polar bear for their meat, for they're tender, like the meat that's from a younger polar bear. (Interpreter translating for K3, 19 May 2020)

> Seems like the smaller, younger bears are very many and easy to see. (Interpreter translating for T3, 21 May 2020; Ekaluktutiak et al., 2020)

> The younger ones seem to have increased due to the fact that we don't have to hunt them with their mother and so they're leaving their mother even on a very young age, like two years old, when they're supposed to be still with the mother, and I see them more often rather than the adults one. (HB4, 29 July 2020)

Females with more cubs are being observed, as an indicator that the population is increasing.

> We always see a sow [female] with three cubs instead of just two or one. These days we see more sow with three cubs...every year...every summer. When I was boating, we see sow with—we see four polar bear, mother with three cubs...it was more than one day and different bears. We saw about 10 bears in one day. And about two of them had three cubs and the others had two...in the late 90s we start seeing them, summertime, every summer when we're boating, we see polar bears down there at the bay. (K2, 13 May 2020)

> In summer, I notice there's more mother bears with a family. And more younger, younger bears around. I see quite a bit of a young bears in summertime now. (N2, 15 June 2020)

> In my late teens I would see a mother with two cubs mostly. But now, three years ago, I saw mostly, two or three years ago now, I see some with three cubs. Three cubs now. I think that there's more—I never saw a bear with three cubs when I was a teenager. (N2, 15 June 2020)

Interviewees reported polar bears going into meat caches is indicative of a population increase, as this behaviour was rarely observed in the past.

> In the summertime, people may have caches in the area like 30, 20 miles out of the community and polar bears will smell that animal buried there and they'll find where it is. That's one of the reasons that polar bears are coming, come near the community area, and other times they might be smelling the garbage dump. That's never often that go into the garbage but once in a while. (Interpreter translating for K3, 19 May 2020)

> The way I found out the polar bears are increasing is by like, when we cache the meat every year, and when we go out to go get our meat that our cache we can, in those days, those cached meat would be still there and when we get them. But in recent time, recent years, when we go get our cache meat, they're all been eaten by polar bears because the polar bears are increasing and that's where we find out that there are more polar bears now. (K4, 26 May 2020)

> We don't bury, leave the meat, get it after because there are so many polar bears now. So, before that, when we get here, we used to cover with all the rocks and then get it in wintertime. We can't go that way nowadays, Igloolik area, too many polar bears nowadays. (I2, 10 August 2020)

Hunting success was considered an indicator that the population is increasing.

> I'm a bear hunter and when I was young, we would be out for more than a week and sometimes we'd go home with no bear. But these days hunters go out, look for bear, and come same day. Hardly anybody ever overnight out there anymore. Only mostly me, when I'm out, I like to be out on the land. (K2, 13 May 2020)

> When the quota system opened and people were told that so many bears had to be caught once a year, so many of them, they put a number. And then people would be out hunting, and they would not find any. Keep looking for one until end of the season. I think we've been quite lucky for us to finish all the quotas. Now there's too many that actually comes to the community, which we hardly ever heard of before. We definitely know that there's more bears along the shorelines than ever before. And in the past, there was hardly any. (I1, 13 July 2020)

Interviewees expressed that shared observations among hunters confirm validity.

> He can say that the bears are coming more to, closer to town, and we look at the radio so other from this community to different community, he talks with a lot of people. So that's the same thing that they're saying, that we can see bears more, closer to town, and everybody is noticing that there are more populating. (Interpreter translating for N1, 16 June 2020)

Interviewees from all communities were in agreement that numbers of polar bears are increasing. Hunters shared unique observations that they have made over time to make inferences on population trends. These indicators provided insight into Inuit knowledge formation. Interviewees also shared information on polar bear population changes within the

context of impacts to hunting and land use; population changes are inseparable from human relationships.

4.5. Changes in distribution and behaviour

All interviewees reported polar bears are more frequently encountered in and around communities in recent years.

> Some years are bad for bears coming into the community, and some years are okay. And she know that, they will come into the community again. Especially the young juvenile bears, the young cubs. They are very plentiful. (Interpreter translating for T4, 21 May 2020)

> To my knowledge about polar bears coming into the community, 20 years ago, today, there are more polar bears now coming into the community, maybe because of the scent of seal of the community garbage dump, they might smell some kind of an animal or a carcass around town [I think]. There's more polar bears now coming into the community than before so that's how I see the changes. (Interpreter translating for K5, 26 May 2020)

> Bears used to be around the floe edge all the time 'cause that's where there are good seals and hunting area. But now they're more spotting dead animals or unfinished harvest. So, they're used to be more at the floe edge, that was their environment. But now they're everywhere. They're on land near the community. (Interpreter translating for N1, 16 June 2020)

Interviewees were particularly concerned about human safety while camping on the land.

> I have concerns about polar bears, especially around time of the year they start to come around closer to the community...specific to people they're very dangerous because they sometimes can destroy or kill a human. (K4, 26 May 2020, Kugaaruk)

> If I were to go out camping near town or just out there on the land, currently it's more riskier now to camp inside an igloo or a tent because there is so many polar bears that always migrates from one place to another. To me, right now, I think to be in the camp, it's more appropriate to have a cabin, sleep in a cabin, than a tent or an igloo. Because of the population increasing that dramatically. (Interpreter translating for K5, 26 May 2020)

> It changed right now. Even though if I go to caribou hunting, I have to bring my own bag for safety or take some safety stuff for polar bear. Right now, it's very uncomfortable on the tent right now, even though not too far from here. Every year, I don't know how many years, I've been traveling towards the Repulse Bay area to hunt narwhal or polar bear. Every time in the 1980's, 1990's and 2000's, every time I go travelling, polar bears everywhere on the shoreline. They are growing up right now, lots of polar bears right now. (HB1, 23 July 2020)

In the past, dog teams could keep bears away.

> There's barely any more dogs, like traditional dog sleds, so that's something that there's no more dog watch for polar bears. And the dumps are so close to the community that polar bears now by dumpsters and that's her reason why she's thinking polar bears are coming to town. (Interpreter translating for N3, 4 July 2020)

Today, polar bears are more aggressive and no longer afraid of human activity.

> Our polar bears are not so afraid anymore in the community. There's some kind of an interaction with the environment, the polar bears are not really afraid to come into the community anymore, although there is so much traffic or so much activity happening in the community, when they hear any kind of noise in the community, the polar bears aren't afraid to come to town no more. (Interpreter translating for K5, 26 May 2020)

> They used to run away from people when I was a young person. Like walking along and a bear can see you, they run right away. They're scared of people. Now, they're more curious. They see people, they won't, most of them won't run away now. They stick around or try to figure out what you are. And they go to tents and they're not scared of tents anymore. (N2, 15 June 2020)

> Polar bears are just as human as they can show off. You know when humans are teenagers, they're active, very active and strong. And they can show or show off their muscles. Inuit, like humans, can do that, right. Polar bears are just like humans when they're young teenage polar bears, their super white, clean fur. The more white fur they have, that aggressive they are. When you see a polar bear, young polar bear going to town. They're just going to be as a young teenager who's showing off. 'I'm scary, I'm tough, I'm good looking. I'm bigger than you, I'm more powerful than you are.' That's how polar bears are when they're as young teenagers. They'll go to town and not be scared but show off everything with all their power. (Interpreter translating for N3, 4 July 2020)

Some interviewees indicated polar bears are more aggressive when there is a higher density of them.

> All polar bears vary, some of them are very vicious. Some of them aren't vicious. Some of them are, but yeah some of them are scary...to my knowledge I think they are more vicious now than in the past because of the population of the polar bears are increasing. There is more polar bears that are more. They've become more vicious. (K4, 26 May 2020)

Interviewees cautioned the increase in aggression is due to the lack of respect for bears by humans; interacting with bears without harvesting them is not considered respectful.

> Back then before the quotas, people, their rule was, if you're shoot a bear, don't just lose it, leave it, wound it. If you can catch it, kill it there. And before going out hunting,

> elders would tell the young ones, don't talk about bears, don't tease them, don't wound them and leave it. And that was their rule, so elders would tell the young ones not to tease anything about bears, so any animal. So, don't make fun of it, don't get it wounded. If you do, kill it here. And there was a lot of use for it. But now, if they would see it, trying to scare off a bear back then, the elders would see that, they'd be so angry about the person that you're just getting angry, that you're trying to anger the bear. Don't do that. Don't throw rocks or don't use bear bangers or things like that. (Interpreter translating for N1, 16 June 2020)

Interviewees described the impacts of bear research on polar bears.

> As soon as they started using those tranquilizers, and when they started using the quotas, that's when he started, two years. It's roughly there, in between there, the population for the bears were getting more. (Interpreter translating for N1, 16 June 2020)

> They make them go to sleep, that's when they seem to lost their mind. Like Inuit, we used to be good friend, don't steal, things like that, we used to listen to law. Until white guys come around, start drinking booze, start smoking marijuana, we lost our mind. We seem to be so crazy today. That's how the polar bears are too. So well, the quota comes, you are to kill one bear. So, if we see two, we kill the other one, and the other one is mad. They've always not do anything, start breaking cabins, rip the tents. There's so much today. It's so dangerous today. (N1, 16 June 2020)

Interviewees indicated polar bears are learning from and responding to changes in human behaviour towards them. Human-bear relationships are no longer in balance.

> Polar bears know that they are protected by something. They know. They are intelligent animals, no matter what animal you are. They, as if, know what people are doing. What guidelines, what policies and procedures, as if they know what's going on with the tagging system. (Interpreter translating for T1, 21 May 2020; Ekaluktutiak et al., 2020)

> We have a traditional old belief that polar bear can hear when we talk about them. (I3, 27 July 2020)

> Long years ago, polar bear were so afraid to people who were from the community, want the people, want anything, human belonging, like igloos or we don't like too close right now, so I will turn into a different person. In my view, polar bears are polluted. Their brain is no good now. They could come up to you and usually they will smell you because ocean is polluted and filth and poison. What they eat is brain damage them, so it's very much different right now, years ago. Sometimes, few times, when I see polar bears...I always say, ‘oh that's a good polar bear’...because nowadays, they see you, they likely to come to you, smell you around, that's different. So, I can say their brain is not same anymore. (I2, 10 August 2020)

Interviewees also indicated individual bears are distinguishable and the same bears tend to come into town.

> You can recognize polar bears. The polar bears keep coming back and forth. Once you let them run away, try and scare them, they're going to come back for sure. They will come back. They really come back and there's no other way that they're just going to come back. You have no other choice but to say they're going to come back because there's some meat there. And that's the only way. The only way. You can recognize polar bears as human beings; you can recognize them by their skin colour or they have a scar or how fat they are or how small they are. They are just recognizable. (Interpreter translating for N3, 4 July 2020)

Interviewees indicated the changes in polar bear distribution and behaviour is largely due to changes in how humans perceive, relate to, and interact with polar bears. Relationships with polar bears have shifted from harvest-based ones to research interactions and scare tactics. Increasing aggression and distributions close to communities are a result of polar bears learning from and responding to these shifts.

4.6. Polar bear health

Interviewees reported polar bears over the last 10 years have been generally healthy.

> This winter all the bears they caught were very healthy bears they got. Like fatty bears all of them...I never really used to see an unhealthy bear. To tell you the truth, all the bears. (K2, 13 May 2020)

> There's not much really changes in the health of polar bears. It's just like us, like a human being, we get sick and [here and there]. But I don't see a lot of, you know, big concerns in this area because they get sick and you know, they get healthy. (K4, 26 May 2020)

> You never will ever see an unhealthy polar because all of the polar bears are healthy. The only time they will see an unhealthy polar bear is when they age and they can't do hunting anymore. That's the only polar bear that you would see that would not be healthy or not normal because of their age. Because all polar bears are all healthy and very well hunters. You'll never see an unhealthy polar bear until they're aged like they can't do hunting no more. (Interpreter translating for N3, 4 July 2020)

Sick bears are rarely encountered, and interviewees can distinguish them by their body fat and fur colour.

> The only thing I can tell is when a polar bear might be look sick is when the polar bear haven't had anything to consume or to eat or hunt. It's when the polar bears like famine or something like that. That's the only time when he had seen skinny polar bear that looks sick. (K4, 26 May 2020)

> The way I can tell when the animal is sick is when the polar bear is really, really doesn't look a natural bear. The fur, it's skin or the fur itself may not look that usual, really

> skinny, no fat. You know, that's how I would tell when a polar bear is sick...recently or currently I myself haven't seen the one like so many polar bears like that. (Interpreter translating for K5, 26 May 2020)

Interviewees indicated skinniness reflects poor hunting ability.

> Came back to my late grandfather, like some hunters are skilful and lucky, and the others some hunters are not very lucky. He said it's the same thing with bears. The bears that are not very good hunters, they die of starvation, but it’s rarely happened, he said, if you know what I'm saying. Those bears are not very good hunter...rarely get skinny polar bear. And I think just when the scientist see something skinny and they say the bears are starving it's not like that. It's been like that for thousands of years here 'cause the bear is not a very good hunter, the polar bear they die of starvation. (K2, 13 May 2020)

> Back then when they open up the polar bear hunt for Gulf of Boothia, they used to catch polar bears that are very fat and healthy, but now they're just mostly skinny now, cause they're poorly hunting now, the bears are poorly hunting. (Interpreter translating for N1, 16 June 2020)

Bears that had been previously handled for research are considered unhealthy.

> They have a second thought of eating the bear, cooking it and eating it. And the colour of the bear doesn't look as good as another bear that never been tranquilized or doesn't have a lip tattoo. On any given day, they'd rather have a hunt a bear without a lip tattoo or anything. (Interpreter translating for T2, 21 May 2020; Ekaluktutiak et al., 2020)

> Most of the ones that were caught were nice and fat and they seem healthy. But the ones that have tattoo and that, they tend to be skinnier. It's usually the older bears that have the tattoo and that, so could be because of age or that. But our elders that passed down were reluctant to have what was studied by scientists. They have tattoos and ear tags and that. And what, if they don't have tags or ear tags, or tattoos or ear tags; they a lot happier and know that they're healthier and they're less reluctant to consume it. (T5, 21 May 2020; Ekaluktutiak et al., 2020)

> Polar bears have become drug addicts because once you're tranquilize them they’re nice and high and even though you put them away, about 20 miles away, they always come back to the dumpster because get another fix. So, they become drug addicts. And also, with the meat that we consume, there is absolutely no taste and a strange taste to the bear meat. We would throw those away right away because they had been tranquilized. The ones that had been tranquilized had very different taste, quite unique. And even though, I don't know for how many years they have been in their system, they stay in their system for so many years, we don't know. But in the past, we would throw away the meat. The meat is already spoiled. And it's been tranquilized. (I1, 13 July 2020)

One interviewee indicated radio collaring for polar bear research interferes with the bears' ability to hunt.

> The ones that have radar collars, they're usually not healthy, very skinny, and under the collar, people who have actually caught bears with collars, we don't take the meat, the meat just behind the head on the neck part where the radio transmitter is. It's usually very rotten and spoiled. Doesn't smell good. (I1, 13 July 2020)

Aggressive bears that enter communities were considered atypical and unhealthy to eat.

> He knows the meat is really different today. He think it's mostly from the fast food or [all the] food [that] we're eating from the dumps and stuff like that. The quality of the meat is more different from a long time ago. And he knows like some meat are still good, a lot of polar bears are still good. But he notice some of them, they're not as good as they used to be. (Interpreter translating for T1, 21 May 2020; Ekaluktutiak et al., 2020)

> When you have polar bear is aggressive more, it doesn't taste as much good, but when you spot a bear and it's not running away. And if you should shoot it there and kill it. That's when it tastes better. He notice, I mean, he can tell the bear hasn't been running, that's when it tastes better. If it's been running away and you have to chase it for a while, it doesn't taste too good. (Interpreter translating for N1, 16 June 2020)

While interviewees described indicators of poor health, they emphasized that polar bears are generally healthy. Unhealthy polar bears are rarely encountered. When they are observed, poor health is attributed to poor hunting or human handling for research.

4.7. Disturbances to polar bears

Interviewees reported pollution and noises (helicopters, snowmobiles, shipping traffic, and seismic testing) are the main disturbances to polar bears.

> Mostly people will disturb polar bears. And aircraft, helicopters. Helicopters will disturb the polar bear during the February season, hunters will disturb the polar bear...the sounds of the snowmobile and sound of the helicopter. (Interpreter translating for K3, 19 May 2020)

> The ships or vessels using the passage of the sea ice and how polar bears could be affected by some kind of a traffic through vessels are going through the sea ice. (Interpreter translating for K1, 26 May 2020)

> Probably main thing is the transportation. They are very aware of the sounds they're surrounded with I guess; I would say it's more of the transportational sounds or any human presence. (HB2, 23 July 2020)

Interviewees indicated these disturbances make bears more aggressive toward humans.

> They become more vicious because of there's traffic, vessels, air crafts flying over. Because so many traffics around these areas know where there's polar bears and [when they're] being interrupted with this kind of traffic [they have] become more vicious. And that's how I understand them. (Interpreter translating for K1, 26 May 2020)

Interviewees described changes in sea ice formation, thickness and consistency.

> Like in my younger years, I don't hear elders talking about the changing or the condition of the weather, you know, the condition of the sea ice. I haven't heard people talking about that very much, back then. But there was a few of them that already knew what will be happening in the future. And up to today that forecast has happened and it's already happened. And I don't know how elders would know the future of the world coming. (Interpreter translating for K3, 19 May 2020)

> I've noticed big time throughout my entire life that back then when the snow was melting, we used to get a lot of water on the ice. But nowadays snow melted just like that and it's supposed to get solid, but it just floats up and then starts to disappear. And it's a lot thinner nowadays. (Interpreter translating for HB4, 29 July 2020)

> I know Repulse Bay every year. So, there was ice floe edge, it's been down about 30 miles from here when I was young guy, and it used to be like every year about 30 miles everywhere...now it's about 15 miles, about half of the Repulse Bay, only 15 miles every year now. So, it's less sea ice. I think it's less sea ice now. But on the fast ice. (N2, 15 June 2020)

Interviewees indicated these changes contribute to increasing bear encounters, as polar bears are more frequently gathering along shorelines.

> The ice moves away a lot sooner and they usually end up on the lands. And they just following the shorelines to look for food. I think that's why we encounter them more. (HB2, 23 July 2020)

> The solid ice is disappearing easier sooner than we anticipate. And, you know, by the time they're hunting seal pups, the solid ice is disappearing, and I think that is also a factor too. (HB5, 27 July 2020)

Interviewees felt these changes are very unlikely to impact population sizes.

> With the ice changing and all that, I don't see any big changes to polar bears, you know, information ‘cause they move from, they migrate and they move from, they can swim, they can be on the ice and they can be on the land. With the ice being a factor, the ice condition, it is what it is but I wouldn't really see any changes on how polar bears could be affected by the condition of the icing. (K4, 26 May 2020)

> Polar bears would never be affected by the climate or no matter how the weather is changing, the universe is different. Polar bears will never be affected by the weather

> or no nothing. Because they can walk through a really thin, thin ice, they can be on the water for a long time. I don't think polar bears climate will never ever be affected with this weather. They're very wise and smart...white people are concerned that the ice is thinning, there is little thin ice now and polar bears can't survive in the ice, weather, because there is no more ice. She wants the white people to know that even if the ice is melting, the polar bears can survive in the ocean where there's water. And she's saying polar bears are super, super smart...they are good at everything. (Interpreter translating for N3, 4 July 2020)

Interviewees disagreed with reports on bears being impacted by changing sea ice; polar bears can hunt in open water for long periods of time.

> There seem to be a lot of concern about polar bears declining or being endangered or a risk of bears declining due to ice being thinner and that. Climate change is a big talk, and it's concerning some people, that talk about polar bears from the south. But polar bears are like sea mammals. They can swim for miles. They can catch seals. In the water even, even when there's no ice. There was a polar bear survey, and it wasn't talked about but one of the guys that was the helper was on the chopper or the plane, and they saw a bear right in the middle of the ocean between that area where Igloolik is and Gulf of Boothia. They saw a bear right in the middle of the ocean, holding a seal and eating it, like no ice close by to be seen. And some biologists and scientists think because there's no more ice, they'll have hard time harvesting seals, that's not so. Because seals do sleep in the water while they're floating, and they sleep. Anybody can walk up or go right close to a seal by boat while the seal is sleeping, floating, and same thing with the bear can catch up to, I mean [get] the seal while the seal is still sleeping in the water, it's floating, sleeping. So, some people don't know about that. They think that polar bear needs ice in order to catch a seal. They catch seal even if there's no ice to be seen for miles and miles. They're predators. They know what to do. (T5, 21 May 2020)

> When there's no ice I've seen bears, some bears [food] like seals on the shore. Eating seals on the shore that I'm pretty sure they caught, because there is no hunters around [miles] from here. And bears eating seals on pack ice. So, I don't know, what I'm thinking is even if the ice is gone, they'll be hunting on the shore for seals. Catching them in open water...on the shore we saw bears with freshly caught seals and baby seals in the summertime, when there is no ice and somebody said they saw a bear hunting a caribou on the island, that they caught up to and ate. And also, I seen them with beluga whales, I'm pretty sure they caught on an island, too, and I've seen them eating seals and bearded seals on the ice too, summertime. (N2, 15 June 2020)

> Believe it or not, in the Foxe Basin or Gulf of Boothia, the polar bear stay on the water for a month. They can stay on the water for a month, maybe two months. We got somewhere of August 'til, I mean of open water August 'til July, 'til October, late October, there's the freezing of the water, November. Right now, it's coming late and freezing water. So, they can stay on the water for two or three months without go in the land. (HB1, 23 July 2020)

Interviewees emphasized polar bears are persistent; they are intelligent animals and can respond to environmental and human impacts.

> They always said if the arctic doesn't, when the ice was melted, the polar bears are going to be died. I don't agree with them. I know the polar bears, they hunt even though if there is no ice, they always go hunting. They can swim, any kind of weather. (HB1, 23 July 2020)

> You would never ever decrease polar bears because they're very, very, very, very smart. And very independent, they're very wise. That's going to swim miles and miles and miles, and the elderly people always will say, or our culture, or our ancestors say that the polar bears are very wise, very smart. They can swim days after days on the ocean. They can dive under the water. They can live in the sea. And you still going to see polar bears that's gonna survive the hardest weather that you can imagine. So, she's saying that you'll never, ever see polar bears decrease. It's been like that since our ancestors as though they say polar bears have the power over anything. So yeah, you can't beat, or you can't decrease polar bears. No way. (Interpreter translating for N3, 4 July 2020)

Interviewees were not concerned about population declines. When asked about disturbances, transportation vehicles were considered threats, but only through impacts to presence/absence in an area or how polar bears behave toward humans.

4.8. Comparisons with scientific research

Community members shared their knowledge of polar bear behaviour and ecology. This information is important not only for hunting success, but also for safety and maintaining balanced human-bear relationships. Community members described the importance of polar bear hunting and how it has changed over time, as well as the challenges hunters must face today to achieve access to hunting and traditional practices. These contexts shed light on the impacts of harvest regulations on community members.

Community members indicated polar bears travel across management boundaries, which has been suggested through scientific research (Paetkau et al., 1999; Thiemann et al., 2008; Dyck et al., 2020). Community members also reported an increase in abundance, evidenced through unique indicators of population change. These observations are consistent with the recent scientific survey that reported Gulf of Boothia population as stable (Dyck et al., 2020). Increasing bear numbers was largely attributed to harvesting limitations, which has also contributed to more frequent bear encounters and aggression. Community members also reported increasing proportions of females and young bears, as well as encounters with larger family sizes due to harvest regulations; these observations are supported by empirical

reports of high reproductive indices for the population (Dyck et al., 2020) and scientific predictions under sex-selective harvesting (McLouglin et al., 2005; Taylor et al., 2008).

Community members considered polar bears healthy (in agreement with [Dyck et al., 2020]) and described threats as impacts to distribution and behaviour. Community members also reported sea ice changes that are consistent with empirical data (Barber & Iacozza, 2004; Stern & Laidre, 2016; Environment and Climate Change Canada, 2018; Dyck et al., 2020). Community members indicated sea ice changes have contributed to increasing bear numbers and encounters. Although the long-term impacts of climate change and reduced sea ice on Gulf of Boothia polar bears cannot be predicted with certainty (Dyck et al., 2020), community members emphasized the unlikelihood that populations would decline as a result. Community members cautioned polar bears are intelligent and adaptable animals and perceive changes to populations and behaviours as a result of how humans relate to them. In addition, communities voiced their concerns, considerations and recommendations for polar bear management and research, summarized below.

4.9. Management considerations

Harvest limitations have shifted how polar bears are valued (appreciated) by community members. Management decisions impact human relationships to polar bears.

> In those days before the politics and regulations were placed in, the polar bears were so very important to us and but after the policy, the regulations, like to catch a polar bear, it requires tags now. In those days they were so more important, although right now they're important, but with the policy the regulation placed in I like to think it was that they're not more important as much as before. Because of the tags. (Interpreter translating for K1, 26 May 2020)

Even without harvest limitations, Inuit historically practiced their own traditional forms of management; animals should not suffer, nor should they be overharvested; meat is shared and not to be wasted.

> Traditionally speaking, custom law about harvesting animals, our traditional speaking of custom that we have is, if you were to try to kill an animal and if you injure or shoot at an animal and you just injured it without killing it, there was a policy, Inuit law that we have. We have to make sure that we Inuit destroy the animal effectively. Make sure it's not going to suffer. You don't just shoot, or you don't just shoot at an animal, putting a wound, people just shooting it. If you wound an animal, no matter what we're doing, don't let it suffer. We have to kill that animal. That's kind of a system that we have. (Interpreter translating for K5, 26 May 2020)

> When you catch an animal and of course we open the meat, we treat the meat, but we try not to also overharvest animals because we don't want to waste all that meat. So, we have indications as well to hunt for food. Of course, he said earlier too as well that we have to feed dogs and feed the family members. But we try not to overharvest as well. That was another custom law that he would add. (Interpreter translating for K5, 26 May 2020)

> I hate wasting you know, I don't like to waste what I caught, so after my both parents deceased pretty much, what, five years ago, I said to myself, I'm not going to hunt big games like polar bears due to you know, the meat will be just wasted nowadays. (HB5, 27 July 2020)

Harvest quotas should be increased to reflect increasing bear numbers and encounters. More quotas will also support hunters who rely on hunting as a source of income.

> We need more quotas. I always need more quotas so if we get more quotas for Gulf of Boothia, it's alright because the sport hunters, they got lots of money and today only one sport hunter comes to Hall Beach. They gave us more money than if I go hunting a polar bear down to Gulf of Boothia, if I get one, I lost quite a bit of money for hunting. I know I'm not gonna get my money back for that polar bear. So, if we have one polar bear sport hunter, they pay a guide 3000, or if two guides $6000. And the dog team owner only gets more, and the big business probably get more money. So, it's a lot of money for the polar bear sport hunting. We need more quota for sport hunters. (HB1, 23 July 2020)

> My thought is we need more polar bear tags so there can be less polar bears...whoever out camping they get disturbance by polar bear more. (HB3, 23 July 2020)

> I would like to see the number of tags we are given, I would like to see included being allowed to catch a few more each year to control the population a little bit more. There are way more polar bears than when I was young. (I3, 27 July 2020)

Some hunters expressed a desire to hunt male and female polar bears throughout the year, for safety reasons and their own preferences.

> When the polar bear hunting season opens, and when it closes in the month of May, and after all polar bear tags are used up, and then there's no more tags, more polar bears come close by community or comes right into the community. And they come into the community at the wrong timing because polar bear hunting season is closed, no more tags and when polar bears are always vicious in the community nearby...polar bears don't have borders and they you know, they come near town, or they come right into town and when they come into town and when there's no tags placed anymore it would be nice to [get] that polar bear be destroyed because they're vicious, they're vicious animals when they come into town. That's the only area that I like to see improved. (Interpreter translating for K1, 26 May 2020)

> If they would open up the hunt, polar bear hunt season sooner before they start hibernating. November, December is when they start hibernating. And it would be a lot more fair if any bear that comes close to town that they can shoot the bear, even if it's a female. Male or female. Any bear that comes close to town. It'd be better if they can be able to hunt. (Interpreter translating for N1, 16 June 2020)

> I would like to see us being able to hunt them the whole year. At some point while I'm still alive, I would like to see that, not have particular dates. Our elders tell us that they taste good in fall, like late August, September. But we are only hunting that one date, polar bear hunting March, April, especially the male. Not so much the female but the male bears. (I3, 27 July 2020)

Hunters stressed that certain polar bears are aware of whether or not harvesting is a threat. Traditionally, bear characteristics were selected for during harvest as a form of population control. Current regulations do not take this practice into account.

> Once in a while when they get into town, even if they have cubs, even when they keep them in my town, they always destroy them right away. That's why there's hardly any threats here in Kugaaruk. 'Cause I know in the late 90s, my late uncle used to get mauled by a bear so after that, not very often but when they do come in town, we just destroy them, hunters destroy them and get tags for them. (K2, 13 May 2020)

> You are to kill that many males and that many females. That's really that's female, and more males to be killed. So, these big males don't bother much coming into town or wrecking things, are the ones that we are killing. (Interpreter translating for N1, 16 June 2020)

> They just go to town because they've done it before, so they're just used to it now. And males are killed, and they don't go to town. So only females and mother cubs go to town or communities. (Interpreter translating for N3, 4 July 2020)

Community members were concerned that management focuses too much on polar bear protection and not enough on human safety and livelihood.

> I have been to my cabin, they break in, break things, wreck the camps and all that. I've talked to HTO, they'll talk to wildlife somewhere, but nobody never paid for all those wrecked things...seems like it's okay for a person if they wreck my boat, or sometimes when you break down and you have to leave your boat behind, they get at it. Your tent, not by accident, you have to leave it. They wrecked it. Then you have to buy another tent...the government maybe cares about the polar bear that want to have more polar bears. Not to kill the polar bears, don't seem to care about people. You know, kill the person. Eat the person, it's okay. It seems like they're doing that...I'm not too happy about the law and the polar bears. Since the government put up a law and they can't do nothing about them breaking things. All they care about is not shooting them or trying to scare them away. These polar bears that have been scared away are so mad. So, we have lots of polar bears that are so mad. Make them go to sleep. Trying to

> scare them away. Banging them, or tricks like that, it seems like we're trying to get them more mad, so they are so mad today. (N1, 16 June 2020)

Community members disagreed with species at risk listings.

> They say polar bears are some kind of endangered species, but I do not. I would say, again, I disagree on that. If they need the proper information, they just tell them to come experience in the community and see it for yourself. That's the only concern that I have, I mean, I would say they're not on endangered species list. (HB5, 27 July 2020)

Narratives concerning polar bears and the management decisions they influence need to take into account and include Inuit knowledge and wisdom gleaned from experience. Inuit should play a larger role in managing the resources they have interacted with for millenia.

> The Inuit *Qaujimajatuqangit* knowledge that they've left, that their wisdom from the elders, and like I mentioned, that I grew up within elders. And so, my father used to say that even though scientists say that in the future they might say that polar bears will be endangered due to the fact for climate change, pollutions, and multi-year ice are disappearing. But there are also multiyear ice that aren't pretty much seen. And that's where the polar bears are also not counted too. And so that is also I would say, an unknown factor by the scientists. That elders have knowledge, even though they say that multi-year ice is disappearing, polar bears are very adaptable animals and so my father used to say that they're just like humans. But they walk on their four feet and we walk on with our two feet and they're pretty much like humans and they adapt very fast and so they know the currents they know their environment very well. And so, my father used to say, well, I guess there's a word that when it comes to something, don't just jump into a conclusion or what not. So that's what I'm sticking by with my old man's old words. These are the traditions that were let on and passed on to me and to you, the younger generation. (HB5, 27 July 2020)

> Looking at the law control by Inuit people, not from Ottawa, not from government. I think we should control more by the people who hunt, hunting people. But right now, it would be very difficult because the...system is too high, Inuit don't really like that, what white man is doing, just because it's white man it is true, but some of us Eskimo people, really some of them Inuit nowadays thinking we should control more animals than before, because we got rot bananas and apples from the store and can't get bears. Before that we didn't have anything, only we were given animals, so Eskimo, Inuit people, still trying to fight the law. I think it was fighting the white people most of the time, in my what I hear when I listen...before that, it was very different, the law, Inuit law, Inuit control, they were very different. Properly they were doing it, proper more than we doing right now. Without control by Ottawa, from Ottawa. So, if animal needs to control, I think those hunting, Inuit hunters should be running more. Inuit to Inuit, Eskimo to Eskimo. (I2, 10 August 2020)

Polar bear research should include IQ and Inuit participation. For example, surveys could be guided by Inuit knowledge of when and where bears are likely to be detected to reflect more accurate counts.

> Up on the Gulf of Boothia area he have noticed that when the sea ice, the solid ice, when it's disappearing, when it disappeared in the summertime polar bear swim more often. And by the time they're on the shoreline, I guess when their feet are cold, that's the time when they go on the shoreline and he have seen more polar bears on the shoreline, due to the fact that the solid ice has disappearing faster than expected. So, he'd like to probably make a recommendation that sea ice is disappearing fast, polar bears are on the shoreline more. And so, if there is any polar bear counting at this time of the year, whoever is dealing with counting to take off on the shoreline and take it from there. (Interpreter translating for HB4, 29 July 2020)

Community members criticized past surveys for not including local people and affecting meat quality and bear behaviour. This has contributed to a lack of trust in scientific methods and resulting management decisions.

> When biologists are in town, and you know, when they're counting the polar bears. They're not really hiring local peoples where locations are. You know, all these, all these knowledge are not associated with the communities since they know, they experience the land and the oceans and the sea ice where they are. Not just elders, but I have grown up in elders. And so, I pretty much know where the good hunting areas are thanks to my late father that I've been given this knowledge. And so, these can be, you know, worked on due to the fact that when they're tranquilize a polar bear it stays in the meat for quite a while. And so that was the concern that was given to me, and the meat becomes different. It becomes soft, all the way to the blubber. And so that was also a concern that they're not getting any fatter. Their population is decreasing. But there's community, more community sightings. And these are the only polar bears coming to town are the same polar bears. And so, the older polar bears are more, I would say, decreasing and young ones are more in the communities. And that's a concern to me nowadays too. Due to that the scientists say the ice is shrinking every year. And so that is also a concern to other hunters, elders. So, if they say they're endangered species I would disagree on that. They're not. The way Inuit culture it's not really familiarized by southerners. (HB5, 27 July 2020)

> When it comes to polar bear, I have not seen anyone going up to the helicopter. I mean, perhaps they have hired some kind of wildlife monitor, but I have not seen anyone who has that knowledge of polar bear migration routes, polar bear hunting areas and polar bear harvesting areas. All these matters are have to come in play when it comes to community, knowledgeable people. (H5, 27 July 2020, Hall Beach 2020)

> All those polar bears that researchers trying to figure out the weight, the height, the length, but they shoot it with the little needle, those are the main polar bears...they don't get scared at all to anything when the researchers shoot with that needle. (Interpreter translating for HB4, 29 July 2020)

Interviewees were concerned about losing access to hunting and with it, their traditional hunting practices.

> There is more people going out and they're not as observant as they were in the past. Because in the past, during my father's time, they were actually living off the land and observing, knowing the behaviour of animals, especially the polar bears. And the dogs were trained to look after them from bears and this is not a reality any longer. Since we have motorized vehicles like boats, snowmobiles, four wheelers, hunt with them and it's now totally different. And it is now harder for us to teach the younger generation how to observe animals, especially bears. The movement of animals and to show respect to the animals. There have been quite a few unnecessary kills of animals because of a lack of knowledge. And these knowledges have hardly been recorded...it is important for individuals to actually learn the behaviours of animals once they go out on the land. A lot of the hunters are complaining like myself, for instance, it's cost too much money now to go on a caribou hunt or a bear hunt. It's not worth it. So, a lot of these things are—we're in the transition period where a lot of these are disappearing and dying off. (I1, 13 July 2020)

Management decisions need to take into account the ecological *and* cultural relationships between Inuit and polar bears, which include hunting and land use practices. For Inuit, polar bears are viewed as intelligent, adaptable, and responsive beings. These considerations may shape how community members share information and/or approach management.

> If we speak of polar bears, we have to speak respectful of them, even though they cannot hear us, we're not with any polar bears anywhere. It's as if they know what we are saying, what we're talking about. We cannot say hopefully a polar bear can come so we can hunt a bear, they know their well-being, they're as if they know true spirit that what we are saying. (Interpreter translating for T4, 21 May 2020; Ekaluktutiak et al., 2020)

> The animals in Nunavut or our land are going to be wrecked or ruined by the government if we get so much rules from the government and we try and follow them. That's not how we used to deal with it, because the elders know how goes it is. If the government gets too much rules, the animals and the land are going to get ruined. (Interpreter translating for N3, 4 July 2020)

> We have to be scared of any animal that we are around. That's a big, big belief. Often, we would never make fun of any animal, and how much respect we have for each animal and so much for the bears, how powerful they are. We will never make fun of them and never ask to see one. Because we have a big superstition that if we do ask to see one, we might come across one when we are not in a safe situation. There's a few men I know that have been attacked and are still alive telling us that they are very, very powerful animals. We fear them all the time. There's big respect for them. (I3, 27 July 2020)

Still, some interviewees praised co-management efforts and decisions.

> The HTO and in the Environmental Department are doing a great job in doing the polar bear population. Maintaining the proper bear population in Nunavut. (Interpreter translating for K3, 19 May 2020)

> Having this tagging system as well as policies, procedures, laws in place. They are there for a reason. Management, no matter what it may be, in life, we have to abide by the rules. Because if there weren't...you know, things can deteriorate right away if they [weren't] in place. (Interpreter translating for T3, 21 May 2020; Ekaluktutiak et al., 2020)

> The numbers of tags for males and females are kind of consistent now, so he likes that area. (Interpreter translating for K5, 26 May 2020)

The concerns and considerations that community members expressed suggest Inuit engagement and involvement in polar bear research and decision-making processes have been inadequate. The cultural and traditional interactions between Inuit and animals need to be recognized and considered in management objectives. Management decisions impact polar bear populations, and—through their relationships with them—Inuit livelihood. These relationships can also guide scientific methodologies toward approaches that are respectful, yet effective in data collection. In addition, IQ can include unique indicators of population changes that could inform scientific models. A deeper appreciation and understanding of IQ through relationship-building and improved communication strategies with communities can also support collaborative knowledge co-production. Community engagement in this process should be guided and led by Inuit and their knowledge.

5. Summary

This study provided a rare opportunity for community members to share their knowledge and voice their concerns on the Gulf of Boothia polar bear subpopulation. Inuit have coexisted with polar bears for millennia; the knowledge that they have gathered across generations includes important information on polar bear ecology, which is important for human survival, as well as hunting success. Hunting practices traditionally included methods of selecting for bear characteristics and forms of population management; these practices have shifted over time as a result of contemporary forms of management in Nunavut. Community members reported increasing population numbers and encounters, which are a safety concern. Current harvest regulations fail to take these changes into account. Community members also criticized management and scientific practices for not including Inuit knowledge and perspectives, including important human-bear relationships, which has impacted how polar bears respond and interact with communities. However, the observations of population changes and activity reported here are consistent with scientific data. Better engagement and communications with communities within the context of bear research and management will cultivate more trusting relationships toward collaborative management.

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Appendices

Appendix 1. Additional quotations

Importance of polar bears

> Their foots, they're the best—one of best source of meat for the people and some people they use them for their wind pants and they're very useful for the people, and mitts. (K2, 13 May)
>
> Around April perhaps they have good hair. The hair is thick, and it's a good quality for selling. Seems like that's when, is good time. Even though fall is a good time, but their hair is not as thick. (Interpreter translating for T4, 21 May; Ekaluktutiak et al., 2020)
>
> They're important 'cause they're our regular diet. And [Inuit] of course, we have polar bear meat, we pray for them when the season's over to have that dietary. They're important to us too, they're part of our diet, so, regular diet, annually it's, we do pray for them...we also make the hide into our clothing as well so it's quite important to our community [and the people]. (T5, 21 May; Ekaluktutiak et al., 2020)
>
> Some elders prefer to catch younger ones because they're more tender, smaller bears. Some people prefer possibly more people prefer the large male bears. Of course, it's hard to find work up here and they do have some price in them, to sell them. (T5, 21 May; Ekaluktutiak et al., 2020)
>
> At this time today, it's pretty hard to sell a polar bear hide...we are not allowed to sell any hides anymore to the States. And to certain areas like the parts of the world, so that's why it's a lot harder to sell the hides. And if that, you know, if you can't sell the hides to the States, even the auction where we send it first down, they don't even be bought anymore. I sent a hide two years ago I have not seen nothing yet 'cause it hasn't been bought yet. (T5, 21 May; Ekaluktutiak et al., 2020)
>
> Many years ago, they used the fur, the hide for clothing as well as the meat for food. It is very important for our way of life and even for today, we still enjoy the meat. We share the meat as well as the hide. We still use it for clothing today. And we can also sell the polar bear hide and make money off of the polar bear hide to sell. (Interpreter translating for T1, 21 May; Ekaluktutiak et al., 2020)
>
> Today, polar bears are very useful to the people. The meat, of course, that we don't waste. We take the meat and with the hide today, we have to survive, you know, financially. And so therefore we sell the hide to be financed. And that's how we deal with, that's how we know about polar bears. (Interpreter translating for K1, 26 May)
>
> The best time of the year to go out for harvesting for polar bears is probably about October or November...because of the meat...the meat is more tender. (Interpreter translating for K5, 26 May)

Before I hunted bears, they weren't too important because for any person, there wasn't much bears around. We didn't see them anywhere, sometimes for a whole year. And somebody caught one or that one time, my father caught one. The meat was eaten if it was fat, if it was skinny, you just use it for dog food. (N2, 15 June)

There's a lot of ways, use for polar bear. Let's say I catch a polar bear, if that bear is fat, the whole community wants. They share it to the whole community, and the hide, since it doesn't cost a lot much more, they use it for clothing now. I mean, they've been using it for clothing, but since it doesn't cost a lot to bring it now, they also use it for clothing. (Interpreter translating for N1, 16 June)

It's to maintain traditional ways. Store bought food, that is pretty expensive, and it can last longer than the store-bought items and it is shared with the community and provides a little bit of income for their pelt. So, I see those two that's an important part of the community. (HB2, 23 July)

I was taught to hunt smaller bears. That's what I want, for bear are taking food and each year it's in the skin and some men prefer to hunt bigger bears to sell their hide for a higher price. (I3, 27 July)

Description of hunting

A lot of young people are very interested in harvesting polar bear. Whenever they get a chance. Or whenever their dad would allow that person to harvesting polar bear, depends on their dad or parents for the young person to go after the polar bear. (Interpreter translating for K3, 19 May)

March, April, that's one of the good times too but on the first day of opening day, October or November, it's more people like to go out. (N2, 15 June 2020, Naujaat)

Going up to Gulf of Boothia is further. But going down to Foxe Basin is not that far from here. (Interpreter translating for N1, 16 June)

Gulf of Boothia, the trail is not the best going one up there. So, they usually don't go there until the trail is much better. But when it opens up in Foxe Basin, that's when they finish all the tags right away. (Interpreter translating for N1, 16 June)

The best part for the polar bear skins are November and September. But the government gave us by-law to follow, so we just follow the by-laws of HTO or the government policy. What they gave us for quota. So, they're good all year round. They're a good. It doesn't matter what date they are, just the furs are the best on September and November. (Interpreter translating for N3, 4 July)

Sometimes I go caribou hunting and I've been in the rangers for a long time now. We have to check the unmanned radar site in the Gulf of Boothia area, so we've been traveling a lot to Gulf of Boothia. (HB1, 23 July)

All day. We start driving in the morning and we get there at 9. By skidoo. Yeah, first time when I went up there but that was dog team, so we took four days to get up there by dog team. (HB3, 23 July)

We have to travel to the other side of another peninsula. It's about, if you take your time, it's about six-hour ride. But if you pretty much all by yourself, it's a four-hour trip pretty much nonstop. And so, and it's quite far, but you've got to know the routes from here...to the coast of Gulf of Boothia. You've got to know the route and it's quite a distance. (HB5, 27 July)

Changes in abundance and impacts of harvest regulations

There's more polar bears after we start that tag thing, what what how you say it and we're and we're not allowed to catch too many bears I mean, after we start that tag system we get more bears now. (K2, 13 May)

Right back in the 70s, when polar bears are very scarce. The government made bylaw or a policy that hunting polar bear, [that] we can only solely by tag using a [death] tag for polar bears. That's what raised the population of polar bears...after the people started using tags, polar bear tags for hunting, the polar bear population increased. And I have so far, I have not seen any decrease after people started using tags to hunt polar bear. (Interpreter translating for K3, 19 May)

They're go out perhaps within the few hours. Getting a hold of a tag and taking off within a few hours there, they harvest their polar bears, if not, the next day. Due to the fact that the numbers of polar bears are so many now. They're so protected, you're unable to hunt the cubs or anything like that. And you're only to harvest so many a year. And that is the reason why he knows for a fact that there's many, many bears today. (Interpreter translating for T3, 21 May; Ekaluktutiak et al., 2020)

Today there are too many bears. Especially in the summertime camping out, boating, when you're camping or at your outpost camp [they are] guaranteed for a bear to come into your camp. Because they are too plentiful and we Inuit like to do our hunting and we cache our meat we bury it. We ferment it. And you're guaranteed if you try and pick it up in the fall time in the winter, it's gone. You're guaranteed you'll lose that fermented or buried seal that they're trying to save for the winter. It will never be there. The bears will get to it regardless. No matter where we cache our meat. (Interpreter translating for T3, 21 May; Ekaluktutiak et al., 2020)

They’re would be in areas where there was polar bears, like there was polar bears, but they're not as plenty as now. They used to use dog team, once in a while they see the bear out in the outpost camp or out on the sea and they'd get a polar bear every so often. But it seems like there is a lot more polar bears within the last years, like starting around ‘90s up to today, even though we have snowmobiles. Seems like they're easier to see. (Interpreter translating for T1, 21 May; Ekaluktutiak et al., 2020)

Before the white people came around, before the tagging system, they were able to harvest whatever they want. Anything that you see, even the cubs because they're

very good eating like a delicacy. As now, starting sometime in the 70s, you get the tagging system and you're not allowed to hunt any of the cubs. And he knows for a fact that is how they know that there's a lot of polar bears now. (Interpreter translating for T1, 21 May; Ekaluktutiak et al., 2020)

If I'm not going to choose what kind of polar bear I'm going to catch, I could catch a polar bear in the same day and come back home. (Interpreter translating for K1, 26 May)

After, you know, the NWMB or the GN put the policies and regulations on polar bears about, you know, total harvest of the year for polar bears. After they put policies on...didn't want us catching more females. So therefore, [there are] actually there are more females now. Because, you know, of the regulations and policies that we have to follow and the policies that we have now is that not to catch so much females than in the past and that's why I see more female now. (K4, 26 May)

Reason why I think they're increasing is because much more harvesters hunting for polar bears no more, and some polar bears they migrate from one location to another. And you know that's that's how I see the increasement of polar bears. Because you know not much in the year hardly any people capturing polar bears now than back in the day. (K4, 26 May)

The way I see this of concerning increasing the polar bear numbers, is by after the polar bear tags were placed in. And the tags are telling harvester to catch only limited of female polar bears and so much of male polar bears I believe, following those tag numbers because of those tag numbers or tags the polar bears are increasingly more now, because there are polar bear tags and, the government and they're saying that we only, we're only allowed to harvest only so much number female polar bear. And so some, maybe all the female polar bears would have cubs, and even in those days female polar bear has cubs, they still won't to catch it in those days but today with the policies changing, that's how I see the numbers increasing polar bears. (Interpreter translating for K5, 26 May)

As of today, someone can go out polar bear hunting and come back with a polar bear in the same day. (Interpreter translating for K5, 26 May)

In the past 20 years they feel like looking for a bear for a week, sometimes come back without a bear. But now once you go out, you can see a bear right away. (Interpreter translating for N1, 16 June)

I was born in 1952. Right there there was no law, Inuit ways. Any bear they see, or any game that they see, if they needed, they'd kill it. If it's even polar bears, even when they have a cubs they shoot them anyways. They can use the cubs for something. And they say little cubs are more, taste more better than the full grown. So that's what they were hunting, any bear. If there were three bears, you see, you hunt them all. But when they put up the ‘you're not allowed to shoot’, ‘shoot the mother with a cub’. We listen, that's when it start, when the bears start coming. Well, getting more. And they put up a quota, that's when it start raising up. (N1, 16 June)

In the Boothia peninsula I used to go out polar bear hunting and you wouldn't see polar bears at all. (GH2, 17 June)

Early 1960's there was no polar bear in the Gulf of Boothia and Foxe Basin, but in the Gulf of Boothia not too many polar bears in that time, my uncle and my uncle's hunting buddy, my uncle was pass away a long time ago, so they went for polar bear hunting by dog team. But there was no polar bear. I mean there is some, not very many. They ran out of food and they ran out of dog food. They finally went to open area, to open water, that floe edge. There under a really rough time to go down there, they have to walk to the floe edge so they shot a seal that, before maybe three days or maybe two days because they have two dog teams. On the way home, believe it or not, still down in Gulf of Boothia they saw a polar bear with a cub...they shot that with a cub and in that time there was not much of polar bears. Today it's a big difference. Last year around, I took a sport hunter, polar bear hunter I took last year. The tracks everywhere, everywhere and new ones and old ones, right now you cannot believe it's lots of polar bears. And my friend went polar bear hunting last April he said polar bears everywhere, he said lots of polar bears this year. (HB1, 23 July)

I grew up with elderly people and that like to go camping during summertime. We never see any encounter of polar bear while you are out camping, caribou hunting grounds. You never encountered any polar bears. But over the years, over the last 15 years or so we've been encountering more bears on the land, having to deal with them more. (HB2, 23 July)

When I was young, there used to be hardly any polar bears. And now today you can see them everywhere...because in the old days they didn't have a tag, polar bear tag. So they would just get them whenever they see them. Today, we only can hunt them with the tags. Unless they are a threat. (HB3, 23 July)

When we are hunting them up in Gulf of Boothia, we are seeing a lot of mother with cubs, but I don't think it's that much different than when I was younger, there are just everywhere, mother with cubs. Adults we see them both, male or mother with cubs. (I3, 27 July)

<u>Changes in distribution and behaviour</u>

Today, there are more polar bears near, you know, coming into town more every year. To me they seem to be more vicious now because they're not afraid to go right into the community or come by the community. That's how I see the big changes. (Interpreter translating for K1, 26 May)

The only time that we notice that when we get polar bears nearby or going to town is ['cause they're] especially around the fall season, especially around September, October, November. (Interpreter translating for K1, 26 May)

They're concern about their getting too many out there, is that they start attacking. Like they're getting too many. The population is for polar bears, is getting too much so that's,

they start attacking. I mean, they're more aggressive. (Interpreter translating for N1, 16 June)

In the old days they shoot a polar bear they have to be very careful taking care to get the polar bear. If the polar bear notice that there's a man or a human, the polar bears right away they go get away and they don't go to community or a campsite or something like that. Right now, it's different they don't scare much anymore. (HB1, 23 July)

The only difference from many years up to today. Seems like they're more aggressive towards humans. Many years ago, they, as if like see people they would run away right away. Today it seems like it's not that way anymore. (Interpreter translating for T3, 21 May; Ekaluktutiak et al., 2020)

He has a big concern in this area because starting in the 1980s with the tagging system, if you're out camping at your outpost camp, don't matter what time of the year, you don't have a tag and you're trying to follow the rules of the HTO as well as the government. And if a bear were to get into the camp or the outpost camp and you don't have a tag and you have children with you and you're out on your outing, enjoying your time out on a land camping, it's you know, what are you really to do? You don't have a tag and you're told not to hunt. That is a very big concern for him today. (Interpreter translating for T1, 21 May; Ekaluktutiak et al., 2020)

Before there was a polar bear regulation, policy and procedure, they could catch the polar bear any time, even though it had cubs. Today there's so many polar bears and nobody, like we cannot catch them unless, you know, they're [totally] attacking. Trying to camp in the summer, spring and summer with your family and polar bear policy in place. He's afraid for his family, especially children, because the polar bear can attack any time, he's got no law or anything. The polar bear can attack the children any time he wants, the family any time he wants. But us, we've got a law that you know from that he's afraid, the polar bears keep coming into the camps nowadays. Destroying cabins nowadays. There's so many that he think it was, it's not, he knows that they will come into camps and all we have to do is try to scare them away. But if they're determined to come in, they will come in. (Interpreter translating for T1, 21 May; Ekaluktutiak et al., 2020)

It seems like the younger ones are more aggressive now, because even as mother bears with cubs too, a lot of time we're camping, hunting a few miles from Naujaat, from my hometown and we notice cubs that weren't get mothers or family, weren't sort of [tense] anymore. Last time I went out, when I woke up there was a mother bear with cubs, we had some meat, raw meat with blood fat on it and the meat like at night ate up, a mother or cubs ate up the fat with the cubs, and of course she tried going under my tent ropes, so we never woke up, but seems like there's more, not scared of people anymore. (N2, 15 June)

Even though it's not just polar bears there's also other concerns that we have to deal with is like, you know, the climate change, the sea ice...the way I see it impact on all animals, not just polar bears, it could be any animal including the people the human

beings. The way that I see this, concerns me is the climate change. It's that the climate change is affecting everything. (Interpreter translating for K1, 26 May)

Disturbances to polar bears

Today we have many planes flying over, jets, prospecting helicopters, planes flying over and hunters using snowmobiles with that sound of machinery. He thinks that they're a lot used to hearing that. Once, many years ago, once they hear something, they would run away right away. (Interpreter translating for T3, 21 May; Ekaluktutiak et al., 2020)

Due to machinery with the snowmobiles, jets flying over, planes and all this because polar bears have a very keen ear. They can hear from many miles, they hear machinery and they get spooked and it's as if harder to find [them] in a way, because of the machinery, the sound and smell. (Interpreter translating for T4, 21 May; Ekaluktutiak et al., 2020)

If that had gone through, the seismic, seismic testing perhaps that would have impacted our polar bear, polar bears numbers and statistics. (Interpreter translating for K1, 26 May)

As soon as they hear any type of machinery, snowmobiles, for example, they'd start to run. Even before you see them, once they hear you they'll run. (GH2, 16 June)

Changes in sea ice

Over these last few years, we get thinner ice, but we're still get lots of ice when it the floe edge is still the same spot where it is, if not a little bit further. There's not much change in the ice, the sea ice...it gets easier for them to get their prey. (K2, 13 May)

The ice condition has changed. It's not too long ago, I think that started back in the 2002, 2004, somewhere in that area. Before that ice condition was...normal. Like, when I say normal, it tends to freeze earlier in the fall time. And tends to melt later in the springtime. Today, ice condition will melt very quickly in the springtime. It will be gone like without you knowing it's going. And tends to freeze up later in the fall time like October, November. (Interpreter translating for K3, 19 May)

Unable to see icebergs up in Gulf of Boothia area many years ago. But seems like you see icebergs every so often after a few years, it might got to do with maybe the sea ice getting thinner that we started to see some icebergs up in Gulf of Boothia area. That might be a fact that true, the ice conditions and changes, that might be the reason why we see icebergs every so often in Gulf of Boothia. (Interpreter translating for T3, 21 May)

The sea ice right now is different I think everywhere in the Arctic. In the old days, back in 1960s, we have very cold weather. And there was no warm weather, and I don't know why the oceans right now the ocean, the whole ocean from south to north it's a lot warmer now that's why the broken ice melted very fast. Because of the ocean's a lot warmer than the past 40 years or more. (HB1, 23 July)

It's a lot more thinner than it used to be. Some areas you normally have an idea where the floe edge would be but it's for some reason it's not consistent these days. It's not the same edge where the floe edge used to be. It gets there but it's broken off usually now. And it's a lot thinner the way I see it. (HB2, 23 July)

And our summer is more longer. And sea ice is not forming fast enough these days. Our weather has changed I guess due to climate change, they say. Warmer weather, sea ice not forming, well by the time it's usually hard enough by December, back then, but it's not like that anymore. Sea ice, solid ice disappearing fast, early July. And so these are the factors. (HB5, 27 July)

Impacts of sea ice changes

I don't any very much effect on polar bear of sea ice change because polar bears will adapt to any season, just like we'll will adapt their home summer, fall or winter or spring. They'll adapt to any changes in the sea ice or anywhere. (Interpreter translating for K3, 19 May)

Us hunters don't have a concern about the bears of this ice condition changing. Bears are known to be great swimmers, divers. They're known to be good on ice. They're known to be on the land in the wintertime. They go denning up on the land. They're able. It's really not a big concern because they're adaptable, they adapt to the climate, whatever it may be, in the ocean, water, on land, on ice or snow. It's not much of a concern. They're very adaptable, unique creatures. (Interpreter translating for T2, 21 May; Ekaluktutiak et al., 2020)

Polar bears easy [to adapt to] environment. Whether there's lots of sea ice and whatnot, or if you don't have much sea ice, of course they go on the land. They just adapt to their environment. It's like a weather pattern they're following. (Interpreter translating for T3, 21 May; Ekaluktutiak et al., 2020)

I cannot say that polar bears being affected by sea ice changes because the polar bears can be on the sea ice, they can swim, and they can be on the land. I don't see any major issues. (Interpreter translating for K1, 26 May)

I don't think it's a big concern to me about how polar bears with their environment. Whether there you know traffic here or there by sea ice, water or by air. That area is very important to me because after the tags were placed in, that's where my concern was, is that when the tags were placed in, after the tags were placed in, then we start following those policies. There are more polar bears now, numbers of polar bears now, there are more polar bears now. With traffic and this environment around the polar bears, I don't have a big concern whether even if the ice is melted, even if there is no more ice, I don't think that's really a concern to me. That's how I, you know [that's what] I think about that area. (Interpreter translating for K5, 26 May)

They think the bears are going to become extinct or what not. But then for us living in the north, they're not. Where we live here. Well, I do. I've been following bears

population for when I was a kid, so I have no concern about them vanishing or getting extinct. And people down south think they won't survive because of global warming. The ice that has warmed, they are going to become extinct. I don't believe that. So to me there's no concern about bears getting extinct. (N2, 15 June)

Management considerations

More polar bear tags increase because of the population of polar bears that you know has increased dramatically. Most harvesters would like to see tags increase because 20, you're only allowed 25 tags in a year. It would be nice, like a lot of harvesters out there like he's not a regular polar bear hunter but he would like to see more tags. Tags given. (Interpreter translating for K5, 26 May)

There are so many bears now that it doesn't matter. You catch one now, the fur pelt is so small now, it's very cheap now...I like to go camping in springtime with my family. And they're so many bears now...our hometown that dangerous to stay in a tent or a cabin, even a cabin is dangerous. I wish there would be more tags given out to the HTO or to the people. (N2, 15 June)

I never heard of any surveys in Gulf of Boothia and I don't think Hall Beach ever been part of it. There have been discussion in QWB—Qikiqtaaluk Wildlife Board annual meetings with NWMB before about the surveys being done in Gulf of Boothia but it was mainly focused on Kitikmeot regions communities. We didn't really get to be a part of it. (HB2, 23 July)

Appendix 2. Map of the Gulf of Boothia polar bear subpopulation

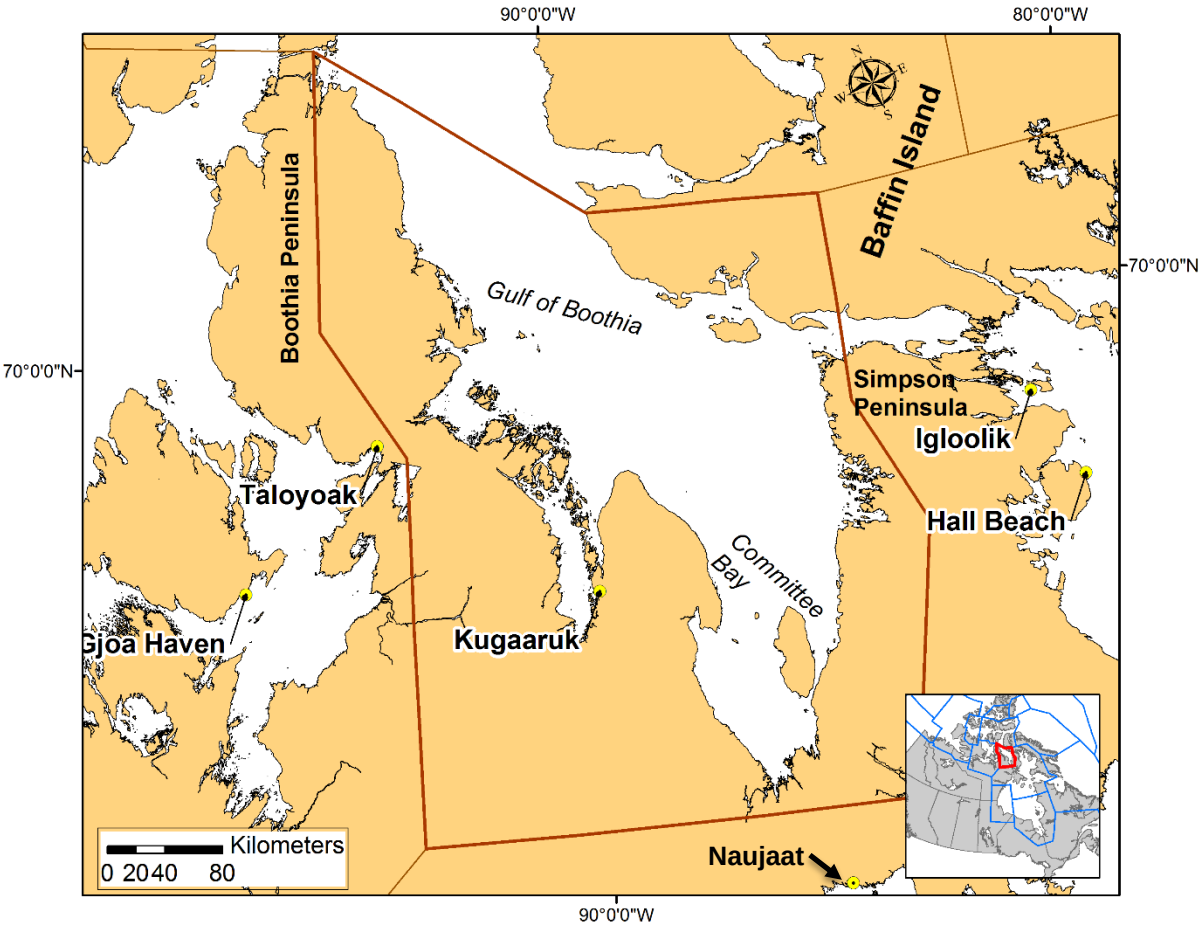


Fig. 1. Gulf of Boothia polar bear subpopulation (red border in bold) in Nunavut and the communities that harvest from there. The M'Clintock Channel subpopulation is located directly to the west.

Appendix 3. Description of polar bear management

Gjoa Haven and Taloyoak communities harvest both M'Clintock Channel and Gulf of Boothia polar bears. Gjoa Haven community members began harvesting from Gulf of Boothia after harvesting opportunities for M'Clintock Channel were limited. This year, Gjoa Haven received five tags for Gulf of Boothia. Once a hunter receives a tag, they are given up to five days in the community to prepare before going out on the land, where there is no time limit to harvest.

> Usually, the HTO would give us about five days to pack up and get ready. But once you're actually hunting out there, there's really no time limit until you come back home with or without a bear. And then when you do get back, usually we pull another name from the draw. (GH2, 16 June)

Interviewees indicated that overharvesting results in a reduction in the number of tags for subsequent years.

> When we overharvest—for defence kill or something, around the community—one tag is taken out from our quota. You know, if it's a female that's been caught in the community it might cost us two tags. So, we can't overharvest what is given to the community in terms of quotas. Today that's the only way we could hunt polar bears using quotas from the government (GH1, 3 June; Ekaluktutiak et al., 2020)

Taloyoak community members received 25 tags for Gulf of Boothia. To avoid overharvesting, the HTO allocates portions of tags at a time. There are usually more interested hunters than the number of tags that are available.

> The HTO open five tags at a time because they don't want to overharvest. They're trying to manage in a way that they don't overharvest so the next year won't be, some years they don't even have enough tags. There are a lot of people like to go polar bear hunt and once the five tags that are introduced, five polar bears were caught and then they'd introduce another five to open. And there are many people that like to go polar bear hunting, even though they have these many tags. Hunters are waiting in line to get a bear tag and other years, there is just never enough polar bear tags. There are a lot of people. These communities are growing. Especially today. We have a lot of people that like to have the opportunity to go out polar bear hunt and catch their first bear. But they're unable to do that because of the tagging system. (Interpreter translating for T2, 21 May)

Kugaaruk received 24 tags this year. The HTO distributes tags to hunters after their harvest and are distributed through a lottery system when tags are running low.

> Early in the season in October anyone may want to go out after polar bear to hunt. Do not required a draw to be done in the community but whoever want to go polar bear hunting will get a tag. That's how it goes all through the winter, spring. But when a tag is two, three tags left, the industry tag, then that's when the draws will start being done. (Interpreter translating for K3, 19 May)

Naujaat, Hall Beach, and Igloolik harvest from the Foxe Basin population in addition to Gulf of Boothia. These communities received 5, 4, and 11 tags for Gulf of Boothia, respectively. Gulf of Boothia bears are usually harvested on the west side of Melville Peninsula in Committee Bay. Interviewees indicated they usually receive a tag after the bear is harvested.

> They would announce on the local radio that there's about so many tags for Foxe Basin and Committee Bay (Gulf of Boothia). And they would announce how many there are. And people just go out on the first opening day and catch some bears. It doesn't matter who, you can just go out and catch them without getting the tags I think, and then if you catch one, you can just go get the tag from the HTO...later on when the tags are not many in spring, the HTO would announce there's so many tags to go. (N2, 15 June)

> The Hunters and Trappers host a annual general meeting with polar bear tags in October and we decide when to open it. It's usually open in October but you can't go up in early fall or some days too dark, so usually March is people start traveling over there. And it's open, like whenever they, community members, approve of the opening date. It's open for public. Anyone can go up there, we don't usually get a tag for it, it's after we get a polar bear we will, anyone can go up to the conservation officer and pay him the tag. (HB2, 23 July)

> Going up to Gulf of Boothia it's usually straight out to Committee Bay area. Come around the island, Committee Bay area, and around that. Once I gone...towards the south and up the Gulf of Boothia...usually takes me about five to six, seven hours, depending on the speed I'm travelling and the snow, how smooth it is. (HB2, 23 July)

> There is always rules for polar bears. You can't just catch polar bears [if] you want to catch one, unless you have a quota or a tag. You can catch it or unless they tell you you can catch a female, they'll pick one. Or there is one thing that you can just go and kill the polar bear is when it goes to town and you have no choice to kill it. So, there is three options, and we can't use any option we want. It has to be by the government quota to use, how to kill it. They tell us to do it, we did it. So, we can't just shoot one if we want one. But if we can get it, we share. (Interpreter translating for N3, 4 July)

ᓄᓇᕗᑦ ᐅᒪᔨᓕᕆᔨᖅᑎᑦᑎᓂᖅ ᑲᑎᒪᔨᖏᑦ
Nunavunmi Anngutighatigut Aulapkaijitkut Katimajiat
Nunavut Wildlife Management Board

ᐱᓕᕆᑦᑕᐃᓕᓂᖅ ᐅᒪᔨᖅᑐᑦ ᐊᖏᔪᑎᑎᓕᔪ ᐊᑐᖅᑕᐅᓂᖅᑎᑦ ᐃᓄᐃᑦ ᖃᐅᔨᒪᓂᑐᖅᑎᑦ ᐊᒻᒪᓗ ᖃᐅᔨᔪᖅᑕᒻᒪᓕᒃᑕ ᖃᐅᔨᒪᓂᖅᑎᑦ
Tammaqtailinahuarniriit anngutighat atuqhugit Inuit qaujimajatuqangillu ilihimaniillu ilitquhiannin
Conserving wildlife through the application of Inuit Qaujimajatuqangit and scientific knowledge

ᐃᑦ 8, 2021

ᓂᕈᐊᖅᑕᐅᓯᒪᔪᖅ ᓱ ᓴᖃᑲᑦᑐᖅ
ᒥᓂᑦ ᐊᕐᑎᑕᓗᓂᕐᒧᑦ
ᓄᓇᕗᑦ ᑲᕐᒪᒃᑯᑦ

ᒥᓂᑦ ᓴᖃᑲᑦᑐᕐᒪᑦ:

ᐱᓱᐋᑕᒃ: ᐅᒪᔨᓕᕆᔨᕆᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦᓯᓄᑦ ᐃᓯᒪᑕᐅᑭᐅᓕᐅᖅᑐᑦ ᑕᐃᒃᑯᐊ ᓄᓇᕗᑦ ᑲᕐᒪᒃᑯᖏᑦᓯᓄᑦ ᑐᓴᓯᕆᐅᑭᐅᓕᐅᖅᑐᑦ ᐊᖏᕐᕈᑐᓂᖅᑐᒥᓂ ᑕᒪᓐᓇᖅᑐᒥᓂ ᓇᓕᓕᑕᐅᓂᖅᑐᑦ ᓇᑦᓯᐅᓕᐅᖅᑐᑦ 74-ᒥᒃ ᑕᐅᖅᖃᓂᑦ ᖃᒃᑐᐅᔾᔨᐅᑦ ᑕᓪᓕᐅᖅᓱᒃ

ᐅᒪᔨᓕᕆᔨᕆᐊᒃᑯᑦ ᐃᓯᒪᑕᐅᑎᖏᑦ

ᑕᐃᒃᑯᐅᒥ ᐅᒪᔨᓕᕆᔨᕆᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ (ᐅᒪᔨᓕᕆᔨᕆᐊᒃᑯᑦ, ᑲᑎᒪᔨᓪᓗᓐᓂᒃᑯᑦ) ᑲᑎᒪᒥᖏᓐᓂᒃ (RM001-2021-Γ) ᑕᒫᒥ ᒫᑦᔨ 10, 2021-Γ, ᐃᓕᖃᓇᐃᔾᔭᕐᓂᕆᔨᒃᑯᒥᒃ ᖃᐃᐃᑕᐅᓕᕆᓂᖅ ᑕᒪᐃᓐᓇᖅᑐᒥᓂ ᑐᓴᓯᕆᐅᑎᒥᒃ ᑲᑎᒪᔨᔾᔪᑎᒥᒃ ᐊᖏᕐᕈᑐᓂᖅᑐᒥᒃ ᑕᒪᐃᒥᒃ ᑲᑎᕐᒥᓂ ᓇᓂᐊᖅᑐᒥᓂ 74–ᒥᒃ ᓇᓗᓇᒥᒃ ᑕᐅᖅᖃᓂᑦ ᐃᑐᑦᓯᐊᕐᓂᕐᒧᑦ ᑕᓪᓕᐅᖅᓱᒃ, ᑕᐃᒪᐃᓕᖅᑎᑦᓴᐃᓇᖃᖅᑐᒥᒃ ᐊᓐᓇᐅᔾᔨᖅ ᐊᑐᖃᓕᕆᓂᒃᑐᒥᒃ ᐊᑐᓪᓗᑎᒃ ᓇᓂᐊᖅᑐᒥᓂ ᓇᓂᐊᖅᑐᒥᓂ. ᑲᑎᒪᔨᓂᓇᐃᑦ ᑲᑎᒪᒥᖏᓐᓂᒃ (IC001-2021), ᑕᒫᒥ ᒪᒃᔨ 11, 2021–Γ, ᑲᑎᒪᔨᑦ ᐃᓕᓴᖃᖅᓯᐅᑎᑲᓕᕆᔨᒃᑯᑦ ᐃᓕᖃᓇᐃᔾᔭᕐᓂᕆᔨᒃᑯᒥᒃ ᑐᓴᓯᕆᐅᑎᒥᒃ, ᑕᐃᒃᑯᓂᖏᓐᓇᓗ ᐊᑕᐅᓯᕐᒥᒃ (1) ᐅᓂᒃᑲᓕᐊᖏᓂᒃᑐᒥᒃ 2015–2017–Γ ᓄᓇᕗᑦ ᑲᕐᒪᒃᑯᑦ ᖃᐅᔨᔪᖅᑕᕐᒪᐃᓂᖏᓂᒃᑐᒥᒃ ᓇᓕᐅᑦᑕᑕᐅᓂᖏᓂᒃᑐᓂ ᐃᑐᐊᖅᑐᑦᑐᕐᒪᐃᓂᖏᓂᒃᑎᒥ ᓇᓗᓴᖅᖃᑎᒌᓂᖏᓂᒃᑐᒥᒃ, (2) ᐅᓂᒃᑲᖅᑐᓂᓪᓗ ᓄᓇᕗᑦ ᑲᕐᒪᒃᑯᑦ ᓇᖏᒥᓪᓗᑎᒃ ᑎᑭᓕᓪᓗᑎᒃ ᑐᑭᓯᓕᐊᕐᓇᖅᑐᒃᑯᑦ ᐊᖏᔪᓂᖅᑐᑦ ᑲᖏᖅᑐᒥᒃ, ᐅᖅᓯᖅᑐᑦᓯ, ᓴᓂᕆᖏᓐᓂᒃ, ᐃᓚᓕᒪᓐᓇᒃ, ᐊᓕᐅᖅᓂ, ᑕᓪᓕᐊᓂᓪᓗ, (3) ᐃᓄᐃᑦ ᖃᐅᔨᓕᒃᑐᖅᑐᕐᒪᐃᓂᖏᓂᒃᑐᒥᒃ ᖃᐅᔨᔪᖅᑕᐅᓕᐅᖅᑐᒃᑯᑦ ᐃᑐᐊᖅᑐᑦᑐᕐᒪᐃᓂᖏᓂᒃᑎᒥ ᓇᓂᐊᖅᑐᒥᓂ ᐊᑕᐅᓯᕐᒥᒃ ᐱᓕᕆᔨᑐᑦᑐᕐᒪᐃᓂᒃ ᑕᓪᓕᐅᖅᓱᒃ ᐃᓚᖃᖅᑐᒥᒃ ᐃᑐᐊᖅᑐᑦᑐᕐᒪᐃᓂᖏᓂᒃᑎᒥ ᐊᑐᓕᕆᔨᐅ

ᓄᓇᕗᑦ ᐃᒪᓕᕆᓂᖅᓴᖅᑎᑦ ᑲᑎᒪᔨᖏᑦ
Nunavunmi Anngutighatigut Aulapkaijitkut Katimajiat
Nunavut Wildlife Management Board

ᐱᓗᐊᖅᑕᐃᓕᓴᖅ ᐃᒪᓕᖅᓂᖅ ᐊᖏᔪᒪᑎᓗᒍ ᐊᑐᖅᑕᐅᔨᓂᖅ ᐃᓄᐃᑦ ᖃᐅᔨᒪᓂᖅᓯᒪᓕᕆᓂ ᖃᐅᔨᓴᖅᓂᖏᑦ
Tammaqtailinahuarniriit anngutighat atuqhugit Inuit qaujimajatuqangillu ilihimaniillu ilitquhiannin
Conserving wildlife through the application of Inuit Qaujimajatuqangit and scientific knowledge

*ᐃᑐᐊᖅᑐᖏᕆᔨᑦ ᑕᓚᐅᖏᓪᓗ, ᑐᐱᓯᔨᐅᓕᐅᖅᑐᓂᓗᑎᒃ ᑲᔪᓯᑎᑕᐅᓂᖏᑦ ᑐᐱᓯᓂᐊᕈᑕᐅᔪᑦ ᐱᖓᔪᒻᒪᑕ ᓴᐅᓂᓂᖅ ᐊᖏᓪᓚᐃᓚᖏᓂᖅᓯᒪᓂᖅ ᐊᖏᓕᕐᓂᖅᓴᖅᑐᑦ ᐊᓯᖏᓪᓕᐊᓂᖅᓴᖅᑐᑦ ᓴᓇᔨᓯᒪ

ᓄᓇᕗᑦ ᐅᒪᔨᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ
Nunavunmi Anngutighatigut Aulapkaijitkut Katimajiat
Nunavut Wildlife Management Board

ᐱᓕᐊᖅᑕᐅᓕᖅᓂᖅ ᐅᒪᔨᖏᓂᒃ ᐊᖏᓂᑎᒋᔭᐅᓂᖅ ᑲᑎᒪᔨᓕᕆᔨᒃᑯᑦ ᐃᓄᐃᑦ ᖃᐅᔨᓴᖏᑦᑐᒃ ᐊᓯᔪᓄᑦ ᖃᐅᔨᓴᓕᕆᔨᖏᑦ
Tammaqtailinahuarniriit anngutighat atuqhugit Inuit qaujimajatuqangillu ilihimaniillu ilitquhiannin
Conserving wildlife through the application of Inuit Qaujimajatuqangit and scientific knowledge

ᑐᖓᓚᐅᔨᓪᓗᑎᒃ ᑕᐃᒃᑯᐊ ᓄᓇᕗᑦ ᓴᖅᓯᒪᔨᑉᓂᒃ ᐅᓂᒃᑲᓕᐊᑦ, ᑲᑎᒪᒋᑦ ᐃᓕᓴᕐᕕᒃᓯᐅᑎᖃᑲᑦᑐᖅᑐᑦ ᐃᑐᐊᖃᖅᑐᑦᓯᓚᐅᔨ ᑕᓗᐅᖓᓂ ᓇᓄᐃᑦ ᖃᓄᐃᖓᑎᐊᖏᓐᓂᒃᑯᑦ, ᕿᑭᓴᕐᕕᒋᑦᓯᓚᐅᖅᑎᑦᓯᒪᓂᖅ ᐊᑎᖅᑕᐅᓂᖅᓯᒪᓂᖅ, ᐱᓕᕆᔨᓪᓚᑦ ᐃᓚᖓᑕᐅᓂᖅᓯᒪᓂᖅ ᐊᑎᖅᑕᐅᓂᖅᓯᒪᓂᖅ, ᐱᓕᕆᔨᓪᓚᑦ ᐊᑎᖅᑕᐅᓂᖅᓯᒪᓂᖅ ᓇᓴᐅᓕᖅᐸᓕᕐᓂᖅ. ᐊᑎᖃᑕᖃᓕᒫᓂᖅᑐᑦ ᐊᖏᓐᓇᑦᓯᐊᓂ ᐊᑎᖅᑕᐅᓂᖅᓯᒪᓂᖅᑐᑦ ᑕᐃᒃᑯᓇᖅᑐᑦ ᐅᓂᒃᑲᓕᐅᑕᐅᑕᐅᒫᓂᖅᓯᒪᓂᖅᓯᒪᓂᖅ ᑕᐅᖅᑯᖅᑐᑦ ᑕᓇᐅᖅᑐᑦ, ᐃᐊᐊᓕᖅᑐᑦ ᑕᓇᐅᖅᑐᑦ, ᐊᑎᓪᓚᑦ ᑕᑎᖃᖅᑐᑦ ᓴᓇᔨᓕᖅᑐᑦ ᑕᓇᐅᖅᑐᑦ, ᑐᑭᓯᐊᓂᖅᑐᑦ ᑕᓇᐅᖅᑐᑦ, ᐊᓂᒍᖅᑐᑦ ᑕᓇᐅᖅᑐᑦ ᓇᓗᐊᕐᓂᖅᑐᑦ ᑕᓇᐅᖅᑐᑦ ᓇᓂᐅᕐᓂᖅᑐᑦ ᑕᓇᐅᖅᑐᑦ ᐊᑎᖅᑕᐅᓂᖅᓯᒪᓂᖅ

ᓄᓇᕗᑦ ᐅᒪᔨᓕᕆᔨᖅᑎᑦ ᑲᑎᒪᔨᖏᑦ
Nunavunmi Anngutighatigut Aulapkaijitkut Katimajiat
Nunavut Wildlife Management Board

ᐱᓕᕆᑦᑕᐃᓕᓂᖅ ᐅᒪᔨᓴᖅ ᐊᖏᔪᑎᑕᓗᒍ ᐊᑐᑎᑕᐅᓂᖏᑦ ᐃᓄᐃᑦ ᖃᐅᔨᒪᓂᑐᖏᑦ ᐊᒻᒪᓗ ᖃᐅᔨᓴᖏᑎᒪᓕᕆᓂ ᖃᐅᔨᒪᓂᖏᑦ
Tammaqtailinahuarniriit anngutighat atuqhugit Inuit qaujimajatuqangillu ilihimaniillu ilitquhiannin
Conserving wildlife through the application of Inuit Qaujimajatuqangit and scientific knowledge

ᓄᓇᖏᓐᓂᑦ ᐃᒪᐃᓕᖕᓂᖅᓴᖅ: ᐃᓗᓕᕆᖏᑲ (11), ᓴᓂᕆᔨᖏᑲ (4), ᑯᐊᖁᔭᒃ (24), ᑕᓗᖁᐊᑦ (25), ᐅᖃᓪᓚᑐᖃᒃ (5) ᐊᒻᒪᓗ ᓇᐅᔨᑦ (5). ᑲᑎᒪᔨᑦ ᐃᓱᒪᒃᑲᓪᓚᐅᑎᖃᓕᐅᖃᑦᑐᒃ ᓴᖅᑭᑎᕈᐅᓱᒪᔪᓂᒃ ᑐᓴᓱᑎᑎᕈᐊᖅᑎᖃᓕᐅᖅᓂᒃ ᓄᓇᕗᑦ ᓚᖓᒪᑯᓂᖏᓐᓂᒃ ᓇᓗᓇᕐᓂᐅᕆᖃᓕᓂᖏᓐᓂᒃ ᐃᓕᑐᐊᖃᐅᖅᑐᓂᒃ ᐊᔾᔨᒌᖅᑐᓂᒃ 2009–ᒥᒃ 2019–ᒧᑦ. ᑕᒪᑯᐊ ᑎᑎᖃᑯᑎᖏᓐᓂᒃᓂ ᑕᑯᓴᐅᑎᕐᒪᔪᑦ ᓇᓗᓇᕐᓂᐅᓚᕆᒃᑯᓪᓕᐅᕐᓂᖏᓐᓂᒃᓂ ᑕᐃᒪᓐᓇᓂᒃ 2019–ᒥ ᐊᑕᓱᖏᓐᓇᖅᑐᓂᒃ ᓇᓗᓄᕐᓇᐅᖃᑎᒌᑦᑕᐅᔪᓂᒃ—ᓇᓗᓇᕐᓂᐅᔪᒪᓗᓂᒃ 63–ᓂᒃ ᓇᓄᖅᓂᒃ ᐊᖅᖁᒍᒡᓕᖅ, ᑕᒡᕕᒪᓂ ᐊᓂᔪᖅᑐᓂ ᐊᖅᖁᔪᓂ. ᑲᑎᒪᔨᑦ ᐊᐱᕆᓪᓕᐅᖅᑐᑦ ᓄᓇᕗᑦ ᓚᖓᒪᑯᓂᖏᓐᓂᒃ ᓱᓕᖅ ᑕᒪᐃᓐᓂᒃ ᑲᑎᓂᓪᓗᑎᒃ, ᐃᓕᓐᓂᑦ ᓄᓇᓕᓂᒃ ᓇᓗᓇᕐᓂᐅᕐᓇᖅᓯᓂᖏᓐᓂᑦ ᐊᑐᖅᑕᐅᖅᑐᑦ ᐊᖅᖁᔪᓂ–2:1–ᐊᑕᐅᔪᖁᑎᓗ ᐊᖅᓯᓗᑐᓇᖅᓱᑎᑕᐅᖅᓯᓱᑎᒃ, ᐃᓕᓐᓂᑦ ᓄᓇᓕᓂᑦ ᓇᓗᓇᖅᑕᐃᓕᓚᕆᖅᑕᖅᓯᒪᓕᑦ ᐊᖅᓯᓗᑐᓇᐅᑎᑦ ᓄᖓᑕᐅᔾᔨᖅᑎᖓᔪᖅᑐᓂᒃ, ᐃᓕᕆᓴᖅᑲᖅᓯᐊᐅᑕᐃᓕᓚᐅᓪᓗᑦ ᐅᖃᓗᑕᐅᔾᔨᖅᑕᐅᑦ ᑯᕐᕆᐅᖅᑕᐅᓂᖏᓐᓂᑦ ᓇᓗᓇᕐᓂᐅᔪᓂᖏᓐᓂᒃ ᑕᐃᒪᓐᓇᖅᑐᓂᒃ ᐊᖅᖁᔪᓂ ᐊᖅᑭᑕᐅᖅᑕᐅᖅᑕᖅᑕᑦᑎᓗᒍ ᐊᖅᓯᓗᑐᓇᐅᑎᑦ (ᑕᐃᒪᑯᐊᓕ ᐅᓴᐅᑎᖅᑎᑎᕈᐅᓕᐅᖅᑕᖅᑕᑦ ᓇᓗᓇᕐᓂᐅᔪᑎᖓᓂᒃ 2:1-ᒥᑐᓗᒃ ᐊᖏᔪᓴᓂᐅᓚᕆᓗᖅ ᐊᖅᓯᓗᑐᓇᓗᓄᖅᓱᓪᓗ ᐊᓯᔾᔨᖅᑕᐅᓕᐅᖅᑐᓪᓗ 2019–ᖏᑎᓴᓗᒍ). ᑲᑎᒪᔨᑦᑕᐅᖅ ᑐᓴᖅᑎᑕᐅᓕᐅᖅᑕᖅᑕᑦ ᓯᑯ ᐱᐅᖏᓂᑐᐊᔅᓴᖅᑕᑦᓂᖏᓐᓄᓕᓂᑕᐅᖅ ᐱᓵᓕᐅᖅᑎᑕᓕᐅᖅᖁᒥᓪᓕᖅ ᑎᑭᑕᐅᖅᑎᑕᐅᓕᕆᓂᖅᓯᒪᓕᑦ “ᓇᓂᓄᕐᐸᑎᐊᖅᐅᓕᕆᓚᐊᓕᑦ.”

ᑕᐃᒪᐃᓂᖏᓐᓄᓕᓂ ᑕᒪᑭᒋᖕᓂᖏᓂᖏᓐᓄᓕᓂ ᑕᒪᐃᓂᒃ ᑲᑎᓂᓗᑎᑦ ᓇᓗᓇᕐᓂᐅᔪᓂᖏᓐᓂᒃᓂ ᖁᓕᑕᐅᓕᖅᑐᓗ 10 ᐊᓂᔪᖅᑐᓗ ᐊᖅᖁᔪᓂᒃ ᐃᓕᐊᖅᑐᖅᓴᐅᓴᐅᑦ ᑕᓚᐅᖏᓂᒃ ᐊᑐᖅᑭᒋᖏᑕᑦ ᐊᒥᐊᒃᑯᓂᒃ ᓇᓗᓇᕐᓂᐅᔪᑎᑎᖏᓐᓂᒃᓂ ᑕᒡᕕᒪᓂᒃ 119–ᓂᒃ ᐊᖏᔪᓴᓂᐅᓚᕆᓗᖅᓂᒃ ᐊᒻᒪᓗ 22–ᓂᒃ ᐊᖅᓯᓗᑐᓇᐅᑎᓂᒃ ᐊᒥᐊᒃᑯᔪᓚᑎᒃ ᐊᑐᖅᑭᒋᖏᑕᖏᓐᓂᒃ, ᑎᑭᓴᓗᒍ ᑕᒪᐅᖏᓐ ᐃᓱᐊᓂ ᓇᓗᓇᕐᓂᐅᓴᖅᑐᓪᓗᑦ 2019–2020–ᒪᑦ. ᓄᓇᕗᑦ ᑲᑎᒪᔨᖏᑦ ᐅᓂᒃᑲᓕᐅᖅᑐᑦ ᑕᐃᒪᐃᓐᓇᖅᑐᓂᒃ ᐊᑐᖅᑕᐅᔪᑎᖏᑕᑦ ᐊᒥᐊᒃᑯᖏᑦ ᓇᓗᓇᕐᓂᐅᑎᑦ ᐊᒥᓱᑦᓂᖏᑦ ᐃᓕᓴᐅᓂᐊᕐᒥᔪᑦ ᐱᑕᖏᓂᑕᖅᑐᑦ 0–ᒪᑦ ᐱᔾᔨᑕᐅᓗᓂ ᓄᑦᓂᓂᒃ ᑕᒪᐃᓐᓂᒃ ᑲᑎᒪᔨᑦ ᓇᓗᓇᕐᓂᐅᑎᑦᓂᐊᓕᕆᔨᒪᒪᓕᒃ, ᐊᑐᓕᕆᔨᓗᑎᑦᓗ ᑕᒪᐃᓐᓂᒃ ᑲᑎᒪᔨᑦ ᓇᓗᓇᕐᓂᐅᔪᓂᖏᓐᓂᒃ ᐃᓕᑐᒥᐅᔾᔨᖅᑕᐅᓕᖅᑐᓂᒃ ᑕᒪᐃᓐᓂᒃ ᓇᓄᕐᓂᐅᔪᓂᒃ.

<u>ᐅᖃᐅᓕᖅᑎᑦ ᐅᖃᐅᓕᖅᓴᓂᐃᓕᐅᓕᐅᖅᑎᖓᓂᒃ ᑲᑎᒪᔨᑦ ᑲᑎᒪᓂᓱᓇᖅᑲᒃᑕᖏᓐᓄᒃ ᑲᑎᒪᔨᖏᓐᓄᑦ ᐊᐅᓚᕋᑎᒥᐅᔾᔨᖅᑕᐅᓕᖅᑐᓂᒃ</u>

ᑲᑎᒪᔨᑦ ᑲᑎᒪᓂᓱᓇᖅᑲᒃᑕᖏᓐᓄᒃ ᑲᑎᒪᓂᖏᓐᓄᑦ, ᑐᓴᓕᐅᖅᑐᑦ ᐃᓕᓴᕆᔨᖅᑲᖅᓯᐊᐅᑎᖃᓕᐅᖅᑐᑦ ᐅᖃᐅᓕᖅᓴᓂᐃᓕᐅᓕᐅᖅᑎᖓᓂᒃ ᐊᐅᓚᕋᑎᒥᐅᔾᔨᖅᑕᐅᓕᖅᑐᓂᒃ ᐊᔭᖓᐅᑎᖃᓕᐅᖅᑐᓂᒃ. ᐊᖓᑎᓕᓇᖅᑲᖅᓯᐊᓕᕆᔨᒪᒪᓕᒃ ᓴᓇᓕᐅᖅᑐᓂᒃ ᐃᓕᓴᕆᔨᖅᑲᖅᓯᐊᐅᑎᖃᓕᐅᖅᑐᑦ ᓇᓗᓇᕐᓂᐅᔪᓂᖏᓐᓂᒃ ᐃᓕᓴᕆᔨᖅᑲᖅᓯᐊᐅᑎᖃᓕᐅᖅᑐᑦ ᐊᖅᓯᓗᑐᓇᐅᑎᑦ ᐊᖅᖁᔪᓂ

ᓄᓇᕗᒻ ᐅᒪᔨᓕᕆᔨᖅᑎᑦᑎᓂᖅ ᑲᑎᒪᔨᖏᑦ
Nunavunmi Anngutighatigut Aulapkaijitkut Katimajiat
Nunavut Wildlife Management Board

ᐱᓕᕆᑦᑕᐃᓕᓂᖅ ᐅᒪᔨᖅᑎᒃ ᐊᖏᔪᑎᑎᓕᒍ ᐊᑐᑎᑕᐅᓂᖏᑦ ᐃᓄᐃᑦ ᖃᐅᔨᒪᓂᕐᒧᖏᑦ ᐊᓪᓚᒍ ᖃᐅᔨᓴᖅᑭᓚᐅᕙᑦ ᖃᐅᔨᒪᓂᖏᑦ
Tammaqtailinahuarniriit anngutighat atuqhugit Inuit qaujimajatuqangillu ilihimaniillu ilitquhiannin
Conserving wildlife through the application of Inuit Qaujimajatuqangit and scientific knowledge

ᓇᓐᓄᑦᕃᐊᔪᓐᓇᖅᑐᓐᓂᖅᓂᒃ 74–ᓂᒃ ᑐᓴᒪᕐᖃᒥᐅᕐᓂᖅᑐᓐᓂ ᐱᔪᓪᒥᐅᖃᖅᑎᒥᐅᔪᓂᒃ ᖃᐅᔨᓴᖅᑭᑐᖅᑐᒃᓴᓂᒃ ᐊᑐᖅᓯᒪᓂ ᓚᐅᖅᓂᒃ ᐊᖏᔪᑦᓯᐅᓇᓐᓂᖅᑐᓂᒃ ᐊᒥᐅᔪᕐᒪᑐᓗ ᐊᕐᓇᑦᓯᐅᓇᖅᑎᑦᑎᓗᑎᒃ ᐃᔪᒪᕆᐅᔪᓕᖅᑐᓂᒃᓂᒃ. ᑕᐃᒪᐃᓂᖅᓴᓄᑦ, ᐊᑐᓕᕐᓂᔪᓕᐊᖅᑐᑦ ᑕᐃᒪᐃᓕᓕᖅᓴᐅᓇᕐᓂᔪᐃᓂᖅᓂᖅ ᑕᒪᐃᓂᖅ ᑲᑎᒪᓂᖅ ᓇᓐᓄᑦᑕᐅᔪᓇᓐᓂᖅᑐᓂᒃᓂᒃ ᐊᒥᓚᓗ ᐊᒥᐅᔪᕐᒪᑐᓗᒃ ᐊᕐᓇᑦᓯᐅᓇᓂᖅᑐᑦ ᐱᔪᓪᒥᐅᔪᓇᖅᓚᒥᑦ ᔪᑲᓂᖅᓂᒃ ᐊᑎᓕᓴᕐᓂᖅᑐᓂᒃ ᐊᑎᓪᓚᕆᐊᖅᑐᓂᒃ ᐊᑐᓕᕐᓂᔪᓕᐊᖅᑐᑦ “ᐊᕐᓇᑦᓯᐃᑦ ᐱᓚᒪᐅᓂᖅᓴᖏᓚᒥᑦ ᐊᑎᓪᓚᕆᐊᖅᑐᓂᒃᓂᐅᑦ ᓇᓐᓄᑦ.” ᐊᖏᑎᑕᒪᓕᕐᓂᐊᕐᓂᑦ ᑲᓇᑕᒥᐃᓕᐅᖅᑐᑦ ᐊᑎᓪᓚᓂᖅᑐᓂᒃ ᓇᓐᓄᖕᖏᓂᒃᓂᒃ ᐅᓗᒪᐊᓇᐅᑎᔪᓇᖅᑐᓂᒃ ᖃᐅᔨᓴᖅᑭᐅᖏᑐᖅᑐᒃᓴᓂᒃ ᔪᔪᑎᑎᓕᐊᖅᑐᑦ ᐃᓄᐃᑦ ᑕᐃᒪᓂᒃ ᑲᑎᒪᓂᖅ ᓇᓐᓄᑦᑕᐅᔪᓇᓐᓂᖅᑐᓂ ᖃᐅᔨᓴᖅᑭᐅᖏᑐᖅᑐᒃᓴᓂᒃ ᐊᑐᖅᓯᒪᓂ ᑕᐃᒪᓕᕐᓂᔪᓕᐊᖅᑐᑦ ᐊᑎᓪᓚᕆᐊᖅᑐᓂᒃ ᐊᒥᓚᓗ ᐊᖏᔪᑦᓯᐅᓇᓐᓂᖅᑐᓂᒃ ᐊᑐᖅᓯᒪᓂ ᑕᐃᒪᓕᕐᓂᔪᓕᐊᖅᑐᑦ.

ᑲᑎᒪᓂᑦ ᑐᓴᒥᐅᖅᑐᑦ ᑕᐃᒃᓯᓇᖅᓱᑦ ᖁᑭᖅᑕᒋᓐᖏᑦ ᐊᖏᓪᓚᕆᑎᒥᑦ ᑲᑎᒪᓂᖅᑐᓂᒃ ᐅᓂᒃᑕᐅᓇᖅᑐᖅᓂᒃ ᓇᓐᓄᑦ ᓚᐲᒃᓯᑦ ᑐᑭᓯᐅᔪᓐᓇᖅᑐᓂᖅᓂ ᐊᒃᑐᖅᑕᐅᔪᓕᕐᓂᒃ ᓇᓐᓄᖕᖏᓂᒃ ᐱᔪᓪᒥᐅᔪᓕᕐᒥᔪᓂᒃᓂᐅᔪᓐᓇᖅᑎᑦᑎᓗᒍ ᐅᖃᓕᓴᐃᓂᑦ ᐊᒥᓱᓕᐅᔪᓐᓇᖅᑐᑦ ᐃᓄᐃᑦ ᐊᑐᖅᓯᒪᓂ ᐊᖏᔪᑦᓯᐅᓇᓐᓂᖅᑐᓂᒃ ᐊᑐᖅᓯᒪᓂ ᐃᓕᓴᕐᓂᖅᑐᓂᒃ ᐊᑐᖅᓯᒪᓂ ᐊᑐᖅᓯᒪᓂ ᐊᑐᖅᓯᒪᓂ

ᓄᓇᕗᒻᒥ ᐅᒪᔨᓕᕆᔨᖅᑎᑦᑎᓂᖅ ᑲᑎᒪᔨᖏᑦ
Nunavunmi Anngutighatigut Aulapkaijitkut Katimajiat
Nunavut Wildlife Management Board

ᐱᓗᐊᕋᑦᑕᐅᓕᕐᓂᖅ ᐅᒪᔨᖏᓂᖅ ᐊᖏᓂᑎᒋᓗᒍ ᐊᑐᕿᑎᒋᔭᖏᑦ ᐃᓄᐃᑦ ᖃᐅᔨᒪᓂᕐᒧᖏᑦ ᐊᒻᒪᓗ ᖃᐅᔨᓴᕿᕕᒃᓴᓕᕆᓂᖅ ᖃᐅᔨᒪᓂᖏᑦ
Tammaqtailinahuarniriit anngutighat atuqhugit Inuit qaujimajatuqangillu ilihimaniillu ilitquhiannin
Conserving wildlife through the application of Inuit Qaujimajatuqangit and scientific knowledge

ᐊᑐᓕᖁᓕᐊᓱᐅᓂᖅ ᑲᒪᕐᖁᓕᐅᓂᖅ.

ᐱᓴᕆᑕᐅᓂᖅ ᐅᒪᔨᓕᕆᔨᕗᖑᓐᓄᑦ ᐃᓱᒪᓕᐅᕈᑕᐅᓂᖏᓐᓄᑦ

ᑐᖏᓕᐃᑦᓗᑎᒃ ᓄᓇᕗᑦ ᒪᓪᒪᒃᑯᑦ ᐅᖃᐅᓯᕐᓴᐅᓱᒪᓕᖅᖏᑦ ᐊᒻᒪᓗ ᐅᖃᐅᓯᕐᑯᑦ ᐅᖃᐅᓯᖅᐅᓪᓚᐅᖃᓂᐅᓂᖏᑦ ᑲᑎᒪᓂᖅ ᐊᐅᓪᓚᑎᓴᐅᖃᑎᒌᓪᓕᐊᑦᑐᓂᖅ ᑲᑎᒪᓂᑦ, ᑲᑎᒪᓂᖅ ᑐᓂᓕᕐᖃᓯᒪᕗᑦ ᑕᐃᒃᑯᐊ ᐃᑐᐊᖃᑐᖃᖓᓕᒃᓴᑦ ᑕᓚᐅᖏᓚᓂᒃ ᓇᓱᓕᐊᖓᓯᒪᓂᖅᑎᑦ ᓇᓄᐃᑦ ᖃᓄᐊᖃᖓᓕᒃᑎᓂᕐᓂᖅᓱᓂᒃ ᐊᒻᒪᓗ ᖃᑎᒌᖓᓂᖅᓱᓂᒃ. ᑕᐃᒪᐃᑲᐊᖃᖅᑎᑦᓗᑎᑦᑕᐅᖃᖅ ᑭᓯᐊᓂ, ᐃᓯᒪᓂᖏᑐᐃᓇᑭᓇᖏᑦᑐᑦ ᑕᐃᒃᑯᐊ ᐊᑐᖅᑕᐅᓯᒪᖏᑦᑐᓂᖏᓐᓄᑦ ᓇᓱᓄᑦᓇᐅᑎᓂ ᐊᒥᐊᒃᑯᖓᓂᖏᑦ ᐃᓯᒪᔪᑦᓇᐅᑎᓂ ᐃᓕᓴᕐᕕᐅᑎᓂᖏᑦ ᓴᖅᑭᑎᑕᐅᓂᖏᓐᓄᑦ ᐊᒻᒪᓗ ᐊᑐᖅᑕᐅᓯᒪᖏᑦᑐᓂᖏᓐᓄᑦ ᐊᒥᐊᒃᑯᓯᒪᓂᖅᓱᓂᒃ. ᑕᐃᒪᐃᓐᓇ, ᑲᑎᒪᓂᖅ ᐃᓯᒪᔪᑦᓇᐅᑎᓂ 2019–2020 ᑲᑎᖅᑯᐃᑯᒪᓕᖅᓯᒪᒋᐊᖅ 119–ᓂᒃ ᐊᒻᒪᓗᓕᔪᓂᒃ ᓇᓱᓄᑦᓇᐅᑎᑎᒃ ᐊᒻᒪᓗ 22-ᓂᒃ ᐊᖏᓪᓕᔪᓂᒃ ᓇᓱᓄᑦᓇᐅᑎᑎᒃ ᐊᒥᐊᒃᑯᓯᒪᔪᖅᑐᒥᒃ ᑭᖑᑎᐊᖅᑕᐅᓂᐊᖏᓚᐅᖅ ᑕᐃᒃᑯᐊ ᐊᖑᑎᒃᑯᑦᑕᐅᓂᖅᑐᒥᒃ ᐃᓕᓴᕐᕕᐅᑎᓂᖏᓐᓄᑦ ᐃᓕᓴᕐᕕᐅᑎᓂᖏᓐᓄᑦ ᐊᒥᐊᒃᑯᓯᒪᓂᖅᓱᓂᒃ ᐊᒻᒪᓗ ᐊᖑᑎᒃᑯᑦᑕᐅᓂᖅᑐᒥᒃ ᐊᒻᒪᓗᓕᔪᓂᒃ ᐊᒥᐊᒃᑯᓯᒪᓂᖅᓱᓂᒃ. ᑕᐃᒪᐃᓐᓇ, ᑲᑎᒪᓂᖅ ᐃᓯᒪᔪᑦᓇᐅᑎᓂ ᐅᖃᓕᓴᐃᓂᖅᓱᓂᒃ ᓴᖅᑭᑎᑕᐅᓂᖅᑐᒥᒃ ᐃᓕᓴᕐᕕᐅᑎᓂᖏᓐᓄᑦ ᐃᓕᓴᕐᕕᐅᑎᓂᖏᓐᓄᑦ ᐅᑭᐅᖅᑕᕐᕕᒃᓴᓕᕆᓂᖅ ᑕᐃᒃᑯᐊ ᐊᖑᑎᒃᑯᑦᑕᐅᓂᖅᑐᒥᒃ ᑕᓚᐅᖏᓚᓂᒃ ᐊᒻᒪᓗᓕᔪᓂᒃ ᐊᒥᐊᒃᑯᓯᒪᓂᖅᓱᓂᒃ ᐊᒻᒪᓗ 22-ᓂᒃ ᐊᖏᓪᓕᔪᓂᒃ ᓇᓱᓄᑦᓇᐅᑎᑎᒃ ᐊᒥᐊᒃᑯᓯᒪᔪᖅᑐᒥᒃ ᑕᓚᐅᖏᓚᓂᒃ ᐊᒻᒪᓗᓕᔪᓂᒃ ᐊᒥᐊᒃᑯᓯᒪᓂᖅᓱᓂᒃ ᐊᒻᒪᓗ ᐊᖑᑎᒃᑯᑦᑕᐅᓂᖅᑐᒥᒃ ᐃᓕᓴᕐᕕᐅᑎᓂᖏᓐᓄᑦ ᐃᓕᓴᕐᕕᐅᑎᓂᖏᓐᓄᑦ

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Nunavunmi Anngutighatigut Aulapkaijitkut Katimajiat
Nunavut Wildlife Management Board

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Conserving wildlife through the application of Inuit Qaujimajatuqangit and scientific knowledge

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Nunavunmi Anngutighatigut Aulapkaijitkut Katimajiat
Nunavut Wildlife Management Board

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Conserving wildlife through the application of Inuit Qaujimajatuqangit and scientific knowledge

February 1, 2022

Honourable David Akeeagok
Minister of Environment
Government of Nunavut

Dear Minister Akeeagok:

Re: NWMB Decision on the Request for Approval of the Polar Bear Harvest Administration and Credit Calculation System (HACCS)

Background

At the Nunavut Wildlife Management Board's (NWMB or Board) Regular Meeting, held on December 9, 2021 (RM004-2021), the Government of Nunavut submitted an application to the Board to approve the polar bear *Harvest Administration and Credit Calculation System* (HACCS). The HACCS, a revised version of the *2019 Flexible Quota System* (FQS), is proposed to be used in Nunavut to administer the portion of the Total Allowable Harvest (TAH) allocated to a given community. The purpose of the HACCS is to administer changes to polar bear harvest management in Nunavut resulting from the decision by NWMB and Minister in 2019 to change the sex-selective harvest ratio from two males for every female (2:1) to up to one female for every male (1:1). It allows communities to accumulate credits for future use when the annual allocation is under-harvested. It also allows for credits to be deducted from the following year's base allocation when polar bears are over-harvested.

In August 2019, the FQS—first negotiated in 2005, was revised to accommodate the 1:1 male to female ratio for polar bear harvest across Nunavut. The revised FQS was approved by the NWMB on an interim basis in September 2019, pending further consultation with co-management partners. The Government of Nunavut revised and re-submitted the 2019 FQS[1] for approval by the Board in its June 10, 2020, Regular Meeting.

At the NWMB's In-Camera Meeting on June 11, 2020 (IC002-2020), the Board did not make a decision on the HACCS but decided to extend the validity of the 2019 FQS pending further consultations with co-management partners. The Board also recommended that Nunavut Tunngavik Incorporated (NTI) and the Regional Wildlife Organizations (RWOs), in

1 The revisions to the 2019 *Flexible Quota System* included the renaming of it to the *Harvest Administration and Credit Calculation System*.

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consultation with their communities' HTOs, provide feedback on the FQS and work with the Government of Nunavut to resolve any disagreements.

On November 5, 2021, the Government of Nunavut submitted a revised version of the HACCS for the Board's approval following consultation with and feedback from co-management partners.

NWMB Decision and Recommendation

During the Board's Regular Meeting on December 9, 2021, the Government of Nunavut presented the HACCS and made submissions on its consultation with co-management partners. Co-management partners also presented oral and written submissions.

At the NWMB's In-Camera Meeting on December 10, 2021 (IC004-2021), the Board considered the Government of Nunavut's application alongside oral and written submissions from co-management partners and made the following decision and recommendations:

RESOLVED that, pursuant to the Board's authority under Section 5.2.34(d)(i) of the Nunavut Agreement, the Nunavut Wildlife Management Board approves the Government of Nunavut's Polar bear Harvest Administration and Credit Calculation System.

FURTHER RESOLVED that the Nunavut Wildlife Management Board recommends that:

- *The Government of Nunavut and co-management partners work together towards a fair and acceptable accounting system for polar bears killed in defense of life and property (DLPK);*
- *The Government of Nunavut and co-management partners work together towards a fair and acceptable alternative to resetting harvest credits to zero when a new sub-population Total Allowable Harvest is set;*
- *The Government of Nunavut explore options to improve public access to polar bear harvest administration and increase involvement of Regional Wildlife Organizations in the management and allocation of community harvest credits.*

Reasons for NWMB Decision

Decision to approve the Polar Bear Harvest Administration and Credit Calculation System (HACCS)

The application before the NWMB was to seek its approval of the Government of Nunavut's Polar bear Harvest Administration and Credit Calculation System (HACCS). The HACCS is intended to be an administrative tool to keep track of polar bear harvesting at the community level. The HACCS operates once a community allocation has been decided by the Regional Wildlife Organizations (RWOs) for 'regional TAHs' or by the NWMB and Minister for 'community TAHs'. The NWMB has discretionary authority under section 5.2.34(d)(i) of the *Nunavut Agreement* to approve plans for the management of wildlife. During the Regular Meeting, the GN stated there are no Non-quota Limitations in the HACCS.

The HACCS regulates the polar bear sex-selective harvest ratio and sets credit accumulation and use rules. The Government of Nunavut stated that the HACCS is integral to implementing the Board's and Minister's decisions on (1) the *Nunavut Polar Bear Co-Management Plan* and (2) the change in the sex-selective harvest ratio from 2:1 to 1:1. The Board approved the FQS on an interim basis in 2019. It has been implemented during the 2019/2020 and 2020/2021 harvest seasons. In June 2020, the Board extended the validity of the 2019 FQS, pending further consultations with co-management partners. In a letter to the then Minister of Environment on July 6, 2020, the NWMB encouraged the Government of Nunavut and relevant Inuit Organizations to work together and constructively resolve any disagreements in the HACCS.

During the regular meeting held on December 9, 2021, the Government of Nunavut presented the revised HACCS and made submissions on consultation with co-management partners. The consultation report stated that the Government of Nunavut organized two conference calls with co-management partners on April 1 and July 27, 2021. The three Regional Wildlife Organizations, NTI, NWMB staff, and seven HTOs (Cambridge Bay, Kugluktuk, Baker Lake, Kinngait, Igloolik, Resolute Bay, and Grise Fiord) attended the consultation meetings. The consultation report also stated that the Government of Nunavut presented revisions to the HACCS during the conference calls, and co-management partners present had the opportunity to ask questions and provide feedback. The Board noted that in addition to and following these consultation meetings, the Government of Nunavut distributed consultation packages and letters requesting additional feedback on the

HACCS from co-management partners on March 19 and October 1, 2021. The Board also noted that the Government of Nunavut postponed plans to submit the HACCS to the NWMB in September of 2021 to provide more time for feedback from co-management partners.

However, the Board also heard and considered requests from Kitikmeot Regional Wildlife Board and Qikiqtaaluk Wildlife Board to delay decision-making until all HTOs in the Kitikmeot and Kivalliq regions have been engaged. The KRWB stated “that the proposal is very technical and requires more discussion and engagement with Kitikmeot communities to fully understand the system.”

In the end, the Board determined that given the evidence of follow-up engagement presented by the Government of Nunavut, the Board was able to proceed with making a decision on the HACCS.

There were concerns the 2019 FQS was a complicated document to understand. The HACCS has undergone changes to improve its structure and content, though there is room for improvement. The HACCS is written in plain language that is easier to understand. The efforts by the Government of Nunavut to include examples in sections (with calculations) may facilitate understanding of credits calculations and quota adjustments in different harvest scenarios. The two flow charts with annotations included in the HACCS[2] add clarity on credit use, credit exchange processes, and the role of co-management partners like the RWOs. The explanations provided in some sections have added detail and helped clarify the Government of Nunavut's rationale, especially in areas where co-management partners have raised concerns during consultation meetings, such as the issue of survival kills counting towards the TAH. The Board determined the changes to the HACCS in this version accommodate some concerns raised by co-management partners. However, there remain other unresolved concerns (such as DLPK and credit resets) that may prove challenging to administer when implementing the HACCS.

As the third harvest season (2022/2023) approaches under the 2019 FQS, the NWMB recognizes the need for a polar bear harvest administration system in Nunavut for the 1:1 sex-selective harvest ratio. On the basis of the simplified credit administration presented in the HACCS, the Board determined the current version of the HACCS is an improvement on the 2019 FQS in making its decision. As we proceed to implementation of the HACCS, the

[2] HACCS, pgs. 9, 10

NWMB will continue to make specific decisions on applications submitted to it on a case-by-case basis, including establishing, modifying or removing TAH or NQL.

Recommendations for Collaborative Improvement to the Nunavut Polar Bear Harvest Administration

The Government of Nunavut's submissions presented the HACCS exclusively as a polar bear administration tool for the NWMB's consideration. The Board is not aware that the Government of Nunavut provided notice or consulted with Inuit on potential rights limitations in the form of NQL if the HACCS is approved. Nevertheless, the Board considered the concerns raised by co-management partners through oral and written submissions that warrant attention, and specifically raises two issues in the paragraphs below.

Defence of life and property kills (defence kills) are counted as part of the TAH in the HACCS. The NWMB has heard Inuit frustrations about defence kills being counted in the TAH. The Government of Nunavut has submitted that not accounting for defence kills would interfere with sustainable harvest principles. The Government of Nunavut also argued that defence kills, like resetting credits to zero, are intended to enhance sustainable populations, which will facilitate Inuit harvesting opportunities in the future. Inuit submit that defence kills happen in unusual and sometimes life-threatening circumstances, they are not intentional harvests, and they should not be counted in the community TAH. By counting defence kills in the TAH, Inuit submit there are reduced harvesting and cultural expression opportunities, particularly in communities that experience problems with polar bears. The NWMB recommends exploring alternative options to count defence kills that takes Inuit concerns involving human-polar bear conflicts.

The HACCS states that a community's credits be reset to zero when a new TAH is established. The NWMB has heard Inuit oppose resetting credits to zero under those circumstances. The NWMB understands the Government of Nunavut's submission that resetting credits to zero when a new TAH is established avoids "double counting" of polar bears because the unharvested bears (credits) are counted in the new population estimate. Inuit organizations submit that resetting credits to zero unfairly removes earned credits and penalizes stewardship. The Board recommends the Government of Nunavut and co-management partners continue to work together towards a fair and acceptable alternative to resetting harvest credits to zero when a new sub-population TAH is set.

Given the complexity of polar bear credit administration, timely and accurate credit status information is relevant. The NWMB has heard concerns about finding out a community's

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credit status. RWOs are responsible for allocating a regional TAH to communities in the region. Under the HACCS, RWOs do not have a role in credit accumulation and use. The NWMB has heard questions about these different roles between base allocations and annual recommended quotas. The Board recommends that the Government of Nunavut explore options to enhance access to polar bear harvest data and in facilitating the involvement of RWOs in credit calculation and allocation processes. For example, there could be a public resource like a website where polar bear harvest and credit data could be viewed.

In approving the HACCS, the NWMB acknowledges statements by the Government of Nunavut Director of Wildlife expressing a willingness to engage in open dialogue with co-management partners. He expressed your department's willingness to engage in open dialogue with co-management partners on outstanding concerns and seek a fairer and more widely accepted polar bear harvest administration system in Nunavut.

Mr. Minister, the Board recognizes the importance of a sustainable polar bear harvest management system in Nunavut, where 11 of 19 global polar bear subpopulations are found. The Board also recognizes that wildlife management in Nunavut is a based on a co-management approach, so the development and implementation of harvest management systems must also reflect the views and knowledge of Inuit co-management partners. Through its recommendations, the Board encourages all co-management partners in Nunavut's polar bear harvest management to continue to seek common ground on these issues through sustained engagement, improved communication, increased transparency, and constructive feedback.

Sincerely,

Daniel Shewchuk
Chairperson
Nunavut Wildlife Management Board

c.c. Drikus Gissing, Director of Wildlife Management, Government of Nunavut.

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February 7, 2022

Mr. Daniel Shewchuk
Chairperson
Nunavut Wildlife Management Board
P.O Box 1379
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Re: NWMB Decision on the Request for Approval of the Polar Bear Harvest Administration and Credit Calculation System

Dear Mr. Shewchuk:

Thank you for your decision sent on February 1, 2022 concerning the Polar Bear Harvest administration and Credit Calculation System.

To reiterate the decision of the NWMB:

RESOLVED that, pursuant to the Board's authority under Section 5.2.34(d)(i) of the Nunavut Agreement*, the Nunavut Wildlife Management Board approves the Government of Nunavut's Polar bear Harvest Administration and Credit Calculation System.*

FURTHER RESOLVED that the Nunavut Wildlife Management Board recommends that:
• The Government of Nunavut and co-management partners work together towards a fair and acceptable accounting system for polar bears killed in defense of life and property (DLPK);
• The Government of Nunavut and co-management partners work together towards a fair and acceptable alternative to resetting harvest credits to zero when a new sub-population Total Allowable Harvest is set;
• The Government of Nunavut explore options to improve public access to polar bear harvest administration and increase involvement of Regional Wildlife Organizations in the management and allocation of community harvest credits.

As per section 5.3.9(a) of the *Nunavut Agreement*, I hereby accept your decision to approve the Polar bear Harvest Administration and Credit Calculation System (HACCS).

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I hereby acknowledge your recommendations to work together with co-management partners, including Regional Wildlife Organizations (RWO), on aspects of the polar bear harvest management system including defense of life and property kills and credit management, while working to improve public access to harvest information.

The Department of Environment is committed to working with co-management partners as evidenced by the development of the HACCS based on feedback from these partners. My department is optimistic that after filling their technical advisor positions, the RWOs will fully realize their roles and responsibilities in polar bear harvest management.

We must strive to balance management using sound science, Indigenous knowledge, and conservation principles. To that end, the department recognizes that the increases in co-management organizations' capacity will likely allow the full utilization of the harvest management system, as it is designed. I believe active engagement with co-management partners will address concerns of credit usage and management as well as improve public access to harvest information.

The decision will be implemented forthwith. This decision will remain in place until I receive a new NWMB decision.

I am confident that we will continue to work collaboratively in the implementation of this management decision. I appreciate the efforts that have been put forth in its consideration.

Sincerely,

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Hon. David Akeeagok,
Minister of Environment

Cc. Jimmy Noble Jr., Deputy Minister of Environment
Drikus Gissing, Director of Wildlife Research
Jason Aliqatuqtuq, Director of Wildlife Operations

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The Nunavut Polar Bear Harvest Administration and Credit Calculation System (HACCS) (Up to 1:1 Harvest System)

1. Rationale and background

During the public hearing process regarding the implementation of Nunavut's Polar Bear Co-Management Plan, by the Nunavut Wildlife Management Board (NWMB), many comments by Inuit organizations were brought forward that favoured a new harvest approach. For years, communities have expressed a desire to adopt a harvest regimen that does not penalize communities as sharply as the flexible quota system when females are overharvested, and that allows harvesting at an equal sex ratio. In response, the **up to one female for every one male harvest option (or 1:1)** was discussed and recommended by the Department of Environment (DOE). On August 26, 2019, the Minister of Environment accepted a decision from the NWMB to change the harvest sex ratio of polar bears in Nunavut to allow **up to one female bear to be harvested for every male bear (1:1).**

Each polar bear subpopulation within Nunavut has a set **Total Allowable Harvest (TAH)**, which is divided among the communities that harvest from the subpopulation by the appropriate Regional Wildlife Organization(s) (RWOs). This is termed the community **base allocation**. The relevant RWO can redistribute the base allocation annually among communities at its discretion. Each harvest season, communities are assigned an **annual recommended quota** which reflects the community's base allocation, any overharvests from previous seasons, and any credit usage. The base allocation and annual recommended quota can be the same number if there are no overharvests or credit usage by a community. Overharvests in one season result in a reduced community annual recommended quota the following season unless the community has accumulated sufficient credits to compensate for the overharvest. When a community harvests below their annual recommended quota they can accumulate sex-specific credits to be used in future harvest seasons or shared with other communities. Communities can request to increase their annual recommended quota through use of accumulated credits.

The updated harvest sex ratio, allowing up to one female bear harvested for every male bear harvested (1:1) does not constrain communities to adhere to the exact 1:1 sex ratio. Rather, it refers to the maximum number of female polar bears in the harvest that are allowed under this system. **The number of females in a community's base allocation can never exceed 50%.** However, the **annual recommended quota may exceed 50% females** depending on whether credits are used to increase the number of females in the annual recommended quota and/or if there was male overharvest in the past season(s) that resulted in a reduction of male bears in the annual recommended quota. Communities are not limited to 50% male bear harvest and communities can harvest their female bear allocation as males. Thus, **males can be harvested up to the limit of the**

annual recommended quota (100%) without going into an overharvest situation. Details are provided below.

The HACCS is a living document and can be reviewed at anytime, in whole or in part, at the request of the RWOs, the GN, or the NWMB. The organization requesting review shall notify all other parties and allow minimum 90 days for a response.

2. Overharvest situation

2.1. An overharvest situation occurs when:

2.1.1. The number of females harvested annually is greater than the number of females in the annual recommended quota, or

2.1.2. The number of males harvested annually is greater than the total annual recommended quota, or

2.1.3 A combination of the males and females harvested annually is greater than the total annual recommended quota.

3. Implementation

3.1. The implementation of the up to 1:1 harvest system begins with the 2019/2020 harvest season (July 1, 2019). The existing total annual base allocation of each community's TAH will be divided by two, to determine the sex ratio for each community. This represents the 1:1 base allocation for each community for 2019/2020. This process increases the number of females allowed in the harvest but does not constrain communities to harvest exactly a 1:1 male to female ratio. The annual base allocation will only change when there is a new allocation decision from the relevant RWO, or a new subpopulation estimate, and/or a new decision on the TAH by the NWMB (see section 5.4).

3.2. If a community's base allocation is an odd number, the RWOs give the DOE authority to alternate the base allocation such that the sex of the odd tag will alternate annually [Example: If a community's base allocation is 11 (6 males and 5 females) then the base allocation will alternate annually between 11(6 males and 5 females) and 11(5 males and 6 females)]. The DOE's authority to alternate the base allocation in these cases is superseded by the RWOs right to adjust these base allocations.

3.3. Annual recommended quotas are calculated using the previous harvest year's data.

3.4. Annual recommended quotas will be calculated based on the sections below.

4. Mortality accounting

4.1. All human-caused mortality to polar bears will count towards the annual recommended quota of the nearest community, except Sections 4.3 and 4.4.

4.2. A naturally abandoned cub or any bear found dead will be recorded as a natural death and not counted against the annual recommended quota.

4.3. Any bear that is found near death caused by starvation or injury, provided that the injury is not a result of human activity such as hunting or trapping, can be killed as a humane action where the Conservation Officer (CO) will certify that the bear was near death. After certification by the CO, the humane kill (euthanization) will not be counted against the annual recommended quota.

4.4. A bear may be killed as an emergency kill in accordance with section 97 of the *Wildlife Act* (the Act) to prevent a person's starvation. The kill will be evaluated to determined whether it was justified and necessary to prevent starvation. It must be clearly shown that the harvest occurred as a last resort, mismanagement cannot be construed as providing a lawful excuse to kill a bear without the proper authority (section 97(3) of the Act). If it is determined that the kill was justified and necessary to prevent starvation it will not be counted against the annual recommended quota, otherwise if it does not meet these criteria it will count against the annual recommended quota.

4.5. If an Inuk from Nunavut kills a bear, the tag will come from that person's home community if that community has an allocation from the TAH in the subpopulation from which the bear was harvested. Otherwise, the closest community to the harvest location must provide the tag.

4.6. For harvests within 30 km of a subpopulation boundary, the relevant HTO(s) may submit a request to the relevant RWO(s) to review and decide from which subpopulation to attribute the harvest (e.g., the subpopulation area from which the bear was harvested, or the subpopulation area bordering it). This decision will be made within the harvest year (July 1st – June 30th) of the given harvest and the RWOs will advise the Polar Bear Lab of the decision.

4.7. Harvesting of a family group or members of a family group is illegal in Nunavut; however, there are circumstances where a family group or members of a family group may be destroyed in Defence of Life and Property (DLP) circumstances.

4.7.1. When a female with cubs-of the-year (COYs), yearlings, or juveniles (2-year-old offspring) are **killed**, then:

4.7.1.1. For annual recommended quota determination purposes, the COYs and yearlings are counted as males and only ½ tag each.

4.7.1.2. The juveniles (2-year-old offspring) are counted as whole tags of whatever sex they are.

4.7.2. If the mother is killed but the COYs, yearlings or juveniles (2-year-old offspring) **run away**, then:

4.7.2.1. The COYs and yearlings are counted as ½ tag and all male (see section 4.7.1.1).

4.7.2.2. The juveniles (2-year-old offspring) that run away are considered as surviving animals. If juveniles are pursued and killed, they are counted as full tags (see section 4.7.1.2)

4.7.3. An HTO may apply to the Minister for a Wildlife Management Permit to allow COYs or yearlings to be harvested for food and cultural purposes. The permit must be issued in advance with a copy to the Wildlife Officer, and the HTO must monitor the hunt to ensure that the female (mother) is not harmed.

4.8. In a case where a community overharvests by one (1) COY or yearling, credits will be used to cover the harvest. In the event there are not enough credits to cover the overharvest of ½ male, the annual recommended quota will not be reduced by ½ tag at that time, and a record is kept with the Polar Bear Harvest Lab of these fractional reductions. The deduction will occur when there is another COY or yearling harvested to equal a full male bear reduction or, if the following year's harvest results in credit accumulation, the ½ credit deduction will be taken from the accumulated credits.

4.9. The parts that evidence the age, species, and sex of a polar bear are teeth for the age; the jaw or skull for the species; and the baculum (penis bone) of the male polar bear for the sex. When the baculum has been lost or forgotten, a hunter-signed Statutory Declaration or DNA extracted from other submitted samples shall constitute evidence of the sex. Where evidence is not provided, the kill will be counted as a female bear for annual recommended quota purposes.

5. Credits

5.1. Available credits may be used to address all types of kills, including accidental, illegal, and DLPs.

5.2. If a community is in an excess harvest situation, all available, applicable (e.g. male or female) credits accumulated by the community will be applied automatically by the Polar Bear Harvest Laboratory to cover the overharvest in order to ensure no reductions to the annual recommended quota occur for the following harvest season, if possible.

5.3. Credits are specific to a given subpopulation and cannot be used for other subpopulations.

5.4. Subpopulation credits accumulate until a TAH decision is made. This may follow a subpopulation inventory that results in a new final abundance estimate. In some circumstances, the NWMB may recommend a change in TAH for other management purposes. When a new TAH decision is made, all unused credits are set to zero because the credits have been carried forward through inclusion in the latest population estimate provided by science and/or Inuit Qaujimajatuqangit (IQ).

That is to say, bears that were unharvested (credits) have been accounted for in the updated population estimate through their contribution to population growth, or through population decline in the case of increased mortality or decreased reproduction. Thus, keeping bears as credits result in “double-counting”; they cannot be counted in credits AND the population abundance estimate. Carrying credits forward in perpetuity creates vulnerability in the sustainability of populations. Credits typically accrue over many years during which vital rates (e.g., reproductive rate, recruitment, survival) may change with the changing environment and/or population dynamics; no population of animals is static. Thus, credits accrued during a period of population growth and applied during a period of population decline would affect the population more negatively than intended, with an unknown magnitude. Resetting credits at the time of a new population estimate and TAH decision allows for managers to better adapt management targets to current population status.

5.5. Credits are accumulated as described in the following sections after the TAH decision is implemented, and during any harvest season:

5.5.1. Credits can accumulate for males and females.

5.5.2. Credits will accumulate for the number of unused males and females in the annual recommended quota.

5.5.3. No female positive credits accumulate when the number of females harvested exceeds the number of females in the annual recommended quota, or the total annual harvest equals or exceeds the annual recommended quota. [Example: if a

community's annual recommended quota is 10 bears (5 males and 5 females) and the actual harvest includes 6 female bears, the community will not accumulate any female credits. Or, if the actual harvest meets or exceeds 10 total bears, the community will not accumulate any female credits].

5.5.4. In a single harvest season, female positive credits accumulate for unharvested female bears of the annual recommended quota given that the total harvest does not exceed the annual recommended quota. [Example: if a community's annual recommended quota is 10 bears (5 males and 5 females) and the actual harvest is 8 bears (5 males and 3 females), the community will accumulate 2 positive female credits for the number of unused females in the annual recommended quota].

5.5.5. In a single harvest season, male positive credits accumulate for unharvested male bears of the annual recommended quota. [Example: if a community's annual recommended quota is 10 bears (5 males and 5 females) and the actual harvest is 8 bears (3 males and 5 females), the community will accumulate 2 male credits for the number of unused males in the annual recommended quota. Alternatively, if the harvest is 8 bears (8 males and 0 females), the community will not accumulate male credits, but will accumulate 2 female credits which represent the number of females that were unused in the annual recommended quota].

5.5.6. In the case where a community has an annual recommended quota of zero, and a total harvest of zero, the community's full base allocation will be restored the following year, unless they still have negative credits that have not been replaced with positive credits (see section 5.6).

5.6 Negative credits are possible and represent the number of bears that have been removed from the subpopulation in excess of a community's annual recommended quota.

5.6.1 Negative credits are sex-specific and can accumulate for male and female bears.

5.6.2 Negative credits occur if there are insufficient credits to cover the excess harvest, and adjustments to the following year's annual recommended quota cannot cover the excess harvest. [Example: if a community's annual recommended quota is 10 bears (5 males and 5 females) and the actual harvest is 17 bears (12 males and 5 females), and there are insufficient male credits to cover the overharvest of males, the annual recommended quota

the following year will be 5 bears (0 males and 5 females). Because there are no male credits to cover the 7 overharvested males, the 5 male tags for the following harvest season will count to cover part of the overharvest and the community will have negative 2 (-2) male credits that will still need to be replaced in subsequent harvest seasons. Alternatively, if a community's annual recommended quota is 10 bears (5 males and 5 females) and the actual harvest is 17 bears (5 males and 12 females), and there are insufficient female credits to cover the overharvest of females, the annual recommended quota the following year will be 5 bears (5 males and 0 females). The community will have negative 2 (-2) female credits that will need to be replaced in subsequent harvest seasons].

Credit exchange and request processes:

5.7 Credits can be exchanged between communities within the same subpopulation.

5.7.1 Communities that harvest from the same subpopulation can exchange credits, where needed, to restore their full annual recommended quota rather than facing a reduction when no community credits are available to cover an overharvest. The existing process for credit exchange between communities will be maintained (Figure 1).

5.7.2 Requests by communities to use credits to increase their annual recommended quota shall be made according to the process outlined in Figure 2. Credit requests are made to, and approved by, the responsible RWO. The GN will verify and confirm the number of available credits and raise any conservation concerns with the relevant co-management partners and management authorities, if warranted.

5.7.2.1 Requests for credits that are greater than 25% of the subpopulation TAH in a given harvest year will automatically be sent to the NWMB for review of a potential conservation concern.

6. Annual recommended quota adjustments

6.1. Reductions are sex-specific when there are insufficient credits to cover an overharvest.

6.2. To protect communities from years of reduced or no harvest opportunities resulting from persistent overharvest, the 1:1 system adapts to allow restoration of the full base allocation. The annual recommended quota will be set to zero in situations in which no credits are available, and a reduction in the annual recommended quota cannot restore the allocation [Example: if a community's base allocation and annual recommended quota is 10 bears (5 males and 5 females) and the actual harvest is 20 bears (10 males and 10 females); if there are no credits to cover the overharvested bears, the annual recommended quota for the next harvest season will be 0 bears. The new annual recommended quota of 0 covers the overharvested bears and the community will have its full base allocation following the 0-harvest year].

6.3. Negative credits are possible and represent the number of bears that have been removed from the subpopulation in excess of a community's annual recommended quota. Depending on the number of negative credits, there may be continued reductions in the annual recommended quota, over multiple harvest seasons, to restore negative credits to zero and reinstate the full base allocation (see Section 5.6).

Reductions in the annual recommended quota and credit administration occur as follows:

6.4. Adjustments in Cases of Female Overharvest:

6.4.1. When females are harvested in excess of the number of females in the annual recommended quota, a reduction of next year's annual recommended quota will occur if there are not sufficient female credits to cover the overharvest. The following year's annual recommended quota will be reduced by the number of females that were overharvested and not covered by credits. The reduction will affect the number of females in the next year's annual recommended quota [Example: if a community's annual recommended quota is 10 bears (5 males and 5 females) and the actual harvest is 12 bears (5 males and 7 females), and there are no female credits to cover the 2 overharvested female bears, the annual recommended quota for the following harvest season will be 8 (5 males and 3 females)].

6.5. Adjustments in Cases of Male Overharvest:

6.5.1. When the harvest exceeds the total annual recommended quota **and** the number of females in the harvest is less than, or equal to, the number of females in the annual recommended quota, then an overharvest of males occurred. Where application of credits does not cover this overharvest, a reduction equalling the

number of overharvested males will be applied to the next year's annual recommended quota [Example: if a community's annual recommended quota is 10 bears (5 males and 5 females) and the actual harvest is 12 bears (7 males and 5 females), and there are no males credits to cover the 2 overharvested male bears, the annual recommended quota the following harvest season will be 8 (3 males and 5 females)].

6.6. Adjustments in Cases of Combination Male and Female Overharvest:

6.6.1. When females are harvested in excess of the number of females in the annual recommended quota **and** the sum of the total harvest (males and females together) exceeds the annual recommended quota, a reduction in the next year's annual recommended quota will occur for each sex, based on the number of bears overharvested [Example: if a community's annual recommended quota is 10 bears (5 males and 5 females) and the actual harvest is 13 (7 males and 6 females), and there are no credits to cover the overharvested bears, the annual recommended quota the following harvest season will be 7 bears (3 males and 4 females)].

7. Floating tags

"Floating tags" are additional tags allocated by RWOs. These floating tags are administered at the discretion of the RWOs, including the sex ratio. Once allocated by the RWOs, they are added to the total annual recommended quota for the recipient community for that year.

7.1. Unused floating tags are accumulated as credits in the sex they were allocated.

7.2. The RWO will advise the Polar Bear Laboratory annually of how they will allocate the floating tags for the next harvest season so that the tags can be attributed to the relevant communities.

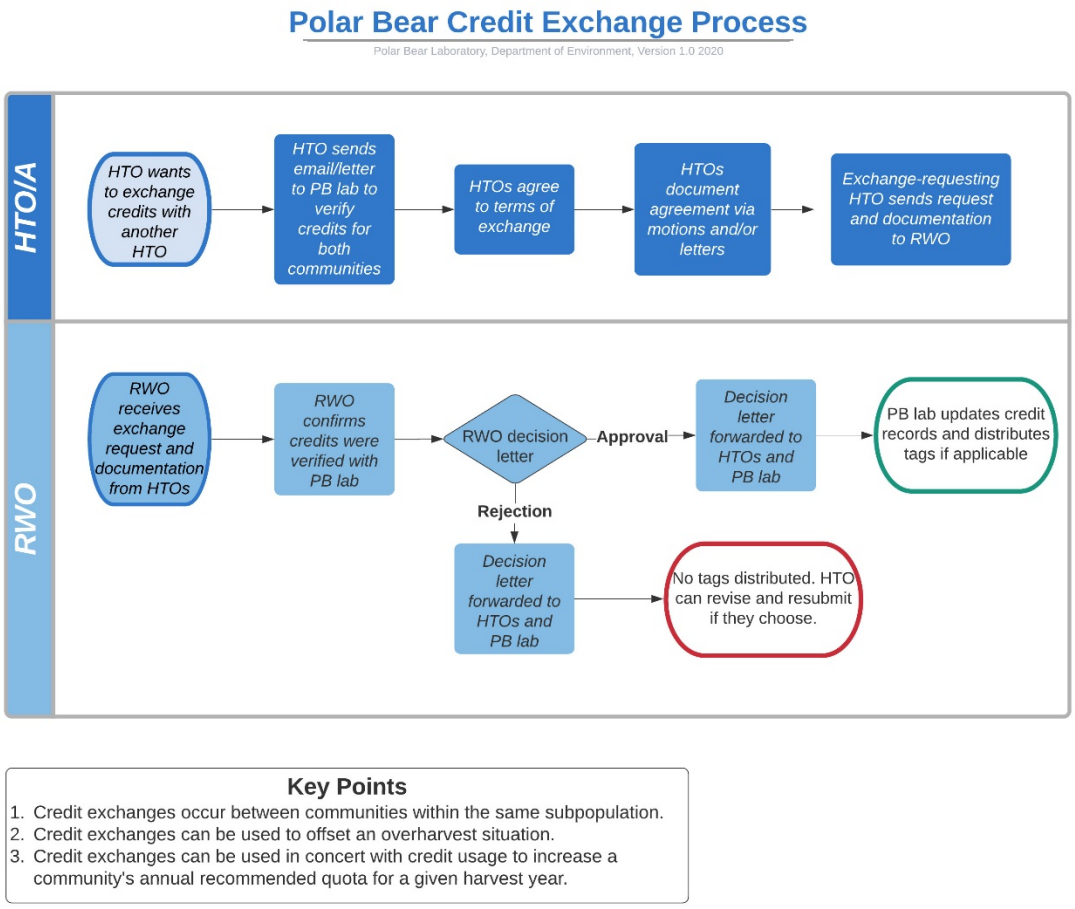


Figure 1. Flow chart representing the RWO-managed decision process for credit exchange (chart designed by co-management partner GN).

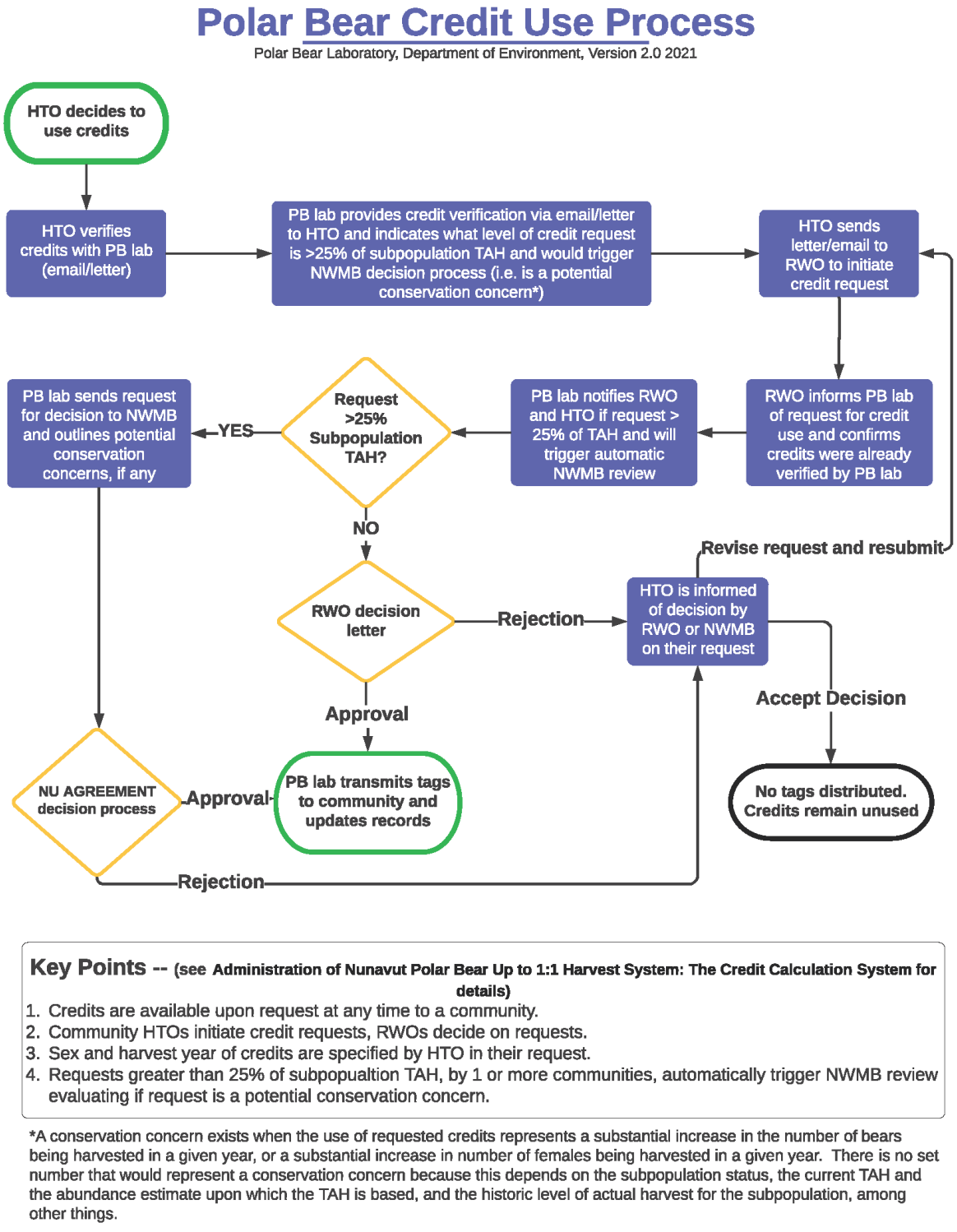


Figure 2. Flow chart representing the RWO-managed decision process for credit usage (chart designed by co-management partner GN).

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ᖃᓄᖅ ᐱᒋᓪᓗᐊᓕᐅᖅᓯᒪᔭᖅ ᑕᒪᓐᓇ:

ᖁᑎᖅᑎᐅᑦ ᐊᐃᔭᑐᖅᓯᒪᓂᖏᓐᓂ ᐊᖏᓇᓴᑎᓕᒪᑦ ᑲᑎᒪᔨᖅᑦ (ᖁᑎᖅᑎᐅᑦ ᐊᖏᓇᓴᑎᓕᓵᑦ) ᑐᑭᓴᐅᒪᒃᑦ ᓄᓇᒃᑦ ᒪᓕᒐᓴᑦ ᐊᒋᑎᓕᕕᓂᖏᓐᓄᑦ ᐱᑎᐊᖅᑐᖅᑐᕐᒪᖅᓯᒪᓕ ᑕᒪᐃᓐᓂᐅᕙ 74-ᖏᓂᐊᖅᑐᓂᖅ ᑕᐅᒋᖅᓯᒪᓂ ᐃᑦᑐᐊᖅᑐᖅᓴᖅᒥ ᓇᓐᓂᐊᖅᓴᐃᐅᒋᔭᖅᑐᓂ. ᑕᒪᓐᓇ ᑐᓴᓴᐅᑕᐅᔨᔪᖅ ᐊᓴᔪᐃᓇᔭᖅᑎᑐᖅ ᑕᒪᐃᓐᓂᐅᕙ ᑲᑎᒪᔨᖅᑦ ᓇᓐᓄᑦᑕᐅᔨᔪᓇᓐᓂᖏᓐᓂᖅᓯᒪᓂ ᐊᓕᒪᓐ ᑐᖏᓕᖅᓴᖅᑐᖅ ᐊᒋᑎᓕᕕᓂᖏᓐᓄᑦ ᓇᓐᓄᑦᑕᐅᔨᔪᓇᓐᓂᖏᓐᓂᖅᓯᒪᓂ (ᑎᒃᑯᓄᓂ ᐃᓕᖏᓐᓂᓂᐊ 2020-ᒥ) ᐃᓴᒪᓇᖅᒪᓕ ᓇᓐᓂᐊᖅᓴᐃᐅᒋᖏᓐᓂᖏᓐᓂᖅᓯᒪᓂ ᖃᐅᔨᓂᖅ ᓇᓐᓄᑦᑐᓂ. ᖁᑭᖅᑎᐅᑦ ᐊᖏᓇᓴᑎᓕᕕᓂᖏᓐᓂ ᑐᑭᓴᐅᒪᒃᑦ ᐃᓐᓄᑦᑐᐊᖅᑐᕐᒪᖅᓯᒪᓕᖏᓐᓂᖅᓯᒪᓂ ᐃᓐᓄᑦ ᐃᓴᒪᒋᔭᐅᓚᑦ ᓇᓐᓂᔭᓕᖅᑐᖃᖅᑐᓇᓐᓂᖏᓐᓂᖅᓯᒪᓂ ᑕᒪᐃᓐᓂᐅᕙ ᖃᐅᔨᓂᖅᑦ ᓇᓐᓄᑦᑕᐅᔨᔪᓇᓐᓂᖏᓐᓂᖅᓯᒪᓂ, ᑐᑭᓴᐅᒪᒃᑦᑎᓂᖏᓐᓂᖅᓯᒪᓂ ᐊᑐᓕᖅᓴᖅᑐᖅ ᐃᓐᓄᑦᑐᐊᖅᑐᕐᒪᖅᓯᒪᓂ ᐊᑐᓂ ᓇᓐᓂᐊᖅᓯᒪᓂ:

- 19.5 ᐊᖏᓴᓪᓕᐃᑦ, 4.35 ᐊᖃᓇᓪᓕᐃᑦ ᑐᕆᖏᓪᓕᓐᓂᑎᒃ ᐅᖃᓕᖅᑐᕆᒥᐅᑕᓄᑦ
- 43.7 ᐊᖏᓴᓪᓕᐃᑦ, 1 ᐊᑕᐅᓕᖅ ᐊᖃᓇᓪᓕᖅ ᑯᐃᕆᖏᒥ
- 46.26 ᐊᖏᓴᓪᓕᐃᑦ, 5.32 ᐊᖃᓇᓪᓕᐃᑦ ᓇᓄᒃᑕᐅᔨᔪᓇᓐᓂᖏᓐᓂ ᑕᓄᕐᓴᐃᑦ ᐊᑐᓂ ᓄᓇᓕᖏᓐᓂ

ᖁᑎᖅᑎᐅᑦ ᐊᖏᓇᓴᑎᓕᒪᑦ ᑲᑎᒪᔨᖏᓐᓂ ᑐᑭᓴᐅᒪᒃᑦ ᐃᓕᒪᓕᐅᕈᑕᐅᔨᐊᓕᐅᖅᓴᖅᑐᑦ ᑕᒪᒃᑯᓂᖏᓐ ᐱᓕᕐᓂᐊᖅᑕᐅᔨᓕᐅᖅᓴᒪᑕ ᑭᖏᕐᓂᓇᖅᑕᐅᔨᓕᐅᖅᓴᒪᑕ ᑭᖏᕐᓂᓇᖅᑕᐅᔨᓕᓪᓕᑎᒃ ᑭᓕᒪᓂ ᑲᑎᒪᔨᖅᑦ ᓇᓐᓂᐊᖅᓯᒪᓂ ᐃᓕᒪᓕᐅᕈᑕᐅᔨᐊᓕᐅᖅᓴᖅᑐᑦ ᑕᒪᒃᑯᓂᖏᓐᓂ ᐊᑐᓂ ᓄᓇᓕᖏᓐᓂ ᐊᑐᓂ ᐃᓐᓄᑦᑐᐊᖅᑐᕐᒪᖅᓯᒪᓂ ᐊᑐᓂ ᓄᓇᓕᖏ

- ᓄᓇᓕᒋ ᐅᖃᐅᓯᖏᖃᕐᓂᖅᓯᒪᔪᑦ ᐊᒥᓱᓕᕐᓂᖅᓴᐅᕐᓂᖅᐳᓕᖅ ᑕᑯᐅᑉᓭᖅᑐᑦ ᐃᑦᑐᐊᖅᑐᕐᕕᒃ ᓄᓇᐃᑦ ᑕᒪᓕ 20-ᖏᓪᓕᖅ ᐊᖏᕌᒍᖅ ᐊᓕᔪᑐᖅᑐᒃ. ᐊᖓᔪᓇᐸᑎᑦ ᐅᖃᐅᔨᔪᐳᓇᖅᑐᑦ ᓄᓕᐊᖏᓐᓄᑦ ᑕᐅᖅᓯᓄᑦ ᓄᓇᐃᑦ ᐊᒥᓱᑲᖅᐸᑦᓯᓕᐊᓕᖅᐳᓕᖅ ᐱᔪᑕᐅᓕᖏᓪᓗᑦ ᑕᑯᐅᑉᐳᓕᖅᓯᒪᒥᒃᑕ ᐊᓚᒪᓗ/ᐅᕐᖓᓐᓂᑦ ᓇᐟᓕᐊᑭᓇᖏᓪᓗᑦ; ᑕᑯᐅᑉᖓᕐᒥᔪᑦ ᓄᓕᐊᖏᓇᐅᕐᓱᖓᓪᓕᑦ; ᑕᑯᐅᑉᓕᓕᐅᕐᓂᖅᓴᐅᕐᓂᖅᑐᑦ ᐊᖏᓇᓐᓗᐃᑦ ᐊᑎᖅᑕᓐᓂᑦ, ᐊᓚᒪᓗ/ᐅᕐᖓᓐᓂᑦ ᑕᑯᐅᑉᐳᓕᖅᓯᒪᒥᒃᑕ ᐊᖏᓇᓐᓗᐃᑦ ᓄᓇᐃᑦ ᐊᑎᑕᖅᑎᓂᖅᓴᐅᕐᓂᖅᑐᑦ (ᐃᓕᓐᓇᑦᑐᑯᑦ ᓯᑕᒪᓂᖅ ᐊᑎᖅᑕᖅᑎᖅᓯᖓᓕᕐᓂᖅᓴᐅᕐᓂᖅᑐᑦ ᐊᓚᒪᓗ ᓄᓇᐃᑦ ᓂᕈᑐᓂᖅᓴᖅᓴᐅᕐᓂᖅᑐᑦ ᐱᑕᖅᓴᓂᖅᑐᒃ. ᐅᓇᓱᒋᑦᓯᓗ, ᐅᖃᓕᓂᖅᑐᑦ ᐊᓯᖏᑕᒃ, 2021).
- ᓄᓇᓕᖏᐅᑦᑕᐅᖅ ᐅᖃᐅᓯᖏᖃᕐᑕᖅᓯᒪᔪᑦ ᓄᓇᐃᑦ ᖃᓄᓂᖅ 10-ᓂᖅ ᐊᖏᕌᒍᖅ ᑎᒥᓯᑦ ᖃᓄᐃᓕᖅᑎᑕᐊᖅᑐᓂᖅᓴᖅ (ᐃᓕᓐᓇᑦᑐᑯᑦ, ᐅᖃᓕᓂᖅᑐᑦ ᐊᓯᖏᑕᒃ, 2021).
- ᐊᖓᔪᓇᓕᓂᑦ ᐊᖓᔪᓇᖅᑎᑦ ᖃᐅᔨᓪᓚᖓᓕᒫᓕᒐᓂᖅᓴᖅ ᐊᖓᓇᓪᓂᒃᑐᓂᖅᓴᖅ ᐊᖓᔪᓐᓇᖅᑐᖅᓯᓕᓂᑦ ᑕᑯᐅᑉᖃᖅᓯᒪᒥᒃᑕ ᐅᕐᖓᓐᓂᑦ, ᐊᑐᖅᑕᐅᔨᓴᖅᓯᓕᒫᓂᓪᓗ ᑕᒪᐅᑯᐊ ᖃᐅᔨᓪᓚᔨᐅᓂᖅᓴᖅᓯᓕᒫᓂᑦ ᓂᓪᓕᐊᖃᐅᕐᓴᖅᓯᒪᔪᑦ ᓇᓄᔭᒪᓂᖅᓴᖅ ᑕᐃᓐᓇᐅᓂᖅᓴᖅ ᑕᑯᐅᑉᖃᖅᓯᒪᒥᒃᑕ.
- ᐅᖃᓕᓐᓂᒃ, ᑕᓗᖏᐊᑦ (ᑕᓗᖏᐊᖅᑐᖅ), ᐊᓚᒪᓗ ᖃᓄᑕᐃᑭᖏᐊᖅᑐᖅ (ᑯᐃᖏᓐᓇᖅ) ᐊᖓᔪᓇᖅᑎᑦ ᑲᑐᔨᖅᑎᑎᑦᓯᑕᑦ, ᐊᒥᐊᖅᑯᓯᒪᔭᓗᑎᒃ ᓇᓄᔭᓇᐅᑦᑎᑦ ᐊᑐᖅᑕᐅᓯᒪᔪᖓᑕᑦ ᐊᑐᖅᑕᐅᓯᒪᔪᑦ, ᓴᖅᑭᐅᒪᔪᓂᖅᑎᑦᓯᓇᐅᑦᑎᑦ ᐊᐅᓚᓯᖏᓐᓄᑦ ᓇᓄᔭᓕᓚᐅᑎᑦ ᐊᐅᓚᓯᖏᓐᓄᑦ ᐊᑐᖅᑕᐅᓯᒪᔪᖓᑕᑦ, ᐱᑕᖅᓴᓂᖅᑐᑦ ᓇᓄᔭᓕᓚᐅᑎᑦ ᐊᐅᓚᓯᖏᓐᓄᑦ ᐊᑐᖅᑕᐅᓯᒪᔪᑦ ᐊᖓᔪᓐᓇᖅᑐᖅᓯᓕᓂᑦ ᑕᑯᐅᑉᐳᓕᖅᓯᒪᒥᒃᑕ

ᐅᓱᒪᖅᑐᓂᖅ ᐊᓚᒪᓗ ᐊᔪᐅᕈᑕᐅᖅᑕᖅᓯᕗᑎᒃ ᐊᖏᔪᓂᕗᑎᓂᐅᓂᖅ ᐊᑐᓚᐊᖅᑕᕐᓂᐅᓂᖅ ᑕᒪᐃᐟᓂᐊᑐᓗᒃ ᐊᒥᐊᒃᑯᒥᓂᒃ ᖃᑭᒥᐊᑐᓗᒃ.

- ᐃᓯᒪᑎᔪᐅᖅᓄᖅᑎᑦ <<ᕐᑎᖅᓂᖅ ᓇᓄᔪᓇᐅᑦᑎᑦ ᐊᒥᐊᑯᖅᑎᑦ ᐊᑐᖅᑕᐅᓯᒪᖅᑎᑦᑐᑦ “ᒪᕐᕈᐃᖅᑕᖅᓯᒪᑎᑎᒋᔪᓂᒃ ᐊᒥᓯᓂᖅᕈᐸᖅᓇᕐᓂᖅᑎᖅᓂᒃ” ᐅᕆᖅᐅᓯᐅᖅᑐᑦ ᐃᓯᒪᑎᔪᐅᓗᑎᒃ ᐃᓯᒪᓴᕐᓯᐅᕈᑎᖅᑕᖅᓴᖅᑐᑦ ᖃᓄᓇᑐᑦᑕᖅᓴᖅᓯᒪᓕᖅᓕᖅᑐᑦ ᓇᓇᐃᖅᑐᓂᖅ ᐊᒥᐊᑯᖅᑎᑦ ᐊᑐᖅᑕᐅᓯᒪᖅᑎᑦᑐᑦ ᐊᑐᖅᑕᐅᒋᐊᖅᓇᕐᓂᖅᓯᒪᓕᖅᑐᑦ ᐃᑐᖅᓯᓇᖅᑐᖅᓴᖅᑐᑦ ᓇᓇᐃᖅᑐᑦ ᓴᓂᐊ ᒪᓂᔾᔪᖅᓴᖅᑐᑦ ᓇᓇᐃᖅᑐᑦ, ᐁᔮᓂᐊᖅᑐᓂᓪᓗᓂᔾᔨᑦ ᓇᓇᐃᖅᑐᑦ, ᐅᕐᖏᓗᓂᔾᔨᑦ ᐱᐅᓯᓗᓕᖅᓴᖅᓯᒪᒋᐊᓂ ᓇᓇᐃᖅᑐᑦ. ᓇᓇᔪᓇᐅᑦᑎᑦ ᐊᒥᐊᑯᖅᑎᑦ ᐊᑐᖅᑕᐅᓯᒪᖅᑎᑦᑐᑦ ᐊᑐᖅᑕᐅᒋᐊᖅᓇᕐᓂᖅᑎᖅᕆᓗᐊᖅᓕᒫᓕ ᐃᖅᓯᓇᖅᓯᒋᐊᓂ ᓇᓇᐃᖅᑐᑦ ᐊᔪᓚᓗ ᐱᕐᔪᑎᓂᒃ ᓯᕆᖅᑎᓇᒋᐊᓂ ᐊᔪᓚᓗ ᐃᓇᐃᑦ ᓴᐳᓂᓂᐊᖅᑕᐅᓂᖅᓴᖅᓂᒃ.
- ᖃᑎᖅᑎᐅᑦ ᐊᖏᔪᓂᕗᑎᑦ ᑲᑐᔾᔨᖅᑎᑎᕐᓂᑦ ᖃᐅᔨᒪᔨᐅᕐᔪᐊᓘᓐᓃᖅᑐᑦ ᑲᑎᒪᖅᑎᖅᑕᐅᓂᖅᑎᑦᑎᓂᒃ, ᓴᓂᕐᓴᑎᐅᑕᐅᓂᒃ ᐃᓕᓴᕐᓂᑎᑦᑎᓂᒃ ᐃᓕᓴᕐᓂᑎᑦᑎᓂᒃ ᐃᓕᓴᕐᓂᑎᑦᑎᓂᒃ ᐊᑐᖅᑕᐅᓯᒪᖅᑎᑦᑐᑦ

ᐊᐅᓪᓚᕐᓗᐅᐊᖏᑦᑕᕐᓂᖅᓄᑦᓂᖅ. ᐊᖑᓗᖅᓯᑎᐅᓂᖅ ᓇᓄᔪᓇᐅᑎᑦ ᐊᒥᐊᒍᖅᓯᑦ ᐊᑐᖅᑕᐅᓂᒪᖅᓯᑎᑦᑐᖅ ᑕᒪᖅᒋᐊ ᐊᑐᖅᑕᐅᖏᑦᑕᕆᐊᖏᖅᑐᑦ ᐃᖅᓂᓇᖅᓂᑎᓪᓗᑎᑦ ᐃᓄᖅᓂᖅ ᐅᓄᖅᓄᑦ ᐅᐸᒃᓂᑦ ᐱᕐᔪᐊᓘᓂᖅᓄᑦ ᑐᑭᒃᑯᑎᑕᐅᑕᐅᓪᓗᑎᒃ.

- ᓇᓄᐃᑦ ᐊᒥᓂᓂᑦ ᖃᐅᓄᐃᓪᓚᑐᖅᓄᑦ ᐃᓂᒪᖅᓂᓂᕐᒥᓄᑦ ᐊᖑᓂᖅᓯᐅᑎᓪᓗᖃᖅᖃᓂᑦ ᐊᑐᖅᑕᐅᖅᑭᓇᓂᖅᑐᑦ ᐊᓕᓚᐅ ᖃᐅᓄᐃᓪᓚᖅᓯᒪᓂᖅᓂᑦ ᐊᑐᓕᐅᑎᒃ ᐊᓕᓚᐅ/ᐅᖃᐅᓇᓂᒃᓂᑦ ᐊᑐᖅᑕᐅᖅᓯᐅᑎᒃ ᓇᓄᔪᓇᐅᑎᑦ ᐊᒥᐊᒍᖅᓯᑦ ᐊᑐᖅᑕᐅᓂᒪᖅᓯᑎᑦᑐᖅ, ᐋᖑᓂᖅᓯᐅᑎᓪᓗᖃᖅᖃᓂᑦ ᐃᖅᑭᓂᐊᑕᐅᓪᓗᑎᑦᑐᖅ ᐊᓕᓚᐅ/ᐅᖃᐅᓇᓂᒃᓂᑦ ᐋᖑᓂᖅᓯᐅᑎᓪᓗᑎᑦᑐᖅ ᐊᓕᓚᐅ/ᐅᖃᐅᓇᓂᒃᓂᑦ ᐋᖑᓂᖅᓯᐅᑎᓪᓗᑎᑦᑐᖅ.
- ᐱᑎᐊᔪᓕᐊᖏᖅᓂᓪᒧᑦ ᐃᓂᒪᑦᓗᐃ, ᓄᓇᓕᑦ ᐃᑕᐅᑎᑕᐅᖏᖅᑕᕆᐊᖏᖅᓄᑦ ᖃᖅᖓᓚᑐᐃᓇᖅ ᓇᓄᖅᑐᑦᓯᐅᓇᓂᖅᑎᑦ ᖃᖅᐅᓚᖅᐳᑎᑦᑐᖅ ᑕᒪᖅᒋᓂᑲ ᓇᓄᔪᓇᐅᑎᑦ ᐊᒥᐊᒍᖅᓯᑦ ᐊᑐᖅᑕᐅᓂᒪᖅᓯᑎᑦᑐᖅ ᖃᖅᓂᖅ ᑐᐱᑦᑕᐅᑕᐅᖅᖓᑦᓯᑐᓂᖅ. ᐊᖓᑎᐅᑎᖃᖅᕆᐊᖏᖅᑎᑦᑕ ᖃᖅᓂᖅ ᖃᖅᐅᓚᓴᐸᖅᓵᐃᓪᓕᖅᑐᑦ ᖃᖅᐅᓚᑎᑎᑦᐳᐅᑎᑦ ᐊᑐᖅᑕᐅᓴᓇᖏᖅᓯᒪᓂᖅᓂᑦ ᑐᓴᕐᐳᖅᑎᖅᑐᒃ ᓄᓇᕗᑦ ᑲᖓᒪᖅᓇᓪᓕᖅᓇᓪᓕᑦ, ᐸᓇᖅᓇᓪᓵᑐᖅ ᐅᖃᖅᐅᓚᐅᖃᖅᑕᐅᓪᓗᑎᒃᓯᒪᓂᖅ, ᐊᑐᖅᑕᐅᓴᓇᖏᖅᓯᒪᓂᖅᓂᑦ ᐊᓕᓚᐅ/ᐅᖃᐅᓇᓂᒃᓂᑦ ᑐᐱᑦᑕᐅᖅᑕᐅᓴᓇᖏᖅᓯᒪᓂᖅᓂᑦ.
- ᐃᓇᓇᓇᐅᓴᖅ ᓇᓄᐃᑦ ᐊᐅᓪᓚᑕᐅᖅᑭᑦᑕᕐᓂᖅᓄᓇᓂᑦ <ᖃᓇᐅᑎᑦ ᐊᓚᓗ ᓄᑦᓂ ᓇᓄᑦᓂᕆᔨᓪᓗᑎᑦ ᒪᑦᑭᑕᐅᓂᐊᑦᑕᖅᑐᑦ ᓭᓂ ᐃᓕᓚᑎᓴᐅᑎᑎᒋᐊᖏᓚᑦ ᐃᓇᓇᓇᐅᖅᓴᖅ ᐊᐅᓪᓚᑕᐅᒋᐊᖏᓂᕐᓄᓄᑦ ᑕᐃᔨᓂᖅ ᐊᑐᖅᓭᑎᒃ “ᓇᓄᐃᑦ “ᓇᓄᔪᓇᐅᑎᑦ ᐊᒥᐊᒍᖅᓯᑦ ᐊᑐᖅᑕᐅᓴᓇᖏᖅᓯᒪᓂᖅᑐᑦ” ᐊᓚᓗ ᓰᐃᐅᑎᑎᔪᑦ. ᑕᒪᓂᓇ ᒪᑦᓂᖏᓂᐅᑲᖅ ᐃᓄᐃᑦ ᐃᓕᓴᖅᓂᖏᓂᓂᒃ ᐅᓄᕐᓗᒃ ᐅᒪᔨᖅᑎᑦ ᐊᓚᓗ ᐃᒃᐱᓂᓂᐊᕐᑐᑦᑐᖅ ᖃᖅᓂᖅ ᐃᓕᓚᖅᐅᓂᕐᓗᑎᓄᑦ, ᐅᖃᐅᓕᓴᐅᕐᓄᓄᑦ ᐊᓚᓗ ᖃᓄᐅᓇᓄᖅᑕᐅᕐᓄᓄᑦ. ᐱᒪᓪᓚᕐᔪᐊᖅᓚᖅᑭᒪᑦ ᑕᒪᓐᓇᖅᑐᑦ ᐊᑐᓪᓕᖅᑐᖅᓴᓇᖅᑕᖏᓂᑦ ᐃᓕᓚᖅᐅᕐᓄᓄᑦ ᐅᓄᐃᑦ.
- ᐃᒪᑕᓚᐅᐃᓚᖅᓴᓪᓗᑦ ᑕᐃᔭᓕᓂᐅᓂᖅ ᐊᑐᖅᑕᐅᕐᓇᒪᐅᓇᓂᖅᓂᑦ ᐊᖓᑎᑐᑎᑦ ᐅᓄᐃᑦ ᐊᐅᓪᓚᑕᐅᓇᖅᑐᖅᓂᖅᓄᑦ, ᑕᒪᐃᓂᓂ ᑎᑎᕋᖅᓕᒪᓕᑦ ᐊᓚᓗ ᖃᓄᐅᓇᓄᖅᑕᐅᓪᓗᑎᒃ “ᓇᓄᐃᑦ ᐊᐅᓪᓚᑕᐅᖅᑭᓇᓂᖅᑐᑦ ᐊᑐᖅᑕᐅᓴᓇᖏᖅᓯᒪᓂᖅᑐᑦ” ᐊᓚᓗ ᐅᓴᐃᐅᑎᑎᔪᑦ. ᑕᒪᓂᓇ ᒪᑦᓂᖏᓂᐅᑲᖅ ᐃᓇᓇᓇᐅᖅᓴᖅ ᐃᓕᓚᖅᐅᓂᕐᓗᑎᓄᑦ ᐃᓇᓇᓇᐅᖅᓴᖅ ᐊᐅᓪᓚᑕᐅᒋᐊᖏᓂᕐᓄᓄᑦ ᐅᓄᕐᓗᒃ ᐅᒪᔨᖅᑎᑦ ᐊᓚᓗ ᖃᓄᐅᓇᓄᖅᑕᐅᓪᓗᑎᒃ ᐃᓕᓴᖅᓂᖏᓂᓂᒃ ᐅᓄᕐᓗᒃ ᐃᓕᓴᖅᓂᖏᓂᓂᒃ ᐃᓇᓇᓇᐅᖅᓴᖅ ᐊᐅᓪᓚᑕᐅᒋᐊᖏᓂᕐᓄᓄᑦ ᐅᓄᐃᑦ ᐊᐅᓪᓚᑕᐅᖅᑭᓇᓂᖅᑐᑦ ᐊᑐᖅᑕᐅᓴᓇᖏᖅᓯᒪᓂᖅᑐᑦ

ϟძᑕᐅᖅᓯᑎᒃ ᑭᖓᓂᐊᔪᑦ. ᑭᖓᓕᓪᓕᖅᖢᑦ ᐅᓂᒃᑲᓪᓕᐊᑦ, ᓄᓇᕗᑦ ᒪᕐᒪᒃᑯᑦ, ᐊᕐᑎᓪᓗᓵᒃᑯᖓᑦ, ᐃᓵᓗᓪᓕᒃ, ᒪᒃᐱᒪᖓᓂᓂ 74.

ᐅᖅᓯᖅᑐᖅ ᐊᖓᔪᓇᒃᑎᑦ ᑲᑐᔾᔨᖅᑎᑎᕐᖓᑦ, ᑕᓗᖅᓴᐊᑦ ᐊᖓᔪᓇᒃᑎᑦ ᑲᑐᔾᔨᖅᑎᑎᕐᖓᑦ, ᖃᑯᐃᕈᖅᓴᐊᖅ ᐊᖓᔪᓇᒃᑎᑦ ᑲᑐᔾᔨᖅᑎᑎᕐᖓᑦ, ᐊᐃᕐᕆᑯᑦ ᐊᖓᔪᓇᒃᑎᑦ ᑲᑐᔾᔨᖅᑎᑎᕐᖓᑦ, ᐃᓗᓕᐅᑦ ᐊᖓᔪᓇᒃᑎᑦ ᑲᑐᔾᔨᖅᑎᑎᕐᖓᑦ, ᓴᓂᖅᓯᒪᓕᖅ ᐊᖓᔪᓇᒃᑎᑦ ᑲᑐᔾᔨᖅᑎᑎᕐᖓᑦ. (2020). ᐃᓄᐃᑦ ᖃᐅᔨᓴᕐᑐᖅᖢᑦ ᐃᓕᑐᖅᑐᕐᕆᕐᒥᒃ ᓇᓂᓕᕆᒥᒃ. ᑭᖓᓕᓪᓕᖅᖢᑦ ᐅᓂᒃᑲᓪᓕᐊᑦ, ᓄᓇᕗᑦ ᒪᕐᒪᒃᑯᑦ, ᐊᕐᑎᓪᓗᓵᒃᑯᖓᑦ, ᐃᓵᓗᓪᓕᒃ, ᒪᒃᐱᒪᖓᓂᓂ 53.

ᑎᑎᕋᖅᑕᐅᔪᑦ ᐅᒧᖏᑐ:

ᕿᒥᓪ ᐅᐊᖏᖅ

ᖃᐅᐅᔾᔨᖅᑎᓂ ᐊᖏᓚᕋᖅᖄ ᐊᓱᒪᓗ ᐱᓪᓗᐊᖅᓴᓄᑦ ᐅᖃᐅᔾᔨᒋᐊᖅᑎᖏᓐᓂᑦ, ᖃᑎᖅᑎᐅᑦ ᐊᖓᔪᓇᒃᑎᓪᒥᒃᑦ ᑲᑎᒪᔨᖏᓐᓂᒃ

ᖃᑎᖅᑎᐅᑦ ᐊᕕᑐᖅᓯᒪᓂᖏᓐᓂ ᐊᖓᔪᓇᒃᑎᓪᒥᒃᑦ ᑲᑎᒪᔨᖏᑦ

ᐅᓪᓗᒥ:

5 ᒪᐃ 2022

ᐊᖏᓂᐊᖅᑎᑦ ᑲᑐᔪᖅᑲᑎᑉᓴᖓᑦ ᐅᖅᓯᖅᑐᖅᖢᖅ
ᑎᑎᖅᑲᓂᐊᖅᓴᐃᓐ 162
ᐅᖅᓯᖅᑐᖅᑐᒃᖠ, ᓄᓇᕗᑦ X0B-1JO
ᐅᖅᑲᒪᐅᑦ: 867-360-6028
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LΔ 6, 2022

ᓄᓇᕗᓴᒥ ᐅᒪᔨᓕᓚᔪᖅᔨᐊᕆᑯᑦ ᑲᑎᒪᔪᖅᓕᑦ
ᑎᑎᖅᑲᖅᓂᐊᖅᓴᐃᓐ 1379
ᐃᖅᑲᓗᐃᑦ, ᓄᓇᕗᖅ
X0A 0H0

ᐱᔨᔨᑎᓕᒃ: ᑕᒪᐃᓐᓂᒃ ᑲᑎᑦᓗᓂᑦ ᐊᖏᓂᐊᖅᑕᐅᔨᓐᓇᖅᓂᖓᓕᑦ ᓄᓇᐃᑦ

ᐅᖅᓯᖅᑐᒃᑐᑦ ᐊᖏᓇᓯᒃ ᑲᑐᔪᖅᑲᑎᑎᓕᖓᑦ ᑕᒪᐃᓐᓂᒃ ᐃᑲᔨᖅᓯᐅᐃᕐᒪ ᕿᑎᖅᑎᐅᑦ ᐊᕐᕌᑐᖅᓯᒪᓂᖓᓐᓂᒃᓂᓂ ᐊᖏᓇᓯᑎᓕᒪᑦ ᑲᑎᒪᔪᖅᓕᖓᓂᒃ ᐃᓕᓴᕐᓯᐅᑕᐅᔨᓐᓇᖅᓂᖓᓐᓂᒃᓂᓂ ᑕᒪᐃᓐᓂᒃ ᑲᑎᑦᓗᓂᑦ ᓄᓇᕗᓐᓄᑦ ᐅᖅᓯᖅᑐᒃᑐᑦ, ᑕᓗᖅᔨᐊᓂ ᐊᓪᓚᓗ ᑯᒃᔨᖅᑎᑦ.

ᐊᐃᑦᑕᒍᑕᐅᖅᑲᒃ, ᓄᖅᑲᖅᑎᑕᐅᓂᖓᓂᑦ ᓇᓐᓄᑕᐅᔨᓐᓇᖅᑐᑦ ᕿᑲᑎᐅᑦᓴᐅᑦ ᑕᓚᐅᖓᔪᓂᒃ ᓄᓇᕗᑦ ᓴᖅᒪᓕᑲᓐᓄᑦ ᐱᓚᓚᐅᔨᕈᑲᒃ ᐊᑐᑐᑕᐅᓯᒪᓕᖅᓴᒪᑦ ᐊᖅᑐᓂᒃ 20-ᓂᒃ ᐊᖅᓴᒍᓂᒃ ᐊᓚᒪᓗ ᐃᓕᖓᓐᓂ, ᐊᑕᐅᓯᖅᑎᓗᓄᑦ ᓇᓐᓄᑕᐅᓯᒪᓕᖅᑲᖅᑕᓕᐅᖓᑦᑐᖅ ᑕᐃᒃᑯᓗᓂ ᐅᓇᓱᒋᑦ.

ᐊᐃᓕᓴᕐᓯᐅᑕᖅ, ᓄᖅᑲᖅᑎᑕᐅᓂᖓᓂᑦ ᓇᓐᓄᑕᐅᔨᓐᓇᖅᑐᑦ ᕿᑲᑎᐅᑦᓴᐅᑦ ᑕᓚᐅᖓᔪᓂᒃ ᓄᓇᕗᑦ ᑲᖏᒪᓕᒃᑯᓐᓄᑦ ᐱᓚᓚᐅᔨᕈᑲᒃ ᐊᕐᕌᑐᖅᓯᒪᓕᖅᓴᒪᑦ ᐊᖅᑐᓂᒃ 20-ᓂᒃ ᐊᖅᓴᒍᓂᒃ ᐊᓚᒪᓗ ᐃᓕᖓᓐᓂ, ᐊᑕᐅᓯᖅᑎᓗᓄᑦ ᓇᓐᓄᑕᐅᓯᒪᓕᖅᑲᖅᑕᓕᐅᖓᑦᑐᖅ ᑕᐃᒃᑯᓗᓂ ᐃᓕᓴᕐᓯᐅᑕᐅᔨᓐᓇᖅᓂᖓᓐᓂᒃᓂᓂ ᑕᒪᐃᓐᓂᒃ ᑲᑎᑦᓗᓂᑦ ᓄᓇᕗᓐᓄᑦ ᐅᖅᓯᖅᑐᒃᑐᑦ, ᑕᓗᖅᔨᐊᓂ ᐊᓪᓚᓗ ᑯᒃᔨᖅᑎᑦ.

ᐊᐃᑦᑕᒍᑕᐅᖅᑲᒃ, ᓄᖅᑲᖅᑎᑕᐅᓂᖓᓂᑦ ᓇᓐᓄᑕᐅᔨᓐᓇᖅᑐᑦ ᕿᑲᑎᐅᑦᓴᐅᑦ ᑕᓚᐅᖓᔪᓂᒃ ᓄᓇᕗᑦ ᑲᖏᒪᓕᒃᑯᓐᓄᑦ ᐱᓚᓚᐅᔨᕈᑲᒃ ᐊᕐᕌᑐᖅᓯᒪᓕᖅᓴᒪᑦ ᐊᖅᑐᓂᒃ 20-ᓂᒃ ᐊᖅᓴᒍᓂᒃ ᐊᓚᒪᓗ ᐃᓕᖓᓐᓂ, ᐊᑕᐅᓯᖅᑎᓗᓄᑦ ᓇᓐᓄᑕᐅᓯᒪᓕᖅᑲᖅᑕᓕᐅᖓᑦᑐᖅ ᑕᐃᒃᑯᓗᓂ ᐃᓕᓴᕐᓯᐅᑕᐅᔨᓐᓇᖅᓂᖓᓐᓂᒃᓂᓂ ᑕᒪᐃᓐᓂᒃ ᑲᑎᑦᓗᓂᑦ ᓄᓇᕗᓐᓄᑦ ᐅᖅᓯᖅᑐᒃᑐᑦ, ᑕᓗᖅᔨᐊᓂ ᐊᓪᓚᓗ ᑯᒃᔨᖅᑎᑦ.

ᐊᖏᓇᓯᑎᓕᒪᑦ ᐅᖅᓯᖅᑐᒃᑐᑦ ᐃᓕᓴᕐᓯᒪᑕ ᓇᓐᓄᑕᐅᑕᑭᓇᓐᓄᖅ ᑕᐅᖅᓱᒃᑐᑦ ᐃᑦᑐᐃᖅᑐᒃᑐᑦ ᐱᔨᔨᑎᓕᒪᑦ ᑕᐅᖅᓱᒃᑐᑦ ᑕᒪᐃᓐᓂᒃ ᓇᓐᓄᑕᐅᔨᓐᓇᖅᓂᖓᓐᓂᒃᓂᓂ ᑕᐅᖅᓱᒃᑐᑦ ᑲᑎᒪᔪᖅᓕᖓᓂᒃ ᓄᓇᕗᑦ ᐅᖅᓯᖅᑐᒃᑐᑦ ᐃᓕᓴᕐᓯᐅᑕᐅᔨᓐᓇᖅᓂᖓᓐᓂᒃᓂᓂ ᑕᒪᐃᓐᓂᒃ ᑲᑎᑦᓗᓂᑦ ᓄᓇᕗᓐᓄ

ᐱᓴᓂᖅᑲᓱᑎᒃ, ᓄᓇᓕ ᑕᐃᒪᖏᑦ ᑕᑯᐊᒪᒃᑕ ᓇᓄᖅᓂᒃ ᑕᐅᕐᓇᓵᖅᑎᑕᖅᑐᑐᒃ ᖃᐅᔨᓇᖅᓯᒪᔪᖅᑐᒃ ᑕᒪᓂ ᑕᓕᒪᓂᒃ 5 ᒪᐃᓕᓕᓂᒃ ᐅᖏᓪᓗᓂᓕᓂᒃ ᐊᖏᕿᔭᑕᒪᖅ,

ᐅᖏᓪᓗᓂᓕᒃ ᑕᐅᐊᖏᑦ ᐃᖏᑐᐊᖅᑐᕐᕕᖏᓐᓄᑦ ᐅᖅᓯᖅᑐᕐᖓᑦ ᐊᒻᒪᓗ ᖃᐅᐅᓪᒪᖏᑦᑐᓂᖏᓐᓄᓇᓂ ᓯᑯᑦ ᖃᐅᔨᓴᖅᑎᓇᖅᑐᑦᑎᐊᕐᓂᖅᑐᑦ ᐊᒻᒪᓗ ᖃᐅᔨᓴᖅᑎᓇᖅᑐᑦᑎᐊᕐᓂᖅᑐᑦ ᑕᒪᐃᓐᓇ ᐅᖅᓯᖅᑐᕐᖓᑦ, ᑕᐃᒪᐃᓐᓂᒃᓴᓂᓪᓗ, ᐅᖅᓯᖅᑐᕐᖓᑦ ᐊᖏᓪᓗᓯᒪᓂᑦ ᑐᓴᕐᕋᓂᓕᒃ ᓇᓕᓕᐅᑉᐳᓂᐊᕐᓂᖅᑐᑦ ᖃᐅᔨᓴᖅᑎᓇᖅᑐᑦᑎᐊᕐᓂᖅᑐᑦ ᑕᒪᐃᓐᓇ ᐊᒻᒪᓗ ᓂᕆᐅᒃᓴᓂᒃ ᑕᕆᐊᖅᑐᓴᖅᑐᒃ ᑐᓂᔭᐅᔪᓴᓂᐊᖅᑐᒃ ᖃᐅᔨᓴᖅᑎᓇᖅᑐᑦᑎᐊᕐᓂᖅᑐᑦᑕᒪᓂ ᑕᓕᒪᓐᓇᖅᑐᑦᑎᐊᕐᓂᖅᑐᑦ ᑕᓪᓕᐊᓂᒃ ᑕᓪᓕᐊᓂᒃᑐᑦᑎᐊᕐᓂᖅᑐᑦ, ᑭᓇᐅᔨᑐᐃᓇᓱᓂ ᐃᓕᑎᕐᔭᐊᓯᐊᕐᑎᒃ ᑕᐅᕐᓇᓵᖅᑎᑕᖅᑐᑦ ᑕᓪᓕᐊᓂᒃᑐᑦ.

ᑎᑎᕋᖅᑐᖅ,

James Intsuqtuq

ᓴᐃᒥᓗ ᕿᑦᓗᐊᓕᒃ
ᐃᒃᓗᐊᕐᐅᑕᖏᓪᓗᑦ

ᐊᑦᓴᖏᓐᓄᓂᒃ: ᐸᒥᓪ ᐅᐊᖏ

ᖃᐅᔨᓴᖅᑎᓇᖅᑐᓂ ᐊᖏᓪᓚᕐᖅᑐᖅ ᐊᒻᒪᓗ ᐱᓕᕆᐊᖃᖅᓄᑦ ᐅᖃᐅᔨᓴᕐᕕᖏᓐᓄᑦ, ᖃᐅᑎᖅᒥᐅᑦ ᐊᖏᓪᓗᓯᒪᓂᒥᑦ ᑲᑎᒪᓂᖏᓐᓄᓂᒃ

ᐃᓚ ᖃᐅᔨᔪᓕᖅ
ᐊᐃᔨᑐᖅᑕᖏᓪᓗᓂᓂᓂᓂ ᑐᕈᓕᐅᖅᑎᖏᓐᓄᑦ, ᖃᐅᑎᖅᒥᐅᑦ ᐊᖏᓪᓗᓯᒪᓂᒥᑦ ᑲᑎᒪᓂᖏᓐᓄᓂᒃ

KURTAIROJUARK HUNTERS & TRAPPERS ASSOCIATION

ᑲᐃ 6, 2022

ᒋᓂᐅᓪ ᓱᐅᕐᓴᒃ
ᐃᒃᓱᕐᐅᑕᖅ
ᓄᓇᕗᒻᒥ ᐅᒪᔨᓕᕆᔨᖅᑕᐃᒃᑯᓪ ᑲᑎᒪᔨᖏᑦ
ᑎᑎᕆᖅᓂᐊᖅᓯᐃᒃ 1379
ᐃᖅᑲᓗᐃᓪ, ᓄᓇᕗᑦ
X0A 0H0

ᐱᓕᕆᓕᒃ: ᐃᓕᑐᐊᖅᑐᖅᓯᒪᒥ ᑕᒪᐃᓐᓂᒃ ᑲᑎᓪᓗᑎᑦ ᓇᓄᖅᑕᐅᔨᓐᓇᖅᓂᖏᑦ

ᐊᖏᔪᓇᓴᕐᓂᑦ ᑲᑐᔨᖅᑎᑎᕐᓴᒃᑐᑦ ᑲᑎᒪᖅᑎᖅᑕᐅᖅᑐᑦ ᕿᑎᖅᑎᓂᒃ ᐊᖏᔪᓇᓴᕐᑎᑕᒪᑦ ᑲᑎᒪᔨᖏᓐᓂᒃ ᐊᖏᔪᓇᓴᕐᓴᑎᑦ ᐊᖏᔪᓇᓴᕐᓂᕐᒧᑦ ᑲᑎᒪᔨᖏᓐᓂᒃ ᑲᑎᒪᖅᑎᖅᑕᐅᖅᑐᑦ ᑕᒪᓐᓇ ᒪᐃ 4, 2022-ᒥ, ᕿᑎᕿᐊᖅᑕᐅᓂᖏᓐᓄᑦ ᐅᖅᑲᐅᔨᐅᓂᖏᓐᓄᓪᓗ ᕿᑎᖅᑎᓂᐅᖅᑐᑦ ᐊᖏᔪᓇᓴᕐᑎᑕᒫᑦ ᑲᑎᒪᔨᖏᓐᓄᑦᑎᐊᖅᑐᖅᓯᒪᓂᖅ ᐅᖅᑲᐅᔨᓴᖅᑎᑕᐅᔪᑦ ᐅᒪᔨᓕᕆᔨᖅᑕᐃᒃᑯᓪ ᑲᑎᒪᔨᖏᓐᓄᑦᑎᐊᖅᑐᖅᓯᒪᓂᖅ ᐃᓕᑐᐊᖅᑐᖅᓯᒪᒥ ᑕᒪᐃᓐᓂᒃ ᑲᑎᓪᓗᑎᑦ ᓇᓄᖅᑕᐅᔨᓐᓇᖅᓂᖏᓐᓄᑦ ᐃᓕᑐᐊᖅᑐᖅᓯᒪᓂᖅ ᐊᖏᔪᓇᓴᕐᑎᑕᒫᑦ

ᑕᓗᑭᐊᑦ ᐊᖏᔪᒪᓂᒃᓵᓕᕆᔨᑦ ᑲᑎᕇᑎᖏᑎᒋᑦ
Spence Bay Hunters and Trappers Association

P.O. Box 20 Taloyoak, Nu. X0B 1B0 e-mail taloyoak@krwb.ca P (867) 561 5066 Fax (867) 561 5232

ᐃᐳᑉ 6, 2022

ᑕᓗᑭᐊᑦ ᐊᖏᔪᒪᓂᒃᓵᓕᕆᔨᑦ ᑲᑎᒪᓕᑦ ᑎᑎᕋᑐᑦ ᐅᒪᔨᓕᓂᖅᓴᐊᑯᓗᓄᑦ. ᑕᓗᑭᐊᑦ ᐊᔪᒪᓂᒃᓵᓕᕆᔨᑦ ᑐᓴᑐᑐᑦ ᐃᑐᐊᑐᕕᐅᑦ ᓄᓇᕗᑦᑎᑎᑦ ᐃᓕᓴᕐᑎᑎᑦ. ᐊᐢᑎᑦ ᑕᓕᒪᖏᓴᑯᓗᑎᑦ ᓄᓇᕗᑦᑎᑦ ᐃᑐᐊᑐᕕᐅᑦ ᑐᓴᑐᑐᑦ. ᑕᓗᑭᐊᒥᐅᑦ ᓄᓇᕗᑦᑐᓂᒃ ᐱᒪᓂᖃᒪᑦ ᓄᓇᕗᑦᑎᑦ ᑲᒪᕐᕕᐊᖏᓐᓇᖅᑐᑦᑐᑦ ᐊᖏᔪ ᑕᒪᑦ ᐃᓕᓴᕐᑕᐅᑎᓇᓕᐊᓕᒥᓗᑎᑦ ᐊᒥᓕ ᓄᓇᕗᑦᑐᕐᓗᒍᓕᐊᓕᐊᓂᒃ. ᐊᓕᕐᓕᓕ ᒪᓕᒐᓂᖅ ᐊᑐᑐᔪᑦ ᕿᓕᐊᓂ ᐱᑕᐅᑲᖏᖅᓱᑦᑐᑦ ᐱᖓᔪᖅᑐᑦ ᐃᓕᓴᕐᑕᐅᑎᓇᓕᐊᓕᐊᓂᒃ ᐊᖏᔪᒪᓂᒃᓵᓕᕆᔨᑦ ᐊᔪᒪᓂᒃᓵᓕᕆᔨᑦ ᐊᑕᐅᓕᒪᓂᖅ ᓄᓇᕗᑦᑐᓂᒃ ᓄᓇᓕᒪᓂᖅ ᐊᒻᒪᓕᒃᑐᑦ ᐊᒻᒪᓗ ᐱᖓᓱᓂᖅ ᐊᔪᒪᓂᒃᓵᓕᕆᔨᑦ ᑕᓗᑭᐊᒥᐅᑦ ᓄᓇᕗᑦᑐᖅᑕᐅᓂᖅ ᐊᒻᒪᓗ ᐊᓄᖏᓕᒪᓂᖅ ᐊᔪᒪᓂᒃᓵᓕᕆᔨᑦ ᐊᒻᒪᓗ ᐊᓄᖏᓕᒪᓂᖅ ᐊᔪᒪᓂᒃᓵᓕᕆᔨᑦ.

ᖃᐅᔨᓕᒃ

Joe Ashevak, Chair - SBHTA

ᐅᖃᐅᓯᕐᓂᖅ ᓄᓇᕗᒻ ᐃᒪᓕᒐᓱᐊᕆᔭᖅ ᑲᑎᒪᔨᖏᓐᓄᑦ

ᐅᔨᓄᖅ

ᑐᓴᐅᒪᔭᕐᓂᖅ: **Δᓗᒪᓕᐅᖃᖅᑕᖅ**: X

ᐅᖃᐅᓯᐅᐊᓘᑎᒃ: ᑐᓴᕋᖃᖅᓐᖅ Δᓗᒪᓕᐅᖃᖅᑕᐅᓗᒪᓕᕐᓂ ᐱᓕᕆᑦᑐᓂ ᐊᓗᓴᖃᖅᑕᐅᖃᖅᓯᐅᑎᓕᐅᑎᓕᑦᑐᓂ ᑎᑎᖃᖅᑕᐅᓗᒪᓕᓂᖏᓐᓂᒃ ᑐᑐᔪᓐᓇᖅ ᑐᑭᓯᓂᒃ ᐊᐸᐊᓂᓗ ᓇᓗᓇΔᖃᖅᑕᐅᓗᒪᓕᓇᖃᖅᑎᓕᑦᑐᓂ Δᓗᒧᓗᓐᓇᕐᓂᖅᑐᑐᖅᑕᒥᑦᑐᒥ ᓄᓇᕗᑦᑐᓂ ᐃᓗᓕᓴᐅᓇᖃᖅᑐᑦᑐᒥ ᐃᓗᓕᓴᐅᓇᖃᖅᑐ

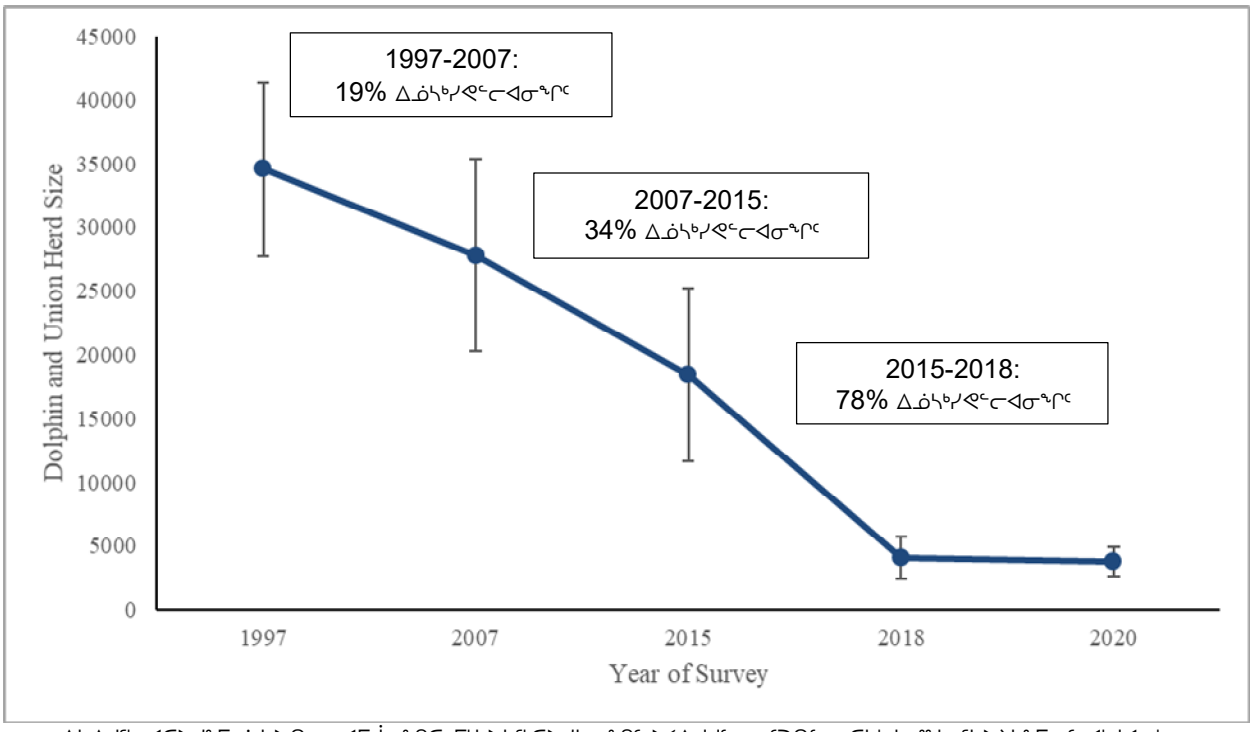
ᐱᓕᓚᐊᖅᓱᓪᓗᓴᐅᑦ

ᑐᓂᐅᕐᖁᖁᑕᐅᓂᖅᓯᑦ

- ᓄᓇᒥ ᑭᓪᓕᓂᐅᑦ ᐊᓚᒪᓗ ᐊᑭᐊᓂᒥᐅᑦ ᑐᑦᑐᖅᑦ ᒪᕐᕉᐃᓕᓴᓄᑦ ᐊᐅᓪᓚᑕᐅᓚᒪᑦ ᑲᖏᒪᓄᑦ, ᓄᓇᕗᐊᓚᒥ ᓄᓇᖅᓱᒥᓪᓗ. ᓄᓇᖅᓱᒥ, ᑭᓪᓕᓂᐅᑦ ᐊᑭᐊᓂᒥᓪᓗ ᑐᑦᑐᖅᑦ ᑭᑎᖅᒥᐅᓂ ᐅᓴᐃᓐᓴᑦ.

ᖁᐅᐅᓴᖓᑎᓪᓗᑦ ᐊᓚᒪᓗ ᑎᑎᖅᑕᐅᓱᒪᓂᖅᓯᑦ

- 2004ᒥ, ᑲᑎᒪᔨᕋᒪᓄᑦ ᖁᓄᐃᓪᓕᖅᑎᓂᐊᓪᓕᖅᓂᖅᓯᓂ ᑎᑎᖅᑕᐅᓱᒪᓂᖅᓯ ᐱᓪᓕᖅᓂ ᐅᕐᓯᑐᖅᑕᐅᓱᒪᓂᖅᓯᑦ ᐃᓅᓴᓪᓕᐊᓂᖅᑎᓂᖅᓯᑦ ᐃᓅᓴᖅᑕᐅᓱᒪᓂᖅᓯᑦ ᑲᑎᒪᔨᒃᑯᐊᒥ ᖃᓄᐃᓪᓕᖅᑕᐅᓱᒪᓂᖅᓯᑦ ᑐᓴᕐᕕᐅᓕᖅᑎᑦ ᐃᓱᒪᓕᕆᓂᖅᓯᑦ ᐱᓕᕆᔨᒃᑯᐊᓂᖅᓯᑦ ᑐᓴᕐᕕᐅᓕᖅᑎᑦ ᐃᓱᒪᓕᕆᓂᖅᓯᑦ ᐃᓱᒪᓕᕆᔨᒃᑯᐊᓂᖅᓯ



ᓇᓗᓇᐃᔨᐃᔪᖅ ᐊᑕᐅᓱᒃᑎ ᓄᓚᐅᑎᓕ: ᐊᒥᓱᓂᖅᑕ ᒥᔪᐅᔪᖅᑕᐅᓱᒪᓂᖅᑕ ᐅᐸᐱᔪᓕᓚᕐᑎᑎᓗ ᑕᒪᑲᓀᓐᓴ ᖃᐅᐅᔨᖅᒥᓂ ᐊᔪᓱᐊᓗᑲ ᒥᔪᐃᖅᑕᖅᑐᑐᓗ ᑕᓀᓗᓂ ᐅᕐᑐᑎᖅᑕ ᑐᑐᐃᑦ ᓂᑎᐳᓚᓂ ᐊᖏᔪᑦ ᐊᓀᓂᖅᑕᖅᓂ 1997 ᐊᓚᓗ 2020 (ᒪᓂᓇᓂᔪᖅ ᒐᕐᒪᑲᓀᓂᖅᓯᖅᑐᑐᓂ ᓇᓇᐅᓚᒥ). ᐊᒥᓱᓂᖅᑕ ᐅᖃᖅᐅᓱᐅᑎᓗᑐᓂ 34,558 1997ᒥ, ᑲᑕᑲᓕᑐᑎᑐᓂ 27,787ᒧᑦ 2007ᖁᑎᓗᒍ, ᑲᑕᖅᓂᓪᓗᑐᑎᑐᓂ 18,413ᒧᑦ 2015ᒥ, ᐊᓚᓗ ᓱᓕ ᑲᑕᖅᓂᓂᖅᑐᑎᑐᓂ 4,105ᒧᑦ 2018ᒥᑦ. 2020ᒥ ᐊᒥᓱᓂᖅᑕ 3,815ᖁᓕᓗᑎᑐᓂ (ᐃᓕᒥᔨᐅᖅᑕᓱᐅᑎᔾᒥᐅᓕᓗᓂ ᑭᓕᓂᓂᐅᑦ ᐊᑭᐊᓂᒥᐅᓕᓗ ᑐᑐᖅᑕᑐᓂᖅᑐᓂ ᓇᓇᒥᓕᓗ).

ᐅᓗᓚᐊᖏᓇᓂᖅᑕᑐᓂ

- ᑕᐃᖅᑯᐊᒍᖅ ᐊᑕᑕᓇᖅᑐᒥᑦᑐᑐ ᓂᖁᔨᑎᑦ ᓇᓗᓇᐃᖅᑕᐅᓱᒪᓂᖅᖏᓐᓄᑦ ᐃᓄᖅᑎᓕᓗᐊᖁᓂᖅᖏᓐᓄᑦ ᑲᓇᑕᒥ ᐅᓂᖅᑲᓕᐊᖁᖅᑕ (2017ᒥᖁᓴᖅᑐᒥ), ᕿᐃᒧᒍᖅ ᐊᑕᐅᓱᐅᖅᑎᑐᓂᑐᓂ ᐊᑕᖏᓇᕿᓯᖅᑐᓂ ᓇᓇᒥ, ᓱᐅᓂᔪᑎᖅᑐᓗᑐ ᐃᓄᖅᑎᓕᑲᖅᓂᖅᓂᐊᖅᑐᓂᑦ ᓂᓚᐅᑎᕐᓴᑲᓚᓕᑎᑐᓂ, ᑕᒃᑯᐊ ᐅᓗᓚᐊᖏᓇᖁᓂᖅᑕ ᑕᑯᓕᑎᑐᓂ.
- ᐅᓗᓚᐊᖏᓇᓂᐅᓪᓕᐊᓂ ᓱᑯᒧᑦ: ᓱᑯᐃᐅᔪᖅᑕᐅᓱᒪᓂᖅᖏᓐᓄᑦ ᓱᑯᓱᐅᑎᓇᓂ ᑕᒪᖏᓇ ᐃᑉᐸᔪᖅᓱᖅᑕᐅᓕᓗᑐᓂ ᐅᒥᖁᒪᐃᑦ ᐅᒥᐊᖁᓕᓂ ᐊᑐᖅᑕᐅᓂᖅᓯᒪᓕ ᓱᑯᓂ ᓱᓕᐅᓂ ᐊᓱᔪᓪᓚᑎᓂᖅᓯᒪᓕᓂ ᐅᒥᐊᖁᓕᓂ ᐊᑐᖅᑕᐅᓂᖅᓯᒪᓕᓂ ᓱᑯᓂ ᓱᓕᐅᓂ ᐊᓱᔪᓪᓚᑎᓂᖅᓯᒪᓕᓂ ᑕᒪᖏᓇᐊᓗ ᐅᑎᖅᑕᖅᑐᑐᓂᖅᑐᓂᑦᑐᑐ ᐃᓕᓴᕐᓂᖅᑐᓂᑦ

- ᑕᒪᑲᑯᓗᓗ ᓱᐊᓚᐸᑦᑕᐊᓂᕐᑎᑦ ᖃᐅᐱᖅᑭᒃ, ᑐᙵᓚᐃᑦᓗ, ᐊᓱᓂᑦᓗ ᐊᓱᓴᐸᑦᑕᐊᓂᕐᑎᑕ ᓄᓇᐅᑦ ᐱᑭᖅᑐᐃᑦᓗ/ᓱᓕᐅᑦᓗ ᐱᑕᖅᐸᑦᑕᐊᓂᖓᓄᑦ ᐊᑐᐊᓂᖅᑎᒥᓚᒃᑕ ᓱᓕ ᐊᓱᓴᐸᑦᑕᐊᓂᖓᓄᑦ, ᑕᒪᑲᑯᐊ ᐃᑕᓴᓚᐅᐅᓕᐅᒥᓪᓕᐊᑦ ᐅᓗᓚᐊᓇᖅᑐᒃᑎᓴᓪᓗᑎᓂᐅᖅ.

ᐅᓇ ᐊᑐᖅᑕᑦᑕᓚᐅᑦᓗᓂᐅ ᑐᐱᓱᐅᒪᔪᓴᐊᑎᒥᓂᖅ ᐊᑦᑕᓇᖅᑐᒃᑎᑦᑐ ᓂᕆᔨᕐᑎᑦ ᓇᓗᓇᐃᖅᑕᐅᓱᒪᓂᕐᒧᓄᑦ ᐃᓅᔪᑦᑕᓗᐊᖏᓂᕐᒧᓄᑦ ᑲᓇᑕᒥ ᖃᐅᔨᓴᕐᑎᓄᑦᑕ ᑭᑦᑕᓂᕐᒧᓄᑦ ᓇᓗᓇᐃᖅᑕᐅᕆᔨᑦᓗᔪ ᓄᖓᒋᐊᐱᓕᕐᓂᕐᒧᓐᓂ

ᑭᑦᑕᓂᐅᕐᑦ ᐊᓚᒪᓗ ᐊᐱᐊᓂᒥᐅᑦ ᑐᑦᑐᕐᑎᑦ ᑎᑎᖅᑕᐅᑕᐅᖅᑲᓚᒪᒪᒃᑕ ᐃᓱᐊᒪᓐᓇᖅᑐᑦᑕᓚᐊᖏᓂᕐᒧᓂ 2011ᒥ, ᑕᐃᒪᐃᖏᒪᓐ ᐊᐅᑕᑕᐅᔪᓱᐅᔪᓂᑦ ᕿᓐᓇᐅᑎᓴᓂ ᐱᐅᑎᖅᑎᓴᓂᑕ. ᐊᑕᐅᓱᓂᒥ ᑐᐱᓱᓇᖅᑲᓱᑕᐅᖅᑭᔨᒪᓗᐊ ᐃᓕᓐᓇᖏᓂᕐᒧᓂ ᐊᑐᖅᕿᓯᑎᑎᓂ ᐊᑐᖅᕿᓯᑕᑎᓂ ᐱᑕᓚᖅᑎᑦᑎᐅᖅᖏᓂ ᐊᑐᓕᖅᑎᓴᓱᓴᐅᓕᖅᓗᑦ ᐱᑕᓚᖅᑎᑦᑎᐅᖅᖏᓂᕐᒧᓂ ᓇᓗᓇᐃᖅᑕᐅᓕᖅᓗᑦ ᓇᓗᐳᓚᒥᒃ. ᑕᒪᑲᑯᐊ ᑐᑐᐃ ᑎᑎᖅᑕᐅᔪᑎᑦ ᖃᐅᔨᓴᕐᑎᓄᑦᓴᓚᑦ ᓄᖓᒋᐊᐱᓕᕐᓂᕐᒧᓄᑦᑐᑦ, ᐅᑎᖅᑎᓴᓱᓇᓄᑦᓗᐊᖅᓄᖅ ᐱᑕᐊᖅᑎᑕᐅᔨᓚᐊᖅᑲᓄᑦᓗᐊᓚᑦ, ᐊᓚᒪᓗ ᑕᒪᑲᑯᐊ ᐱᑕᓚᖅᑎᑦᑎᐅᖅᑐᑐᒃ ᐊᑕᐅᑦᑕᓚᐊᖅᑲᓚᒪᒪᒃᑕ ᑲᔪᓕᑎᑕᐅᖅᑲᓄᑦᓗᐊᖅᑐᒃ.

ᑲᑐᔨᑦᓗᑎᑦ ᐊᐃᕐᑐᖅᓴᓕᔪᓂᑦ ᐊᐅᑕᒪᐅᔨᔪᓕᐅᔪᒥ ᕿᖏᓪᓕᑦᑕᐊᓂᕐᒧᓂ

- ᑕᑯᑦᓗᔪ ᐱᕐᑯᓴᖅ ᓂᕆᔨᕐᑎᑦ ᐅᓗᓚᐊᓇᕐᓂᖏᓐᓂᕐᒪᑦᑐᑦ ᐅᐊᒪᔪᓄᑦ ᑎᑎᖅᑕᐅᓕᓚᔪᓄᑦ ᐃᓕᓴᖏᓐᓇᓕᕐᓂᕐᒧᓄᑦ, ᑲᓇᑕᓕᒻᒥ ᐊᐅᑕᓵᔨᓕᖏᓂᑕ ᒥᖅᓴᓄᑦ ᕿᖏᓪᓕᑦᑕᐊᓂᕐᒧᓂ ᐱᐊᑦᑐᑎᑦ 2015ᖃᓚᑦᓗᔪ ᐊᓚᒪᓗ 2018ᒥ.
- ᐊᐅᑕᑕᐅᔨᔪᓕᖏᓂᑕ ᕿᖏᓪᓕᐅᑎᖏᓂᑕ ᐊᑐᐃᖏᓪᓕᑕᑕᐅᑕᑕᐅᖅᑕᐅᓕᖅᑐᒃᑎᓪᓗᑎᓂᑦ ᑲᑐᔨᖅᑎᑎᑦᑐᑦᑎᐅᖅᑐᓂᕐᒧᓐᓇ ᓇᓗᓇᐃᖅᑕᐅᓕᖅᓗᑦ ᓇᓗᐳᓚᒥᒃ (GN) ᐊᓚᒪᓗ ᓇᓗᐳᓚᒥᒃ ᓄᓇᕗᑦ ᓇᓗᐳᓚᒥᒃ (GNWT), ᐱᑕᓚᖅᑎᑦᑎᐅᖅᑕᐅᑦᑐᑦ ᓚᐊᒪᓕᑐᖅᑲᓄᑦᓗᐊᖅᑐᒃ ᐊᓚᒪᓗ ᐊᐅᑕᑕᐅᔨᔪᓕᐅᔪᓂᑦ ᐊᐅᑕᑕᓵᔨᖅᑎᑎᖅᑕᐅᑕᑕᐅᖅᑕᐅᓕᖅᑐᒃᑎᓪᓗᑎᓂᑦ ᐱᑕᓚᖅᑎᑦᑎᐅᖅᑐᓂᕐᒧᓐᓇ ᐊᐅᑕᑕᐅᑦᑕᓚᐊᖅᑲᓄᑦᓗᐊᖅᑐᒃ. ᐱᑎᑦᓇᓂᕐᒧᓐᓇ ᐊᐅᑕᑕᐅᑦᑕᓚᐊᖅᑲᓄᑦᓗᐊᖅᑐᒃᑐᑦ ᐱᑕᓚᖅᑎᑦᑎᐅᖅᑐᓂᕐᒧᓐᓇ ᐊᐅᑕᑕᐅᑦᑕᓚᐊᖅᑲᓄᑦᓗᐊᖅᑐᒃᑐᑦ ᐱᑕᓚᖅᑎᑦᑎᐅᖅᑐᓂᕐᒧᓐᓇ ᑕᒪᓐᓇᖅᑐᒥ ᐃᓕᓴᖏᓐᓇᓕᕐᓂᕐᒧᓄᑦ ᐱᑕᓚᖅᑎᑦᑎᐅᖅᑐᓂᕐᒧᓐᓇ ᐊᐅᑕᑕᐅᑦᑕᓚᐊᖅᑲᓄᑦᓗᐊᖅᑐᒃᑐ

- ᐊᕐᑎᑕᓚᓵᒃᑯᑦ ᐊᓪᓚᓗ ᓯᓚᖅᑐᐊᖅᑎᒃᑯᑦ ᐊᓯᔾᔨᕐᓂᐊᖅᑐᖓᓂᑐᓗ ᑲᓇᑕᒥ ᐱᓕᕆᖃᑎᖃᑦᓯᐅᕐᓂ ᐃᓕᖅᓇᖏᖅᑐᓂ ᐊᐅᓚᕋᔾᑐᓂ ᑕᒪᒃᑯᓚᐅᕐᓇᒪᓂ ᓄᓇᕕᒻᒥᓗ ᓄᓇᕋᔾᐊᒥᒃᓗ ᑕᒪᒃᑯᐊ ᐃᓕᓴᐅᔾᔨᑯᑦᓗᑎᑦ ᐊᑐᖅᑕᐅᔾᔨᖏᑦᑕᓇᖅᑐᖓᓂᑦ ᓯᕗᓪᓕᒧᑦ.
- ᑭᓪᓕᖅᑐᐅᑦ ᐊᓪᓚᓗ ᐊᑭᐊᖅᑎᐅᑦ ᑐᑐᖓᓂᑦ ᑎᑎᖅᑕᐅᔾᔨᒪᖅᑎᓂᑦ ᑐᖓᔪᓂ ᖃᖅᔨᒪᑦ ᐅᓗᓚᐊᓇᔾᖅᑎᖓᑦᓂᑐᓂᑦ ᐱᔾᔪᖏᖅᑎᑕ ᐊᔾᔨᔾᔨᖅᑕᐅᓗᓂ ᓄᖓᐊᐳᕐᑕᐅᓗᓂ, ᖃᖅᔨᒪᑦ ᐅᓗᓚᐊᓇᔾᖅᑎᖓᑦᓂᑐᓂᑦ ᐱᔾᔪᖏᖅᑎᑕ ᑐᓂᔭᐅᔪᓐᓇᖅᑐᖓᓂᑦ ᓄᖓᐊᐳᕐᑕᐅᓗᓂ ᐅᓪᓗᒥᒃ ᐅᓄᖓᓂᑦ ᐱᓕᕆᖃᑎᖃᑦᓯᐅᕐᓂ ᐊᑐᖅᑕᐅᔾᔨᖏᑦᑕᓇᖅᑐᖓᓂᑦ ᐱᔾᔪᖏᖅᑎᑕ ᐅᓄᖓᓂᑦ ᐅᓄᖓᓂᑦ

- ᐃᓕᓐᓂᓪᓗ ᐃᓕᑯᑦᓗᑎᑦ ᑐᓴᕆᔨᓴᕐᑎᑐᓂᑦ ᑐᑭᓯᐊᓕᓴᕐᑎᑐᒍᒪᔪᑦ: ᑭᑦᓂᓂᐅᑦ ᐊᒻᒪᓗ ᐊᑭᐊᓂᒥᐅᑦ ᑐᑦᑐᖏᑦ ᐱᓂᖅᑮᑦᓂᖅᖃᖏᓪᓕᒃ ᑐᓴᕆᔨᓴᕐᑎᑐᒍᒪᔪᑦ ᑐᓴᐅᖅᑕᐃᓂᖅᑎᑦ, ᑕᐃᓕᐃᒻᒪᑦ ᖃᐅᔨᓴᖅᑕᐅᖅᑲᓂᐅᖅᑐᓂᖅᑐᑦ ᑕᓕᖅᑯᐊ ᑐᑭᓯᐊᓕᓴᕐᑎᑐᒍᒪᔪᑦ ᐊᐅᓚᓂᖏᑦ.

- ᐃ>ᓗ 2019ᒥ, ᓄᓇᓕᒻᒥᐅᓚᓯᑦ ᐃᑲᔪᖅᓯᐃᓚᐅᖏᓚᓂ ᐊᓯᔾᔨᖅᑕᐅᖃᕐᓯᑯᐅᓂᖏᓐᓄᑦ ᑎᑎᖅᓯᓚᕆᓂᐊᖅᑕᖏᓐᓄᑦ

- ᓄᓇᕗᒻᒥ ᐅᒪᔪᓂᐊᓕᖅᑎᑲᓂᖏᑦ ᐊᒻᒪᓗ ᖃᑎᖅᑎᐅᑦ ᐅᒪᔪᓚᕆᔨᔪᐊᑲᓂᑯᑦ ᑲᑎᒪᔨᖏᑦ ᓯᓚ ᐊᐃᖅᐳᑎᑲᓂᐊᖅᑕᐅᓚᐅᖅᑐᑦ ᑎᑎᖅᓯᓚᕆᓂᐊᖅᑕᖏᓐᓄᑦ 2022ᖓᔪᓕᒍᒥ. ᓄᓇᕋᐊᒻᒥ, ᐃᓕᓐᓂᑦ ᐃᑲᔪᖅᓯᐃᓚᐅᒻᒥᔪᑦ ᐅᒪᔪᓂᐊᓕᖅᑎᑲᓂᑯᓂᓕᒃ ᑕᒪᓐᓇᕐᓯᐊᓂᖅᑐᑦ ᐊᓯᔾᔨᖅᑕᐅᓯᓕᒫᓂᖅᑐᑦ 2021/2022ᒥ.

ᐱᓕᕆᐊᖅᑭᓕᑎᑦ ᐅᖅᑲᐅᓯᐅᑎᑦᓕᑐᒍ ᐃᓯᐃᒪᖏᓕᐅᔪᓂᑦ ᓄᓇᓕᖓᒥᐅᓄᑦ

- ᐊᑯᓂᓂᕐᓂᓂᑦ ᐃᑦᓗ ᐊᒻᒪᓗ ᔪᓂ 2021, ᐊᒥᓯᐊᖅᑎᑎ ᑲᑎᒪᓴᖅᑕᐅᓕᐅᖅᑐᑦ ᖃᓚᑕᐅᕈᖅᑎᑦ ᐱᓕᕆᖅᑎᑎᕐᒥᓂᑦ ᓄᓇᕗᒻᒥ ᐊᒻᒪᓗ ᓄᓇᕋᐊᒻᒥ (ᑕᑯᒋᐊᕐᒃ ᐅᐃᒍᓕᓂᑦ B) ᐅᖅᑲᐅᓯᐅᖅᑲᓂᓂᑯᓂᓕᒃ 2019ᒥ ᑲᑎᒪᒍᒥᓂᐅᔪᑦ ᐊᒻᒪᓗ ᐃᓯᒪᒋᐅᖅᑲᓂᓂᑯᓂᓕᒃ ᖃᓄᐃᓕᓴᕐᑐᐃᓐᓇᖅᑐᑦ ᑲᑎᒪᓴᖅᑕᐅᓯᓕᒫᓂᖅᑐᑦ ᓄᓇᕗᒻᒥ ᐃᓕᓴᕐᓂᐊᕐᓗᒍ ᖃᓄᐃᓕᓴᕐᑐᐃᓐᓇᖅᑐᑦ ᐃᓯᐃᒪᓕᕆᓂᖅᑐᑦ. ᒪᕐᕉᒃᓗ ᐃᓚᖓᑕᐅᓯᓕᒫᓂᖅᑐᑦ ᐃᓯᒪᒋᐅᖅᑲᓂᓂᑯᓂᓕᒃ ᐃᓚᖓᑕᐅᓯᓕᒫᓂᖅᑐᑦ ᐃᓯᒪᒋᐅᖅᑲᓂᓂᑯᓂᓕᒃ ᓄᓇᕗᒻᒥ ᖃᐅᔨᓴᕐᓂᐊᕐᓗᒍ 2033ᒧ (2027ᖓᓂᖓᓗᓪᓚᒍ), ᑕᒪᓐᓇ ᐃᓯᐃᒪᓂᕐᒥᐅᓕᐅᖅᑐᑦ ᐃᓕᓐᓂᑦ ᐱᓕᕆᖅᑎᑎᕐᓂᕐᓂᑦ. ᐊᑯᓂᓂᕐᓂᓂᑦ ᓂᕿᔨᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᓕᒫᓂᖅᑐᑦ ᐃᓚᖓᑕᐅᓚᐅᖅᑐᑦᓂᓕᒃ ᓄᓇᕗᒻᒥ ᖃᖓᑎᖅᑎᖃᖓᓂᖅᑐᑦ 2033ᒧ (2027ᖓᓂᖓᓗᓪᓚᒍ), ᑕᒪᓐᓇ ᐃᓯᐃᒪᓂᕐᒥᐅᓕᐅᖅᑐᑦ ᐃᓕᓐᓂᑦ ᐱᓕᕆᖅᑎᑎᕐᓂᕐᓂᑦ. ᐊᑯᓂᓂᕐᓂᓂᑦ ᓂᕿᔨᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᓕᒫᓂᖅᑐᑦ ᐃᓚᖓᑕᐅᓚᐅᖅᑐᑦᓂᓕᒃ ᓄᓇᕗᒻᒥ ᖃᖓᑎᖅᑎᖃᖓ

ᑕᒪᐦᑯᐊᓗ ᑐᑭᓯᖏᓐᓄᓕᕆᓚᐅᓂᓗᑎᓂ ᑐᑭᓯᔾᔨᒥᓂ ᑕᐃᐦᑯᐊ ᐊᑦᑕᓇᖅᑐᑦᑐ ᓂᕐᕿᑎᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᖅᐳᓂ ᐃᓅᓴᑦᓭᓗᐊᖏᓂᖅᐳᓂ ᐅᓇᑕᒥ ᐅᓂᐦᑲᓭᐊᖏᓂᖅᐳᓂ ᑕᐃᖅᓇᓗ ᑐᑭᓯᓂᓗᑎᓂᓯᒪᓂᖅᓱᓂ ᐅᖏᐦᐅᓯᐅᓕᕐᓗᓂ ᓄᓇᕗᑦᑐᓂᓗᓂ ᖃᐅᔨᒪᔭᖅ.

ᖃᓄᖅᓭ ᑕᐃᒪ:

ᑐᓴᓯᖏᓐᖓᑕ ᐃᓕᓴᐅᖅᑕᐅᓕᕆᔨᑦ ᓄᓇᕗᒻᒥ ᐅᒪᔨᓴᓪᓕᐊᐸᖅᑎᑦ ᐅᑎᒪᔨᖅᑎᖅᐳᓂ ᑐᓕᓯᖏᓐᓇᖅᑐᓂ ᑐᓴᓯᕆᓪᓚᕆᐅᓂᖅᓱᓂ ᐊᓯᔨᖅᑕᐅᖏᓐᓄᑦᑕᒍ ᑎᑎᖅᑕᐅᓯᒪᓂᖅᓱᓂ ᑭᓯᓚᓂ ᐊᑭᐊᓂᐅᐳᓂ ᑐᖏᓐᓂᒃ ᑐᓴᓱᓂ ᓱᖇᒪᑐᖅᑎᓯᑦ ᓂᕐᕿᑎᑦ ᐅᑕᓪᓚᐊᓇᖅᓂᖅᓴᓂᑦ ᐱᖏᔨᖅᓯᓂ (SARA) ᑕᔨᓕᑎᓂ ᓄᓇᕗᒻᒥ ᐊᖅᓂᖅᑎᑎᑦᑎᖅᓂᖅᓂᓂ ᐊᑦᓚᑦᑕᐅᓯᒪᔪᓂ 5.2.34(f) ᐊᒻᒪᓗ 5.3.16 – 5.3.23. ᑕᔨᓕᑎᓂ.

Prepared by:
Environment and Climate Change Canada - Canadian Wildlife Service
Northern Region

March 2022

Tunihimayut Nunavumi Umayuligikyuatkunut Katimayiit

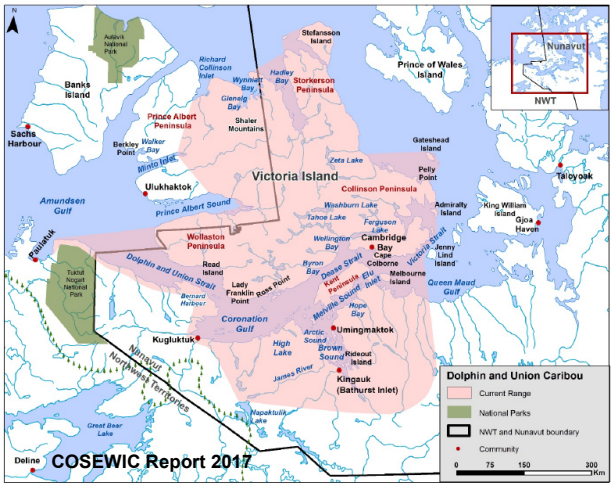
Hafumunga

Tuhagutikhait: **Angigutikhait: X**

Ihumagiyait: Apigiyut angigutikhainik aalangugutikhait Dolphin ovalo Union Tuktuit Ihumagiyainut Tamaliktunut ataanit Kavamatukatkut *Hugaat Tamalaaliktut Pikuyakyuat*



Kim Poole, Aurora Wildlife Research



Tuhaktitait Hivuliit

- **Ukakatigihimaliktait hapkonanik pingahunik ukiunut.**
- **Tamamik ilauyut ilitagiyut hamna Tuktuit ikayuktauyukhat minguikhikviinit/utiktigutikhainik piyakhait, kihimi amigaitut ihumaalugiyait COSEWICkut kimilguugutainik.**
- **Havakhimayugut Inuvialuit ovalou Inuit havakviit munaginahuakhugit ihumaalugiyainik, ilauyut ilayakhainik 2017 COSEWICkut tuhaktitait ilauyut TK/IQmik.**
- **Ikayuktaungitut Inunit havakviit hafuminga aalangugutikhainik, ilaa, pikangimata ilaukatautjutainik kimilguugutainut atuktait.**

Kinguliit Ukautait

<u>Nunait Atuktait Tuktuit</u>

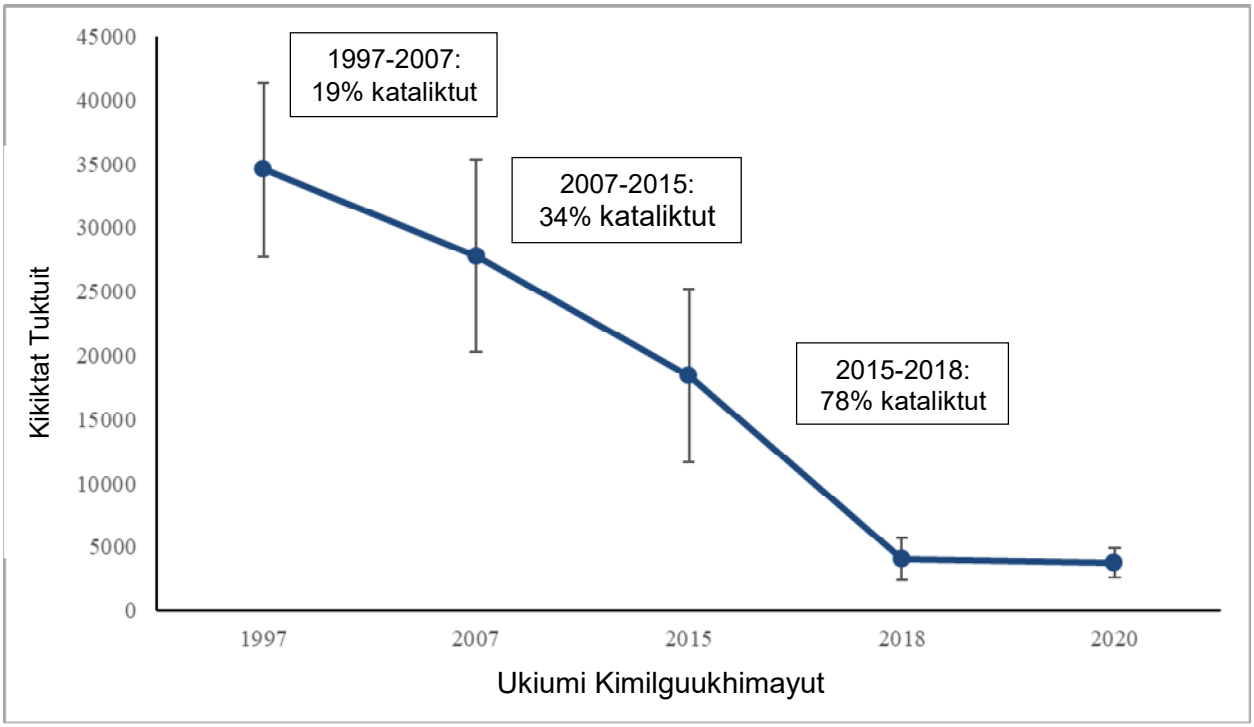
- Nunait atuktait Dolphin ovalo Union Tuktuit angiyut malguunut nunangat: Nunatiak ovalo Nunavut. Nunavumi, Dolphin ovalo Union Tuktuit nanilaaktut Kitikmeoni.

Kimilguugutait ovalo Katitigutait

- 2004mi, Katimayigalaat Kanugitaakhaat Tamaliktut Umayut Kanatami (COSEWIC) kimilguukhimayait Dolphin ovalo Union Tuktuit Ihumaaluligiyait.
- 2011mi, Dolphin ovalo Union Tuktuit ukakhimayait Ihumaaluligiyait ataanit Kavamatukatkut *Umayut Tamaliktut Pikuyakyuat* (SARA).
- 2013mi, Nunatiaki Umayut Tamaliktut Katimayigalaanut (NWT SARC) kimilguukhimayait Dolphin ovalo Union Tuktuit Ihumaaluligiyait (umayut katitikhimayut Nunatiami Ihumaaluligiyait ukiumi 2015).
- 2017mi, COSEWICkut kimilguufaaktait Dolphin ovalo Union tuktut Tamaliktut ilaa akhutakyuak katakhimayut amigaitjutait kimilguugutainit.

Amigaitjutait Kataktut

- Pingahut (3) kimilguukhimayut (1997, 2007 ovalo 2015) ihumagiyauhimayut ukiumi 2017 COSEWIC tuhaktitait ovalo pitkuhimayait tamaat katakhimaliktut 50%mik kitkanit 1997mit 2015mut.
- 2017mit COSEWIC kimilguugutait, malguuk kimilguugaakhimayut Kavamatkunit Nunavumi ukiumi 2018mi ovalo 2020mi (Naunaiyaut 1). Amigaitjutait hapkoa malguuk kimilguugutait hanianiitut 4,000mik tuktuit, ukaktut tamaat kataliktut 78%mik kitkanit 2015mit 2018mut.



Naunaiyaut 1. Amigaitjutait 95%mik kimilguukhimayait Dolphin ovalo Union Tuktuit kitkanit 1997mit 2020mut (ihuakhakhimayut Kavamatkut Nunavumi). Amigaitjutait 34,558guyut ukiumi 1997, kataktut 27,787mut ukiumi 2007, katafaaktut 18,413mut ukiumi 2015, ovalo katainaktut 4,105mut ukiumi 2018. 2020mi amigaitjutait 3,815guyut (ilauyut Keelinimi ovalo Keelinguyami).

Ayokhagutait

- Malikhugit COSEWICkut tuhaktitait (2017), amigaitjutait angiyut ovalo hivunikhaptinik katanialiktut munagiyaungitkumik.
- Ayokhaktut tagiumi hikuit: Mikhitiligamik tagiumi hikuit Hikulikiyiit ikayuktut umianik ovalo hikut aalanguligamik Hilat Aalanguligutainut nutkaktiligamik nuutitikatagutainik. Imaalikpaktut ovalo kinguvalikpaktut nuutitigutainik takuligamik.
- Nigiyauvaktut amagonit ovalo akhanit, ovalo nunamiukatigiyait Umingmait, ilauyut ihumaalugutainut.
- 2017mi, COSEWICkut takuhimaliktut hugaakhiuktunit ihumaalugiyait ilaa, pikangiligamik (1) Tamaat Pilaaktait Tamaat (TAH – iliyut kingulimi ukiumi 2020 Nunavumi), ovalo (2) piyakhainik hugaaktait tuhaktitakhainik. Malikhugit COSEWICkut, pikangitkaangat hugaakhiuktut tuhaktingitkumik angilaaktut ayokhalaagutait tuktut kataliktut hugaakhiuktut ikpinaktaugamik amigaitjutainut tamaliktitlugit.
- Aktugutainik anialaagutainut ovalo nunaini atuktait aalanguligamik, hilat aalangulikhutiklu, naunaiyakhimaliktut hapkoa ayokhalaagutainik.

Hamna kitkaniituk tuhagutikhait COSEWICkut atuktut kimilguugutainik Dolphin & Union Tuktuit Tamaligutait.

Nani Dolphin & Union Tuktuit katitigamik Ihumaaluligutainut ukiumi 2011, Paknaiyautikhait hanahimaliktut. Ilanga takuyut paknaiyautainik, Atuktut Havakatigiiktut munagikatigiiniaktait kitkanit nunaliit Nunavumi ovalo Nunatiami. Hamna tuktuit ilauligumik Tamalaaliktunut, Uktugutikhait hananiaktut ovalo havakatigiiktut ilauniaktut hapkononga ilanganut.

Ilaukatigiilutik Kanatami Munagitjutikhainik Paknaiyautikhait

- Piyukhat ataanit SARAmi hugaat katitikhimayut Ihumaalugiyainut, Kanatami Munagitjutikhainik Paknaiyautikhait hanahimayut kitkanit ukiunit 2015mit 2018mut.
- Munagitjutikhait paknaiyautikhait hanahimayut ilaukatigiikhutik Kavamatkut Nunavumi (GN) ovalo Kavmatkut Nunatiami (GNWT), ilaukatauplutik Kavamatukatkunut ovalo munagiikatigiit ilauyunut. Hanatjutikhait munagitjutikhait paknaiyautikhait pihimayut havaktigiigamik HTOkut ovalo HTCkut munagiikatigiikamik ilanganut.

Iniktigutikhait aalanguligutainik kanugitjutait

- Dolphin and Union Tuktuit kanugitjutait ataanit Kavamatukatkuni *Hugaat Tamalaaliktut Pikuyakyuamut* aalangukhimayut Ihumaalunagutainit Tamalaaliktut, utiktinahuagutainik uktugutikhait hanaliktukhat. Hanaplugit atukhimayait munagitjutainik paknaiyautikhait, utiktugutikhait uktugumainik naunaiyakhimaliktut:
    - Amigaitjutait ovalo naniiliktut pinahuagutainik,
    - Utiktigutikhainik piyukhat nutkaktinahuagiaganik ovaluniit utiktilugit kataligutainik tuktuit,
    - Ikpinaktut nunait atuktainik naamagiaganik ovaluniit utiktinahuagiaganik Dolphin and Union Tuktuit ikayugiaganik amigailifaagutikhainut; ovalo
    - Huliyut tamaktiliktait aktuktainut nunainik atuktainut.

- Avatiligiyiit ovalo Hilat Aalanguktiligiyiit Kanatami (ECCC) havakatigiyumayait tamamik munagiyiit ilauyut Nunavumi ovalo Nunatiami naunaiyaklugit hapkoa kitkaniitut.
- Dolphin and Union Tuktuit kanugitjutait ataanit *Hugaat Tamalaaliktut Pikuyakyuat* aalangukhimayut Tamalaaliktunut, SARAkut kilamik nutkaktiniaktut pipkailaitait Inuit ilaungitut pilaamata hugaakhiugutainik nangminiigutikagamik ataanit *Nunavumi Nunataagutinit*. Hugaakhiuktut munagitjutikhait angigutikhait pilaaktut ilanganut ilihimayut Ilangani 5 *Nunavumi Nunataagutit* ovalo atuktut umayuligiyiit munagitjutikhait katimayiit ovalo atuktait aatjikutauniaktut (atuktainit TAH).
- Dolphin and Union Tuktuit kanugitjutait ataanit *Hugaat Tamalaaliktut Pikuyakyuat* aalangukhimayut Tamalaaliktut, nunaliit pitkutikaktukhat ikayugiaganik minguiktiligiyiit havaagutainik (ilaa, kungiaguait pilihimatjutait, Inuit Kauyimayatukangit katitigutainit) kavamatukatkunit manikhainit pilihimatjutait, ilangit; Nunakakaakhimayut Manikhait Hugaanut Tamalaaligutainit.

Ukakatigiyumayait uktugumayainut katitigutainik unguvagutainik

- Aprilmi 2019, tamamik HTOkut ovalo Inuit ukakatigiyauyut Kugluktumi, Ikaluktutiami, Ulukhaktomi ovalo Paulutuumi. Kingaumi HTOkut ovalo Omingamaktumi HTOkut tamamik tuniyauhimayut tuhagutikhainik ovalo ilaukuhimayut katimagumik Ikaluktutiami (takulugit Ilanganiitut A ovalo B).
- Kitikmeoni hugaaligiyiit Kavamatkunit Nunavumi, Munagiyit Avatiligiyiit ovalo atauhik havakti ilauyut Nunavut Tunngavikunit pulaakataktitlugit Nunavumi. Kitikmeot Inuit Katutjikatingit havaktiit ilauhimayut Inuit katimagamik Ikaluktutiami.
- Ukautait katimahimayut hanahimaliktut ovalo tunihimaliktut ukautainik ovalo ihumaalugiyainii ukahimayut nunaliinit (takulugit Ilangani C).Kitkaniitut ihumaalugiyait nunaliinit Aprilmi 2019 ilauyut (takulugit Ilangani C ukautait):
    - Kimilguugutait atukhimayut Kavamatkut Nunavumi tuhaktut ihumaalugutainik naamagiaganik amigaitjutainut naunaiyautait;
    - Pikalunagitut TK/IQmik ilanganut COSEWICkut kimilguugutainik tuhaktitait ovalo pikangitut ilaukatautjutainik COSEWICkunit kimilguuktitlugit;
    - Hivumuulaagutait pihimaitait HTCkut/HTOkut munagiyaanganik tuktuit ovalo ikayugutikhait utiktinahuagumik ihumahimaitait;
    - Ilangit tuhagutikhait inikhimaitut: Dolphin & Union tuktuit pikataktut amigaikatigiikhutik nugainit ilaani ovalo nunamiukatingit aalangukataktut, kimilguufaaktukhat kanuk naluhuitiagiaganik tahapkoa aalangulikatagutainik.
- Aprilmi 2019, tamamik nunalaat ikayungitut uktugutikhainik kanugitjutait.
- Nunavumi, HTOkut ovalo KRWBkut akigaktungitait kanugitjutait aalangugutainik ukiumi 2022. Nunatiami, tamamik havakviit ikayuktait kanugitjutait aalangugutainut ukiumi 2021/2022.

Havaktakhait pihimayut munagiyaanganik ihumaalugiyait nunaliinit

- Kitkanit Aprilmit Junemut 2021, amigaitut kagitauyakut katimakatauyut ilauyunut Nunavumi ovalo Nunatiami (takulugu Ilangani B) ukakatigyaanganik 2019mi ukakatigiyainut ovalo ihumagiyainik aipainik huliniaktut munagiyaanganik ihumaalugiyainik. Malguuk kitkaniitut pilaaktait pihimayut hamanga katimayunit:

    1. Apigiyait “utifaalutik COSEWICkunut” ovalo tunifaalugit nutaamik kimilguugutikhainik havakatigilaaktainik hanahimayait tamamik ilauyunit. Hamna nuutilaaktait aipaanut COSEWICkut kimilguugutikhait avataanut ukiumi 2033 (pingilugit ukiumi 2027), ihumaalugiyait ilangit ilauyut. COSEWICkut kingilaatagalunagitut “utiklugit”.

    2. Hanalutik ilakhainik ukaktut ihumaalugiyainut ovalo ilaukatigilugit tuhagutikhait hivunikhainik kimilguufaagumik. Hamna makpigaat tunilaaktuugaluit COSEWICkunut ovalo tuhaktitaulutik titigakhimayunut ilanga ukiumit 2017 COSEWICkut kimilguutait.

- Ilaukatauyut piyumayuugaluit hanalutik Ilakhainik ukiumi 2017 COSEWICkut tuhaktitait:
    - Tatkikhiut tamaat katimahimayut tamamik atuktunit hanayaanganik makpigaakhainik havakatigiikhimayait taimaatut (takulugu Ilangani B). Hamna ilanga uktungitait ECCCkunit kihimi hivuliuliktut KRWBkut ovalo WMAC-NWT, ECCCkut ikayutait.
    - Ilayakhait ilauyut nutaamik tuhagutikhait pilaaktut Kimilguugamik ukiumi 2017: nutaat amigaitjutait kimilguukhimayut (2018mi ovalo 2020mi), hikulikiyiit angigutainik kitkanit Ikaluktutiami HTOkut ovalo Ingilgaaligiyiit Kanatami (Hivumuuyut Umiat Munagitjutikhait Uktugutainik), Hivumuuyut naunaiyautait pihimayait HTCkut/HTOkut, TAHmi Nunavumi, Nutaat TK/IQ tuhaktitait. Pinahuaktutlu ihuakhaklugit ilangit tuhagutikhait COSEWICkunit tuhaktitait ihuinaakhimangmata Inuit Kauyimayainit.

Huliniaktut Aipaanut:

Apigiliktugut angigutikhainik NWMBkunit uktugumayainut aalanguniaktait kanugitjutainik Dolphin ovalo Union Tuktuit ataanit Kavamatukatkut Hugaat Tamalaaliktut Pikuyakyuami (SARA) ilauyut Nunavumi Nunataagutainut Ilangani: s.5.2.34(f) ovalo 5.3.16 - 5.3.23.

COSEWIC
Assessment and Status Report

on the

Caribou
Rangifer tarandus

Dolphin and Union population

in Canada



ENDANGERED
2017

COSEWIC
Committee on the Status
of Endangered Wildlife
in Canada

COSEPAC
Comité sur la situation
des espèces en péril
au Canada

COSEWIC status reports are working documents used in assigning the status of wildlife species suspected of being at risk. This report may be cited as follows:

COSEWIC. 2017. COSEWIC assessment and status report on the Caribou, Dolphin and Union population, *Rangifer tarandus*, in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xii + 51 pp. (http://www.registrelep-sararegistry.gc.ca/default.asp?lang=en&n=24F7211B-1).

Previous report(s):

COSEWIC 2004. COSEWIC assessment and update status report on the Peary caribou *Rangifer tarandus pearyi* and the barren-ground caribou *Rangifer tarandus groenlandicus* (Dolphin and Union population) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 91 pp. (www.sararegistry.gc.ca/status/status_e.cfm).

Gunn, A., F.L. Miller and D.C. Thomas. 1979. COSEWIC status report on the Peary caribou *Rangifer tarandus pearyi* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. 40 pp.

Miller, F.L. 1991. Update COSEWIC status report on the Peary caribou *Rangifer tarandus pearyi* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. 124 pp.

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Également disponible en français sous le titre Évaluation et Rapport de situation du COSEPAC sur le Caribou (*Rangifer tarandus*), population Dolphin-et-Union au Canada.

Cover illustration/photo:
Dolphin and Union Caribou. The bull, second from left, has shed his antlers. Photograph by Kim Poole, Aurora Wildlife Research.

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COSEWIC
Assessment Summary

Assessment Summary – November 2017

Common name
Caribou - Dolphin and Union population

Scientific name
Rangifer tarandus

Status
Endangered

Reason for designation
This Arctic caribou population is endemic to Canada, occurring in Nunavut and the Northwest Territories. Recognized for its unique migration pattern from Victoria Island across the sea ice to the mainland, observations have shown that its distribution has retracted and expanded since the beginning of the 20th century, in rough correspondence with population size. In the early 1900s, the herd was reported to be large, then a strong decline was likely precipitated by the introduction of firearms, combined with severe winters. A 50-60-year period of low densities and no sign of migration across the sea ice followed. The herd started to increase in the late 1970s, and resumed its migration to the mainland in the late 1980s, increasing in numbers until the 1990s. In 2015, the herd was estimated at about 18,000 animals. Three survey estimates over the last 18 years and Aboriginal Traditional Knowledge suggest a decline as high as 50-60%, which appears to have accelerated since 2010. The population is experiencing multiple threats, including reduced connectivity and disrupted migration between winter and summer range associated with commercial shipping in Dease Strait that is increasingly supported by ice-breakers. Climate change is linked with decreased periods of ice cover and irregularity of sea ice conditions, causing mortality through drowning and delays in migration with consequences for nutrition and parasite burdens. Overharvest has been involved in past declines and recent exploitation levels are unknown, although access opportunities from five additional communities have increased. The spread of insect pests and pathogens as a consequence of climate change is an additional concern. Natural fluctuations of the population remain a source of uncertainty.

Occurrence
Northern Territories, Nunavut

Status history
The original designation considered a single unit that included Peary Caribou, *Rangifer tarandus pearyi*, and what is now known as the Dolphin and Union population of Caribou, *Rangifer tarandus*. It was assigned a status of Threatened in April 1979. Split to allow designation of three separate populations in 1991: Banks Island (Endangered), High Arctic (Endangered) and Low Arctic (Threatened) populations. In May 2004 all three population designations were de-activated, and the Peary Caribou, *Rangifer tarandus pearyi*, was assessed separately from the Dolphin and Union population of Caribou, *Rangifer tarandus*. The Dolphin and Union population is comprised of a portion of the former "Low Arctic population", and it was designated Special Concern in May 2004. Status re-examined and designated Endangered in November 2017.

COSEWIC
Executive Summary

Caribou
Rangifer tarandus

Dolphin and Union population

Wildlife Species Description and Significance

Dolphin and Union Caribou are easily recognizable from Barren-ground and Peary Caribou. Intermediate in body size, they are morphologically and behaviourally distinct from both, and genetic analyses have consistently confirmed their uniqueness. A key distinguishing behavioural trait relative to other Caribou populations is the seasonal migrations that occur twice a year when members of this population cross the sea ice between Victoria Island and the mainland in a synchronous and coordinated way to reach their summer or winter ranges. They are integral components of Inuit and Inuvialuit culture, and have high spiritual, economic, and subsistence value.

Distribution

Endemic to Canada, the range of Dolphin and Union Caribou spans two jurisdictions: Northwest Territories and Nunavut. These Caribou summer as one population occupying most of Victoria Island. Having first been documented in the mid-1850s crossing the Dolphin and Union Strait, they now migrate across the Coronation Gulf, the Dease Strait and Queen Maud Gulf to winter on the mainland. Recorded observations show that the distribution of Dolphin and Union Caribou has retracted and expanded at various points in time since the beginning of the 20th century, in rough correspondence with population size.

Habitat

Calving areas on Victoria Island are not discrete and lie in the Northern Arctic Terrestrial Ecozone, while wintering areas on the mainland coast are in the Southern Arctic Ecozone. The annual range is composed of tundra habitats populated by prostrate dwarf-shrubs, forbs, sedges, mosses and lichens. Given their regular migrations between Victoria Island and the mainland, a key habitat requirement for Dolphin and Union Caribou is the seasonal sea ice connecting the Island and mainland.

Habitat changes brought about by climate change include changes to sea ice, shifts in vegetation community composition, and amount and timing of plant growth. Although there has been minimal natural resource development within the range to date, there are two operating mines and several proposed mining developments with accompanying

infrastructure, as well as plans for ships passing through ice-crossing areas, that are likely to compromise habitat quality and continuity in the future.

Biology

Similar to Barren-ground Caribou, Dolphin and Union Caribou follow an annual cycle, undertaking pre-calving and fall migrations between seasonal ranges. Although pre-calving migration is relatively gregarious, individuals disperse to calve over much of Victoria Island. The rut likely occurs during either migration or staging and Caribou males will often mate with more than one female. Dolphin and Union Caribou have a reproductive lifespan of about 12 years, usually first calving when they are 3 years old, or at 2 years when high-quality forage is available. Generation time is estimated at 7 to 9 years. These Caribou have a similar morphology to Peary Caribou, which appears to have arisen by convergent adaptation to a highly seasonable and cold climate. They share their annual range with four large mammalian predators, two other populations of Caribou (Barren-ground and Peary), Muskoxen, and several species of smaller-bodied mammalian herbivores and waterfowl, all of which have experienced population and distribution changes in recent years. Humans and Wolves are the main predators of Dolphin and Union Caribou.

Population Sizes and Trends

In the early 1900s, the Dolphin and Union Caribou population was thought to be about 100,000 individuals, but this was a best guess. Shortly afterwards, this population declined precipitously, a likely consequence of the introduction of firearms combined with severe winters. By the 1920s, its migration across the Dolphin and Union Strait ceased. Caribou were rarely seen on Victoria Island for the next five decades. In 1959, the resident, non-migratory population on Victoria Island was estimated at 671 individuals. Inuit from Cambridge Bay began seeing Caribou in the 1970s and 1980s and, by 1993, up to 7,000 were once again migrating annually across Coronation Gulf and Dease Strait.

Three surveys in 1997, 2007 and 2015 have deployed a consistent methodology, with comparable results, to allow for a quantitative trend estimate over three generations. The first two survey estimates were retroactively corrected: A 1997 survey that estimated 27,989 ± SE 3,367 total Caribou in the visual survey strata was later revised to 34,558 ± CI 6,801, extrapolated to include animals outside the survey area based on information from radio collars. In 2007, 21,753 ± SE 2,343 were estimated, later revised to 27,787 ± CI 7,537. In 2015, the population was estimated at 18,413 ± 6,795 (95% CI, 11,664- 25,182). Using the original and revised estimates from the surveys as minima and maxima, there has been an overall exponential decline of over 50% since 1997. Inuit Qaujimajatuqagit (IQ), Aboriginal Traditional Knowledge and local knowledge have also noted a declining trend of about 80%, which accelerated after 2010. IQ collected in 2014 observed declines in numbers in the young age classes, a high proportion of animals with poor body condition, and increased observations of diseased animals.

Threats and Limiting Factors

Dolphin and Union Caribou are facing a large number of direct threats to population persistence, which have been assessed as High-Very High Impact, although there is much uncertainty. Reduced connectivity of sea ice is a primary concern, with ice-breaker-supported shipping in Dease Strait already showing signs of disrupting migration. Decreased periods of ice cover and/or irregularity of sea ice conditions has also been observed, associated with climate change, which causes mortality through drowning and delays migration with consequences for nutrition and parasite burdens. Overharvest has been involved in past declines and recent exploitation levels are unknown, although access opportunities from five additional communities have increased. Predation from Wolves and Grizzly Bears is an additional concern. The spread of insect pests and pathogens associated with climate change is a threat. An unknown mortality factor may be involved in Dolphin and Union Caribou population declines, possibly involving Muskox populations through multi-prey interactions with wolves and/or multi-host interactions with parasites and pathogens. Also uncertain is the future cumulative disturbance and habitat change if any, or all, of several proposed mining projects with associated infrastructure (roads and ports) are approved for construction.

Protection, Status and Ranks

Dolphin and Union Caribou are co-managed in Nunavut according to the Nunavut Land Claims Agreement, and are co-managed in the Northwest Territories according to the Inuvialuit Final Agreement. These agreements confer primary wildlife management authority on the respective management boards: the Nunavut Wildlife Management Board and, in the NWT, the Wildlife Management Advisory Council and the Inuvialuit Game Council.

Dolphin and Union Caribou are currently listed as Special Concern under both the federal *Species at Risk Act* (2003) (on Schedule 1) and the territorial *Species at Risk (NWT) Act* (2013). COSEWIC originally assessed Dolphin and Union Caribou as Special Concern in May 2004, and this population was reassessed as Endangered in November 2017.

Globally, Caribou is listed by the International Union for Conservation of Nature (IUCN) as Vulnerable; subspecies or ecotypes are not differentiated. NatureServe ranked Caribou as secure globally and Not Yet Ranked for Dolphin and Union Caribou, which is ranked imperiled-vulnerable at the national level (N2N3), imperiled-vulnerable (S2S3) in the NWT, and unranked (SNR) in Nunavut.

Tuktuk Nogait National Park includes coastline in the southwestern portion of Dolphin and Union Caribou range and the Queen Maud Gulf Bird Sanctuary offers a certain level of habitat protection to part of the wintering range.

TECHNICAL SUMMARY

Rangifer tarandus

Caribou - Dolphin and Union population (Designatable Unit 2)

Caribou - Population Dolphin-et-Union (Unité désignable 2)

Range of occurrence in Canada (province/territory/ocean): Northwest Territories and Nunavut (Victoria Island and adjacent parts of the mainland).

Demographic Information

Generation time (usually average age of parents in the population; indicate if another method of estimating generation time indicated in the IUCN guidelines (2011) is being used)	7-9 yrs
Is there an [observed, inferred, or projected] continuing decline in number of mature individuals?	Yes
Estimated percent of continuing decline in total number of mature individuals within [5 years or 2 generations]	33.8% decline since 2007
[Observed, estimated, inferred, or suspected] percent [reduction or increase] in total number of mature individuals over the last [10 years, or 3 generations]. *Based on three survey points, with much uncertainty as to trend and pattern of decline.*	~52% (using GT of 7 yrs) – 61% (9 yrs)
[Projected or suspected] percent [reduction or increase] in total number of mature individuals over the next [10 years, or 3 generations].	Unknown
[Observed, estimated, inferred, or suspected] percent [reduction or increase] in total number of mature individuals over any [10 years, or 3 generations] period, over a time period including both the past and the future.	May be >50%
Are the causes of the decline a. clearly reversible and b. understood, and c. ceased?	a. no b. no c. no
Are there extreme fluctuations in number of mature individuals?	Unlikely

Extent and Occupancy Information

Estimated extent of occurrence (EOO)	499,449 km²
Index of area of occupancy (IAO) (Always report 2x2 grid value).	391,292 km²

Is the population “severely fragmented” i.e., is >50% of its total area of occupancy in habitat patches that are (a) smaller than would be required to support a viable population, and (b) separated from other habitat patches by a distance larger than the species can be expected to disperse?	a. no b. no
Number of “locations”* (use plausible range to reflect uncertainty if appropriate)	1
Is there an [observed, inferred, or projected] decline in extent of occurrence?	Likely, but unquantified
Is there an [observed, inferred, or projected] decline in index of area of occupancy?	Unknown
Is there an [observed, inferred, or projected] decline in number of subpopulations?	N/A (one subpopulation)
Is there an [observed, inferred, or projected] decline in number of “locations”*?	N/A (one location)
Is there an [observed, inferred, or projected] decline in [area, extent and/or quality] of habitat?	Yes
Are there extreme fluctuations in number of subpopulations?	N/A
Are there extreme fluctuations in number of “locations”*?	N/A
Are there extreme fluctuations in extent of occurrence?	No
Are there extreme fluctuations in index of area of occupancy?	No

Number of Mature Individuals (in each subpopulation)

	N Mature Individuals
Total *This estimate includes an unknown number of immature animals*	18,413 ± 6,795 (2015)

Quantitative Analysis

Is the probability of extinction in the wild at least [20% within 20 years or 5 generations, or 10% within 100 years]?	Analysis not done

* See Definitions and Abbreviations on COSEWIC web site and IUCN (Feb 2014) for more information on this term

Threats (direct, from highest impact to least, as per IUCN Threats Calculator)

Was a threats calculator completed for this species? Yes
Total Impact: Very High-High

i. Shipping Lanes (IUCN Threat # 4.3) (High Impact)
ii. Problematic native species (IUCN Threat #8.2) (High-Low Impact)
iii. Hunting (IUCN Threat # 5.1) (Medium-Low Impact)
iv. Climate Change and Severe Weather (IUCN Threat #11) (Medium-Low Impact)
v. Parasites and Diseases (IUCN Threat # 8.1[Invasive non-native alien species]) (Medium-Low Impact)
vi. Storms and Flooding (11.4) (Medium-Low Impact)
vii. Energy Production and Mining (IUCN Threat #3) (Low Impact)

What additional limiting factors are relevant?

Rescue Effect (immigration from outside Canada)

Status of outside population(s) most likely to provide immigrants to Canada.	N/A (Endemic to Canada)
Is immigration known or possible?	N/A
Would immigrants be adapted to survive in Canada?	N/A
Is there sufficient habitat for immigrants in Canada?	N/A
Are conditions deteriorating in Canada?+	N/A
Are conditions for the source (i.e., outside) population deteriorating?+	N/A
Is the Canadian population considered to be a sink?+	N/A
Is rescue from outside populations likely?	No

Data Sensitive Species

Is this a data sensitive species?	No

Status History

COSEWIC: The original designation considered a single unit that included Peary Caribou, *Rangifer tarandus pearyi*, and what is now known as the Dolphin and Union population of Caribou, *Rangifer tarandus*. It was assigned a status of Threatened in April 1979. Split to allow designation of three separate populations in 1991: Banks Island (Endangered), High Arctic (Endangered) and Low Arctic (Threatened) populations. In May 2004 all three population designations were de-activated, and the Peary Caribou, *Rangifer tarandus pearyi*, was assessed separately from the Dolphin and Union population of Caribou, *Rangifer tarandus*. The Dolphin and Union population is comprised of a portion of the former "Low Arctic population", and it was designated Special Concern in May 2004. Status re-examined and designated Endangered in November 2017.

+See Table 3 (Guidelines for modifying status assessment based on rescue effect)

Status and Reasons for Designation:

Status: Endangered	**Alpha-numeric codes**: A2ad+4acd
Reasons for designation: This Arctic caribou population is endemic to Canada, occurring in Nunavut and the Northwest Territories. Recognized for its unique migration pattern from Victoria Island across the sea ice to the mainland, observations have shown that its distribution has retracted and expanded since the beginning of the 20th century, in rough correspondence with population size. In the early 1900s, the herd was reported to be large, then a strong decline was likely precipitated by the introduction of firearms, combined with severe winters. A 50-60-year period of low densities and no sign of migration across the sea ice followed. The herd started to increase in the late 1970s, and resumed its migration to the mainland in the late 1980s, increasing in numbers until the 1990s. In 2015, the herd was estimated at about 18,000 animals. Three survey estimates over the last 18 years and Aboriginal Traditional Knowledge suggest a decline as high as 50-60%, which appears to have accelerated since 2010. The population is experiencing multiple threats, including reduced connectivity and disrupted migration between winter and summer range associated with commercial shipping in Dease Strait that is increasingly supported by ice-breakers. Climate change is linked with decreased periods of ice cover and irregularity of sea ice conditions, causing mortality through drowning and delays in migration with consequences for nutrition and parasite burdens. Overharvest has been involved in past declines and recent exploitation levels are unknown, although access opportunities from five additional communities have increased. The spread of insect pests and pathogens as a consequence of climate change is an additional concern. Natural fluctuations of the population remain a source of uncertainty.	

Applicability of Criteria

Criterion A (Decline in Total Number of Mature Individuals): Meets Endangered A2ad, with 3-generation decline of 51-61% estimated, based on aerial surveys [a], with exploitation [d] also driving population decline. Also meets A4acd (past and future), because future decline is predicted based on ongoing threats.
Criterion B (Small Distribution Range and Decline or Fluctuation): Not applicable.
Criterion C (Small and Declining Number of Mature Individuals): Not applicable.
Criterion D (Very Small or Restricted Population): Not applicable.
Criterion E (Quantitative Analysis): Not applicable.

PREFACE

This updated report incorporates information that became available after the last COSEWIC Status Update (COSEWIC 2004) for Dolphin and Union Caribou. In 1991, prior to the enactment of the *Species at Risk Act* (SARA), Caribou throughout the Canadian Arctic Archipelago (except for Baffin Island) were considered by COSEWIC to be Peary Caribou (Miller 1991). Although recognized as a distinct entity, Dolphin and Union Caribou were assessed as part of the Low Arctic Islands population, which included Peary Caribou. In 2004, COSEWIC assessed two entities in one status report (COSEWIC 2004): 1) Peary Caribou, which included all Caribou in the Arctic Archipelago except for Baffin Island and central and southern Victoria Island, and 2) Dolphin and Union Caribou, a genetically distinct population that occupies the remainder of Victoria Island, and migrates to the mainland in winter.

COSEWIC undertook an analysis of designatable unit (DU) structure of Caribou in Canada as a special project (COSEWIC 2011) to define the units for future status assessments and reassessments of this species according to the latest guidelines. Recognition of Peary Caribou and Dolphin and Union Caribou as two of 12 DUs in Canada was affirmed by this analysis, and an updated status assessment of Peary Caribou was undertaken in 2015 (COSEWIC 2015).

This report incorporates information collected since the 2004 COSEWIC Status Update for the Dolphin and Union Caribou, including data from surveys conducted in 2007 (Dumond and Lee 2013) and 2015 (Leclerc *et al*. in prep.; 2016), which allow for the calculation of trend estimates over a three-generation time span.

The Government of the Northwest Territories completed a status assessment for Dolphin and Union Caribou (SARC 2013) under the *Species at Risk (NWT) Act*. A Management Plan under the federal *Species at Risk Act* is being prepared jointly by the Government of Nunavut and the Government of the Northwest Territories, in cooperation with the Government of Canada and co-management partners (GNU and GNWT 2017). This COSEWIC report has been able to include key maps and figures produced for both documents, and also benefited from ATK (including Inuit Qaujimajatuqangit [IQ; Inuit Knowledge]) gathered through this process. IQ and ATK are considered to be synonyms in this report.



COSEWIC HISTORY

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) was created in 1977 as a result of a recommendation at the Federal-Provincial Wildlife Conference held in 1976. It arose from the need for a single, official, scientifically sound, national listing of wildlife species at risk. In 1978, COSEWIC designated its first species and produced its first list of Canadian species at risk. Species designated at meetings of the full committee are added to the list. On June 5, 2003, the *Species at Risk Act* (SARA) was proclaimed. SARA establishes COSEWIC as an advisory body ensuring that species will continue to be assessed under a rigorous and independent scientific process.

COSEWIC MANDATE

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assesses the national status of wild species, subspecies, varieties, or other designatable units that are considered to be at risk in Canada. Designations are made on native species for the following taxonomic groups: mammals, birds, reptiles, amphibians, fishes, arthropods, molluscs, vascular plants, mosses, and lichens.

COSEWIC MEMBERSHIP

COSEWIC comprises members from each provincial and territorial government wildlife agency, four federal entities (Canadian Wildlife Service, Parks Canada Agency, Department of Fisheries and Oceans, and the Federal Biodiversity Information Partnership, chaired by the Canadian Museum of Nature), three non-government science members and the co-chairs of the species specialist subcommittees and the Aboriginal Traditional Knowledge subcommittee. The Committee meets to consider status reports on candidate species.

DEFINITIONS
(2017)

Wildlife Species	A species, subspecies, variety, or geographically or genetically distinct population of animal, plant or other organism, other than a bacterium or virus, that is wild by nature and is either native to Canada or has extended its range into Canada without human intervention and has been present in Canada for at least 50 years.
Extinct (X)	A wildlife species that no longer exists.
Extirpated (XT)	A wildlife species no longer existing in the wild in Canada, but occurring elsewhere.
Endangered (E)	A wildlife species facing imminent extirpation or extinction.
Threatened (T)	A wildlife species likely to become endangered if limiting factors are not reversed.
Special Concern (SC)*	A wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.
Not at Risk (NAR)**	A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.
Data Deficient (DD)***	A category that applies when the available information is insufficient (a) to resolve a species' eligibility for assessment or (b) to permit an assessment of the species' risk of extinction.

* Formerly described as "Vulnerable" from 1990 to 1999, or "Rare" prior to 1990.

** Formerly described as "Not In Any Category", or "No Designation Required."

*** Formerly described as "Indeterminate" from 1994 to 1999 or "ISIBD" (insufficient scientific information on which to base a designation) prior to 1994. Definition of the (DD) category revised in 2006.

Environment and Climate Change Canada
Canadian Wildlife Service
Environnement et Changement climatique Canada
Service canadien de la faune
Canada

The Canadian Wildlife Service, Environment and Climate Change Canada, provides full administrative and financial support to the COSEWIC Secretariat.

COSEWIC Status Report

on the

Caribou

Rangifer tarandus

Dolphin and Union population

in Canada

2017

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WILDLIFE SPECIES DESCRIPTION AND SIGNIFICANCE

Name and Classification

Common names: Island Caribou (NWT and Nunavut; English), Arctic island Caribou (NWT and Nunavut; English), Mainland Caribou (Ulukhaktok, NWT; English), Dolphin and Union Caribou, Barren-ground Caribou (Dolphin and Union population) (English), Caribou du troupeau Dolphin-et-Union (French), Kiilliniq Caribou (Inuinnaqtun; Nunavut); Killinik (Inuktituk).

Caribou are members of the deer family (Order: Artiodactyla, Family: Cervidae, Subfamily: Capreolinae, Genus: *Rangifer*, Species: *tarandus*; Gilbert *et al.* 2006). Banfield (1961) classified *Rangifer* into sub-species and "inter-grades", based largely on Manning's (1960) morphometric measurements of skulls and leg bones, as well as pelage colouration and antler form. This taxonomy has not been updated, even though it was often based on few specimens and newer techniques, such as DNA analyses, are revealing different evolutionary relationships among Caribou populations.

Barren-ground Caribou of North America and Greenland (in which Dolphin and Union were likely included) were named *Cervus groenlandicus* by Borowski (1780) based on a specimen from Greenland, and later transferred to the genus *Rangifer* (Kellogg 1932). First singled out for their distinctiveness by Manning (1960), Dolphin and Union Caribou have been alternatively classified as *R. t. groenlandicus*, *R. t. pearyi* and *R. t. groenlandicus* × *pearyi*. In recognition of their uniqueness relative to neighbouring Peary and mainland Barren-ground Caribou, recent authors have referred to them as *R. t. groenlandicus* × *pearyi* (Poole *et al*. 2010; Nagy *et al*. 2011; SARC 2013; GNU and GNWT 2017). Despite some confusion over taxonomic classification, its genetic distinctiveness has been recently re-confirmed (McFarlane *et al*. 2016; see **Population Spatial Structure and Variability**). An overall revision of the genus is needed to clarify subspecies (Geist 2007, COSEWIC 2011).

Harvesters and elders interviewed in the Ulukhaktok area recognize two types of Caribou (Peary, and Dolphin and Union) on Victoria Island, and tend to differentiate Dolphin and Union Caribou from other Caribou by differences in size, colour, and taste (Elias 1993 in SARC 2013).

This Caribou population is named after the Dolphin and Union Strait, which they once crossed twice yearly on their northward spring migration and southward fall migration. Their current migration patterns, however, are concentrated in the Coronation Gulf and Dease Strait (see **Dispersal and Migration**).

Morphological Description

Dolphin and Union Caribou are highly recognizable and distinguishable from Barren-ground and Peary Caribou (GNU and GNWT 2017, SARC 2013). Individuals are smaller than Barren-ground Caribou, but larger than most Peary Caribou (SARC 2013). They have similar pelage patterning to that of Peary Caribou except that they are slightly darker, with gray down the front of their legs instead of white. The early winter coat is white with a pale brown back. Skeletal and antler differences further distinguish them from most Peary Caribou. Dolphin and Union and Peary Caribou share three characteristics that contrast them with those belonging to the Barren-ground Caribou: grey antler velvet, proportionally long molar tooth rows, and wider hooves (Manning 1960; Gunn and Fournier 1996; SARC 2013).

Mean body length has not been published, but Gunn and Fournier (1996) compared skull measurements of southern Victoria Island female Caribou with female Barren-ground Caribou from Pelly Bay: the mean condylobasal length was 297.83 ± SE 1.31 mm in the Victoria Island Caribou compared to 317.86 ± SE 3.21 mm in the Pelly Bay skulls.

Population Spatial Structure and Variability

Genetic Structure

North American Caribou have been divided into two lineages using genetic analysis of mitochondrial DNA (mtDNA) sequences. The Beringian-Eurasian Lineage and the North American Lineage refer to Pleistocene refugia that they originated from (COSEWIC 2011; Klütsch *et al*. 2012; Yannic *et al*. 2014). Barren-ground (COSEWIC in press), Peary (COSEWIC 2015), and Dolphin and Union Caribou are part of the Beringian-Eurasian Lineage. After the last ice age, as populations expanded and colonized (or re-colonized) northern lands, hybridization resulted in introgression of haplotypes from each lineage into the other at a low enough frequency to leave each lineage distinct and clearly separable (Klütsch *et al*. 2012). Phylogenetic data based on mitochondrial DNA (Eger *et al*., 2009) suggest that Dolphin and Union and the Bathurst subpopulation of Barren-ground Caribou (see Designatable Units) diverged from one other another approximately 1000 years ago (Eger *et al*., 2009; McFarlane *et al*., 2016). Estimates from microsatellite DNA suggest that the divergence time from other mainland subpopulations occurred around the same time, whereas divergence of Dolphin and Union Caribou from eastern arctic island subpopulations occurred earlier (about 3000 ybp) (McFarlane *et al*. 2016).

Genetic analyses based on nuclear (microsatellite) DNA have consistently confirmed the distinctiveness of Dolphin and Union Caribou from other designatable units (Eger *et al*. 2009; Zittlau *et al.* 2009; COSEWIC 2011; Serrouya *et al*. 2012; McFarlane *et al*. 2014, 2016). Despite this, low to moderate levels of gene flow have been detected between Dolphin and Union Caribou and mainland Barren-ground Caribou, particularly in historical times (*i.e.,* several hundred years ago; McFarlane *et al*. 2016).

Subpopulation Structure

All available evidence points to Dolphin and Union Caribou belonging to one demographic unit (subpopulation). Although calving is dispersed across a large part of Victoria Island, only one rutting area has been described from collared Caribou (Gunn and Fournier 2000, Nishi 2000) which supports the single subpopulation. When this herd was reduced to low numbers in the 1920s, the migration ended and did not become regular until several decades later (see **Population abundance and trends**). However, it was the same type of Caribou that had previously migrated between Victoria Island and the mainland, based on their skull measurements, pelage colour, and the migratory behaviour of Caribou on southern Victoria Island in the 1980s being similar to those previously described by Manning (1960) for the Dolphin and Union herd (Gunn and Fournier 1996).

Designatable Units

Dolphin and Union Caribou were first assessed by COSEWIC in 1979 as part of Peary Caribou (Gunn *et al*. 1979). In 1991, Dolphin and Union Caribou were recognized by COSEWIC (Miller 1991) as a separate 'population' from Peary, but were not assessed separately until COSEWIC (2004). COSEWIC (2011) confirmed the Dolphin and Union Caribou as one of 11 extant Caribou DUs.

Measures of genetic divergence between Dolphin and Union Caribou and both Peary and Barren-ground Caribou populations support their discrete nature. New genetic information since COSEWIC (2011) re-affirms the uniqueness of Dolphin and Union Caribou (McFarlane *et al*. 2014, 2016). Morphology (e.g., skull shape, antler velvet colour, hoof size, and breeding pelage pattern; Gunn & Fournier 1996; Manning 1960; see **Mophological Description**) provides additional evidence of discreteness. Dolphin and Union Caribou are geographically or temporally isolated from most other Caribou during calving and rutting (Gunn and Fournier 2000; Nishi and Gunn 2004, Poole *et al*. 2010; Nagy *et al*. 2011), although spatial overlap during winter with the Ahiak (Barren-ground) herd does occur (L. Leclerc, pers. comm., 2017).

In terms of evolutionary significance, while Dolphin and Union Caribou share haplotypes with members of adjacent DUs, the retention of some distinct genetic lineages (Eger *et al*. 2009) suggests possible local adaptations by these Caribou. They differ significantly from Barren-ground Caribou (DU3) because their regular twice-annual migratory pattern across sea ice is unique and reflects the unique ecological setting. The scale of this migration (thousands of individuals) is also distinct from the often dispersed uncoordinated individual-scale movements over sea ice observed in Peary Caribou (COSEWIC 2011). Although the Dolphin and Union Caribou have a strong migratory annual cycle that is similar to Barren-ground Caribou, they have a dispersed individualistic calving strategy similar to Peary Caribou (Nishi 2000; Poole *et al.* 2010). They are also isolated from other populations during the rut on Victoria Island (Poole *et al.* 2010; Nagy 2011).

Special Significance

Inuit and Inuvialuit peoples of the Canadian Arctic have harvested Caribou for > 4,000 years (Manseau *et al.* 2004). Dolphin and Union Caribou share cultural, historical, economic, and ecological importance with Peary Caribou (COSEWIC 2015). Ancient Caribou drive systems made of stone lines and cairns and communal Caribou kill sites found on southern Victoria Island span several millennia, covering the whole of modern Inuit occupation and, before them, the unrelated Dorset culture (Brink 2005; Friesen 2013). These records show that the Caribou on both Victoria Island and the mainland are a deeply integral component of Inuit and Inuvialuit culture, Arctic ecology and Canadian history. Humans harvested Caribou within the region for centuries (Manning 1960; Savelle and Dyke 2002; Brink 2005). Today, this Caribou population is the source of fresh meat for four Inuvialuit and Inuit communities and two outpost camps. In addition, Dolphin and Union Caribou have likely been an important factor in the distribution of the genetic signatures of wolves (*Canis lupus*) that follow them (Carmichael 2007).

DISTRIBUTION

Global Range

Dolphin and Union Caribou range is entirely within Canada.

Canadian Range

The range of Dolphin and Union Caribou spans two jurisdictions: Northwest Territories and Nunavut (Figure 1). These Caribou occupy most of Victoria Island (except for the northwest portion) as well as sections of the mainland coast. Their range includes Gateshead Island, Jenny Lind Island and Admiralty Island and islands in Coronation Gulf, Queen Maud Gulf and Dolphin and Union Strait, and the adjacent mainland coast (summarized by SARC 2013). Dolphin and Union Caribou are also known to travel to Read Island and Cambridge Bay (Elias 1993 in SARC 2013).

Recorded observations describe the distribution of Dolphin and Union Caribou retracting and expanding at various points in time since the beginning of the 20th century, in rough correspondence with population size (Table 2 in GNU and GNWT 2017). For example, population numbers were so low in the 1920s, that animals ceased to migrate across the Dolphin and Union Strait for several decades (see **Population Abundance and Trends**). In the 1960s to 90s, during a time of population increase, the winter range extended further south on Victoria Island than in the past (ATK and community knowledge sources cited in SARC 2013).

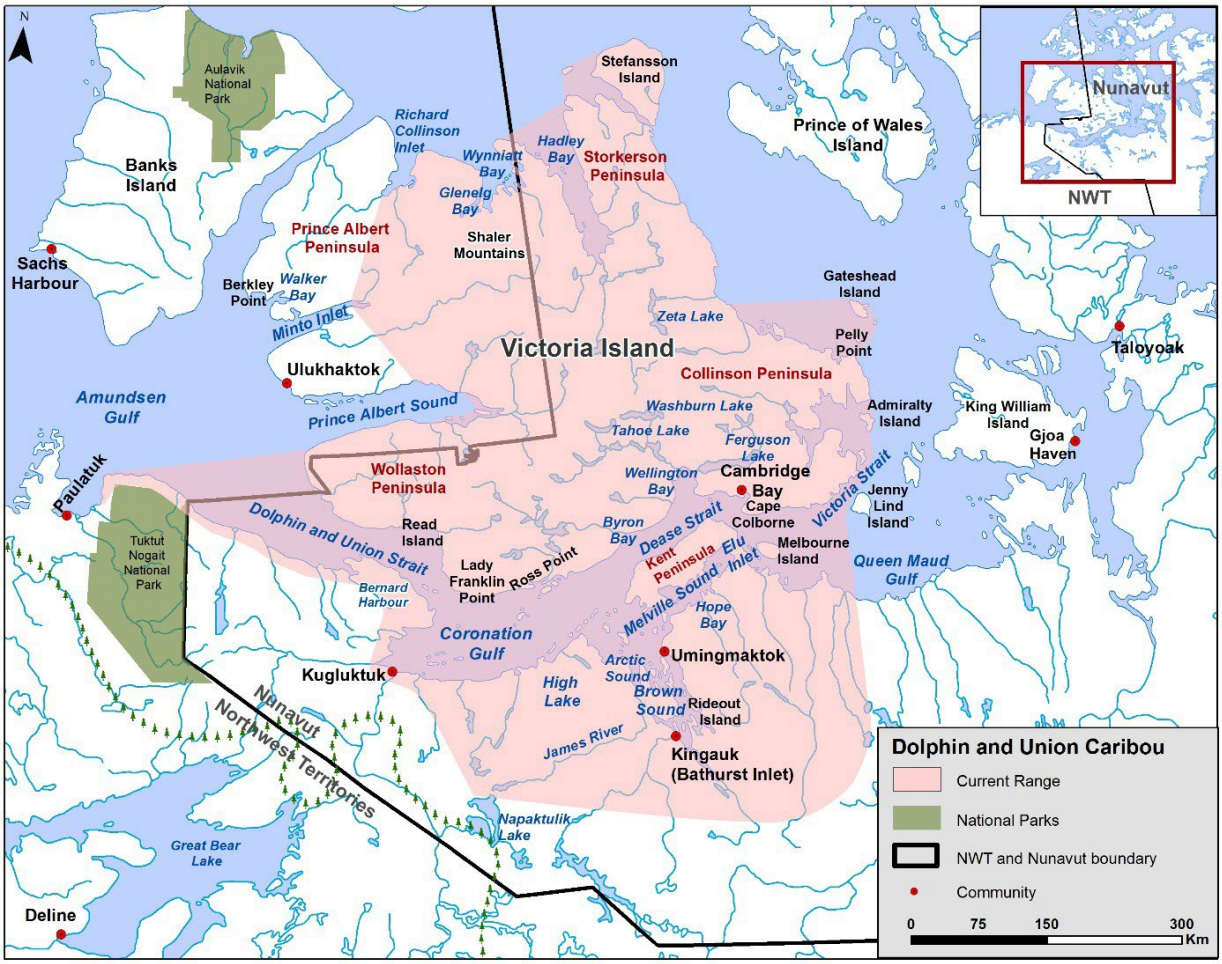


Figure 1. Current range of Dolphin and Union Caribou, including notable place names (NWT Environment and Natural Resources, range data developed for Species at Risk program 2016).

In the 1980s, harvesters' reports corroborated biologists' surveys showing a shift in winter distribution of the Dolphin and Union Caribou from the south and east of Victoria Island (Gunn *et al.* 1997). In the 1990s and 2000s, the Dolphin and Union population extended its winter range on the coast of the mainland and individuals were seen north of Great Bear Lake in the range of mainland Barren-ground Caribou (elder Phillip Kadlun of Kugluktuk, cited in Golder Associates Ltd. 2003; Tomaselli *et al*. 2018; Figure 2). They have also been seen west as far as Tuktut Nogait National Park (Gau pers. comm. 2011 cited in SARC 2013).

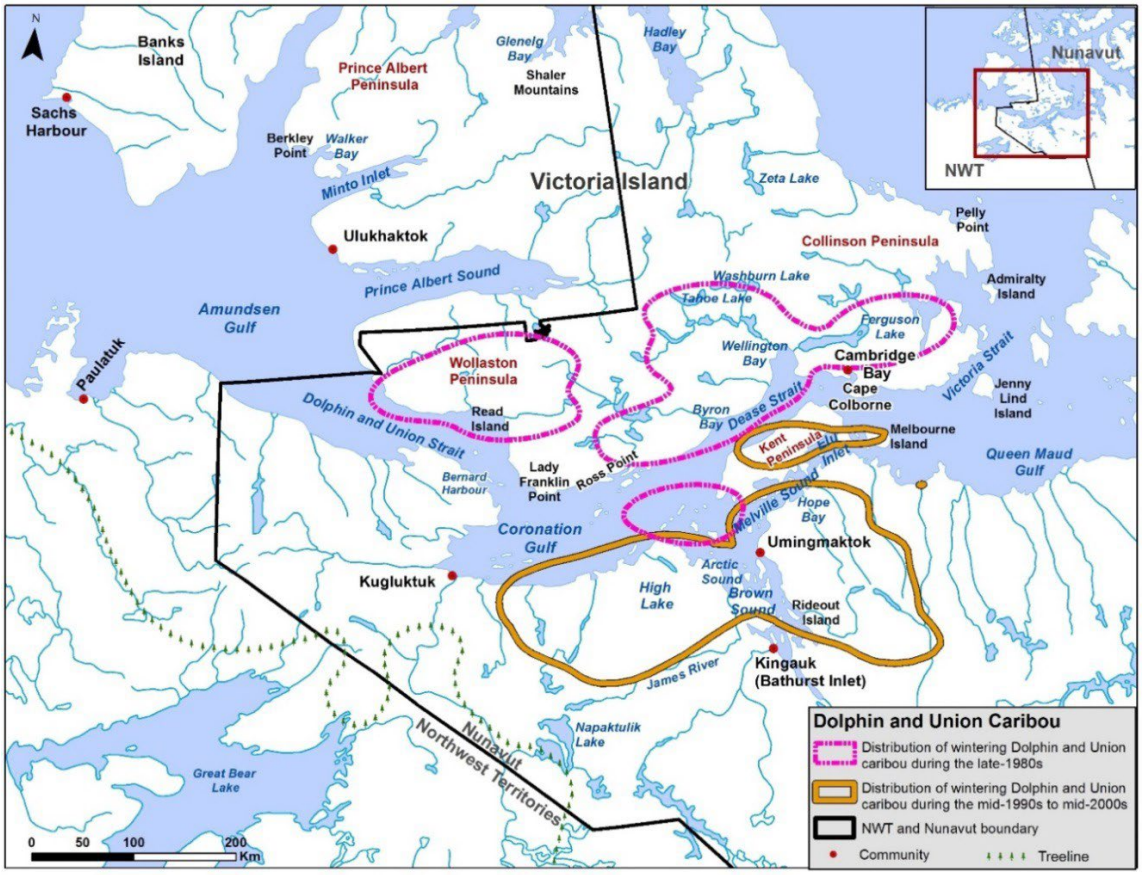


Figure 2. Approximate distribution of wintering Dolphin and Union Caribou during the late 1980s (pink line), and the mid-1990s to mid-2000s (gold line), based on satellite-collared Caribou. Data from Poole *et al*. (2010); figure reproduced from the SARC (2013) by B. Fournier, GNWT-ENR 2016.

Extent of Occurrence and Area of Occupancy

The extent of occurrence (EOO) for Dolphin and Union Caribou was estimated as 499,449 km^2 for the population, encompassing areas where these Caribou have been recorded since 1980. The index of area of occupancy (IAO) was estimated as the surface area of 2 x 2 km grid cells that intersect the area of occupancy and totalled 391,292 km^2 (SARC 2013). In light of IUCN guidance that the “smallest area essential at any stage to the survival of existing populations of a taxon” might be a more relevant measure of area of occupancy (IUCN Standards and Petitions Subcommittee 2017:49), the area of the fall staging area on the southern shore of Victoria Island might qualify, but has not been consistently mapped and is variable in location and size. Dolphin and Union Caribou follow a dispersed calving strategy scattered over a large proportion of Victoria Island.

Search Effort

Inuvialuit and Inuit from the communities, including Ulukhaktok and Paulatuk (NWT) and those from Cambridge Bay, Kugluktuk, Umingmaktok and Kingauk (formerly Bathurst Inlet) in Nunavut, regularly hunt throughout the range of the Dolphin and Union Caribou.

They also trap and conduct other traditional activities in these areas, and are always alert to the presence or unexpected absence of Caribou (SARC 2013). Experienced hunters can visually distinguish Dolphin and Union Caribou from other Barren-ground Caribou and from Peary Caribou. Their observations have been reported (e.g., Nishi 2000) and collected by focused interviews (e.g., Thorpe *et al*. 2001; SARC 2013, Tomaselli *et al*. 2016; 2018; GNU and GNWT 2017).

The widespread adoption of snow machines in the 1970s effectively increased search effort because hunters could cover greater distances searching for Caribou or Muskoxen or travelling cross-country for other reasons (Condon 1996 cited in SARC 2013). Due to the amount of time spent on the land and the experience and skills required to continue their cultural traditions the Inuvialuit and Inuit have a high level of awareness of Caribou and other wildlife distribution, density and condition (c.f. Dumond 2007; SARC 2012; 2013).

Information particular to wildlife management is also shared in meetings of local Hunters and Trappers Organizations (Nunavut) and Committees (Inuvialuit), and between them and regional wildlife management boards. In this way, knowledge of status, movements and condition of wildlife is accumulated and spreads among communities. The search effort entailed in the wildlife management aerial surveys varied prior to 1997 but typically was low coverage and/or only parts of the island were surveyed (Jakimchuk and Carruthers 1980; Gunn and Fournier 2000; Nishi and Buckland 2000), partly because Victoria Island is so large. The large area was a leading reason since 1986 for switching to VHF, satellite and GPS collars to locate Caribou, although the low number of collars (<25/year) reduces precision of analyses. Collar locations are used to map Caribou in the fall to allocate aerial survey effort (Nishi and Gunn 2000, Dumond and Lee 2013).

HABITAT

Habitat Requirements

Dolphin and Union Caribou require high-quality forage while reducing their risk of exposure to mosquitos and warble flies (*Hypoderma* sp.), parasites and predators (ATK summarized in SARC 2013). They may use eskers for fly-free travel and for the Moss Campion (*Silene acaulis*), a preferred food, as noted in the Olokhaktomiut Community Conservation Plan (2008). Information on forage habitat requirements specific to Dolphin and Union Caribou is limited, due to incomplete or few descriptions of their diet, and the wide distribution of forage by vegetation types and feeding sites relative to plant phenology or snow conditions (SARC 2013). The energetic costs of foraging when snow and ice restrict forage access are also unknown.

A key habitat requirement for Dolphin and Union Caribou is the seasonal connectivity of the sea ice between Victoria Island and the mainland. Poole *et al*. (2010) reported that these Caribou require >90% ice coverage in the fall. While the Caribou may cross on recently formed new ice (<10 cm thickness), they generally cross when most of the surface is young ice (e.g., grey coloured, 10–30 cm thick), which is in the transition stage from new ice to first-year ice.

The climate is strongly seasonal and continental, with short, dry, summers and long cold winters. Mean annual daily temperature was -13.9 ^{0}C (1981-2000) with a mean July temperature of 8.9 ^{0}C at Cambridge Bay on Victoria Island (http://climate.weather.gc.ca/climate_normals/). Mean annual precipitation is 138.8 mm at Cambridge Bay (59% as snow) (http://climate.weather.gc.ca/climate_normals/).

West and southern Victoria Island lies within the 7-9 ^{o}C mean July temperature while central and eastern Victoria are cooler being within 5-7 ^{o}C (Gould *et al*. 2003). The annual range of Dolphin and Union Caribou is within the Northern and Southern Arctic Ecozones. Calving areas on Victoria Island lie in the Northern Arctic Terrestrial Ecozone, while wintering areas on the mainland coast are in the Southern Arctic Ecozone (Gunn *et al*. 2011; Rankin *et al*. 2011).

The low summer rainfall means that the drought index is high, especially in August compared to mainland herds (CARMA unpubl. data). The cooler summers reduce the warble fly index to about half that recorded for the mainland Caribou ranges. Cumulative snow depth averages 80 cm on the winter range, which is relatively deep and the snow density is relatively high compared to Barren-ground Caribou winter ranges.

The vegetation is mostly prostrate dwarf shrubs and mosses, with dwarf shrubs and non-tussock grasses and shrubs (Gould *et al*. 2002). The calving, summer, and fall ranges on Victoria Island are characterized by discontinuous upland vegetative cover, varying between 5-80% coverage and dominated by prostrate dwarf shrubs including Purple Saxifrage (*Saxifraga oppositifolia*), Dryas spp., and Arctic Willow (*Salix arctica*), along with Alpine Foxtail (*Alopecurus alpinus*), Wood Rush (*Luzula nivalis*), and other saxifrages (Gould *et al*. 2003). The vegetation is relatively sparse as most of the island has 5-50% plant cover and less than 500 g/m^2, which contrasts to the nearby mainland where above-ground biomass and plant productivity is higher (Gould *et al*. 2003, Hughes 2006). The variety of dwarf shrubs, grasses and forbs provides sufficient high quality forage despite the relatively low cover of lichens.

Diet

The diet of Dolphin and Union Caribou is high in protein-rich vascular plants (sedges, grass, and willows) and in flowers in summer. Unusually dry summers tend to yield relatively poor forage quality, which can lead to population-level impacts the following year (Dumond 2007).

Winter diet on Victoria Island in the late 1980s and in May 2004 was dominated by dwarf shrubs (Mountain Avens [*Dryas octopetala*], willow) and sedges but, on the nearby mainland, Arctic Heather (*Cassiope tetragona*) and lichens dominated the diet (Hughes 2006, SARC 2013; GNU and GNWT 2017). The mainland has quite different topography and geology compared to Victoria Island but these influences on forage selection are unmeasured.

Dolphin and Union Caribou must adjust their foraging to changing snow conditions, which are affected by terrain (slope and aspect) and the timing of snowmelt (Larter and Nagy 2001; SARC 2013). Snow cover can also affect energy costs, e.g., access forage through digging for food and travel (Thorpe *et al*. 2001).

Habitat Trends

A lack of information hampers assessing habitat trends, except for the general satellite-derived mapping of arctic vegetation which can be related to underlying trends in summer warmth and reduced sea ice cover (for example, Bhatt *et al.* 2017). Climate trends for Victoria Island are described in **Threats and Limiting Factors**.

Other possible habitat trends are the effects of anthropogenic development and activities on habitat, but there have been no scientific assessments within Dolphin and Union Caribou calving and summer ranges. One mine (TMAC Resources' Hope Bay project) began operating in 2017, and there are mineral exploration camps and proposed mining projects in the mainland part of the winter range that could influence habitat use for these animals in the future (see **Energy Production and Mining**).

Inuit and Inuivialuit living in the summer range of Dolphin and Union Caribou reported an increase in plant growth, and consequently better forage, over the last three decades of the 20th century, which they attributed to climate change (Thorpe *et al.* 2001). Informants also said that acceptable forage is appearing in new areas and existing forage is increasing in quality and this trend sustained the population increase (SARC 2013). Hunters from Kugluktuk, however, thought that the “grass was quite sparse on Dolphin and Union summer range” (ENR 1998, cited in SARC 2013), possibly due to heavy grazing by Caribou associated with a peak in population about 1997.

After members of the Dolphin and Union Caribou population migrate through an area, the vegetation is so decimated that it takes two years to grow back (Phillip Kadlun of Kugluktuk cited by Golder Associates Ltd. 2003). The concentration of Caribou on southern Victoria Island during the rut and along the coast in preparation for fall migration has resulted in visible, but unquantified, effects on forage over the years (Nishi and Gunn 2004).

BIOLOGY

Life Cycle and Reproduction

Similar to Barren-ground Caribou, Dolphin and Union Caribou follow an annual cycle, undertaking pre-calving and fall migrations between seasonal ranges. In the spring, they migrate northward to where they calve in early to mid-June (Gunn and Fournier 2000, Nishi 2000) and then spend the summer gaining weight. In the fall, they move to the south coast of Victoria Island where they stage waiting for freeze-up, after which they migrate to the over-wintering grounds (Poole *et al*. 2010; SARC 2013) (see **Dispersal and Migration**). Although pre-calving migration is relatively gregarious (groups of dozens of females), individuals disperse to calve over much of Victoria Island east to the eastern coast (Gunn and Fournier 2000; Nishi 2000; Nishi and Buckland 2000). The rut likely occurs during either migration or staging and the mating system is polygynous (c.f. Holand *et al*. 2007), with bulls tending small groups of females which are relatively synchronized in their oestrus (Mysterud *et al*. 2003).

Dolphin and Union Caribou have a reproductive lifespan of about 12 years (SARC 2013), and assuming they are similar to Peary Caribou (Thomas 1982), usually first calve when they are 3 years old, or at 2 years old when there is high-quality forage available. SARC (2013) presented data on pregnancy rates for the Dolphin and Union Caribou from 1987 to 1997 that varied from 43% to 100% over this time period. Hughes (2006) found the age of harvested Dolphin and Union Caribou females ranged from 1.8 to 13.8 years, with a mean age of 6.5 years.

Information regarding generation time is lacking for Dolphin and Union Caribou. Moreover, age structure and sex ratio changes with each severe winter that is followed by reduced survival and fecundity. For the Dolphin and Union population, COSEWIC (2004) and the SARC (2013 citing Boulanger pers. comm. 2011) estimated the intergeneration time as 7 to 9 years, based on unpublished data on adult survival and fecundity.

Physiology and Adaptability

Special adaptations of Dolphin and Union Caribou are undescribed. Their migration pattern is broadly similar to Barren-ground Caribou populations, except that they undertake long ice crossings and their winter and summer ranges are farther north. Their morphological similarity to Peary Caribou (relatively large hooves, molariform tooth row, and smaller body size) suggests adaptation to similar selection pressures, which include the highly seasonal and cold climate and relatively sparse forage (Miller *et al*. 2007; Zittlau *et al*. 2009).

Dispersal and Migration

Before about 1920, when numbers were still high, Caribou crossed the Dolphin and Union Strait at various points as far west as Cape Bexley and Coronation Gulf east to Queen Maud Gulf in the spring (summarized in SARC 2013). They moved rapidly

northwards to the north coast and spread out over most of Victoria island. Some individuals remained on the Wollaston Peninsula during the summer, while the main herd continued north past Prince Albert Sound. In the fall, after the rut, they returned to the mainland south of Coronation Gulf and west at least to Cape Dalhousie (Nishi 2000; Poole *et al.* 2010). Scientific observations and hunters' reports indicate that, during the 1980s, Caribou shifted their fall aggregation areas to the south and east on Victoria Island (Gunn *et al.* 1997).

Currently, most of the central-southern-eastern Victoria Island Caribou migrate to the mainland in winter. Some of those Caribou crossed to Read Island, while others went east to Cambridge Bay. A few individuals remain on Victoria Island all year (Thorpe *et al*. 2001). Elias (1993 in SARC 2013) summarized Inuvialuit traditional knowledge and found that the resident Victoria Island Caribou migrated north of Prince Albert Sound to calve in the spring; they wintered around there or on islands to the east or south of the coast. Those that migrate across the sea ice to winter on the mainland in November return in April to southeast Victoria Island.

Archaeological studies on southeast Victoria Island reveal a high likelihood of the persistence of the fall staging and migration of Dolphin and Union Caribou. Pre-Dorset 11th-13th century CE) and Thule people (16-18th century CE) depended on the Caribou and fish (Howse 2008, Howse and Friesen 2016). Wolverine (*Gulo gulo*) bones were associated with Pre-Dorset and Wolf bones with Thule (Howse and Friesen 2016). Examination of the bones suggests the Caribou were killed during fall and spring. Rae (1852, cited in Manning 1960) was the first European explorer to describe the migration across to southwest Victoria in 1851.

Major migration routes follow a consistent pattern (ATK in SARC 2013, Poole et 2010). In fall, Caribou in the Victoria Island's Cape Colbourne area cross Dease Strait south to the Kent Peninsula, reaching Umingmaktok (Bathurst Inlet) by mid-November; those in the Read Island area cross Dolphin and Union Strait to the mainland, although this occurs much more rarely than it did in the early 2000s. In spring, Caribou move from the mainland to Melbourne Island and across Queen Maud Gulf or Dease Strait to Victoria Island. Those starting in the Browne Sound area cross to Arctic Sound and Rideout Island towards Elu Inlet (on the south side of the Kent Peninsula), then across Dease Strait to Cambridge Bay, while those further west cross Coronation Gulf west of Bathurst Inlet to Ross Point on Victoria Island.

Scientific evidence regarding the migration across the Dolphin and Union Strait is congruent with ATK (Figure 3). Satellite tracking records of 46 individuals from 1987–2006 demonstrated that Caribou crossed throughout the western Queen Maud Gulf-Dease Strait-Coronation Gulf area and that only two individuals crossed the Dolphin and Union Strait (Poole *et al.* 2010), as they did historically.

The Dolphin and Union Caribou begin moving southward in October to staging areas along the southern coast of Victoria Island while waiting for freeze-up; Caribou that summer farther north on Victoria Island arrive later, shortening their time spent on the staging area. They begin migrating south in fall as soon as the sea ice is formed and most depart from just a few locations, which they tend to use consistently for year to year (Poole *et al.* 2010). In winter, ATK has suggested increasing overlap of Dolphin and Union and Barren-ground Caribou herds on the mainland (summarized by SARC 2013).

The Ekaluktuktiak Hunters and Trappers Association in Cambridge Bay reported that Melbourne Island is an important area for the Dolphin and Union Caribou in the spring (cited by Gunn *et al.* 1997). They also stage and feed intensively on the Kent Peninsula and other areas along the mainland coast. It is believed that island-hopping routes are chosen to maximize foraging before crossing the sea ice to Victoria Island (Gunn *et al.* 1997).

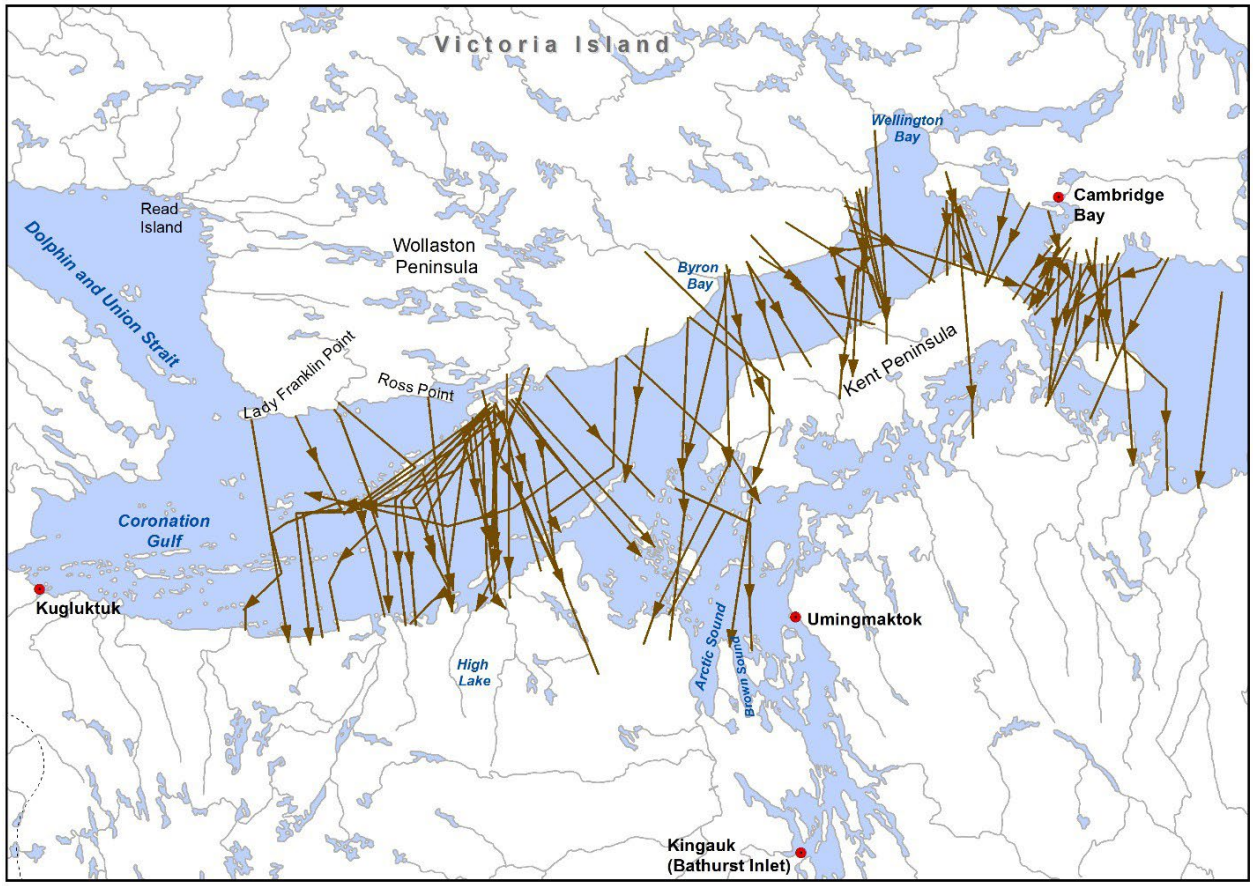


Figure 3. Dolphin and Union Caribou fall migration between Victoria Island and the mainland since 1986 (modified from Poole *et al.* 2010, by B. Fournier, GNWT-ENR 2016). Note: although not depicted here, some movements are still known to occur across the Dolphin and Union Strait (SARC 2013).

Interspecific Interactions

Dolphin and Union Caribou share their annual range with four mammalian predators (Wolf, Grizzly Bear [*Ursus horribilis*], Wolverine, and Polar Bear [*U. maritimus*]), two other populations (designatable units) of Caribou (Barren-ground and Peary), Muskoxen, and four species of smaller-bodied herbivores: Arctic Hare (*Lepus arcticus*), ptarmigan (*Lagopus* spp.), and lemming (*Dicrostonyx groenlandicus*, *Lemmus trimucronatus*). Wolves are the primary predators of Dolphin and Union Caribou, although Grizzly Bears are also known to take Caribou, especially calves.

Over the past decade, there have been documented changes to populations of some sympatric species. For example, Wolf numbers are increasing, as judged by more frequent sightings of wolves during aerial surveys for Caribou and Muskoxen (SARC 2013). Grizzly Bears have recently expanded their range onto Victoria Island (COSEWIC 2012). There is no direct information on predation rates.

Muskox abundance increased on Victoria Island in the 1980s and 1990s (Gunn and Patterson 2012), but showed a decline by 2013-2014 (L. Leclerc, pers. comm. 2016). Numbers of smaller herbivores normally fluctuate on the Arctic Islands. (Schaefer *et al*. (1996) documented the tendency for Hares, ptarmigan and Muskoxen to have distinct patterns of habitat use from Caribou during one study on southeast Victoria Island during winter in the mid-1990s).

Geese populations (e.g., Snow Goose (*Chen caerulescens*) and Ross's Goose (*C. rossi*)) on the east side of the Dolphin and Union Caribou wintering range (Queen Maud Gulf) have increased so substantially that they were recently designated as overabundant (CWS Waterfowl Committee 2014; 2015).

POPULATION SIZES AND TRENDS

Sampling Effort and Methods

Documenting population trends of arctic-dwelling Caribou within narrow limits of statistical confidence is difficult because of the irregularity of surveys and the relative inconsistency of survey coverage and methods until 1997. Surveys are expensive because of the vast area involved, and weather conditions can prevent completion of planned surveys. The first informal estimates for Dolphin and Union Caribou were conducted by estimating the number of animals that crossed the Dolphin and Union Strait (Anderson 1917). Count estimates of this population were largely from sightings documented during unsystematic flight surveys in summer by Macpherson (1961), who compiled Caribou observations during an airborne geological survey of the western Arctic Islands in the summers of 1958–59. In recent decades, abundance estimates for Dolphin and Union Caribou have been based on animal counts from strip transects during systematic aerial surveys.

Jakimchuk and Carruthers (1980) conducted the first systematic aerial survey of the entire Victoria Island in summer to determine distribution and abundance of Caribou and Muskoxen as part of an environmental assessment for the proposed Polar Gas Project. The next systematic aerial surveys in the early 1990s were during the calving period and covered the western portion of the island, followed by a larger survey of western and central Victoria Island in June 1994 (Nishi and Buckland 2000). Subsequent systematic aerial surveys were restricted to northwest Victoria Island in 1998, 2001, 2005 and 2010 (see SARC 2013) but were targeted for Peary Caribou and Muskoxen.

In the late 1990s, biologists recognized that aerial surveys used to estimate abundance of Dolphin and Union Caribou would be most efficient and effective if conducted in the fall (October) when individuals stage along the south coast of Victoria Island waiting for the sea-ice to freeze. The trade-off is the poor flying weather at this time of year. Nishi and Gunn (2004) developed the strip transect design, orienting flight lines mainly perpendicular to the coast, with some inland lines to identify any gradient of distribution. The formal survey would be preceded by an aerial reconnaissance survey and radio-tracking VHF collars to stratify the survey according to observed densities observed.

Surveys using this methodology were conducted in 1997 (Nishi and Gunn 2004), 2007 (Dumond and Lee 2013), and 2015 (Leclerc *et al*., in prep.; 2016). Dumond and Lee (2013) corrected the 1997 and 2007 fall survey results to account for those individuals that had not yet reached the coastal staging area. However, the use of satellite collar data from animals for 2000-2002 to estimate the probability of Caribou being close to the coast in 2007 to derive correction factors was challenged by SARC (2013). Dumond and Lee (2013) used the 1997 VHF collars as a correction factor even though they had been all located on the coast in 1997, and Leclerc *et al*. (in prep.; 2016) used 2015 collars to derive the extrapolated 2015 survey estimates. In this report, because of the uncertainty whether all Caribou aggregate on the south coast at the same time and the applicability of correction factors, we present the corrected and uncorrected estimates (Figure 4) for 1997, 2007 and 2015 surveys as minimum and maximum estimates, respectively. Numbers of mature individuals cannot be estimated, as non-mature adults and calves were included in the counts.

The population estimates obtained in 1997, 2007 and 2015 are comparable with one another and provide a time period near three generations (assuming a 7-9 year generation time from 2017) over which to estimate population trend. However, there are considerable uncertainties associated with the calculation of this trend, including corrections applied to the individual population estimates, lack of data on generation time, and lack of understanding of patterns of decline and the extent to which natural fluctuations are at play.

Abundance

Anderson (1917) guessed the number of Caribou crossing the Dolphin and Union Strait to be between 100,000 and 200,000 animals. Manning (1960) gave a detailed account of the historic migration. He suggested that these and other early observations indicated a migratory and a resident population of Caribou on Victoria Island and referred to

the former as the Dolphin and Union Strait herd. He used the lower of Anderson's range, 100,000 Caribou that summered on Victoria Island before the 1920s, as the most realistic estimate. However, SARC (2013:86) suggested this estimate is likely "unrealistically high" as the overall density at 100,000 Caribou would be 0.4 Caribou/km^2. In comparison, the peak density of Peary Caribou on Banks Island in the 1970s (12,000 Caribou; Urquhart 1973) was 0.2 Caribou/km^2.

Caribou numbers sharply declined and by the early 1920s had ceased migrating across the Dolphin and Union Strait. This decline coincided with the opening of trading posts along the coast, which led to changes in hunting practices (Manning, 1960; Freeman, 1975). At the same time, Inuit elders noted that severe icing storms caused Caribou deaths (Gunn, 1990). The herd was assumed to be extinct (Macpherson 1961), and these Caribou were rarely seen on Victoria Island for the next five decades (Poole *et al*. 2010).

Macpherson (1961) compiled observations of geologists, who recorded Caribou observations in summer 1959, yielding an estimate of 670 animals. Inuit from Cambridge Bay began seeing Caribou in the 1970s and 1980s. Jackimchuk and Carruthers (1980) surveyed Victoria Island in summer and estimated 7,936 ± SE 1100 Caribou (Miller 2004), just under 3,500 of which were likely Dolphin & Union Caribou (SARC 2013). By 1993, up to 7,000 Caribou were migrating annually across Coronation Gulf and Dease Strait (Gunn *et al*. 1997; Gunn and Nishi 1998).

In June 1994, Nishi and Buckland (2000) flew transects across the western 63% of Victoria Island, estimating 14,539 ± SE 1015 adult Dolphin and Union Caribou. The surveys included the range of Peary Caribou on northwestern Victoria Island, but only 4 Caribou were seen there, an insignificant proportion of the total. Unsystematic aerial searches and VHF radio-tracking, however, documented Caribou throughout the eastern 37% of the island. Dumond and Lee (2013) revised the Nishi and Buckland (2000) estimate to 22,368 individuals (no variance calculated), using the proportion of VHF radio-collars. However, factors such as the variability in the densities across survey strata and differences in group sizes between systematic surveys in the west and reconnaissance surveys in the east suggest that it may be problematic to extrapolate mean densities from the west to the eastern part of the island.

Nishi and Gunn (2004) flew transects in October 1997, just before freeze-up when male and female Caribou were massing along the south shore of Victoria Island prior to crossing the straits, under the assumption that most of the population would be in the pre-migration aggregation. Their estimate was 27,989 ± SE 3,367 total Caribou. Dumond (2007) estimated 21,753 ± SE 2,343 Caribou in the survey area on the south of Victoria Island in 2007 and Dumond and Lee (2013) later revised this upward to 27,787 ± CI 7,537 by extrapolating to areas not covered that had been assumed to be unoccupied, but were later found by satellite telemetry to be populated (see **Sampling Efforts and Methods**). Dumond and Lee (2013) retroactively applied this same probability of VHF collared Caribou as a correction factor to the 1997 estimate (which had used the same methods and covered the same area), resulting in a revised estimate of 34,558 ± CI 6,801 for 1997.

The Government of Nunavut completed an aerial population assessment in fall 2015, estimating 14,730 Dolphin and Union Caribou, and extrapolated this to 18,413 ± 6,795 (95% CI, 11,664- 25,182) by using information for Caribou collared in the same year (Leclerc *et al*. in prep.; Leclerc 2016; GNU and GNWT 2017). Changes in distribution were also documented, with no animals observed in the eastern one-third of the survey area, east of Wellington Bay (Leclerc 2016).

Fluctuations and Trends

An overall trend estimate for the Dolphin and Union Caribou population can be derived from the only three relatively comparable surveys undertaken in 1997, 2007, and 2015, covering a period of 18 years, or not quite three generations (21-27 years). Uncertainty around these population estimates, all of which involve extrapolation and/or correction factors, is a further complicating factor. Prior to 1997, aerial surveys did not include the southeastern portion of Victoria Island where animals aggregate prior to migrating to the mainland. The change in survey design and area suggest that it is inappropriate to compare estimates and resulting population trends from the 1995 survey with the 1997, 2007, and 2015 surveys (Figure 4).

Dumond and Lee (2013) reported that the apparent decline between 1997 and 2007 was not statistically significant (2-tailed z = 1.51, P =0.13), concluding that the population was, at best, statistically stable. However, information from local hunters and conservation officers (SARC 2013), as well as low adult survival rates from 1999-2006 (Poole *et al*. 2010), were more indicative of a population decline during this period. The most recent (2015) survey confirmed a decline relative to the 2007 survey estimates (z-test, Z=-2.19, p=0.036). Leclerc *et al*. (in prep.) concluded the population declined by 33.8% from 2007 to 2015.

The most recent survey estimates from 2015 (Leclerc *et al*. in prep; Leclerc 2016; GNU and GNWT 2017) provide some basis by which to derive an approximate three-generation trend estimate from uncorrected (minimum) and corrected (maximum) survey estimates (Figure 4). Assuming a 7-year generation time, a population trend was extrapolated over three generations (beginning in 2017) by fitting a model based on an exponential rate of decline, using the IUCN Red List Assessment Tool for Criterion A (see IUCN Standards & Petitions Subcommittee 2017). This yielded a three-generation trend estimate of -52% and -52.6% for corrected and uncorrected estimates, respectively. A 9-year generation time suggested higher decline rates (-61.1% and -61.7%) for both estimates.

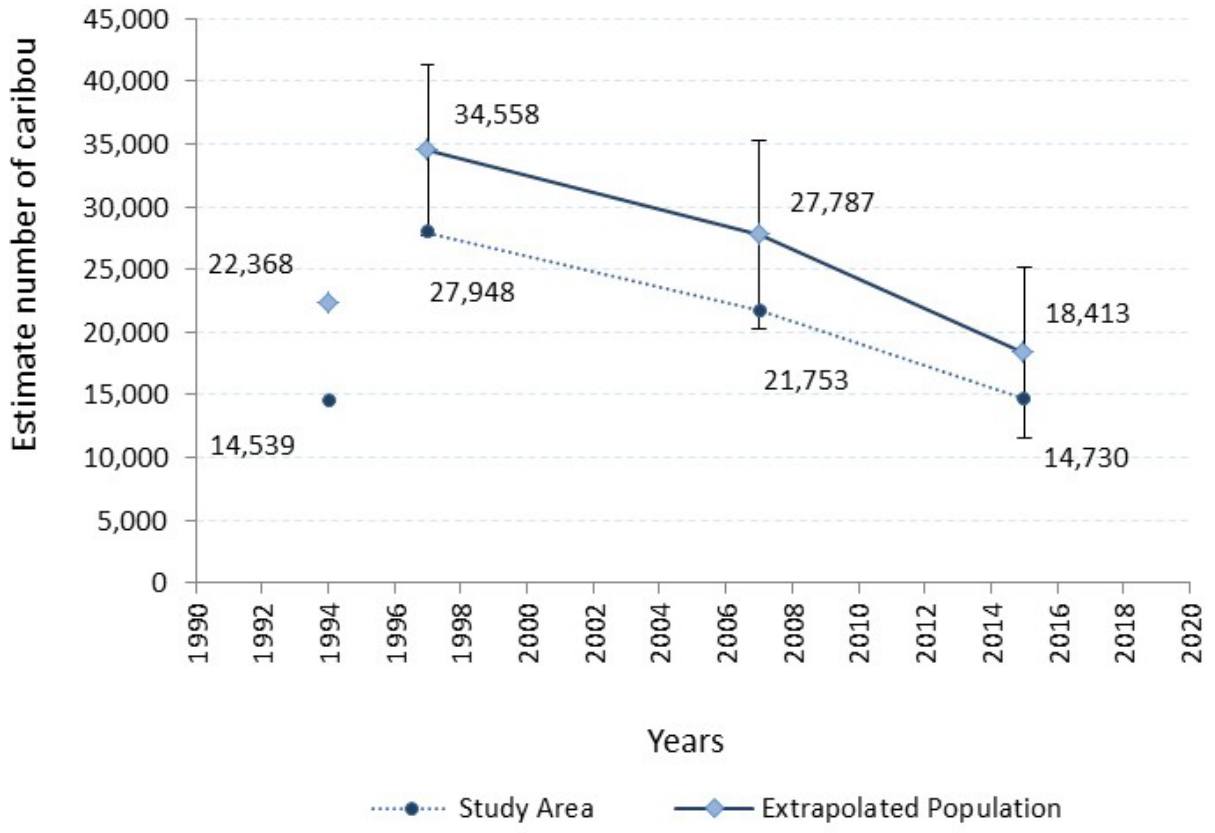


Figure 4. Population estimates (±SE) from 1997 to 2015, and minimum (Nishi and Buckland 2000) and extrapolated (Dumond and Lee 2013) estimates from 1994. Reproduced from GNU and GNWT (2017).

A declining trend since the 1990s is also reported by IQ (ATK) and local knowledge collected in a 2014 study conducted in the community of Ikaluktutiak (Cambridge Bay) on Victoria Island, Kitikmeot Region, Nunavut. Community members observed 80% (75-90%) fewer Dolphin and Union Caribou in the Cambridge Bay area compared to what they used to see in the 1990s, reporting that such declines began around 2005, with a major decline after 2010 (Tomaselli *et al*. 2018). Participants also observed an overall decrease of the young age classes, smaller group sizes, a higher proportion of those in poor body condition and increased observations of diseased animals, thus providing some explanatory factors for the decline (Tomaselli *et al*. 2018).

To place the estimated decline rate over the past three generations into a broader context (Figure 5), the Dolphin and Union Caribou population abruptly declined and experienced a recovery once before over the past century. In the early 1900s, the herd was documented in high numbers, followed by a 50-60-year period of very low densities with no sign of migration across the sea ice. The herd started to increase in the late 1970s, and resumed its migration in the late 1980s (Gunn and Nishi, 1998; Gunn and Fournier, 2000). Numbers increased until the late 1990s and began a decline sometime thereafter, with ATK and survey evidence both pointing to a significant shift in the mid-2000s and accelerated decline since about 2010. Evidence suggests that the severe bottleneck of 100 years ago was caused by the introduction of firearms, possibly interacting with winter icing, and recovery took place over seven decades. Hence the degree to which this population undergoes natural fluctuations similar to other Caribou populations (e.g., COSEWIC 2016) is uncertain (SARC 2013).

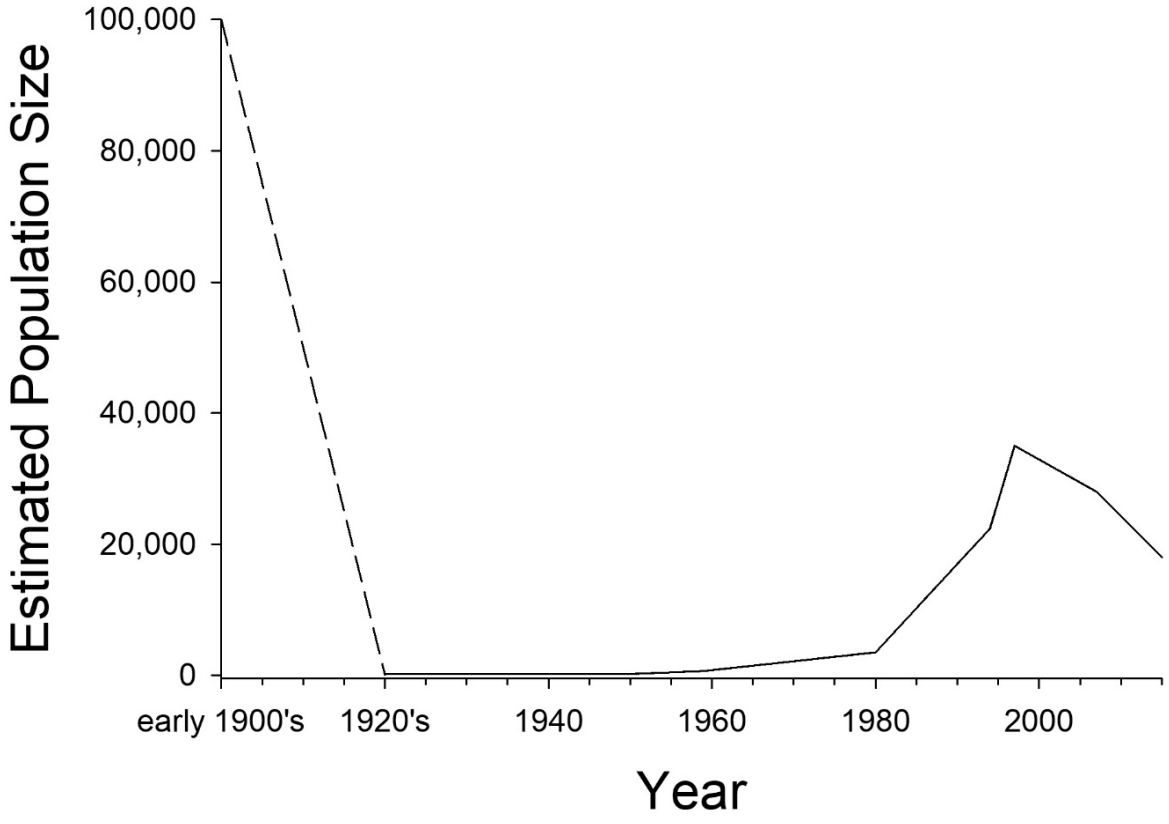


Figure 5. Depiction of approximate population trajectory of Dolphin and Union Caribou since the early 1900s (Anderson 1922, Manning 1960, Banfield 1950, MacPherson 1961, Jackimchuck and Carruthers 1980, Nishi and Buckland 2000, Nishi and Gunn 2004, Dumond and Lee 2013, Leclerc 2016).

Rescue Effect

For the endemic Dolphin and Union Caribou population, there is no possibility of immigration from outside of Canada.

THREATS AND LIMITING FACTORS

Direct threats facing Dolphin and Union Caribou assessed in this report were organized and individually evaluated based on the IUCN-CMP (World Conservation Union-Conservation Measures Partnership) unified threats classification system (Master *et al*. 2009). Threats are defined as the proximate activities or processes that directly and negatively affect each population.

The threat classification table for Dolphin and Union Caribou (Appendix 1) was completed by a panel of IQ, TK and scientific experts on Dolphin and Union Caribou in December 2014 and updated in February 2016. Each threat was assessed separately in relation to its impact, scope, severity and timing.

Narrative descriptions of the threats are provided below in the general order of highest to lowest overall impact threats. For many threats, there was significant uncertainty as to impact. For example, shipping lanes and predation will be high impact under certain future scenarios and how threats interact and potentially compound one another is difficult to discern or predict. Several additional low and medium-impact threats act in tandem, resulting in an overall High-Very High calculated and assigned threat impact.

Shipping lanes (IUCN Threat # 4.3) (High Impact)

Declining sea ice within Canadian Arctic waters (see Sea Ice Loss) offers enhanced opportunities for the Northwest Passage through the Canadian Arctic Archipelago to become a seasonally viable alternative shipping route (Pizzolato *et al*. 2016). Given the Caribou migration across sea ice, increased shipping in the Queen Maud Gulf, Dease Strait, and Dolphin and Union Strait (where the majority of the ships travel) could seriously hinder or delay Dolphin and Union Caribou movements, depending on timing and frequency. The increasingly shorter sea ice season enables increased marine traffic access over an extended time period (Poole *et al*. 2010). Increased icebreaker-supported shipping would exacerbate the climate-induced effect of thinner ice and more lengthy ice-free periods (Poole *et al.* 2010; Gunn *et al.* 2011).

Shipping activity significantly increased from 1990 to 2015 in this southern route of the Northwest Passage (Pizzolato *et al*. 2016). Passages of cruise ships increased more than threefold between 1993 and 2007, although the total number is still low (Judson, 2010, cited in Gunn *et al.* 2011). For the shipping season of 2016, eleven cruise vessels declared itineraries that include voyages within the Canadian Arctic, but these were all during summer months (Marine Security Operations Centre East 2016).

In 2007, Dumond *et al*. (2013) photographed approximately 1,000 Dolphin and Union Caribou trying to migrate across Dease Strait in the fall and being impeded for at least 6 days by an open-water channel that was being maintained by an ice-breaking tug near Cambridge Bay. Local harvesters have noted an increase in the number of Caribou drownings in recent years, sometimes in the hundreds (Thorpe *et al*. 2001; GNU and GNWT 2017; Miller *et al*. 2005; First Joint Meeting 2015; Leclerc 2016; Second Joint Meeting 2016). A ship was recently observed to break through about 30 cm of ice during the third week of October (fall migration) (Ekaluktutiak HTO 2016). With at least 10 cm of ice required to allow Caribou to cross, concerns have been raised that a further increase in shipping traffic will mean there will be inadequate time for the ice to re-freeze (First Joint Meeting 2015). Miller *et al*. (2005) suggested that year-round marine traffic and ice breaking activities could ultimately prevent the Dolphin and Union Caribou's fall and spring migrations altogether and fragment the Dolphin and Union range.

Any population-level impact to Dolphin and Union Caribou from shipping would have to occur through ice-breaking vessels during the time of the sea-ice migration; open water shipping occurring during the ice-free season would not be a direct threat. However, with Dolphin and Union Caribou beginning their crossing as early as October 15 and into December, even 2-3 boats coming through at that time of year could halt or delay the migration and increase Caribou drownings. This threat would depend on when the ice has an opportunity to re-freeze and whether the Caribou die trying to cross the re-freezing ice or become trapped in leads, or open water that develops when sea ice pulls apart. Shipping in late fall, such as early October-end of September, could delay ice formation and impact ice condition (due to leads by ship wakes) (ENR 2015; 2016). The survival rate of satellite-collared adult Dolphin and Union Caribou females during 1999-2006 was lowest during fall and early winter crossing period and then mid- to late winter on the mainland coast (Patterson unpubl. data 2002 in Poole *et al*. 2010). The nature of the risk to Caribou is considerably less on the return migration in late winter-spring from the wintering range on the mainland to calving areas on Victoria Island, given the higher predictability of ice conditions during that time, lack of staging, and relative speed of the migration (Poole *et al*. 2010).

The implications of a delayed or halted migration are uncertain and likely include reduced body condition as the Caribou would be foraging in areas of lower plant productivity and harder wind-packed snow compared to the mainland. If migration was delayed, the Caribou would be staging along the south coast where forage quality is already likely reduced (Nishi and Gunn 2004).

Globally, access to and exploration of Arctic resources (including fisheries, minerals, and tourism) are the chief factors determining the extent of Arctic shipping (Eguíluz *et al*. 2016). For example, among other projects (see **Energy Production and Mining** below) the Nunavut Impact Review Board (NIRB 2017) has been considering a new deepwater port and a road connecting the port to several proposed mines, which will stimulate shipping traffic.

Problematic native species (IUCN Threat #8.2) (High-Low Impact)

Possible multi-prey and predator interactions were noted earlier (see **Interspecific Interactions**). This is a subject of much speculation and a paucity of hard data, such that future population-level impacts remain highly uncertain. Although the impact of Wolf predation on arctic Caribou population dynamics is unknown, many authors consider it likely to become a major threat to recovery when population sizes are low (Nagy *et al*. 1996; Gunn *et al*. 2000b; SARC 2012).

During the meetings to inform the development of the joint management plan for Dolphin and Union Caribou (GNU and GNWT 2017), Inuit and Inuvialuit repeatedly expressed serious concerns over increases in Wolf numbers and potential impacts (Ulukhaktok TK interviews 2011-2013; First Joint Meeting 2015; Ekaluktutiak HTO 2016; Kugluktuk HTO 2016; Second Joint Meeting 2016). SARC (2013) suggested that sympatric Muskoxen populations may support more Wolves, thereby increasing the vulnerability of individual Dolphin and Union Caribou to predation (SARC 2013). However, Muskoxen on Victoria Island are declining more rapidly than Caribou at present (Kutz *et al*., 2016).

Increasing goose populations may be affecting the vegetation, potentially affecting habitat quality of fragile arctic ecosystems (Batt 1997). Potential impacts include vegetation removal through the alteration or elimination of plant communities, and changes to soil salinity, nitrogen dynamics and moisture levels, which may compromise Dolphin and Union Caribou winter habitats and forage (CWS Waterfowl Committee 2014; 2015).

Hunting (IUCN Threat # 5.1) (Medium-Low Impact)

Modern Inuit and the cultures that preceded them, including the Thule from whom Inuit are descended, and the unrelated Dorset and pre-Dorset cultures, have been harvesting Caribou in the region for at least 4,000 years (Manseau *et al.* 2005; Howse 2008; Friesen 2013).

Beneficiaries (i.e., Inuit) of the Nunavut Land Claim Agreement (NLCA) and Inuvialuit Final Agreement are not restricted through legislation from hunting Caribou, unless a conservation issue arises that results in establishing a Total Allowable Harvest (TAH); without a TAH, there is only voluntary report of the Caribou harvested (NLCA, s. 5.6.1; IFA, s.14. (36) (a,b,c,d)). Harvest records in the absence of a TAH and mandatory reporting are not kept consistently, which prevents quantitative analysis or enumeration of trends. The absence of the harvest information becomes a serious threat if a population is declining as the effects of harvesting are known to increase during a decline.

The distribution of the population and movements of individual Caribou relative to human settlements dictate harvesting opportunities and potential population-level impacts. Generally, residents of Cambridge Bay and Ulukhaktok (formerly Holman) harvest Dolphin and Union Caribou in the spring and fall as Caribou migrate between Victoria Island and the mainland. Kugluktuk, Umingmaktok and Kingauk community members harvest during winter and spring. There is also a limited non-resident sport hunt for Dolphin and Union Caribou operated out of Cambridge Bay in the fall (GNU and GNWT 2017).

Subsistence harvesting levels are unknown, given lack of mandatory reporting (SARC 2013). Harvest studies that have relied on voluntary participation (e.g., Inuvialuit Harvest Study 2003, NWMB 2004) are subject to several sources of error and significant inter-annual variability (GNU and GNWT 2017). Unpublished records and estimates compiled by Dumond (2007) and summarized by the SARC (2013) suggested that the total number of all Caribou harvested by Kugluktuk hunters was similar between periods 1997-2001 and 2004-2007 at about 1,000–2,000 animals; however, the Dolphin and Union Caribou proportion of the harvest was estimated to have shifted from about 20%–30% of all Caribou harvested during 1997–2001 to about 75% in 2006–2007. From 1991 through 2010, the hunters in the Prince Albert Sound area of Victoria Island annually harvested 40–400 Dolphin and Union Caribou (SARC 2013).

The number of hunters targeting Dolphin and Union Caribou may be increasing, likely in response to declines in access or availability of other Caribou populations (Second Joint Meeting 2016), yet the overall number of hunters is declining (First Joint Meeting 2015). However, SARC (2013) suggested that the annual harvest may be between 2,000 and 3,000 animals from Nunavut communities and < 200 from NWT, or about 11% of the 2007 corrected population estimate of ca. 27,000 individuals (see **Population Size and Trend**). SARC (2013) commented further that this harvest rate would not be sustainable unless the herd is increasing and has strong calf recruitment. Given the current declining trend, harvesting may become an increasingly important threat, especially if mortality rates from predation or drowning increase.

Changes in hunting technology may have been a cause of the past decline for Dolphin and Union Caribou. The disappearance of the Dolphin and Union Caribou by around 1920 was thought to be due at least in part to hunting following the introduction of firearms (Anderson 1934; Manning 1960). Elias (1993 in COSEWIC 2004) reported from ATK the widespread availability of rifles at this time, and snow machines after the 1960s, which affected hunting efficiency. Several elders reported wastage of meat after high-powered rifles were available and Caribou were killed only for their skins.

Climate change and severe weather (IUCN Threat #11) (Medium-Low Impact)

Climate change is already affecting the Arctic. Inuit of the Kitikmeot region reported for the mainland (Golder Associates Ltd. 2003 and sources therein) a variety of effects including longer summers, unusual freeze-thaw cycles in the spring, earlier spring break-up and open sea-ice, later fall freeze-up, thinner ice (both lakes and sea-ice), lower water levels, less snow, shifts in Caribou migration, and changes in animal distribution

(COSEWIC 2015; GNU and GNWT 2017). Although severe weather events are predicted to increase in frequency and severity, there is considerable uncertainty with respect to location and timing of such events, and the effects on population dynamics within the next three generations.

Habitat Shifting and Alteration (#11.1)

Long-term arctic warming trends are continuing at unprecedented rates. The average surface air temperature for the year ending in September 2016 was the highest recorded since 1900, (Richter-Menge *et al*. 2016), and since 2005 has been higher than for any five-year period since first measured in the 1880s (AMAP 2012). Evidence from lake sediments, tree rings, and ice cores suggest that recent summer temperatures have been higher than at any time in the past 2,000 years (AMAP 2012). Minimum sea ice extent in 2016 was the second lowest since records began in 1979, and spring snow cover extent was the lowest recorded (since 1967) (Richter-Menge *et al*. 2016). Sea-ice thickness is also decreasing and sea-ice cover is increasingly dominated by younger, thinner ice (AMAP 2012).

Future temperatures in the Arctic are difficult to model because of uncertainties regarding extent of snow cover and retreat of sea ice, which are accelerating much faster than previously predicted (see below). Nevertheless, experts agree that by 2100, mean projections for Arctic winter air temperatures under various CO^2 concentration scenarios will be an increase of 2–9 °C above the 1986–2005 average; the highest projections range up to about 15 °C above the 1986–2005 average (IPCC 2013). By 2035, Christensen *et al*. (2013) predicted mean annual surface temperature in the Arctic to rise by 1.5 °C, with mean winter (December to February) temperature expected to increase more than mean summer (June-August) temperature (+1.7 °C winter vs. 1 °C summer). From 1951 to 2008, mean annual precipitation increased by 0.63-5.83 mm/yr/decade across the Arctic (IPCC 2013). Records from NWT Climate stations indicate an increase in snowfall by 20-40% in the Arctic tundra (GNWT 2014). Mean annual precipitation is projected to further increase by 6% in 2035, more in winter than summer (Christensen *et al*. 2013).

This suite of changes will directly affect Dolphin and Union Caribou by leading to sea ice loss, terrestrial habitat changes, and sea level rise. Individually and collectively, these are expected to affect all of Dolphin and Caribou range, with the overall impact ranging from moderate to serious, depending on multiple competing factors.

Sea ice loss:

The most significant impact to Dolphin and Union Caribou habitat from a changing climate is likely to be a reduction in sea ice along the migratory route. Warming temperatures are already delaying ice freeze-up and hastening spring thaw (Miller *et al*. 2005; Gunn 2004; Poole *et al*. 2010; First Joint Meeting 2015; Kugluktuk HTO 2016; Second Joint Meeting 2016). Warmer fall temperatures on the south coast of Victoria Island affect the chances of sea ice becoming sufficiently and uniformly thick during the season. For example, the formation of new ice (<10 cm thick) was delayed by 10 days and grey ice (10-15 cm thick) by 8 days in 2008 compared to 1982 (Poole *et al*. 2010).

There are various consequences to such changes in ice thickness. Deaths of Dolphin and Union Caribou migrating over thin, unstable and freshly formed sea ice are increasingly reported, e.g., through drowning events from falling through thin ice (First Joint Meeting 2015; Second Joint Meeting 2016; SARC 2013). Some proportion of individuals can become stranded on the ice and drift out to sea (Kugluktuk HTO 2016), dying from exhaustion, starvation or hypothermia. Delays in freeze-up can result in attempts to change movement patterns, resulting in wasted energy (GNU and GNWT 2017). The condition of Dolphin and Union Caribou fall ranges can also be affected by later sea ice formation, with delayed migration and longer staging times on the fall range forcing individuals to use up summer fat reserves and increase grazing pressures on the range, as well as increasing the vulnerability of individual animals to predation and hunting (Poole *et al*. 2010). Linked to the longer staging times and consequent increased local densities and social and nutritional stresses, is increased exposure, and susceptibility, to parasites in the environment and those that are contact transmitted (Altizer *et al*., 2013, Kutz *et al*., 2014).

Ultimately, melting of sea ice could eliminate the migration to and from Victoria Island for Dolphin and Union Caribou as a result of the combined impact of climate change and increased shipping. Although migration did cease at one point for this population (see **Migration and Dispersal** and **Population Abundance and Trends**), this resumed once the population reached sufficient numbers, suggesting that a sea-ice connection may be fundamental to the size, sustainability and recovery of Dolphin and Union Caribou (GNU and GNWT 2017; Miller *et al*. 2005; Dumond *et al*. 2013).

The reduction in sea ice and warming of Arctic sea waters also has changed circum-arctic vegetation although the patterns are complex: a satellite-based measure of plant greening (NDVI) increased during 1982–1998, suggesting an earlier green-up of the vegetation but then NDVI declined from 1999–2015 (Bhatt *et al*. 2017). The causes are only just beginning to be understood and underscore the complexity of predicting how climate change will affect Dolphin and Union Caribou.

Terrestrial habitat changes:

Temperature increases (and possibly other climate changes such as increased CO^2) have brought about increases to plant biomass. Ahern (2010) used analysis of the satellite-sensed normalized-difference vegetation index (NDVI) to show that plant growth has increased in the range of Dolphin and Union Caribou over the past 30 years. These changes include plants leafing out and blooming earlier, which correlates with the general warming over the same time period (Oberbauer *et al*. 2013). Ecosystem responses are likely to include displacement of treeline northward by 5–10 km/year, or 500 km this century, and shrinking the global area of tundra by half (Callaghan *et al*. 2005). Although this suggests that forage may be increasingly available on Victoria Island, the greening is due primarily to a vegetation shift to woody biomass (especially evergreen shrubs). Therefore, the extent to which it will improve habitat or forage, and be of sufficient nutritional content for Dolphin and Union Caribou, is unknown.

Sea level rise:

Sea level has risen about 0.19 m in the last 110 years (IPCC 2013). In the next 90 years, sea level is likely to rise further between 0.26 to 0.82 m (IPCC 2013). Such an increase could cause unknown areas of land on Victoria Island to be inundated, resulting in habitat loss for Dolphin and Union Caribou.

Parasites and Diseases (IUCN Threat # 8.1 [Invasive non-native alien species]) (Medium-Low Impact)

Dolphin and Union Caribou are subject to increased levels of parasites, disease and insect harassment, all of which are already exacerbated by a changing climate. Population-level impacts can result from declines in individual body condition, fertility and productivity, and survival. Local communities have reported increasing numbers of diseased Caribou (Poole *et al*. 2010; First Joint Meeting 2015; Tomaselli *et al*. 2018).

Warming temperatures may result in range expansion and/or amplification of temperature-limited pathogens (Dobson *et al*. 2015). For example, in 2010, the Caribou Lungworm, *Varestrongylus eleguneniensis*, previously limited to the mainland, became established on Victoria Island and now cycles in both Caribou and Muskoxen on the island — likely a direct result of climate warming in the region (Kutz *et al*., 2013; Kafle *et al*., unpubl. data). While this parasite is not considered to be particularly pathogenic unless occurring at high intensities, its recent emergence on Victoria Island demonstrates that ecological conditions have changed and are facilitating survival and transmission of some pathogens. This is supported by ATK, IQ and local knowledge where community members are reporting increasing numbers of sick Caribou (Poole *et al*. 2010; First Joint Meeting 2015; Tomaselli *et al*2018). Local people have also noted increased incidence of *Taenia* (tapeworm) cysts and are concerned about the possibility that the Dolphin and Union Caribou are being exposed to more disease by travelling farther to the south (ENR 1998 cited in SARC 2013).

Among the key known parasites and pathogens of concern for the Dolphin and Union Caribou are: the bacteria *Erysipelothrix rhusiopathiae* and *Brucella suis* Biovar 4; gastrointestinal nematodes; and increasing levels of insect harassment.

Erysipelothrix rhusiopathiae, a generalist and opportunistic bacterium, emerged from 2010-2014 as a previously unknown cause of widespread Muskoxen mortalities on Victoria and Banks islands (Kutz *et al*. 2015a). In domestic pigs and poultry, disease caused by this bacterium is often associated with increased stress and can manifest as a variety of syndromes including: skin lesions, arthritis, endocarditis and acute mortality. This bacterium recently has also been implicated in the mortality of boreal woodland Caribou and Muskoxen in Alaska (Schwantje *et al*. 2014; Forde *et al*., 2016; Kutz *et al*., 2017) and there is widespread evidence of exposure (seropositivity) in Caribou across North America, including the Dolphin and Union Caribou (Kutz, Anholt unpubl data). However, its impact on Caribou populations is not known.

Brucella suis Biovar 4 is the bacterium responsible for brucellosis. Brucellosis is an important cause of lameness and infertility in Caribou and has been associated with declines in other populations, e.g., Southampton Island (Kutz *et al*. 2015b). This bacterium is known from Barren-ground Caribou across its range. However, increasing observations of limping animals (Tomaselli *et al*., 2018), recent isolation of the bacterium from a Dolphin and Union Caribou (CWHC) and an increasing number of cases and seropositivity in Muskoxen on Victoria Island (Kutz *et al*. 2015b; Tomaselli *et al*. 2018; Tomaselli, Kutz *et al*., unpubl. data) suggest that this disease may be increasing in frequency on the island.

Gastrointestinal nematodes, particularly those that parasitize the abomasum, are known to negatively impact body condition and fecundity of Caribou (Albon *et al.*, 2002; Stien *et al.* 2002; Irvine *et al.*, 2006; Hughes *et al*., 2009). Hughes *et al*. (2009) found that mature Dolphin and Union Caribou females lost weight with increasing nematode burden, and were thinner with a lower probability of being pregnant with increasing warble infestation — effects that were greater in the non-pregnant fraction of the population.

Rising levels of increased insect harassment (e.g., by mosquitoes, bot flies and warble flies) are already occurring due to longer summers (First Joint Meeting 2015; Russell and Gunn 2016). On Victoria Island, harassment by warble flies and nasal bot flies (*Cephenemyia trompe*) is increasing and warbles are now being seen earlier in summer (Dumond 2007). Cambridge Bay Inuit also reported increasingly numerous mosquitoes on Victoria Island (Bates 2006 in SARC 2013).

Russell and Gunn (2016) found an increasing trend in cumulative June-July growing degree days in the mainland part of the range from 2000-2014 brought about by warming temperatures. The same warming temperatures have increased the trend in the warble fly index, which is based on temperature and wind. SARC (2013) describes how the cumulative warble index and length of warble season increased on average 7% and 2% per decade, respectively, between 1979 and 2009. The number of warbles counted on late winter hides has increased since the later 1980s (SARC 2013).

Each pathogen on its own is often not a concern, but together, and/or with increasing stressors such as climate warming, freezing, disturbance, etc., these can become a significant cumulative factor influencing population dynamics. This is likely going to become an increasingly important issue for the Dolphin and Union Caribou for which climate and isolation resulted in low exposure levels for quite a number of both native and novel pathogens.

<u>Storms and Flooding (11.4) (Medium-Low Impact)</u>

Several high-mortality incidences following severe weather events have been recorded in arctic Caribou populations over the past four decades. For example, Peary Caribou die-offs were linked to unusually warm weather in early winter, which caused the upper few centimetres of snow to melt and then subsequently freeze solid, preventing access to forage. This resulted in 46% (1973-74) and 30% (1996-97) mortality in one winter, and >90% when there were three successive years of severe weather. An event

such as this tends to occur as an ice crust on top of the snow, or the melted snow percolates through the snowpack and refreezes at depth or on contact with the ground (COSEWIC 2015). Such events tend to be localized, but could conceivably affect a large proportion of the Dolphin and Union population, and result in significant mortality through starvation. In the winter of 1987-88, Cambridge Bay hunters reported freezing rain and Dolphin and Union Caribou dying from what appeared to be malnourishment (Gunn and Fournier 2000).

How much of a threat climate change may be to Dolphin and Union Caribou will depend on the frequency and severity of icing (rain-on-snow and melt-freeze) events within their range. Although severe weather events are predicted to increase in frequency and severity (Hansen *et al.* 2011; IPCC 2013), there is considerable uncertainty with respect to location and timing of such events, and the consequent effects on population dynamics within the next three generations. Climate models predict increased frequency and intensity of weather events (Gunn and Skogland 1997; Gunn 1998b; Miller and Gunn 2003; Harding 2004; Tews *et al.* 2007; Sharma *et al.* 2009; Tews *et al.* 2012).

Energy Production and Mining (IUCN Threat #3) (Low Impact)

Within the range of Dolphin and Union Caribou in Kitikmeot region of Nunavut west of Bathurst Inlet, there are currently two operating and two abandoned mines, and four proposals (NIRB 2017) and active mineral leases. These projects have associated infrastructure (roads, transmission lines, ports) and activity (helicopter traffic, vehicle traffic, air charters, blasting, etc.) that will extend the area that is disturbed, and have the potential to facilitate additional development projects. Transport of materials into the mine sites and transport of ore and waste out will likely increase shipping traffic and icebreaking activity in areas used by the Dolphin and Union Caribou in their migrations. For example, a partnership was forged in 2017 between the Government of Nunavut and the Kitikmeot Inuit Association on a proposal for a deep-water port on the Arctic Ocean with a 230-kilometre all-season road into the mineral-rich Slave Geological Province. A future phase would link Nunavut to Canada by road for the first time in Canada's history by extending the all-season road a further 95 km to the NWT border (GNU 2017).

Habitat loss from cumulative impacts of individual projects and associated infrastructure is a chief cause of concern for Caribou in general (Vistnes *et al.* 2008; Festa-Bianchet *et al.* 2011). The scale of development currently being contemplated by industry and the Government of Canada — new ports, mines, roads and expanding human populations (Government of Canada 2013) — may be a threat if not managed as to intensity (cumulative impacts), location, and timing (e.g., migration routes, calving and rutting areas) of construction. Caribou change their behaviour and sometimes avoid industrial activities including roads and off-road vehicle traffic, especially if hunting is associated with the road (Plante *et al.* 2016, Nellemann and Cameron 1998); they also respond to helicopters (Gunn and Miller 1980). Although these effects are localized, they may involve increased energy expenditure during nutritionally challenging periods and displacement from preferred habitats.

Number of Locations

The opening of the Northwest Passage bordering Victoria Island as a shipping channel and ensuing boat traffic, if it occurs during times when members of the population are crossing the ice or prevents/delays ice formation, is a plausible threat to Dolphin and Union Caribou (see **Threats**). If this were to occur, it would disrupt the annual migration, with unknown but potentially serious consequences to the population, thereby meeting the definition of one location.

PROTECTION, STATUS AND RANKS

Dolphin and Union Caribou are co-managed in Nunavut according to the NLCA, and are co-managed in the Northwest Territories according to the Inuvialuit Final Agreement. These agreements confer primary wildlife management authority on the respective management boards: the Nunavut Wildlife Management Board and, in the NWT, the Wildlife Management Advisory Council (NWT), and the Inuvialuit Game Council.

Legal Protection and Status

Dolphin and Union Caribou are currently classified as Special Concern under the federal *Species at Risk Act* (Part 4 Schedule 1; Canada Gazette Part II, Vol. 145, No. 4, 2011-02-16). Under the territorial *Species at Risk (NWT) Act*, they were listed as Special Concern in 2015. Regulations for Species at Risk designation under the *Nunavut Wildlife Act* (2011) have not yet been enacted. COSEWIC originally assessed Dolphin and Union Caribou as Special Concern in May 2004, and this population was reassessed as Endangered in November 2017.

Non-Legal Status and Ranks

Globally, Caribou was listed by the International Union for Conservation of Nature (IUCN) as Least Concern until 2016, when the species was re-assessed as Vulnerable (IUCN 2016). Caribou subspecies or ecotypes are not differentiated.

NatureServe ranked Caribou (*R. tarandus*) as secure globally and Not Yet Ranked for Dolphin and Union Caribou (as defined by COSEWIC) in 2012. It is ranked imperiled-vulnerable at the national level (N2N3), imperiled-vulnerable (S2S3) in the NWT and unranked (SNR) in Nunavut (NatureServe 2017). The 2015 national general status for Caribou in Canada will not be available until the 2015 General Status Report is published in August 2017. This Canada-wide rank will apply to all designatable units of Caribou combined, with no specific rank to Dolphin and Union Caribou. The 2015 territorial rank for NWT is S3 (Sensitive) (WGGSNS 2016). At present, there is no specific rank for Barren-ground Caribou for NU; however, for all DUs combined, the territory-specific general status rank in Nunavut is S4 (Apparently Secure) (Etiendem, pers. comm. 2017).

Habitat Protection and Ownership

Tuktuk Nogait National Park includes coastline in the southwestern portion of Dolphin and Union Caribou range. The Queen Maud Gulf Bird Sanctuary, located on the mainland across from Cambridge Bay, overlaps with a portion of the wintering range. This offers some level of habitat protection against industrial and major infrastructure developments.

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BIOGRAPHICAL SUMMARY OF REPORT WRITER(S)

Dr. Justina Ray is President and Senior Scientist of the Wildlife Conservation Society Canada and has been co-chair of COSEWIC's Terrestrial Mammals Subcommittee since 2009. In addition to overseeing the operations of WCS Canada, she is involved in research and policy activities associated with conservation planning in northern landscapes, with a particular focus on Wolverine and Caribou. Although she worked for years in African and Asian tropical forests, North America has been her predominant geographic focus over the past two decades. She is a member of the IUCN Taskforce on Biodiversity and Protected Areas. She is Adjunct Professor at the University of Toronto (Faculty of Forestry) and Trent University (Environmental & Life Sciences Graduate Program).

Dr. Lee E. Harding has a BSc in wildlife management and a PhD in wildlife toxicology. He is the principal of SciWrite Environmental Sciences Ltd. and was formerly a senior biologist and science program manager with Environment Canada from 1976 until he took early retirement in 1997. From 1977 to 1980 he managed the Impact Assessment division of the Environmental Protection Service district office in Yellowknife, NWT. During 1972-1976, as an environmental consultant assessing the impact of industrial developments in the Arctic, he studied Barren-ground Caribou and reindeer in the Mackenzie Delta, Mountain Caribou in British Columbia and Yukon and Peary Caribou on Bathurst, Melville and Little Cornwallis Islands. He first called attention to the possible endangered status of British Columbia's Mountain Caribou in a magazine article in 1975. He was the author of the 2004 COSEWIC re-assessment of Peary Caribou and Dolphin and Union Caribou.

Appendix 1. Threats Assessment for Caribou, Dolphin and Union population.

Species or Ecosystem Scientific Name	Dolphin & Union Caribou (DU2)
Element ID	**Elcode**
Date (Ctrl + ";" for today's date):	08/12/2014
Assessor(s):	Meeting #1: Justina Ray (COSEWIC), Dave Fraser (COSEWIC, BC), Suzanne Carriere (COSEWIC, NWT), Nic Larter (COSEWIC, NWT), Donna Hurlburt (COSEWIC, ATK), Lee Harding (report writer), Tracy Davison (GNWT), Lisa Worthington (GNWT), Lisa-Marie LeClerc (GNU), Melanie Wilson (GNU), Donna Bigelow (EC/ CWS), Dawn Andrews (EC/CWS), Lisa Pirie (EC/CWS), Kim Poole (Aurora Wildlife Research), David Nivingalok (Kugluktuk HTA), Kevin Klengenberg (Kugluktuk HTA), Ema Qaggutaq (Kitikmeot Regional Wildlife Board), Joseph Oliktoak (Olohaktomiut HTC) Meeting #2: Justina Ray (COSEWIC), David Fraser (COSEWIC), Lisa-Marie LeClerc (GNU), Ema Qaggutaq (KRWB), Amy Ganton (EC/CWS), Isabelle Duclos (EC/CWS), Peter Sinkins (Parks Canada), Jimmy Haniliak (Ekaluktutiak HTA), Howard Greenley (Ekaluktutiak HTA), George Angohiatok (Ekaluktutiak HTA), Joshua Oliktoak (Olohaktomiut HTC), Myles Lamont (GNU), Diane Ruben (Paulatuk HTC), Joe Illasiak (Paulatuk HTC).
References:	

Overall Threat Impact Calculation Help:

Threat Impact		Level 1 Threat Impact Counts: high range	low range
A	Very High	0	0
B	High	2	1
C	Medium	2	0
D	Low	1	4
	Calculated Overall Threat Impact:	Very High	High

Assigned Overall Threat Impact:	**AB = Very High - High**
Impact Adjustment Reasons:	
Overall Threat Comments	***Two threat calculator meetings were held (8/12/2014 and 8/2/2016), and results were combined***

Threat		Impact (calculated)		Scope (next 10 Yrs)	Severity (10 Yrs or 3 Gen.)	Timing	Comments
1	Residential & commercial development		Negligible	Negligible (<1%)	Extreme (71-100%)	High (Continuing)	
1.1	Housing & urban areas		Negligible	Negligible (<1%)	Extreme (71-100%)	High (Continuing)	Scope includes portion of species range that is alienated by human settlements plus a buffer zone for animals displaced by disturbance. There is the possibility that municipal boundaries may increase in the coming years, but this still makes the scope very low. Although very few D&U animals are or will be exposed to this threat, any that come within a certain distance of human settlements will very likely be killed, hence the high severity.

Threat		Impact (calculated)		Scope (next 10 Yrs)	Severity (10 Yrs or 3 Gen.)	Timing	Comments
1.2	Commercial & industrial areas						
1.3	Tourism & recreation areas						
2	Agriculture & aquaculture						
2.1	Annual & perennial non-timber crops						
2.2	Wood & pulp plantations						
2.3	Livestock farming & ranching						
2.4	Marine & freshwater aquaculture						
3	Energy production & mining	D	Low	Restricted (11-30%)	Slight (1-10%)		
3.1	Oil & gas drilling		Not Calculated (outside assessment timeframe)			Insignificant/Negligible (Past or no direct effect)	No seismic activity or O&G development at present, and not expected in the foreseeable future within the D&U range
3.2	Mining & quarrying	D	Low	Restricted (11-30%)	Slight (1-10%)	High (Continuing)	The scope is currently very low, but it is plausible for this to increase with a higher percentage of the population being directly affected by mines themselves within the next 10 years. This does not include shipping, flights, or roads associated with mines, which are counted elsewhere here. Most direct mortality from the mines themselves will be very low.
3.3	Renewable energy						
4	Transportation & service corridors	B	High	Pervasive - Large (31-100%)	Serious (31-70%)	Moderate (Possibly in the short term, < 10 yrs)	

Threat		Impact (calculated)		Scope (next 10 Yrs)	Severity (10 Yrs or 3 Gen.)	Timing	Comments
4.1	Roads & railroads	D	Low	Restricted (11-30%)	Slight (1-10%)	Moderate (Possibly in the short term, < 10 yrs)	Currently the scope is negligible but if MMG/Izok Corridor proceeds with its project for a mine with an all-weather road from the coast 325 km inland, (or a similar one, e.g., within the Hope Bay greenstone belt) the impact of roads would greatly increase. It is possible that other development will happen in next 10 years. It is not believed that this project would include a network of winter roads coming off the all-weather road. Even one road, depending on where it is situated, could be encountered by a large proportion of the population. The direct impact of that road (mortality) will still be low, even if indirect effects are high
4.2	Utility & service lines		Negligible	Negligible (<1%)	Negligible (<1%)	Unknown	
4.3	Shipping lanes	B	High	Pervasive - Large (31-100%)	Serious (31-70%)	High (Continuing)	Category includes both open water and ice-breaker shipping. Open water shipping (which currently occurs) is not an issue, rather impact is entirely from winter shipping that involves any ice breaking (including relatively thin ice that does not qualify as ice breaking by Transport Canada definitions). Currently most activity is local ice-breaking activity early season around Cambridge Bay, but occasional ships are passing through so this threat is already occurring. The current proposal for shipping out of the bottom of Bathurst inlet could affect half the D-U population. Impact of shipping depends on timing. Caribou can start crossing as early as October 15 and into December. 2-3 boats during migration could entirely stop migration and cause 40% of the animals to drown. On the other hand, the whole population doesn't cross at same time and ice can refreeze between crossings. Not every icebreaking event will cause massive fatalities.
4.4	Flight paths	D	Low	Restricted (11-30%)	Slight (1-10%)	High (Continuing)	Category is for regularly scheduled flights, i.e., to mines. The possibility of scheduled flights increasing significantly, especially when/if proposed projects start operating. Large planes to mines could be more than flights to communities. On the other hand, flights are mostly high, and only go only low for landing. Modelling work has shown relatively low direct impact. Severity is likely at the low end of slight (1-10%) range. If flight paths were to change to impact calving, the severity would increase.

Threat		Impact (calculated)		Scope (next 10 Yrs)	Severity (10 Yrs or 3 Gen.)	Timing	Comments
5	Biological resource use	CD	Medium - Low	Pervasive (71-100%)	Moderate - Slight (1-30%)	High (Continuing)	
5.1	Hunting & collecting terrestrial animals	CD	Medium - Low	Pervasive (71-100%)	Moderate - Slight (1-30%)	High (Continuing)	Harvesting of Dolphin-Union Caribou is unregulated. There is no hunting season or limit. Harvest levels change depending on location of Caribou in a given year, and availability of other harvested species. 3 communities harvest Dolphin-Union Caribou: Ulukhaktok (harvest in summer), Cambridge Bay (harvest in fall), and Kugluktuk (harvest in winter and spring when they come across the ice). There may be a shift in harvest from mainland Caribou, which are in steep decline. D&U population has declined since the last surveys, but has also changed its distribution such that animals are not so accessible to these communities anymore. This will decrease harvest. Very large range of uncertainty in severity due to unknown harvest levels and uncertainty of population numbers in the future. Score for severity encompasses both worst and best case scenarios. Also, a change in distribution may expose animals to harvest elsewhere.
5.2	Gathering terrestrial plants						
5.3	Logging & wood harvesting						
5.4	Fishing & harvesting aquatic resources						
6	Human intrusions & disturbance		Negligible	Restricted (11-30%)	Negligible (<1%)	High (Continuing)	
6.1	Recreational activities		Negligible	Negligible (<1%)	Negligible (<1%)	High (Continuing)	
6.2	War, civil unrest & military exercises		Not Calculated (outside assessment timeframe)			Insignificant/Negligible (Past or no direct effect)	Military exercises not a threat in this region; no seasonal overlap with D&U Caribou
6.3	Work & other activities		Negligible	Restricted (11-30%)	Negligible (<1%)	High (Continuing)	Includes (primarily) research activities (e.g., surveys and capture/collaring)
7	Natural system modifications						
7.1	Fire & fire suppression						

Threat		Impact (calculated)		Scope (next 10 Yrs)	Severity (10 Yrs or 3 Gen.)	Timing	Comments
7.2	Dams & water management/use						
7.3	Other ecosystem modifications						
8	Invasive & other problematic species & genes	BD	High - Low	Pervasive (71-100%)	Serious - Slight (1-70%)	High (Continuing)	
8.1	Invasive non-native/alien species	CD	Medium - Low	Large - Restricted (11-70%)	Moderate (11-30%)	High (Continuing)	This category includes all diseases and pathogens (both native and non-native). Climate change expected to increase parasites and disease. Parasites increasing and expected to increase further. Lungworm increasing in muskox, but not necessarily fatal. We do have to include that we seeing evidence that there is potential for more to occur. Biting flies are also an issue
8.2	Problematic native species	BD	High - Low	Pervasive (71-100%)	Serious - Slight (1-70%)	High (Continuing)	This category includes all predator/competitor interactions (both native and non-native). Grizzly bears have moved into Victoria Island in the last decade or so can have an impact on numbers. Wolves have increased on Victoria Island. Given the multi-prey interactions, predators like wolves have potential to wipe out Caribou when muskox numbers are high. Impact is greater with a small population, and less when they have the opportunity to escape the predators. Severity and Scope could be high during the fall migration while they are waiting for the sea ice to form, but there is enormous uncertainty.
8.3	Introduced genetic material		Unknown	Large - Small (1-70%)	Unknown	High (Continuing)	Interbreeding with Barren-ground and Peary Caribou. Although there are some claims that D&U is a hybrid (Rangifer groenlandicus x pearyi), this is not accurate. Genetics work over past decade shows Dolphin-Union as a genetically distinct population with a very small amount of Peary intergradation. A significant number of individuals would need to be inter-breeding to impact population. Communities have seen Peary Caribou traveling with D&U, Barrenground traveling with D&U (more rare). Chances of hybridization are low due to the separation of the rutting grounds. Likely on the low end of both the scope and severity ranges, although the higher degree of uncertainty on severity reflects our lack of knowledge on the impacts of interbreeding. Really, particularly considering ATK, the impacts are unknown.

Threat		Impact (calculated)		Scope (next 10 Yrs)	Severity (10 Yrs or 3 Gen.)	Timing	Comments
9	Pollution						
9.1	Household sewage & urban waste water						
9.2	Industrial & military effluents						
9.3	Agricultural & forestry effluents						
9.4	Garbage & solid waste						Contaminants are not currently regarded as a threat, given successful clean-up of the Dew Line.
9.5	Air-borne pollutants						
9.6	Excess energy						
10	Geological events						
10.1	Volcanoes						
10.2	Earthquakes/tsunamis						
10.3	Avalanches/landslides						
11	Climate change & severe weather	CD	Medium - Low	Pervasive (71-100%)	Moderate - Slight (1-30%)	High (Continuing)	
11.1	Habitat shifting & alteration	CD	Medium - Low	Pervasive (71-100%)	Moderate - Slight (1-30%)	High (Continuing)	Category includes changes to habitat (vegetation and ice) conditions due to climate change over the next decade. Scope will affect entire population. With respect to severity, there is and will be much variability (i.e., positive and negative effect). Could get a trophic shift where there is a mismatch of greening and Caribou life cycle, which could affect calving and calf survival. There is also a possibility that forage could increase with climate change. In either case, severity is not likely to be very severe. Could get a bad year or two, but will recover unless hits every year repeatedly, which is unlikely. With respect to ice, there is a small core area for Dolphin-Union, so ice conditions aren't as big a threat as they were to Peary Caribou.
11.2	Droughts						
11.3	Temperature extremes						

Threat		Impact (calculated)		Scope (next 10 Yrs)	Severity (10 Yrs or 3 Gen.)	Timing	Comments
11.4	Storms & flooding	CD	Medium - Low	Large (31-70%)	Moderate - Slight (1-30%)	Moderate (Possibly in the short term, < 10 yrs)	Icing events (storms) not as big an issue for Dolphin-Union as it is for Peary, and is currently unknown for D&U. Scope: Because winter range is a small area, one storm event could impact a large portion of the population. Over 3 generations, expect to be able to recover from a weather event, unless happens repeatedly year after year. Less likely to have bad weather events for multiple years in a row, which would knock back the population without a chance for recovery.

Classification of Threats adopted from IUC

ᐅᐃᒍᓕᓐᖏᑦ ᐃ: ᑲᑎᒪᒍᑎᓴᐊᐃᑦ ᐃᓗᓕᓐᖏᑎᑦ

1. ᑎᑎᕃᑕᐅᓕᐅᕃᑎᓐᓇᒍ ᑕᔪᑎᓴᓯᓗᑎᑦ ᑐᑭᓯᑎᓴᓯᑎᐊᑭᑎᓴᓴᖏᑦ 2019ᒥ
2. ᐊᑦᑕᓇᕃᑐᑦᑐ ᖏᕐᔨᕐᑦ ᓇᓗᓇᐃᕃᑕᐅᓯᒪᖏᓐᖑᓐᓄᑦ ᐃᓅᓴᑦᓕᓗᐊᕐᖏᓐᖑᓐᓄᑦ ᑲᓇᑕᒥ ᓅᐃᓅᕃᓯᒪᑦᓗᑎᑦ ᑎᑎᕃᑲᑦ
3. ᑕᔪᑎᑕᐅᑦᓗᑎᑦ ᕃᑲᓄᐃᕓᓐᒪᓕᕐᖏᓐᖑᓐᖓᑦ ᑲᑎᒪᑎᓴᓯᑦᓗᑎᑎ ᐃᕐᕿᐊᓕᓐ 2021ᖓᑎᑦᓗᒍ
4. ᑕᔪᑎᓴᓯᑦᓗᑎᑦ ᕃᑲᓄᕃ ᐊᑦᑐᑦᑕᐅᑕᖏᓐᒪᖏᓐᒪᑕ ᑕᒪᑲᔪᐊ ᑎᑎᕃᑕᐅᓯᒪᓕᓐᒪᑦᐸᒪ ᕃᔪᕐᓯᓯᖏᓕᕃᑲᔪᑦ ᓄᓇᓕᓐᒥᐅᑦ ᐊᓱᒪᓗ ᐅᕃᑲᐅᓯᐅᔪᑦ ᕃᑲᓄᐃᕓᓐᒪᔪᓐᓇᓂᓕᓐᖏᓐᖑᓐᓄᑦ ᐃᓕᓯᔪᓐᓇᕃᑦᓗᑐ ᐅᐃᒍᓕᓐᒥᑦ ᑎᑎᕃᑕᐅᓕᐅᓐᖏᑎᓴᓗᒍ ᑲᑎᒪᑎᓴᓯᕃᔨᓐᓂᑦ

ᐅΔᒍᓪᓂᕐ Δ-1: ᑎᑎᖅᑕᐅᓪᓗᐅᖅᑎᓂᓇᒍ ᕕᔪᑎᖕᓗᑎᕐ ᑐᑭᔾᔪᑎᖕᐊᑭᑎᖕᖏᓂᕐ 2019ᒥ 2. ᐊᕐᕕᓇᖅᑐᒋᕐᑐ ᓂᖕᕐᔨᑦᕐ ᐅᓗᐅᓇᐃᖅᑕᐅᔪᒪᓂᖅᑎᑦᓂᓂᖅ ᐃᓅᔭᖕᓕᓗᖕᓂᖅᑎᑦᓂᓂᖅ ᑲᓇᕕᒥ ᐅᓇᓇᖅᔪᒪᓕᓗᑎᑦᓂᓂᖅ ᑎᑎᖅᑲᕐ

ᑭᖅᔪᓪᒪᓂᕐ ᐊᓖᒪᓗ ᐅᒪᔨᵒᓂᐊᖅᑎᖅᔪᵒᓂᕐ ᐃᖅᓗᓄᑦᑐᐊᒥ ᖁᔪᓄᑦᑐᑦᓂᓗ ᑎᑎᖅᑲᕐᓂᖅ.

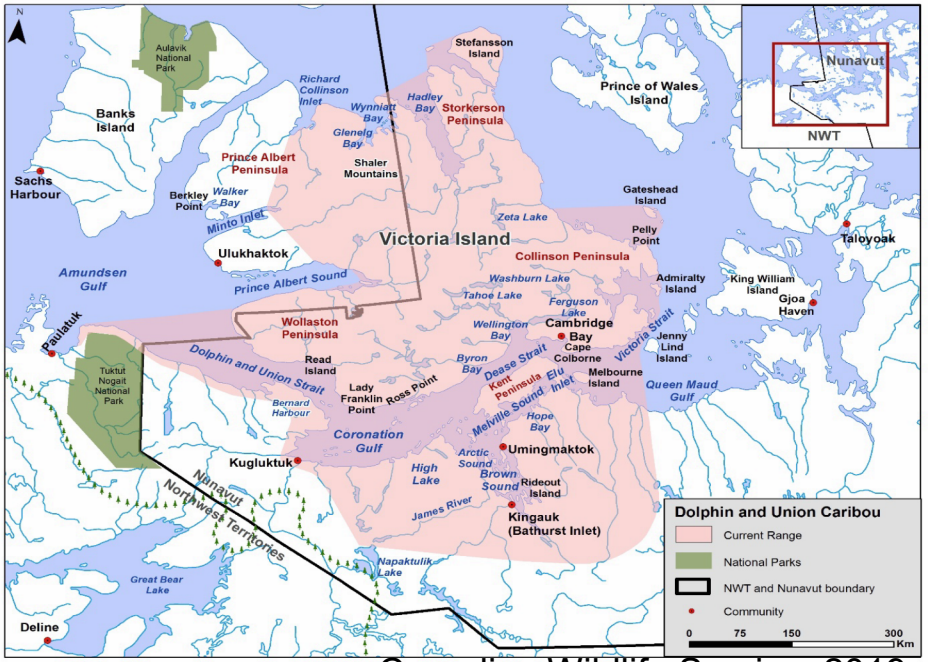
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ᑭᓪᓗᓂᐅᕐᓴ ᐃᑭᖏᕆᓂᓗ ᑐᑦᑐᖅᑎᑦ

ᐅᑯᐊᑦᑕᐅ ᐃᓕᒋᕆᐅᖅᑲᓂᕆᓇᖅᓂᖅᓴᖅᓂᑦ ᐅᓗᓇᐊᓪᓚᖅᑐᑦᑐᑦ ᓂᕐᔪᑎᑦ ᐱᓪᓗᒋᑦ ᑲᓇᑕᖅᑐᑦ ᐱᓪᓗᒋᑦ ᐅᓗᓇᐊᓪᓚᕐᓂᖅᓯᓪᓗᒋᑦ ᐱᕐᕿᖅᖢᑦ?



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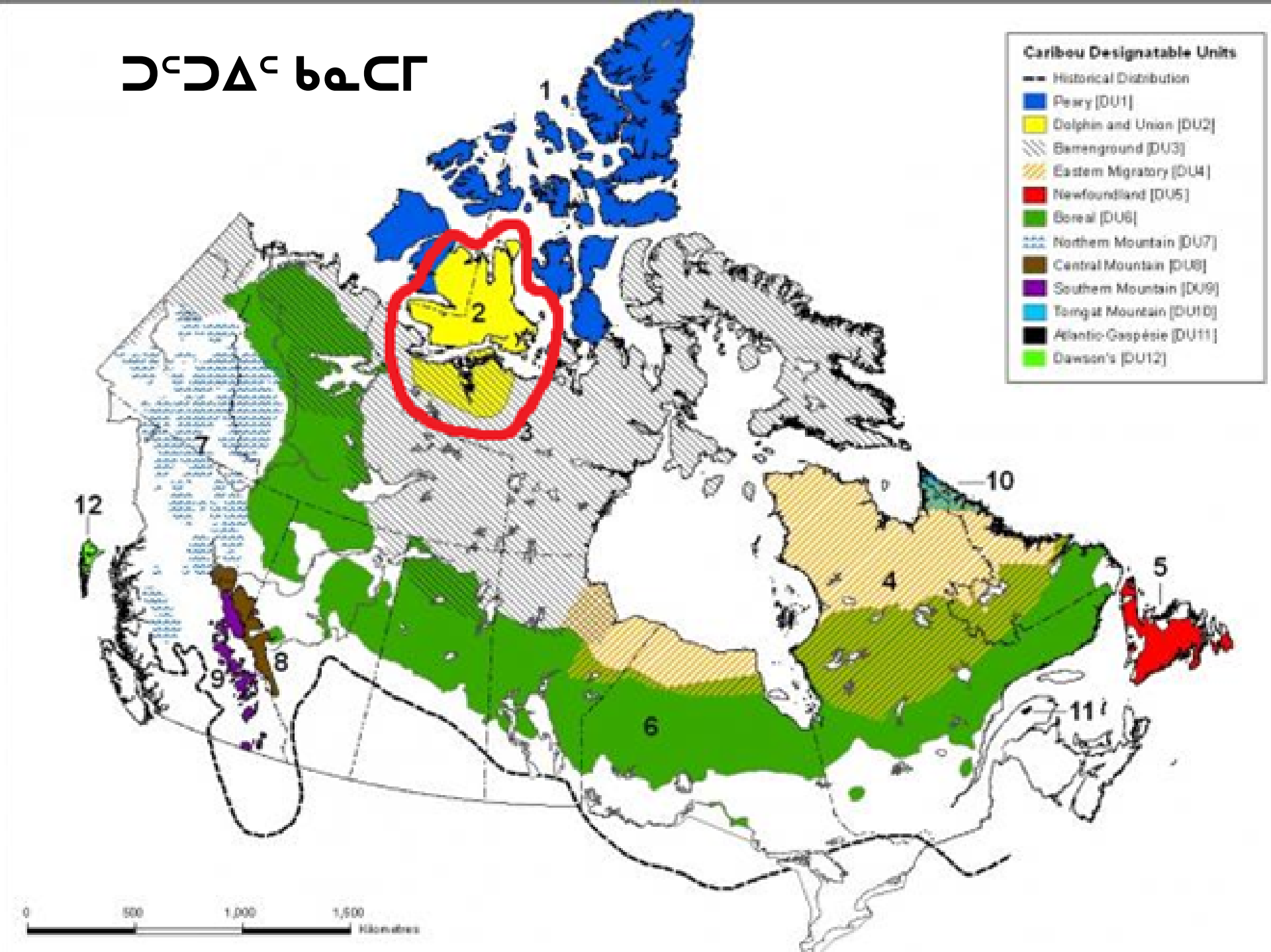


Canadian Wildlife Service, 2019

ᓂᕐᔪᑎᑦ ᐅᓗᓇᐊᓪᓚᕐᓂᖅᓯᓪᓗᒋᑦ ᐱᕐᕿᖅᓯᐊᓂᕐᒧᑦ ᐱᓕᕐᓂᐅᑉᐱᖅᓯᑦ:

- ᐊᓯᕈᐃᓗᐊᖅᑕᐃᓕᓂᓐᓄᑦ ᐱᕈᖅᑐᒥᓂᓐᓂᑦ ᐊᑭᒪᓗ ᓂᕐᔪᑎᑦ ᐱᓕᓗᑎᑦ ᓄᖅᓴᕐᕿᓐᓂᑦ ᑲᓇᑕᒥ
- ᑕᒪᖅᕿᐊ ᐅᒪᔨᐃᑦ ᐊᑦᑕᕆᔨᐅᓕᖅᑐᑦ ᖃᓄᖅᑐᐃᔨᑎᓄᑦ ᐃᓐᓇᐃᔨᑎᓕᑎᑦ ᐊᐅᓚᓂᖅᑭᓯᓂᖅᒥᑦ ᐃᓯᒪᔨᑎᓕᑎᑦ ᐊᐅᓚᓂᖅᑭᓯᓂᖅᒥᑦ ᐃᓕᓴᕐᓂᐅᔪᓐᓇᑦ.

ᑐᑦᑐᐃᑦ ᑲᓇᑕᒥ


Caribou Designatable Units
Historical Distribution
Peary [DU1]
Dolphin and Union [DU2]
Barrenground [DU3]
Eastern Migratory [DU4]
Newfoundland [DU5]
Boreal [DU6]
Northern Mountain [DU7]
Central Mountain [DU8]
Southern Mountain [DU9]
Torngat Mountain [DU10]
Atlantic-Gaspésie [DU11]
Dawson's [DU12]
1
2
3
4
5
6
7
8
9
10
11
12
0
500
1,000
1,500
Kilometres

ᐅᒪᓴᐃᑦ ᐃᓕᓴᐧᐃᑯᑦ ᐃᓱᒪᓗᓂᓐᓇᖅᑐᒋᓂᖅᓯᓂᑦ ᐊᓚᒪᓗ ᐅᓗᓍᐊᓂᓐᓇᖅᑐᒋᑦᑐ

ᖃᐅᓂᒃᑯᑦᑐᖅ

ᓄᖅᑐᐊᑭᓕᖅᓯᖅᑐᓂ



ᓂᕿᐊᕆᑦ ᓄᖅᓱᖅᓯᖅᑐᑦ ᓄᓇᒥᑦ ᐱᒋᐊᖅᑕᐅᔪᖅᑎᒋᑦᑐᖅᓯᓂ ᐊᑐᓚᐊᓕᒃ. 2017

ᐅᓗᓍᐊᓇᖅᑐᒋᓐᓂᖅ

ᐃᓱᒪᓗᓂᓐᓇᖅᑐᒋᓕᕆᓂᖅᓯᓂ

ᐅᓗᓍᐊᓂᓐᓇᖅᑐᒋᓐᓂᖅᓯᓂᖅᑐᓂ

2004

ᓂᕿᐊᕆᑦ ᓱᓕ ᐊᒥᓱᓂᖅᑐᓂᓂᑦ ᐃᓱᒪᓗᓂᓐᓇᖅᑐᖃᖅᑎᓕᑦ, ᑭᓱᐊᓂ ᐃᓕᓐᓄᒐᔪᓕᕆᓂᖅᑐᑦ ᐅᓴᓐᓇᖅᓱᓪᓕᐊᓂᖅᑐᓂᑦ ᐅᓪᓗᓈᓐᓄᐧᐊᑦ ᓂᓚᐅᑎᔪᖅᑕᐅᓴᓂᖅᑐᓄᑦ ᑕᐃᒪᑦ ᑕᒪᐅᔪᐊ ᓄᑦᑐᑦ ᐅᓪᓗᓈᓐᓇᖅᑐᑦ ᐊᑎᓐᓄᑦᑐᑦ ᐅᓗᓍᐊᓇᖅᑐᒋᑦ ᐊᑎᖅᑐᑦ ᐱᓕᕆᑦ.

ᐅᓗᓍᐊᓇᖅᑐᒋᓐᓇᖅᑐᓂᖅᓯᓂᖅᑐᓂ

ᓴᐳᑦᑐᑦ

ᓇᒧᓕᖅᐱᒋᓕ ᐅᓪᓗᒥ ᐊᑐᖅᑕᕐᑎᓵᓂᕐ?

ᖃᐅᔨᓴᖅᑕᐅᑲᓚᐅᓂᖏᑦ

ᖃᐅᔨᓴᖅᑕᐅᓯᒪᔪᑦ
*ᐊᑦᑕᓇᖅᑐᑭᑦᑐ ᓂᕆᔨᒃᑦ
ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᕐᓗᓂ
ᐃᓐᓴᓕᓗᑐᐊᖅᓂᕐᓗᓂ ᑲᓇᑕᒥ*

ᐊᓪᓚᕆᐅᒋᐊᓕᖅᑲᐃ
ᓂᕆᔨᒃᑦ
ᐅᓗᓂᐊᓇᓐᓂᕐᓂᓐᓂᑦᑐ
ᕿᓐᓄᐊᖅᑐᑦ
ᐊᑎᖅᐳᖅᑐᑐᓗᓂᕐᓗᓂ?
*ᓴᖅᒪᑐᖅᑲᐃᓂᓂᑦ
ᐱᓕᕆᔨᓯᒋᑦ*

ᐅᑎᖅᑎᖅᓯᓂᖅᓱᒪᔪᑦ
ᕿᓐᓄᕿᑦᓕᐊᓂᕐᒪᑦ

ᓂᕆᔨᒃᑦ
ᐅᓗᓂᐊᓇᓐᓂᕐᓂᓐᓂᑦᑐᑦᑐᑦ
ᐱᓐᓴᖅᐅ ᐊᑐᓕᖅᑎᓂᐅᓂᖓᓐᓄᑦ:

- ᐅᑎᖅᑎᓴᓇᓯᓂᖓᓪᓗᑦ ᐊᓴᓗᓗ ᐱᑎᐊᓕᖅᑎᓴᓂᖅᖢᖅ ᖃᓇᖅᑐᐅᑭᐊᑎᓴᓗᑦ ᕿᓐᓄᐅᑎ.
- ᐊᑐᖅᑕᕐᓕᓂᐅᔨᑦ ᐊᖅᑯᒃᑦ

ᐃᓕᓴᕐᓂᐊᕐᓂᖅ

ᐃᓕᓐᓴᐅᕐᓇᖅᑐᖅᑐᑐᓗᓂ
ᖃᐅᔨᓴᖅᑕᐅᓯᒪᔪᑦ
ᐊᑐᖅᑕᕐᓕᓂᐅᓂᖓᓐᓄᑦ:

- ᐅᑎᖅᑎᓴᓇᓯᓂᖓᓪᓗᑦ ᐊᓴᓗᓗ ᐱᑎᐊᓕᖅᑎᓴᓂᖅᖢᖅ ᖃᓇᖅᑐᐅᑭᐊᑎᓴᓗᑦ ᕿᓐᓄᐅᑎ.
- ᐊᑐᖅᑕᕐᓕᓂᐅᔨᑦ ᐊᖅᑯᒃᑦ

ᐃᓐᓴᐅᕐᓇᖅᑐᖅᑐᑐᓗᓂ
ᐅᓗᓂᐊᓇᓐᓂᕐᓂᓐᓂᑦᑐᑦᑐᑦ
ᐊᑐᖅᑕᕐᓕᓂᐅᓂᖓᓐᓄᑦ:

- ᐅᑎᖅᑎᓴᓇᓯᓂᖓᓪᓗᑦ ᐊᓴᓗᓗ ᐱᑎᐊᓕᖅᑎᓴᓂᖅᖢᖅ ᖃᓇᖅᑐᐅᑭᐊᑎᓴᓗᑦ ᕿᓐᓄᐅᑎ.
- ᐊᑐᖅᑕᕐᓕᓂᐅᔨᑦ ᐊᖅᑯᒃᑦ

ᐊᓴᓐᓂᓱᓴᒃᑯᑦ ᐊᓴᓗᓗ
ᓯᓚᓐᓂᐊᖅᑎᒃᑯᑦ
ᐊᔪᓴᖅᑎᓂᐅᓂᖓᓪᓗᑦ ᖃᓇᖅᑐᖅ
ᐊᑲᓴᖅᑎᑎᓯᒪᓂᕐᑐᖅᑐᑦ.

ᓴᓇᒪᑐᖅᑲᐃᓂᑦ ᐊᓴᓐᓂᓱᓴᓪᓗᑦ
ᓯᐅᓂᕐᑎᓐᓄᑦ
ᐊᑐᓂᑯᓴᐅᓵᕐᓂᖅᓄᓐᓄ

ᓴᓇᒪᑐᖅᑲᐃᓂᑦ ᒥᓂᑕᐃᑦ
ᖃᑎᒌᓂᖏᓐᓄᑦ ᐃᓯᒪᓂᐅᖅᑕᐅᓯᑦ

ᓄᓇᕗᖅᖃᖅᑲᐃᓂᑦ, ᐃᓄᐃᐊᓗᐃᑦ, ᐃᓄᐃᑦ
ᐊᓕᒪᓗ ᐅᒪᔨᓂᓱᓴᔨᐊᖅᑲᐃᑦ ᖃᑎᒌᖏᓐᓂ
ᓇᑭᑐᐃᓐᓇᖅᓯᒪᔨᓗᑎᑦ ᐅᖃᐅᓯᒪᔪᖏᖅᑐᓂᕐ
ᑐᓴᕐᑎᖏᓐᓇᑎᑦ ᐊᑐᓱᐊᓂᕐ

ᐃᓂᕐᒧᖏᓐᓇᑎᑦ ᐊᑐᓱᐊᓂᕐ

nada

ᖃᓄᐃᒪᒋᐊᖏᑎᐃᓕ ᐊᑦᑕᓇᖅᑐᑦᑐᒃ ᓂᕆᔨᑎᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᖅᐳᓪᓂ ᐃᓅᓴᒃᑦᑕᐅᓯᒪᓂᖅᐳᓪᓂ ᐃᓅᓴᓪᓕᐊᕐᓂᖅᐳᓪᓂ ᖃᓇᑕᒥ ᐊᑐᓕᖅᑎᑦᑎᓯᒪᔪᑦ “ᓄᖏᔪᒪᐊᒋᓕᖏᓂᖏᓐᓂᒃ”?

ᒥᔭᐅᔭᖅᑕᐅᓯᒪᓪᓗᓂ ᐃᓕᖏᑐᓯᒪᓕᕐᓂᖅᐳᓪᓂ ᓇᕐᕐᓪᓗᐊᖏᖅᐳᓪᓂ ᐅᖏᓪᓕᓄᑦ ᐊᕐᕕᒃ 18ᓄᑦ ᖃᑎᒌᑐᑦ.

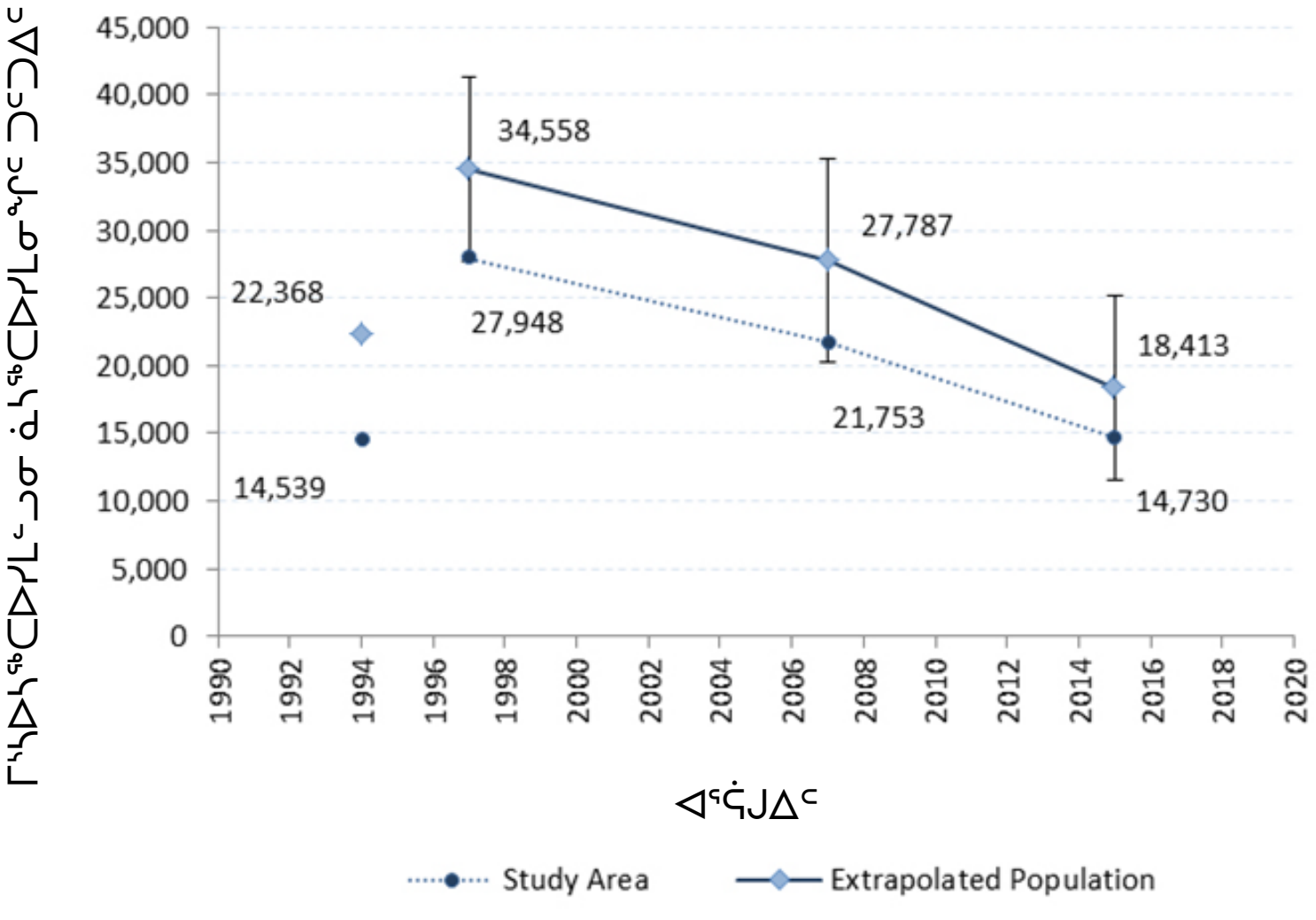
- **ᓄᓇᓕᖏᓂ ᖃᐅᔨᒪᔨᑦ/ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖏᓐᓂ ᐃᖃᓗᐊᕐᑎᐊᒥ**
  - ᐅᓴᓚᐅᔨᓯᒪᓪᓗᑎᑦ ᐃᓅᓴᒃᑦᑕᓯᒪᓂᖅᐳᓪᓂ ᓄᖏᑦ, ᐊᒪᓚᓗ ᐊᒥᓱᑦ ᐅᒪᔨᐃᑦ ᓱᓕᔪᖅᑐᑎᑦ ᐃᓕᖏᑦ
  - ᐃᓅᓴᒃᑦᑕᕐᑦᑕᐊᓂᖏᑦ ᐱᓕᕐᖅᑕᕐᑦᑕᐊᕐᑦ 2010ᖓᔪᓕᐅᖅᑎᑦᓗᔪ
- **ᓴᓴᖅᑕᐅᓕᓗᑎᑦ ᐊᐱᖅᓯᐅᑎᓯᓯᑦ - ᓄᓇᕗᒻᒥᑦ ᓚᕿᒪᓯᖏᓐᓂ**
  - ᐱᑎᐊᓕᓗᔪ 1997 2015 ᐊᔪᓐᓇᓂᓗ, ᓴᓴᖅᑕᐅᓕᓗᑎᑦ ᐊᐱᖅᔨᑦ ᐅᓗᓇᐃᖅᓱᓪᓕᓕᕐᖅᓴᑦ ᐃᓅᓴᒃᑦᑕᕐᑦᑕᐊᓂᖏᓐᓂᑦ ᓱᕗᑦᑕᖏᑎᑦ 34,000ᖓᓕᓗᑎᑦ ᐅᑦᓗᒥ 18,000ᖓᓪᓕᖅᑐᑦ

ᑕᒪᑲᓂᐊ ᓇᓴᖅᑕᐅᓂᖅᑎᑦ ᐊᔪᕈᓐᓇᓂᖅᑐᑦ ᓄᓇᓕᖅᑭᐅᓂᐊᕐᓂ ᐊᒪᒪᓗ ᐱᖅᓯᔪᑐᖅᑕᐅᓂᖅᑐᑦ/ᐃᓄᐃᑦᓗ ᖃᐅᔨᒪᔪᑐᖅᓯᒪᓕᖅᓗ

ᓄᓇᕗᖅᑭᐅᑦ ᐅᖃᐅᓯᖃᓕᐅᖅᓴᑦ ᖃᐅᔨᒋᐅᓂᖅᓯᒪᓂᑦ ᓄᖓᔪᖅᓂᖅᑎᑦ ᐱᑦᓗᒍᑎᑦ (ᓄᖓᔪᖅᓂᖅᑎᑦ ᐅᑎᕐᖅᓂᖅᑎᑦᓗᒍ) ᐊᖏᖅᔪᐃᐅᑦ ᐄᐊᓵᓇᓕᑦ ᑕᓯᑦᓗᒍᑎᑦ

- ᓯᖕᓂᐊᓂᑦ 1920ᐅᑦ: ᐊᒥᓱᒪᓕᕆᓂᑦ ᑐᑦᑐᓂᑦ ᑕᓯᓱᒪᖓᒪᑕ ᐃᑲᖅᑐᓂᑦ ᑭᑦᑕᓂᐅᑦ ᖁᑭᖅᑕᓂᑦ ᓄᓇᒥᓗ
- 1920ᒥ 1970ᒧ: ᖃᕐᓱᓵᓇᐃᑦ ᑐᑦᑐᑦ ᐅᔨᕆᓕᕐᐅᑦᓗᒍᑎᑦ (ᐊᖅᓯᐅᑦᓂᓪᓗ ᓄᖅᑲᖅᑐᓂ)
- 1980ᒥ 1990ᒥᓗ: ᐅᓄᓪᓂᑦ ᐊᒥᓱᓂᓂᖅᓴᐅᑦᓗᒍᑎᑦ (ᐅᑎᖅᑐᑎᑦ)
- 1990ᒥ ᐅᑦᓗᒥᒧ: ᐅᔨᓇᖅᑐᖅ ᐃᓅᓴᑦᑕᕐᑕᐊᓂᖅᑭᓇᓂᑦ, ᐊᒪᓚᓗ ᐃᓅᓴᑦᑕᕐᑕᐊᓂᖅᓱᑦ ᓱᓴᓂᑐᒥ 2010ᖅᑎᑎᑦᓗᒍ ᑕᐃᒪᐃᑦᑐᖅ ᓱᑕ.

ᒥᖏᐅᓴᖅᑕᐅᔪᒪᔨᓪᓕ ᖃᓄᐃᓇᓕ ᖃᐅᔨᓴᕐᓂᖅᓯᒪᓂᖅ ᐱᐅᔪᖅᓂᓕ ᒪᓕᓕᑐᓂᓕ.



ᐅᓗᓕᐊᓐᓇᖅᓂᖅᓯᒪᓕᒃ ᑭᓪᓗᓂᐅᔪᓐ ᐊᒻᒪᓗ ᐃᑭᕆᔨᓂ ᑐᑦᑐᖅᑎᓯᒪᓕᒃ ᐱᓪᓗᑎᒃ

ᐃᓐᓇᐅᔪᖅ ᐅᓗᓕᐊᓐᓇᖅᓂᕆᔨᖅᑎᑦ ᐃᓕᑎᔨᐅᓪᓗᒍᑎᑦ ᒪᓂᐊ:

- ᓱᓕᐅᔪᑦ ᐊᓱᑭᖅᑕᓪᓕᐊᓂᖅᓴᖅ
- ᖃᓄᒥᐅᓂᖅᓴᒥ ᓱᑯᓱᒪᓱᐃᓯᓂᖅᓴᖅ ᐊᒻᒪᓗ ᐊᓱᔨᕐᓪᓕᐊᓂᖅᑎᑦ ᑕᑯᓪᓗᑎᑦ ᑕᒪᐃᓐᓇᑦ ᐅᖃᓯᓐᓂᖅᓱᑎᓪᓗᒍᑎᑦ ᓂᕆᔨᑎᑦ ᐅᑎᖅᑕᕆᔭᖅᓂᓪᓂ.
- ᑕᑯᔭᐅᒋᐅᖅᑐᓪᓗ ᕆᑯᐱᖅᑭᐃᑦ ᑯᒪᐃᓪᓗ ᑐᕆᖅᓴᖅ ᐊᓂᕆᔨᖅᑐᓪᓗᒍᑎᑦ ᐊᒻᒪᓗ ᐊᓂᕆᔨᓂᐅᓕᓂᑦ ᐱᓪᓗᑎᒃᓯᑦᑐᑦ ᑕᐃᒪᐃᒋᒻᒪᒪᑕ.



ᐅᓗᓕᐊᓵᓀᓐᓂᖅᑎᑦ ᑭᓪᓗᓂᐅᓴᐃᑦ ᐊᒻᒪᓗ ᐃᑭᖏᕐᓂᓂ ᑐᑦᑐᖅᑎᑦ ᐱᓪᓗᑎᑦ

ᐊᓯᖅᑎᑦ ᓯᓗ ᐅᓗᓕᐊᓵᓀᓐᓂᐅᔪᑦ ᐃᓕᖅᑲᒍᑦ:

- ᐅᒥᐊᖅᓯᓄᑦ ᐃᖅᑭᖏᖏᓂᒃ
- ᐱᓗᐊᖅᑐᖅᑕᖅᑐᐃᓵᓀᓕᓚᒃ ᓂᖀᑦᓴᓐᓯᐅᖅᑐᓂᒃ (ᐱᓚᖅᓴᓪᓚᐊᔪᑦ ᑕᓪᓚᒪᓂᑦ ᓄᓀᓚᖅᓂᑦ ᐊᑐᐃᓵᓀᑭᖅᓯᒪᖅᓯᒪᑕ ᐊᒻᒪᓗ ᐊᖅᑭᓯᒪᖅᓯᒪᓕᖅᑐᑎᑦ ᒪᓚᑭᐊᓚᖅᓂᑦ ᑐᑦᑐᑦᑐᖅᑭᓂ ᖃᐅᔨᖅᐃᐱᐊᖅᑲᓪᓕᓀᓂᖅᓯᒥᓂᑦ)





ᐅᓗᓕᐊᓐᓇᓐᓂᕐᒧᑦ ᑭᓚᓂᐅᔨᑦ ᐊᒻᒪᓗ ᐃᑭᖏᕆᓂ ᑐᑦᑐᓐᒧᑦ ᐱᓚᑎᒋᑦ

ᐊᔪᖕᒧᑦ ᔪᓂ ᐅᓗᓕᐊᓐᓇᓐᓂᐅᔪᑦ ᐃᓕᓐᓴᔪᑦ:

- ᔪᐅᓂᕆᕕᑎᓐᓂᑦ ᐊᑦᑕᓇᖅᑐᓂᑦ ᓂᕐᔪᑎᒍᑦ ᐅᓴᖏᓐᓂᐊᖅᑎᓂᑦ ᑕᒪᑲᔪᐊ ᑲᔪᔪᑎᑕᐅᔪᒪᐸᐸᑕ ᐱᓚᑎᒋᑦ







ᖃᓄᖅᓯᒪᔪᖅ ᑕᒪᓐᓇ ᐊᓯᖏᑐᓴᖅᓯᐊᖅ ᑕᒪᒃᑯᐊ ᑭᓚᓂᓂᐅᔨᑦ ᐊᓕᒪᓗ ᐃᑭᖏᓴᓂ ᑐᑦᑐᖓᓕ ᐃᓕᓴᐃᓐᓇᐅᓚᖅᓯᐊᖅᓯᑦ ᓄᖓᔪᓯᐊᑭᓚᖓᓂᖓᓕᖅᓯᑦ?

ᖃᓄᖅᓱᓕᔪᓕᑐᖅ

ᓄᖓᔪᓯᐊᑭᓚᖓᓂᖓᓕᖅᓂ



ᑐᑦᑐᑎᓴᒪᑦ ᒪᓚᓕᑦᑕᐅᓴᓇᐊᓚᑦ ᐊᑐᓚᖅᑎᑕᐅᓇᓗᑎᑦ ᐃᑐᓚᖅᓯᐊᖅᑎᓗᒍᑎᑦ

- ᑕᒪᒃᑯᐊ ᐅᖅᐅᔪᓐᓇᑦ **ᓄᓇᖅᖁᖅᑲᖓᓕᑦᑐᑎᐅᑕᐅᓴᓇᓄᑦ ᑐᖃᖅᓴᓕᔪᑦ**
- ᑐᖃᖅᓴᓕᔪᑦ ᒥᖅᓯᐊᔪᓐᓇᖅᓂᑦ ᒪᓚᓕᑦᑕᐅᓴᓇᓇᖅᑐᖅᓂᖓᓂᑦ, ᑲᓇᑕᒥ ᓂᖅᔨᑎᑦ ᒥᖅᓯᐊᔪᓐᓇᖅᓕᐊᓂ ᐊᓚᖅ ᑎᓐᓯᐊᓄᑦ ᑐᓴᒃᑕᓐᓂᑦ ᓄᓇᖅᖁᖅᑲᖓᓕᑦᑐᑎᐅᑕᖅᑕᐅᓴᓇᓕᒫᓗ ᑐᖃᖅᓴᒋᓕᒫᓂ.
- ᑕᒪᒃᑯᐊ ᐊᔪᐊᓄᑦ ᑐᖃᖅᓴᖅᓯᑦᑐᑦ ᔪᓂᓕᖅᑎᑦ ᑲᑎᒪᔨᖅᓯᑦ ᐃᔪᒪᓕᐊᖅᓯᒥᑦ “ᑎᓕᔪᐃᔪᐊᓚᒥᑦ” ᑲᔪᔪᑎᑎᔪᖅᑲᓕᐅᖅᑎᓕᒫᑦ.

ᐅᖅᑭᑦᑐᑉ

ᖃᓄᖅᓯᒪᔪᖅ ᑕᒪᓐᓇ ᐊᓯᖏᑐᓴᖅᓯᐊᖅ ᑕᒪᑦᑯᐊ ᑭᓚᓕᔪᐅᑦ ᐊᓕᒪᓗ ᐃᑭᕐᕼᓂ ᑐᑦᑐᖏᑦ ᐃᓕᓴᕆᔨᐅᓕᖅᓯᐊᖅᓯᑦ ᓄᖟᔪᐊᑭᓕᖓᖏᓐᓂᖏᓐᓂᑦ?

ᖃᓄᐃᓕᓴᑦᑐᖅ

ᓄᖟᔪᐊᑭᓕᖓᖏᓐᓂᖏᓐᓂ



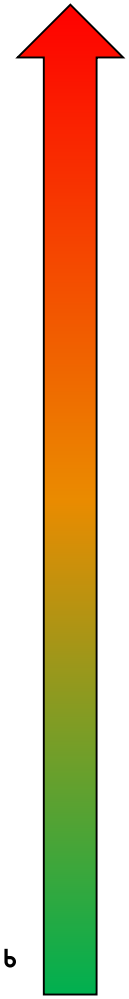
ᓄᓇᑦᑕᕐᑎᑦ ᐊᖏᕐᖃᑎᖃᕐᑎᓕᓂᖏᓐᓂᑦ ᓂᕐᔪᐊᑎᑦ ᐅᓇᓱᖏᓐᓇᑦ ᐃᓗᐊᓇᕐᓂᖏᓐᓂᕐᓂᑦ ᐱᓇᓱᐊᓂ.

- ᓂᕿᓘᓴᐅᓂᖏᓗᑦ ᑐᑦᑐᑎᓴᖏᓂᖅ ᐊᑦᑐᖅᑕᐅᔪᓕᖏᓐᓂᑦ ᖃᓄᐅᑦ
- ᑕᐃᑲᔪᐊ ᐅᓪᓚᔪᓕᓇᖅᑲᔪᐊᑲᔪᓂᒍᑦ ᑎᒥᐅᔪᑦ ᐊᓕᒪᓗ ᒪᓕᓚᖏᓐᓕᓗ ᓴᖅᑭᔪᓕᖏᓐᓂᑦ (**ᓂᕿᓘᓴᑦ ᐅᓗᓇᐊᓇᕐᓂᖏᓐᓂᕐᓂᑦ ᐱᓇᓱᖏᓐᓂᑦ ᑕᒪᓴᔪᓕᖏᓐᓂᑦ ᖃᓄᖅᑲᓚᐅᓂᖅ ᐱᔨᓇᓚᖏᓂᖅ ᐱᔨᓇᓱᐊᖏᓐᓂᕐᓂᑦ**)
  - ᐅᓪᓚᔪᓕᓇᖅᑲᔪᐊᑲᔪᓂᖅ ᑲᑎᒪᔨᖏᓐᓂᑦ, ᐅᓪᓚᔪᓂᓕᕆᓂᖅᑲᔪᓂᖅ ᑲᑎᒪᔨᖏᓐᓂᑦ, ᐊᐃᑦᑐᖅᓴᓪᓚᔪᓂᓕᕆᓂᖅᑲᔪᓂᖅ ᐅᓪᓚᔪᓂᓕᕆᓂᖅᑲᔪᓂᖅ, ᓄᓇᕐᔪᐊᓘᒥ ᐊᓂᒪᖏᓐᓂᑦ
  - ᑐᑦᑐᖅᓴᓂᐅᔪᓘᒍᑦ ᐃᔪᒪᓕᐅᖅᑲᓕᐅᔪᓘᓂᑦ ᒪᓕᓚᐅᓂᑦ ᐊᖅᑐᐸᕐᑕᖏᓐᓂᑦ ᐊᖏᕐᖃᑎᖃᕐᑎᖏᓐᓂᑦ ᑕᑯᓕᓚᐅᓂᑦ.

ᓴᐳᑦᑐᖅ

ᖃᓄᖅᓯᒪᔪᑦ ᑕᒪᓐᓇ ᐊᓯᖏᑐᓴᖅᓯᒪᔪᖅᓱᐊᓂ ᑕᒪᐃᓕᐊ ᑭᓚᓕᓂᐅᓴᐊᓂ ᐊᒪᓚᓗ ᐃᑭᕆᐽᓂ ᑐᑦᑐᖏᑦ ᐃᓕᓴᕆᔨᐅᓕᖅᓱᐊᓂ ᓄᖓᔪᓯᐊᑭᓚᖓᓂᖏᓐᓂᑦ?

ᖃᓄᖅᓱᒪᓕᕆᓂᑐᖅ



ᓄᖓᔪᓯᐊᑭᓚᖓᓂᖏᓐᓂ



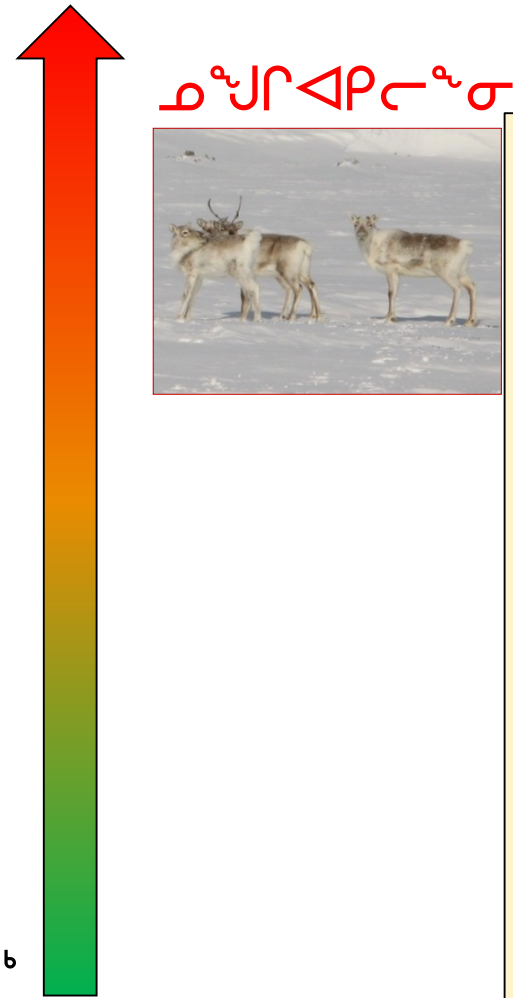
ᖃᓇᑎᒥ ᐅᑎᖅᑎᕐᔪᕐᓚᓂᖏᑦ ᖃᓄᖅᑐᐃᔪᑎᑎᕐᓂᑦ ᓴᖅᑭᑎᐅᔭᕆᓇᖅᓯᒪᓂᕐᓂᑦ

- ᐊᖅᑭᖅᓱᓂᖏᑦ ᑐᑦᑐᐃᑦ ᓇᔨᖏᖓᑦ ᐱᓪᓗᑎᑦ
- ᓴᖅᑭᑎᕐᔪᓗᒃ ᖃᑐᐸᖅᖢᑎᒃᑐᓇᖅᓯᓪᓗᒃ ᐃᓚᒋᔭᐅᔭᕆᓇᐊᓪᓚᕆᓪᓗᒃ
  - ᓄᓇᓪᓂᑦ, ᑎᒥᐅᔨᑦ ᐊᒪᓚᓗ ᓚᕿᒪᐃᑦ
  - ᐅᒪᔨᓇᓂᐊᖅᑎᖅᓯᑦ ᖃᑎᒌᔭᖏᑦ, ᐅᒪᔨᓪᓚᔭᐸᐊᖅᓯᓪᓗᒃ ᖃᑎᒌᔭᖏᑦ, ᐊᓯᖏᓪᓗᒃ.
  - ᓄᓇᕐᔪᐊᒪᒥ ᓚᕿᒪᖏᑦ
- **ᑐᑦᑐᐸᑦ ᓇᔨᖅᕿᑦᑕᖏᑦ ᐱᒪᓚᓇᐅᑎᓂᖏᓐᓂᑦ** ᑕᕐᕕᓇ ᓇᓗᓇᐃᖅᑕᐅᔪᒪᔭᓇᐊᖅᑐᓂᑦ ᐊᒪᓚᓗ ᓴᐳᒥᔭᐅᓗᑎᑦ
- ᐃᖅᔨᑎᓴᑦ ᓚᕿᒪᑐᖅᑲᓂᓄᑦ ᐊᑐᐃᓇᐅᑎᑕᐅᔨᑦ ᓂᕐᔨᓴ ᓇᔨᖏᖓᑦ ᐅᓗᓚᓇᓇᖅᑐᑦᑐᑦ ᐱᓪᓗᒍᑦ

ᓴᐳᒥᔭᐅᓗᑎᑦ

ᖃᓄᖅᓯᒪᔪᖅ ᑕᒪᓐᓇ ᐊᓯᖏᑐᓴᖅᓴᖅᓯᐊ ᑕᒪᑲᓂᐊ ᑭᓚᓕᔪᐅᕐᓴ ᐊᓕᒪᓗ ᐃᑭᖏᓴᓂ ᑐᑦᑐᖓᓕ ᐃᓕᓴᕆᔨᐅᓕᖅᓴᓕ ᓄᖅᔪᓯᐊᑭᓕᖅᖢᖅᓯᓕᖅᓴᓕᑦ?

ᖃᓄᖅᓱᒋᑦᑐᖅ



ᓄᖅᔪᓯᐊᑭᓕᖅᖢᖅᓯᓕᖅᓴᓕ

ᓇᓗᓇᐃᖅᓯᓂᖅ ᐊᓕᒪᓗ ᓴᐅᒥᑎᓯᓂᖅ ᑐᑦᑐᔪ ᓇᔨᕐᑎᖅᖢᖅᓯᓕ

ᓇᓗᓇᐃᖅᑕᓯᒪᓂᖅᓱᒃ

- ᑐᑦᑐᓄᑦ ᓇᔨᒃᐅᔨᑦ ᓇᓗᓇᐃᖅᑕᐅᓗᑎᑦ ᐱᓕᕆᖅᑎᖅᑎᓂᖅᓱᑎ ᐃᓕᓴᕐᓂᑦ, ᑕᒪᑦᑕ ᐊᖅᑭᒃᓗᓄᑦ ᐅᑎᖅᑎᓴᒥᓂᕐᓂᖅᓴᑦ ᖃᓄᖅᑐᑐᒍᑎᓴᓴᒥ ᐊᑕᐅᓴᓯᒃᑦ ᐅᕙᒍᒃ.

ᓴᓇᒥᓴᓯᓂᖅ

- ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᐊᒪᓗᓐ ᓯᓚᐅᓂᐊᖅᑎᒃᑯᑦ ᐊᓯᔨᔭᑦᓕᐊᓂᐅᓕᓐᓄᓐᓗᓐ ᑲᓇᑕᒥ ᐱᔨᒪᓂᖅᒪᒪᓕᕆᓴᑦ ᐱᓕᕆᖅᑎᖅᑎᓴᒥᓂᕐᓂᖅᓴᑦ ᐊᓂᖅᑭᑎᓂᐅᑉᐳᖅᑐᑦ ᓴᓇᓴᖅᑲᖅᓯᒪᓂᖅᓴᑦ ᖃᓄᖅᑐᑐᒍᑎᓴᓴᒥ ᓄᓇᑦ ᐱᓗᐊᖅᑐᒥᑦ ᓄᓇᖅᑲᓱᖅᑐᑦ ᓄᓇᓕᕐᓂᓕᑦ ᐊᖏᕐᖢᖅᑎᑭᑐᐃᓕᓴᕐᓂᑦ ᓴᓇᓕᕐᓂᑦ.
- ᐊᒥᓕᑦ ᖃᓄᖅᑐᑐᒍᑎᓴᓴᑦ ᖃᐅᔨᓴᖅᑕᐅᔨᓪᓚᕐᓂᑦ <u>ᓕᐅᓗ ᐊᑐᓗᐊᖅᑕᐅᓕᒪᓂᕐᓗᒥᑦ</u> **ᐊᖏᕐᖢᖅᑎᖅᑎᐅᑉᐳᖅᑐᓕᕆᔨᒃᑯᑦ ᑕᒍᑦᓗᓕᒃᑐᑦ.**

ᐊᑎᓕᐅᖅᓯᓂᖅ ᑲᑎᒪᔨᑎᒥᓂᐅᔪᓐᓇᖅ - ᒪᓪᒪᑐᖅᑯᓂᖅ ᒪᓕᒋᐊᓕᕐᓂᖅ

ᑭᖅᑯᓂᓂ?

- ᐅᒪᔪᓕᕆᔨᔪᐊᖅᑯᓂ ᑲᑎᒪᔨᕐᓂᖅ
- ᐅᒪᔪᓂᓂᐊᖅᑎᖅᑯᓂ ᑲᑎᒪᔨᕐᓂᖅ
- ᓄᓇᖅᑲᖅᑲᖅᑐᑦ, ᐃᓄᐃᖅᐸᐃᑐᐃ, ᐃᓄᐃᑦᑐᐃ ᓄᓇᓕᕐᓂᓂᑦ, ᑎᒥᐅᔪᓂ ᐊᓪᒪᓐᓇ ᑲᓪᒪᖅᑯᓂ
- ᓄᓇᕋᐊᓪᒥ ᑲᓪᒪᖅᑯᖓᓕᒃ
- ᑭᖅᑯᓕᒫᑦ

ᑭᔪᓗ?

- ᐃᓕᓴᐅᒥᐊᓕᖅᑲᐃ ᓂᕆᔨᑎᑦ ᐅᓇᓱᒋᐊᕐᓕᖅᑲᐃᓕᓂᖅᑐᑦ ᐱᓕᕆᔨᒋᑦᑐᖅ

ᑭᓇᐅᔭ?

- ᐃᓕᓴᐅᒥᐊᓕᖅᑲᐃ ᓂᕆᔨᑎᑦ ᐅᓇᓱᒋᐊᕐᓕᖅᑲᐃᓕᓂᖅᑐᑦ ᐱᓕᕆᔨᒋᑦᑐᖅ ᐃᓚᖓᔾᔪᑎᒃᓴᐅᓂᖅ ᐊᑐᖅᑕᐅᓂᒃᑯᓚᐅᑎᓪᓗᒍ ᐃᓚᖓᔾᔪᑎᒃᓴᐅᓂᖅ ᐅᖃᐅᓯᐅᑉᐳᖅᑎᑦ ᐅᖃᐅᓯᐅᑉᐳᖅᑎᓂᖅ **ᐅᒪᔪᓕᕆᔨᔪᐊᖅᑯᓂ ᑲᑎᒪᔨᖅᑯᑎᖓᓕᒃᑯᓂ**
- ᐊᓂᐊᓕᕆᓚᐅᖅᑯᓂ ᐊᓪᒪᓐᓇ ᓯᓚᖖᑎᐊᕐᓕᖅᑲᐃᓕᓂᖅᑐᑦ ᐱᓕᕆᔨᒋᑦᑐᖅ ᐅᖃᐅᓯᐅᑉᐳᖅᑎᑦ ᐃᓚᖓᔾᔪᑎᒃᓴᐅᓂᖅ ᐅᖃᐅᓯᐅᑉᐳᖅᑎᓂᖅ **ᓴᓪᒪᑐᖅᑯᓂᖅᑯᓂ ᐊᓂᐊᓕᕆᔨᔪᐊᖅᑯᖓᓕᒃᑯᓂ ᓯᐅᓕᖅᑲᓂᕐᓂᖅᓂ**
- ᓴᓪᒪᑐᖅᑯᓂᖅᑯᓂ ᑲᑎᒪᔨᖅᑯᖓᓕᒃᑯᓂ ᓯᐅᓕᖅᑲᓂᕐᓂᖅᓂ ᐊᑐᓕᖅᑐᐃᓐᓇᖅᑐᖅ ᐊᑐᓕᖅᑐᐃᓐᓇᖅᑐᖅᓂ **ᓯᐅᓕᖅᑲᓂ ᐃᓯᒪᓕᐅᔪᓂᖅᑐᓂ ᐃᓯᒪᖅᓴᖅᓯᐅᔪᑎᑕᐅᓴᓇᓕᖅᓂ - ᐱᖓᓱᐊᖅ ᖃᐅᔨᖅᑐᔪᓐᓇᐅᔭᓂ.**

ᐊᑐᖅᑕᐅᓂᖅᓂ ᐊᑎᒪᓗ ᒪᓕᒋᐊᓂᖅᓂᕆᐊᖅᓂ ᐅᓗᓇᐃᖅᓯᓂᖓᒍ ᓴᐳᒻᒥᐅᔾᔨᓇᐊᓂᓕ ᑐᑐᐃᓕ ᐅᓯᖏᓐᓂ ᐃᓯᒪᒋᐅᔾᔨᖅᓯᐅᑎᓪᓗᒍ?

ement et
nent climatique Canada

Canada

ᐊᑎᓕᐅᖅᓯᓂᖅ ᑲᑎᒪᔨᑎᒥᓂᐅᔪᓐᓇᖅ - ᒪᓪᒪᒍᖏᑦᑐᓂᓪᓗ ᒪᓕᒋᐊᓕᙱᓚᐅᓂᓪᓗ

ᑭᖑᔪᓕᖅᐸᖅ ᐃᓱᒪᓕᐅᔨᑎᓂᓪᓗ ᓱᓇᓕᒍᖏᑎᓂᓪᓗ ᒪᓪᒪᒍᖏᑦᑐᓂᓪᓗ ᑲᑎᒪᔨᖏᑦᑐᓂᓪᓗ ᐃᓱᒪᑉᐸᓱᐅᑎᑦᑎᓂᓪᓗ ᒪᑭᑕᔨᑎᑦᓯᔪᖅᑐᑦ ᐱᓕᕆᓂᓪᓗ ᐊᑐᖅᑕᐅᓱᖓᓂᓪᓗ

1. ᑲᓱᓂᑕᐅᓪᓚᓂ ᐃᓕᓴᐅᓂᖓᓂᓪᓗ ᐊᑎᓕᐅᖅᑕᐅᓱᒪᔪᓂᓪᓗ
2. ᐅᕙᓪᓕᔭᓂᓪᓗ ᑲᓱᓂᑕᐅᖅᑐᓕᓪᓚᓂ ᐃᓕᓴᐅᓂᐊᖅᓂᖓᓂ ᐊᑎᓕᐅᖅᑕᐅᓱᒪᔪᓄᓪᓗ
3. ᐅᕙᓪᓕᔭᓂᓪᓗ ᐅᑎᖅᑎᑕᐅᓪᓚᓂ ᖃᐅᔨᓴᖅᑕᐅᓴᖅᓂᖓᔪᓕᓪᓚᓂᔪ ᐅᓱᓄᖅᓂ ᐊᑦᑕᓀᖅᑐᑦᑐᑐ ᓂᔪᓚᖅ ᓄᓇᑕᒥ ᐃᓄᐊᓕᓪᓚᐅᖅᑕᐅᓱᒪᓕᐅᑐᓄᓪᓗ ᐃᓄᐊᓕᓪᓚᐅᖅᑕᐅᓱᒪᓕᐅᑐᓄᓪᓗ ᑲᓇᑕᒥ ᑲᑎᒪᓐᓇᐅᑐᓄᓪᓗ

ᐃᓄᐊᓄᑎᑦ ᐃᓕᑦᑐᐃᓐᓇᕆᔨᒃᑲᓪᓗ

- ᓴᖅᑭᓗᑕ ᐅᑎᖅᑎᓯᓇᓱᒪᓂᖅᓗᑦ ᑐᕋᖓᓂᒪᓕᒃ ᐊᒻᒪᓗ ᓇᓗᓇᐃᖅᓯᓗᑕ ᓂᕆᔨᑎᑦ ᓇᔨᖏᑦ ᐅᓗᓕᐊᓪᓚᖅᑐᓕᕆᔨᒃᓗᑕ
- ᑲᓪᒪᒍᖏᑦᑐᓂᓪᓗ ᐃᓱᒪᑎᑦᓴᓂᓪᓗ ᐊᑐᐃᓪᓚᐅᑎᓴᓂᓪᓗ ᓂᕆᔨᑎᑦ ᐅᓗᓕᐊᓪᓚᖅᑐᓕᕆᔨᒃᑲᐊᖏᑦ

ᐊᔨᑭᖅᓯᒪᔪᓂᑐᑦ

ᓄᑦᑦ ᑐᑭᓯᐅᒪᓕᐊᓱᒃᑲᓪᓚᕆᔨᑦ

- ᖃᓪᓗᑐᐃᓪᓚᖅ **ᓄᑦᑦᓂᓪᓗ ᑐᑭᓯᐅᒪᓕᐊᓱᒃᑲᓪᓚᕆᔨᓂᓪᓗ** ᓂᓚᐅᒋᔭᖃᑦᓴᓪᓚᖅ ᓯᓂᒧᑦᑕᓪᓕᐊᓂᖅᓯᒪᔪᓂᑐᑦ ᐊᓯᐊᔨᑭᑎᖃᖅᓯᒪᓕᖅᓯᒪᔪᓂᑐᑦ
- ᑕᐃᒪᐃᓕᓪᓚᖅ ᐅᑎᖅᑎᑕᐅᓪᓚᓂᓪᓗ ᐊᑐᓕᖅᑎᑕᐅᓪᓚᕆᔨᒃᑲᓪᓚᕆᔨᑦ ᐃᓕᓴᐅᑎᐅᓕᐊᓱᒃᑲᓪᓚᕆᔨᒃᑲᐊᖏᑦ ᑲᑎᒪᔨᐅᓕᐊᓱᒃᑲᓪᓚᕆᔨᒃᑲᐊᖏᑦ ᑕᒪᓐᓇᖅᑐᓂᓪᓗ ᑲᑎᒪᔨᐅᓕᐊᓱᒃᑲᓪᓚᕆᔨᒃᑲᐊᖏᑦ ᑕᒪᓐᓇᖅᑐᓂᓪᓗ **ᑲᑎᒪᔨᐅᓕᐊᓱᒃᑲᓪᓚᕆᔨᒃᑲᐊᖏᑦ ᑕᒪᓐᓇᖅᑐᓂᓪᓗ** ᐅᑎᓪᓗᒥ

ent et
nt climatique Canada
Canada

ᑲᑎᒪᔨᑕᐅᓴᑦ ᑕᖅᑲᓇ ᐊᓯᖏᖅᑎᑕᐅᕐᓂᓪᓗ ᑭᓪᓕᓂᐅᑦ ᐃᑲᕆᐊᓪᓚᑕ ᑐᑦᑐᖅᑐᑦ ᑐᖅᓯᓂᑦ ᐅᓗᓴᐊᓀᓂᖅᓂᖅᑐᓂᑐᑦ ᐱᕐᔪᖅᑎᓪᓕ ᒪᓕᓪᓗᓂ.

ᑭᓇ? ᐅᒪᔨᓕᕆᔨᔨᐊᖅᑯᑦ ᑲᑎᒪᔨᖅᑎᑦ, RRCᑯᑦ, ᐅᒪᔨᵒᓂᐊᖅᑎᖅᑯᑦ ᓄᓇᓕᖅᓂᑦ, ᓄᓇᖅᖃᖅᑲᑦᑐᑦ, ᐃᓄᙳᐊᒍᐃᑦ, ᐃᓄᐃᑦ, ᓄᓇᕐᔪᐊᓗᒥ ᓴᖅᒪᓚᖅᑯᖅᑎᑦ, ᑭᖅᑯᓕᒫᓪᓗ

ᖃᖅᓱᓚᖅᑯᑦ? ᐅᑐᐱᓇ 2019

ᑭᓯ?

- ᐊᑎᓕᐅᖅᑕᐅᒍᓂᖅᐃ ᓂᕐᔨᑦᑎᑦ ᐅᒍᓇᐊᓇᕐᓂᖅᑐᓂᑐᑦ ᐱᕐᔪᖅᑯᖅᑐᓄᑦ?
- ᓯᓇᐅᖅᖤᑦ ᐊᑐᖅᑕᐅᔪᑎᑎᓯᐊᖅᑕᓂ?
- ᓯᓇᐅᖅᖤᑦ ᒪᑭᑕᔪᑎᙵᙵᔨᐊᖅᐅᓂᖅᑐᑦ?
- ᐊᓯᖅᑭᵒᓂ ᑐᑭᓯᐅᒪᑕᑭᑎᖅᑲᖅᑲᵒᓂᖅᑲ/ᐃᓯᒪᒍᑎᑦᓴᐅᔨᓪᓗ/ᐅᖅᑲᐅᓯᖅᙵᓪᓗ?

ᓯᒪᒪ? ᐊᑐᐃᵒᓇᐅᑎᙵᓯᒍᑕ ᓴᖅᒪᒍᖅᑲᖅᑯᑦ ᓯᕆᓕᖅᑎᐊᓄᑦ, ᓯᕆᓕᖅᑲᓱᑦ ᑲᑎᒪᔨᖅᑭᵒᓄᑦ ᐊᒪᒪᓗ ᐅᒪᔨᓕᕆᔨᔨᐊᖅᑯᑦ ᑲᑎᒪᔨᖅᓯᑎᖅᑭᵒᓄᑦ.

ᑲᑎᒪᔨᑕᐅᔨᓪᓗ ᑕᖅᑲᓇ ᐊᓯᖏᖅᑎᑕᐅᕐᓂᓕᔪ ᑭᓚᓂᓂᐅᓪᓗ ᐃᑲᕿᐊᐅᓚᓂᓕ ᑐᑕᖅᑕᖅᑎᑕ ᑐᖓᔪᓂᖅ ᐅᓂᒃᑳᓂᖅ ᐅᓇᓱᐊᓇᕐᓂᖅᓯᓂᑦᑐᓂᑦ ᐱᕐᔪᖅᖢᓂᑦ ᓴᕐᔪᖅᖢᓂᑦ ᓯᕗᓪᓕᖅᑐᓂᒃ.

ᖃᓄᐃᓕᓐᓂ ᐊᓂᑲᑦ?

- ᐊᐅᑎᓂᓚᐅᒃᑯᑦ ᐊᓚᒪᓗ ᓯᓂᖅᓂᐊᖅᑎᒃᑯᑦ ᐊᓯᔨᔪᑦᓂᐊᓂᕐᓄᑦ ᑲᓇᓯᓗᓂᑦ ᐅᖅᑲᓯᐅᓯᒪᔪᓂᒡᓗᓂᑦ ᑐᖅᖢᓂᓗᓂᑦ ᐃᒪᔪᓂᓚᐅᔨᔪᐊᒃᑯᑦ ᑲᑎᒪᓕᒫᖓᓂᖅ
- ᓴᐅᒪᑐᖅᑲᒃᑯᑦ ᐊᐅᑎᓂᓚᐅᖏᑦ ᓯᕐᓂᖅᑎᖓᓂᖅ ᐊᑐᓂᖃᕐᓄᑦ ᑐᓴᕐᓂᑐᐃᓐᓇᓂᑦ ᑐᓂᔨᐅᓗᓂᑦ ᓯᕐᓂᖅᓴᓂᖅ ᑲᑎᒪᓕᒫᖓᓂᖅ
- ᑕᐃᒃᑯᐊᓪᓗ ᓯᕐᓂᖅᓴᓂᑦ ᑲᑎᒪᓕᒫᖓᑕ ᑲᔪᓯᑎᕐᓯᓗᓂᑦ, ᑲᔪᓯᖏᑐᐅᑎᕐᓯᓗᓂᑦᓗ ᐱᔪᓐᓇᖅᓂᖏᑦ ᑕᑯᓪᓗᓂᑦ ᐅᕙᓪᓕᐅᓂᖅᑐᓂᑦ ᐅᑎᖅᑎᑕᐅᓗᓂᑦ ᐊᑦᑕᓇᖅᑐᑐᒍᑦ ᓂᕆᔨᑦ ᓇᓗᓇᐃᖅᑕᐅᔪᓂᖅᓂᓂᑦ ᐃᓅᓴᕐᓂᓗᐊᖅᓂᖅᓂᑦ ᑲᑎᒪᓕᒫᖓᓂᖅ ᑲᑎᒪᓂᖅᓂᖅᓂᑦ (2020ᒥ?)

ᐊᐱᖅᓯᑎᕐᓂᖅ? ᐅᖅᑲᐅᔪᕐᓂᖅ?

ᐃᔪᒪᑭᕐᔪᐊᓘᓐ ᑕᒪᕐᔪᒪᐅᑉ ᒥᕐᓴᓂᓐ ᑎᑎᕋᕐᓂᐊᕐᓗᒍ ᑐᖅᑭᑎᖅᑕᒫᓂᒃ:

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ᐅᐃᒍᓕᖅᓂᐅᓂ ᐃ-2: ᐊᑦᑕᓇᖅᑐᒋᑦ ᓂᕆᔨᒃᑯᓂ ᓇᓗᓀᓇᐃᖅᑕᐅᔪᓕᓂᖅᑎᓪᓗᓂ ᐃᓅᒃᓴᖅᓯᒪᔪᓂᖅᑎᓪᓗᓂ ᑲᓇᑕᒥ ᐅᑎᖅᑯᓯᒪᔪᓂᖅᑎᓪᓗᓂ ᑎᑎᖅᑲᓕ

ᐊᐅᓪᖅᑎᑕᐅᓪᓗᑎᓂ <ᐃᓚᒋᑦ ᐳᖅᑲᒪᓪᓗᑎᓂ ᐃᓄᐊᓇᖅᑎᓪᓗᓂ ᐃᓪᓕᕆᔨᒃᑯᓂ 2019ᒥ ᑐᓴᐅᒪᑎᓴᒪᓪᓗᑎ ᑕᐃᒪᖏᑲᖅ ᑎᑎᖅᑕᐅᓂᐊᓪᓂᕐᓂᖏᓂ ᕿᑎᐹᓕᕐᓂᖅᓴᖅᑯᑦ. ᐸᐃᒋᑦᓗ ᖁᓪᓗᐊᓕᑎᑐᖅᑐᑎ ᐊᒻᒪᓗ ᐃᓄᐃᓇᖅᑐᓪᓕᖅᑎᑕᐅᓚᑦ ᑲᑎᒪᑎᓪᓗᑎᒃ ᑐᓂᐅᖅᑲᖅᑕᐅᓪᓗᑎᓂ ᐃᖅᓱᓴᑦᑎᐊᒥ ᐊᒻᒪᓗ ᕿᑎᓴᑦᑎᓐᓂᒃ.

ᑐᓵᐃᑦ - ᑭᓪᓗᓂᐅᓴᑦ ᐊᒻᒪᓗ ᐊᑭᐊᓂᒥᓂᑦ ᑐᓵᖏᑦ



Photo: © Mathieu Dumond

ᑕᒪᐅᓇ ᐊᑎᖓᒐ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᖓᒐ, ᐃᓐᓇᐅᓴᖅ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᓂᕆᔨᕿᑦ ᐅᓗᓚᐊᓇᖅᓂᖏᓐᓂᑕᑐᑦ ᐱᖁᔭᖏᑎᒍᑦ ᐅᐃᒍᓕᖏᒥ ᐃᓕᐅᑎᓕᖏᑦ ᐊᑕᐅᓯᖅ ᐅᖃᐅᓯᐅᓴᖅᑕᐅᓯᒪᓂᖓᓄᑦ (ᑭᓪᓗᓂᐅᓴᑦ ᐊᒻᒪᓗ ᐊᑭᐊᓂᒥᓂᑦ ᑐᓵᖏᑦ ᐊᒥᓱᓂᖏᑦ)

ᖃᐅᔨᓴᖅᑎᒻᒪᓕᕆᔨᖅᑯᓂᑦ ᐊᑎᓕᐅᖅᑕᐅᓯᒪᔪᓐᓇᓂ

Rangifer tarandus ᖃᓐᓇᐃᓚᑎᑐᑦ, ᐃᓄᕐᑐᑦ ᑐᑐ

ᓇᑭᖓᓕᓂᖓ

ᐅᒪᔪᓂᑦ

ᐊᑦᑕᓇᖅᑐᒋᑦᑐᑐ ᓂᕆᔨᕿᑦ ᐃᓇᐃᖅᑕᐅᓯᒪᓂᖓᑎᓄᑦ ᐃᓅᓴᓪᓕᐊᓂᖓᑎᓄᑦ ᑲᓇᑕᒥ ᐃᓕᓴᐅᓪᓗᐊᓂᖓᑎᓄᑦ ᑲᓇᑕᒥ ᐃᓕᓴᐅᓪᓗᐊᓂᖓᓂ

ᓄᖓᑎᓕᐊᑭᓂᖓᑎᓄᓂ

ᑲᑎᒪᔨᑦ ᓄᓇᓂ

ᓄᓇᕕᐊᓕᒥ, ᓄᓇᖅᓯᓪᓚᓐ

ᐱᓕᕆᐅᓪᓚᑐᑦ ᐃᓇᐃᖅᑕᐅᓯᒪᔭᕆᐊᖃᖅᑎᓂᖓᓂᓄᑦ

ᐅᑯᐊ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑐᑭᐃᑦ ᐊᒋᕕᓂᖓᑦ ᐱᓪᓚᑦ ᑲᑦᑕᒥ ᑭᑦᑐᐊᓂᖓᑦ, ᐊᑐᖅᑕᐅᓪᓚᑦᑐᓚᒪᑦ ᓄᓇᖅᓯᒪ ᐊᒻᒪᓗ ᓄᓇᕕᐊᓕᒥᐅᓂᑦ. ᐃᓕᓴᐅᓪᓚᑦᑐᓚᒪᑦ ᐊᔪᐅᖏᓂᓂᖅᓄᓂᓂᖓᓂᓄᑦ ᐅᑎᖅᑕᕐᖅᑕᐅᓯᒪᓂᖓᓂᑕᒪᑦ ᐃᓇᐃᖅᑕᐅᓯᒪᓂᖓᓂᑕᒪᑦ ᐃᓐᓇᐃᓐᓇᖅᑐᓂᖓᓂᑕᒪᑦ ᐱᓪᓚᑦ ᐅᑎᖅᑕᐅᓯᒪᓂᖓᓂᑕᒪᑦ ᐃᓇᐃᖅᑕᐅᓯᒪ

ᐅᒪᔨᐃᓕᑦ ᓇᓕᓕᐊᑦ ᖃᓄᐃᔅᔨᒋᓂᖅᓂᑦ ᐊᓚᒐ ᐊᑐᑦᓭᓇᓐᓂᖅᓐᓂᑦ

ᑭᑦᓂᐅᐳᑦ ᑐᑐᖏᑦ ᐃᓕᓴᐅᓇᖅᑐᑦ ᑕᑯᑦᓯᑎᑦ ᓄᓇᒥᐅᑕᑦ ᑐᑦᑕᐃᑦ ᐊᓚᒐᓯ ᖃᐅᔨᖅᑐᑦ ᑐᑦᑕᐃᑦ. ᐃᓕᓴᐅᓇᓂᖅᓂᑦ ᑎᒥᖏᑦ ᑕᑯᑦᓯᑎᑦ, ᐊᖏᑕᓂᖅᓂᑦ ᐱᐅᔨᖏᑦᓯᓗ ᐅᓗᐃᐃᖅᔨᔪᑎᐅᕐᒪᓚᒪᑦ, ᐊᓚᒐᓗ ᖃᐅᔨᓴᓇᖅᑐᐅᔨᒪᓐᓚᒪᑦ ᐃᓗᓕᖏᑦᓯᓂᖅᓂᑦ ᐊᑦᓴᐅᖏᑕᓂᖃᖅᑲᐅᒪᓂᖅᓂᑦ ᐃᓕᓴᐅᓇᖅᑐᐅᔨᒪᓕᕐᒥᔪᑦ. ᐅᓇ ᑖᒃᑯ ᐃᓕᓴᐅᓇᔨᑎᑐᐅᓗᐃᖅᓯᐊᖅᑐᓄᖅ ᑐᑦᑐᑦ ᐱᐅᔨᐊ ᑕᑯᑦᓗᒍ ᐊᔨᖏᑦ ᐃᔨᒪᑎᓗᑦ ᑐᑦᑕᐃᑦ ᐊᒥᔨᓂ ᔨᓐᓇᐃᔨᔨᖏᑦ ᒪᓕᑭᐊᖅᑎᑐᓐᓇ ᐊᑦᑲᒍᑎᑦ ᑕᐃᑲᓐᓇᖅᑐᓐᓇ ᑐᑦᑐᑦ ᐃᐅᓕᖏᑦ ᔨᑎᑕᓂᖅ

ᑐᓪᑐᐃᑦ ᓴᓂᐊᓂ, ᑕᐃᒪᓐᓕ ᖃᓄᐹᓪᓕᐊᓂᓕᒃᑐᓂ ᐊᓯᑭᖅᐸᓪᓕᐊᓂᐅᕐᓴᓂ ᓯᓚᑦᑎ ᐊᒪᓚᓐ ᓂᓪᓚᓯᖅᐸᓪᓕᐊᓂᖏᓐᓄᑦ. ᐅᓄᐊᓕ ᑕᒪᑭᒃ ᐊᖏᕐᔪᒪᒍᖏᑦ ᓂᕆᐅᑎᓂᓕᒃᑐᓂ ᓯᑕᒪᓄᑦ ᐃᒪᓕᓄᑦ, ᒪᖏᑲᒃ ᑕᐃᒃᓄᐊᑦ ᑐᓐᓇᐃᑦ (ᑲᔪᓂᖅᓴᐃᑦ ᐊᒪᓚᓐ ᖃᓄᐹᖅᑐᑦ) ᐅᒥᖓᒪᑦ, ᐊᒪᓚᓐ ᐊᒥᓯᑦ ᐊᓯᖏᑦ ᑕᐃᒪᓕᕆᓂᕐᒥᔪᑦ ᐊᓐᖏᓐᓄᑦ ᐊᖓᔪᖅᑎᑦ ᐅᒪᓕᒃ ᐱᑕᖅᑐᒥᓂᖅᑐᖅᑎᐅᑦ, ᐊᒪᓚᓐ ᑎᖓᒥᐊᑦ, ᐃᓕᓴᐃᓇᑎᑦ ᖃᐅᔨᓴᒪᓕᕐᒥᔪᑦ ᐅᓇᖓᓂᖏᑕ ᒥᓵᓄᑦ ᐊᒪᓚᓐ ᓯᖓᐃᐃᒪᐅᓕᖅ ᐊᖓᔪᖅᐸᓪᓕᐊᓂᖏᓐᓂᑦ ᐊᖓᕆᔨᔪᑦ. ᐃᓄᓕᒥᓂ ᐊᒪᓚᓐ ᐊᒪᑕᑦ ᐅᓗᓛᐃᓇᖅᑐᓂ ᐊᖓᔪᖅᐸᓪᓕᐊᓂᖏᓐᓄᑦ ᐊᖓᕆᔨᔪᑦ ᑐᓐᓇᐃᑦ ᑐᓴᐅᒪᓂᖅ.

ᐊᒥᓱᓂᖏᓐᓂ ᐊᒪᓚᓐ ᐊᓯᔾᔨᓪᓕᐊᓂᐅᔪᑦ ᑐᑦᖏᓚᓂᖏᓐᓂ

ᓯᕗᓪᓕᕐᓂᑦ 1900ᖏᑐᓂᑦ, ᑐᓴᐃᑦ ᐊᒥᓱᓂᖏᓐᓂ ᐃᓱᒪᒋᐅᔾᔨᒧᐊᓕᕆᔨᖅᑕᐅᓪᓚᒃᓴᒪᖏᓚᒃᑕ 100,000.ᖏᑐᓂᒋᑦᑐᖏᓐᓂᑦ, ᑭᓱᐊᓂ ᒥᓵᐅᓵᖅᑕᐅᓯᒪᓕᕆᓂᐊᖅᑐᓚᒃᑕ. ᑭᖑᓂᓵᓱᐊᑯᓕᐊᔪᑦ, ᐅᑯᐊ ᐊᒥᓱᓂᖏᓐᓂ ᐃᓕᓴᐅᓪᓕᐊᓂᕆᔨᖅᑕᐅᓪᓚᒃᑕ, ᐅᑯᐊᓗ ᐃᓱᒪᒋᐅᔾᔨᓪᓕᐊᓂᑦ ᖃᐅᔨᐱᐅᖅᑐᑦ ᓴᖅᑭᑐᐅᓪᓕᐊᓂᖏᓐᓄᑦ ᐊᒪᓚᓐ ᓯᓚ ᓂᓪᓕᓯᓚᐅᓂᖅᓯᒪᓕᕆᓂᐊᖅᑐᓚᒃᑕ ᐊᒪᓚᓐ ᐊᖓᔪᖅᐸᓪᓕᐊᓂᖏᓐᓄᑦ ᐊᖓᔪᖅᑎᑦ ᐊᒪᓚᓐ ᐊᒥᓱᓂᖏᓐᓂ ᐃᓕᓴᐅᓪᓕᐊᓂᕆᔨᖅᑕᐅᓪᓚᒃᓴᒪᖏᓚᒃᑕ ᐊᒪᓚᓐ ᓯᓚ ᓂᓪᓕᓯᓚᐅᓂᖅᓯᒪᓕᕆᓂᐊᖅᑐᓚᒃᑕ ᐊᒪᓚᓐ ᐊᒥᓱᓂᖏᓐᓂ ᐃᓕᓴᐅᓪᓕᐊᓂᕆᔨᖅᑕᐅᓪᓚᒃᓴᒪᖏᓚᒃᑕ, ᐅᑯᐊᓗ ᐃᓱᒪᒋᐅᔾᔨᓪᓕᐊᓂᕆᔨᖅᑕᐅᓪᓚᒃᓴᒪᖏᓚᒃᑕ ᐊᒪᓚᓐ ᓯᓚ ᓂᓪᓕᓯᓚᐅᓂᖅᓯᒪᓕᕆᓂᐊᖅᑐᓚᒃᑕ ᐊᒪᓚᓐ ᐊᒥᓱᓂᖏᓐᓂ ᐃᓕᓴᐅ

ᐊᓯᐊᔪᑦ ᐊᓕᑐᖅᑕᐅᓯᒪᔭᓐᓇᒥᓚᑕ ᖃᓄᐱᓕᓄᑦ ᑐᓕᐃᒪᓕᑐᓂ ᑐᖅᓴᖅᓯᐅᓕᖅᑐᓂ ᐊᒥᓂᓕᐅᑎᓕᒃᑐᓂ ᓴᖅᑭᑦᓴᖅᑎᑐᓂ ᐱᖅᑕᐅᓂᖅᑐᖅᓯᒪᓕᑦ. ᓇᓗᓇᓗᓪᓗᓂ ᖃᓇᓗᓇᑕᖅᑕᐅᓯᓚᖅᑐᑎᓪᓗᒍᑦ ᐱᓕᕆᔨᖅᑕᐅᓯᒪᓕᑦ ᐱᓕᕆᓂᖅᓄᐅᑦ ᓄᓇᕗᑦᑐᓂᑦ ᐊᓯᔪᓐᓇᖅᑐᓂᑦ, ᑕᐃᒪᓕᒐᒪᑦ, ᐊᒻᒪᓗ ᐊᒥᓱᓂ ᐱᓕᕆᔨᒪᓂᖅᓄᑦ ᐅᖃᖅᑐᑎᒃᓴᓂᑦ, ᐊᐅᓚᔨᒧᐊᖅᑎᓪᓗ ᐱᓕᕆᔨᐅᑎᒋᓪᓗ (ᐊᑐᓚᐊᑦ ᐊᒻᒪᓗ ᑐᓚᖅᑕᕐᒪᑦ) ᖃᓄᐃᓕᓴᕐᓂᖅᓄᑦ ᓴᓇᔨᒧᐊᖅᑐᓂᑦ.

Source: COSEWIC. 2017. COSEWIC assessment and status report on the Caribou, Dolphin and Union population, *Rangifer tarandus*, in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xii + 51 pp.

ᓴᓪᓕᒻᒥᐅᑦᓴᖅᑭᑦᑐᖅᓯᒪᔪᑦ, ᓴᖅᑭᑦᓴᖅᑎᓕᕐᓂᖅᓯᒪᔪᑦ ᐊᒻᒪᓗ ᓇᓕᓕᐊᓄᑦ ᐃᓕᓴᕐᓂᕐᓂᖅᓄᑦ

ᑐᑭᑐᑦ ᖃᑐᐱᖅᑎᑎᒋᔪᖅᑐᑦ ᐊᐅᓚᑕᐅᓂᖅᓄᑦ ᐱᓕᑦ ᓄᓇᕗᒻᒥ ᒪᓕᓕᑎᑎᓄᑦ ᓄᓇᕗᑦ ᐊᖏᕐᓴᖅᑎᑎᒋᔭᐅᓂᑦ ᐊᒻᒪᓗ ᖃᑐᐱᖅᑎᒋᔭᑎᑎᒋᔭᐅᓂᑦ ᓄᓇᕗᕐᔪᐊᑦ ᑲᖏᒪᖅᑯᓂᖅᑎᑎᓄᑦ ᓄᓇᕗᑦ ᐃᓕᓴᕐᓂᖅᓄᑦ ᐃᓚᖏᓪᓗᒍᑦ ᐊᖏᕐᓴᖅᑎᑎᒋᔭᐅᓂᑦ. ᑕᒪᑉᐊᐊ ᐊᖏᕐᓴᖅᑎᑎᒋᔭᑦᑎᓪᓗ ᐅᓇᓗᓇᕐᓂᖅᑕᐅᓯᒪᓕᑦ ᐱᓕᕆᓂᖅᓄᐅᑦ ᐅᖃᓕᓂᒃᑐᓂᑦ ᓄᓇᕗᑦ ᐃᒪᓕᕆᔨᒪᓂᖅᓄᑦ ᐅᑭᐅᖅᑕᕐᓂᖅᓄᑦ: ᓄᓇᕗᒻᒥ ᐃᒪᓕᕆᓂᕐᓂᕆᔨᐊᖅᑐᑦ ᑲᑎᒪᔨᖅᑎᓂᑦ, ᓄᓇᕗᑦᑐᓂᑦ, ᐃᒪᓕᕆᓂᕐᓂᕆᔨᐊᖅᑐᑦ ᐅᓂᒃᑳᖅᑑᓂᑦ ᑲᑎᒪᔨᖅᑎᓂᑦ, ᐃᓄᐃᑦᑐᓂᑦ ᐃᒪᓕᕆᓂᕐᒥᐅᑦᑎᓂᒃᑐᓂᑦ.

ᑐᑭᑐᑦ ᐅᓪᓗᒥ ᐃᓕᓴᕐᓂᖅᓄᑦ ᐃᓱᒪᓕᓂᖅᓄᑦ ᐃᓱᒪᓗᓂᖅᓴᓕᕐᓂᖅᓄᑦ ᑕᒪᐃᑉᐹᖅᓯᒪᓕᖅᑐᑦ ᓴᖅᑭᑦᓴᖅᑎᑎᒋᔭᐅᓂᑦ ᐊᒻᒪᓗ ᓄᓇᕗᑦᑐᓂᑦ (2003) (ᓱᓕᑦᓂᖅᓴᖅᓯᒪᓂᑦ ᒪᓕᓐᓇᐊᓂᕐᓂᑦ) ᐊᒻᒪᓗ ᓄᓇᕗᒻᒥ ᓴᖅᑭᑦᓴᖅᑎᑎᒋᔭᐅᓂᑦ (ᓄᓇᕗᒻᒥ) ᐱᖅᓯᓴᖅ (2013). ᐊᑦᑕᓇᖅᑐᑦᑕᑐ ᓴᖅᑭᑦᓴᖅᑎᑎᒋᔭᐅᓂᖅᓄᑦ ᐃᓅᓴᖃᑦᑕᐅᓇᓱᒋᔭᐅᓂᖅᓄᑦ ᑲᑎᒪᔨᖅᑎᓂᑦ ᓱᓕᑦᓂᖅᓴᖅᑕᐅᓕᖅᑐᑦ ᐃᓱᒪᓕᒐᒪᑦ ᓴᖅᑭᑦᓴᖅᑎᑎᒋᔭᐅᓂᑦ ᓄᓇᕗᑦ ᒪᓕᒃᑲᓐᓂᕐᒧᑦ 2014ᖃᓄᑦᑕᒍ ᓱᑦ, ᐊᒻᒪᓗ ᒐᕆᔨᐊ ᓱᑦ ᐊᒥᓱᓂᖅᓄᑦ ᓴᖅᑭᑦᓴᖅᑎᑎᒋᔭᐅᓂᖅᓄᑦ ᓄᓇᕗᑦᑐᓂᑦ ᓄᓇᕗᒻᒥᓄᑦ ᓄᓇᕗᑦᑐᓂᑦ ᐃᓱᒪᓕᒐᒪᑦ ᐃᓅᓴᖃᑦᑕᐅᓇᓱᒋᔭᐅᓂᖅᓄᑦ ᓄᓇᕗᑦᑐᓂᑦ ᓄᓇᕗᒻᒥ

ᐅΔᒍᓪᖃᓂ Δ-3: ᑕᔨᑎᑕᐅᓪᓗᑎᓂ ᖁᓄᐃᓪᖏᖃᓪᓂᖅᑭᖅᓂ ᑲᑎᒪᑎᓴᓂᓗᑐ ᐃᖅᖃᐅᓕᐊᓗ 2021ᖃᒍᑎᓪᓗᒍ

4. ᑕᔨᑎᓴᓪᓗᑎᓂ ᖁᓄᖅᖁ ᐊᑐᑦᑕᐅᓴᖃᖅᓯᒪᖃᖅᓯᒪᓕᑕ

ᑲᑎᒪᓪᖅᐸᑕ ᑭᓇᵇᔨᓂ ᑲᑎᒪᓕᐅᓪᒪᖅᓱᑦᑕᓗ ᑐᑭᓯᓇᖅᓯᔨᓕᓪᓗᓂᓂ.

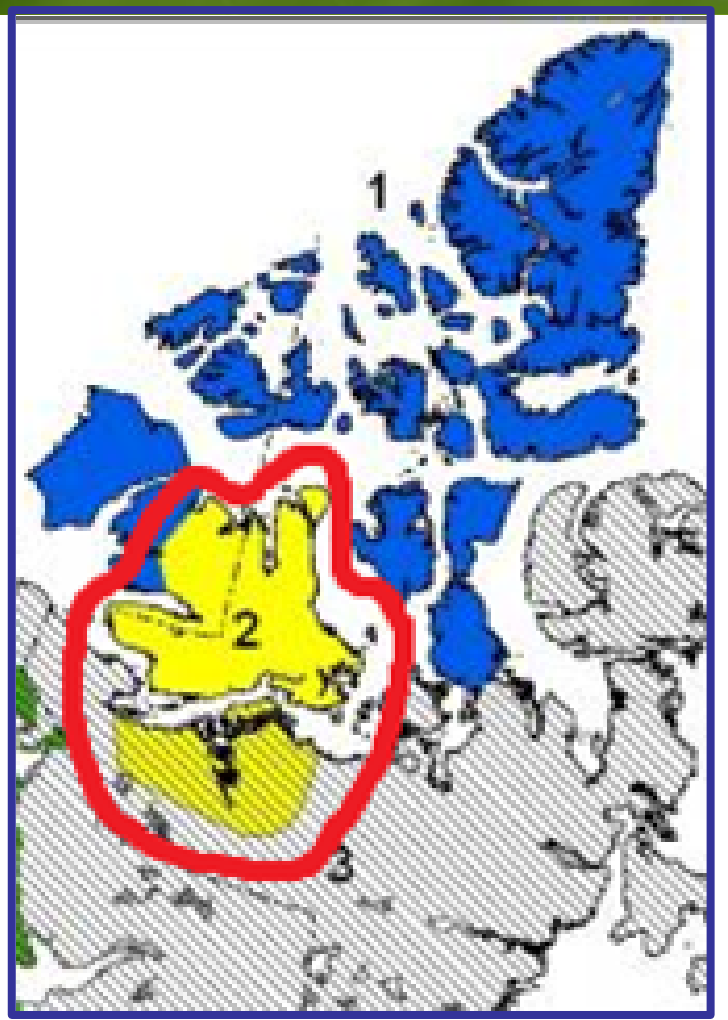
Environment and Climate Change Canada | Environnement et Changement climatique Canada

Canada

ᑭᓪᓕᓂᐅᑦ ᐃᑭᖏᓴᓂᔪ ᑐᓪᑐᖅᑎᓪ ᐅᑯᐊᓪᓕᐅᑦᑎᓯᐅᑎᓴᓕᖏᓐᓂᒃ ᐅᔪᓚᐊᓕᕆᔨᑐᑦᔪᑦ ᓂᖅᔨᑦᓴᑦ ᐱᓪᔪᑎᑦ ᒪᓕᒪᔪᖅᑲᑯᓂᓂ ᒪᓕᓪᔪᑎᑦ ᓂᖅᔨᑦᓴᑦ ᐅᔪᓚᐊᓕᕆᖅᓂᖅᐳᓂᑦᔪᑦ ᐱᖅᑯᖅᖁᓪᓕ?



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ᓂᖅᔨᑦᓴᑦ ᐅᔪᓚᐊᓕᕆᖅᓂᖅᐳᓂᑦᔪᑦ ᐱᖅᑯᓪᓚᐊᖏᓪᓚᒥᓂᖅᐳᖅᖁᓪᓕᖅᖁᓪᓕᖅᓂᖅᐳᓂᑦ:

- ᐊᓯᕈᐃᓕᔪᐊᖅᑕᐃᓪᓕᓂᖅᓚᑦ ᐱᕈᖅᑐᒥᓂᖅᓂᖅᓂᑦ ᐊᓪᒪᓕᔪ ᓂᖅᔨᑦᓴᑦ ᐱᓪᔪᑎᑦ ᓄᖓᖅᑯᓇᖅᓂᑦ ᑲᓇᑕᒥ
- ᑕᒪᐅᑯᐊ ᐅᒪᔨᐃᑦ ᐊᓪᑕᑦᓴᕐᓂᖅᑐᑦ ᖁᓇᖅᑐᐃᒪᑎᐅᒃᖢᓇᓄᑦ ᐄᖏᒐᒪᑎᓕᐅᑎᑦ ᐊᐅᓚᓂᖅᑲᓯᔪᐊᓂᖅᒥᑦ ᐃᓕᓚᓂᐅᔨᐅᑎᑦ.

ᑐᖏᓕᓵᐅᔪᑦ

- ᑲᑎᒪᔨᑕᐅᕆᓚᐊᓕᓵᑦ ᓯᓕ ᓄᖅᑲᖏᓐᓂᑕᐅᓪᓚᑕ ᓄᓀᐸᔪᐊᓵᓐᓇᖅᓂᖅᓂᖏᓂ
- ᐅᓇ ᐊᑐᐃᓵᓇᕐᖅᑎᑕᐅᓯᒪᔪᑦ ᑐᕿᐅᑎᒪᑎᑦᑎᔫᒪᓂᑦᑎᔪᑦ ᖃᓄᐃᓕᓵᖅᓯᓐᓂᒪᖅᓂᑦ ᖃᓄᐃᓕᓴᐅᐊᖃᓵᖅᓂᑎᖅᓂᑦ.

ᐊᑦᑕᓇᖅᑐᑦᑐᒃ ᓂᕐᔪᒃᑯᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᖅᐳᓂᓄᑦ ᐃᓄᐊᑦᓕᓗᐊᕐᓂᖅᐳᓂᓄᑦ ᑲᓇᑕᒥ ᐊᑐᓕᕐᕕᐅᓯᒪᔪᑦ

ᐊᑦᑕᓇᖅᑐᑦᑐᒃ ᓂᕐᔪᒃᑯᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᖅᐳᓂᓄᑦ ᐃᓄᐊᑦᓕᓗᐊᕐᓂᖅᐳᓂᓄᑦ ᑲᓇᑕᒥ = ᖃᐅᔨᓴᖅᑕᐅᖃᑦᑕᒥᐊᓕᑦ ᓂᕐᔪᒃᑯᑦ ᑲᓇᑕᒥ

Special Concern

2004

Threatened

Endangered

2017

ᐅᓗᑏᐊᖅ ᓇᓗᐊᖏᑦ ᑕᑐᖅ ᓯᓚ

ᖃᓚᑎᓂᖅᓴᓐ ᖁᓕᑐᓂ ᐅᓗᑏᐊᖅᓇᖅ ᓂᖏᒃ

- 2015 - ᖁᑎᑦᓗᒍ - ᐱᒋᐊᖅᑎᑕᐅᓯᒪᔪᒥᑦ ᑲᓇᑕᒥ ᐊᐅᓪᓚᑦᑎᑦᑎᐊᓂᖏᒥᑦ ᕿᖅᓇᐃᓂᖅ ᐅᓕᐅᒃᐅᓴᑏᐊᓱᓪᓕᑦ ᐃᓕᐅᑦᓗᑎᑦ
- 2018 - Γ ᐊᐅᓪᓚᑦᑎᑦᑎᓂᐅᔪᒥᑦ ᕿᖅᓇᐅᑎᑭᑦᑎᖅᓂᓂ ᓴᖅᑭᑕᐅᑦᓗᓂ ᐊᑦᒪᓗ ᐱᓪᑏᔪᐅᖃᑎᖅᖁᓂᓂᓂ-ᐱᓪᑏᔪᐅᖃᑎᖅᖁᓂᓄᑦ ᑕᒪᓐᓇᒪᖏᑦ ᐱᓪᑏᖃᑎᒋᖅᓂᒃᓂᒃᓂᓂ ᐃᓕᑦᑎᑦ
- 2019 - ᖁᑎᑦᓗᒍ- ᐊᐋᑎᓪᓚᑏᒃᓂᑦ ᐊᑦᒪᓗ ᓂᓕᖅᓂᐊᖅᑎᒃᓂᑦ ᐊᓂᔨᕕᑦᓕᐊᓂᖅᒪᓂᓗ ᑲᓇᑕᒥ ᐊᐰᖃᑎᒋᑦᑐᑕ ᑕᒪᓐᓇᒪᐅᑦ ᐅᓗᑏᐊᖅᓇᖃᑎᒋᑦᑐᑦ ᓇᓗᓇᐃᖅᓂᓂᓄᑦ ᐊᑐᓕᕐᕕᐅᓂᖅᓗᑦ.

ᓂᕿᔪᓱᓂ ᐅᓗᓚᐊᓇᕿᓂᖅᓄᑦᓂᑦ ᐱᕿᐸᖅᑎᑦ ᐊᐅᓪᓚᕐᓂᔪᓇᖅᓄᑦ ᖃᖅᑕᐅᓴᕆᓚᐊᖅᑕ ᐅᓪᓗᖅᑕ.

2004

- ᐊᑦᑕᓇᖅᑐᒃᑎᑦᑐᑦ ᓂᕿᔪᓱᓂ ᓇᓗᓇᐃᖅᑕᐅᔪᓚᑦᓂᖅᓄᑦ ᐃᓅᓴᓪᓚᐊᕿᓂᖅᓄᑦ ᓄᑦ ᑲᓇᑕᒥ ᖃᐅᔨᖅᓂᒪᓕᖅᓄᑦ **- ᐊᐠᔨᐅᖅᓄᑦᑐᑦᔪᑦ ᐃᓱᒪᓕᕆᓇᖅᑐᑦᑕᓪᓕ**

2011

- ᓇᓗᓇᐃᖅᑕᐅᔪᒪᓂᖅ **ᐊᑎᓕᐅᖅᑕᐅᓪᓗ ᓂ** ᐊᐠᔨᐅᖅᓄᑦᑐᑦᔪᑦ ᐃᓱᒪᓗᓇᖅᑐᑦᑕ ᖃᓚᐊᖅᓱ ᑐᖅᓯᓂ ᓂᕿᔪᓱᓂ ᐅᓗᓚᐊᓇᕿᓂᖅᓄᑦ ᓴᓕᑕᑦ ᐱᕿᐸᖅᓄᑎᒍᑦ

2015

- ᓴᖅᑭᑎᓴᓂᖅ ᐃᓕᓐᓂᐅᔨᓚᐊᓕᓕᒫᑦ ᐃᓕᐅᓗᑎᑦ ᐊᐅᓕᑦᑎᑎᓂᖅ ᕿᖅᓚᐅᑎᑦ

2017

- ᐊᑦᑕᓇᖅᑐᒃᑎᑦᑐᑦ ᓂᕿᔪᓱᓂ ᓇᓗᓇᐃᖅᑕᐅᔪᒪᓂᖅᓄᑦ ᐃᓅᓴᓪᓚᐊᕿᓂᖅᓄᑦ ᓄᑦ ᑲᓇᑕᒥ ᓇᓗᓇᐃᖅᑕᐅᔪᑦ ᖃᐅᔨᖅᓄᑦᑕᐅᖅᑲᖅᓱᓚᐅᑦ ᐊᓕᓕᑦ

2017

- ᐊᑦᑕᓇᖅᑐᒃᑎᑦᑐᑦ ᓂᕿᔪᓱᓂ ᓇᓗᓇᐃᖅᑕᐅᔪᒪᓂᖅᓄᑦ ᐃᓅᓴᓪᓚᐊᕿᓂᖅᓄᑦ ᓄᑦ ᑲᓇᑕᒥ **- ᖃᐅᔨᖅᓄᑦᑕᐅᖅᑲᖅᓱᓚᐅᑦ ᓄᖅᔪᑎᐊᑭᓕᖅᓂᖅᑐᓂᑦ**

2019

- ᑲᑎᒪᔨᑕᐅᓴᓂᖅ ᐱᑎᐊᖅᑎᑕᐅᔪᒪᔪᑦ

2021?

- **ᖃᓄᖅ ᑕᐃᒪ**

ᑕᒪᓂᓕᖅᐳᔪᑦ

2019Γ ᑲᑎᒪᑎᓯᓪᓗᑕ ᓄᓇᕗᒻᒥ ᓄᓇᕐᓯᐊᒥᓗ

ᐃ>ᓗ 2019ᖏᑎᓪᓗᒍ, ᑐᓴᖅᐃᒋᓯᒪᓪᓗᒋᑦ ᐅᒪᔨᓂᐊᖅᑎᑦᑯᓴᑦ ᐊᒻᒪᓗ ᑭᑦᑯᓪᓗᓭᒧᑦ

- ᓄᓇᕗᒻᒥ: ᖃᐅᓪᓗᖅᑐᖅ, ᐃᖅᓚᵖᑐᑎᐊᖅ (ᐃᓕᒋᕆᐅᖅᓯᐅᑎᓚᓂ ᐅᒥᖏᒪᖏᑐᑎᒥᐅᑦ ᐊᒻᒪᓗ ᖃᐅᖏᓪᓗᐅᒥᐅᑦ)
- ᓄᓇᕐᓯᐊᒻᒥ: ᐅᓗᵖᕼᐊᑦᑐᖅ ᐊᒻᒪᓗ <ᐅᓭᑐᖅ

ᐱᓕᕆᖅᑎᑉᑐᑦ ᐱᓕᕆᖅᑎᑉᓯᓂᖏᓪᓗ ᑲᑎᖅᑎᑉᑐᑎᑦ ᐃᓐᓇᐊᕆᒥ ᐊᒻᒪᓗ LΔ 2019Γ.

ᑐᓴᖅᑕᓇᑦ ᑐᑭᓯᓪᒪᐅᖅᑕᓇᑦ:
ᐊᑐᓕᖅᑎᑕᐅᖏᓯᒪᔪᓇᑦ ᖃᓄᐃᓕᖅᑎᔪᖏᓯᓂᖏᓐᓄᑦ
ᐃᑲᔪᖅᓯᖅᑕᐅᖓᑎᑦᑐᖅ

ᑐᐃᐅᒪᓴᓂᐳᓂ ᓄᓇᓕᖅᓯᓂᖅᑐᓂᓕᓂ

- ᖃᐅᔨᒪᖏᓕᖅᓂᖏᓐᓄᓂ ᐱᖅᓯᔪᑐᖃᖅᓂᓂ ᐊᓪᒪᓕᓗ ᓄᓇᓕᖅᓂᒥᐅ ᖃᐅᔨᒪᓴᖏᓐᓄᓂ, ᐊᓪᒪᓕᓗ ᓂᑦᓕᐊᖃᐅᑎᖃᐅᓴᖅᓂᖅᓂᓕᑦ ᑕᒪᐟᓯᒪᐅᑦ ᓇᓗᓇᐃᖅᑕᐅᔨᒪᓯᑦᓯᔨᓂᓱᑦᑕ ᐊᑦᑕᓇᖅᑐᒋᑦᑐᑐᓂ ᓂᖏᔪᑎᑦ ᓇᓗᓇᐃᖅᑕᐅᔨᒪᓂᖅᓄᓂᓄᓂ ᐃᓅᓴᑦᓕᓗᐊᖏᖅᓄᓂᓄᓂ ᑲᓇᑕᒥ ᖃᐅᔨᓴᖅᑕᐅᖏᓚᓗᒋᑦ
- ᓇᓗᓇᖅᑐᓂᓗ ᑐᑭᔨᐅᒪᓴᐅᖓᒪᖓᑦ ᐊᑦᑕᓇᖅᑐᒋᑦᑐᑐᓂ ᓂᖏᔪᑎᑦ ᓇᓗᓇᐃᖅᑕᐅᔨᒪᓂᖅᓄᓂᓄᓂ ᐃᓅᓴᑦᓕᓗᐊᖏᖅᓄᓂᓄᓂ ᑲᓇᑕᒥ ᐱᓕᕆᐊᕆᓴᖓᑕ ᑐᑭᖅᑐᒋᑦᑐᑐᓂ ᐱᖅᓯᔪᑐᖃᖅᓂᓂ
- ᐃᓅᐃᑦ/ᐃᓅᔭᐊᓗᐃᓪᓗ ᖃᐅᔨᒪᔨᓪᒪᓕᐅᓪᒪᒡᒪᑕ ᐱᖅᓯᔪᑐᖃᖅᓂᓂ

<u>ᑐᓴᖅᑕᕐᓂ ᑐᑭᔨᓕᐅᖅᑕᕐᓂ</u>: ᖃᐅᔨᒪᓴᓪᒪᓕᓕᐅᓂᖓᓄᓂᓂ

ᖃᓄᐃᓕᓐᓄᑦᓂᖓᓄ ᐃᔨᒪᑎᓴᐅᑎᐊᖏᓂᖅᔨᒪᖓᓂᖓᓄᓄᓂ

ᖃᐅᔨᓴᖅᑕᐅᖏᓂᖅᓂᖏᓗᐊᖅᑎᒃ

ᑐᐃᐅᒪᓴᓕᐣ ᓄᓇᓕᖅᓯᖅᑎᓴᖅᑐᓂᓕᐣ

- ᑐᑦᑐᐃᑦ ᐊᒥᓱᓂᖅᑭᑦ ᒪᓕᖅᑐᐃᓕᓇᖅᑎᖅᓯᒪᒋᑦ ᐃᓅᓱᖅᑎᓂᑦ ᑭᓱᐊᓂ ᑕᒪᓕᓇ ᐃᓕᓴᕆᓕᖅᑕᐅᓱᒪᖅᑭᒪᑦ ᐊᑦᑕᓇᖅᑐᑦᑐᑦ ᓂᐲᔪᐃᑦ ᓇᓗᓇᐃᖅᑕᐅᓱᓂᖅᓄᓕᒃ ᐃᓅᓴᓕᓕᖅᑐᓄᓕᒃ ᐃᓅᓴᓕᓕᖅᑐᓄᓕᒃ ᑲᓇᑕᒥ ᐱᓕᕆᔨᖅᑭᓂᑦ; ᐃᓅᓴᓕᓕᑎᓕᒋᑦ ᑐᑦᑐᐃᑦ ᑕᒪᓇ ᑕᐃᒪᐃᓱᐅᓂᖅᓄᓕᒃ ᑕᐃᒪᐃᑦᑐᖅ ᐊᒻᒪᓗ ᓇᓗᓇᐃᖅᓱᓇᓂ ᓄᐅᓕᕆᔨᖅᑭᓂᑦ.
- ᐊᑎᓱᖅᑕᐅᓂᖅ ᑭᓱᐊᓂ ᐊᓱᔨᕐᓕᐊᒪᒪᑕ, ᑕᐃᒪᐃᖅᓯᓇ ᑕᔪᕿᖏᔪᑦ ᐅᔨᓇᖅᑐᖅ ᐅᓂᒃᑲᓕᐊᖅᑎᑕ ᓄᓇᕗᒻᒥ ᓴᓇᒪᔪᖏᑦᑕ ᖃᐅᔨᕿᒥᓂᖅᑭᓂᑦ.
- ᐃᓱᒪᓕᑐᑎᑦᑕᐅᕐᓕᓗ ᑭᓕᓂᓂᐅᕐᕼ ᑐᑦᑐᖅᑦ ᐱᓕᓗᑦ
- ᐅᒪᓇᓄᓂᐊᖅᑎᒃᔪᑦ ᐊᐅᓪᓴᕆᐅᑎᑦᓕᓗᑎᑦ ᐊᐅᓪᓕᑕᐅᓂᖅᑭᓄᓂᑦ ᑐᑦᑐᐃᑦ, ᑭᓱᐊᓂ ᑕᒪᒃᑯᐊ ᐃᓱᒪᑦᓴᐅᖅᑭᑦᑐᑦ ᐊᑦᑕᓇᖅᑐᑦᑐᑦ ᐃᓅᓴᓕᓕᖅᑐᓄᓕᒃ ᐃᓅᓴᓕᓕᖅᑐᓄᓕᒃ ᑲᓇᑕᒥ ᐱᓕᕆᔨᖅᑭᓄᓂᑦ ᓄᐅᓕᕆᔨᖅᑭᓄᓂᑦ.

ᑐᓴᖅᑕᕐᓂᑦ ᑐᑭᓱᓪᓕᐅᖅᑕᕐᓂᑦ: ᓄᓇᓕᓂᓴᖅᑐᑐᓂᓴᖅᑭᓂᑦ ᓇᓗᓇᐃᖅᓱᓂᕐ ᐅᓪᓗᒥᑦᑭᑦᑐᓗᓴᖅᓯᒪᑦ ᓱᓕ

ᑐᐃᐅᒪᓕᕐᓂ ᓄᓇᓕᖅᓯᓚᐅᖅᑐᓂᓕᓂ

- ᐅᓗᑏᐊᓵᓇᖅᓂᖅᑎᑦ: ᐃᓱᒫᓗᑎᒋᔭᐅᔪᑦ ᐊᓱᖅᑎᑦ ᐅᒪᔪᑦ (ᓱᕐᓗ ᐊᒪᑭᑦ ᐊᓚᒪᓗ ᐊᐢᓯ) ᓱᓕᐅᓪᓗ ᐊᓱᓴᓪᓕᐊᓂᖅ
- ᐊᒪᑭᑦ ᐊᐢᓯᐃᓪᓗ ᐱᑕᓱᐊᓪᓕᑏᖅᒥ ᓄᖅᑲᓴᖅᑎᓂᖅᑎᑦ
- ᐃᓱᒫᓗᑎᒋᔭᐅᔪᑦ ᓂᖏᓴᐸᓱᐅᓂᖅᓚᑦ ᑐᑦᑐᑕᓱᓵᓂᐅᔪᒥᑦ ᐊᓱᓴᖅᑕᐅᓱᒪᑉᐸᑦ ᓄᖅᔪᓵᓂᐊᓵᓂᖅᑎᓵᓄᑦ
- ᑐᓴᖅᓵᓂᖓᒪᖅᓯᒪᑕ ᑐᑭᓱᐅᒪᒋᐊᖅᓵᓂᖓᑎᓴᓂᑦ ᖃᓄᖅ ᓴᓗᒥᑦᑕᐅᓂᖅᑐᑦ ᐊᓂᖅᑎᓂᖅᑐᑦ ᐃᓚᖅᑎᓂᖅᑐᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᓯᓚᑦ ᑐᑭᓯᓂ ᓂᕐᔪᑦ ᐅᓗᑏᐊᓕᕐᓂᖅᓵᓂᑐᑦ ᐱᕐᔾᔪᖅ

ᖃᓄᐃᓕᒋᐊᓕᓐᓂᖅᓯᒪᓕᖅ

1. ᐃᓕᓴᕆᓂᒃ ᐅᒪᔨᓴᓂᐊᖅᑎᒃ ᑲᑎᒪᖃᑎᖃᕐᓯᒪᓕᖅᓂᒃ ᑕᒪᑲᑯᐊ ᐱᓱᓰᖅᑕᐅᖅᑯᓴᓕᒋᓂᒃ
   - ᖃᓄᐃᓕᓐᓄᒃᓕᓐᓄᒪᓄᑎᑕ/ᐅᖃᐅᓯᐅᓕᓚᑎᒃ ᐃᓱᒋᓕᓚᑎᒋᑲᐅᓱᒪᔨᒃ ᐱᓪᓕᓚᒋᒃ
   - ᖃᑎᖅᑕᒋᐊᖏᖕᓂᓪᓕᔪᑐ ᐊᕐᕈᑎᓕᕆᔨᖑᒃ ᐊᒪᒪᓚ ᓱᓕᖕᓂᐊᖅᑎᖑᒃ ᐊᓱᔨᔪᓪᓕᐊᓂᓄᓂᖏᓚ ᑲᕈᑕᒥ ᐅᓂᖏᓕᓕᐊᓂᕐᓕᓚᑐᓕᒍ ᓄᕈᓐᓇ ᐅᒪᔨᓕᕆᕆᔨᔪᐊᖏᒃᑯᒃ ᑲᑎᒪᔨᖓᖕᓄᓕᒃ

2. ᓄᕈᓐᓇ, ᑲᑎᖏᑎᒋᒋᐊᓕᓐᓂᒃ ᓴᕐᒪᓄᑦ, ᖃᑎᖕᒥᐅᒃ ᐃᓄᐃᑦ ᑲᑐᔨᔪᖏᑎᑯᖕᓂᒃ ᐊᒪᒪᓚ ᓄᕈᓐᓇ ᑐᖏᓴᐃᖏᒃᑯᑦ.

ᖃᐅᓂᐃᒍᐊᓕᓐᓄᑦ

3. ᐊᐸᑎᓕᕆᔨᖏᑦ ᐊᒻᒪᓗ ᓯᓚᐢᓂᐊᖅᑎᖏᑦ ᐊᓯᔨᔪᑦᓕᐊᓂᖏᓐᓄᓗ ᑲᓇᑕᒥ ᐊᑐᐃᓐᓇᐅᑎᕐᓯᓗᑦ ᐅᖃᐅᓯᒪᔪᓕᒫᓂᒃ ᓄᓇᓕᖓᓂᑦ ᐅᑯᓂᖏᓐᓄᓗ ᓄᓇᕗᒻᒥ ᐃᒪᔪᒍᓕᕆᔨᔪᐊᑯᓗᒃ ᑲᑎᒪᔨᖅᑐᓂ ᐊᒻᒪᓗ ᑐᕐᔪᖅᖃᖅᑐᓗᑦ ᓄᓇᕗᒻᒥ ᐃᒪᔪᓕᕆᔨᔪᐊᑲᑦ ᑲᑎᒪᔨᖅᑐᑦ ᐃᓱᒪᓕᐅᖅᓯᒪᔪᑯᓗᑦ ᐊᐃᓕᖅᑎᑕᐅᖅᓯᒪᔪᑦ
   - ᓄᓇᕗᒻᒥ ᐃᒪᔪᓕᕆᔨᔪᐊᑲᑦ ᑲᑎᒪᔨᖅᑐᑦ ᑲᑎᒪᓕᕐᔪᐊᓇᖅᑐᑦ ᐳᓚᕋᓕᓗᑎᑦ ᓄᓇᕗᒻᒥ ᐃᓱᒪᓕᐅᓚᐅᖅᑎᓂᓇᒃ
   - **ᐊᐸᑎᓕᕆᔨᖏᑦ ᐊᒻᒪᓗ ᓯᓚᐢᓂᐊᖅᑎᖏᑦ ᐊᓯᔨᔪᑦᓕᐊᓂᖏᓐᓄᓗ ᑲᑎᑕᒥ ᐊᒻᒪᓗ ᓄᓇᕗᒻᒥ ᐃᒪᔪᓕᕆᔨᔪᐊᑲᑦ ᑲᑎᒪᔨᖅᑐᑦ ᐱᓕᕆᖃᑎᒌᓕᑎᑦ ᑕᒪᑲᓇᐅᑦ ᐸᖓᔪᓕᓴᖅᓯᐅᑎᓂᖏᓐᓄᓗ ᐃᓱᒪᓕᐅᖅᓯᒪᔪᑯᓗᑦ ᓄᓇᕗᒻᒥ ᐊᖏᖃᖅᑎᑦᑎᓐᓄᑦ ᓚᓕᔪᔭᒍ.**

ᖃᑉᓂᐃᔨᒋᐊᓕᓐᓂᒃ

4. ᐊᓂᒍᓕᕆᔨᖏᑦ ᐊᓚᒪᓗ ᓯᓚᐢᓂᐊᖅᑎᑉᖏᑦ ᐊᓯᔾᔨᐸᑦᓕᐊᓂᖓᓄᓗ ᑲᓇᑕᒥ ᐱᓕᕆᔨᖓᑕ ᐊᐅᑦᓚᖅᑎᑦᓗᓂᒋᑦ ᑲᑎᒪᔨᑎᑦᓴᑦ (ᐃᓚᖃᖅᓗᑎᑦ ᐃᓚᖓᓐᓂᑦ) ᓴᓂᑐᖃᑉᖏᑦ ᓯᐅᓕᖅᑎᖓᓄᓂᒃ ᐊᓂᒍᓕᕆᔨᖏᓐᓂᑦ.
5. ᓴᓂᒪᑐᖃᑉᖏᑦ ᐊᓂᒍᓕᕆᔨᖏᑦ ᓯᐅᓕᖅᑎᐊᕐᓴ ᐊᐅᑦᓚᖅᑎᑦᓗᓂᒋᑦ ᐊᑐᓕᖁᓂ ᓴᓂᒪᑐᖃᖅᑕᑦ ᓯᐅᓕᖅᑎᖓᓕᒃ ᑲᑎᒪᔨᖓᓐᓄᑦ ᐃᓱᒪᓕᐅᖅᓱᒪᖁᑦᓗᓂᒋᑦ
6. ᐳᓚᕋᑦᓗᓄᑉ ᑲᑎᒪᑎᑦᓱᓪᓕᑦ
   - ᓯᐅᓕᖅᑎᐅᑦᐸ ᑲᑎᒪᔨᖓᓐᓄᑦ ᑕᒪᓐᓇ ᐃᓱᒪᓕᐅᔪᓐᓇᕐᓂᖓᓐᓃ
   - ᖃᐊᓱᑎᑦᓗᔪ
   - ᖃᐊᓱᑎᖓᓐᓂᑦᓗᔪ
   - ᐅᑎᖅᑎᑕᐅᓗᓂᓂ ᖃᐅᔨᓴᖅᑕᐅᕐᓂᑦᓗᔪ ᐊᑦᑕᓇᖅᑐᒋᑦᑐᒍ ᓂᕐᔪᐃᑦᑕ ᓇᓗᓇᐃᖅᑕᐅᓱᒪᓂᖓᓐᓄᑦ ᐃᓅᓴᑦᓯᐊᕐᓂᖓᓐᓄᑦ ᑲᓇᑕᒥ

** ᓯᐅᓕᖅᑏᑦ ᑲᑎᒪᔨᖓᑕ ᐃᓱᒪᖃᑎᒌᖃᓂᐅᔪᓕᒃᑐᑦ ᖃᓄᖅ ᐊᑐᖅᑕᐅᓱᒪᓯᖓᓚᒪᖓᓕᒫᑦ ᑭᓄᑯᐃᓘᑦ

ᐊᐱᖅᓯᑎᑦᑎᓴᓂᓴᖅ?

1. ᐸᓚᓇᓴᒥᓗᒃ ᑲᑎᒪᔨᒪᓗᒃ ᐅᐱᕐᓄᑦ ᐱᓴᓱᖅᑕᐅᕐᓯᓚᑦᔪᔨ ᓴᓪᕐᑐᒃ ᑲᑎᒪᑎᑦᔨᓂᖅ? ᑕᐃᒫᓚᓗ ᐱᓪᓗᖅᑕᐅᔪᑦ ᐱᓪᓗᖅᑎᑯᓂᓚᓗ ᐊᑐᓪᖅᑎᑕᐅᓄᕐᓗᓂ ᑲᑎᒪᓂᑲᓯᑦ?
   - ᐃᓕᓴᕆᑎᑦ ᐅᒪᔨᓂᐊᖅᑏᑦ ᐊᔨᖏᓚᓗ ᐃᓕᑭᓴᐅᓂᐊᖅᑐᑦ ᑕᐢᓂᓂ
   - ᖃᒥᕐᑭᓚᓕᑦ ᖃᐅᔨᓴᖅᑕᐅᔪᑎᒥᓂᑦ
   - ᖃᓄᐃᓪᓕᓴᓂᕆᓂᓂᑦ/ᐅᖃᐅᔨᓗᓚᓕᑦ ᐃᔨᒪᓚᑕᐅᔪᑦ ᓴᖅᑭᐸᓪᓚᐊᓂᖏᓂᓂᑦ

2. ᐊᑐᐃᓂᓇᐅᑎᓪᓚᓕᑦ ᖃᓄᖅᑐᔪᑎᖏᑦᑕ ᐅᐸᓚᖏᐃᔾᖅᔨᒪᔾᖏᓪᓚᓗ (ᖁᔭᓚᖅᑐᒥᐅᑦ ᑐᓂᔨᔨᒪᔨᑐᐊᑦ ᐅᓪᓚᒥ)

ᐊᐱᖅᓂᑎᓴᒃ? ᐅᖅᑲᐅᓴᒃ?



ᐃᓱᒪᒋᔭᖅᓂᒃ ᑕᒪᔭᓱᒪᐅᓕ ᒥᔨᓗᓂᒃ ᑎᑎᕋᔭ ᑐᖅᑭᑎᖏᓐᓄᐃᑦ:

Isabelle Duclos

Canadian Wildlife Service

5019 52nd Street

PO Box 2310

Yellowknife, NT X1A 2P7

isabelle.duclos@canada.ca

ᐅᐃᒍᓕᓐᓂᕐ ᐃ-4: ᑕᑯᑎᓴᓪᓗᓂᑎᑦ ᖃᐅᔨᖅ ᐊᑦᑐᕋᐅᓴᖏᓚᖏᓂᑕ ᑕᒪᒃᑯᐊ ᑎᑎᖃᕈᐅᓯᒪᓕᓐᓄᓪᓚᒪ ᖃᑯᐊᓯᓂᖅᓴᒃᑯᑦ ᓄᓇᓕᓐᓂᐅᓂᕐ ᐊᒻᒪᓗ ᐅᖃᐅᓯᐅᔪᓂᕐ ᖃᐅᔨᐃᓕᓐᓄᖏᓐᓂᕐ ᐃᓕᓴᐃᓂᖏᑦᑑᓂᓗ ᐅᐃᒍᓕᓐᓂᕐ ᑎᑎᖃᕈᐅᓕᐅᖏᑎᓪᓗᒍ ᐅᑎᔨᓴᖅᓯᓂᕐ.

ᑕᐃᒃᑯᐊᓪᓗ ᑕᑯᒃᖁᓛᐅᑎᓕᐅᖃᕈᓐᓂᕐ ᐊᐅᓪᓕᖃᑎᓪᓗᓂᕐ ᐅᑯᓄᖏᓐ, ᐃᖃᓗᐃᔅᓯᕐᑎᐊᖃᖅ ᐅᒪᔪᓂᐊᖃᖅᑎᒃᑯᖏᓐᓂᕐ.

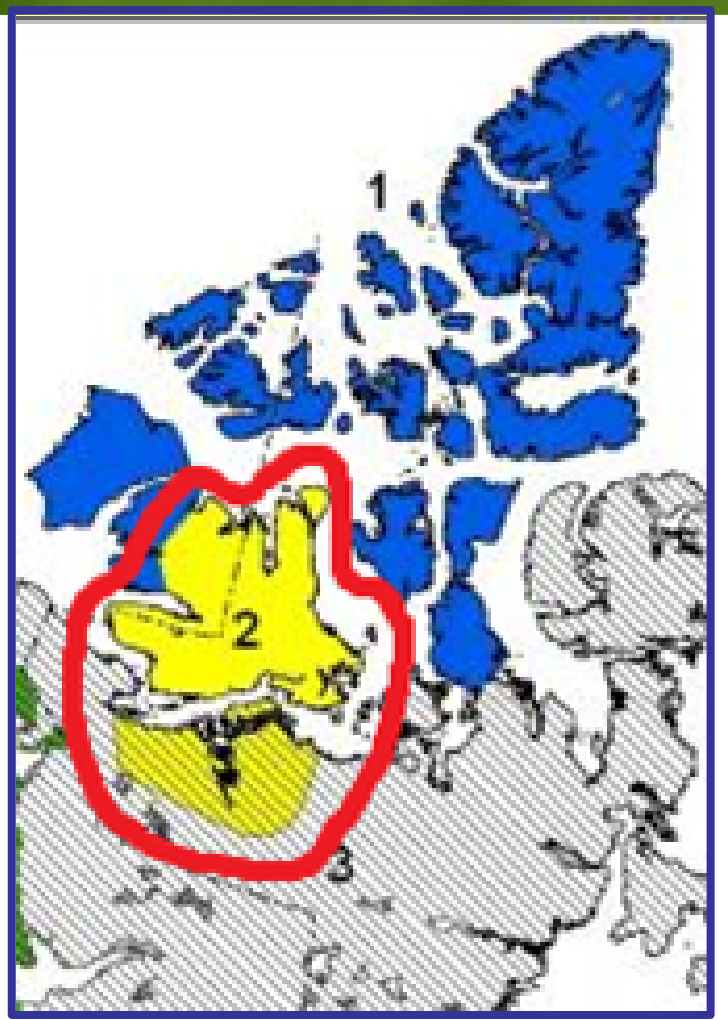
Environment and Climate Change Canada | Environnement et Changement climatique Canada

Canada

ᑭᓪᓕᓂᐅᑦ ᐃᑭᖏᓴᓂᔪ ᑐᓪᑐᖅᑎᓪ ᐅᑯᐊᓪᓕᐅᑦᑎᓯᐅᑎᓴᓕᖏᓐᓂᒃ ᐅᔪᓚᐊᓕᕆᔨᑐᑦᔪᑦ ᓂᖅᔨᑦᓴᑦ ᐱᓪᔪᑎᑦ ᒪᓕᒪᔪᖅᑲᑯᓂᓂ ᒪᓕᓪᔪᑎᑦ ᓂᖅᔨᑦᓴᑦ ᐅᔪᓚᐊᓕᕆᖅᓂᖅᐳᓂᑦᔪᑦ ᐱᖅᑯᖅᖁᓪᓕ?



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ᓂᖅᔨᑦᓴᑦ ᐅᔪᓚᐊᓕᕆᖅᓂᖅᐳᓂᑦᔪᑦ ᐱᖅᑯᓪᓚᐊᖏᓪᓚᒥᓂᖅᐳᖅᖁᓪᓕᖅᖁᓪᓕᖅᓂᖅᐳᓂᑦ:

- ᐊᓯᕈᐃᓕᔪᐊᖅᑕᐃᓪᓕᓂᖅᓚᑦ ᐱᕈᖅᑐᒥᓂᖅᓂᖅᓂᑦ ᐊᓪᒪᓕᔪ ᓂᖅᔨᑦᓴᑦ ᐱᓪᔪᑎᑦ ᓄᖓᖅᑯᓇᖅᓂᑦ ᑲᓇᑕᒥ
- ᑕᒪᐅᑯᐊ ᐅᒪᔨᐃᑦ ᐊᓪᑕᑦᓴᕐᓂᖅᑐᑦ ᖁᓇᖅᑐᐃᒪᑎᐅᒃᖢᓇᓄᑦ ᐄᖏᒐᒪᑎᓕᐅᑎᑦ ᐊᐅᓚᓂᖅᑲᓯᔪᐊᓂᖅᒥᑦ ᐃᓕᓚᓂᐅᔨᐅᑎᑦ.

ᑐᖏᓕᓵᐅᔪᑦ

- ᑲᑎᒪᔨᑕᐅᕆᓚᐊᓕᓵᑦ ᓯᓕ ᓄᖅᑲᖏᓐᓂᑕᐅᓪᓚᑕ ᓄᓀᐸᔪᐊᓵᓐᓇᖅᓂᖅᓂᖏᓂ
- ᐅᓇ ᐊᑐᐃᓵᓇᕐᖅᑎᑕᐅᓯᒪᔪᑦ ᑐᕿᐅᑎᒪᑎᑦᑎᔫᒪᓂᑦᑎᔪᑦ ᖃᓄᐃᓕᓵᖅᓯᓐᓂᒪᖅᓂᑦ ᖃᓄᐃᓕᓴᐅᐊᖃᓵᖅᓂᑎᖅᓂᑦ.

ᐊᑦᑕᓇᖅᑐᑦᑐᒃ ᓂᕐᔪᒃᑯᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᖅᐳᓂᓄᑦ ᐃᓄᐊᑦᓕᓗᐊᕐᓂᖅᐳᓂᓄᑦ ᑲᓇᑕᒥ ᐊᑐᓕᕐᕕᐅᓯᒪᔪᑦ

ᐊᑦᑕᓇᖅᑐᑦᑐᒃ ᓂᕐᔪᒃᑯᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᖅᐳᓂᓄᑦ ᐃᓄᐊᑦᓕᓗᐊᕐᓂᖅᐳᓂᓄᑦ ᑲᓇᑕᒥ = ᖃᐅᔨᓴᖅᑕᐅᖃᑦᑕᒥᐊᓕᑦ ᓂᕐᔪᒃᑯᑦ ᑲᓇᑕᒥ

Special Concern

2004

Threatened

Endangered

2017

ᐅᓗᑏᐊᖅ ᓇᓗᐊᖏᑦ ᑕᑐᖅ ᓯᓚ

ᖃᓚᑎᓂᖅᓴᓐ ᖁᓕᑐᓂ ᐅᓗᑏᐊᖅᓇᖅ ᓂᖏᒃ

- 2015 - ᖁᑎᑦᓗᒍ - ᐱᒋᐊᖅᑎᑕᐅᓯᒪᔪᒥᑦ ᑲᓇᑕᒥ ᐊᐅᓪᓚᑦᑎᑦᑎᐊᓂᖏᒥᑦ ᕿᖅᓇᐃᓂᖅ ᐅᓕᐅᒃᐅᓴᑏᐊᓱᓪᓕᑦ ᐃᓕᐅᑦᓗᑎᑦ
- 2018 - Γ ᐊᐅᓪᓚᑦᑎᑦᑎᓂᐅᔪᒥᑦ ᕿᖅᓇᐅᑎᑭᑦᑎᖅᓂᓂ ᓴᖅᑭᑕᐅᑦᓗᓂ ᐊᑦᒪᓗ ᐱᓪᑏᔪᐅᖃᑎᖅᖁᓂᓂᓂ-ᐱᓪᑏᔪᐅᖃᑎᖅᖁᓂᓄᑦ ᑕᒪᓐᓇᒪᖏᑦ ᐱᓪᑏᖃᑎᒋᖅᓂᒃᓂᒃᓂᓂ ᐃᓕᑦᑎᑦ
- 2019 - ᖁᑎᑦᓗᒍ- ᐊᐋᑎᓪᓚᑏᒃᓂᑦ ᐊᑦᒪᓗ ᓂᓕᖅᓂᐊᖅᑎᒃᓂᑦ ᐊᓂᔨᕕᑦᓕᐊᓂᖅᒪᓂᓗ ᑲᓇᑕᒥ ᐊᐰᖃᑎᒋᑦᑐᑕ ᑕᒪᓐᓇᒪᐅᑦ ᐅᓗᑏᐊᖅᓇᖃᑎᒋᑦᑐᑦ ᓇᓗᓇᐃᖅᓂᓂᓄᑦ ᐊᑐᓕᕐᕕᐅᓂᖅᓗᑦ.

ᓂᕿᔪᓱᓂ ᐅᓗᓚᐊᓇᕿᓂᖅᓄᑦᓂᑦ ᐱᕿᐸᖅᑎᑦ ᐊᐅᓪᓚᕐᓂᔪᓇᖅᓄᑦ ᖃᖅᑕᐅᓴᕆᓚᐊᖅᑕ ᐅᓪᓗᖅᑕ.

2004

- ᐊᑦᑕᓇᖅᑐᒃᑎᑦᑐᑦ ᓂᕿᔪᓱᓂ ᓇᓗᓇᐃᖅᑕᐅᔪᓚᓂᖅᓄᑦ ᐃᓅᓴᓪᓕᓗᕆᓂᖅᓄᑦ ᓄᑦ ᑲᓇᑕᒥ ᖃᐅᔨᖅᓂᒪᓕᖅᑎᖅᑕ **- ᐊᐠᔨᐅᖅᓄᑦᑐᑦᔪᑦ ᐃᓚᒋᓗᓂᓇᖅᑐᑦᑕᓪᓕ**

2011

- ᓇᓗᓇᐃᖅᑕᐅᔪᒪᓂᖅ **ᐊᑎᓕᐅᖅᑕᐅᓪᓗ ᓂ** ᐊᐠᔨᐅᖅᓄᑦᑐᑦᔪᑦ ᐃᔪᒪᓗᓂᓇᖅᑐᑦ ᖃᑎᒌᖅᑐᒃ ᑐᓴᓂ ᓂᕿᔪᓱᓂ ᐅᓗᓚᐊᓇᕿᓂᖅᓄᑦ ᓴᓕᑐᑦ ᐱᕿᐸᖅᑎᑎᔪᑦ

2015

- ᓴᖅᑭᑎᓴᓂᖅ ᐃᓕᑎᔨᐅᓴᓚᐊᓕᓕᒫᑦ ᐃᓕᐅᓗᑎᑦ ᐊᐅᓕᑦᑎᑎᓂᖅ ᕿᖅᓇᐅᑎᒥᑦ

2017

- ᐊᑦᑕᓇᖅᑐᒃᑎᑦᑐᑦ ᓂᕿᔪᓱᓂ ᓇᓗᓇᐃᖅᑕᐅᔪᒪᓂᖅᓄᑦ ᓄᑦ ᑲᓇᑕᒥ ᓇᓗᓇᐃᖅᑕᐅᔪᓂ ᖃᐅᔨᖅᓂᒪᓕᖅᑎᖅᑕ ᐊᓕᑦ

2017

- ᐊᑦᑕᓇᖅᑐᒃᑎᑦᑐᑦ ᓂᕿᔪᓱᓂ ᓇᓗᓇᐃᖅᑕᐅᔪᒪᓂᖅᓄᑦ ᐃᓅᓴᓪᓕᓗᕆᓂᖅᓄᑦ ᓄᑦ ᑲᓇᑕᒥ ᖃᐅᔨᖅᓂᒪᓕᖅᑎᖅᑕ **- ᖃᐅᔨᖅᓄᑦᑕᐅᑲᓂᓂᕐᒥ ᓄᓇᒧᐊᕈᓐᓂᖅᓂᑦ**

2019

- ᑲᑎᒪᔨᑕᐅᓴᓚᐊᓂᖅ ᐱᒋᐊᖅᑎᑕᐅᔪᓐᓇᐅᔪᑦ

2021?

- **ᖃᓄᖅ ᑕᐃᒪ**

ᑕᒪᓂᓕᖅᓴᒧᑦ

2019Γ ᑲᑎᒪᑎᓯᓪᓗᑕ ᓄᓇᕗᒻᒥ ᓄᓇᕐᓯᐊᒥᓗ

ᐃ>ᓗ 2019ᖏᑎᓪᓗᒍ, ᑐᓴᖅᐃᒋᓯᒪᓪᓗᒋᑦ ᐅᒪᔨᓂᐊᖅᑎᑦᑯᓴᑦ ᐊᒻᒪᓗ ᑭᑦᑯᓪᓗᓭᒧᑦ

- ᓄᓇᕗᒻᒥ: ᖃᐅᓪᓗᖅᑐᖅ, ᐃᖅᓚᵖᑐᑎᐊᖅ (ᐃᓕᒋᕆᐅᖅᓯᐅᑎᓚᓂ ᐅᒥᖏᒪᖏᑐᑎᒥᐅᑦ ᐊᒻᒪᓗ ᖃᐅᖏᓪᓗᐅᒥᐅᑦ)
- ᓄᓇᕐᓯᐊᒻᒥ: ᐅᓗᵖᕼᐊᑦᑐᖅ ᐊᒻᒪᓗ <ᐅᓭᑐᖅ

ᐱᓕᕆᖅᑎᑉᑐᑦ ᐱᓕᕆᖅᑎᑉᓯᓂᖏᓪᓗ ᑲᑎᖅᑎᑉᑐᑎᑦ ᐃᓐᓇᐊᕆᒥ ᐊᒻᒪᓗ LΔ 2019Γ.

ᑐᓴᖅᑕᓇᑦ ᑐᑭᓯᓪᒪᐅᖅᑕᓇᑦ:
ᐊᑐᓕᖅᑎᑕᐅᖏᓯᒪᔪᓇᑦ ᖃᓄᐃᓕᖅᑎᔪᖏᓯᓂᖏᓐᓄᑦ
ᐃᑲᔪᖅᓯᖅᑕᐅᖓᑎᑦᑐᖅ

ᑐᐃᐅᒪᓴᓂᐳᓂ ᓄᓇᓕᖅᓯᓂᖅᑐᓂᓕᓂ

- ᖃᐅᔨᒪᖏᓕᖅᓂᖏᓐᓄᓂ ᐱᖅᓯᔪᑐᖃᖅᓂᓂ ᐊᓪᒪᓕᓗ ᓄᓇᓕᖅᓂᒥᐅ ᖃᐅᔨᒪᓴᖏᓐᓄᓂ, ᐊᓪᒪᓕᓗ ᓂᑦᓕᐊᖃᐅᑎᖃᐅᓴᖅᓂᖅᓂᓕᑦ ᑕᒪᐟᓯᒪᐅᑦ ᓇᓗᓇᐃᖅᑕᐅᔨᒪᓯᑦᓯᔨᓂᓱᑦᑕ ᐊᑦᑕᓇᖅᑐᒋᑦᑐᑐᓂ ᓂᖏᔪᑎᑦ ᓇᓗᓇᐃᖅᑕᐅᔨᒪᓂᖅᓄᓂᓄᓂ ᐃᓅᓴᑦᓕᓗᐊᖏᖅᓄᓂᓄᓂ ᑲᓇᑕᒥ ᖃᐅᔨᓴᖅᑕᐅᖏᓚᓗᒋᑦ
- ᓇᓗᓇᖅᑐᓂᓗ ᑐᑭᔨᐅᒪᓴᐅᖓᒪᖓᑦ ᐊᑦᑕᓇᖅᑐᒋᑦᑐᑐᓂ ᓂᖏᔪᑎᑦ ᓇᓗᓇᐃᖅᑕᐅᔨᒪᓂᖅᓄᓂᓄᓂ ᐃᓅᓴᑦᓕᓗᐊᖏᖅᓄᓂᓄᓂ ᑲᓇᑕᒥ ᐱᓕᕆᐊᕆᓴᖓᑕ ᑐᑭᖅᑐᒋᑦᑐᑐᓂ ᐱᖅᓯᔪᑐᖃᖅᓂᓂ
- ᐃᓅᐃᑦ/ᐃᓅᔭᐊᓗᐃᓪᓗ ᖃᐅᔨᒪᔨᓪᒪᓕᐅᓪᒪᒡᒪᑕ ᐱᖅᓯᔪᑐᖃᖅᓂᓂ

<u>ᑐᓴᖅᑕᕐᓂ ᑐᑭᔨᓕᐅᖅᑕᕐᓂ</u>: ᖃᐅᔨᒪᓴᓪᒪᓕᓕᐅᓂᖓᓄᓂᓂ

ᖃᓄᐃᓕᓐᓄᑦᓂᖓᓄ ᐃᔨᒪᑎᓴᐅᑎᐊᖏᓂᖅᔨᒪᖓᓂᖓᓄᓄᓂ

ᖃᐅᔨᓴᖅᑕᐅᖏᓂᖅᓂᖏᓗᐊᖅᑎᒃ

ᑐᐃᐅᒪᓴᓕᐣ ᓄᓇᓕᖅᓯᖅᑎᓴᖅᑐᓂᓕᐣ

- ᑐᑦᑐᐃᑦ ᐊᒥᓱᓂᖅᑭᑦ ᒪᓕᖅᑐᐃᓕᓇᖅᑎᖅᓯᒪᒋᑦ ᐃᓅᓱᖅᑎᓂᑦ ᑭᓱᐊᓂ ᑕᒪᓕᓇ ᐃᓕᓴᕆᓕᖅᑕᐅᓱᒪᖅᑭᒪᑦ ᐊᑦᑕᓇᖅᑐᑦᑐᑦ ᓂᐲᔪᐃᑦ ᓇᓗᓇᐃᖅᑕᐅᓱᓂᖅᓄᓕᒃ ᐃᓅᓴᓕᓕᖅᑐᓄᓕᒃ ᐃᓅᓴᓕᓕᖅᑐᓄᓕᒃ ᑲᓇᑕᒥ ᐱᓕᕆᔨᖅᑭᓂᑦ; ᐃᓅᓴᓕᓕᑎᓕᒋᑦ ᑐᑦᑐᐃᑦ ᑕᒪᓇ ᑕᐃᒪᐃᓱᐅᓂᖅᓄᓕᒃ ᑕᐃᒪᐃᑦᑐᖅ ᐊᒻᒪᓗ ᓇᓗᓇᐃᖅᓱᓇᓂ ᓄᐅᓕᕆᔨᖅᑭᓂᑦ.
- ᐊᑎᓱᖅᑕᐅᓂᖅ ᑭᓱᐊᓂ ᐊᓱᔨᕐᓕᐊᒪᒪᑕ, ᑕᐃᒪᐃᖅᓯᓇ ᑕᔪᕿᖏᔪᑦ ᐅᔨᓇᖅᑐᖅ ᐅᓂᒃᑲᓕᐊᖅᑎᑕ ᓄᓇᕗᒻᒥ ᓴᓇᒪᔪᖏᑦᑕ ᖃᐅᔨᕿᒥᓂᖅᑭᓂᑦ.
- ᐃᓱᒪᓕᑐᑎᑦᑕᐅᕐᓕᓗ ᑭᓕᓂᓂᐅᕐᕼ ᑐᑦᑐᖅᑦ ᐱᓕᓗᑦ
- ᐅᒪᓇᓄᓂᐊᖅᑎᒃᔪᑦ ᐊᐅᓪᓴᕆᐅᑎᑦᓕᓗᑎᑦ ᐊᐅᓪᓕᑕᐅᓂᖅᑭᓄᓂᑦ ᑐᑦᑐᐃᑦ, ᑭᓱᐊᓂ ᑕᒪᒃᑯᐊ ᐃᓱᒪᑦᓴᐅᖅᑭᑦᑐᑦ ᐊᑦᑕᓇᖅᑐᑦᑐᑦ ᐃᓅᓴᓕᓕᖅᑐᓄᓕᒃ ᐃᓅᓴᓕᓕᖅᑐᓄᓕᒃ ᑲᓇᑕᒥ ᐱᓕᕆᔨᖅᑭᓄᓂᑦ ᓄᐅᓕᕆᔨᖅᑭᓄᓂᑦ.

ᑐᓴᖅᑕᕐᓂᑦ ᑐᑭᓱᓪᓕᐅᖅᑕᕐᓂᑦ: ᓄᖅᓱᓄᓂᐊᖅᑐᓂᐊᖅᑭᓄᓂᑦ ᓇᓗᓇᐃᖅᓱᓂᖅ ᐅᓪᓚᑦᑭᓱᖅᑐᓗᐊᖅᓯᒪᑦ ᓱᓕ

ᑐᐃᐅᒪᓕᕐᓂ ᓄᓇᓕᖅᓯᓚᐅᖅᑐᓂᓕᓂ

- ᐅᓗᑏᐊᓵᓇᖅᓂᖅᑎᑦ: ᐃᓱᒫᓗᑎᒋᔭᐅᔪᑦ ᐊᓱᖅᑎᑦ ᐅᒪᔪᑦ (ᓱᕐᓗ ᐊᒪᑭᑦ ᐊᓚᒪᓗ ᐊᐢᓯ) ᓱᓕᐅᓪᓗ ᐊᓱᓴᓪᓕᐊᓂᖅ
- ᐊᒪᑭᑦ ᐊᐢᓯᐃᓪᓗ ᐱᑕᓱᐊᓪᓕᑏᖅᒥ ᓄᖅᑲᓴᖅᑎᓂᖅᑎᑦ
- ᐃᓱᒫᓗᑎᒋᔭᐅᔪᑦ ᓂᖏᓴᐸᓱᐅᓂᖅᓚᑦ ᑐᑦᑐᑕᓱᓵᓂᐅᔪᒥᑦ ᐊᓱᓴᖅᑕᐅᓱᒪᑉᐸᑦ ᓄᖅᔪᓵᓂᐊᓵᓂᖅᑎᓵᓄᑦ
- ᑐᓴᖅᓵᓂᖓᒪᖅᓯᒪᑕ ᑐᑭᓱᐅᒪᒋᐊᖅᓵᓂᖓᑎᓴᓂᑦ ᖃᓄᖅ ᓴᓗᒥᑦᑕᐅᓂᖅᑐᑦ ᐊᓂᖅᑎᓂᖅᑐᑦ ᐃᓚᖅᑎᓂᖅᑐᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᓯᓚᑦ ᑐᑭᓯᓂ ᓂᕐᔪᑦ ᐅᓗᑏᐊᓕᕐᓂᖅᓵᓂᑐᑦ ᐱᕐᔾᔪᖅ

ᖃᓄᐃᓕᒋᐊᓕᓐᓂᖅᓯᒪᓕᖅ

1. ᐃᓕᓴᕆᓂᒃ ᐅᒪᔨᓴᓂᐊᖅᑎᒃ ᑲᑎᒪᖃᑎᖃᕐᓯᒪᓕᖅᓂᒃ ᑕᒪᑲᑯᐊ ᐱᓱᓰᖅᑕᐅᖅᑯᓴᓕᒋᓂᒃ
   - ᖃᓄᐃᓕᓐᓄᒃᓕᓐᓄᒪᓄᑎᑕ/ᐅᖃᐅᓯᐅᓕᓚᑎᒃ ᐃᓱᒋᓕᓚᑎᒋᑲᐅᓱᒪᔨᒃ ᐱᓪᓕᓚᒋᒃ
   - ᖃᑎᖅᑕᒋᐊᖏᖕᓂᓪᓕᔪᑐ ᐊᕐᕈᑎᓕᕆᔨᖑᒃ ᐊᒪᒪᓚ ᓱᓕᖕᓂᐊᖅᑎᖑᒃ ᐊᓱᔨᔪᓪᓕᐊᓂᓄᓂᖏᓚ ᑲᕈᑕᒥ ᐅᓂᖏᓕᓕᐊᓂᕐᓕᓚᑐᓕᒍ ᓄᕈᓐᓇ ᐅᒪᔨᓕᕆᕆᔨᔪᐊᖏᒃᑯᒃ ᑲᑎᒪᔨᖓᖕᓄᓕᒃ

2. ᓄᕈᓐᓇ, ᑲᑎᖏᑎᒋᒋᐊᓕᓐᓂᒃ ᓴᕐᒪᓄᑦ, ᖃᑎᖕᒥᐅᒃ ᐃᓄᐃᑦ ᑲᑐᔨᔪᖏᑎᑯᖕᓂᒃ ᐊᒪᒪᓚ ᓄᕈᓐᓇ ᑐᖏᓴᐃᖏᒃᑯᑦ.

ᖃᐅᓂᐃᒍᐊᓕᓐᓄᑦ

3. ᐊᐸᑎᓕᕆᔨᖏᑦ ᐊᒻᒪᓗ ᓯᓚᐢᓂᐊᖅᑎᖏᑦ ᐊᓯᔨᔪᑦᓕᐊᓂᖏᓐᓄᓗ ᑲᓇᑕᒥ ᐊᑐᐃᓐᓇᐅᑎᕐᓯᓗᑦ ᐅᖃᐅᓯᒪᔪᓕᒫᓂᒃ ᓄᓇᓕᖓᓂᑦ ᐅᑯᓂᖏᓐᓄᓗ ᓄᓇᕗᒻᒥ ᐃᒪᔪᒍᓕᕆᔨᔪᐊᑯᓗᒃ ᑲᑎᒪᔨᖅᑐᓂ ᐊᒻᒪᓗ ᑐᕐᔪᖅᖃᖅᑐᓗᑦ ᓄᓇᕗᒻᒥ ᐃᒪᔪᓕᕆᔨᔪᐊᑲᑦ ᑲᑎᒪᔨᖅᑐᑦ ᐃᓱᒪᓕᐅᖅᓯᒪᔪᑯᓗᑦ ᐊᐃᓕᖅᑎᑕᐅᖅᓯᒪᔪᑦ
   - ᓄᓇᕗᒻᒥ ᐃᒪᔪᓕᕆᔨᔪᐊᑲᑦ ᑲᑎᒪᔨᖅᑐᑦ ᑲᑎᒪᓕᕐᔪᐊᓇᖅᑐᑦ ᐳᓚᕋᓕᓗᑎᑦ ᓄᓇᕗᒻᒥ ᐃᓱᒪᓕᐅᓚᐅᖅᑎᓂᓇᒃ
   - **ᐊᐸᑎᓕᕆᔨᖏᑦ ᐊᒻᒪᓗ ᓯᓚᐢᓂᐊᖅᑎᖏᑦ ᐊᓯᔨᔪᑦᓕᐊᓂᖏᓐᓄᓗ ᑲᑎᑕᒥ ᐊᒻᒪᓗ ᓄᓇᕗᒻᒥ ᐃᒪᔪᓕᕆᔨᔪᐊᑲᑦ ᑲᑎᒪᔨᖅᑐᑦ ᐱᓕᕆᖃᑎᒌᓕᑎᑦ ᑕᒪᑲᓇᐅᑦ ᐸᖓᔪᓕᓴᖅᓯᐅᑎᓂᖏᓐᓄᓗ ᐃᓱᒪᓕᐅᖅᓯᒪᔪᑯᓗᑦ ᓄᓇᕗᒻᒥ ᐊᖏᖃᖅᑎᑦᑎᓐᓄᑦ ᓚᓕᔪᔭᒍ.**

ᖃᑉᓂᐃᔨᒋᐊᓕᓐᓂᒃ

4. ᐊᓂᒍᓕᕆᔨᖏᑦ ᐊᓚᒪᓗ ᓯᓚᐢᓂᐊᖅᑎᑉᖏᑦ ᐊᓯᔾᔨᐸᑦᓕᐊᓂᖓᓄᓗ ᑲᓇᑕᒥ ᐱᓕᕆᔨᖓᑕ ᐊᐅᑦᓚᖅᑎᑦᓗᓂᒋᑦ ᑲᑎᒪᔨᑎᑦᓴᑦ (ᐃᓚᖃᖅᓗᑎᑦ ᐃᓚᖓᓐᓂᑦ) ᓴᓂᑐᖃᑉᖏᑦ ᓯᐅᓕᖅᑎᖓᓄᓂᒃ ᐊᓂᒍᓕᕆᔨᖏᓐᓂᑦ.
5. ᓴᓂᒪᑐᖃᑉᖏᑦ ᐊᓂᒍᓕᕆᔨᖏᑦ ᓯᐅᓕᖅᑎᐊᕐᓴ ᐊᐅᑦᓚᖅᑎᑦᓗᓂᒋᑦ ᐊᑐᓕᖁᓂ ᓴᓂᒪᑐᖃᖅᑕᑦ ᓯᐅᓕᖅᑎᖓᓕᒃ ᑲᑎᒪᔨᖓᓐᓄᑦ ᐃᓱᒪᓕᐅᖅᓱᒪᖁᑦᓗᓂᒋᑦ
6. ᐳᓚᕋᑦᓗᓄᑉ ᑲᑎᒪᑎᑦᓱᓪᓕᑦ
   - ᓯᐅᓕᖅᑎᐅᑦᐸ ᑲᑎᒪᔨᖓᓐᓄᑦ ᑕᒪᓐᓇ ᐃᓱᒪᓕᐅᔪᓐᓇᕐᓂᖓᓐᓃ
   - ᖃᐊᓱᑎᑦᓗᔪ
   - ᖃᐊᓱᑎᖓᓐᓂᑦᓗᔪ
   - ᐅᑎᖅᑎᑕᐅᓗᓂᓂ ᖃᐅᔨᓴᖅᑕᐅᕐᓂᑦᓗᔪ ᐊᑦᑕᓇᖅᑐᒋᑦᑐᒍ ᓂᕐᔪᐃᑦᑕ ᓇᓗᓇᐃᖅᑕᐅᓱᒪᓂᖓᓐᓄᑦ ᐃᓅᓴᑦᓯᐊᕐᓂᖓᓐᓄᑦ ᑲᓇᑕᒥ

** ᓯᐅᓕᖅᑏᑦ ᑲᑎᒪᔨᖓᑕ ᐃᓱᒪᖃᑎᒌᖃᓂᐅᔪᓕᒃᑐᑦ ᖃᓄᖅ ᐊᑐᖅᑕᐅᓱᒪᓯᖓᓚᒪᖓᓕᒫᑦ ᑭᓄᑯᐃᓘᑦ

ᐊᐱᖅᓯᑎᑦᑎᓴᓂᓴᖅ?

1. ᐸᓚᓇᓴᒥᓗᒃ ᑲᑎᒪᔨᒪᓗᒃ ᐅᐱᕐᓄᑦ ᐱᓴᓱᖅᑕᐅᕐᓯᓚᑦᔪᔨ ᓴᓪᕐᑐᒃ ᑲᑎᒪᑎᑦᔨᓂᖅ? ᑕᐃᒫᓚᓗ ᐱᓪᓗᖅᑕᐅᔪᑦ ᐱᓪᓗᖅᑎᑯᓂᓚᓗ ᐊᑐᓪᖅᑎᑕᐅᓄᕐᓗᓂ ᑲᑎᒪᓂᑲᓯᑦ?
   - ᐃᓕᓴᕆᑎᑦ ᐅᒪᔨᓂᐊᖅᑏᑦ ᐊᔨᖏᓚᓗ ᐃᓕᑭᓴᐅᓂᐊᖅᑐᑦ ᑕᐢᓂᓂ
   - ᖃᒥᕐᑭᓚᓕᑦ ᖃᐅᔨᓴᖅᑕᐅᔪᑎᒥᓂᑦ
   - ᖃᓄᐃᓪᓕᓴᓂᕆᓂᓂᑦ/ᐅᖃᐅᔨᓗᓚᓕᑦ ᐃᔨᒪᓚᑕᐅᔪᑦ ᓴᖅᑭᐸᓪᓚᐊᓂᖏᓂᓂᑦ

2. ᐊᑐᐃᓂᓇᐅᑎᓪᓚᓕᑦ ᖃᓄᖅᑐᔪᑎᖏᑦᑕ ᐅᐸᓚᖏᐃᔾᖅᔨᒪᔾᖏᓪᓚᓗ (ᖁᔭᓚᖅᑐᒥᐅᑦ ᑐᓂᔨᔨᒪᔨᑐᐊᑦ ᐅᓪᓚᒥ)

ᐊᐱᖅᓂᑎᓴᒃ? ᐅᖅᑲᐅᓴᒃ?



ᐃᓱᒪᒋᔭᖅᓂᒃ ᑕᒪᔭᓱᒪᐅᓕ ᒥᔨᓗᓂᒃ ᑎᑎᕋᔭ ᑐᖅᑭᑎᖏᓐᓄᐃᑦ:

Isabelle Duclos

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Ilangani A: Ukakakatigiyakhait atugutikhait

1. Tuhaktitakhait katitigutainik ukakatiginiaktainik 2019
2. COSEWICkut naitumik ukautait

Ilangani A-1: Tuhaktitakhait katitigutainik ukakatiginiaktainik 2019

Inuit ovalo HTOkut katimayut Ikaluktutiami ovalo Kugluktumi

Environment and Climate Change Canada | Environnement et Changement climatique Canada

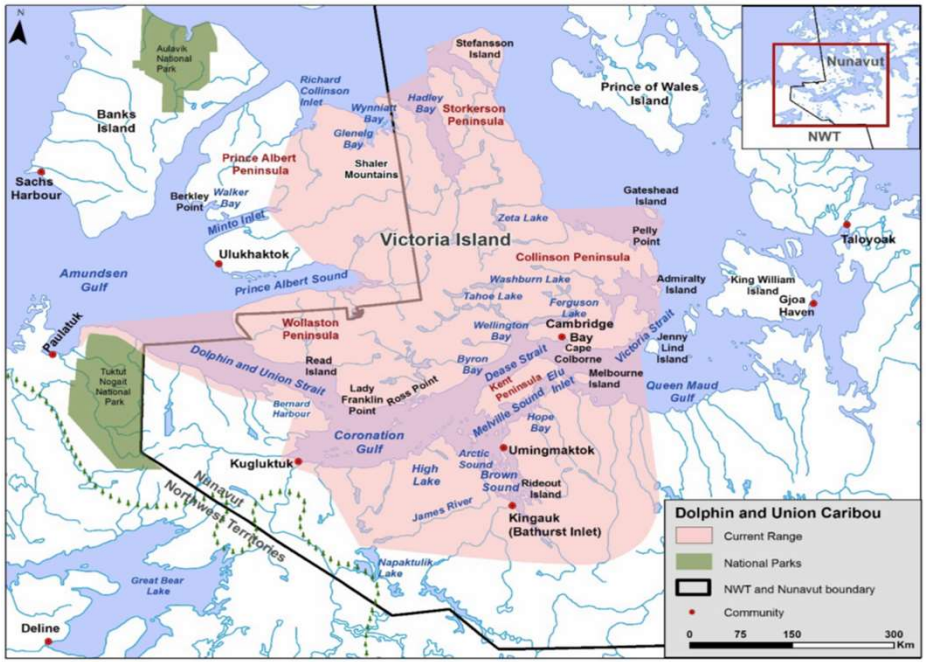
Canada

Puiblirmiuttat Tuktu

Titiraqhimajukhat Ihumaaluutauliqtut malikhugit kavamarjuangit Amirijakhaat Anngutikhat Maligaq (SARA)?



© Kim Poole, Aurora Wildlife Research

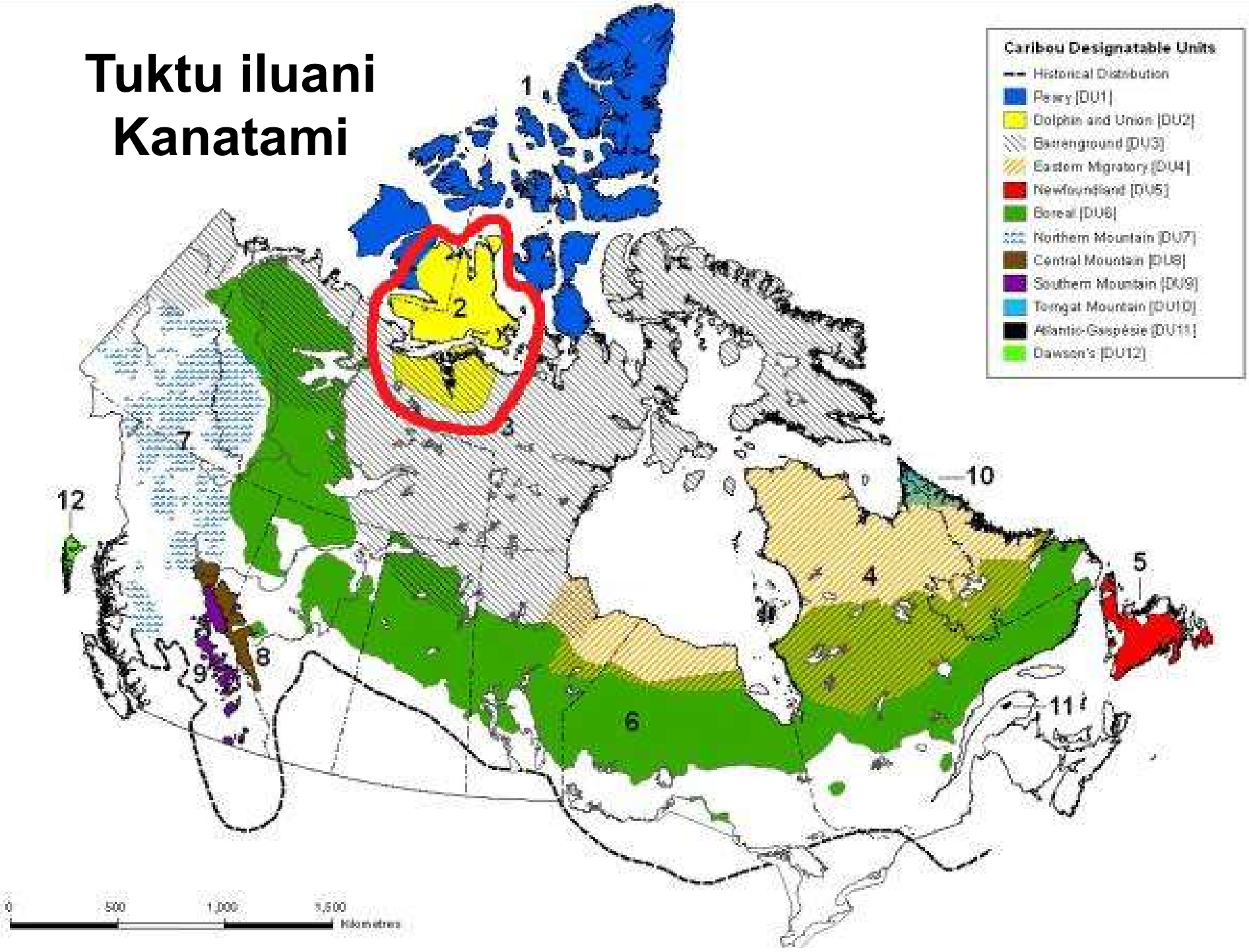


***Amirijakhaat Anngutikhat Maligaq taijauvagaat SARA*'p Hivunikhaq:**

- Nutqarahuaqhugit nauhimajut anngutikhaillu tammaqtailinahuaqhugit Kanatami
- Ikajurahuarlugit uumajuit naammanngittut munarittiarnahuarlugillu ilagilugit ingilrutikhanut

Canadian Wildlife Service, 2019

Tuktu iluani Kanatami



Hamanngat *Ihumaaluutauliqtut* uvanngat *Nungutpalliajut*

Puqtuhimajuq

Ihumaaluutauliqtut



Uumajut nungutpallialaaqtut nunami huligianngitkumik.

2017

Qajagijaujut

2004

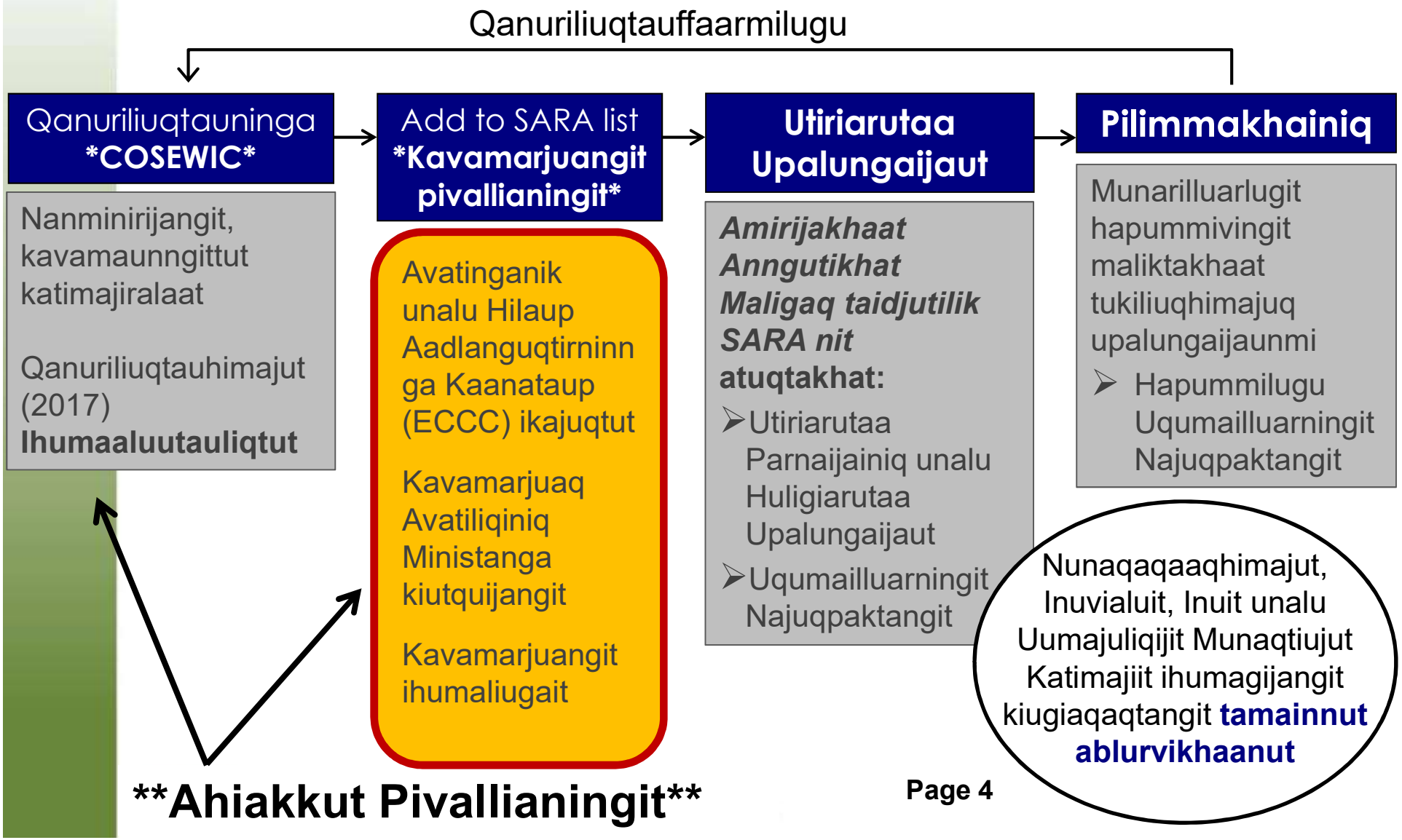
Ihumaaluutauhimajuq

Uumajut hakugiktumik amihuunilgit aktilaangat, nungutpallianingit naunaiqtaujuq kangiqhimajaunnirumigluuniit nutaangugamik ihumaaluutaulluaqtunigluuniit

Qajagijaunngittuq

Nakiktuq

Humiiliqqita tadja pivallianikhanut?



Hungmalli hamna Katimajiralaat Qanurinniitigut Qajangnaqhijut Uumajunit taidjutilik COSEWIC kiujauhimajuq “Ihumaaluutauliqtut”?

Naahimanngittuq nungutpallialiqtuq haffumani <u>50-60%</u> <u>avataanit 18 ukiunganit</u>

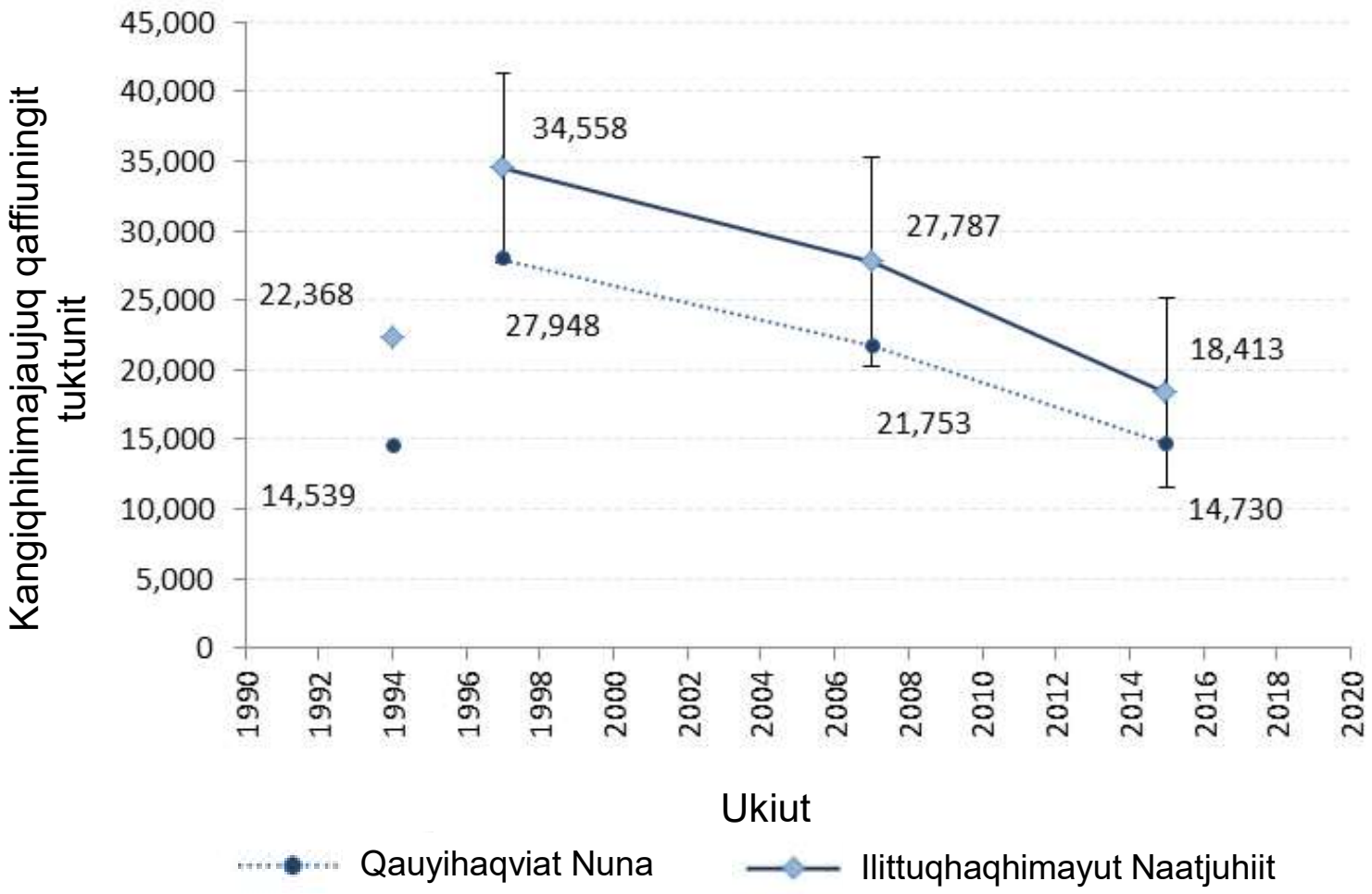
- **Nunaptingni Qaujimajangit/Inuit Qaujimajatuqangit (IQ) Iqaluktuuttiarmi**
  - Tautukhimajangit nungutpalliajut qaffiuningit nukaqhiujut, amihuujunillu anngutikhat timingit ajuqhautiqaqtumik
  - Nungutpalliajut qilamiuqtumik kinguani 2010 mit.
- **Kititiqhimajangit naunaijainiit – Nunavut Kavamat**
  - Hamanngit 1997 uvunga 2015, kititiqhimajangit naunaijainiit uuktuutigijangit amihuuningit nungutpalliajut uvanngat 34,000 uvunga 18,000 ahiqanngittut.

Amihuuningit puqtuhivakhutik kiglinganit Nunaptingnit unalu Pitquhirnut Qaujimajainnit/Inuit Qaujimajatuqangit

Nunaliit unipkaarijangit pitquhituqanut puqtuhivaktumik (utiqtarningit) qangaraalungmi 100 ukiunganit

- Hivuanit 1920t: tautukhimajaujuq amigaittumik amihuarjuit tuktut ingilrajut Kiillinirmit ahiarmut
- 1920t – 1970t: ikittut tautukhimajaujut tuktut (ingilrajut nutqaqhuni)
- 1980t – 1990t: qaffiuningit angiklijuummiqtuq (utiqhimajut)
- 1990t – ublumi: tautukhimajut nungutpalliajut, unalu nungutpalliajut qilamiuqtumik kinguani 2010 mit

Amihuuningit kangiqhijaujut tunngaviliuqhugit qablunaamiunnit qaujiharningit



Ihumaaluutauhimajut Puiblirmiunit Tuktut

Ublumimut ihumaaluutauhimajut ilaliutigijangit:

- Hilaup uunnakpalliajunut
  - Ikivallialiqtuq hiku aallannguqpallialiqhunilu tarjup hikungit taimaa kivivakhutik kinguvallialiqhutik ingilrajunut.
  - Nutaaqpiaq kumait kumaruillu iluanunngaujut timingnut



Ihumaaluutauhimajut Puiblirmiunit Tuktut

- **Hivunngani ihumaaluutauhimajut ilaliutigijangit:**
  - Umiaqtuqtut apqutait
  - Ihumagijaujut anguniaqtauviunginnaqtut (angmaumaningit hamanngat tallimat ilagijaujut nunaliit angiklivalliajuq unalu piqanngittuq maliktakhainnit anguniarviuvaktuq unipkaarijaujuq)





Ihumaaluutauhimajut Puiblirmiunit Tuktut

- **Hivunngani ihumaaluutauhimajut ilaliutigijangit:**
- Hivunngani ihumagijaujuq najuqpaktangit ajuqhautingit tukhiutigijangit ujaraqtarvit havaat angiqtauhimajut


CBC.ca


Marie Fast ECCC


Eric Reed ECCC

Huna aallannguqtaulaaqqa Puiblirmiut Tuktut titiraqtauhimagumik *Ihumaaluutauliqtut?*

Puqtuhimajuq

Ihumaaluutauliqtut



Inminiinnaaqtuq Anguniaqtunut Amirijaulluaqtakhat

- Tahapkuat atuinnalaaqtut uvunga **Nunaqaqaaqhimanngittunut inungnut**
- Atuinnaqtukhaq uvungainnaq Kanatam Minnguirviit, Kanatam Uumajunut Nunagijait unalu Utiqtaqtunut Tingmiat Unaguiqhirvingat nunaqaqaaqhimanngittunut inungnut
- Aturnaittuq humiliqaak kihimi Kavamarjuangit “maligaliurumiuk”

Nakiktuq

Huna aallannguqtaulaaqqa Puiblirmiut Tuktut titiraqtauhimagumik *Ihumaaluutauliqtut?*

Puqtuhimajuq

Ihumaaluutauliqtut



Nakiktuq

<u>Nunataarviup hivullirijaujukhat hamanngat *SARA*</u>

- Inuuraarningit anguniaqtunut pijunnautingit ihuiluutaunngittut
- Atuqhimajangit uumajunut munaqhijait timiit unalu pivallianingit inikhaliuqhimajut (***SARA* aallannguqtaulaittuq)**
  - Anngutitigut Parnaijautit Katimajiit, HTCt/HTOt, Aviktuqhimajunut Aangutikhanut Timiit, nunallaanit kavamait
  - Aangutikhaq ihumaliugait malikhugit pivallianingit turaaqhimajaujut iluani nunataarviup iluani

Huna aallannguqtaulaaqqa Puiblirmiut Tuktut titiraqtauhimagumik *Ihumaaluutauliqtut?*

Puqtuhimajuq

Ihumaaluutauliqtut



Nakiktuq

<u>Kanata Utiriarutaat Parnaijainikhanut kiugiaqaqtuq</u>

- Aulapkaqhimajangit inikhaanit ikaarutaanit Tuktut uukturautaanit
- Pivalliahimajut ajurnanngittumik tikkuaqhimajaujut parnautit
  - nunaliit, timiujut unalu kavamait
  - HTCt/HTOt, Aangutkhat Parnaijaijit Katimajiit, taimaittumik
  - Nunallaami kavamait
- **Uqumainnianut Najuqpaktangit** nalunaiqtaugiaqaqtuq unalu hapummijaugiaqaqhunilu
- Kavamarjuangit manngit uumajunut ihumaaluutauhimajunut

Huna aallannguqtaulaaqqa Puiblirmiut Tuktut titiraqtauhimagumik *Ihumaaluutauliqtut?*

Puqtuhimajuq

Nakiktuq

Ihumaaluutauliqtut



<u>Nalunaiqtauhimajuq unalu Hapummijakhaat haffumani Uqumainnianut Najuqpaktangit</u>

Nalunaiqtauhimajuq

- Uqumainnianut Najuqpaktangit naunaiqtauniaqtut ilagiikhimalugillu ILINGNIT, taimaa pivalliavluta utiriarutaa parnaijainiq ATAUTTIMUT

Hapummijakhaq

- ECCC malittiaqhimajut ilaqatigiikhutik pivalliagiami iniliugakhaanit hivumut hapummigiangani nunamiittut munarijangit ukunanngat Nunaqaqaaqhimajunut inuit malikhimajangit nunataarviujuq angirunmit
- Amihuujut inikhautikhaat qaujihalaaqtuq haffuminngatut HAPUMMIVIKHAAT ANGIRUTAAT

Titiraqhimajut ihumataarutaanit – Kavamarjuangit Pivallianiq

KINA?

- Aangutikhanut Parnaijainingit Katimajiit
- HTO/HTCt
- Nunaqaqaaqhimajunut, Inuvialuit, Inuit, nunallaanmi kavamait
- Nunallaanmi kavamait
- Tamainnut kitunuliqaak

HUNA?

- Titirariaqaqhimajukhaq iluani SARA?
- Hunaugamik **ihuiluutaujut** (avataita unalu inungnut maniliurahuaqtunut)?*
- Hunaugamik **ikajuuhiat** (avataita unalu inungnut maniliurahuaqtunut)?*
- Aahiit aallat nalunaitkutaq/ihumaaluutauhimajuq/niplirijakhaat?

* Ihuiluutaujut unalu ikajuutaujut nalunaitkutingit unalu hapummihimajangit uqumainnianut najuqpaktangit ihumagijaugialiktauq?

KINAMUT?

1-ECCC ilaliutigijangit TAMAITA niplirijangit uvunga **Aangutikhanut Parnaijainingit Katimajiit**

2-ECCC ilaliutigijangit TAMAITA niplirijangit uvunga **Kavamarjuangit Avatiliqijit Minista**

3-Kavamarjuanut Avatiliqijit Minista turaaqhimajakhaat kiutquijangit uvunga **Kavamarjuaqutingit INIQPIAQHIMAJUQ ihumaliugait – 3 pukuktakhaat**

Titiraqhimajut ihumataarutaanit – Kavamarjuangit Pivallianiq

Kinguani ihumaliugait Kavamarjuaqutaannit
***ihumagilugu inungnut-maniliurahuaqtunut**

– Angiqhimalugit titiraqhimaningit

– uuminngaluuniit Qinngihimalugu titiraqhimaningit

– uuminngaluuniit Turaarvigilugu uvunga COSEWIC

TAMAAT PARNAUTIGIJANGIT

– Pivalliahimajuq utiriarutaa parnaijainingit unalu naunaiqhutik uqumaittunit nayuqpaktangit

– Kavamarjuangit manngit uumajunut ihumaaluutauhimajut

– Aallannguqhimaittuq

NUTAAQ nalunaitkutaq

– Humi **nutaangujuq angmaumahimajuq nalunaitkutaq** aallannguriallik tukhiutauhimajuq ilitquhiita

– Turaaqhimajakhaat kiuvikhautikhangit ihumagijakhaat **kihimiinnaq** iniqhimagiangani **ingattarjuummiqtailinahuarlugit** uumajunut

Ihumataarialik aallannguqtiqhimajangit Puiblirmiut tuktut ilitquhiita maliglugu hamna *SARA*

Kina?	Anngutikhanut Parnaijainingit Katimajiit, RRCt, HTO/HTCt, Nunaqaqaaqhimajunut, Inuvialuit, Inuit, nunallaanmi kavamait, tamainnut kitunuliqaak
Qakugu?	**Uvanngat Tattiarnaqtuq 2019 mi**
Huna?	Titiraffaariaqaqat uvani SARA-nit? Hunaujut ihuiluutaujut? Hunaujut ikajuutikhangit? Aahiit aallat nalunaitkutaq/ihumaaluutauhimajuq/niplirijakhaat?
Huuqtauq?	**Ilaliutigilaaqtangit Kavamarjuanganit Avatiliqijiit Minista, Kavamarjuaqutingit unalu WMBt**
Hivuannit Ablurvikhat?	ECCC ilaliutigilaaqtut tamainnit kiuviniit uvunga Anngutikhanut Parnaijaijit Katimajiit Kavamarjuat Avatiliqijit Minista'p kiutquijangit Kavamarjuaqutainnut Kavamarjuaq Angiqhimalaaqtangit, Qinngilaaqtangit turaarutigilaaqtangillu uvunga COSEWIC (2020?)

Apiquutit? Niplirijakhaat?

<u>Turaarvigilugu niplirihimajatit uvunga:</u>

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Ilangani A-2. COSEWICkut naitumik ukautait

Tunilugit tamamik ilaukatauyut 2019mi katitikhimayut ukakatigiyakhait atugutikhait.

Makpigaat aatjikutait Kablunaatitut ovalo Inuinaqtut tunikhaihimayut Inunut ovalo HTOkut katimagamik Ikaluktutiami ovalo Kugluktumi.

Tuktu – Puiblirmiutat naatjuhiit



Piksaut: © Mathieu Dumond

Atia aallannguqtuq, tajja titiraqhimayuq talvani SARA Annexe 1-mi taimaa Napaaqtuilrumi tuktutut (Puiblirmiutat tuktuutait)

Qauyihaiyit taitjuhiat
Rangifer tarandus

Aviktuiniq aallatqiingniinit
Anngutighaq

COSEWIC qanuriningania
Amirnaqhiyut

Kaniitian nunaanit
Nunattiam Ukiuqtaqtuanit, Nunavut

Titiraqtauyaamik amirnaqhiyutut ihumaliugaq

Hapkua Ukiuqtaqtumiut tuktuit Kanatamiinnaq takunnaqtut, talvani Nunavunmi Nunattiamilu. Ilitariyauyut ahiittumik ingilraviqarmata Kiilliniqmit taryum akianut ahiarmut, qunngiaqhugit ilitturiyauhimayut taimaa ikililraaqhutik taimaalu amigaiqpaalliqhutiklu atuliqmat ukiut 20 century-mi, naatjuhiit ihumagiplugit. Atulihaaqtillugit ukiut 1900-mit, amigaitturiyauvaktut, ikiklivallianahugiyauyut hiqquutinikkamik, taimaa qaayurnaqpallaaqmilu ukiumi. Kinguani 50-nik 60-niklu ukiunik ikittuuvaktut ingilrahuiqhutiklu taryum akianut. Tuktuit amigaiqpallialiqtut 1970 ukiut nungutinnagit, ikaaqpaliqhutiklu ahiarmut ukiut 1980 nungutinnatik, amigaiqpalliaplutik talvunga nungutinnatik ukiut 1990t. 2015-mi, tuktuit naatjuhiit taimaa 18,000-ngunahugiyauyut.

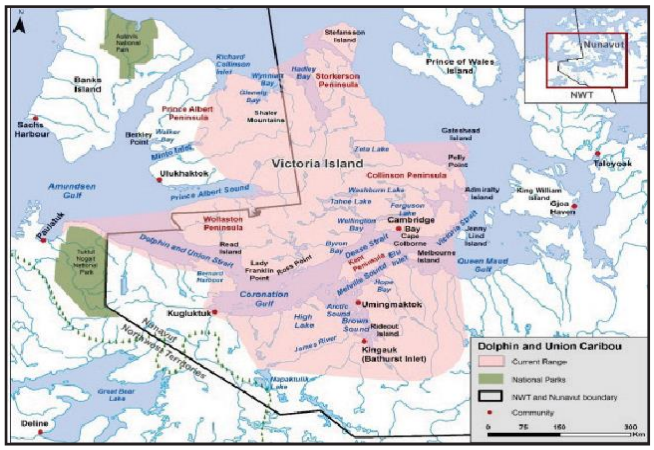
Pingahunit qauyihautinit qauyihimayut taimaa atuqhimayunit ukiunit 18-nguyunit Nunaqaqqaaqhimayut Qauhimayatuqainit ikiklivaalliqturiyauyut taimaa 50-60%-mik, qulvahighiplutiklu 2010-mit. Tuktuit amihunik amiriyaghalgit, taimaa katitpalliahuiqhutik ingilraviillu ihuinaaqtitauvaktut ukiumi auyami talvuuna manighiuqtunit agyaqtaqtunik Dease Ikirahaanit taimaa umiaqtuqpalliayunut hikuhiutinit. Hilam aallannguqpalliania atatayuq talvunga hikuillamut aallannguqpallianianiklu hikum qanurininganiit, taimaa tuquralattiplutik imaaqhutik ingilravighaillamiklu kinguvaqtinnami taimaa niqighailliuliqpaktut kumaruqaqpaghutiklu. Amigaittunik anguniayukkamik ikiklivalliatjutauyut qangahaaniklu kamahulattiyut ihuinaaqtullu nalunauyut, kihimi anguniaqtauvallialiqtut ahinit tallimanit nunallaanit. Amigaiqpalliayut qumaruit nauyullu hila uqquuhivalliayumi ahiagullu ihumaaluutauyuq. Pitquhiqtuqhutik aallannguqtaqtut naatjuhiit huli naluyauvaktut.

Anngutighat hunauyaaghaat naunaitkutait iharianarniallu

Puiblirmiut Tuktuit ilitarnaqtut taapkuninnga Napaaqtuilrumit tuktuit Kiilliniqmiut Tuktunit. Mikiyaaqtumik timiqaqtut, timitigut pitquhiigullu aallanngayut tamangnit, qauyihaqhimayukkullu huli aallanngatqiyauvaktut. Pitquhiinit ahinit tuktuutinit aallangavaktuq taimaa ukiumi malruiqhutik ikaaliqpaktut ilangi ikaaraangamik Kiilliniqmit ahiarmut atauttikkut maliguarutiplutik auyivighainut ukiivighainullu. Ihariagiyauyut ilitquhiinut Inuit Inuvialungnullu, ukpiqqutainut, manighiurutainut, niqighaqhiurutainullu annirnaqtut.

Naatjuhiit

Pitquhiuyuq Kanatami, nayugaita Puiblirmiutat Tuktut malruuyut nunagivagait: Nunattiaq Nunavullu. Hapkua tuktuit auyivaktut atauttikkut tamatkivyaqhugu Kiilliniq Qikiqtaq. Titiraqtauhimaliqvianit akunngani ukiut 1850 ikaaqhutik talvuuna Dolphin Union-lu Ikirahaanik, tajja ikaaliqpaktut Coronation Ikirahaagut, Dease Ikirahaagut Queen Maud Ikirahaagullu ukiiyaami ahiarmi. Titiraqhimayunit ilittuqhivaktut taimaa naatjuhiit Puiblirmiutat Tuktut ikiklihimayut amigaiqpalliaplutiklu qangakiaq aallatqiingnit ukiunit ukiuni taapkua 20 century-mi, taimaalu atauttikkuuqhutik naatjuhiinut.



Kanatami naatjuhiit Puiblirmiutat Tuktuit.

Pivighaq: KATIMAJIRALAAT QANURINNIITIGUT QAJANGNAQHIJUT UUMAJUNIT (COSEWIC). 2017. COSEWIC-nut qauyihautit qanurininganianut naunaitkutat Tuktunut, Puiblirmiutanik, *Rangifer tarandus,* Kanatami. Katimajiralaat Qanurinniitigut Qajangnaqhijut Uumajunit (COSEWIC). Ottawa-mi. xii + 51 makpiraangani.

Nayugait

Nurriviit Kiilliniqmi ilikkuunngittut talvaniittutiklu Tununngani Ukiuqtaqtum Niqighaqarvianit, talvanilu ukiivaghutik ahiam hinaani Hivurarviani Ukiuqtaqtum Niqighaqarvianit. Ukiuq tamaat auyiviit nunainnauyuq nauyuqaqhuni avaalaqianik, nauttiavalungnik, ivingnik, uryungnik tinguuyaniklu. Ihumagiplugit ingilraviit Kiilliniqmit talvunga ahiarmut, nayugalluariliqpagaat taapkua Puiblirmiutat Tuktuit taamna taryum hikuinaa ikaaqviat Qikiqtarmit ahiarmut.

Nayugait aallaannguqpalliayut hilamit uqquuhivalliagamik taimaa hikumut, nauvallialiqhutik nuna, nauyuqaqpallaariaghait hivitunialu nautillugu. Pitquhirnik pivighanik nalvaaqhiuqtut ikitpaktut huli uplumimut qanilruani, malruuyuk aulayut uyaraghiuqviit qaffiuyullu uyaraghiuqvighat tughirautauyut hunaqutighaitalu, parnaiyautiqaqhutik umiaqtuqtughanik hikumi ikaaqviinit ihuilutaulaaqtut nayugaita qanurininganianut nayugarihuiqniarungnaqhiyaallu hivunighami.

Uumayuliqiyit

Aajjikkutavyaitut Napaaqtuilrumiutat Tuktuit, Puiblirmiutat tuktuit malikpagaallu ukiuq tamaat aulatjuhiinik, nurritinnagit ukiaghamilu ingilraplutik ukiumi hanguvakviinut. Nurritinnatik ingilraliqpaktut amihuuvaghutik, ilangi ilikkuuliqpaktut nurriyaqtuqhutik nanikiaq Kiilliniqmi Qikiqtami. Nulialiqpaktut taimailigaangat ingilraliraangamik nayugainiluuniit Tuktuillu anguhalluit nulialiqpaktut amihunik.

Puiblirmiutat Tuktuit irniulaaqtut ukiunik taimaa 12-nik, hivulliqpaamik nurrivaktut pingahunik ukiuqaliraangamik, malrungnikluuniit niqighaqattiarumik. Taimaa nurrivagahugiyauyut 7-nit 9-nut ukiunik. Hapkua Tuktuit aajjikkutavyanik nautjuhilgit Kiilliniqmiut Tuktuutaitut, aulahimmaaqquuqpaktut ukiuqtaqtumi qaayurnaqpiaqtumilu. Nayugait nayugarivagaattauq hitamayut angiyut anngutighat niqighaqhiuqtit, malruk ahiit Tuktuit (Ahiarmiut Kiilliniqmiull), Umingmait, qaffiuyullu mikitqiyanik-timilgit nauttianik niriyuktuk huratjallu, tamangnik ilihimaliqtait naatjuhiinut nayugaqnulu aallannguutit ukiunit atuhaaqhimayunit. Inuit Amaqqullu niqighaqhiuqtiulluaqtut Puiblirmiutanik Tuktunik.

Naatjuhiit Ingilratjuhiillu

Atulihaaqtillugit ukiut 1900, Puiblirmiutat Tuktut kitillugit 100,000-ngunahugiyauyut, kihimi nalauttaaqhimainnaqtut. Kinguaninnuaqtauq, ikiklivallialiqtut, hiqquutinik atulihaaliqtillugit taimaalu ukiumi qaayurnaqpallaaqtumi. Atuliqhutik ukiut 1920t, ikaaruiqtut talvuuna Dolphin Union-lu Ikirahaagut. Tuktuit takunnaqpallaaruiqtut Kiilliniqmi kinguani 50-iuyunit ukiunit. 1959-mi, nunamiutat, ingilrayuittut tuktuit Kiilliniqmi 671-ngunahugiyauyut tuktuit. Inuit Iqaluktuuttiaqmit takuvaliqhimayut Tuktunik 1970-mit 1980-niklu ukiunit taimaalu, 1993 tikinmat, 7,000 haniani ingilraliqmiyut akiani Coronation Ikiharaa Dease Ikirahaalu.

Pingahunit qauyihautinit 1997-mi, 2007-mi 2015-milu aullaqtittihimayut havauhirnik aallatqiighutik qanurininganiit, taimaa amigaiqpaalliquplugit pingahuuyut qatanngutigiit avatquttugit. Hivulliit malruk qauyihautinit nalauttaaqhimayut ihuaqhaqtauhimayut: 1997-mit qauyihautainit haniani 27,989 ± SE 3,367 naallugit Tuktuit takunnaqtumit kitittiplutik kinguani aallannguqtiqhimayuq 34,558 ± CI 6,801-mut, ilittuqhaqhimayut ilaupkaqhugit anngutighat hilataanit qauyihaqviat naunaitkutaqhutik qunguhiqmiutanik naalautinik.

2007-mi, 21,753 ± SE 2,343-nguyut nalauttaaqhimayut, kinguani aallannguqhimayut 27,787 ± CI 7,537-nut. 2015-mi, taapkua tuktuit naatjuhiit taimaangunahugiyauyut 18,413 ± 6,795 (95% CI, 11,664 - 25,182). Atuqhugit hivulliq ihuaqhaqhimayullu naatjuhiit qauyihautinit ikiniqhatut amihuuniqhatullu, tamatkiumayumik ikiklivaalliqhimayut avatquanik 50% 1997-mit. Inuit Qauhimayatuqangit (IQ), Nunaqaqqaaqhimayut Qauhimayut nunallaaqmiullu qauhimayut taimaa ikiklivalliayut taimaa 80%-mik, kayumighiplunilu 2010 qaangirami.

IQ katitiqhimayut 2014-mi qauhivaktut taimaa ikiklivalliayut nurratqiyanit, amihuuyullu timirluktut, amigaiqpalliaplutiklu aanniarutilgit anngutighat.

Amirnaqtut Ayurnaqhaiyullu

Puiblirmiutat Tuktuit amihunik amirnautiqaliqtut naatjuhiinut, qauyihaqtauhimayut taimaa Amirnaqpiaqtutut, kihimi naluyauyullu huli. Hikuqaqpalliahuiqtumi taryumi ihumaaluutauvallaaqtuq, hikuhiutik ikaaqattaliqtumi talvani Dease Ikirahaanit ihuilutauyuq ingilraviinut tuktuit. Hikuqarnia hivikitpallialiqhuni imaalu/uniit aallannguqpalliania hiku ilitturiyauvaktuq, atauttikkuuqtuq hilalu aallannguqpalliayumik, tuquralattivaktut imaaqtittiplutik kinguvaiplunilu ingilraviinut ayuqhautauplutiklu niqighailliurniqmut kumaruqarniqmullu. Amigaittunik anguniayukkamik ikiklivalliatjutauyut qangahaaniklu kamahulattiyut ihuinaaqtullu nalunauyut, kihimi anguniaqtauvallialiqtut ahinit tallimanit nunallaanit. Anguniaqtauyut Amaqqunit Agharnillu ahiagullu ihumaaluutauyut. Hiamitpalliayut kumaruit nauvalliayullu hilam uqquuhivallianianit amirnaqhiyuq. Tuquraqtut naunaqtukkut ilauyungnaqhiyuq taapkununnga Puiblirmiutat Tuktuit ikighivaalliutainut, Umingmangnullu ikpingnautipluni amihuiqhutik amaruqnit angunahuaqtauplutik imaalu/uniit amihunik aktuqhivakkumik kumarulingnik nauyulingniklu. Naunaqtuqlu hivunighami taapkua nauvalliayut ihuilutauyut nayugaqnullu aallannguutit piqaqqat, tamangnikluuniit, qaffiuyut tughirautauyut uyaraghiuqvighat havaaghat hunaqutighainiklu (apqutighat tullakviillu) angiqtauhimayut hanayauyughat.

Hapummihimayut, Qanurininganiа Quulliriiktullu

Puiblirmiutat Tuktuit ikayuqtigiingnit munaqtauvaktut Nunavunmi malighugu Nunavunmi Nunataarutinut Angirutit, ikayuqtigiingnillu munaqtauvaktut Nunattiami malighugu Inuvialuit Iniqtauhimayut Angirutit. Hapkua angirutit pilaarutinikpagait munaqhiyaamik anngutighanik talvani anngutighaliqiyit katimayiinit: Nunavunmi Anngutighaliqiyit Katimayiit taapkualu, Nunattiami, Anngutighaliqiyit Unniqtuiyit Katimayiit taapkualu Inuvialuit Annguhiqiyit Katimayiit.

Puiblirmiutat Tuktuit tajja titiraqhimayut taimaa Ihumaalungnaqhiyutut ataagut tamangnit kavamatuqait *Amiriyaghaat Anngutighat Maligainit* (2003) (Naunaitkutaq 1-mi) talvanilu aviktuqhimayumi *Amiriyaghaat Anngutighat (Nunattiaq) Maligaq* (2013).

COSEWIC-kut hivuani qauyihaqhimayait taapkua Puiblirmiutat Tuktuit Ihumaalungnaqhiyutut Qiqaiyarluarvia 2004-mi, taapkualu naatjuhiit qauhiyautqighimayut Amiriyaghatut Hikutirvia 2017-mi.

Nunaqyuaptingni, Tuktuit titiraqtauhimayut talvanngat Nunaryuaptingni Katimayiit Hapummihiniqmik Nunanik (IUCN) Amiriyaghatut; ilaillu uumayullu aallanngaunngittut.
NatureServe ilittuqhitihimayait Tuktuit taimaa naammaktutut nunaqyuami kihimi ilittuqhitiyuittut Puiblirmiutat Tuktuutainik, ilitturiyauhimayut taimaa tammaqpialaaqtutut-amirnaqhiyutut nunaptingni (N2N3), tammaqpialaaqtutut-amirnaqhiyutut (S2S3) Nunattiami, ilittuqhitiyaunngittut (SNR) huli Nunavunmi.

Tuktut Nogait Kanatam Pulaaqtarviat hinaalik hivuraniqhianik ualinianit Puiblirmiutat Tuktuit nayugainik talvanilu Queen Maud Ikirahaanit Tingmitjat Nayugaat hapummihimayumik nayugarniiliqpaktut ukiivaktunut.

Pivighaq: COSEWIC. 2017. COSEWIC-nut qauyihautit qanuriningganianut naunaitkutat Tuktunut, Puiblirmiutanik, *Rangifer tarandus,* Kanatami. Katimajiralaat Qanurinniitigut Qajangnaqhijut Uumajunit.
Ottawa-mi. xii + 51 makpiraangani.

Naunaittiariami, takulugu www.sararegistry.gc.ca.

Naunaittiarumaguffi aajjikkutaliuriamik hapkua, hivayaqlugit Avatiliqiyit Hila Aallannguqpalliayumi Kanatami Inuit Apiqhuutainut Kiuhiviit talvani 1-800-668-6767 (Kanatami kihiinnaq) talvaniluuniit 819-997-2800 qaritauyakkut titiraqluhiluuniit talvunga ec.enviroinfo.ec@canada.ca.

ᐅᐃᒍᓕᖅᓂᑦ/ᐅᖃᐅᓯᐅᓯᒪᔪᓂ Λ. ᐅძᐊ ᑎᑎᖃᑕᐅᓕᐅᖃᑎᖅᓄᓐᓇᒋᑦ ᖃძᕐᐊᓯᓂᓂᕆᒧᑦ ᑲᑎᒪᖃᑎᖃᑲᓯᓂᒪᖅᑐᒃᑕᒋᑦ ᐅძᐊ ᐅᖃᐅᓯᐅᓕᖃᑎᑦᓴᐅᑦ ᐊᓯᔪᓕᑕᐅᖃᑦძᔪᐅᓂᖅᓄᑦ ᑐᑦᑐᐃᑦ ᑎᓴᒪᓂᑦ ᑭᑦᓕᓂᐅᐳᑦ ᐊᒻᒪᓗ ᐊᑭᐊᓂᒥᐅᑦ ᑐᑦᑐᖅᓄᑦ

ᐅᑦᓗᖅ	ᑲᑎᒪᔨᑎᓂᖅᓄᑦ/ᑐᖃᖏᑎᖅᓄᑦ	ᖃᖅᐃᖃᑦძᔪᐅᓯᒪᔪᑦ	ᐅᐸᔨᑎᓂᑦ	ᖃᓄᐃᖃᖅᑖᓕᑦᓂᖅᖠ
ᓯᖌᓂᐊᔪᑦ ᑎᑎᖃᑕᐅᖃᑎᖅᓄᖅᓇᒍ ᑲᑎᒪᖃᑎᖃᑲᓯᓂᒪᖅᑐᒃᑕᒋᑦ ᓇᓇᕐᑐᑎᑦ ᐊᒻᒪᓗ ᐊᓯᐊᔪᑦ ᐊᖃძᑎᖃᖅᑐᒃᑕᑎᑦ ᐅᖃᐅᓯᒋᖅᑐᑦ				
2019Γ, ᐃᓕᓴ	ᓯᖌᓂᐊᔪᑦ ᑎᑎᖃᑕᐅᓕᐅᖃᑎᖅᓄᖅᓇᒋᑦ ᐳᖃᓴᓕᔨᓂᑦ <ᐃᐸᑉᓂᑦ ᑕᒪᓐᓇᒪᒃᑕᑦ ᑲᓴᖅᑎᑦ ᑎᑎᖃᑲᑦᑐᖃᖅᖢᓂᑦ ᑕᐅᐸᔨᑎᓂᑦ ᐊᐅᑦᑕᐅᖃᑦᑕᒪᔨᓂᑦ ᓇᓇᕐᑐᑎᑦ ᐊᒻᒪᓗ ᓇᓇᕆᓴᓂᑦ ᐊᑭᐊᓂᒥᐅᑦ ᐳᖃᓴᓕᔨᓂᑦ <ᐃᐸᑉᓂᑦ ᐊᐅᑦᑕᐅᖃᓐᓇᔨᓂᑦ ᓇᓇᕐᑐᑎᑦ ᐊᒻᒪᓗ ᓇᓇᕆᓴᓂᑦ ᖃᖅᐃᖃᑦძᔪᐅᓇᓂᖅᓄᑦ ᑲᑎᒪᓇᔨᓯᒪᓂᖅᓄᑦ ᐅძᐊᓗ ᐃᓕᑎᐅᔨᓇᖅᓄᑦ: ᐃᖃᓗᐅᑐᑎᐊᖅ ᐅᒪᔨᓯᒪᐊᖅᑎᐅᑦᑎᑦ, ᖃძᔪᓂᖅᑐᑦ ᐊᖓᓯᓂᐊᓕᒃ ᑲᑐᐳᓴᖅᑎᑦ, ᐅᒥᖓᒪᑦᑐᒃ ᐅᒪᔨᓯᒪᐊᖅᑎᐅᑦᑎᑦ, ᖃᑭᖓᐊᑦ ᐅᒪᔨᓯᒪᐊᖅᑎᐅᑦᑎᑦ, ᐸᐅᓪᑐᑦ ᐅᒪᔨᓯᒪᐊᖅᑎᐅᑦᑎᑦ ᑲᑎᒪᓴᖅᑎᑦ, ᐅᓗᐅᕼᐊᖅᑐᑦ ᐅᒪᔨᓯᒪᐊᖅᑎᐅᑦᑎᑦ ᑲᑎᒪᓴᖅᑎᑦ, ᓇᑭᑎᑦᑎᐅᑦ ᐅᒪᔨᓐᓇᓴᓴᐊᖅᑐᑦ ᑲᑎᒪᓴᖅᑎᑦ ᓇᓇᕐᑐᑎᑦ ᓯᖌᓂᐊᔪᑦ ᑐᖓᔪᖅᓴᖅ, ᓇᑭᑎᑦᑎᐅᑦ ᐃᓇᐃᑦ ᖃᑐᐳᓴᖅᑎᑦᑎᑦᓯᑦ, ᐅᒪᔨᓐᓇᓴᓴᐊᖅᑐᑦ ᐅᓂᒃᓴᑦᑐᑦ ᑲᑎᒪᓴᖅᑎᑦ (ᓇᓇᕆᓴᐊᒪᑦ), ᓇᓇᕐᓗᒪᑦ ᑕᖓᒪᖅᑐᑦ, ᓇᓇᕆᓴᐊᒪᑦ ᑕᖓᒪᖅᑐᑦ.			
2019, ᐃᐳᓗ 3	ᖃძᔪᓂᖅᑐᒃᓯ ᐊᖓᓂᐅᓂᓯ ᑲᑐᐳᓴᖅᑎᑦ (KAA) **(ᑲᑎᖃᑲᑦᑕᓂᑦᓗ)**	ᖃძᔪᓂᖅᑐᒃᓯ ᐊᖓᓂᐅᓂᓯ ᑲᑐᐳᓴᖅᑎᑦ, ᓇᓇᕐᓗᒪᑦ ᑕᖓᒪᖅᑐᑦ, ᓇᓇᕆᓴᐊᒪᑦ ᑕᖓᒪᖅᑐᑦ.	ᐱᖓᓱᓇᔪᖅᑐᒃᓯᓂᑦᓗ ᐅᒪᔨᓂᐅᓂᓯᐅᑎᓂᖅᓄᑦ ᑐᑭᒧᐊᖅᑎᑦᑎᐳᖅᑎᑦ, ᐱᖓᓱᓇᓯᓂᑦᓗ ᓇᓇᕐᓗᒪᑦ ᐅᒪᔨᓂᐅᓂᓯᐅᑎᓂᖅᓄᑦ ᐊᒻᒪᓗ ᐊᑕᐅᓇᖅ ᓇᓇᕐᓗᒪᑦ ᑕᖓᒪᖅᑐᑦ.	ᐃᑲᔪᖅᓇᐃᖅᑕᑦ
2019, ᐃᐳᓗ 3	ᖃძᔪᓂᖅᑐᒃᑎ ᑭᒃძᓕᒧᓂᓯ ᑲᑎᒪᓂᔨᓯᒪᓂᖅ. (**ᑲᑎᖃᑎᖅᖃᖅᑐᑎᓕᓗ**)	ᑭᒃძᓕᒧᓂᓯ ᑲᑎᒪᓂᔨᓯᒪᓂᖅ. ᖃძᔪᓂᖅᑐᒃᓯ ᐊᖓᓂᐅᓂᓯ ᑲᑐᐳᓴᖅᑎᑦ, ᖃᑭᖓᐊᑦ ᐅᒪᔨᓐᓇᓴᓴᐊᒪᑦ ᑲᑎᒪᓴᖅᑎᑦ, ᖃᑭᖓᐊᑦ ᐃᓇᐃᑦ ᖃᑐᐳᓴᖅᑎᑦᑎᐳᖅᑎᑦ, ᓇᓇᕐᓗᒪᑦ ᐅᒪᔨᓐᓇᓴᓴᐊᒪᑦ ᑲᑎᒪᓴᖅᑎᑦ, ᓇᓇᕐᓗᒪᑦ ᐅᒪᔨᓐᓇᓴᓴᐊᒪᑦ ᑲᑎᒪᓴᖅᑎᑦ, ᓇᓇᕐᓗᒪᑦ ᓯᖌᓂᐊᔪᑦ.	ᓇᓇᕐᑎᐊᖅᑐᑦ (31ᖁᓕᓗᑎᑦ) ᐊᒻᒪᓗ ᑭᓱᖃᑐᐃᓐᓂᒃ ᐅᖏᖅᑎᑐᑦ, ᓇᓇᕐᓗᒪᑦ, ᖃძᔪᓂᖅᑐᒃᓯ ᐊᖓᓂᐅᓂᓯ ᑲᑐᐳᓴᖅᑎᑦ, ᖃᑭᖓᐊᑦ ᐅᒪᔨᓐᓇᓴᓴᐊᒪᑦ ᑲᑎᒪᓴᖅᑎᑦ ᐊᒻᒪᓗ ᓇᓇᕐᓗᒪᑦ ᓯᖌᓂᐊᔪᑦ	ᐃᑲᔪᖅᓇᐃᖅᑕᑦ
2019, ᐃᐳᓗ 4	ᐃᖃᓗᐃᑦᑐᐊᒥ ᐅᒪᔨᓂᐊᖅᑎᐅᑦᑎᑦ (**ᑲᑎᖃᑎᖅᖃᖅᑐᑎᓕᓗ**)	ᐃᖃᓗᐃᑦᑐᐊᖅ ᐅᒪᔨᓯᒪᐊᖅᑎᐅᑦᑎᑦ, ᖃᑭᖓᐊᑦ ᐅᒪᔨᓯᒪᐊᖅᑎᐅᑦᑎᑦ, ᐅᒥᖓᒪᑦᑐᒃ ᐅᒪᔨᓯᒪᐊᖅᑎᐅᑦᑎᑦ, ᓇᓇᕐᓗᒪᑦ ᓯᖌᓂᐊᔪᑦ, ᓇᓇᕐᓗᒪᑦ ᑐᖓᔪᖅᓴᖅ,	ᓯᕗᒪᐅᔨᖅᑐᑦ ᐅᒪᔨᓂᐊᖅᑎᐅᑦᑎᑦ ᑐᑭᒧᐊᖅᑎᑦᑎᐳᖅᑎᑦ, ᓇᓇᕐᓗᒪᑦ ᓯᖌᓂᐊᔪᑦ ᐅᒪᔨᓯᒪᐊᖅᑎᐅᑦᑎᑦ ᐊᒻᒪᓗ ᒪᖅᑐᒃ ᓇᓇᕐᓗᒪᑦ ᓯᖌᓂᐊᔪᑦ ᐅᒪᔨᓐᓇᕐᓂᖅᓄᑦ, ᓇᓇᕐᓗᒪᑦ ᑐᖓᔪᖅᓴᖅ,	ᐃᑲᔪᖅᓇᐃᖅᑕᑦ

ᐅᑦᓗᖅ	ᑲᑎᒪᔨᑎᓂᖅᓯᖏᑦ/ᐃᓕᖓᑎᖏᑦ	ᖃᐅᐃᖅᑯᐅᓕᕆᓂᖅ	ᐅᐸᔨᑎᐊᑦ	ᖃᓄᐃᑦᖢᓴᓪᓂᖅ
2019, ᐃᐳᓗ 4	ᐃᖃᓗᐊᖏᑎᐊᒥ ᑭᐅᑯᓕᓄᑦ ᑲᑎᒪᔨᓴᓪᓗᑎᑦ **ᑲᑎᖃᑎᖃᖅᑐᑎᑦᓗ**	ᑭᐅᑯᓕᓄᑦ: ᐃᖃᓗᐊᖏᑎᐊᖅ ᐅᒪᔨᓂᐊᖅᑎᑲᓂᖅ , ᖃᓄᖅᔪᐊᑦ ᐅᒪᔨᓂᐊᖅᑎᑲᓂᖅ, ᖃᑎᖃᒥᐅᑦ ᐅᒪᔨᑦᓱᓕᔨᐊᑲᓂᖅ ᑲᑎᒪᓕᖅᓂᖅ,ᖃᑎᖃᒥᐅᑦ ᐃᓄᐃᑦ ᖃᐅᔨᓴᖃᑎᒋᖅᓂᖅ, ᓄᓇᕗᑦ ᑐᖅᑲᓚᐅᖅ, ᓄᓇᕗᒻᒥ ᐅᒪᔨᑦᓱᓕᔨᐊᑲᓂᖅ ᑲᑎᒪᓕᖅᓂᖅ, ᓄᓇᕗᒻᒥ ᓴᖅᒪᒃᑯᑦ.	ᓄᓇᕆᐊᒃᑐᑦ ᐃᒪᐅᕐᖃᐅᔨᑦ (ᖅᓐ) ᐊᓪᒪᓗ ᑭᓴᖃᑐᐃᓐᓇᑦ ᐅᖅᖁᔭᓂᖅᑐᑦ ᓄᓇᕗᑦ ᑐᖅᖁᔭᓐ, ᐃᖃᓗᐊᖏᑎᐊᖅ ᐅᒪᔨᓂᐊᖅᑎᑲᓂᖅ,ᖃᑎᖃᒥᐅᑦ ᐃᓄᐃᑦ ᖃᐅᔨᓴᖃᑎᒋᖅᓂᖅ; ᐊᓪᒪᓗ ᓄᓇᕗᒻᒥ ᓴᖅᒪᒃᑯᑦ.	ᐃᑲᔪᖅᓱᐃᖅᑎᑐᑦ
2019, ᐃᐳᓗ 24	ᐸᐅᓪᓗᑦ ᐅᒪᔨᑦᓱᐊᖅᑎᑲᓂᖅᑕ ᑲᑎᒪᔨᖅᑎᑦ **(ᑭᖅᑯᓕᓄᑦ ᑲᑎᒪᓕᖅᓂᓗᑎᑦ.)**	ᑭᐅᑯᓕᓄᑦ ᐸᐅᓪᓗᑦ ᐅᒪᔨᑦᓱᐊᖅᑎᑲᓂᖅᑕ ᑲᑎᒪᔨᖅᑎᑦ, ᐅᒪᔨᓂᐊᖅᑎᑲᓂᖅ ᐅᓂᒃᓵᖅᓯᐊᖅᑎᑦ ᑲᑎᒪᔨᖅᑎᑦ (ᓄᓇᕋᔭᐊᓕᑦ),ᓄᓇᕋᔭᐊᓕᒥ ᓴᖅᒪᒃᑯᑦ, ᐃᓄᐃᐊᓗᐃᐃᑦ ᐅᒪᔨᑦᓱᐊᖅᑎᑲᓂᖅ	ᓄᓇᕆᐊᒃᑐᑦ ᐃᒪᐅᕐᖃᐅᔨᑦ (26) ᐊᓪᒪᓗ ᑭᓴᖃᑐᐃᓐᓇᖅᑎᑦ ᐅᖅᖁᔭᓂᖅᑐᑦ; ᐸᐅᓪᓗᑦ ᐅᒪᔨᑦᓱᐊᖅᑎᑲᓂᖅᑕ ᑲᑎᒪᔨᖅᑎᑦ, ᐅᒪᔨᑦᓱᓕᔨᐊᑲᓂᖅ ᐅᓂᒃᓵᖅᓯᐊᖅᑎᑦ ᑲᑎᒪᔨᖅᑎᑦ (ᓄᓇᕋᔭᐊᓕᑦ), ᓄᓇᕋᔭᐊᓕᒥ ᓴᖅᒪᒃᑯᑦ.	ᐃᑲᔪᖅᓱᐃᓕᔨ ᓴᓂᓪᓕᒥᓂ ᓄᓇᕆᐊᒃᑐᑦ.
2019, ᐃᐳᓗ 25	ᐅᓗᕼᐊᖅᑐᒃᓴ ᐅᒪᔨᑦᓱᐊᖅᑎᑲᓂᖅᑕ ᑲᑎᒪᔨᖅᑎᑦ ᑲᑎᒪᔨᓴᓪᓗᑎᑦ ᑭᐅᑯᓕᓄᑦ **(ᑲᑎᖃᑎᖃᖅᑎᑦᑕᖅᑐᑎᑦᓗ)**	ᑭᐅᑯᓕᓄᑦ: ᐅᒥᖏᓚᐃᓐᓇ ᐅᒪᔨᑦᓱᐊᖅᑎᑲᓂᖅ, ᐅᒪᔨᓂᐊᖅᑎᑲᓂᖅ ᐅᑦᓱᓂᐊᖅᑎᑦ ᑲᑎᒪᔨᖅᑎᑦ (ᓄᓇᕋᔭᐊᓕᑦ),ᓄᓇᕋᔭᐊᓕᒥ ᓴᖅᒪᒃᑯᑦ, ᐃᓄᐃᐊᓗᐃᐃᑦ ᐅᒪᔨᑦᓱᐊᖅᑎᑲᓂᖅ	ᓄᓇᕆᐊᒃᑐᑦ ᐃᒪᐅᕐᖃᐅᔨᑦ (48) ᐅᖅᖁᔭᑐᐃᓐᓇᖅᑎᑦ ᐅᖅᖁᔭᓐᓇᑐᓂ ᐅᒥᖏᓚᐃᓐᓇ ᐅᒪᔨᑦᓱᐊᖅᑎᑲᓂᖅ, ᐅᒪᔨᓂᐊᖅᑎᑲᓂᖅ ᐅᓂᒃᓵᖅᓯᐊᖅᑎᑦ ᑲᑎᒪᔨᖅᑎᑦ (ᓄᓇᕋᔭᐊᓕᑦ), ᓄᓇᕋᔭᐊᓕᒥ ᓴᖅᒪᒃᑯᑦ.	ᐃᑲᔪᖅᓱᐃᖅᑎᑦᓗᑦ (ᐊᓱᓕᓴᖅᑕᐅᓪᓗᓂᒃ “ᐃᑲᔪᖅᓱᐃᓪᓕᖅᑐᒍᑦ” 2021ᖏᑎᓪᓗᒍ, ᐊᑦᑐᓂᑐᖅ ᑕᑯᒋᐊᕐᒃ)
2019, ᐅᑐᐱᓚ	ᐊᖇᑎᓪᓚᕆᐊᖅᑯᑦ ᐊᓪᒪᓗ ᓱᓪᓕᐅᓂᐊᖅᑎᑲᓂᖅ ᐊᓱᓕᔪᓪᓕᖅᑕᐅᓂᓪᓗᓂᒃ ᑲᑎᖃᓪᓚᕆᐊᖅᑎᑦ ᐃᓄᐃᑦᑐᑎᐊᒍᑦ ᐃᓪᓕᑎᓕᖅᑕᐅᑎᓪᓗᓂᑦ ᐃᓪᓕᐅᓂᐊᖅᑎᑲᓂᖅ ᓱᑯᑦ ᒥᓴᓗᓂᑦ (**ᐅᐸᔨᑎᓪᓗᒍ**)	ᐊᑯᓂᐅᖏᓐᓄᑐᐊᖅ ᑲᑎᖃᑎᖃᖅᑎᑦᓗ ᐃᑲᔪᖅᓱᐃᖅᑎᑦ ᐅᑯᓂᖅ ᖃᑎᖃᖅᑎᑦ ᐅᒪᔨᑦᓱᐊᖅᑎᑲᓂᖅ, ᐊᓪᒪᓗ ᖃᑎᖃᖅᑎᑦ ᐃᓄᐃᑦ ᖃᐅᔨᓴᖃᑎᒋᖅᓂᖅ		ᖃᑎᖃᖅᑎᑦ ᐅᒪᔨᑦᓱᐊᖅᑎᑲᓂᖅ ᑲᑎᒪᔨᖅᑎᑦ ᐊᓪᒪᓗ ᖃᑎᖃᖅᑎᑦ ᐃᓄᐃᑦ ᖃᐅᔨᓴᖃᑎᒋᖅᓂᖅ ᑭᓱᓕᓂᐊᖅᑐᑦ ᐃᓪᓕᐅᓂᐊᖅᑎᑲᓂᖅᑕᒪᒃᑯᑦ.
2020, ᐃᓕᓴ 23	ᑭᐅᑯᓕᓄᑦ ᑲᑎᒪᔨᓴᓪᓗᑎᑦ ᐃᖃᓗᐊᖏᑎᐊᖅ (ᑲᑎᖃᑎᖃᖅᑎᓂᖅᑕ ᓇᑕᐅᓪᓗᓂᑦ ᐅᑭᐊᖏᓚᒪ 2020)	ᑭᐅᑯᓕᓄᑦ ᐃᖃᓗᐊᖏᑎᐊᖅ ᐅᒪᔨᑦᓱᐊᖅᑎᑲᓂᖅ, ᖃᑎᖃᖅᑎᑦ ᐅᒪᔨᓂᐊᖅᑎᑲᓂᖅ ᑲᑎᒪᔨᖅᑎᑦ		ᐅᖃᓕᖅᑭᐊᖅᑎᑲᓂᖅ ᓇᖅᓴᖅᑕᐅᓪᓗᑎᑦ ᐱᓴᓂᐅᓪᓗᒍ

ᐅᓪᓗᖅ	ᑲᑎᒪᔨᑎᓂᖅᓯᒪᔪᓂ/ᐃᓕᖕᑭᑎᓯᒪᔪᓂ	ᖃᐅᐃᖅᑯᐅᑉᐳᓪᓚᕆᓪᓕᔪᓂ	ᐅᕐᔨᑎᓂᓪᓕ	ᖃᓄᐃᓕᓯᒪᓕᕐᓂᓯᒪᓕ
2020, ᐅᑭᐊᕐᓴ	ᑭᖅᑯᓕᒫᓂ ᐃᖃᓗᓐᔅᑎᑐᐊᒥ **(ᑲᑎᖃᑎᖃᖅᓯᓂᕈᑉ ᓄᑕᐅᓪᓗᓂᑐᑎᑦ ᐃᓚᖓᐊᓱ 4ᒧ)**	ᑭᖅᑯᓕᒫᓄᑦ ᐃᖃᓗᓐᔅᑎᑐᐊᖅ ᐅᒪᔪᓐᓇᐊᖅᑎᑯᓚᖅᑯᓕᓂ, ᖃᑎᖅᑎᒥᐅᓂ ᐅᒪᔪᓕᓚᓱᔪᐊᑯᑯᓂ ᑲᑎᒪᔨᓐᓂ		ᐅᓚᖓᖖᖓᐊᖅᑕᐅᔪᓂ ᓄᖖᔪᐊᓐᓇᖅ ᐱᔪᐊᑎᓪᓗᒍ.
2021, ᐃᖖᖓᐊᓱ. 4	ᑭᖅᑯᓕᒫᓂ ᑲᑎᑎᕐᓯᓪᓗᑎ **(ᑲᑎᖃᑎᖃᖅᓴᓐᐊᖅᑕᑎᑦ ᖁᔭᓐᖅᑕᐅᓪᓗᓂᑐᓂᓪ ᖃᓄᖅᑐᒃᓴᓂᖅ)** ᐊᖖᑎᓕᓚᓱᑯᓂ ᐊᓱᒪᓗ ᓯᓕᓴᓂᐊᐳᖅᑎᑯᓂ ᐊᓯᔪᕐᓴᓕᓕᐊᓂᖅᓴᓕᓗ ᑲᓇᑕᒥ ᑐᓂᓯᓗᑎᑦ ᐅᓪᓗᒥ, ᐊᓱᒪᓗ ᖃᓄᐃᓕᓕᓂᖅᓴᓕᓗ ᐊᓱᒪᓗ ᓇᐃᐃᓐᓇᕐᓂᖅᓴᓕᓗ ᐅᕐᖃᐅᓯᐅᓯᒪᔪᓂ/ᐃᓯᒧᒪᓐᑕᐅᔪᓂᓕᓗ ᑕᒪᓴᓇᓗ ᐊᕐᖃᑭᐊᕐᑕᐅᓪᓗᓂᑐᓂ 2019ᒥ ᓄᑖᒥ ᑲᑎᒪᔨᕐᖃᓕᐅᕐᖃᑎᓪᓗᑎᑦ ᑲᑎᒪᔨᖅᑎᑦ **(ᖃᓚᑕᐅᑦᔨᑲᑯᑲ)**	ᐃᖃᓗᓐᔅᑎᑐᐊᖅ ᐅᒪᔪᓐᓇᐊᖅᑎᑯᓚᖅᑯᓕᓂ	ᓯᑕᒪᐅᔪᕐᓴᑐᑦ ᐃᖃᓗᓐᔅᑎᑐᐊᖅ ᐅᒪᔪᓐᓇᐊᖅᑎᑯᓚᖅᑯᓕᓂᖅᓴᓕᓗ ᑐᑭᔪᐊᖅᑎᑐᓴᓕᓗ	ᐃᖃᓗᓐᔅᑎᑐᐊᖅ ᐅᒪᔪᓐᓇᐊᖅᑎᑯᓚᖅᑯᓕᓂ ᑕᑯᔪᒪᓕᓂᑎᑦ ᐊᑐᖅᑕᐅᓗᐊᖅᑭᓂᖅᓴᓂᖅᓴᓕᓗ ᐱᖅᑯᓯᑐᖅᑐᓴᓕ ᐱᐅᓯᖅᑎᑦ ᐊᓱᒪᓗ ᐃᓄᐃᓕ ᖃᖅᐅᓴᒪᖅᑎᑦ ᐅᐊᓂ, ᐊᑎᑕᓇᖅᑐᒃᑐᑐ ᓂᕆᔨᕿᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᖅᑭᓂᖅᓄᓂᓕ ᐃᓅᓴᕆᓕᕆᔨᖅᑎᑦ ᑲᓇᑕᒥ ᖃᖅᐅᓵᒪᕆᑐᐃᓐᓇᖅᑐᑦ.

ᐅᑦᓗᖅ	ᑲᑎᒪᔨᑎᓂᖅᓯᒪᔪᑦ/ᐃᓕᖓᑎᒃᓯᒪᔪᑦ	ᖃᐅᔨᖅᑯᐊᕐᓯᒪᔪᑦ	ᐅᕐᒪᑎᔪᑦ	ᖃᓄᐃᓕᓴᕐᓂᖅᓱᒃ
ᐅᖃᐅᓯᐅᓕᐅᖅᑐᑦ ᑕᒪᐃᑯᐊ ᖃᓄᖅᑐᖃᑕᐅᔪᓐᓇᖅᓯᒪᔪᑦ ᐃᓱᒪᓕᑐᑎᒋᐅᓂᖅᓯᒪᔪᑦ ᑐᑭᓯᒪᓂᖅᓯᒪᔪᑦ				
2021, ᐃᕐᓱ 5	ᐅᖃᓕᒫᐅᖅᑯᑦ ᑲᑎᒪᓕᕐᓗᑕ ᐅᖃᐅᓯᓯᒪᓕᕐᓗᑕ ᖃᓄᐅᕼᓕᖅᑐᖃᖅᑐᓂᖅᑯᑦ ᐅᑯᓄᖓ ᐃᒪᔪᑎᑦᓯᔪᕐᓇᖅᑯᑦ ᐅᖅᓯᓕᕐᓂᖅᐸᑦ ᑲᑎᒪᔨᖏᑦ (ᓄᓇᕗᑦ), ᐃᓄᐃᕐᓗᓂᐃᑦ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᖢᖏᑦ, ᓄᓇᕗᑦ ᒐᕐᒪᖅᑯᑦ.	ᐃᒪᔪᑕᑦᓂᔨᔪᐊᖅᑯᑦ ᐅᖅᓯᓕᕐᓂᖅᐸᑦ ᑲᑎᒪᔨᖏᑦ (ᓄᓇᕗᑦ), ᐃᓄᐃᕐᓗᓂᐃᑦ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᖢᖏᑦ, ᓄᓇᕗᑦ ᒐᕐᒪᖅᑯᑦ.	ᐃᒪᔪᑕᑦᓂᔨᔪᐊᖅᑯᑦ ᐅᖅᓯᓕᕐᓂᖅᐸᑦ ᑲᑎᒪᔨᖏᑦ (ᓄᓇᕗᑦ), ᐃᓄᐃᕐᓗᓂᐃᑦ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᖢᖏᑦ, ᓄᓇᕗᑦ ᒐᕐᒪᖅᑯᑦ.	ᐃᑲᔪᖅᓱᐃᓕᓗᑎᑦ ᒪᓕᒐᐃᓗᓐᓂᖅ. ᐊᕐᕈᑎᑕᓇᓚᐅᖅᑯᑦ ᐊᓪᓚᓗ ᓱᓕᓐᓂᖅᓯᐊᖅᑎᓂᖅᑯᑦ ᐊᓱᔨᕐᑎᓕᐅᓂᔪᓐᓇᖅᑐᓗ ᑲᓇᑕᒥ ᓂᑦᓕᐊᖅᑎᓂᑲᓇᐊᖅᒪᒪᑕ ᐅᒪᔪᓕᐊᖅᑎᓂᖅᖢᓂᑦ ᐃᓕᓴᕐᓂᖅᓯᒪᓂᖅ.
2021, ᐃᕐᓱ 11	ᐅᖃᓕᒫᐅᖅᑯᑦ ᑲᑎᒪᓕᕐᓗᑕ ᓱᓕᓕᓂᕐᒥ ᐅᖃᐅᓱᓴᖓᓐᓂᑦ ᖃᑎᖅᒥᐅᑦ ᐅᒪᔪᑕᑦᓂᔨᔪᐊᖅᑯᑦ ᑲᑎᒪᔨᖏᑦ and ᓄᓇᕗᑦ ᑐᙵᓚᐃᓐᓇᖅ, **(ᖃᓚᑕᐅᓴᖅᑯᑦ)**	ᖃᑎᖅᒥᐅᑦ ᐃᒪᔪᑕᑦᓂᔨᔪᐊᖅᑯᑦ ᑲᑎᒪᔨᖏᑦ, ᓄᓇᕗᑦ ᑐᙵᓚᐃᓐᓇᖅ,	ᖃᑎᖅᒥᐅᑦ ᐃᒪᔪᑕᑦᓂᔨᔪᐊᖅᑯᑦ ᑲᑎᒪᔨᖏᑦ, ᓄᓇᕗᑦ ᑐᙵᓚᐃᓐᓇᖅ,	ᐃᑲᔪᖅᓱᐃᓕᓴᑦ ᒪᓕᑐᐃᓗᓐᓂᖅᓯᐊᖅᑎᓂᖅᑯᑦ ᐊᓪᓚᓗ ᓱᓕᓐᓂᖅᓯᐊᖅᑎᓂᖅᑯᑦ ᐊᓱᔨᕐᑎᓕᐅᓂᔪᓐᓇᖅᑐᓗ ᑲᑎᒪᔨᖏᑦ ᓂᑦᓕᐊᖅᑎᓂᑲᖅᑲᐅᓂᔪᓚᐅᓕᖅ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᑯᓐᓂ.
2021, ᐃᐳᓗ 9	ᐅᖃᓕᒫᐅᖅᑯᑦ ᑲᑎᒪᓕᕐᓗᑕ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᑯᖅᓯᒪᓂᑦ ᓱᓕᓕᓂᖅᑎᖏᓐᓂᖅᓯᒪᓂᑦ **(ᖃᓚᑕᐅᓴᖅᑯᑦ)**	ᐃᖃᓗᓕᕐᒪᐊᕐᓇᖅ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᑯᖅᓯᒪᔪᖏᑦ ᐊᓪᓚᓗ ᖃᑎᖅᒥᐅᑦ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᑯᖅᓯᒪᓂᖅᓯᒪᓂᑦ	ᐃᖃᓗᓕᕐᒪᐊᕐᓇᖅ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᑯᖅᓯᒪᔪᖏᑦ ᐊᓪᓚᓗ ᖃᐅᔨᓴᓇᖅᑐᑦ ᐊᖏᔪᖅᓯᐊᓂᑦ ᑲᑐᔾᔨᖏᑦ	ᐃᑲᔪᖅᓱᓇᖅᑕᐅᓕᓗᓂ ᒪᓕᒐᐃᓗᓐᓂᖅᓯᐊᖅᑎᓂᖅᑐᑦ.
2021, ᐃᐳᓗ 27	ᐅᖃᓕᒫᐅᖅᑯᑦ ᑲᑎᒪᓕᕐᓗᑕ ᐅᒥᖓᓚᐅᖅᑐᖅ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᑯᖅᓯᒪᔪᖏᑦ ᐊᓪᓚᓗ ᖃᓄᖐᔪᐊᑦ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᑯᖅᓯᒪᔪᖏᑦ, **(ᖃᓚᑕᐅᓴᖅᑯᑦ)**	ᐅᒥᖓᓚᐅᖅᑐᖅ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᑯᖅᓯᒪᔪᖏᑦ, ᖃᓄᖐᔪᐊᑦ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᑯᖅᓯᒪᔪᖏᑦ,	ᐅᒥᖓᓚᐅᖅᑐᖅ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᑯᖅᓯᒪᔪᖏᑦ	ᐃᑲᔪᖅᓱᐃᓕᓴᑦ ᒪᓕᒐᐃᓗᓐᓂᖅᓯᐊᖅᑎᓂᖅᑐᑦ.
2021, ᐃᐳᓗ 29	ᐅᑲᓕᒫᐅᖅᑯᑦ ᑲᑎᒪᓂᔪᓕᓗᑕ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᑯᖅᓯᒪᓕᒐᓂᑦ ᐊᓪᓚᓗ ᐃᒪᔪᑕᑦᓂᔨᔪᐊᖅᑯᑦ ᐅᖅᓯᓕᕐᓂᖅᐸᑦ ᑲᑎᒪᔨᖏᑦ (ᓄᓇᕗᑦ) **(ᖃᓚᑕᐅᓴᖅᑯᑦ)**	<ᐅᓪᓗᑖᑦ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᑯᖅᓯᒪᔪᖏᑕ ᑲᑎᒪᔨᖏᑦ, ᐅᒥᖓᓚᐅᖅᑐᖅ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᑯᖅᓯᒪᔪᖏᑦ, ᐃᒪᔪᑕᑦᓂᔨᔪᐊᖅᑯᑦ ᐅᖅᓯᓕᕐᓂᖅᐸᑦ ᑲᑎᒪᔨᖏᑦ (ᓄᓇᕗᑦ)	<ᐅᓪᓗᑖᑦ ᐃᒪᔪᖅᓯᐊᖅᑎᓂᖅᑯᖅᓯᒪᔪᖏᑕ ᑲᑎᒪᔨᖏᑦ, ᐃᒪᔪᑕᑦᓂᔨᔪᐊᖅᑯᑦ ᐅᖅᓯᓕᕐᓂᖅᐸᑦ ᑲᑎᒪᔨᖏᑦ (ᓄᓇᕗᑦ)	ᐃᑲᔪᖅᓱᐃᓕᓴᑦ ᒪᓕᒐᐃᓗᓐᓂᖅᓯᐊᖅᑎᓂᖅᑐᑦ.

ᐅᑦᓗᖅ	ᑲᑎᒪᔨᑎᒋᓂᖅ/ᑐᖃᖏᑎᖅ	ᖃᑲᐃᖅᑯᐅᓕᕐᓂᖅ	ᐅᐸᔨᑎᓂ	ᖃᓄᐃᓕᖅᓯᒪᓕᖅᓴᖅ
2021, ᐋᓂ 10	ᐅᖃᓕᐅᖅᑯᑦ ᑲᑎᒪᑎᓯᓪᓗᑐ ᐃᓗᓐᓇᖅᑐᓂ ᕿᑦᓚᓂᐅᖅᐸᑦ ᐊᒻᒪᓗ ᐊᑭᐊᓂᒥᐅᓂᓪᓗ ᑐᑦᑕᒪᓯᐸᑦᓚᒥᒃᑐᑦ ᑕᐃᒪᓕᕐᐊᖏᓚᐅᖅᓯᒪᓕᖅᑎᓪᓕᑕ. (**ᖃᓚᑕᐅᐅᖅᑯᑦ**)	ᐃᖃᓗᓐᓂᕐᐊᖅ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᖅ, ᖃᐅᖃᓗᖅᑐᑦ ᐊᖏᕐᓂᐊᕐᓇᑦ ᑲᑐᔪᓐᓇᖅᓂ, ᖃᑭᖓᒃᑯᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᖅ, ᐅᒥᖓᒃᖢᓪᓕ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᖅ, ᐅᓪᓗᕿᐊᑐᖅᑐᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᑕ ᑲᑎᒪᔨᓂᖅ, <ᐅᓪᓚᑐᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᑕ ᑲᑎᒪᔨᓂᖅ, ᖃᑭᑎᑦᑎᐅᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᑕ ᑲᑎᒪᔨᓂᖅ, ᐃᓄᒃᐊᓪᓚᑐᖅᑯᑦ ᑲᑎᒪᔨᓂᖅ, ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᖅ, ᐃᓕᓴᕐᓇᓱᐊᕐᓇᖅᑯᑦ ᐅᓂᒃᓴᓕᖅᑲᑦ ᑲᑎᒪᔨᓂᖅ (ᓄᓇᕗᑦ),ᓄᓇᕗᒻᒥ ᒪᓂᒪᓕᖅᑯᑦ.	ᐃᖃᓗᓐᓂᕐᐊᖅ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᖅ, <ᐅᓪᓚᑐᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᑕ ᑲᑎᒪᔨᓂᖅ, ᐅᓪᓗᕿᐊᑐᖅᑐᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᑕ ᑲᑎᒪᔨᓂᖅ, ᐅᒥᖓᒃᖢᓪᓕ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᖅ, ᐃᓕᓴᕐᓇᓱᐊᕐᓇᖅᑯᑦ ᐅᓂᒃᓴᓕᖅᑲᑦ ᑲᑎᒪᔨᓂᖅ (ᓄᓇᕗᑦ), ᐃᓄᒃᐊᓪᓚᑐᖅᑯᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᖅ, , ᖃᑭᑎᑦᑎᐅᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᖅ	ᐊᖏᑎᓕᓇᕐᓂᖅᑯᑦ ᐊᑦᓚᓗ ᓱᓕᓴᕐᓂᐊᖅᑎᖅᑯᑦ ᐊᓱᓴᓕᕐᓕᐅᓂᓪᓗ ᑲᓇᕐᓗ ᑐᑭᓯᒪᔭᓕᕐᓂᖅ ᓴᓇᔨᓕᖅᑎᑦ 1. ᐅᑎᖅᑎᑕᐅᓗᓂ ᐱᒋᐊᖅᑲᓂᖅᑎᑎᑕᐅᓗᓂ ᖃᐅᔨᓴᖅᑕᐅᖅᑲᓂᖅᑲᓂᑦ ᐊᑦᑕᓇᖅᑐᑦᓯᑐ ᓂᕆᔨᒋᑦ ᓇᓗᓇᐃᖅᑕᐅᓱᒪᓂᖅᓂᓪᓗ ᐃᓅᓴᕆᓕᓗᓂᖅᓂᓪᓗ ᑲᑎᒪᔨᓂᖅ; 2. ᐅᐃᒍᓕᖅᑎᑦ ᐃᓕᓴᕐᓇᓱ ᓄᑦᖃᖓᖅᓂᓪᓗ ᐱᓕᒪᓂᑦ ᑕᓯᓴᐅᓚ ᐅᓂᒃᑲᓕᐊᖅᓯᒪᓕᖅᑎᓪᓕᑕ. ᐅᐃᒍᓕᖅᑎᑦ ᐃᓕᓴᕐᓇᓱ ᐅᓂᒃᓴᓕᖅᑲᑦ ᑲᑎᒪᔨᓂᖅ - ᐃᓕᓴᕐᓇᓱᒻᒥ ᐅᐃᒍᓕᖅᑎᑦ ᑕᓯᓴᐅᓚ 2017ᑦᑕᒍᒍ ᐊᑦᑕᓇᖅᑐᑦᓯᑐ ᓂᕆᔨᒋᑦ ᓇᓗᓇᐃᖅᑕᐅᓱᒪᓂᖅᓂᓪᓗ ᐃᓅᓴᕆᓕᓗᓂᖅᓂᓪᓗ ᑲᑎᒪᔨᓂᖅ ᐅᓂᒃᑲᓕᐊᖅᓯᒪᓕᖅᑎᓪᓕᑕ.
ᐱᑎᐊᖅᑎᓯᓪᓗᑐ ᐅᐃᒍᓕᖅᑎᑦ ᐃᓕᓴᕐᓇᓱᐅᓕᕐᓂ ᐊᑦᑕᓇᖅᑐᑦᓯᑐ ᓂᕆᔨᒋᑦ ᓇᓗᓇᐃᖅᑕᐅᓱᒪᓂᖅᓂᓪᓗ ᐃᓅᓴᕆᓕᓗᓂᖅᓂᓪᓗ ᑲᑎᒪᔨᓂᖅ ᖃᐅᔨᓴᖅᑕᐅᓱᒪᓂᖅᓂᓪᓗ				
2021, ᓄᑎᐱᓗ 2	ᑕᖅᑭᖅ ᑕᐃᒪᑦ ᑲᑎᒪᔨᓯᓪᓗᑎᑦ ᐅᑭᐊᓵᖓᓐᓂᖅᓂᓪᓗ 2021 ᐱᑎᐊᖅᑎᑕᐅᓴᐅᓕᖅᓯᒪᔪ ᐅᐃᒍᓵᖓᓐᓄ ᐃᓕᓴᕐᓇᓱᑕ (**ᖃᓚᑕᐅᐅᖅᑯᑦ**)	ᐃᖃᓗᓐᓂᕐᐊᖅ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᖅ, ᖃᐅᖃᓗᖅᑐᑦ ᐊᖏᕐᓂᐊᕐᓇᑦ ᑲᑐᔪᓐᓇᖅᓂ, ᖃᑭᖓᒃᑯᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᖅ, ᐅᓪᓗᕿᐊᑐᖅᑐᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᑕ ᑲᑎᒪᔨᓂᖅ, <ᐅᓪᓚᑐᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᑕ ᑲᑎᒪᔨᓂᖅ, ᖃᑭᑎᑦᑎᐅᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᑕ ᑲᑎᒪᔨᓂᖅ, ᐃᓄᒃᐊᓪᓚᑐᖅᑯᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᖅ, ᐃᓕᓴᕐᓇᓱᐊᕐᓇᖅᑯᑦ ᐅᓂᒃᓴᓕᖅᑲᑦ ᑲᑎᒪᔨᓂᖅ (ᓄᓇᕗᑦ),ᓄᓇᕗᒻᒥ ᒪᓂᒪᓕᖅᑯᑦ, ᓄᓇᕗᒻᒥ ᒪᓂᒪᓕᖅᑯᑦ	ᐃᖃᓗᓐᓂᕐᐊᖅ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᖅ, ᖃᐅᖃᓗᖅᑐᑦ ᐊᖏᕐᓂᐊᕐᓇᑦ ᑲᑐᔪᓐᓇᖅᓂ, ᖃᑭᖓᒃᑯᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᖅ, ᖃᑭᑎᑦᑎᐅᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᑕ ᑲᑎᒪᔨᓂᖅ, ᐃᓕᓴᕐᓇᓱᐊᕐᓇᖅᑯᑦ ᐅᓂᒃᓴᓕᖅᑲᑦ ᑲᑎᒪᔨᓂᖅ (ᓄᓇᕗᑦ), ᐃᓄᒃᐊᓪᓚᑐᖅᑯᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᓂᖅ, ᓄᓇᕗᒻᒥ ᒪᓂᒪᓕᖅᑯᑦ	ᐊᖏᑎᓕᓇᕐᓂᖅᑯᑦ ᐊᑦᓚᓗ ᓱᓕᓴᕐᓂᐊᖅᑎᖅᑯᑦ ᐊᓱᓴᓕᕐᓕᐅᓂᓪᓗ ᑲᑎᒪᔨᓂᖅ ᑐᓴᕆᔭᐅᔪᓂᖅ. ᑐᓴᖅᑕᒥᓂᕆᓐᓂ ᐃᓱᒪᒋᔭᓕᖅᑎᑦ ᐊᑦᓚᓗ ᓄᑦᑕᖅᑐᑦ ᑐᓴᕆᔭᐅᔪᓂᖅᓂᓪᓗ. ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᑦ ᐃᓕᓴᕐᓇᓱᐊᕐᓇᖅᑯᑦ ᐅᓂᒃᓴᓕᖅᑲᑦ ᑲᑎᒪᔨᓂᖅ (ᓄᓇᕗᑦ) and ᖃᑭᑎᑦᑎᐅᑦ ᐅᒪᓕᕐᓂᐊᖅᑎᖅᑯᑦ ᑲᑎᒪᔨᓂᖅ ᑭᖑᓂᖅᑐᐃᓐᓇᓕᓂᓪᓗ ᑭᖅᑯᓂᖅᓯᒪᓕᖅᑎᓪᓕᑕ ᑕᒪᓐᓇ ᑎᑎᖅᑕᒥᓇᐅᓴᐅᓕᖅᓯᒪᓕᖅᑎᓪᓕᒍ.

ᐅᓪᓗᖅ	ᑲᑎᒪᔨᑎᒋᔭᖅᑕᓂᖅ/ᑐᖏᕈᑎᖅᑕᓂᖅ	ᖃᐅᔨᖅᑯᓂᖅᓯᒪᔪᓂᖅ	ᐅᕐᒪᑎᔪᓂᖅ	ᖃᓄᐃᓕᓴᐅᓪᓚᖅ
2021, ᐅᑐᐱᓗ 6	ᑕᖃᕈᖅ ᑕᐃᓪ ᑲᑎᒪᑎᓯᓗᑎᑕ ᐅᕈᐊᓴᖏᓐᓄᐅᓂ 2021 ᐱᑎᐊᖅᑎᑕᐅᔭᕆᓂᓗᒍ ᐅᐃᒍᓴᖏᖅᓯᑕ (**ᖃᓄᑕᐅᐅᖅᑯᓂ**)	ᐃᖃᓗᓕᔾᔨᑎᐊᖅ ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᖅ, ᕿᑎᓪᓗᒍᓪ ᐊᖏᔪᖅᑐᐊᓱᓂ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, ᕿᖏᖓᓕᐅᖅ ᐅᒪᒃᑯᓂᖅᓯᒪᓂ, ᐅᓪᓚᕆᐊᐅᖅᑐᓂ ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᒃᑲ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, ᕿᑎᕐᕕᐅᑕ ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᒃᑲ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, ᐃᓚᖓᑕᒥᓂᖅᓯᒪᓂᒃᑲ ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᒃᑲ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, ᐃᓚᖓᑕᒥᓂᖅᓯᒪᓂᒃᑲ ᐅᓂᒃᓴᓂᖅᓱᓂ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ (ᓄᓇᕗᒻᒥᒃ),ᓄᓇᕗᒻᒥ ᓴᖅᓚᒪᓕᖅᑯᓂ, ᓄᓇᕘᓐᓄ ᓴᖅᓚᒪᓕᖅᑯᓂ	ᐃᖃᓗᓕᔾᔨᑎᐊᖅ ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᖅ, ᕿᑐᕐᖁᓪᓗᒍ ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᒃᑲ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, <ᐅᓪᓚᑦᑐᒃ ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᒃᑲ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, ᐅᓪᓚᕆᐊᐅᖅᑐᓂ ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᒃᑲ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᒃᑲ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᒃᑲ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ (ᓄᓇᕗᒻᒥᒃ),ᓄᓇᕘᓐᓄ ᓴᖅᓚᒪᓕᖅᑯᓂ	ᐊᖏᕐᕕᒃᑯᓂ ᐊᒻᒪᓗ ᓱᓕᓐᓄᐊᓕᖅᑎᖅᑕᓂᖅ ᐊᓱᓴᓵᕐᓗᐊᓂᓗ ᑲᓇᑕᒥ /ᐅᒪᔨᓕᓚᖅᓴᔨᐊᖅᑯᓂ ᐅᓐᓂᒃᑲᓂᖅᓱᓂ ᑲᑎᒪᔨᖅᑎᑦ (ᓄᓇᕗᒻᒥᒃ) ᑕᑯᑎᓴᓕᓚᓂ ᓱᖅᓕᓕᒻᒥᓂ ᑎᑎᕋᓕᐅᖅᑕᑎᓐᓂ. ᑕᒪᑦᑯᐊᓗ ᕿᑎᕐᕕᐅᓴᐅᓪᓚᐊᕿᑲᓇᕐᓂᓗᑎᑦ, ᐅᕿᑲᐅᓱᓴᖏᓐᓄᓗ ᑕᑯᑦᐅᓚᑎᑦ. ᕿᑐᕐᕕᐅᑦ ᐅᒪᔨᓕᓚᓂᐊᓕᖅᑎᖅᑯᓂ ᑲᑎᒪᔨᖅᑎᖅᑕᓂᖅ (ᓄᓇᕗᒻᒥᒃ),ᓄᓇᕘᓐᓄ ᓴᖅᓚᒪᓕᖅᑯᓂ
2021, ᓄᕐᐱᓗ 3	ᑕᖃᕈᖅ ᑕᐃᓪ ᑲᑎᒪᔨᓯᓗᑎᑕ ᐅᕈᐊᓴᖏᓐᓄᐅᓂ 2021 ᐱᑎᐊᖅᑎᑕᐅᔭᕆᓂᓗᒍ ᐅᐃᒍᓴᖏᖅᓯᑕ (**ᖃᓄᑕᐅᐅᖅᑯᓂ**)	ᐃᖃᓗᓕᔾᔨᑎᐊᖅ ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᖅ, ᕿᑐᕐᖁᓪᓗᒍ ᐊᖏᔪᖅᑐᐊᓱᓂ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, ᕿᑎᓪᓗᒍᓪ ᐊᖏᔪᖅᑐᐊᓱᓂ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, ᕿᖏᖓᓕᐅᖅ ᐅᒪᒃᑯᓂᖅᓯᒪᓂ, ᐅᓪᓚᕆᐊᐅᖅᑐᓂ ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᒃᑲ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, ᐅᓪᓚᕆᐊᐅᖅᑐᓂ ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᒃᑲ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, ᐃᓚᖓᑕᒥᓂᖅᓯᒪᓂᒃᑲ ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᒃᑲ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, ᐃᓚᖓᑕᒥᓂᖅᓯᒪᓂᒃᑲ ᐅᓂᒃᓴᓂᖅᓱᓂ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ (ᓄᓇᕗᒻᒥᒃ),ᓄᓇᕘᓐᓄ ᓴᖅᓚᒪᓕᖅᑯᓂ	ᐃᖃᓗᓕᔾᔨᑎᐊᖅ ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑕᓂᖅ, ᕿᑐᕐᖁᓪᓗᒍ ᐊᖏᔪᖅᑐᐊᓱᓂ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, ᐅᒪᔨᓕᓚᖅᓴᔨᐊᖅᑯᓂ ᐅᓐᓂᒃᑲᓂᖅᓱᓂ ᑲᑎᒪᔨᖅᑎᖅᑕᓂᖅ (ᓄᓇᕗᒻᒥᒃ), ᕿᑐᕐᕕᐅᑦ ᐅᒪᔨᓕᓚᓂᐊᓕᖅᑎᖅᑯᓂ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ, ᓄᓇᕗᒻᒥᒃ ᓴᖅᓚᒪᓕᖅᑯᓂ,	ᐊᓱᓴᓵᐊᖅᑭᒡᓚᒋᑕ ᐅᐉᓐᓇ ᐊᒻᒪᓗ ᕿᑎᕐᕕᐅᑦ ᐊᖏᔪᖅᑐᐊᓱᓂ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ ᕿᑎᕐᕕᐅᑦ ᐊᖏᔪᖅᑐᐊᓱᓂ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ ᑲᑎᒪᔨᖅᑎᖅᑕᓂᒃᑲᓂ ᐅᑎᓂᖓᓪ ᕿᑐᕐᕕᐅᑦ ᐅᒪᔨᓂᐊᓕᖅᑎᖅᑯᓂ ᑲᑎᒪᔨᓴᖅᓯᒪᓂ ᑕᒪᑦᑯᐊᓗ ᑐᓴᕐᕕᒃᑯᓂᒃᑲᓂᖅᓯᒪᓂ ᐊᓱᖅᑐᓄᓪᓕᓂ.

ᐅᑦᓗᖅ	ᑲᑎᒪᔨᑎᒋᓂᖅᐸᑦ/ᑐᖅᑭᑎᖅᑐᑦ	ᖃᖅᑲᐃᖅᑯᐅᓯᒪᔪᑦ	ᐅᐸᒧᑎᔪᑦ	ᖃᓄᐃᑦᖠᓕᕆᓂᖅᖠᓂ
2021, ᓄᕕᐱᓗ 26	ᑕᖅᑭᖅ ᑕᒪᑦ ᑲᑎᒪᑎᓯᓗᑎᑦ ᐅᑭᐊᓴᖅᖠᑐᓂᑦ 2021 ᐱᑎᐊᖅᑎᑕᐅᔾᔨᑦᓗᒍ ᐅᐃᒍᓴᖅᖠᓂ ᐃᓕᓴᐅᔾᔨᑦᓯᒪᓕᑦ (**ᖃᖅᓗᑕᐅᔾᔨᖅᑯᑦ**)	ᐃᖃᓗᓕᕆᔨᑎᐊᖅ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᖃᓄᖁᓕᖅᑐᑦ ᐊᖏᔪᓐᓇᖅᑐᑦ, ᖃᑭᖓᔪᐊᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᐅᒥᖓᒪᓕᑐᖅ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᐅᓗᓴᐃᐊᖅᑐᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ ᑲᑎᒪᓂᖅᓴᓪᓚᐃᖅᑯᓯᑦ ᑲᑎᒪᓂᖅ, ᐃᓚᖓᔾᔨᐊᖅᑐᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ ᐃᒪᓕᕆᓕᓴᐅᓪᓚᐃᖅᑯᓯᑦ ᑲᑎᒪᓂᖅ (ᓄᓇᕗᐊᖓᑦ),ᓄᓇᕗᐊᖓᒥ ᓴᖅᓚᓕᖅᑯᓯᑦ, ᓄᓇᖅᓗᒥ ᓴᖅᓚᓕᖅᑯᓯᑦ	ᐃᖃᓗᓕᕆᔨᑎᐊᖅ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᖃᓄᖁᓕᖅᑐᑦ ᐊᖏᔪᓐᓇᖅᑐᑦ, ᑲᑎᒪᓂᖅᐸᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᐅᓗᓴᐃᐊᖅᑐᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ ᑲᑎᒪᓂᖅ (ᓄᓇᕗᐊᖓᑦ), ᓄᓇᖅᓗᒥ ᑐᙳᓚᕆᖅ,	ᐊᓯᔪᓐᖏᑕᐅᓕᐅᔾᔨᖅᓯᒪᑦ ᐃᓕᓴᐅᖃᓄᐃᓕᓕᒫᑦ ᐅᐃᒍᑎᓂᓪᓗᑎᑦ. ᐊᑐᖅᑲᓕᑐᑎᑦ ᐊᑐᖅᑲᓕᕈᑎᑦ ᐱᓕᓇᖅᑲᑎᒋᓂᖅᑐᑦ ᑲᑎᖅᑎᖅᓱᖅᑐᒪᖓᓚᒪᓕᒡᓕ ᕆᓚᐅᖃᓄᐃᓕᓴᐅᓪᓚᐃᖅᑯᓯᑦ ᐅᐃᒍᑎᓂᓪᓗᑎᑦ ᓄᓇᖓᓂᖅᓴᓪᓚᐃᖅᑯᓯᑦ ᐅᐃᒍᑎᓂᓪᓗᑎᑦ ᐃᓕᓴᐅᓪᓚᐃᖅᑯᓯᑦ.
2022, ᖃᓐᓄᐊᓗ 16	ᐊᑐᖅᑲᓕᑐᑎᑦ ᐊᑐᖅᑲᓕᕈᑎᑦ ᐱᓕᓇᖅᑲᑎᒋᓂᖅᑐᑦ ᑲᑎᖅᑎᖅᓱᖅᑐᒪᖓᓚᒪᓕᒡᓕ. (ᖃᖅᓗᑕᐅᔾᔨᖅᑯᑦ)	ᐃᖃᓗᓕᕆᔨᑎᐊᖅ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᖃᓄᖁᓕᖅᑐᑦ ᐊᖏᔪᓐᓇᖅᑐᑦ, ᖃᑭᖓᔪᐊᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ,ᐅᒥᖓᒪᓕᑐᖅ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᐅᓗᓴᐃᐊᖅᑐᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᐊᑐᖅᑲᓕᑐᑎᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᖃᑭᖓᔪᐊᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᐃᓚᖓᔾᔨᐊᖅᑐᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᐃᓚᖓᔾᔨᐊᖅᑐᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ (ᓄᓇᕗᐊᖓᑦ)	ᐃᖃᓗᓕᕆᔨᑎᐊᖅ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᖃᓄᖁᓕᖅᑐᑦ ᐊᖏᔪᓐᓇᖅᑐᑦ, ᐅᓗᓴᐃᐊᖅᑐᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, <ᐅᓪᓚᒍᑐᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ,ᖃᑭᖓᔪᐊᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᐃᓚᖓᔾᔨᐊᖅᑐᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᐃᓚᖓᔾᔨᐊᖅᑐᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ (ᓄᓇᕗᐊᖓᑦ),	ᐅᑯᐊ ᑭᓱᐊᓂ ᐊᑐᖅᑲᓕᑐᑎᑦ ᐅᖃᖅᐅᓱᖅᑭᓂᕐᓗᑎᑦ ᑕᒪᓐᓇᖅᑐᒪᑦ.
ᐱᖁᓇᓂᖅᓴᓪᓚᐃᖅᑯᓯᑦ ᑎᑎᖅᑕᐅᔾᔨᖅᑯᓯᑦ ᑲᑎᒪᓂᖅᐸᑦ				
2021, ᐅᑐᐱᓗ 8	ᐊᐅᓪᓚᖅᑎᓯᒪᓂᑦ ᑎᑎᕋᖅᑐᑎ ᖃᖅᓗᑕᐅᔾᔨᖅᑯᓯᑦ ᖃᑎᖅᑎᐅᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᐃᓕᖅᑲᓕᑐᑎᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ and ᖃᓄᖁᓕᖅᑐᑦ ᐊᖏᔪᓐᓇᖅᑐᑦ ᐃᓕᓴᐅᓪᓚᐃᖅᑯᓯᑦ ᑲᑎᒪᓂᖅᓯᒪᔪᖓ: ᑐᓂᓯᒋᓚᒥᔪᑦ ᓯᕐᓴᓪᓕᖏᑦ ᑕᑯᔨᓴᐅᔪᓪᓕᑦ ᐅᑯᓇᖓᒃ ᓄᓇᕗᐊᖓᒥ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ ᐊᓚᒪᓗ ᐅᖃᖅᐳᖅᓴᓂᒃ ᑐᓴᕐᓚᓕᖅᑐᑦ. (ᐊᐟᖏᑎᓪᓚᕆᖅᑯᑦ ᐊᓚᒪᓗ ᓯᓚᖅᑯᓂᖅᑯᓯᑦ ᐊᓯᔪᓐᓇᓪᓕᐊᓂᖅᓴᓪᓗ ᖃᓇᑕᒥ <ᖅᓇᓯᒪᓕᐅᖅᑐᑦ ᐃᓴᓯ 2022ᒧᑦ ᑲᑎᒪᓂᖅᐸᑦ.)	
2021, ᐅᑐᐱᓗ 19	ᑎᑎᖅᑕᐅᑐᑦ ᖃᑎᖅᑎᐅᑦ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ, ᐃᖃᓗᓕᕆᔨᑎᐊᖅ ᐅᒪᔪᓐᓇᖅᑐᖅᑯᓯᖏᓐᓂᑦ ᐊᓚᒪᓗ ᖃᓄᖁᓕᖅᑐᑦ ᐊᖏᔪᓐᓇᖅᑐᑦ ᐃᓕᓴᐅᓪᓚᐃᖅᑯᓯᑦ ᑲᑎᒪᓂᖅᐸᑦ ᐊᐟᖏᑎᓪᓚᕆᖅᑯᓯᑦ ᐊᐅᓪᓚᖅᑎᓯᒪᓂᑦ ᑕᒪᓐᓇᖅᑐᒪᑦ ᐃᓕᓴᐅᓪᓚᐃᖅᑯᓯᑦ ᐊᐟᖏᑎᓪᓚᕆᖅᑯᓯᑦ ᐅᐃᒍᑎᓂᓪᓗᑎ

ᐅᓪᓗᖅ	ᑲᑎᒪᔨᑎᓂᖅᓯᓂᖅ/ᑐᖃᖏᑎᖅᓯᓂᖅ	ᖃᐅᐃᖅᑯᐅᓕᕆᓂᖅ	ᐅᐸᒧᑦ	ᖃᓄᐃᓕᖅᓴᓂᖅᓯᖅ
2021, ᓄᐃᐱᓗ. 4	ᖃᑎᖅᑎᐅᓪ ᐅᒪᔨᓕᕆᔨᐅᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ ᑎᑎᖃᖅᑎᒃ ᐊᐅᓪᓕᕆᓚᕆᔨᑯᓂ ᐊᒪᓚᓗ ᓯᓚᑦᓴᓕᕆᓂᖅᑎᑦᑐᓂᒃ ᑲᑎᒪᔨᖅᑎᑦᑐᓂᒃ ᐊᓯᔨᔨᓕᕆᓂᖅᑎᑦᑐᓂᒃ ᑎᑎᖃᖅᑐᓂᒃ ᐊᓯᔨᔨᖅᑕᐅᓕᕆᓂᖅᓯᒪᓂᖅᓴᓂ. ᐃᑲᔪᖃᓯᖃᕐᓂᒪᑦ.			
2021, ᑎᓯᐱᓗ 1 **(ᖃᑲᓕᐅᕆᖅᑯᑦ)**	ᐅᓗᐅᕼᐊᖅᑐᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ	ᐅᓗᐅᕼᐊᖅᑐᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ, ᐃᓄᒃᐊᓗᓗᐃᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ, ᐅᒪᔨᔪᓕᕆᔨᐅᑲᑯᑦ ᐅᓐᓂᓗᖃᖅᑎᑦ ᑲᑎᒪᔨᖅᓂ (ᓄᓇᕋᔪᐊᓘᑦ)	ᐱᖓᓱᓇᔪᖃᖅᑐᓂᑦ ᐅᓗᐅᕼᐊᖅᑐᑦ ᑲᑎᒪᔨᖅᑎᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ ᑐᑭᒧᐊᖃᖅᑎᑲᑯᓂ.	ᐃᑲᔪᖃᓯᖃᕐᓂᒪᑦ ᑎᑎᖃᖅᑕᐅᕆᔨᐅᓂᖅᓐᓂᑦ ᓄᖓᒍᐊᕈᓐᓇᖅᓐᓂᑦ
2021, ᔪᑎᐱᓗ 25	ᐅᒪᔨᓕᕆᔨᐅᑲᑯᓂ ᐅᓐᓂᓪᓗᖅᑲᑦ ᑲᑎᒪᔨᖅᓂ (ᓄᓇᕋᔪᐊᓘᑦ) ᑎᐊᒪᐃᕐᖃᖅᑐᑎ ᑲᑎᒪᔨᖅᑎᑲᑯᓂᓐᓂᑦ **(ᖃᑲᓕᐅᕆᖅᑯᑦ)**		ᐅᒪᔨᓕᕆᔨᐅᑲᑯᓂ ᐅᓐᓂᓪᓗᖅᑲᑦ ᑲᑎᒪᔨᖅᓂ (ᓄᓇᕋᔪᐊᓘᑦ	ᐃᑲᔪᖃᓯᖃᕐᓂᒪᑦ ᑎᑎᖃᖅᑕᐅᕆᔨᐅᓂᖅᓐᓂᑦ ᓄᖓᒍᐊᕈᓐᓇᖅᓐᓂᑦ
2022, ᔾᐅᓄᐊᓗ 14	ᐊᑐᖅᓯᕐᑐᑎᑦ ᐊᑐᖅᓯᕐᕈᑎᑎᑦ ᐱᓕᕆᖃᑎᒌᑦ: **(ᖃᑲᓕᐅᕆᖅᑯᑦ)**	ᐃᖃᓗᓕᕐᕕᐊᖅ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ, ᖃᓄᖅᑲᓂᖅᓯᒪᓂ, ᖃᐅᔨᓴᖅᑐᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ, , ᐅᓐᓇᒪᓕᐅᖅ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ, ᐅᓗᐅᕼᐊᖅᑐᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ, <ᐅᓪᓚᑐᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ, ᖃᐅᔨᓴᖅᑐᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ, ᐃᓄᒃᐊᓗᓗᐃᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ, ᐅᒪᔨᓕᕆᔨᐅᑲᑯᑦ ᐅᓐᓂᓪᓗᖅᑲᑦ ᑲᑎᒪᔨᖅᓂ (ᓄᓇᕋᔪᐊᓘᑦ),ᓄᓇᕋᔪᐊᓘᑦ ᑕᖅᒪᒃᑯᑦ, ᓄᓇᖅᓗᒃᑐᑦ ᑕᖅᒪᒃᑯᑦ ᐊᖏᑕᐅᓕᕆᓂᖅᑎᑦ ᐊᒪᓚᓗ ᓱᓕᓐᓂᕆᖃᖅᑎᑲᑯᓂ ᐊᓯᔨᔨᓕᕆᓂᖅᓐᓂᑦ ᑲᑎᒪᔨᖅᓂ	ᐃᖃᓗᓕᕐᕕᐊᖅ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ,ᓴᐃᓪᓕᖅᑐᑦ ᐊᖓᓐᓂᕆᔨᑦ ᑲᑎᒪᔨᖅᓂ, ᐅᓗᐅᕼᐊᖅᑐᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ, <ᐅᓪᓚᑐᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ, ᖃᐅᔨᓴᖅᑐᑦ ᐅᒪᔨᓕᕆᔨᐅᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ, ᐃᓄᒃᐊᓗᓗᐃᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ, ᐅᒪᔨᓕᕆᔨᐅᑲᑯᑦ ᐅᓐᓂᓪᓗᖅᑲᑦ ᑲᑎᒪᔨᖅᓂ (ᓄᓇᕋᔪᐊᓘᑦ),ᓄᓇᕋᔪᐊᓘᑦ ᑕᖅᒪᒃᑯᑦ, ᓄᓇᖅᓗᒃᑐᑦ ᑕᖅᒪᒃᑯᑦ ᐊᖏᑕᐅᓕᕆᓂᖅᑎᑦ ᐊᒪᓚᓗ ᓱᓕᓐᓂᕆᖃᖅᑎᑲᑯᓂ ᐊᓯᔨᔨᓕᕆᓂᖅᓐᓂᑦ ᑲᑎᒪᔨᖅᓂ	ᐊᖏᑕᐅᓕᕆᖃᖅᑎᑲᑯᓂ ᐊᒪᓚᓗ ᓱᓕᓐᓂᕆᖃᖅᑎᑲᑯᓂ ᐊᓯᔨᔨᓕᕆᓂᖅᓐᓂᑦ ᑲᑎᒪᔨᖅᓂ ᐅᓐᓂᓪᓗᖅᑲᑦ ᑕᖅᒪᒃᑯᑦ ᑐᓂᓯᓂᖅᓴᐅᓂᒃᑯᑦ ᑕᖅᒪᒃᑯᑦ ᐊᒪᓚᓗ ᖃᓄᐃᓕᖅᓴᓂᖅᓯᖅᑐᑦ ᑕᖅᒪᒃᑯᑦ ᐊᒪᓚᓗ ᐃᓄᒃᐊᓗᓗᐃᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ ᐋᑦᓂᐅᕕᐊᖅ 2022.
2022, ᐃᓕᓴ 10	ᐃᓄᒃᐊᓗᓗᐃᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ ᐅᓐᓂᓪᓗᖅᑲᑦ **(ᖃᑲᓕᐅᕆᖅᑯᑦ)**		ᐃᓄᒃᐊᓗᓗᐃᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ	ᐃᑲᔪᖃᓯᖃᕐᓂᒪᑦ ᑎᑎᖃᖅᑕᐅᕆᔨᐅᓂᖅᓐᓂᑦ ᓄᖓᒍᐊᕈᓐᓇᖅᓐᓂᑦ ᓄᓇᖅᓗᒃᑐᑦ
2022, ᐃᐳᓗ 7	ᑎᑎᕋᓂᒃᑎᑦ ᖃᑎᖅᑎᐅᓪ ᐅᒪᔨᓕᕆᔨᐅᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ, ᐃᖃᓗᓕᕐᕕᐊᖅ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ ᐊᒪᓚᓗ ᓴᓕᕋᓂᖅᑐᑦ ᐅᒪᔨᓕᕆᖃᖅᑎᑲᑯᓂ ᑲᑎᒪᔨᖅᓂ ᐊᐅᓪᓕᖅᑕᐅᓕᕆᓂᖅᓐᓂᑦ: ᑭᖓᓪᓕᕐᓂᖅ ᑐᓂᓯᓂᖅᓴᐅᓂᒃᑯᑦ ᑕᖅᒪᒃᑯᑦ ᐊᒪᓚᓗ ᐱᓕᕆᔨᐅᑲᑯᓂ ᐊᓯᔨᔨᓕᕆᓂᖅᓐᓂᑦ ᑲᑎᒪᔨᖅᓂ ᐊᒪᓚᓗ ᐱᕕᓴᓴᖅᑕᐅᓂᖅᓐᓂᑦ ᐅᓴᐅᑭᓴᖅᑕᐅᓂᖅᓐᓂᑦ.			

Ilangani/Ikpatauyak B. Katitigutait ukakatiginiaktainik uktugutainut aalanguligutikhait kanugitjutait Dolphin & Union Tuktuit

Ublua	Katimayut	Kaitkuiyut	Ilauhimayut	Iniktigutait
Katitigutait Ukakatiginiaktainik Nunaliinut Pulaagumik ovalo Katimagumik				
2019, March	Katitigutait tunihimayut tamamik Ilauyunut Nunavumi ovalo Nunatiami kaitkuihimayut Ukakatigiyaaganik katimayukhat. Hapkoa Ilauyut: EHTO, KAA, OHTO, BHTO, PHTC, OHTC, KRWB, NTI, KitIA, WMAC-NWT, GN, GNWT.			
2019, April 3rd	Kugluktuk Angoniatit Katutjikatingit (KAA) **(katimakatauyut)**	KAA, GN, NTI	6 HTOkut katimayiit, 3 GNkut Umayuligiyiit ovalo 1 NTIkunit	Ikayungitut
2019, April 3rd	Kugluktumiut Katimayut **(Katimakatauyut)**	Angmaumayut Inunut. KAA, KRWB, KitIA, NTI, NWMB, GN.	Nunamit Ilauyut (31) ovalo Ilauyut hapkonanit NTI, KAA, KRWB and GN.	Ikayungitut
2019, April 4th	Ikaluktutiamit HTO **(Katimakatauyut)**	EHTO, BHTO, OHTO, GN, NTI	8 HTOkut Katimayiit ovalo 2 GNkunit Umayuligiyiit, 1 NTIkunit	Ikayungitut
2019, April 4th	Ikaluktutiamiut Ilauyut Katimayunut **(Katimakatauyut)**	Angmaumayut Inunut. EHTO, OHTO, BHTO, KRWB, KitIA, NTI, NWMB, GN.	Nunamit Ilauyut (18) ovalo Ilauyut hapkonanga NTI, EHTO, KitIA and GN.	Ikayungitut
2019, April 24th	Paulatuumit Inuit Ilauyut & HTCkunit **(Katimakatauyut)**	Angmaumayut Inunut. PHTC, WMAC-NWT, GNWT, IGC	Nunamit Ilauyut (26) ovalo Ilaukatauyut hapkonanit PHTC, WMAC, GNWT.	Ikayulaitut angigutainit aalat nunalaanit.
2019, April 25th	Ulukhaktok public meeting & HTC **(Katimakatauyut)**	Angmaumayut Inunut. OHTC, WMAC-NWT, GNWT, IGC	Nunamit Ilauyut (48) ovalo Ilaukatauyut Hapkonanit OHTC, WMAC, GNWT.	Ikayunlaitut (aalangugutainik “Ikayuktut” ukiumi 2021, takulugit hamani)

2019, October	ECCCkut autlaaniaktut ikaluktutiamut ilauyaanganik Hikiulikiyinik. **(Katimakatauyut)**	Ilauniaktut katimayunut Ikaluktutiami hapkonalu KRWB, ovalo KitIA.		KRWB ovalo KitIA ilaungitut.
2020, March 23rd	Inuit katimakatauyut Ikaluktutiami **(Katimangitut, ukiakhamut kihimi (2020)**	Angmaumayut Inunut EHTO, KRWB		Katimangitut KALANAKYAMIT
2020, Ukiakhak	Inuit Katimakatauyut Ikaluktutiami **(Katimangitut – Kinguvaktut February 4mut)**	Angmaumayut Inunut EHTO, KRWB		Katimangitut KALANAKYUAMIT
2021, Feb. 4th	Inuit Katimakatauyut Ikaluktutiami. **(Katimangitut KALANAKYUAMIT)** ECCCkut ukaktut ukakatigiyainik ovalo ukaktut ihumagiyainik 2019mi Katimayiinut **(Kagitauyakut)**	EHTO	8nik EHTO Katimayiit	EHTO takuyumayut munagiyakhait pikangitut TK/IQ in COSEWIC kimilguugutainit
Ukakatigiyakhait kanuk munagiyauniaktut ihumaalugutainik tuhaktainut				
2021, March 5	Hivatauyakut katimayut ukakagitiyaanganik kanuk piniaktait WMAC, IGC, GNWT **(kagitauyakut)**	WMAC, IGC, GNWT	WMAC, IGC, GNWT	Ikayuktait piniaktainik. ECCCkut takuyakhait HTCkut.

2021, March 11	Hivatauyakut katimayit ukakaatigivlugit KRWB ovalo NTI **(kagitauyakut)**	KRWB, NTI	KRWB, NTI	Ikayuktait munagiyainut. ECCCkut takuyakhait HTOkut.
2021, April 9th	Hivatauyakut katimayit ukakaatigivlugit HTOkut Ikhivautait **(kagitauyakut)**	EHTO oval KTHO Ikhivautait	EHTO ikhivautait ovalo KAA ikhivautaa	Ikayuktait munagiyainik.
2021, April 27th	Hivatauyakut katimayit ukakaatigivlugit Omingmaktuk HTOkut & Kingauk HTO **(kagitauyakut)**	OHTO, BHTO	OHTO	Ikayuktait munagiyainik.
2021, April 29	Hivatauyakut katimayit ukakaatigivlugit HTCkut & WMAC **(kagitauyakut)**	PHTC, OHTC, WMAC	PHTC, WMAC	Ikayuktait munagiyainik.
2021, June 10th	Hivatauyakut katimayit ukakaatigivlugit tamamik DU tuktuit atuktut maliktainik Ilahimayut **(kagitauyakut)**	EHTO, KAA, BHTO, OHTO, OHTC, PHTC, KRWB, IGC, WMAC, GNWT, GN	EHTO, PHTC, OHTC, OHTO, WMAC, IGC, KRWB	ECCCkut tuniyait malguunik atulaaktait: 1.Kimilguufaalutik ovalo utiklutik COSEWIC; 2. Hanlutik Ilahimayainik kinguliit kimilguugutainut tuhaktitait. Ilayut tamamik angiktait Hamna 2 – hanalugit Ilahimayainik hamunga 2017 COSEWIC kimilguugutait

Hanatjutait ilahimayainut COSEWIC kimilguugutait				
2021, Sept 2nd	Tamaat tatkikhiutimi hivatauyakut katimayut ukiakhami 2021 hanayaanganik Ilahimayainut **(kagitauyakut)**	EHTO, KAA, BHTO, OHTO, OHTC, PHTC, KRWB, IGC, WMAC, GNWT, GN	EHTO, KAA, OHTC, KRWB, WMAC, IGC, GNWT	ECCCkut uktugumayut makpigaamik Pihimayut ikayugutainik ovalo nutaamik tuhagutikhainik hapkonanga. WMAC (NWT) ovalo KRWB ilaukatauyunit atiktauyut ikayugiaganik titigagutikhainik makpigaak.
2021, Oct 6th	Tamaat tatkikhiutimi hivatauyakut katimayut ukiakhami 2021 hanayaanganik Ilahimayainut **(kagitauyakut)**	EHTO, KAA, BHTO, OHTO, OHTC, PHTC, KRWB, IGC, WMAC, GNWT, GN	EHTO, KAA, PHTC, OHTC, KRWB, WMAC, GN,	ECCC/WMACkut tuniyut hivulimik titigainik. Ukakatigiyait ilauyunut, tuhagiaktukhutik. KRWBkut tuniyut kiutjutainik katimataagamiuk HTOkut
2021, Nov 3rd	Tamaat tatkikhiutimi hivatauyakut katimayut ukiakhami 2021 hanayaanganik Ilahimayainut **(kagitauyakut)**	EHTO, KAA, BHTO, OHTO, OHTC, PHTC, KRWB, IGC, WMAC, GNWT, GN	EHTO, KAA, OHTO, PHTC, IGC, WMAC, KRWB, GNWT,	Alaangungitut ilayainik, EHTOkut ovalo KAA katimaniaktut KRWBkut ilaukatigilugit kauyimayainik.
2021, Nov 26th	Tamaat tatkikhiutimi hivatauyakut katimayut ukiakhami 2021 hanayaanganik Ilahimayainut **(kagitauyakut)**	EHTO, KAA, BHTO, OHTO, OHTC, PHTC, KRWB, IGC, WMAC, GNWT, GN	EHTO, KAA, PHTC, OHTC, KRWB, WMAC, NTI	Alaangungitut ilayainik. Atuktut katimayumayut ilaukatigiyaanganik nutaamik titigagutait ilahimayainut
2022, January 16	Atukatigiiktunut katimayut **(kagitauyakut)**	EHTO, KAA, BHTO, OHTO, OHTC, PHTC, KRWB, IGC, WMAC	EHTO, KAA, OHTC, PHTC, KRWB, IGC, WMAC,	Atuktut katimayut ukakatigivlugit ovalo kimilguukhugit Ilahimayait.

Iniktigutait Katitikhimayait Ukakatigiyainik				
2021, October 8th	Kagitauyakut titigakhimayut hapkononga KRWB, EHTO ovalo KAA: tuniyait titigakhimayainik NWMBkunut ovalo apigiyait ihumayainut. (ECCCkut paknaiyakhimayut tunilugit March 2022mi katimagumik).			
2021, October 19th	Kagitauyakut titigakhimayut hapkononga KRWB, EHTO ovalo KAA apigivlugit tuhaktainik katimatitlugit hivatauyakut (October 6th). Tuhaktitait ilauhimayainik kanuk ilahimayait ililaaktait katitikhimayainut ovalo kanuk ikpinagiyait katitihimayainik.			
2021, Nov. 4th	KRWBkut titigakhimayut ECCCkunut ukakhutik ihumagiyainut aalangugumayainik kanugitaakhaat. Ikayungitut.			
2021, Dec. 1st	Ulukhaktok HTCkut **(kagitauyakut)**	OHTC, IGC, WMAC	6mol OHTCkut katimayiit	Ikayuktait katitikhimayait Tamaliktunut
2021, Sept. 25th	WMAC (NWT) Katimayiit katimayut **(kagitauyakut)**		WMACkut katimayiit	Ikayuktait katitikhimayait Tamaliktunut
2022, January 14	Atuktut katimayut **(kagitauyakut)**	EHTO, KAA, BHTO, OHTO, OHTC, PHTC, KRWB, IGC, WMAC, GNWT, GN, ECCC	EHTO, KAA, OHTC, PHTC, KRWB, IGC, WMAC, GNWT, GN, ECCC	ECCCkut tuniyut ukakatigiyumayainik atugutikhainut ovalo aipaanut piniaktait umiktinagit ubluit: Tunihimayut IGCkunut Marchmi 2022 ovalo NWMBkut Junemi 2022.
2022, March 10th	Inuvialuit Umayuligiyiit Katimayiit katimayut **(kagitauyakut)**		IGCkut katimayiit	Ikayuktait katitikhimayait Tamaliktunut
2022, April 7th	Kagitauyakut titigakhimayut KRWBkunut, EHTOkunut ovlo KAAkunut: tuniyait kinguliinik munagiyakhainik NWMBkut ovalo kiniktut ukautikhainik.			

<u>Katitigutait Naituugutainik:</u>

EHTO: Ekaluktutiak Umayuligiyiit Katimayiit (Ikaluktutiak)

KAA: Kugluktuk Angoniatit Katutjikatingit (HTO)

OHTO : Omingmaktok Umayuligiyit Katimayiit

BHTO : Kingaumi Umayuliagiyiit Katimayiit

OHTC : Ulukhaktok Umayuligiyit Katimayiit

PHTC: Paulatuk Umayuligiyiit Katimayiit

WMAC-NWT: Umayuligiyiit Ikayuktiit Katimayiit (NWT)

IGC: Inuvialuit Umayuligiyiit Katimayiit

KRWB: Kitikmeot Aviktukhimayumi Umayuligiyiit Katimayiit

KitIA : Kitikmeot Inuit Katutjikatingit

NTI: Nunavut Tunngavikut

NWMB: Nunavumi Umayuligikyuatkut Katimayiit

GN: Kavamatkut Nunavumi

GNWT: Kavamatkut Nunatiami

ᐅᖃᐅᓯᕆᑕᑦ ᑐᓂᓯᒪᔨᑦ ᓄᓇᕗᒻᒥ ᐃᓚᔨᓕᕆᔨᖅᑎᑦᑐᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ

ᒪᑐᒍᖏᑐᒃ

ᖃᐅᔨᒪᔨᕗᑎᑦᑕᕆᐅᔪᒍᑦ: X **ᐃᓕᓴᕐᓂᐅᕙᑕᐅᕐᓴᖅᑕᕐᓂᒍᑦ:**

ᐃᓕᓴᕐᑕᐅᔨᖅ: ᐅᓚᔨᐃᑦ ᐊᒥᓕᖏᓐᓇᐊᓕᕆᓂᖏᓐᓄᑦ ᒪᓕᑎᓄᑦ ᐱᑎᐊᖅᑎᑕᐅᔨᓚᔨᑦ ᐃᓕᓐᓄᕆᓂᐅᔪᖅ ᒪᓕᑎᖅᑎᒍᑦ ᐃᓇᐃᓕᕆᒥᑲ ᕿᑎᖅᒥᐅᑦ ᑭᑐᖅᑐᖃᓕᓂ ᑕᐃᔪᖏᓐ ᐅᓚᔨᐃᑦ ᐊᒥᓕᖏᓐᓇᐊᓕᕆᓂᖏᓐᓄᑦ ᒪᓕᑎᓐᓇᒍᑦ

ᖃᐅᓄᖅ ᐱᓕᕆᓕᐊᓕᐅᕐᓚᓐᓂᑦ ᑕᒪᓐᓇ:

2017-ᖓᑎᓕᓇᒍ, (ᑲᓱᐃᖏᑦ ᑲᑎᒪᔨᕿᓕᖏᑦ) ᑲᑎᒪᔨᕿᒋᑦ ᖃᐅᓄᐃᕆᓚᖏᓐᓄᑦ ᐊᒥᓕᖏᓐᓇᐊᓕᕆᖅᑐᑦ ᐅᓚᔨᐃᑦ ᑲᓇᑕᒥ (ᑲᓱᐃᖏᑦ ᓇᐃᕐᓇᑎᑦ ᑲᑎᒪᔨᖏᑦ ᖃᐅᔨᓴᖅᑕᐅᑎᑎᓕᐅᕐᓴᒪᑦ ᖁᑎᖅᑎᐅᓂ ᐃᓇᐃᓕᕆᒥᑲ ᕿᑎᖅᒥᐅᑦ ᑕᐃᒪᐃᓂᖓᓂᓇ ᐃᓕᓴᕐᑕᐅᔨᖅᑐᑦᑐᒃ ᐃᓕᓴᕐᓂᐅᕙᑕᐅᕐᓴᖅᑕᕐᓂᒍᑦ ᐊᓯᐅᓕᖅᑐᒃ ᑕᐃᓴᖅᑕᐅᔨᖅᑐᑦᑐᒃ ᐃᓕᓴᕐᑕᐅᔨᖅᑐᑦᑐᒃ ᐃᓕᓴᕐᓂᐅᕙᑕᐅᕐᓴᖅᑕᕐᓂᒍᑦ ᐃᓕᓴᕐᑕᐅᔨᖅᑐᑦᑐᒃ ᑕᐃᓴᖅ

ᐊᑐᑎᖏᓂᒃᑕᐅᖅᓯᐅᕐᓴᑎᖅ ᐊᓂᔪᖓᓂᒃᓄᑦ ᐅᖅᑲᓂᐅᓂᒪᓂᕐᓂᒃᓂᑦ ᐊᑐᖅᓯᐅᕐᕕᒃᓴᐊᓄᑦ, ᐱᓕᕆᑕᐅᓂᖓᓂᓴᓐᓂᑦ, ᐊᔪᑎᑕᑐᓂᒪᓂᕐᓂᓴᓐᓂᑦ ᐊᑐᖅᓯᐅᕐᕕᒃᓴᐊᓄᑦ ᐊᓂᔪᖓᓂᒃᓄᑦ ᐃᓄᔪᓄᑦ, ᐱᓴᐊᖅᑐᒥᒃ ᐊᑐᐃᓇᑭᖅᑎᑕᐅᕐᓴᕐᖏᓐᓂᒥᒃ ᐃᓄᓕᒫᓄᑦ. ᖃᑎᖅᑎᐅᑦ ᐊᖓᔪᓇᓂᒪᓕᒫᑦ ᑲᒪᓕᕐᓂᑦ, ᐃᖅᑲᓇᐅᔾᔨᕐᓗᐊᖅ ᐊᖓᔪᓇᓂᑦ ᑲᑎᒪᔨᖅᑎᑎᕐᓂᑦ, ᐊᓕᓴ ᖃᐅᔨᓴᓇᐅᔾᔨᑦ ᐊᖓᔪᓇᓂᑦ ᑲᑎᒪᔨᖅᑎᑎᕐᓂᑦ ᐱᓕᕆᔨᐅᑎᖅᑐᑦᓯᐊᖅᑐᑦ ᑕᒪᐃᓂᒃ ᐅᓗᓕᖅᑐᑦ ᐊᓕᕐᓂᑦ ᐅᓕᕐᓂᑦ ᑕᐃᓂᒃ ᐅᒪᓕᐊᓂᑦ ᐃᓕᓴᐅᔪᖅᑐᑦ ᐃᓕᓴᐅᔪᖅᑐᑦ ᐱᓕᕆᔨᐅᑎᖅᑐᑦ ᐃᓕᓴᐅᔪᖅᑐᑦ ᐱᓕᕆᓂᒃᓴᓂᐊ

ᐃᓕᖅᑎᑦ ᑭᓪᓗᑎᒋᔭ ᐃᓚᐃᓪᓗᒋᔭ ᑐᖅᑐᐃᑦ ᑕᑯᐅᕐᖁᑎᖅᑕᖅᓯᒪᖅᓯᒪᓕᒃ ᓄᓇᖅᐱᐅᑎᒋᒥ ᐅᕙᓪᓕᐊᓂᖅ ᑭᓪᓗᒋᑦ ᐊᒋᕐᔪᓕᒪᖅ. ᓄᓇᕗᑦ ᒪᓕᒪᖅᑯᖅᑎᑦ ᐃᓇᓴᖅ ᖃᑯᖏᓪᓗᑎᒃᑐᑦᑕᐅᓯᓕᒫᑦ ᑕᒪᖅᑯᐊ “ᓄᓇᐱᖅᑎᐅᑕᐅᓂᖃᖅᑕᐅᔨᓂᖅ ᑐᖅᑐᓂᖅ” ᑭᓯᐊᓂ ᐊᔨᖃᑕᓕᐅᖅᑐᑦ ᐱᓵᔨᑕᐅᓂᖃᑦ <ᖃᓇᐅᑕᐅᓯᒪᖅᑎᑦᑎᐊᓗᐊᓕᐅᖃᓂᖅᑎᑲᓄᑦ. ᑐᑭᓯᓂᐊᕈᑕᐅᖃᑎᐊᓚᐊᖃᖅᖅᓴᑦ ᖃᖅᐅᓴᖃᖅᑕᐅᓗᑎᒃ ᑕᒪᖅᑯᐊ ᑭᓪᓗᒋᑦᑎᓕᒃ ᐃᓗᐃᓪᓗᒋᑦᑎᓕᒃ ᑐᖅᑐᖅᑦ.

- ᓄᓇᓕᓪ ᐃᓄᐃᑦ ᐅᖃᖅᖃᑕᐃᓐᓇᖅᓴᑦ ᑭᓪᓗᒋᑦᑎᓕᒃ ᐃᓗᐃᓪᓗᒋᑦᑎᓕᒃ ᑐᖅᑐᓄᑦ ᓇᔨᓚᓴᐅᕐᒥᑦ ᓂᕈᑐᓂᖅᓴᓗᓐᓂᒃᑯᑦ ᑐᖅᑐᓂᖅ ᓴᓂᐊᓂᒃ ᑕᐃᖅᑯᓇᖅᑦ ᓴᖅᓯᒪᓕᖅᑕᐅᔪᓕᒪᓂᖅᓯᒪᓂᖅᑐᓂᖅ ᖃᖅᐅᓴᖃᖅᑕᐅᔪᓕᒪᓂᖅᓯᒪᓂᖅᑐᓂᖅ ᐃᔨᓕᓕᐅᕈᑕᐅᔪᓕᒪᓂᖅᓯᒪᓂᖅᑐᓂᖅᑦ: ᔨᕐᓗ ᐅᖅᑐᑎᑎᑕᔪᑐ, ᓄᓇᓕᓪ ᖃᖅᐅᓴᑎᑎᖅᑕᖅᓯᒪᓕᔾᑦ ᖃᖅᓂᑭᖏᖅᓱᓂᖅᑎᑕᖅᓯᒪᓂᖅᑐᓂᖅᑦ ᐃᑲHᐅᖅᑎᒃ, ᑲᓐᑐᐃᑐᑦ ᑕᔨᕐᔾᐊᖅᓱᓂ ᐊᓚᒪᓗ ᒪᑭᑦ ᑕᔨᐊᓂ (ᓄᓇᕐᔨᐊᕐᒥ). ᕿᑎᖅᑎᐅᑦ ᐊᖏᓇᔨᖅᑎᓕᒫᑦ ᑲᑎᒪᓴᖅᑭᓄᓕᒫᑦ ᓇᐅᑦᑎᖅᑐᐃᐅᓕᑦᓕᐊᓂᖅᑦ ᐊᓚᒪᓗ ᑕᐃᖅᑯᐊ ᐃᕐᖃᓄᖅᑐᐊᕐᒥ ᐊᖏᓇᔨᖅᑑᑦ ᐊᖏᓇᔨᖅᑎᑲᓄᖅᑦ ᐊᑐᖅᑐᐃᑦᑎᓕᒃ ᐊᖏᓇᔨᖅᑎᑲᓄᖅᑦ ᐊᖏᓴᐅᕐᓕᐊᓂᖅᑦᑎᓕᒃᑕᖅᑐᓂᖅᑦ ᖃᖅᐅᓴᖃᖅᑕᐅᓗᑎᒃᑐᓂᖅᑦ ᐊᑐᖅᑕᐅᓕᓕᐅᓇᖅᑐᑦ ᑕᒪᓕᖅᓯᒪᓕᖅᑕᐅᔪᓕᒪᓂᖅᑐᓂᖅᑦ ᐊᖏᓇᔨᖅᑎᑲᓄᖅᑦ ᑭᓪᓗᒋᑦᑎᓕᒃ ᐃᓗᐃᓪᓗᒋᑦᑎᓕᒃ ᑐᖅᑐᖅᑦ ᑐᖅᑐᐃᑦ ᑕᑯᐅᕐᖁᑎᖅᑕᖅᓯᒪᓕᖅᑕᐅᓂᖅᑐᓂᖅᑦ.
- ᐅᓂᓚᐊᓇᖅᑐᑦ ᑭᓪᓗᒋᑦᑎᓕᒃ ᐃᓗᐃᓪᓗᒋᑦᑎᓕᒃ ᑐᖅᑐᖅᑦᓄᓕᒫᑦ ᐃᓕᓕᖅᑎᑦ ᐅᖃᖅᑐᓂᖅᑐᐃᑦᑎᓕᒃᑕᖅᑐᓂᖅᑦ (ᐃᓄᖅᓄᑦ ᓂᕆᕿᓄᑦ ᐊᖏᓇᔨᖅᑎᑲᓄᖅᑦ ᐃᓕᓕᖅᑎᑦ ᐊᖏᓇᔨᖅᑎᑲᓄᖅᑦ ᐊᑭᓚᖅᑐᑦ ᑐᖅᑐᐃᑦᑎᓕᒃᑕᖅᑐᓂᖅᑦ ᐊᑭᓚᖅᑐᑦ ᐊᖏᓇᔨᖅᑎᑲᓄᖅᑦ ᐊᑐᖅᑕᐅᓕᓕᐅᓇᖅᑐᑦ ᐊᖏᓴᐅᕐᓕᐊᓂᖅᑦᑎᓕᒃᑕᖅᑐᓂᖅ

ᑲᑎᒪᓕᕆᓂᖅ ᖃᐅᔨᓴᓪᓚᐅᖅᑐᑦ ᐃᓱᒪᓐᖅᑐᑦ ᒪᐢᓐᐅᐅᔪᖅ ᐊᒥᓱᓕᕐᓂᖅᑐᓂᕐᓂᖅᓯᓂᖅᑐᓂᖅᓯᒃ.

- ᐃᓱᒪᑎᐅᑎᓂᖅ ᐊᒥᓱᓕᕐᓂᖃᖅᓴᐅᓪᓕᖅᖃᖅ ᑐᐅᑐᐃᑦ ᐊᖏᓐᓇᓱᕆᐊᖅᓯᓂᖅᑐᓂᖅᓯᒃ ᑕᐃᒪᐃᓕᖅᑕᐅᔪᓐᓇᖅᓴᑦ ᐊᓱᔨᖅᓱᒪᓕᖅᓂᖅᑐᓂᒃ ᐅᓂᖅᑎᑕᖅᓯᓂᖅᑐᑦ, ᑕᒪᐃᓐᓕᐊᔪᓂᑦᑐᖅᖃᑎᒌᖅᓱᒪᒋᔭᐅᓂ. ᕿᐊᖏᑭᓂᖅ ᑯᓴᓂᑯ (2020-ᒥ) ᐃᓱᒪᓐᖅᑐᑦ ᑐᐅᑐᐃᑦ ᓴᖏᓱᒪᓕᖅᓂᖅᑐᓂᒃ ᑲᓇᐃᖅᑲᓱᖏᓐᓄᑦ ᐊᒻᒪᓗ ᓄᓇᖅᐱᐅᓂᔪᑦ ᑕᐃᒪᖏᓕᒃ ᐊᖅᖁᔭᖏᑎᒃ 1990-ᖏᓂᓂᒃ, ᑭᓪᓗᓂᖅᑕᓗ ᐃᓗᐃᓪᓗᖅᑕᓗ ᑐᐅᑐᓂᕐ ᑕᐃᒪᐃᓗᓪᓚᖅᓴᐅᓂᖅ ᐱᔾᔪᑕᐅᓂᖅᑕᓗ ᑕᓇᐅᖅᑕ ᓯᑯᐃᓵᓗᐊᖅᑲᑦᓪᓗᖅᖃᓕᓂᖅᑐᖏᓐᓄᓕᓂ ᐊᒻᒪᓗ ᓯᐅᐊᔪᑦ ᓯᑯᐟ ᑕᓇᐅᖏᓕᓂ ᓯᑯᖏᓂᓕᓂ ᑲᓇᐃᖅᓱᒪᓕᓂ. ᑐᐅᑐᐃᑦ ᑕᐃᒪᐃᓕᖅᖃᖅᑐᓂᕐᓂᑕᐅᖅ ᑐᖏᓕᐊᖁᖅᑐᑦ ᐊᔪᖏᓂᖅᑐᓂᖅᓯᒃ ᐊᖏᓐᓇᓱᕆᐊᖅᑎᓂ ᓇᓪᖁᓂᖅᑐᓂᖅᓯᒃ. ᑐᐅᑐᐃᑦ ᐊᒥᓱᓂᖅᑐᓂ (ᑕᒪᐃᓂᓂ ᑭᓪᓗᓂᖅᑕᓗ ᐃᓗᐃᓪᓗᖅᑕᓗ ᑐᐅᑐᖏᓂᓄᑦ ᓇᔪᓚᓴᐅᓂᖅᑐᓂᕐᓂ ra) ᖃᐅᔨᓕᓴᐅᖏᓐᓂᒪᒡᒐ, ᑲᑐᔾᖃᑎᒌᑭᑕᐅᓚᐊᓪᓂ ᖃᐅᔨᓴᐅᔪᓂᓇᓕᑎᓂᐊᓂᐊᖏᓕᒡᒐ ᐊᖏᓐᓇᓱᕆᐊᑎᓂ ᑲᑐᔾᖃᑎᒌᑭᑕᐅᓚᖅᓴᐅᓂᖅᑐᓂᒃ ᐊᒻᒪᓗ ᑕᐃᑯᐊᑐ ᐊᖏᓐᓇᓱᕆᐊᖅᑎᓂ ᑲᑎᒪᓕᕆᓂᖅᑐᓂᕐᓂᑕᐅᓂᖅ ᓄᓇᕐᔪᐊᖏᑦ.

- ᖃᐅᔨᓴᖃᖅᑎᓂ ᐃᓱᒪᖏᓕᒡᒐ ᐊᖏᓐᓇᓱᕆᐊᖅᑭᖅᑐᑦ ᑭᓪᓗᓂᖅᑕᓗ ᐃᓗᐃᓪᓗᖅᑕᓗ ᑐᐅᑐᖏᓂᖅᑐᓂᖅᓯᒃ ᒥᑭᓂᖅᑐᓂᖅᓯᒃ ᖃᖏᓂᖅᓴᖅᑐᓂᖅᓯᒃ ᖃᖏᓐᓄᑐᒃᓴᖅ ᑐᐅᑐᐃᑦ ᐊᖏᓐᓇᓱᕆᐊᖅᑕᐅᓪᓗᖅᑐᓂᖅᓯᒃ ᖃᖏᓐᓄᑐᒃᓴᖅ ᐊᖏᓐᓇᓱᕆᐊᖅᑎᓂᑐᒃ ᐊᒻᒪᓗ ᐊᖏᓂᓂᖅᓴᖅᑐᓂᖅᓯᒃ ᖃᖏᓐᓄᑐᒃᓴᖅ ᐊᖏᓐᓇᓱᕆᐊᖅᑎᓂᑐᒃ, ᓇᓂᔾᐅᔪᓐᓇᕐᓂᖅᓯᒃ ᐊᖏᓐᓇᓱᕆᐊᖅᑕᐅᓪᓗᑦ (Neis ᐃᓕᖅᑭᓗ 1999; Kendrick ᐊᒻᒪᓗ Manseau 2008; Hanke ᐊᒻᒪᓗ Kutz 2020). ᑭᓱᐊᓂᓕᐅᖅ, ᓇᓂᔾᐅᖅᑲᑕᐅᓇᕐᓂᖅᑭ ᒥᑭᓂᖅᑲᒡᓗᖅᑲᑎᒥᔪᑦ ᖃᖏᓐᓄᑐᒃᓴᖅ ᐊᒥᓱᓂᖅᑐᓂᖅᓯᒃᓴᖅᑎᒃ ᑐᐅᑐᐃᑦ ᑕᒪᖏᐊᐊ ᐱᔾᔪᑕᐅᓂᖅᑐᓂᕐ ᑭᓪᓗᓂᖅᑕᓗ ᐃᓗᐃᓪᓗᖅᑕᓗ ᑐᐅᑐᖏᓂᖅᑐᓂᒃ ᐊᒥᓱᔨᖅᓱᒪᓕᖅᓂᖅᑐᓂᒃ ᑲᑎᒪᓕᕆᓂᖅᑐᓂᕐᓂᑕᐅᓂᖅ ᑕᐃᒪᐃᓐᓇᖅᑐᓂᖅᓯᒃ ᑲᑎᒪᓕᕆᓂᖅᑐᓂᕐᓂᑕᐅᓂᖅ ᑐᐅᑐᐃᑦ ᐊᒥᓱ

ᑐᒃᑐᓯᐅᑦᓱᒃᑕᓕᐅᔪᓂᖓᓂᒃᓂᒃ ᑭᑦᓗᓂᕐᒥ, ᐃᓗᐃᑦᓗᕐᒥᓗ ᑐᒃᑐᓯᐅᕋᒃᑎᑎᓀᓕᐅᔪᓂᕋᒃ ᑕᒪᓂ 2018-ᒥ.

- ᑭᑦᓗᓂᓄ ᐃᒪᕐᒥ ᐅᓗᓚᐊᓇᓱᑯᑎᓗᓚᓴᑯᑦ ᑲᑎᒪᔨᕆᑦᓴᑎᑦ (ᐃᕋᒃᓗᓴᒋᑎᐊᕐᒥ ᐊᖓᔪᓯᒃᑲᑎᑎᖓᑦ, ᑕᐃᒃᑯᐊᓗ ᐃᖏᑦᕆᔪᓚᓴᒃᑯᑦ ᑲᓇᑕᒥ ᐊᒪᒪᓗ ᑲᓇᑕᒥ ᓯᓚᕋᒃᑲᓯᓂᓄ ᑲᓇᑕᒥ ᓇᐅᔨᑎᒋᐃᓴᓵᑦ/ᓯᑯᓯᐅᑎᓗᓴᓵᑦᓗᓐ) ᑐᐊᐅᒪᕋᒃᑕᐅᑎᑎᐊᖅᓂᕋᒃᑲᓂᕋᒃᑐᑦ ᐅᒥᐊᖅᐸᐊᖅᑲᕋᒃᑐᓂᒃ ᐊᒪᒪᓗ ᓄᓇᕐᓂᓄ ᐊᑐᕋᒃᑯᓂᒃ ᐃᒪᖅᓂᒃ ᐅᒥᐊᕋᒃᑐᖅᑲᕋᒃᑐᓂᒃ, ᐊᑐᕋᓯᑎᒃ ᕋᐅᔨᒃᑲᐅᑎᓂᒃ ᐅᒥᐊᕋᒃᑐᖅᑲᕋᒃᑐᓂᒃ. ᐅᒥᐊᖅᐸᐊᑦ ᐅᒥᐊᓪᓗ ᐊᑐᕋᑕᐅᓂᖅᓂᑦ ᑕᐅᓂᓄ ᑭᑦᓗᓂᕐᒥᓗ ᐃᓗᐃᑦᓗᕐᒥᓗ ᑐᒃᑐᓯᐅᑎᓗᓚᓴᑯᑦ ᓯᓚᑐᓂᒃ ᐃᓗᐃᑦᓗᕐᒥᓗ ᑐᒃᑐᓯᐅᑎᓗᓚᓴᑯᑦ, ᒪᓕᒃᑕᐅᓪᓗᑎᒃ ᑕᐃᒃᑯᐊ ᑭᑦᓗᓂᕐᒥᓗ ᐃᓗᐃᑦᓗᕐᒥᓗ ᑐᒃᑐᓯᐅᑎᓗᓚᓴᑯᑦ, ᓴᖅᓱᒪᓕᖅᑐᑦ ᐅᒥᐊᖅᐸᐊᑯᑦᓴᓇᓂᖅᓂᑯᑦᓂᒃ, ᓴᖅᓱᒪᓕᖅᑐᑦ ᐅᒥᐊᖅᐸᐊᑯᑦᓴᓇᓂᖅᓂᑯᑦᓂᒃ, ᒪᓕᒃᑕᐅᓪᓗᑎᒃ ᑕᐃᒃᑯᐊ ᑭᑦᓗᓂᕐᒥᓗ ᐃᓗᐃᑦᓗᕐᒥᓗ ᑐᒃᑐᓯᐅᑎᓗᓚᓴᑯᑦ, ᓴᖅᓱᒪᐅᓕᖅᑐᑦ.
- ᐊᒪᑭᐃᓕᓗ ᐊᒃᓕᐃᓕᓗ ᐊᒥᓱᑕᒪᐊᖅᓯᒪᒋᐅᖅᑎᑦ. ᑕᐃᔨᓱᒪᓂᕐᒥ, ᑐᒃᑐᓯᐅᖅᓯᕗᓂᒃ ᐃᒪᓐᓇᖅᑐᑦ ᐊᖏᔪᖅᑐᑦ ᐊᑐᕋᒃᑯᓂᒃ ᐃᒪᓐᓇᖅᑐᑦ ᐊᒥᓱᑕᒪᐊᖅᓯᒪᒋᐅᖅᑎᑦ, ᐃᓚᖓᔾᔪᑎᑦᓴᑎᓂᒃ ᐃᓚᖓᔾᔪᑎᑦᓴᑎᓂᒃ ᐊᑐᕋᒃᑯᓂᒃ ᐃᓚᖓᔾᔪᑎᑦᓴᑎᓂᒃ ᐊᒥᓱᑕᒪᐊᖅᓯᒪᒋᐅᖅᑎᑦ ᐊᒪᒪᓗ

ᐱᓕᕆᑐᖅᑕᐅᑎᐊᖅᑕᕋᐊᖅᓂᖅᓯᓐᓂᕐᓂᖅᓂᖅ/ᐋᕆᑐᖅᑕᐅᑎᐊᖅᑕᕋᐊᖅᓂᖅᓯᓐᓂᕐᓂᖅᓂ ᑲᑦᑭᓕᒥ ᐊᓚᓗᓂ ᓄᓇᓗᑯᓯᓐᓂᕐᓂᖅ.. ᖃᐅᔨᓗᖅᑐᑎᒥ ᐊᖓᓂᓂᐊᖅᑏᑦ ᑲᑐᔪᖅᑎᑎᖅᓯᓐᓂᕐᓂ ᐊᓚᓗᓂ ᐃᖅᑲᓕᕐᑐᐊᖅᒥ ᐊᖓᔪᓇᓴᑏᑦ ᑲᑐᔪᖅᑎᑎᖅᓯᓐᓂᕐᓂ ᑎᑎᕋᖅᑕᑦᓯᓕᕐᓂᐊᖅᓯᓐᓂᕐᓂᖅᓂᒃ ᑭᓪᓕᓯᒪᓂᖅᓂᒃ ᑐᓴᕐᓂᖅᓂᒃ ᑐᓴᑕᐅᓂᖅᓂᒃ ᑐᑐᕋᖅᓯᓐᓂᕐᓂᖅᓂᒃ ᐊᑐᖅᓗᑎᒃ ᑕᐃᒃᑯᓂᖅᓯᒪ ᐅᓪᓚᕆᓚᓕᕆᔨᐊᖅᑯᑦ ᓄᓇᕗᓂ ᓇᐅᔪᓂᕐᑐᐃᓐᓇᖅᑐᓂᕐᓂᖅᓂᒃ ᐱᓕᕆᔨᓚᖅ.

<u>ᑐᑭᓯᐊᖅᓇᐅᓯᒪᓂᖅᓯᓐᓂᕐᓂ</u>

Hanke, A. ᐊᖓᓚᓗᓂ Kutz, S. 2020. ᖃᑎᖅᑎᐅᓂ ᐱᐅᓯᑐᖃᖅᓂᒃ ᖃᐅᓕᒪᐅᓂᖅᓯᓐᓂᕐᓂᖅᓂᒃ ᑐᑭᓯᐊᕐᑕᐅᔨᑦ ᐱᔨᔪᑎᓕᖅᓂᒃ ᑭᑦᓕᓂᖅᑎᓗ ᐃᓗᐃᑦᓕᖅᑎᑦ ᑐᖅᑐᓂ, 2003 ᐊᖓᓚᓗᓂ 2018–2020. ᖃᐅᓕᓴᖅᑕᐅᓂᖅᓯᓐᓂᕐᓂ. ᓄᑖᓂᒃ ᑐᓴᓵᖅᓴᓂᒃ ᑐᑭᓯᐊᓂᒃ. ᐃᖅᑲᓕᕐᑐᐊᖅᑏᑦ ᑲᖏᖅᑐᓂᒃ ᐊᑐᖅᓗᑎᒃ ᐊᖓᔪᓇᓴᑏᑦ ᐃᖅᑲᓕᕐᑐᐊᖅᑏᑦ ᐊᖓᔪᓇᓴᑏᑦᓂᒃ, ᐃᖅᑲᓕᕐᑐᐊᖅᑏᑦ ᐊᖓᔪᓇᓴᑏᑦᓂᒃ, ᐅᓗᓴᐃᔨᐊᖅᑏᑦᑎᐅᑦ ᐊᖓᔪᓇᓴᑏᑦ ᐃᓕᓴᕐᓂᐊᖅᑏᑦ, ᖃᑎᖅᑎᐅᓂ ᐊᖓᔪᓇᓴᑏᑦ ᐃᓕᓴᕐᓂᐊᖅᑏᑦᓂᒃ, ᐅᓪᓚᕆᓚᓕᕆᔨᐊᖅᑯᑦ

ᖃᐅᔨᓴᖅᑎᓂ ᐊᖏᓚᖅᑲᖅ ᐊᓯᒪᓗ ᐱᓕᕆᐊᒃᓴᓄᑦ ᐅᖃᐅᔨᔨᓕᐊᖅᑕᑎᖏᑦ, ᖃᐅᑎᖅᑎᐅᑦ ᐊᖏᔪᓂᑦᑎᓕᒫᑦ ᑲᑎᒪᓂᖏᓐᓂᒃ

ᖃᐅᑎᖅᑎᐅᑦ ᐊᐃᔅᑐᖅᓯᒪᓂᖏᓐᓄᓂ ᐊᖏᔪᓂᑦᑎᓕᒫᑦ ᑲᑎᒪᔨᖏᑦ

ᐅᕐᓗᒥ: ᒪᐃ 3, 2022

KIUTJUTIGHAK TATVUNGA NUNAVUMI UMAYULIKIYIIKJUAKUT KATIMAYIITKUNUT

PITJUTAUYOK

Tuhaktitjutighak: X **Ihumaliokutighak:**

Pitjutauyok: Tughiktutaoyok titigaktauyomaninga Keelinikmiut Tuktuit tatvunga Umayut Kayagnaghivaliayugiyaoyut Maligakmut

Hivunighitjutaat:

Tatvani 2017-mi, ukkua Katimayigalaat Naunaiyainikut hapkuninga Kayangaktumiliktunik Angutighanik tahamani Kanatami (COSEWIC) havaghimayut naunaiyaivlotik hapkuninga Keelinikmiut tuktuitnik (DU) tatva pitjutauhimayok imatot tughiktutaovluni titigaghimatkuyaovluni tatvanga Ihomalogiyaoluaktot Angutighat Nungolikpalialiktugiyaoyot. Kaoyimaliktot ukkua Kitikmeot Aviktoghimayomi Angutighalikinikut Katimayiit (KRWB-kut) iliitkugiyaat ukkua Avatilikinikut tatvalu Hilap Alangukpalianinganik Kanatami (ECCC-kut) tunnihiniaghimaliktot tughiktotighanik titigakuvlugit hapkua Keelinikmiut tuktuit DU imaaktut “Tammakpaliakyut” tughikvigilugit ukkua Nunavumi Umayulikikjuakut Katimayiit (NWMB-kut) ihomaghutighaitnik.

Taimaitmata ukkua ECCC-kut tughiktutait naunaitiakhimangmat, ukkua COSEWIC-kut naunaiyaotigiyat pihimayakangitmat Inuit Qaujimajatuqangit (IQ), taimaniknitanik kaoyimayaoyunik (TK), nunaliitni kaoyimayaoyunik. Ihoaghitiyomagaloaklogit hapkua ihomalotigiyait ukkua nunaliit pikataotiangititlogit katimakataoyuni, ukkua ECCC-kut ihoaghaihimayot illaliutivaliotighaitnik pikatigivlugit ukkua KRWB-kut, Ekaluktutiak Anguniaktiit Nanigiaktoktiitlu Katimayiit (EHTO-kut), tatvalo Kugluktuk Angoniatit Association (KAA-kut), pikataovlotiklo ukkua Anguniaktiit Nanigiaktoktiitlu Katimayiit Nunatiamiit. Hapkua nunaliit tamaita pikatigiikatakmata, anguniakatigikatakhotik, havakatigikataktot tahamani kanigiyaitni hapkua Keelinikmiut DU tuktuit uppakataktaitni nunani. Hamna illaliutihimaninga tuhaktitjutigihimayaitnik tatvalu munagitjutighaitnik havagiyauyughanik kaoyimayaotiakniakmata hapkua tuktuit iliitkuhigiyaitnik. Kihiani, hamna Inuit Kaoyimayatokangitnik titigaktaogangata-illaliutiniagahoaklugit ihuakutaoniaktunot - kayagiyagiakakmiyaat tatva ahiagot hapkua attoktaoyungnakmingmata, nigiogingitaatnik uvalunin angighimangitaatnik hapkua Inuit, ihomagivalaaklugit hatkiomatialikata kitunot inuknun takkani. Hapkua KRWB-kut, EHTO-kut,tatvalu KAA-kutlo huli havakatigiikhimaakniaktot hapkuninga illaliutiyughanik taimatot hapkua kayangnaktot ihomagiyaoyutlo nunaliitni katimatjutaohimayot hapkua Umayut Kayangnaktomiliktitaohimayot Maligaatni (SARA) havagiyaoyonik.

Katimatjutaoyot:

Hamna unipkaak hanaiyaktauhimayok okakatigilgaaghugit ukkua EHTO-kut, KAA-kut, tatvalu KRWB-kut katimakatigihimangmatjuk ukkua ECCC-kut katimayaktokatakhimangmata. Una unipkaak ihivgioghimaliktaat ukkua KAA-kut Appu 27, 2022-mi tatvalu KRWB-kuniit Appu 29, 2022-mi.

Attulikuyaoyut:

Atanni hagyaighitihimayavut hapkua piunighauyut tuhaktitjutighat tatvalu munagitjutighaitnik havagiyauyughat tapkunanga KAA-kuniit EHTO-kuniitlu ihomaghutiginiaktitlugit tahapkua Keelinikmiut tuktuit.

Keelinikmiut Tuktuit Avatilikinikut Naunaiyainik

- Inuit anguniaktiit kaoyimatiaktot hapkuninga Keelinikmiut tuktuitnik tatvalo kanoginginganik hapkua amehuakjuit tuktuit akkuagangamiku, naunaiyautigivlutjuk hapkua inniktukliit tatvalo illiitkuhiit timikutlu takkughugit
- Keelinikmiut tuktuit uppautikataktait hapkua nunnait nauttikakniit tatvalu kimmakhimmanahuakhutjuk hapkua amakut aghaitlu tatvalu allaat angutighat umayut tahamanikatigikataktatik nunnani (ukututigilugit, umingmait kanguitlu). Tuktuit ingilgayangit naunaitut tatva hapkua kimmaomavlugit uppautihimaitumik.
- Keelinikmiut tuktuit kaoyimayaoyut ingilgayangit ikkakatakpaktut avatinut Keelinikmit akianut Ahiakmut (Hanke et al. 2020; Wong et al. 2021), kihianitamaita hapkua tuktuit ikkakatangitot hikkukut akianut Ahiakmut. Ilangit Keelinikmiut tuktuit akkuaktauvaghimayut tahamani Ahiakmi uvalunin Keelinikmi nayuinaghutjuk tahamna ukkiugaluk. Nunavut Kavamatkut kangahaak uktukniaghimayugaluit kunguhikmighikniakhutjuk hapkua “ikkakatangitut tuktuit” kihiani piyunangitot hapkua aullatjutit ayoknakmata. Hapkua naunaiyautit hapkuninga Keelinikmiut tuktuit mighagot pivaligiakaktut hapkua illaliutilugit.
- Nunaliitni anguniaktuiyut huli onipkaghimaaktut hapkuaguuk Keelinikmiut tuktuit uppautikataktait nunnat angitkiyaoyut hapkunanga kangahannuak tingmitjutikut takkuktauvlutik naunaiyaktauhimagaluakmata tatvalu/uvalunin tuktuit kunguhikmiktauhimayut nallautait naunaiyautauhimayut immatut; uktutigilugo, nunaliitni anguniaktiuyut onipkaghimayut tatva takkukataktait paagutikataghugit hapkua tuktuit kaningani Ikaahukmi, Takhikjuakmi tatvalu MacKay Lake (Nunatiami). KRWB-kut takkuginikut havagiyait tatvalu ukkua EHTO-kut KAA-kutlu anguniaktut angutiminnik naunaiyautaitnit pitjutauyungnaktut nakkiktunik naunaiyautauyungnaktut nanikatakmangata hapkua Keelinikmiut tuktuit takkuyaukataktut nanilikaak nigiugiyaungitaitni nunnani uppautikataktaita hillatani.
- Ullugianaktumiligungnaktut hapkua Keelinikmiut tuktuit ikpigiyakagumik hapkua illaliutilugit anuniaktiyut attukataktaitnik (imakaak inmikut nikkighakhiuktitlugit, amakuniit, aghakniit, tatvalu/uvalunin kapkunanik anguniaktitikataktuniit), hannayiuyuniit tatvalu inukniit paagitigangat

kimaakataktut, hilla alangukpalianinganit, tagiukmi hikku allangukatakpaliatitlugu tuktuit ingilgayangitni ikkakatalpaliatitugit ahiakmut, kummaitniit, tatvalu hapkua avuugiligangata ikpigikataktait (Hanke tatvalu Kutz 2020; Wong et al. 2021)

Keelinikmiut Tuktuit amegaitilangit nahautait allangukataktot

- Inuit Kaoyimayaktukangitnik mighagot hapkua Keelinikmiut tuktuit titigaktaohimayot onipkalioktaohimavlotik Nunavut Kavamatkuniit (tatvani 2003; Hanke tatvalu Kutz 2020), Tomaselli et al. (2018), Hanke tatvalu Kutz (2020), tatvalu Wong et al. 2021. Hapkua appighuktauvlotik onipkaliokhimayut ihomagiyait hapkua Keelinikmiut tuktuit illiitkuhiit allangukataktot tatvalo atokataktait amehuakjuit amegaikatakhutik ikkilikataktot kakugunugangat. Una 2018-mi COSEWIC-kut naunaiyautaat ihumaghutauyok tatva ublumi hamna amegaitilangit tuktuit ikkilihimalaktot.
- Ihomagiyaokatakmata ikkilivaliayugiyaovlotik hapkua tuktuit tahamani anguniakviuyuni nunani pitjutauyungnakmat allangutaitnik hapkuinga nauvaliatjutaitnik ihomagihimaitomik hapkua tamatkikhugit amegaitilangit ikkilivalianingitnik. Hanke and Kutz (2020) ihomagiyaongityut tatva hapkua tuktuit nuttikpaliahimayut kivatanut tatvalu killuhiktumut tatvanganin akungani ukkiut 1990-ni attoktitlugit, pitjutauniyok tahamna tagiokmi hikku hikkunahaakpaliktitlugo tatvalu upingaghami hikkuiyaknagikpaliakatalikmat kivatani.
- Hapkua Onipkagiyaohimayot tuktuit amegaitilangitnik tatvung Inuit Kaoyimayatokangitnik apighuktaotitlogit naunaipkutauyut ajikinnityunik tatvalu angunahuaktot takkukataktaitnik, nalliakni aullakataghutik namuutlu kakugungugangatlu angunahuakhutik. Tuktuitnik takkukatanik aullakatagangamik namaktumik tikkkiutiyungagomitku hapkua tuktukakniuyot nunnait anguniakviokataktot. Kanuvalaak nahautait hapkua tuktuit tahamani anguniakvioyuni nunnani (tahamna taamatikhimayut Keelinikmiut tuktuit nayugagikataktait) kauyimayaungitok tatvalu pitjutigilutjuk ikkayokatigigiakaktot hapkua HTO-kuyut tatvalu Anuniaktiit Nanigiaktuktiitlu Katimayiit tahamani Nunatiami.
- Hapkua naunaiyaiyiuyut ihomagihimangmiyaat hapkua anguniakvioyut nunnat mighikataktut hapkua tuktuit amegaitilangit amegaikpalagangata, tatvalu nunnat mighiyumikpaktot hapkua tuktuit amegaitilangit mighikjumigangata (Neis et al. 1999; Kendrick unalu Manseau 2008; Hanke unalu Kutz 2020). Kihianiungmat, kinnikhiakataknik tuktuitnik amegaitpalangitunik takkukataktut hapkua tuktuit amegaitilangit mighikjumikpaktut taimaitmat hapkua Keeliniop tuktuit kattihimakatangangata. Angitkiyanik nunanik takkugikatagumayugot hapkua Keelinikmiut tuktuit ingilgakatainaktitlugit naliaknun nunanut.

Nunaliiitni-hivuniktauyut munagitjutighaitnik havagiyauyut

- EHTO-kut tatvalu KAA-kut aghukutikaktut hapkuninga Keelinikmiut tuktuit munagitjutighaitnik. KAA-kut nutkaktitihimayut tamaitnik alliahugiaktughutik angunahuaktunik tuktunik tatvalu manighiokutauyunik angunahuaktunik tatvani 2007-mi tatvalu ukkua EHTO-kut nukaktittihimayut tamaitnik alliahugiaktughutik angunahuaktunik hapkuninga Keelinikmiut tuktuitnik tatvani 2018-mi.
- Ukkua Keelinikmi Kayaktuktunik Kayangnaipkutighaitnik Katimayigalaat (EHTO-kut, Ingilgayulikiyiit Kanatami, tatvalu Kanatamit Hikkulikiyiitkut) ayungnaikpaliktitihimayut tohaktitikatigiiknikut avatingnut umiitjanit tatvalu nunaliitnut atughugit hapkua kayaktukataktut tuhagaghaitnik hapkuninga Tuhaktitjutait Kayaktukataktut. Umiitjat ingilgayut tagiokmi tahamani Keeliniop tuktuit hikkugangat ingilgayaatiguuktut piyagiakaktut tuhaktitilutik hapkuninga Hamalatkunik EHTO-kuniklu tahamuna tagiukut apkuhakniahaaklutik. Hapkua tuhaktitjutait illaliutihimayut naunaitiakutighait titigaghimalugit ubluit kakugu tahamuna tagiukut apkuhaagungnagiaghaita, nalaumanahuaklugit hapkkua Keelinikmiut tuktuit ingilganingit hikkukut ikkaaknialikitlugit ahiakmut.
- Amaakut aghaitlu amigaikpalianginaktitlugit. Kinguani, hapkua anguniaguhuuktut angutighat anguniaktaukataghimayut munaginahuakhugit ikkilivalianingit hapkua tuktuit. Ublumi, hapkua angunialguyut angutighat piyagituyut havakluaknaghutiklu tatvalu nikkiliukluaknakgutiklu, maniliokutaovalaakutaungitutiklu angunahuakutigilugit. Kaplunaanik angunahuktitinik tatvalu maniliokutaulutik ikkayutauyungnaktut ikkilihimanahuaklugit hapkua anguniahuuktut angutighat. KAA-kut pikataokataktut amakunik amigivlugit takkugikataknikut havagiyauyunik tahamani Nunatiami.
- Nunaliitni nunakatigiit huli aghukutikaktut ihagiagivlugit tammaktailitjutighat tatvaalu ayugiktutigilugit hapkua Inuit Kauyimayaktokangit anguniaknikut. Ilihakpalikutighat avatingnit enekniniit inolgamiitnut ihagiagiyaoyut tuhaktitikataotighanik angunahuaknikut, angutamingik pillaknikut nikkilikinikutlu, tatvalu angutimingnik takkugikataknik nikkainanik nakkuyaghaitnik nikkighat, tatvalu angutamingnik nikkinik payukataknikmik tatvalu anguniagangamik tammatigahuakhimaitumik takkuhimayamingnik (Hanke tatvalu Kutz 2020).
- EHTO-kut aullagutivalianiakmiyut havaghanik pikatigilugit hapkua inolgamiit appikhuitilugit enekninik hapkuninga angunialguyunik angutighanik tatvani ukkiumi atoktumi.
- Tamaakmik ukkua KAA-kut EHTO-kutlo pikataohimaaktot anguniaknikut takkukutaitnik hapkua Keelinikmiut tuktuit kanok anniakutikakpagiaghaita, havakatigihimaaktait ukkua Ilihagiakpalikviat Calgary-mi tatvalu ukkua Nunavut Kavamatkut. KAA-kut tatvalu EHTO-kkut huli titigaghimaaktait hapkua Keelinikmiut tuktuitnik angutaogangata tatvalo takuyaokatagangata kungialioktaokataktot atoghugit ukkua NWMB-kut Nunaliitni-Havagiyaoyunik Takkugitjutaitnik Havakatigiiknik tatvalu ukkua KRWB-kut tuktuitnik takkukikataknikut havagiyaoyut.

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Hannaiyaktait uma:

Pamela Wong

Atanguyauyok Naunaiyainikut tatvalu Ayungnaktunik Ukkautjiyioyok

Kitikmeot Aviktughimayomi Angutighalikinikut Katimayiit

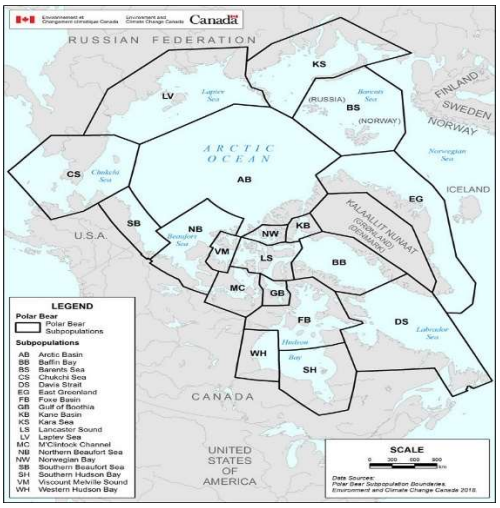
Ublua: 3 May 2022

ᑐᓂᔨᐅᔨᑦ ᓄᓇᕗᒻ ᐅᒪᔨᓕᕆᔨᖅᑕᐅᓯᓄᑦ ᑲᑎᒪᔨᖏᑐᓄᑦ ᐅᒧᖓ

ᑐᐃᒐᐃᑦ: X **ᐃᓱᒪᓕᐅᕆᔨᕐᑎᑦ:**

ᐱᔨᕐᑎᑦ: ᑐᐃᓚᐊᕈᑎᑦ ᑲᓇᑕᒥ ᐅᑭᐅᖅᑕᖅᑐᑐᒥ ᓇᓄᔪᓄᑦ ᐊᐅᓪᓕᓯᓂᔪᑦ ᐸᐅᓇᐅᑎ





ᐃᓕᓴᕐᓂᓐᓄ ᑐᐱᔪᓕᐊᑐᖅᓴᖅ:

- ᐅᑭᐅᖅᑕᖅᑐᑐᒥ ᓇᓄᐃᑦ ᐃᓐᓇᐅᔭᓕᐹᖅ ᓇᓗᓇᐃᖅᑕᐅᔪᓚᒪᒡᒐ ᐱᔪᒪᓇᐅᔭᕆᑎᒧᑦ ᐃᓱᐊᓗᑕᐅᓂᖏᓐᓂᓄᑦ (2011) ᑲᓇᑕᒥ ᓂᕐᕿᑎᓄᑦ ᐃᓱᐊᓗᑎᔾᔨᐅᓕᖅᑐᓄᑦ ᐱᕐᔪᖏᖅᑕᑦ ᐊᐅᓚᑦ. (SARA). ᐊᐃᑦᑐᖅᓯᒪᔪᓂ/ᐊᓕᔪᖅᑐᖅᓯᒪᔪᓂ ᐱᕐᔪᐊᓂᐊᖏᓯᒪᔪᑦ ᐊᐅᓚᑦ, ᓂᕐᕿᑎᓄᑦ ᐃᓱᐊᓗᑎᔾᔨᐅᓕᖅᑐᓄᑦ ᑎᑎᕋᖅᓯᒪᓂᖓᑦ ᐊᐳᔨᒪᖓᑦᑐᑦ ᐊᐳᔨᒪᖓᑦᑐᒥ ᐊᐃᑦᑐᖅᓯᒪᔪᓂ ᐊᓚᒪᓗ ᐊᓚᔪᖅᑐᖅᓯᒪᔪᓂ ᑲᑎᒪᔨᖏᑦ, ᐊᓚᒪᓗ ᑕᐃᔨᐅᓯᒪᓂᖅᑐᓂᖓᓂᒃ ᐃᓕᓴᕐᓂ ᐅᓇᓐᓃᖅᑐᑦᑐᓂᖓᓂᒃ ᐃᓕᓴᕐᓂ ᐅᓇᓐᓃᖅᑐᑦᑐᓂᖓᓂᒃ ᓄᓇᕗᒻ ᐅᑭᐅᖅᑕᖅᑐᑐᒥ ᓇᓄᐃᑦ ᐊᐅᓪᓕᓯᓂᔪᑦ ᐱᔪᒪᓇᐅᔭᕆᑎᒧᑦ ᐃᓕᓴᕐᓂ ᐊᐅᓪᓕᓯᓂᔪᑦ ᐱᔪᒪᓇᐅᔭᕆᑎᒧᑦ ᐊᐅᓚᑦ ᑲᑎᒪᔨᖏᑦ ᐊᐅᓚᑦ.

- ᐱᔭᕆᐊᖑᖏᑐᐅᓚᑦ ᓂᕐᕿᑎᓄᑦ ᐃᓱᐊᓗᑎᔾᔨᐅᓕᖅᑐᓄᑦ ᓇᓄᓇᐃᖅᑕᐅᔪᓚᐅᖅᑎᒧᑦ ᓂᕐᕿᑎᑦ ᐱᓚᒪᓇᐅᔭᕆᑎᒧᑦ ᐃᓱᐊᓗᑎᔾᔨᐅᓂᖓᓂᒃᓄᐃᑦ, ᐊᓚᒪᓗ ᐃᓴᐱᓕᓄᑦ ᐊᐅᓪᓕᓯᓂᔪᑦ ᐱᔪᒪᓇᐅᔭᕆᑎᒧᑦ ᐃᓱᐊᓗᑎᔾᔨᐅᓂᖓᓂᒃᓄᐃᑦ ᐊᐅᓪᓕᓯᓂᔪᑦ ᐱᔪᒪᓇᐅᔭᕆᑎᒧᑦ ᐊᐅᓚᑦ ᑲᑎᒪᔨᖏᑦ ᐊᐅᓚᑦ, ᐅᑭᐅᖅᑕᖅᑐᑐᒥ ᓇᓄᐃᑦ ᐊᐅᓪᓕᓯᓂᔪᑦ ᐱᔪᒪᓇᐅᔭᕆᑎᒧᑦ ᐊᐅᓚᑦ ᑲᑎᒪᔨᖏᑦ ᐊᐅᓚᑦ, ᐅᑭᐅᖅᑕᖅᑐᑐᒥ ᓇᓄᐃᑦ ᐊᐅᓪᓕᓯᓂᔪᑦ ᐱᔪᒪᓇᐅᔭᕆᑎᒧᑦ ᐊᐅᓚᑦ ᑲᑎᒪᔨᖏᑦ ᐊᐅᓚᑦ, ᐃᓕᓴᕐᓂ

ᐱᓇᐅᔭᓂᖓ ᓴᖅᓚᑐᖅᑲᑦ ᐃᓚᒋᐊᕈᑎᖓ ᑲᓇᑕᓕᒫᒥ ᐅᑭᐅᖅᑕᖅᑐᑐᒥ ᓇᓄᑦᓄᑦ ᐊᐅᓚᑦᓯᓂᒪᑦ ᐸᑲᓇᐅᑎᖓᓚᓄᑦ:

- ᐱᓇᐅᔭᓂᖓᓪᓕᑕ ᓴᖅᓚᒋᐊᖅᑲᑦ ᐃᓚᒋᐊᕈᑎᖓ ᐱᒋᐊᓚᐅᖅᖁᓪᓗᖅ 2018-ᒥ. ᐱᖅᑭᑕᐅᓚᐅᖅᖁᓪᓗᖅ ᐊᖅᑎᓕᕆᓚᑲᓂᓕᑦ ᐊᓘᓚᓗ ᓯᓚᐅᑦ ᐊᓯᔾᔨᖅᐸᑦᓕᐊᓂᖓᓚᓄᑦ ᑲᓇᑕᓚᑲᓂᑦ, ᑐᐱᕐᓯᓚᐅᖅᓴᓂᒃ ᐅᖅᑲᐅᔾᔨᖅᓯᐃᔨᓄᑦ ᐱᓕᕆᖅᑎᑦᑕᒧᓄᑦ, ᑲᑎᖅᓯᖅᓯᒪᔪᑦ ᐊᐃᓕᑦᑐᖅᓯᒪᔪᓂ ᐊᓘᓚᓗ ᐊᓗᔪᖅᑐᖅᓯᒪᔪᓂ ᓴᖅᓚᒋᐊᖅᑲᑦ ᑲᓇᑕᓚᑲᓂᑦ, ᐅᒪᔨᓕᕆᓂᖓᓪᓗᑦ ᐊᐅᓚᑦᓯᓂᖓᓪᓗᑦ ᑲᑎᒪᔨᖏᑦᓂᓕ ᑭᖑᓪᓕᖅᑐᑦ, ᐊᓘᓚᓗ ᐃᓄᐃᓕᓂᖓᓪᓗᑦ ᐊᐅᓚᑦᓯᓂᖓᓪᓗᑦ ᑲᑎᒪᔨᖏᑦᓂᓕ ᑭᖑᓪᓕᖅᑐᑦ, ᐊᓘᓚᓗ ᐃᓄᓕᑦ ᓄᓇᑦᑎᓯᐊᖅᓂᖓᓪᓗᑦ ᑎᑎᕈᔪᖅᑎᖅᑎᓂᓕᑦ ᑭᖑᓪᓕᖅᑐᑦ ᓇᑭᑐᐃᓐᓇᖅ ᓇᓄᐃᓕᓂᖓᓪᓗᑦ ᓇᓄᑦᑐᖅᓯᒪᔪᑦ ᓇᓄᐃᓕᓂᖓᓪᓗᑦ ᓇᓄᐃᓕᓂᖓᓪᓗᑦ ᓇᓄᑦᑐᖅᓯᒪᔪᓂ

ᓱᓕᓕᖅᑕᐅᓪᓗᐅᖅᑐᑦ ᓄᓇᕗᑦ ᓴᖅᓯᒪᖏᓐᓂᑦ, ᐊᒥᖅᑲᕈᑕᐅᖅᑲᑦᑕᓪᓗᐅᖅᑐᑦ ᑕᕝᕙᓂᓪᒪᖅ ᐊᑐᓕᖅᑎᑕᐅᓇᓱᑦᓂᖏᓐᓂ ᓄᓇᕗᒻᒥ ᐅᑭᐅᖅᑕᖅᑐᒥ ᓇᓄᐃᑦ ᐊᐅᓪᓚᕆᑦᑎᑎᑦ ᐸᐃᓇᐅᑎ, 2016-ᒥ. ᑭᓴᖅᑐᐃᔨᐅᔪᖅ ᑲᓇᑕᒥ ᐅᒪᔨᓕᕆᔨᖅᑎᑦᓯᐊᕐᓂᖏᓐᓂᑦ ᐃᓕᑭᐅᖅᔪᖅ ᐊᕙᑎᓕᕆᔨᖅᑐᓂᑦ ᐊᓯᓗᓐ ᓱᓕᐅᕐᓂᖅ ᐊᓱᔨᖅᐸᑦᓕᐊᓂᖓᓂᑦ ᑲᑎᓐᓗ ᓱᓕᐅᕐᓂᖅ ᐅᑭᐅᖅᑕᖅᑐᒥ ᑕᐃᒪᐃᓐᓇᖅᑐᑦ ᓄᓇᕗᒻᒥ ᐅᐃᓕᖅᑕᐅᓇᓱᑦᓂᖏᓐᓂᑦ ᐃᓕᓴᕐᓂᖅ ᐊᐅᓚᓕᕆᔨᖅᑐᓂᑦ ᐊᓯᓗᓐ ᓱᓕᐅᕐᓂᖅ ᐅᑭᐅᖅᑕᖅᑐᒥ ᑕᐃᒪᐃᓐᓇᖅᑐᑦ ᑲᑎᓐᓗ ᓱᓕᐅᕐᓂᖅ ᐊᓱᔨᖅᐸᑦᓕᐊᓂᖓᓂᑦ ᓄᓇᕗᒻᒥ ᐃᓕᐅᖅᑕᐅᓇᓱᑦᓂᖏᓐᓂᑦ ᑲᑎᓐᓗ ᐊᑐᓕᖅᑎᑕᐅᓇᓱᑦᓂᖏᓐᓂᑦ ᓄᓇᕗᒻᒥ ᐃᓕᐅᖅᑕᐅᓇᓱᑦᓂᖏᓐᓂᑦ ᑲᑎᓐᓗ ᐊᑐᓕᖅᑎ

ᐊᕕᑦᑐᖅᓯᒪᔨᓂ ᐅᒪᔨᓕᕆᓂᖅᓯᒪᒃ ᑎᒥᐅᔨᓄᑦ (ᐅᐱᖅᓱᒐᖅ ᐊᓪᒪᓗ ᐊᐅᕗᖅ 2022) ᐊᓪᒪᓗ (2) ᓴᖅᑭᑕᐅᔨᓴᓐᓗᑎᒃ ᓂᓪᓕᐅᑕᐅᔨᑦ ᑲᓇᑕᓪᒥᒥ [ᓂᖅᐸᑎᓄᑦ ᐃᓱᒪᓗᑎᕆᐅᓕᓪᖁᑐᓄᑦ ᑭᒃᑯᑐᐃᓴᓄᑦ ᐊᑎᓕᐅᖏᓪᓕᐊᓂᖅ](#) (60-ᓂᒃ ᐅᓪᓗᓂᒃ ᑭᒃᑯᑐᐃᓴᓄᑦ ᓂᓪᓕᖅᖁᓴᖅᑐᑦ 2022 ᐅᑭᐊᖓᓂ).

- ᐊᕕᑎᓕᕆᔨᒃᑯᑦ ᖃᓂᖅᓴᑦ ᐱᓕᕆᖏᔨᓪᓗᑎᒃ 8-ᓂᒃ1 ᐅᒪᔨᓕᕆᓂᖅᓯᒪᑦ ᐊᐅᓪᓚᕐᓂᖅᓯᒪᑦ ᑲᑎᒪᔨᓂᒃ ᐅᖅᐅᓵᕐᔨᐃᓂᓪᓕᓪ ᑲᑎᒪᔨᓂᒃ ᓇᐅᒃᑯᓕᔪᖅ ᐱᓵᕐᖅᑎᖅᓴᓂᒃ ᐃᓕᓴᕐᓂᓂᒃ ᐃᓕᓴᕐᑎᑕᐅᔨᓂᒃ ᓴᖅᑭᑑᑎᓪᓗᒥᒃ ᐃᓕᓴᕐᓂᑕᖅᑕᖓᓂ, ᓇᓗᓇᐃᖅᓴᕐᔨᓯᒪᓂᖅᓯᒪᓪᓗᓐ ᐃᑲᔪᖅᑕᐅᓂᒃ ᐱᓵᕐᖅᑎᖅᓴᓂᒃ ᐃᓕᓴᕐᓂᑕᖅᑕᖓᓂ, ᐊᐅᓚᐅᖅᑕᐅᔨᓂᒃ ᐱᓵᕐᖅᑎᖅᓴᓂᒃ ᐃᓕᓴᕐᓂᑕᖅᑕᖓᓂ, ᐊᐅᑕᐅᓯᐅᑎᒃᑯᓐᓂᒃ ᐱᓵᕐᖅᑎᖅᓴᓂᒃ ᐃᓕᓴᕐᓂᑕᖅᑕᖓᓂ ᐅᖅᑕᐅᓴᐅᓯᒪᔨᓂᒃ ᑲᓇᑕᓪᒥᒥ ᐃᓕᓴᕐᓂᑕᖅᑕᖓᓂ.
- ᐊᕕᑎᓕᕆᔨᒃᑯᑦ ᐊᑎᓪᓗᓐ ᓴᓕᐅᕐᓴ ᐊᓴᔨᖅᑐᓪᓕᐊᓂᖅᓯᒪᓂᖅ ᑲᓇᑕᒥ ᐃᓴᒪᒋᔭᖅᑎᖅᑕᒋᐊᖅᑐᑦ ᑕᒪᐃᓐᓂᒃ ᓂᓪᓕᐅᑕᐅᔨᔪᓂᒃ ᐱᔭᐅᔪᓂᒃ ᑐᓴᕋᓴᖅᑎᑎᓪᓗᒥᒃ ᑎᒍᒥᐊᖅᑎᓂᒃ, ᐊᑎᓪᓗᓐ ᐊᑐᖅᑎᓪᓗᒍ 60-ᓂᒃ ᐅᓪᓗᓂᒃ ᑭᒃᑯᑐᐃᓴᓄᑦ ᓂᓪᓕᑭᓐᓇᖅᓯᒪᓂ, ᐊᑎᓪᓗᓐ ᐱᑕᖅᑎᓪᓕᓴᓐᓂᐊᖅᑐᑦ ᐅᖅᑕᐅᔨᔪᓂᒃ ᐃᓴᒪᒋᔭᐅᓕᕐᓂᐊᕐᓗᒃᑲᓐᓂ ᐊᑎᓪᓗᓐ ᐅᖅᑕᐅᑕᐅᔨᓗᓐᓂᒃ. ᐊᕕᑎᓕᕆᔨᒃᑯᑦ ᐊᑎᓪᓗᓐ ᓴᓕᐅᕐᓴ ᐊᓴᔨᖅᑐᓪᓕᐊᓂᖅᓯᒪᓂᖅ ᑲᓇᑕᒥ ᓴᖅᑭᓴᓕᓂᕐᖁᖅᑐᑦ “ᐊᑐᖅᑕᐅᔨᔪᒥᒃ ᑭᖑᓪᓕᖅᓯᖅᓴᐅᑎᑎᒃ” ᓴᕕᒪᑐᖅᑭᒃᑯᑦ ᐃᓕᓴᕐᓂᑕᖅᑕᖓᓂᒃ ᑕᒃᑯᓄᖑᓂᒃ 8-ᖑᔪᓄᑦ ᐅᒪᔨᓕᕆᓂᖅᓯᒪᑦ ᐊᐅᓕᓴᓴᓂᖅᓯᒪᑦ ᐱᓵᕐᖅᑎᖅᓴᓂᒃ ᐊᓪᒪᓗ ᐅᖅᐅᓵᕐᖅᑎᐊᑦᓴᓂᒃ ᐱᓵᕐᖅᑎᖅᓴᓂᒃ. ᑕᐃᑲᓂ, ᓄᓇᕗᒻᒥ ᐅᒪᔨᓕᕆᔨᓴᕐᓂᐊᕐᓗᒃᑯᑦ ᐱᓵᕐᖅᑎᖅᓴᓂᑦ ᐱᓪᓚᕐᓂᖅᓯᒪᒃᑯᑦᑐᖅᑐᒥ ᐊᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᓂᒃ ᐅᖅᑕᐅᓴᐅᓯᒪᓂᖅᓯᒪᒃᑯᑦ ᐃᓕᓴᕐᓂᑕᖅᑕᖓᓂᒃ.

ᓴᓇᔨᑕᐅᓂᖅᓴᐅᑎᒃ ᐅᓄᓇᖅᑐᓂ:
ᐊᕕᑎᓕᕆᔨᒃᑯᑦ ᐊᑎᓪᓗᓐ ᓴᓕᐅᕐᓴ ᐊᓴᔨᖅᑐᓪᓕᐊᓂᖅᓯᒪᓂᖅ ᑲᓇᑕᒥ - ᑲᓇᑕᒥ ᐅᒪᔨᓕᕆᔨᓴᕐᓂᐊᕐᓗᒃᑯᑦ, ᐅᒪᔨᓕᕆᓂᓪᓕᐊᓂᖅ ᐊᐅᓚᐅᖅᑕᐅᔨᓂᖅ ᐊᐅᓚᐅᖅᐳᖑᓂᓂ, ᐅᒪᔨᓕᕆᓂᓪᓕᐊᓂᖅ ᐊᑎᓪᓗᓐ ᒪᓕᓚᐅᕐᓂᖅᓯᒪᓪᓕᐊᓂᖅ ᐱᓕᕆᓂᓪᓗᐊᑦᓴᓂᒃ ᑲᑎᒪᔨᖏᑦ; ᐃᓕᓴᕐᓂᖅ 2022.

[1] 1 8-ᖑᔪᓂ ᐅᒪᔨᓕᕆᓂᓪᓕᐊᓂᖅ ᐊᐅᓚᐅᖅᐳᖑᓂᓪᓕᐊᓂᖅ ᑲᑎᒪᔨᖏᑦ ᐊᑎᓪᓗᓐ ᐅᖅᑕᐅᔨᓴᖅᑭᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᐅᑭᐅᖅᑕᖅᑐᒃ ᓇᓗᐃᑦ ᓇᔪᖅᐸᑦᑕᖅᑐᓂᒃ ᐃᓕᓴᕐᓂᑕᖅᑕᖓᓂᒃ ᐱᖓᓱᓂᒃ ᐃᓇᐃᓕᓴᕐᓂᑕᖅᑕᖓᓂᒃ ᓄᓇᕗᒻᒥ (ᐅᒪᔨᓕᕆᓂᓪᓕᐊᓂᖅ ᐊᐅᓚᐅᖅᐳᖑᓂᓪᓕᐊᓂᖅ ᐅᖅᑕᐅᔨᓴᖅᑭᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ (ᓄᓇᑦ ᓴᓗᑦ ᐊᓚᐅᔪᒃ), ᐅᒪᔨᓕᕆᓂᓪᓕᐊᓂᖅ ᐅᖅᑕᐅᔨᓴᖅᑭᒃᑯᓂᓪᓕᐊᓂᖅ ᑲᑎᒪᔨᖏᑦ (ᓄᓇᑦᑐᖅᑭᒃᑯᑦ), ᐊᑎᓪᓗᓐ ᐃᓄᐃᐊᓗᐃᑦ ᓂᓪᓕᖅᖁᓴᖅᑐᑦ ᑲᑎᒪᔨᖏᑦ, ᐊᐅᑕᐅᓯᖅ ᓄᓇᕗᒻᒥ (ᓄᓇᕗᒻᒥ ᐅᒪᔨᓕᕆᔨᓴᕐᓂᐊᕐᓗᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ) ᐱᖓᓱᓂ ᑯᓚᐃᒃᑯᑦ (ᓄᓇᕗᒻᒥ ᐃᓚᖏᑕᐅᓕᖅᓄᑦ ᐅᒪᔨᓕᕆᓂᓪᓕᐊᓂᖅ ᑲᑎᒪᔨᖏᑦ, ᐃᓕᓴᕐᓂᖅ ᐃᓚᖏᑕᐅᓕᖅᓄᑦ ᐅᒪᔨᓕᕆᓂᓪᓕᐊᓂᖅ ᑲᑎᒪᔨᖏᑦ, ᐊᑎᓪᓗᓐ ᐊᖓᔪᓕᐊᓂᓪᓕᐊᓂᖅ, ᐃᖃᓗᐃᑦ ᐱᓕᕆᓂᓪᓗᐊᑦᓴᓂᒃ ᐊᑎᓪᓗᓐ ᒥᑭᐅᓕᐊᓂᓪᓕᐊᓂᖅ ᐊᐅᓚᐅᖅᐳᖑᓂᓪᓕᐊᓂᖅ ᑲᑎᒪᔨᖏᑦ ᐊᑎᓪᓗᓐ ᐊᐅᓚᐅᖅᐳᖑᓂᓪᓕᐊᓂᖅ ᑲᑎᒪᔨᖏᑦ) ᐊᑎᓪᓗᓐ ᐊᐅᑕᐅᓯᖅ ᓄᓇᕗᒻᒥ (ᓄᓇᕗᒻᒥ ᐅᒪᔨᓕᕆᔨᓴᕐᓂᐊᕐᓗᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ) ᐱᖓᓱᓂ ᑯᓚᐃᒃᑯᑦ (ᓄᓇᕗᒻᒥ ᐃᓚᖏᑕᐅᓕᖅᓄᑦ ᐅᒪᔨᓕᕆᓂᓪᓕᐊᓂᖅ ᑲᑎᒪᔨᖏᑦ, ᐃᓕᓴᕐᓂᖅ ᐃᓚᖏᑕᐅᓕᖅᓄᑦ ᐅᒪᔨᓕᕆᓂᓪᓕᐊᓂᖅ ᑲᑎᒪᔨᖏᑦ, ᐊᑎᓪᓗᓐ ᐊᖓᔪᓕᐊᓂᓪᓕᐊᓂᖅ, ᐃᖅᑲᓇᐃᐊᖅᑐᓂᒃ ᐊᑎᓪᓗᓐ ᒥᑭᐅᓕᐊᓂᓪᓕᐊᓂᖅ ᐊᐅᓚᐅᖅᐳᖑᓂᓪᓕᐊᓂᖅ ᑲᑎᒪᔨᖏᑦ ᐊᑎᓪᓗᓐ ᐊᐅᑕᐅᓯᖅ ᓄᓇᕗᒻᒥ (ᑐᖅᓱᓕᑦ ᐅᒪᔨᓕᕆᓂᓪᓕᐊᓂᖅ ᐊᑎᓪᓗᓐ ᐱᖃᓄᖅᑐᓂᒃ ᐊᐅᓚᐅᖅᐳᖑᓂᓪᓕᐊᓂᖅ ᑲᑎᒪᔨᖏᑦ).

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ᑲᓇᑕᒥ ᓇᓂᕐᓂᑲ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ:

ᖃᒥᕐᕈᓂᖅ ᒪᓴᒪᑐᖃᑉᓯᓚᓂ ᐃᓚᒋᐊᖅᓯᒪᔪᓂᑲ, ᑐᓴᕋᓯᖃᑦᑕᕐᓂᖅ ᐊᒻᒪᓗ ᐃᓚᐅᑎᑦᑎᓇᓯᓐᓂᐅᔪᑦ, ᐊᒻᒪᓗ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᑦ ᓄᓐᔨᓪᓚᕐᒥᑲ

ᓗᐊᕆᓕ ᓯᒪᒃ, ᓂᕐᕿᑎᓂᒃ (ᐅᒪᔪᕐᓂᒃ) ᖃᐅᔨᓴᖅᑎᑉ ᐊᒻᒪᓗ ᓴᑦ ᐊᐃᐅᕐᓴᓕ, ᐊᓐᑲᔪᖅᑲᓇᕆᐅᔪᖅ, ᓂᕐᕿᑎᑦ (ᐅᒪᔨᐃᑦ)
ᐊᐅᓚᑕᐅᓂᖏᓕᒃᓂ ᐊᒻᒪᓗ ᐊᐅᓚᕐᑎᕕᐅᔨᒃᓂ ᐱᓕᓇᓂᐅᕙᕐᑐᒃᓂ, ᑲᓇᑕᒥ ᐅᒪᔨᓕᓇᔪᕐᔪᐊᒃᓯᑦ, ᐊᕙᑎᓕᓇᔪᒃᓯᑦ ᐊᒻᒪᓗ
ᓯᓚᐅᑦ ᐅᖃᓯᕙᓕᓕᐊᓂᖏᓐᓄᓂᒃ ᑲᓇᑕᒥ
ᐃᓂ 15, 2022

ᓴᖅᑭᑦᓴᐅᐸᑦ ᓇᓗᓇᐃᖅᓯᒪᓂᖅᓯᒋᑦ

- **ᖃᓇᑎᒥ ᓇᓂᕐᓂᖅ ᐊᐅᓪᓕᑎᓂᕐᒧᑦ ᕿᕐᓇᐅᑎ**
  - ᐱᓪᓗᐊᖅᓯᒪᔪᑦ ᐊᓖᒪᓗ ᓴᓇᓯᒪᓂᖅ
  - ᖃᓄᐃᓪᓕᖅᓂᖅᑎᑦ ᑎᑎᕐᖅᓯᒪᔪᑦ ᐃᓪᓕᑭᐅᓂᐊᖅᑐᑦ ᖃᓇᑎᒥ ᓇᓂᕐᓂᑦ ᐊᐅᓪᓕᑎᓂᕐᒧᑦ ᕿᕐᓇᐅᑎᒥ
- **ᑲᓴᒪᑐᖃᖅᑯᓂᑦ ᐃᓪᓕᑭᐊᖅᓯᒪᔪᑦ**
  - ᖃᑎᒌᕐᑐᓂᖅ
  - ᐱᓚᓗᐅᔪᑦ ᑐᓴᕐᓴᐃᐃᑦ
- **ᑐᓴᕐᓯᖃᖅᑕᕐᓂᖅ ᐊᓚᑎᓗ ᐃᓪᓕᐅᑎᑦᑎᓂᖅ ᓄᓇᖃᖅᑲᖅᓯᒪᔪᑦ ᐱᔪᓇᐅᑎᖅᑭᓇᓂᖅ ᐊᓚᑎᓗ ᑲᒪᖃᖅᑎᐅᑦᑐᑦ ᐊᐅᓪᓕᑎᖅᑎᖃᖅᑎᑦᓯᑦ ᐱᓪᓗᓴᖅᑭᑦ ᐊᐅᓪᓕᑎᖅᑎᐅᔪᓂᖅ ᓄᓇᕗᒻᒥ**
- **ᑭᖑᓕᓪᓕᖅᑐᖅ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᑦ**
- **ᐅᐃᒍᖑᓚ I: ᑐᓴᕐᓯᐊᖅᓂᖅ ᐊᐅᓪᓕᑎᓂᕐᒧᑦ ᕿᕐᓇᐅᑎᒍᑦ: ᖃᓇᑎᒥ ᐃᓯᒪᑎᐅᔪᓂᖅ**



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ᐱᓕᕆᕐᔪᓂᒃᓴᖅ ᐊᒻᒪᓗ ᐃᖅᑭᑦᓯᒪᓂᕐᓂᖅ ᑲᓇᑕᒥ ᓇᓂᖅᓂᑦ ᐊᐅᓚᑦᑎᓂᖅᓴᑦ ᐸᖅᓇᐅᑎ

- ᓯᒪᓕᓕᖅ ᑎᑎᕆᖅᑕᐅᔪᖅ ᐊᓂᑎᓕᕆᓂᖅᓴᑦ ᓯᓚᐅᓕᓗ ᐊᓯᔾᔨᖅᐸᓕᓕᐊᓂᕐᓂᓗᓄᑦ ᑲᓇᑕᒥ (ECCC) 2014-ᒥ ᐊᑕᐅᓯᐅᓕᓗᓂ ᑲᓇᑕᓕᒫᒥ ᐊᐅᓚᑦᑎᓂᖅᓴᑦ ᐸᖅᓇᐅᑎ.
- ᓯᒪᓕᓕᕆᒥ ᑲᓇᑕᒥ ᐸᖅᓇᵇᑕᐅᔪᖅ ᐊᒧᐸᐅᖅᔪᐊᓚᐅᖅᓴᖅ ᓇᓄᓕᕆᔨᑦ ᐊᐅᓚᑦᑎᔨᑦ ᑲᑎᒪᔨᕆᓚᓂᑲᑦ (PBSC) - ᐊᖏᕐᕋᐅᓯᒪᔪᑦ *ᑲᓇᑕᒥ ᓇᓄᖅᓂᑲᑦ ᐱᐅᖅᓯᐊᖅᓂᖅᓴᑦ ᖃᓄᐃᓕᓕᐅᕈᑕᐅᔪᒪᔪᑦ ᑲᓇᑕᒥ* (2011)
- ᖃᒥᖅᕈᓚᐅᖅᑎᓕᒋᑦ ᐅᖃᐅᓯᖃᓚᐅᖅᑎᓕᒋᑦᓗ ECCC-ᓄᑦ ᓯᓚᐅᓕᕆᓂᖅᓵᑦᓯᐅᑎᒥᑦ ᐊᓯᔾᔨᕐᐊᖏᓐᓇᕐᓂᐊᕐᓂᑦ, PBAC-ᓄᑦ ᐅᖃᐅᔾᔨᓚᐅᖅᓴᑦ ᐃᖅᑭᑦᓯᐊᖅᓱᓕᔨᓕᓗᑎᑦ ᑲᓇᑕᓕᒫᒥ ᐱᓇᐹᖅᑕᐅᓯᒪᔪᓕᒥᑦ 6-ᖅᓯᓗᑎᑦ ᐃᓂᕈᑦᐅᐊᕐᓂᑦ, ᐊᑕᑎᑕᐅᔨᓗᑎᑦ ᓴᓇᒪᑐᖃᑦᓄᑦ ᐃᓚᒋᑦᕈᓐᓇᓂᖅ (2016-ᒥ)
- ᑎᑎᕆᖅᑕᐅᙱᓚᖅᑐᖅ ᓴᓇᒪᑐᖃᖅᓄᑦ ᐃᓚᒋᐊᕈᑎᖅ ᑐᓴᖅᑕᐅᓚᐅᖅᑐᖅ ᐊᐅᓚᑦᑎᖃᑎᒌᓂᑦ ᐅᖃᐅᓯᐅᓕᓗᓂ ᐅᑐᐃᓐᓇ 2018, ᔪᓚᐃ 2019-ᒥᑦ ᐅᑐᐱᓐ 2021-ᒥᔨᓗ.



ᑲᓇᑕᒥ ᓇᓂᖅᓴᑦ ᐊᐅᓚᑦᑎᓂᖅᓴᑦ ᐸᖅᓇᐅᑎ

ᐃᓚᖅᑲ 1-ᓴᓇᒪᑐᖃᓄᖅᓂᑦ ᐃᓚᒋᐊᕈᑎᑦ

(ᐊᓇᐅᓕᓕᓵᓄᑦ)

ᐃᓚᖅᑲ 2 – ᐃᓂᕕᐊᓗᐃᑦ ᓂᓇᖅᓄᓂ ᑲᑐᔾᔨᐅᔨᓗᓂ ᐅᑭᐅᖅᑕᖅᑐᒥ ᓇᓂᖅᓂᑦ ᐊᐅᓚᑦᑎᓂᖅᓴᑦ ᐸᖅᓇᐅᑎ

ᐃᓚᖅᑲ 3 – ᓂᓇᓐᖏᑦ ᐅᑭᐅᖅᑕᖅᑐᒥ ᓇᓂᖅᓂᑦ ᐊᐅᓚᑦᑎᓂᖅᓴᑦ ᐸᖅᓇᐅᑎ

ᐃᓚᖅᑲ 4 – ᒪᓂᑐᐸᒥ ᐅᑭᐅᖅᑕᖅᑐᒥ ᓇᓂᖅᓂᑦ ᓄᖓᑎᑦᑎᑦᑕᐃᓕᒪᓕᕆᔨᐊᕐᓂᖅ ᐊᒻᒪᓗ ᐅᑎᖅᑎᑕᐅᓂᓂᖅᓄᑦ ᐊᑐᖅᑕᐅᔪᓕᒥᑦ

ᐃᓚᖅᑲ 5-ᐊᓵᑎᐅᓗᐅᒥ ᓇᓂᐃᑦ ᐅᑎᖅᑎᑕᐅᓇᓕᖅᓂᖅᓂᓂᓄᑦ ᐊᑐᖏᒪᖅᓱᒪᑦ ᐊᒻᒪᓗ ᒪᓕᒪᓂᑦ ᑭᐅᓂᖅᓂᓂᓄᑦ ᐅᓂᒃᑲᖅ

ᐃᓚᖅᑲ 6 – ᔨᐸᐃᓵ-EMR-NMR ᐅᑭᐅᖅᑕᖅᑐᒥ ᓇᓂᖅᓂᑦ ᐊᐅᓚᑦᑎᓂᖅᓴᑦ ᐸᖅᓇᐅᑎ

ᐃᓚᖅᑲ 7-ᓂᐅᕙᐅᓵᓄ ᐊᒻᒪᓗ ᓚᐸᑐᐊᒥ ᐅᑭᐅᖅᑕᖅᑐᒥ ᓇᓂᖅᓂᑦ ᐊᐅᓚᑦᑎᓂᖅᓴᑦ ᐸᖅᓇᐅᑎ

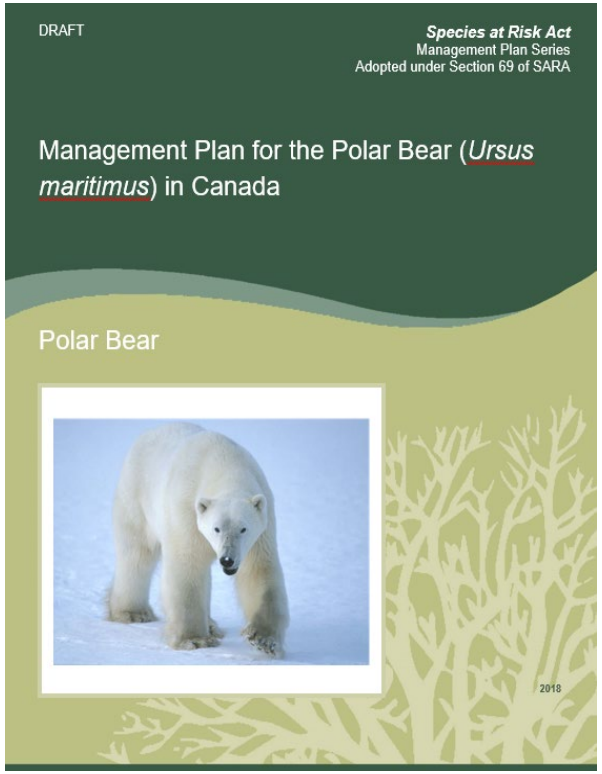
ᖃᓄᐃᓕᓐᓂᕐᒧᑦ ᑎᑎᕆᖏᒪᔪᑦ ᐃᓕᑭᐅᐅᓂᐊᖏᑐᑦ ᑲᓇᑕᒥ ᓇᓂᕐᓂᑦ ᐊᐅᓚᑦᑎᓂᕐᕿᑦ ᕿᑎᐅᑎᒥ

ᒪᓴᒪᑐᖃᓲᓂᑦ ᐃᓕᑭᐊᖏᒪᔪᑦ-ᐃᓕᓐᓄ 1	• ᐱᓐᓱᓪᑦ ᑎᑎᕆᑕᐅᑭᐊᖏᓐᓄᖅᑐᑦ ᐱᓴᓰᖅᑕᐅᓚᐅᖅᓴᑦ ᐊᒥᖅᑲᑕᐅᓚᐅᖅᓴᓪᓗ ᐱᓕᓇᖃᑎᒋᔭᐅᓪᓗᓄᑦ ᐅᖅᐅᓱᓄᓴᓂᑦ (2018-2021). ᐃᓘᓇ ᑎᑎᕆᑕᐅᑭᐊᖏᓐᓄᖅᑐᑦ ᐅᖅᐅᓱᐅᑐᐃᓘᓇᐊᖃᓕᖅᑐᑦ ᑲᑎᒪᔨᓂᑦ.
ᐃᓄᙳᐊᓗᐃᑦ ᓄᓇᖏᓂᓂ ᑲᑐᖅᔭᐅᓪᓗᓂ ᐅᑭᐅᖅᑕᖅᑐᒥ ᓇᓂᕐᓂᑦ ᐊᐅᓚᑦᑎᓂᕐᕿᑦ ᐸᖅᓇᐅᑎ – ᐃᓕᓐᓄ 2	• ᐱᓴᓰᖅᑐᖅ 2017-ᒥ
ᓄᓇᕗᑦ-ᐃᓕᓐᓄ 3	• ᐱᓴᓰᖅᑐᖅ 2019-ᒥ
ᒪᓂᑐᐸᑦ-ᐃᓕᓐᓄ 4	• ᑎᑎᖅᑕᐅᖏᓐᓄᖅᑕᒪᔪᖅ ᓴᖅᑭᑕᐅᔪᖅ ᐊᑲᑦᑕ 2021-ᒥ; ᐊᖏᓐᓂᔪᖅᑲᐅᑕᐅᓂᖅᓴᓂᑦ ᖃᑎᖅᑭᑲᐅᖅᓯᓪᓗᒍ
ᐊᓂᑎᐅᓇᐅ-ᐃᓕᓐᓄ 5	• ᐱᓴᓰᖅᑕᐅᓕᐅᖅᑐᖅ 2011-ᒥ.
ᓯᐸᐃᑦ-EMR-NMR-ᐃᓕᓐᓄ 6	• ᑐᓂᓂᖅᓯᑕᐅᔪᖅ ᑲᑎᒪᔨᓄᑦ/ᐅᖅᐅᑦᔪᐃᔨᑦ ᑲᑎᒪᔨᕿᓕᓄᑦ ᐅᐱᖏᓐᓇᑲᓯᑦ 2021–ᒥ. ᐊᖏᑕᖅᑕᐅᓂᖏᓐ/ᐅᖅᐅᑦᑐᐅᓂᖏᓐ ᐅᑕᖅᑭᔪᖅ
ᓂᐅᕿᐅᓂᓕᓂ ᐊᑦᒪᓗᓐ ᓕᐸᑐᐊ-ᐃᓕᓐᓄ 7	• ᑎᑎᖅᑲᖅ ᐱᐊᓂᑕᐅᔪᖅ ᓄᙳᐱᓗ 2021–ᒥ. ᐅᖅᖁᑎᑭᓐᑎᓕᑦᑎᓂᑦ ᑐᓴᕋᓯᓂᐅᓵᑦ ᒥᓴᓄᓂᑦ.

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ᑲᓇᒪᑐᖅᑯᓐᓂᑦ ᐃᓕᓴᐅᕐᖅᓯᒪᔪᓂᑦ-ᖃᑎᖏᑐᓂᖅ

- ᓴᖅᑭᑕᐅᔪᖅ ᐊᓇᑎᓕᕆᓴᖅᑯᓐᓂᑦ ᐊᖏᕐᕈᓂᖅ ᐃᓕᓴᐅᓪᓗᓂ ᐊᐃᑦᑐᖅᓯᒪᔪᓂᑦ/ᐊᒡᒍᖅᑐᖅᓯᒪᔪᓂᑦ. ᐅᒪᔪᓕᕆᓂᖏᓪᒍᑦ ᐊᐅᓚᑦᑎᓂᖏᓪᒍᑦ ᑲᑎᒪᔨᖏᓐᓂᑦ ᐊᒻᒪᓗ ᓄᓇᖅᑲᖅᓯᒪᔪᑦ ᓄᓇᑦᓂᖏᓪᒍᑦ ᑎᒥᐅᔪᓂᑦ ᐊᐅᓚᑦᑎᖅᑎᓐᖏᓪᒍᑦ ᐱᓕᕆᖅᑎᖅᑐᐅᔪᓂᑦ
- ᑎᑎᕋᖅᑕᐅᔪᑦ ᓇᓕᒧᒋᔭᓗᒋᑦ ᒪᓕᑐᓂᒧᑦ ᐊᐅᓚᑕᐅᔪᓴᓇᖏᓂᑦ ᑎᑎᕋᖅᓯᒪᔪᓂᒧᑦ; ᐊᒥᓱᔪᓂ ᑐᐊᐅᒪᑎᑕᐅᓂᒃᑯᑦ ᑲᑎᕋᖅᑲᓇᓂᑦ ᒪᓕᒐᓴᖅᑯᓐᓂᑦ / ᒪᓕᑐᓂᒧᑦ ᐊᐅᓚᑕᐅᔪᓴᓇᖏᑐᓂᑦ ᐱᓕᕆᖅᑎᖅᓯᖅ ᑎᒧᒥᐊᓴᖅᑎᐅᔪᓂᒃ
- ᐱᒻᒪᓕᐅᓪᓕᑦ ᐃᓱᒪᓴᖅᓯᐅᑕᑎᓴᒃᑲᓐᓂᑦ:
  - ᓱᓐᔾᕆᓇᖏᑐᓂᑦ ᖃᐅᔨᓴᖅᓯᖅ ᐊᑐᖏᑐᐊᖏᑕᐅᔪᖅ ᑲᑎᒪᔨᕆᓕᓂᑦ ᖃᓄᐃᓕᓐᓄᑦᓯᓚᐅᑦ ᐅᓪᓗᕆᐊᓇᖏᑐᑦᑐᑦ ᐅᒪᔪᒪᓕᖅᑐᑦ ᑲᒪᒋᔭᖅ 2019 ᖃᓄᐃᓕᓐᓄᑦᓯᓚᐅᑦ ᐅᓂᒃᑲᖅ
  - ᓄᓇᓕᕆᓂᖏᓪᒍᑦ ᑕᐅᑐᑐᑕᐅᔪᓂᑦ; ᑕᒪᖏᑦ ᓇᓄᐃᑦ ᑲᓇᑕᒥ
  - ᐃᓕᖃᖏᑐᑦ ᑕᒪᖏᑦ ᐊᐃᑐᑐᖅᓯᒪᔪᓂ ᓴᓇᒪᑐᖃᓂᑦ ᐊᐅᓚᑦᑎᓂᖏᓪᒍᑦ ᐸᖏᓇᐅᑎᓐᓄᓂ ᐱᕆᐊᖃᖅᑎᑐᑎᓂ ᐅᒃᑯᐊᑦᑐᑦ ᐅᒃᑯᐊᑦᑐᑦ ᐅᒪᔨᓛᓂ (SARA)
  - ᐱᖏᐊᓂᑦ ᐃᓂᓂᑦ ᓇᓗᓇᐃᖅᑕᐅᔪᖅᑲᓐᓂᑦ



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ᐱᒻᒪᓕᐅᓪᓗᑦ ᑐᕆᑎᕆᐃᑦ ᐃᓕᓴᐅᑎᓯᒪᔪᑦ ᒪᓂᒪᑐᖅᓴᓪᑦ ᐃᓕᓯᐊᕐᑎᕐᓯᓂᓂ 1/2



- **ᑲᑎᒪᔨᕋᓱᓂᑦ ᖃᓄᐃᓕᓴᖏᓐᓂᓕᓂᑦ ᐅᓇᓗᐊᓇᖅᑐᑭᑦᑐᑦ ᐅᒪᔪᐃᑦ ᑲᓇᑕᒥ ᐅᒪᔪᓐᓄᑦ ᖃᐅᔨᓴᓕᖅᓯᒪᓂᖅ ᑐᑭᓯᓐᓂᖅ, ᐊᒻᒪᓗ ᐅᒪᔪᓄᑦ ᑐᕆᑎᕆᐃᑦ:** ᒪᓕᑦᑕᐅᔭᓗᐊᖅᖃᑦᑐᑦ ᐊᖏᔪᑐᖅᓴᒪᔪᑦ ᐱᑕᖃᓗᐊᓕᓱᓂ ᒪᓂᒪᑐᖅᓴᓪᑦ ᐊᐅᓚᑦᑎᓂᓪᓗᑎᑦ ᐸᖁᓇᐅᑎᖓᓂᓪ
- **ᐅᓇᓗᐊᓇᖅᑐᑦ**: ᑲᑎᒪᔨᕋᓱᓂᑦ ᖃᓄᐃᓕᓴᖏᓐᓂᓕᓂᑦ ᐅᓇᓗᐊᓇᖅᑐᑭᑦᑐᑦ ᐅᒪᔪᐃᑦ ᑲᓇᑕᒥ ᖃᐅᔨᓴᓕᖅᓯᖅ
  - ᓱᓕᐅᐸ ᐊᓱᔨᖅᐸᓪᓕᐊᓂᖓᓗ (ᐳᖅᑐᔪᖅ): ᑐᓴᖅᑭᓐᓇᖅᐸᓪᓕᐊᔪᖅ ᐅᖅᑰᓱᓴᓪᓕᐊᔪᓄᑦ
  - ᐅᒪᔪᓕᓗᓂᖓᓪᓗᑎᑦ ᐱᐟᔪᑎᑲᓕᑦ (ᐊᑦᑎᑲᑐᖅ): ᐊᐅᓚᑕᐅᓂᖓᓪᓕᑦ ᐃᓄᖓᓄᑦ - ᑕᐃᒪᐃᑎᑕᐅᓪᓚᑎᑲ ᑐᖁᔪᑦ, ᐃᓕᑭᓪᓚᑦ ᑲᔪᓱᓇᑭᖓᓇᖁᑐᑦᑯᓱᑦ ᐊᖕᙱᑕᐅᕙᓪᑦᑐᑦ
  - ᓱᑭᖁᖅᑐᑦ (ᐊᑦᑎᑲᑐᖅ) ᐅᑭᐅᖅᑕᖅᑐᒥ ᓇᓄᐃᑦ ᐊᑲᑐᖅᑕᐅᔪᓇᖅᑐᑦ ᓱᑭᖁᖅᑐᓄᑦ ᑎᒥᖓᓂᓕᖅᑐᑎᑲ
  - ᐊᓱᖓᑦ (ᐱᒻᒪᓕᐅᖓᑦᑐᑦ) ᐅᓴᖁᖓᓂᐊᖁᖓᖅ, ᐃᖓᑦᖁᔨᓕᓪᓚᖅ, ᐊᒻᒪᓗ ᐃᓄᖓᓂᑦ ᐱᓕᓪᓚᑦ
  - ᐊᓱᖓᑦ (ᖃᐅᔨᒪᓇᖓᑦᑐᑦ) ᑯᑦ ᓱᒥᑲᑕᐅᓱᒪᔪᑦ ᐊᒻᒪᓗ ᐊᓱᖓᑦ ᐅᒪᔪᖁᖁᖅᓴᔪᑦ ᐊᓱᔨᖅᑕᐅᓱᒪᓂᖓᑦ, ᐊᒻᒪᓗ ᐅᒪᔪᐃᑦ ᑕᒧᓂᖁᑎᑕᐅᖓᑦᑐᑦ

- ᒪᓕᒪᑐᖅᑲᓱᓂᑦ ᐃᓕᓴᐅᑎᑎᑐᖅ ᓄᖓᐱᑎᑦᑎᑕᐃᓕᒪᓂᐅᔪᓄᑦ ᐱᓕᓚᐊᖅᖁᓂᖁᑎᒃ ᒪᓕᒪᑐᖅᑲᓱᓂᑦ ᐱᓇᓱᐊᕆᓚᖓᓂᖅ (ᓱᓇᓗ, ᓱᓕᒧᑦ ᐃᓱᐊᖅᑭᓐᓂ, ᐅᑭᐅᖅᑕᖅᑐᒥ ᐅᒥᐊᖁᔭᓐᓄᓕᒫᑦ ᒪᓕᓚᑕᐅᔭᓗᐊᓂᓐ) ᐊᒻᒪᓗ ᐊᔪᓚᖅᓱᓪᓚᔨᓴᑦ ᐅᖅᑲᓪᒪᖅᑐᒥᒃ ᑕᓚᑯᓚᓐᓂᒃᑯᑦ ᐊᐅᓚᑕᐅᔪᓇᖅᑐᓂᒃᑯᑦ ᑎᑎᕋᖅᓱᒪᔪᓄᑦ ᐱᐟᔪᑕᐅᔪᓄᑦ ᐊᐃᓕᖅᑲᓱᓂᑦ/ᐊᑲᒍᖅᑐᖅᓱᒪᔪᑦ ᐱᔪᓇᓕᓂᖓᓪᓚᖅᓱᑦ (ᓱᓇᓗ: ᐊᖕᙱᑕᐅᔪᓇᖅᑐᑦ ᐊᐅᓚᑕᐅᓂᖓᓪᑦ ᐊᑕᓱᒪᔪᖅᑐᑦ ᐊᐃᓕᖅᑲᓱᓂᑦ/ᐊᑲᒍᖅᑐᖅᓱᒪᔪᑦ ᐱᔪᓇᕋᓂᖓᓪᓚᖅᓱᓪᓗᑎᑦ ᐊᐅᓚᑕᐅᔪᓇᖅᑐᑦ ᐊᐅᓚᑦᑎᓂᓪᓗᑎᑦ ᐸᖁᓇᐅᑎᖓᓂᓪ ᐊᒻᒪᓗ ᐅᑎᖅᑎᑦᑎᓇᓱᓂᓪᓗᑎᑦ ᐊᑐᖅᑕᐅᔪᓚᑦᑐᓪ)

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ᐱᓪᒪᓗᐅᓪᓭᓪ ᑐᕆᑎᕆᐃᐅᓪ ᑲᓴᒪᑐᖏᑲᒃᓂᓪ ᐃᓭᒋᐊᕈᑎᖓᓂᓂᓄ (2/2)

- **ᐊᐅᓪᓚᑎᓂᔪᓪᒧᑦ ᑎᕈᑕᐅᓇᓱᐊᖏᑐᑦ:** ᑲᔪᓱᐅᓲᓇᖅᑐᓗᒍ ᕿᐱᓕᖏᑕᐃᓕᒪᓂᖏᑦ, ᐊᑐᑎᖏᖅᑭᓲᓂᖏᑦ ᐊᓪᒪᓗ ᑭᓪᓕᖅᑐᐃᓂᖏᑦ ᐅᓄᖅᓂᖅᑭᓲᓄᑦ ᐅᒪᔪᐃᑦ ᖃᐅᐅᔪᓴᐅᔪᑦ ᑎᑭᐅᑎᖃᖅᑕᖅᑐᓲᓄᑦ ᑲᓇᑕᒥ
- **ᐊᖅᑭᔪᑦ ᐊᑐᖏᑕᐅᔪᒪᔪᑦ ᐊᓪᒪᓗ ᐊᐅᓪᓚᑎᓂᔪᓪᒧᑦ ᑲᔪᓱᑎᑕᐅᔪᑦ** (ᑐᖅᓴᐅᑦᑎᓗᑎᑦ ᐱᓕᓱᐃᓕᓄᑦ ᓴᓇᒪᑐᖏᑲᒃᓂᓂᓂᑦ ᒪᓕᓴᑎᐃᑦ ᐊᐅᓪᒪᑕᐅᔪᓲᖅᑐᑎᐃᑦ, ᑲᔪᓱᑎᑕᐅᔪᑦ ᐊᓪᓗᐃᓪᓕᖏᓱᐊᖅᑐᓪᒧᑦ ᐱᔪᓇᐅᑎᓄᑦ ᐊᓪᒪᓗ ᐱᑕᖃᓴᖅᑐᑎᐃᑦ ᒪᓕᓴᑎᐃᑦ ᐊᐅᓪᒪᑕᐅᔪᓲᖅᑐᑎᐃᑦ ᐊᐅᓪᓚᑎᓂᔪᓪᒧᑦ <ᖅᓇᐅᑎᓂ ᐊᓪᒪᓗ ᐅᑎᖅᑎᑦᑎᓇᓲᓂᔪᓪᒧᑦ ᐊᑐᖅᑕᐅᔪᓚᔪᓂ).
  - ᐃᖅᑲᓇᐃᓴᖅᑎᑎᓕᑦ ᑲᓇᑕᒥ ᐱᓕᕆᖅᑎᑎᕐᓴᐅᔪᑦ ᐊᐅᓪᒪᖅᑎᑎᕐᓴᐅᖅᓯᓕᓕᑦ ᐊᓪᒪᓗ ᓄᓯᒧᑦᑕᐃᓕᒪᓕᓕᑦ ᐅᑭᐅᖅᑕᖅᑐᒍᒥ ᓇᓄᐃᑦ ᐃᓂᒋᔭᖅᑎᓪᓗᓕ
  - ᐃᖅᑲᓇᐃᓴᖅᑎᑎᓕᑦ ᓄᓇᖅᔪᐊᖅᒥ ᐱᓕᕆᖅᑎᑎᕐᓴᐅᔪᑦ ᐊᐅᓪᒪᑕᐅᖅᓯᓕᓕᑦ ᐊᓪᒪᓗ ᓄᓯᒧᑦᑕᐃᓕᒪᓕᓕᑦ ᓇᓄᐃᑦ ᐅᑭᐅᖅᑕᖅᑐᒍᑦᑐᑦ
  - ᑲᑎᖅᓯᖅᑐᓕᑦ ᖃᐅᔨᓴᖅᑐᓕᒪᓂᕆᔨᑦ ᐊᓪᒪᓗ ᓄᓇᖃᖅᑲᖅᓯᒪᔪᑦ ᖃᐅᔨᓕᒪᓂᕐᑎᑦ ᐊᑐᖅᓕᓕᑦ ᖃᐅᔨᓴᖅᑎᖅᓂᖅᑐᑦ ᐊᓪᒪᓗ ᖃᐅᔨᓴᖅᑐᑎᖅᓯᓕᓕᑦ ᐊᓪᒪᓗ ᓄᓇᖅᔪᐊᓕᒫᒥ
  - ᒪᓂᓴᖅᑐᓕᑦ ᐊᓪᒪᓗ ᐃᑲᔪᖅᑐᖅᑐᓕᑦ ᐃᓄᐃᓇᓱᐊᖅᑐᑦ ᐱᓕᕆᓂᑲᑲᓂᖅᑎᑦ ᐊᓪᒪᓗ ᐃᓕᓴᓂᐊᖅᑎᑎᓂᑲᓂᔪᑦ ᐊᑐᐃᔪᓄᑦ ᐊᓄᑦ ᐊᐅᓪᒪᑕᐅᓂᖏᓱᐊᖅᑐᑦ ᐊᓪᒪᓗ ᓄᓯᒧᑦᑕᐅᓪᒪᑕᐅᓂᖏᓱᐊᖅᑐᑦ
- **ᓄᓇᓄᐃᖅᔪᓂᖅ ᐱᓭᓕᐊᓂᖏᓱᐊᖅᑐᓂᑲᑦ:** ᓄᓇᓄᐃᖅᔪᓱᓰᖅ ᖃᓄᖅ ᑲᔪᓱᑕᑎᐊᖅᓂᖅ ᓄᓇᓄᐃᖅᑕᐅᖃᖅᑕᓂᖅᓴᐊᖅᓚᓱᓕᒫᑦ ᐅᑭᐅᖅ ᑕᓕᒪᓕᑦ ᐊᓂᔪᑲᖏᓐᓂᑕ, ᑐᙵᓚᐃᕈᓇᔪ ᑐᑲᓚᓗᕆᐅᔪᖅ ᐅᖃᐅᓯᐅᔪᒪᔪᖅ ᐊᐅᓪᒪᑕᐅᖅᑐᓪᒧᑦ ᑐᑲᓚᓗᕆᐅᔪᑦ
- **ᐊᑦᑐᐃᓂᓗᒃᖏᑦᑕ ᐊᓭᑎᑎᒃ ᐊᖅᓚᓗ ᐊᔪᖏᑐᓂᒃ ᐅᒪᔪᑦᓂᒃ:** ᓄᓇᓄᐃᖅᔪᓱᓰᖅ ᑲᔪᓱᔨᐃᓂᑦ ᑎᑎᕋᖅᔪᒪᔪᒥ ᐊᑦᑕᕐᓇᑭᓲᓂᖏᓱᐊᖅᓯᓕᓕᒥ ᐊᑦᑕᒧᑦ ᐅᐟᓭᓂᓂᓂᑦ ᐊᔪᖏᑐᓂᑦ ᐅᒪᔪᑦᓂᑦ ᑐᑲᓚᓗᕆᐅᔪᒥ

ᑐᓴᕋᓯᖏᑦᑕᕐᓂᖅ ᐊᒻᒪᓗ ᐃᓕᐅᑎᑦᑎᓂᖅ ᓄᓇᖏᖅᑲᖏᓚᕆᑦ ᐱᕆᓇᐅᑎᖓᓕᒃᓂᒃ ᑎᒍᑕᐊᖅᑎᐅᔪᓂᒃ ᐊᒻᒪᓗ ᑲᒪᖏᖅᑎᑐᓗᑦ ᐊᐅᓚᑦᑎᖏᑎᖏᖅᓂᒃᔪᑦ ᐱᑦᑐᕐᒪᑦ ᓄᓇᕗᒻᒥ

ᑭᓯᑦ ᖃᐅᔨᓇᓯᖓᓂᐅᔪᑦ ᑲᔪᓯᓚᐅᖏᓐᓂᑦ ᐊᒻᒍᖏᑐᕐᓯᓚᕆᔪᓂ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᓱᖏᓇᐅᑎᓐᓂ?

- ᓄᓇᓕᓴᐃᓚᕆᑦ ᖃᐅᔨᓇᓯᖓᓂᐅᔪᑦ ᐱᓱᕋᖏᑕᐅᓚᐅᖏᖅᑐᑦ ᐊᑐᓕᖏᑎᑕᐅᑎᒋᓪᓗᒍ ᓄᓇᕗᑦᒥ ᐅᑭᐅᖏᑕᖏᑐᒥ ᓇᓂᔾᓂ ᐊᐅᓚᑦᑎᖏᑎᐅᓴᖅᑎᑦᓯᒪᑦ ᐸᖏᓇᐅᑎ (2016)
- ᐊᕿᑎᓕᕆᔨᖏᑦ ᐊᒻᒪᓗ ᓯᓚᐅᑦ ᐊᓯᔨᖏᐸᒋᓕᐊᖏᓐᓄᓚᓂ ᑲᓇᑕᒥ ᐃᓚᐅᖏᑕᐅᓚᐅᖏᖅᑐᑦ ᑕᐅᔭᖏᑕᐅᓚᐅᖏᖅᑐᑦ, ᐊᒻᒪᓗ ᑐᓴᖏᖅᑐᑎᒃ ᐃᓯᒪᓕᑕᐅᔪᓂᒃ ᓂᒋᓕᐅᑕᐅᔪᓂᑦ ᑎᒍᑕᐊᖅᑎᐅᔪᓂᑦ

ᑭᓯᑦ ᐊᐅᓚᑦᑎᓂᐅᔪᑦ ᐊᐅᓚᑦᑎᔨᐅᖏᓐᓄᑦᑐᕐᓯᓚᕆᔪᓂᑦ ᑲᔪᓯᓯᒪᕕᑦ ᐅᒋᓗᒋᒪᔭᑦ ᑐᓴᕐᓂᒃᑯᓯᒪᓂᑦ ᐃᓚᒋᑕᖏᖅᑐᓂᑦ ᐱᓕᒪᓐᓇᖅᑐᓂᒃ ᐃᓚᒋᑦᑐᕐᓂᒃ

- ᑕᒪᖏᐅᒃ ᐅᑭᐅᖏᑕᖏᑐᒥ ᓇᓂᐃᑦ ᐊᐅᓚᑕᐅᓂᖓᓕᒫᓂ ᑲᑎᒪᔨᖏᓪᓕᐊᓂᖓᓕᒫᓂ ᑎᑎᐅᔨᓂ ᓂᒋᓕᐅᑎᖏᑦᑕᐅᓚᐅᖏᖅᑐᑦ ᐱᓪᓚᑦᑎᓂ ᑲᓇᒪᔨᖏᑦᑕᐅᓚᐅᖏᖅᑐᑦ ᐃᓚᒋᑦᑐᕐᓂᒃᑯᓯᒪᓂᑦ ᐃᓚᒋᑎᓕᐊᑦᑐᕐᓂᖅ
- ᑕᒡᓕᒪᐅᔨᓂ ᐊᐃᖏᑐᖏᓐᓄᑦᑐᕐᓯᓚᕆᔪᓂ ᓚᐲᒪᑎᑦ (ᓄᓇᕗᑎᐊᒥ, ᓄᓇᕐᓂ, ᐊᓂᑎᐅᓇᐅ ᐊᒻᒪᓗ ᔪᑲᓂ), ᐃᓄᐃᐊᓗᐃᑦ ᓂᔪᐸᑎᓕᓂᔪᓂᑦ ᑲᑎᒪᔨᖏᑦ, ᒪᑭᐃᖅ ᑯᐊᐅᕋᐃᓂᓂ, ᓄᓇᐃᖅᑎ ᐃᒪᕆᐅᑕᔪᓂᑦ ᑲᑎᒪᔨᖏᑦ, ᐊᒻᒪᓗ ᐅᒪᔨᓕᓚᓂᔪᓂᑦ ᐊᐅᓚᑦᑎᓂᔪᓂᑦ ᐅᖃᐅᔨᓴᖅᓯᐃᓐᓂ ᑲᑎᒪᔨᖏᓐᓄᑦᑐᕐᓂᒃ (ᓄᓇᕗᑎᐊᒥ ᐊᒻᒪᓗ ᐊᓪᓚᖅᑎᒥ) ᐃᓚᐅᖏᖅᑕᐅᓚᐅᖏᖅᑐᑦ ᐳᓴᐅᓂᖓᓂ ᓚᐲᒪᑐᖏᖅᓄᑦ ᐃᓚᒋᑦᑐᕐᓂᒃᑯᓯᒪᓂᑦ ᐃᓚᒋᑕᖏᖅᑐᓂᑦ

ᑭᓯᑦ ᐱᖓᓱᐅᖏᖅᓄᓂᕐᓂᑦ ᖃᖏᖅᓂᓂᐊᒍᑦ ᐃᓚᐅᖏᖅᑕᐅᓂᕆᒥ ᓚᐲᒪᑐᖏᖅᑐᓂᑦ ᐃᓚᒋᑕᖏᖅᑐᓂᒃᑯᓯᒪᓂᑦ ᐃᓚᒋᑕᖏᖅᑐᓂᒃᑯᓯᒪᓂᑦ?

- ᑎᑎᕋᐃᓂ ᓇᓱᐅᓱᐅᔨᓂ ᓄᓇᕗᐅᔨᓄᑦ, ᐊᖖᑎᑐᖏᖅᑐᓂᒃ ᐅᒪᔨᓕᓚᓂᔪᓂᑦ ᑎᒥᖓᓄᑦ, ᐊᒻᒪᓗ ᐊᖓᔪᓚᕐᔪᑎᑦ ᒥᑭᐅᖏᑦᑕᐅᓚᐅᖏᖅᑐᑦ ᑐᑭᓯᓚᐅᖏᖅᑐᑦ ᑐᓴᐅᔨᖏᖅᑐᓂᒃᑯᓯᒪᓂᑦ ᐃᓚᒋᑦᑐᕐᓂᒃᑯᓯᒪᓂᑦ ᐃᓕᓴᕐᓂᑦ ᑲᓇᑕᒥ
- ᐅᑭᐅᓂᓄᑦ 90-ᓄᑦ ᐃᓄᑐᐃᓇᐃᑦ ᐱᖓᓱᖏᖅᑐᑦ ᓂᒋᓕᑭᒪᔪᒃ ᐅᒪᔨᖏᓄᑦ ᐊᑦᑕᖏᓇᖅᑐᑦᑎᓐᓂᓄᓂᑦ ᑎᑎᕋᖓᖏᖅᑐᖏᓐᓄᓂᑦ: ᓂᒋᓕᑭᓇᖅᑐᑦ ᓚᐲᒪᑐᖏᖅᑐᓂᒃᑯᓯᒪᓂᑦ ᐃᓗᓕᕆᓂᑦ ᑎᒃᓴᓄᑦ

ᓇᓗᓇᐃᑭᑦ: ᑕᒪᖏᐅᒃ ᑐᓴᕐᓂᒃᑯᓯᒪᓂᑦ ᑕᒪᐃᑐᓂ ᐃᓕᓴᕐᓂᖓᓂ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᖏᓇᐅᑎᐅᓴᐅᑦ ᓇᐃᒋᓕᓕᐊᖏᖅᓯᓚᕆᑦ ᐅᐃᔪᐊᕐᓯᖅ I-Γ

ᐊᑐᖅᑕᐅᓂᐊᖅᑐᑦ ᑭᖓᔪᓪᓗᖅᑎ

ᓱᓕᓪᓗᖅᓯᖅ 1 (ᐅᕙᓂᓪᓚᔪᑦ)

ᑐᕿᓗᐊᕐᓯᐅᓗᑦ
ᑲᑎᒪᔨᐅᕐᓂ
ᐃᓕᐅᕐᓚᖓᑕ ᐊᒻᒪᓗ
ᐅᖃᒪᔭᐅᑎᑦᓗᑦ
ᐱᕙᓪᓕᐊᓂᐅᕐᓚᕐᖓ

ᐊᐃᓪᓚᖓ 2

ᑲᑎᒪᔨᑦ ᐃᑲᕐᖅᑐᐃᓪᓚᑕ:

1. ᓴᖅᑭᓪᓗᔪ ᐊᐅᓪᓚᑎᓂᕐᔪᑦ ᓪᓕᐅᑎᑎ ᑕᕐᕿᖓᖅ ᐅᒪᓚᐃᑦ ᐊᑎᑕᕐᓇᖅᑐᓂᑦ ᑎᑎᕋᖅᓯᒪᓚᓂᑦ ᐃᓂᑐᐃᓇᕐᓂᑦ ᓂᓪᓕᐅᑕᐅᕐᖅᓪᓗᔪ (90 ᐅᓪᓗᐃᑦ; ᔪᓪᒪᐃ-ᓯᑎᐱᓇ 2022)
2. ᐱᓴᓕᕐᓗᑎᑦ ᓄᓇᓕᖓᓂᑦ ᑐᓴᕋᓯᐊᕐᓂᐅᕐᓚᑦ (ᐅᓄᐊᓇ-ᓯᑎᐱᓇ 2022)

ᐱᖓᓱᖓ 3

ᓄᑦᑭᑎᐊᕐᓗᑎᑦ
ᒪᓂᒪᑐᖅᑲᓂᑦ
ᐃᓕᒋᐊᑭᑎᖏᑦ
ᑐᙵᖓᒪᓕᕐᓗᑎᑦ
ᐅᖃᐅᓯᐅᔪᓚᑦ ᐱᒃᐅᔪᑦ
(ᐅᑭᐊᖏᖅ 2022)

ᑎᓴᖓ4

ᑐᓂᓗᒍ
“ᑭᖓᔪᓪᓗᖅᓴᓇᒃᐅᔪᒪᔪᖅ”
ᑲᓇᑕᒥ ᐅᑭᐅᖅᑕᖅᑐᑐᒥ
ᓇᓄᖅᓄᑦ ᐊᐅᓪᓚᑎᓂᕐᔪᑦ
ᓴᖅᑭᐅᑎᖓ ᑲᑎᒪᔨᐅᔪᓄᑦ
(ᐅᑭᐅᒥ 2023)

ᑲᑎᒪᔨᑦ
ᐃᓕᒪᓕᐅᓇᓂᐊᖅᑐᑦ
ᐱᕙᓪᓕᐊᓂᖓᓂᒃ
ᑲᓕᓕᒪᖅᓯᐅᖅᓂᐊᖅᓗᑎᒃ
ᑲᓕᓕᒪᓂᓪᓚᒍ/ᐃᑲᕐᖅᑐᖅᓚᒍ

Environment and Climate Change Canada
Environnement et Changement climatique Canada
Canada

Thank you / ᓇᓕᔪᖅᑐᑦ

ᐃᓕᓴᐅᑎᕐᓂᖅ 1: ᐅᖃᖃᑎᖃᖅᓯᖅ ᐊᐅᓪᓚᑎᓯᖅᔪᑦ ᐱᓱᕈᕆᖅᑕᐅᓪᓚᕐᓂᖅ: ᑲᓇᑕᒥᓐᓂᒃ ᐃᓕᓴᐅᕐᓂᖅ

ᐃᓕᕆᖅᓱᒃ:	ᑐᓴᕋᓴᓂᑎᒃ ᐃᓕᕆᖅᐅᕐᓂᖅ ᐊᐅᓪᓚᑎᓯᖅᔪᑦ ᐸᖅᓇᐅᑎᑦ ᐅᖅᓱᓕᔪᓐᓇᑦ ᐅᑎᖅᑎᑦᑎᐊᓴᓴᓂᒃ ᐊᑐᖅᑕᐃᓕᖅᓯᖅᑐᑦ:	ᑲᓱᒪᑐᖅᑲᓂᑦ ᐃᓕᑎᐊᕈᑎᓐᓂᑦ
ᐃᓄᐃᐊᓗᐃᑦ ᓄᓇᖏᑦ	ᓄᓇᓕᓐᓄᑦᑎᐊᑦ ᖃᐅᔨᓇᓴᓐᓂᐅᕐᓂᑦ ᐱᓵᓰᖅᑕᐅᓪᓚᕐᓗᖅᑐᑦ ᐊᑐᓕᖅᑎᑕᐅᑎᑦᑐᓴᒍ ᓄᓇᕗᑦᑎ ᐅᑭᐅᖅᑕᖅᑐᒥ ᓇᓄᖅᓄᑦ ᐊᐅᓪᓚᑎᓯᖅᑎᑕᐅᓂᖅᑑᑦ ᐸᖅᓇᐅᑎᑦ (2016).	ᑲᑎᒪᔨᑦ ᐃᖅᑲᓇᐃᔨᖅᑎᖏᑦ ᐊᒻᒪᓗ ᐊᓯᖏᑦ ᐊᐅᓪᓚᑎᓕᐅᖅᑎᑲᑎᒪᔨᐅᕐᓂᑦ ᐱᓕᕆᖅᑕᐅᓂᑦ ᑲᓇᖅᑐᑦᑕᐅᓂᖅᓱᒃ (2018-2021) ᑐᓴᕈᒪᖅᑕᕐᓂᐅᕐᓂᑦ ᑕᑯᓕᐊᖅᑕᐅᓂᐊᖅᑐᖅ ᓄᓇᕗᐅᔪᓄᑦ (ᐃᓕᓴ 2022)
ᓄᓇᓵᑦ	ᓄᓇᕗᓂᓂᐅᖅᑎᑲᑎᒪᔨᓵᓂᑦ ᐱᓵᓰᖅᑕᐅᓪᓚᕐᓗᖅᑐᑦ> ᐱᓇᔨᑎᓕᓪᓗᓂᒻᒪᓕᓂ (2016). ᐅᐸᔪᑎᓪᓚᑎᒃ ᓄᓇᓵᓗᒃ ᐅᒪᔨᓕᓪᓗᕐᔨᐊᕐᓂᖅᑐᑦ ᑲᑎᒪᔨᓕᖅᑎᑕᐅᓂᖅᑑᑦ ᑭᓱᑐᐃᐅᓇᓴᓂᑦ ᐃᓕᑎᐅᓕᖅᑎᑦ (2018).	ᐊᐅᓪᓚᑎᓯᖅᔪᑦ ᐱᓵᓰᖅᑕᐅᓪᓚᕐᓗᖅᑐᑦ ᑲᓱᒪᑐᖅᑲᓂᑦ ᐃᓕᑎᐊᕈᑎᓐᓂᑦ ᐱᓕᕆᖅᑕᐅᓂᖅᑑᑦ (2018-2021) ᑐᓴᕈᒪᖅᑕᕐᓂᐅᕐᓂᑦ ᑕᑯᓕᐊᖅᑕᐅᓂᐊᖅᑐᖅ ᓄᓇᕗᐅᔪᓄᑦ (ᐃᓕᓴ 2022)
ᒪᓂᑐᐸ	ᓇᓗᓇᐃᖅᑕᐅᓪᓚᓐᓂᖅ	ᓇᓗᓇᐃᖅᑕᐅᓪᓚᓐᓂᖅ
ᐊᓐᑎᐅᓕᐅ	ᓄᓇᓕᓐᓄᑦᑎᐊᑦ ᖃᐅᔨᓴᓐᓂᐅᕐᓂᑦ ᐱᓵᓰᖅᑕᐅᕐᓂᑦ ᐊᓐᑎᐅᓕᐅ ᑲᓱᒪᑐᓐᓂᑦ (2010)	ᓄᓇᕗᓂᓂᐅᖅᑎᑲᑎᒪᔨᓵᓂᑦ ᐱᓵᓰᖅᑕᐅᓂᐊᖅᑐᖅ 2019-ᒥ. ᑐᓴᕆᐊᖅᓴᐅᔨᔪᓂᑦ ᑐᓐᓇᓴᐃᓂᐅᕐᓂᑦ ᑕᑯᐊᑦᑯᔨᓄᑦ ᓄᓇᕗᐅᔪᓄᑦ ᓄᓴᐱᓗ 2021-ᒥ.
ᑯᐸᐃᑦ	ᓄᓇᕗᓂᓂᐅᖅᑎᑲᑎᒪᔨᓵᓂᑦ ᐱᓵᓰᖅᑕᐅᕐᓂᑦ ᐊᒻᒪᓗ ᐊᐅᓪᓚᑎᓯᖅᔪᑦ ᐱᓕᕆᖅᑕᐅᓂᖅᑑᑦ ᑐᓴᕈᒪᖅᑕᕐᓂᐅᕐᓂᑦ ᑕᑯᐊᑦᑯᔨᓄᑦ (2016-2017) ᓄᓇᓴᖅᑎ ᐃᒪᖅᑎᐅᑕᕐᓄᑦ ᐊᓴᑦᑐᖅᓯᒪᔨᓂ ᐅᒪᔨᓕᓪᓗᓂᖅᑑᑦ ᑲᑎᒪᔨᖏᑦ-ᐃᒪᖅᑎᐅᑕᕐᓄᑦ ᐊᓴᑦᑐᖅᓯᒪᔨᓂ ᐅᒪᔨᓕᓪᓗᓂᖅᑑᑦ ᑲᑎᒪᔨᖏᑦ ᑲᑎᖏᓐᓄᑦ ᑎᑎᕋᖅᓯᒪᔨᑦ ᐃᓕᑦᑎᑕᑎᓂᖅᑑᑦ (2021-2022)	ᑲᑎᒪᔨᑦ ᐃᖅᑲᓇᐃᔨᖅᑎᖏᑦ ᐊᒻᒪᓗ ᐊᓯᖏᑦ ᐊᐅᓪᓚᑎᓕᐅᖅᑎᑲᑎᒪᔨᐅᕐᓂᑦ ᐱᓕᕆᖅᑕᐅᓂᑦ ᑲᓇᖅᑐᑦᑕᐅᓂᖅᓱᒃ (2018-2021) ᑐᓴᕈᒪᖅᑕᕐᓂᐅᕐᓂᑦ ᑕᑯᓕᐊᖅᑕᐅᓂᐊᖅᑐᖅ ᓄᓇᕗᐅᔪᓄᑦ (ᐃᓕᓴ 2022)
ᓂᐅᐸᐅᓪᓕᓐ ᐊᓚᓗᓇ ᓕᐸᑐᐊ	ᑐᓴᕋᓐᓂᐅᕐᓂᑦ ᐱᑎᐊᖅᓂᐊᕋᓱᑎᐅᕐᓂᑦ 2022-ᒥ	ᐱᓕᕆᖅᑎᑲᑎᒪᔨᓂᒃ ᑐᓴᕋᓐᓂᐅᖅᑎᓂᐅᒃ ᐊᐃᑐᑐᖅᓯᒪᔨᒥ ᑲᓱᒪᑐᓐᓂᒃ (ᓂᓚᐅᑎᑲᑎᒪᔨᖅ 2022)

ᐊᖏᑭᐊᓗᐊᓪᓚᑦ

ᓂᕆᔨᒋᓂᖅ ᐅᓇᓱᐊᓂᖅᓯᒪᔨᓪᓗᒍᓐᓇᕐᓂᖅ
ᐊᐅᓚᑎᑦᓴᐃᓂᖅᓴᐅᑦ
ᑎᒍᖃᐅᔨᒪᔨᓪᓚ ᐃᓚᖓᓂᓂ 69 ᓂᕆᔨᒋᓂᖅ ᐅᓇᓱᐊᓂᖅᓯᒪᔭᖏᓐᓇᓕᓂᑦ
ᐱᕆᔨᖓᓂᓂ (SARA)

ᐊᐅᓚᑎᑦᓴᐃᓂᖅᓴᖅ ᓇᓕᓕᓗᓂᕆᑎᑦ (*Ursus maritimus*) ᖃᓇᑕᒥ

ᓇᓕᖅ



2022

ᐊᑐᓪᓗᐅᒋᔪᓪ:

ᐊᐸᑎᓕᕆᓂᖅ ᐊᖏᓚᓗ ᓯᓚ ᐊᓯᔨᕐᓂᖏᓐᓄᓪ ᑲᓇᑕᒥ. 2022. ᐊᐅᓪᓚᑎᐅᔪᑎᖃᓄᓪ ᓇᓄᕐᓄᓪ (*Ursus maritimus*) ᑲᓇᑕᒥ [ᐊᖅᑭᑎᐊᓕᐊᓪᒃᑎ]. ᓂᕐᔪᑎᓄᑦ ᐅᓗᓕᐊᓇ ᖃᑐᒍᓄ ᖃᑐᓄᑦ ᐱᖓᓱᖅ ᐊᐅᓪᓚᑎᐅᔪᑎᖃᐃᓪᓄᑦ ᐊᒥᓱᑦ. ᐊᐸᑎᓕᕆᓂᖅ ᐊᖏᓚᓗ ᓯᓚ ᐊᓯᔨᕐᓕᐊᓂᖓᓐᓂᓂᓪ ᑲᓇᑕᒥ. ᐃᑐᐸᓰ. xx + XX ᒪᕐᐱᒐᑦ.

ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᖅ ᓴᖅᑭᖅᑕᐅᓯᒪᓂᖓᓐᓄ

ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᖅ ᐅᑎᖅᑎᑦᑎᓇᓯᐊᓂᕐᒧᑦ ᑎᑎᕆᖅᓯᒪᔪᑦ ᓴᖅᑭᖅᑕᐅᑭᖅᓯᒪᔪᑦ PDF–ᖃᓄᐃᓂ. ᐊᓯᖏᑦ ᖃᐅᔨᑎᐊᕐᕕᓴᐃᓇᐃᔪᑦ ᐃᓕᓴᐅᔾᔨᓂᑦ ᐅᑉᓗᒥᒧᑦ ᓴᖅᑭᖅᑕᐅᑎᑉᓗᑦ ᑎᑎᖅᑲᐃᔪᑦ

ᓇᓗᓇᐃᖅᑕᐅᑭᖅᓯᒪᓂᕐᒥᖅ ᓴᖅᑭᑕᐅᓯᒪᔪᑦ

ᓇᓗᓇᐃᖅᑕᐅᑭᖅᓯᒪᓂᕐᒥᑦ ᐅᑎᖅᑎᑦᑎᓇᓯᐊᓂᕐᒧᑦ ᑎᑎᕆᖅᓯᒪᔪᑦ ᓴᖅᑭᖅᑕᐅᑭᖅᓯᒪᔪᑦ HTML–ᖃᓄᐃᓂ. ᐊᓯᖏᑦ ᖃᐅᔨᑎᐊᕐᕕᓴᐃᓇᐃᔪᑦ ᐃᓕᓴᐅᔾᔨᓂᑦ ᐅᑉᓗᒥᒧᑦ ᓴᖅᑭᖅᑕᐅᑎᑉᓗᑦ ᑎᑎᖅᑲᐃᔪᑦ.

ᐊᐱᖓᓱᓂ ᐊᐅᓪᓚᑎᐅᔪᑎᖃᓄᓪ, ᐅᕝᕙᓗᓂᓂᓂ ᐱᔪᒪᔪᖅᑲᑲᓂᓂᖅᑲᑦ ᓂᕐᔪᑎᑐᑦ ᐅᓗᓚᐊᓇᖅᑐᒍᑦᑕᒍᓂ, ᐱᖅᓯᐅᑎᑉᓗᓂᑦ ᑲᑎᒪᔨᕿᑦ ᖃᓇᐅᔪᓕᕐᓂᖅᓂᓂᓂ ᐅᓗᓚᓇᖅᑐᒍᑦᑕᒍᓂᓪ ᐅᒪᔨᔪᓂ ᑲᓇᑕᒥ (COSEWIC) ᖃᓇᐅᔪᓕᕐᓂᖅᓂᓂᓪ ᐅᓂᖀᑦ, ᓇᒃᑑᓂᖅᓂᓂ ᓇᓗᓇᐃᔾᖅᓯᒪᔪᓂᖅ, ᐱᑎᐊᑭᑎᑦᓂᖅ, ᐊᓯᖏᓐᓂᑉᓗ ᑕᐃᒪᐃᑦᑐᒍᒪᔪᓂᖅ ᐸᐃᑦᐸᓂᓂᑦ, ᐅᐳᖓ ᖃᐅᔨᑎᐊᑭᓇᖅᑐᒍᑎᑦ ᖃᕆᔨᐅᔾᔨᓂᖅ Species at Risk (SAR) Public Registry1.

ᓯᓚᐱᐊᑭᓐᓄᑦ: © ᑕᐃᔨᑎᑎ ᒪᒋᑦᓯ (ᐊᐸᑎᓕᕆᓂᖅ ᐊᖏᓚᓗ ᓯᓚ ᐊᓯᔨᐸᓕᐊᓂᓐᓄ ᑲᓇᑕᒥ)

Également disponible en français sous le titre

« Plan de gestion de l’ours blanc (Ursus maritimus) au Canada »

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[1] https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html

ᐊᐅᓪᓕᖅᑎᑦᓴᐃᓇᖅᑐᑦ ᓇᓂᓕᕆᓂᖅᓯᒪᑦ

(*Ursus maritimus*) ᑲᓇᑕᒥ

2022

ᐃᓗᐊᓂ ᒪᓕᑦᓴᐃᑦ <ᖃᑭᕆᐅᓂᖅᓯᒪᑦ ᓂᕐᔪᑎᓂᑦ ᐅᓗᓕᕆᓇᖅᑐᒃᑦᑐᑦ (1996), ᑲᓛᒪᑐᖅᑲᓐᓂ, ᑲᓇᑕᒥ ᐊᐃᑦᑐᖅᓯᒪᔪᓂᖅ ᐅᑭᐅᖅᑕᖅᑐᒥᓪᓗ ᑲᓛᒪᖏᓐᓂ ᐊᖏᕆᖅᑎᓪᓕᐅᖅᓯᒪᔪᓂ ᐱᓕᕆᖅᑎᓪᓂᐊᖅᑐᑎᑦ ᒪᓕᑦᑕᐅᓂᐊᖅᑐᓂᖅ, ᐃᑲᔪᑎᑦᓴᓂᖅ ᐱᕐᕈᕐᓂᓪᓗ <ᖃᑭᕆᐅᕐᕈᓗᓕᑦ ᓂᕐᔪᑏᑦ ᐅᓗᓕᕆᓇᖅᑐᒃᑦᒍᓐᓇᖅᑐᑦ ᑲᓇᑕᒥ.

ᐱᓕᕆᖅᑎᓪᓂᐊᖅᑐᑎᑦ ᒪᓕᑦᑎᓂᑦ, ᐃᓐᓇᒪᑦᑐᓂᖅ ᑭᑦᓕᕆᖅᐊᖅᑎᖅᑎᒥᒪᑕ (ᑲᓛᒪᖅᓄᖏᑦ ᐋᑲᖅ, ᓄᓇᑦᑎᐊᖅ, ᓄᓇᕗᑦ, ᐊᐢᑎᐅᑕᓂᔪ ᐊᓚᒪᓗ ᓄᐸᐃᖅ), ᐊᓚᒪᓗ ᐃᓐᓇᒪᑦᑐᓂᑦ ᓂᕐᔪᑎᓂᕆᓂᖅᑎᑦ ᐅᑕᒪᔪᓂᕆᔪᐊᖅᓄᑦ ᑲᑎᒪᔨᖏᑦᑕ (WMB), ᐅᖅᐅᓴᔨᐸᐊᖅᑐᑦ ᑲᑎᒪᓗ ᓄᓇᖅᑲᖅᑐᒃᑦᑎᓕᑦ ᑲᓛᒪᖅᓄᖏᑐᓂ ᑕᒪᖅᓄᐊ ᑭᑦᓕᖏᑐᓂ, ᐊᖏᕆᖅᓯᒪᒪᒥᑕ ᑲᓇᑕᐅᑦ ᑲᓛᒪᖅᓄᖏᑐᓄᓕᑦ ᑎᑎᕋᔭᖅᑐᓂᑦ ᐊᐅᓚᓯᔭᓄᖅᑐᓂᑦ ᐃᒥᓯᖅᑎᑦᑎᐊᖅᓄᓯᐊᕐᓂᖅᓯᒪᑦ ᐸᖅᓇᐅᑎᓂᒃ ᓇᓂᓕᕆᖅᑐᓄᑦ (Ursus maritimus) (ᐃᓕᓐᓂᑦ 2, 3, 5 ᑲᓚᒪᓗ 6) ᐃᓗᐊᓄᑦᑐᑦ 69 ᓂᕐᔪᑎᓂᑦ ᐅᓗᓕᕆᓇᖅᑐᒃᑦᑎᑦᑐᓄᑦ ᐱᖅᓯᖅᓂᑦ (SARA). ᐊᐢᑎᑎᓕᔭᖅᓄᑦ ᑲᑎᒪᓗ ᓯᓚ ᐊᓯᔨᐸᖅᓕᓕᐊᓂᖏᓐᓄᑦ ᑲᓛᒪᒃᑦ ᑲᓇᑕᒥ ᐱᖅᓯᖅᓂᑦ (SARA) ᑲᑎᒪᔨᖏᑦᑐᖅᓯᒪᔪᓂᑦ ᐃᓕᓐᓂᖏᓐ 1) ᐱᔭᕆᖅᓯᔪᐅᐸᓕᓐᓂᒃ ᓂᕐᔪᑎᓂᑦ ᐅᓗᓕᕆᓇᖅᑐᒃᑦᑐᓄᑦ ᐱᖅᓯᖅᓂᑦ (SARA) ᐊᐅᓚᓯᑎᐅᑎᓕᐅᖅᑕᐅᑭᐊᖅᑎᖅᓴᓕᒪ. ᓇᓄᐃᑦ ᐊᒥᓯᖅᑎᑕᐅᓴᒃᑲᓂᕆᔨᐊᖅᓯᖏᓐᓄᑦ <ᖃᓇᐅᑎᑦ ᐊᐅᓚᓯᑎᐅᑎᓚᐅᓕᒃ ᑎᑎᕋᖅᑕᐅᓀᖅᑐᑦ ᑲᓛᒪᖅᓄᓄᑦ ᐃᓄᑐᐸᒥ ᑲᑎᒪᓗ ᓄᐸᓕᓀ ᑲᑎᒪᓗ ᓀᐸᑐᐊᒥ, ᑎᑐᐅᓕᖅᓓᓕᐅᓗ ᐃᓕᓐᓂᑦ 4 ᑲᑎᒪᓗ 7 ᑲᑎᒪᓗ ᓇᓄᓕᕆᓂᖅᓯᒪᑦ ᐊᐅᓚᓯᑎᐅᑎᓚᐅᑦ ᑐᓂᔪᐅᓯᒪᓕᕆᓂᖅᑲᑕ ᐊᐢᑎᑎᓕᕆᓂᖅᓯᒪᑦ ᑲᑎᒪᓗ ᓯᓚ ᐊᓯᔨᐸᓕᓕᐊᓂᖏᓐᓄᑦ ᑲᓛᒪᒃᑦ.

ᑲᓛᒪᑐᖅᑲᓐᓂ ᐊᐅᓚᓯᑎᐅᑎᓚᖏᓐᓄᑦ ᓇᓄᓕᕆᓂᖅᓯᒪᑦ (*Ursus maritimus*) ᑲᓇᑕᒥ 7–ᖃᓚᒪᑕ ᐊᐃᑦᑐᖅᓯᒪᔪᓂᑦ:

ᐃᓕᓴᖏ 1 – ᑲᓇᑕᒥ:
ᑲᓛᒪᑐᖅᑲᓐᓂ ᐃᓕᓴᖏᓂᒃ ᐊᐅᓚᓯᑎᐅᑎᓚᓂᒃ ᓇᓄᓕᕆᓂᖅᓯᒪᑦ *(Ursus maritimus)* ᑲᓇᑕᒥ, ᑎᑎᕋᖅᑕᐅᔪᓚᔨᓂᑦ ᐊᐢᑎᑎᓕᕆᓇᖅᑐᖏᓐᓂ ᐊᓚᒪᓗ ᓯᓚ ᐊᓯᔨᐸᓕᓕᐊᓂᖏᓐᓄᑦ ᑲᓇᑕᒥ

ᐃᓕᓴᖏ 2 – ᐃᓄᐃᐊᓗᐃᑦ ᐊᖏᔪᑎᖏᓐᓂ:
ᐃᓄᐃᐊᓗᐃᑦ ᐊᖏᔪᑎᖏᓐᓄ ᓇᓄᓕᕆᓂᖅᓯᒪᑦ ᑲᑐᔨᓕᓗᑎᒃ ᐊᐅᓚᓯᑎᐅᑎᓚᓚᓄᑦ 2017, ᑎᑎᕋᖅᑕᐅᔪᓚᖅᑲᖅ ᐊᓕᓚᕐᓂᖏᓐᓂ ᐃᓄᐃᐊᓗᐃᑦ ᐊᖏᔪᑎᖏᓐᓄᖏᓐᓂ

ᐃᓕᓴᖏ 3 – ᓄᓇᕗᑦ:
ᓄᓇᕗᑦ ᓇᓄᓕᕆᓂᖅᓯᒪᑦ ᐊᐅᓚᓯᑎᐅᑎᓚᓕᐅᖅᑎᑎᒋᑦᑐᑦ, ᑎᑎᕋᖅᑕᐅᓕᓂᑦ ᓄᓇᕗᑦ ᓇᓄᓕᕆᓂᖅᓯᒪᑦ ᐊᐅᓚᓯᑎᐅᑎᓚᓕᐅᖅᑎᑎᒋᓂᖅᓯᒪᑦ <ᖃᓇᑦᑎᑦ

ᐃᓕᓴᖏ 4 – ᓯᓂᑐᐸ:
<ᐃᓪᓚᑦ ᐃᓗᐊᓄᖅᑲᖅᑕᐅᓯᒃᑐᓄᖅ ᐊᑐᖅᑕᐅᓕᓕᓗᑎᓗ ᐃᓕᓴᖏᓐᓄᑦ 4–ᒧᑦ ᑲᓇᑕᒥ ᓇᓄᓕᕆᓂᖅᓯᒪᑦ ᐊᐅᓚᓯᑎᐅᑎᓚᓕᐅᓂᖅᓯᒪᑦ ᐱᖅᐅᓂᒪᓕᕆᖅᑲᑕ ᐊᐢᑎᑎᓕᕆᓂᖅᓯᒪᑦ ᑲᑎᒪᓗ ᓯᓚ ᐊᓯᔨᐸᓕᓕᐊᓂᖏᓐᓄᑦ ᑲᓇᑕᒥ ᐃᓕᓐᓂᐸᓐᓇᖅᑐᑦ

ᐃᓕᖏᑉ 5 – ᐊᓐᑎᐅᓇᓂ:
ᐃᓕᖏᑦ A: ᑲᓀᒪᑯᑦ ᑭᐅᓂᓚᐅᖅᓱᒻᒪᕆᑦ ᐊᒥᓯᕗᖅᑎᑕᐅᖅᑲᓐᓂᕐᓯᐊᖅᓂᖅᓴᑦ ᕿᖏᐅᑎᖏᑦ ᓀᓄᖅᓂᑦ, ᑎᑎᕆᖅᑕᐅᓱᒪᓕᕐᓂᑎᑦ ᐊᓐᑎᐅᓇᓂ ᒥᓀᓚᑕᖏᓐᓄᑦ ᓄᓇᓕᓇᓂᖅᓴᑦ ᐊᒻᒪᓗ ᓀᐸᖅᑐᓕᓇᓂᖅᓴᑦ (2016)(ᐅᒪᔨᑦ–ᓇᓗᓇᐃᖅᓯᓱᒪᔨᑦ ᐱᖅᔪᖅᖏᑦ)
ᐃᓕᖏᑦ B: ᐊᒥᓯᕗᖅᑎᑕᐅᖅᑲᓐᓂᕐᓯᐊᖅᓂᖅᓴᑦ ᕿᖅᓀᐅᑎᖏᑦ ᓀᓄᖅᓂᑦ, (*Ursus maritimus*) ᐊᓐᑎᐅᓇᔨᒥ, ᑎᑎᕆᖅᑕᐅᓱᒪᔨᑦ ᑐᖏᓕ ᐊᒻᒪᓗ ᐱᑦ> (M.B. Tonge ᐊᒻᒪᓗ T.L. Pulfer) (2011) (ᐱᕆᓇᐊᑐᔨᓕᓂᖅᓴᑦ ᐅᖄᐅᔪᓕᐊᓇᓂᖏᑦ)

ᐃᓕᖏᑉ 6 – ᓂᕿᐃ-ᐅᔨ (Québec-Eeyou) ᐃᒪᓕᓇᓂᕐᒥᑦ -ᓄᓇᕆᑦ ᐃᒪᓕᓇᓂᕐᒥᒃ:
ᐊᐅᓪᓕᐣᔨᐅᑎᑦᓴᓂᑦ ᓇᓄᓕᓇᓂᖅᓴᑦ (*Ursus maritimus*) ᓂᕿᐃᓕᒻᒥ, ᐅᔨ ᐃᒪᓕᓇᓂᖅᓴᑦ ᐊᒻᒪᓗ ᓄᓇᕆᑦ ᐃᒪᓕᓇᓂᖅᓴᑦ, ᑎᑎᕆᖅᑕᐅᓱᒪᔨᑦ ᓂᕿᐃ – ᐅᔨ ᐃᒪᓕᓇᓂᖅᓴᑦ – ᓄᓇᕆᑦ ᐃᒪᓕᓇᓂᖅᓴᑦ ᓇᓄᓕᓇᓂᖅᓴᓪᓗ ᕿᖏᓪᓕᑎᓄᑦ

ᐃᓕᖏᑉ 7 – ᓄᕿᓪᓕᓪᓕᐊᓗᓐ:
ᕿᐃᓪᕿᑦ ᐃᓗᐊᓄᖅᑲᖅᑕᐅᓪᓕᖅᑐᖅ ᐊᑐᖅᑕᐅᓕᓪᓗᑎᓪᓗ ᐃᓕᖏᓐᓄᑦ 7 ᑲᓇᑕᒥ ᓇᓄᓕᓇᓂᖅᓴᑦ ᐊᐅᓪᓕᐣᔨᐅᑎᑦᓴᓂᑦ ᐱᖅᐅᓪᓕᓇᖅᑲᑕ ᐊᕿᑎᓕᓇᓂᖅᓴᑦ ᐊᒻᒪᓗ ᓂᓪ ᐊᓂᔨᓪᓕᐊᓂᖏᓐᓄᑦ ᑲᓇᑕᒥ ᑕᒻᓂᐊᓂᖅᓯᓕᓂᖅᓴᑦ ᐊᒻᒪᓗ ᓪᓚᕆᑦ ᓪᓚᑐᐊᒥ

ᐃᓗᓕᖏᑦ

ᐃᓚᖓᑕ 1: ᑲᓭᒪᑐᖅᑲᑦ ᐃᓚᖓᔪᓂ ᐊᐅᓚᑦᑎᐊᑎᓴᓂᒃ ᓇᓄᓕᕆᓂᖅᓴᓪᓗᑦ *(Ursus maritimus)* ᑲᓇᑕᒥ, ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᐊᓭᑎᓕᕆᓚᐅᖅᑯᑉᓂ ᐊᓪᓚᒐᓗ ᓯᓚ ᐊᓯᐅᓴᐸᓕᐊᓂᖖᖓᓄᑦᓂᓗᑦ ᑲᓇᑕᒥ 1

ᐃᓕᓴᕆᓚᐅᖅᓯᑦ ..... **Error! Bookmark not defined.**

1. COSEWIC ᓂᕆᔨᑎᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᖏᓐᓄᓂᑦ ᑐᑭᓯᑎᐊᕐᑏᑎᑦ 6
2. ᐅᒪᔨᑦ ᖃᓄᐃᓕᓐᓄᑦᓂᖏᓐᓄᓂᑦ ᑐᑭᓯᑎᐊᕐᑏᑎᑦ 7
3. ᐅᒪᔨᐃᑦ ᒥᓴᓄᑦ ᑐᑭᓯᑎᐊᕐᑏᑎᑦ 9
4. ᐅᓗᓕᐊᓇᕐᑏᑎᑦ 15
5. ᐊᐅᓚᑦᑎᐊᑎᓴᓄᑦ ᑐᖁᓚᐃᑦ 30
6. ᐊᓯᖏᓐᓂᓂ ᕿᓇᐅᑎᓕᐊᖓᔪᓕᑦ ᐊᐅᓚᑦᑎᐊᑎᓄᓗᓐ ᐱᒋᐊᕐᑕᐅᓯᒪᔪᑦ 31
7. ᖃᐅᔨᓴᖅᑕᐅᓂᖏᓐᓄᑦ ᐱᓂᓕᓕᐊᓂᖏᓐᓄᑦ 48
8. ᐊᑦᑐᖅᑕᐅᓂᖏᓐᓄᑦ ᐊᓂᖁᑎᒃᑲ ᐊᓯᖏᓐᓕᓗ ᐅᒪᔨᑦ 49
9. ᖃᐅᔨᓴᒋᐊᖅᑕᐅᓯᐅᓇᖅᑐᑦ 51

ᐃᓚᖓᑕ 2: ᐃᓄᐃᐊᓗᐃᑦ ᐊᖏᕈᑎᖓᓐᓄ ᓇᓄᓕᕆᓂᖅᓴᓪᓗᑦ ᑲᑐᔨᓕᓗᑎᑦ ᐊᐅᓚᑦᑎᐊᑎᓴᓂᒃ, ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᑲᑐᔨᓕᓗᑎᑦ ᐊᓕᓚᐃᖓᑦᓂᓂ ᐃᓄᐃᐊᓗᐃᑦ ᐊᖏᕈᑎᖓᓐᓄᑦ 1

ᐃᓚᖓᑕ 3: ᓇᓄᓕᕆᓂᖅᓴᓪᓗᑦ ᐊᐅᓚᑦᑎᐊᑎᓴᐅᑉᖃᑎᒌᓂᖅᓴᓪᓗᑦ, ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᓄᓇᕗᒻᒥ ᓇᓄᓕᕆᓂᖅᓴᓪᓗᑦ ᐊᐅᓚᑦᑎᐊᑎᓴᓂᐅᑉᖃᑎᒌᓂᑕᑦ ᕿᓇᒃᑲᑦ 1

ᐃᓚᖓᑕ 4: ᐊᒥᓱᕈᖅᑎᑕᐅᓴᖃᐃᓐᓂᖅᓴᓪᓗᑦ ᕿᓇᐅᑉᑲᑦ ᓇᓄᓕᕆᓂᖅᓴᓪᓗᑦ (*Ursus maritimus*) ᐃᓂᑐᐸᒥ 1

ᐃᓚᖓᑕ 5A: ᑲᓭᒪᓄᑦ ᑭᐅᓂᖓᑦ ᐅᖃᐅᓱᖅᓴᑦ ᐊᒥᓱᕈᖅᑎᑕᑎᑲᓂᖃᐃᓐᓂᖅᓴᓪᓗᑦ ᕿᓇᐅᑉᑲᑦ ᓇᓄᓕᕆᓂᖅ, ᑎᑎᕋᖅᑕᐅᓯᒪᔪᖅ ᐊᓂᑎᐅᓇᐸᒥ ᒥᓂᑕᖓᓄᓄ ᓄᓇᕗᒻᒥᓴᓪᓗᑦ ᓇᐸᖅᑐᓂᓗᑦ (2016) (ᐅᒪᔨᑦ-ᓇᓗᓇᐃᖅᓱᒪᔪᑦ ᐱᕐᒋᐃᐃᑦ) 1

ᐃᓚᖓᑕ 5B: ᐊᒥᓱᕈᖅᑎᑕᑎᑲᓂᖃᐃᓐᓂᖅᓴᓪᓗᑦ ᕿᓇᐅᑎᑦ ᓇᓄᓕᕆᓂᖅᓴᓪᓗᑦ (*Ursus maritimus*) ᐊᓂᑎᐅᓇᐸᒥ, ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ (M.B.) ᑕᓂᐊᒪᓗ (T.L.) ᓴᓂᓴ (2011) (ᐱᕆᐊᑕᑐᓄᓂᖅᓴᓪᓗᑦ ᐅᖃᐅᓱᐃᓕᐊᓇᓂᖏᓐᓄᑦ) 1

ᐃᓚᖓᑕ 6: ᐊᐅᓚᑦᑎᐊᑎᓴᓂᒃ ᓇᓄᓕᕆᓂᖅᓴᓪᓗᑦ (*Ursus maritimus*) ᑯᐸᐃᒪᒥ, ᐃᓱᒋ ᐃᓚᒌᓇᓂᖅᓴᓪᓗᑦ ᐊᒪᓚᓗ ᓄᓇᕗᒻᒥᓂᒃ ᐃᓚᒌᓇᓂᖅᓴᓪᓗᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᑯᐸᐃ-ᐃᓱᒋ ᐃᓚᒌᓇᓂᖅᓴᓪᓗᑦ - ᓄᓇᕗᒻᒥ ᐃᓚᒌᓇᓂᖅᓴᓪᓗᑦ ᓇᓄᓕᕆᓂᖅᓴᓪᓗᓴᓗ ᕿᓇᑦᑎᓄᓂ 1

ᐃᓚᖓᑕ 7: ᐊᐅᓚᑦᑎᐊᑎᓴᓂᒃ ᓇᓄᓕᕆᓂᖅᓴᓪᓗᑦ (*Ursus maritimus*) ᑕᐃᖅᓂ ᓄᐸᓕᓐᓂᑦ ᐊᒪᓚᓗ ᓂᐸᑐᐊᒥ 1

DRAFT

ᐃᓕᖓ 1: ᓴᖅᓯᒪᑐᖅᑯᑦ ᐃᓕᖓᔪᓂ ᐊᐅᓪᓗᐊᑎᓴᓂᖅ ᓇᓄᓕᕆᓂᖏᓪᒧᑦ *(Ursus maritimus)* ᑲᓇᑕᒥ, ᑎᑎᕐᖅᑕᐅᔨᒪᔨᑦ ᐊᖏᑎᓕᕆᔨᖅᑯᔪᓂ ᐊᒻᒪᓗ ᔪᓚ ᐊᓯᔾᔨᐸᓪᓕᐊᓂᖓᔪᓄᑦ ᑲᓇᑕᒥ

ᓇᓗᓇᐃᖅᓯᔾᔪᑦ ᑭᓯᓂᖓᓂᓂ ᑕᓂᓇ

ᓴᖏᒪᑐᖅᑯᑦ, ᑲᓇᑕᒥ ᐊᐃᓵᑦᑐᖅᓯᒪᔾᔪᑦ ᐅᑭᐅᖅᑕᖅᑐᑎᓪᓗᒍ ᓴᖏᒪᖓᑦ ᐊᑎᓕᐅᖅᑎᑦᓯᐅᑦᑐᖅᓯᒪᔾᔪᑦ Accord for the Protection of Species at Risk (1996)[2] ᐊᖓᑭᖅᑎᑦᑐᑎᑦ ᐃᓅᖅᑭᖅᑎᑦᓂᓂᕐᔪᐊᖅᑐᑎᑦ ᒪᓕᒃᓴᑦ ᐃᑲᔪᑎᓂᓪᓗᒍ ᐊᑐᐃᓂᓕᐅᕆᓂᐊᖅᑐᓂᒃ <ᖅᑭᕐᕆᐊᑎᓂᓪᓗᒍ ᐅᒪᔪᓂᒃ ᐅᓗᓕᓇᓕᖅᑐᑦᑐᑐᓂᒃ ᑲᓇᑕᓂ. ᐃᓗᐊᓂᑦ ᓂᔪᓴᑦ ᐅᓗᓇᐊᓕ ᖅᑐᑦᑦᑐᑐᓂ ᐱᖓᓱᓇᐅᖅᑐᓂ (S.C. 2002, c.29) (SARA), ᓴᖏᒪᑐᖅᑯᑦ ᖅᐅᕆᒪᑎᐊᖅᑐᑦ ᒥᓵᑕᐃᑦ ᑲᒪᔾᔪᓂ ᑎᑎᕋᐅᖅᓂᖓᓂᒃ ᐊᐅᓪᓕᑎᐊᑎᓴᐃᓪ ᑎᑎᕋᐅᖅᓂᖓᓂᒃ ᐅᓂᒃᑲᓂᕐᔪᐊᖅᑐᑦᑐᑐᓂᒃ ᓂᔪᓴᑦ ᐃᓕᒪᓗᓇᖅᑐᑦᑦᑐᑐᓂᒃ ᐊᐅᓪᓕᑎᐊᑎᓴᐃᓪ ᑎᑎᕋᐅᖅᓂᖓᓂᒃ ᐅᑭᐅᖅᑕᐃᓕᓕᓪ ᐱᓕᕆᔨᓂᖓᓂᒃ ᐅᖅᑕᓪᓚᑦᓯᐊᖅᑐᑎᓪᓗᒍ ᑭᓪᓚᒃᑐᖅᑐᑦᑦᑐᑐᓂᒃ ᐅᑭᐅᖅᑕᐃᓕᓕᓪ ᐱᓕᕆᔨᓂᖓ

ᑲᔪᓯᑎᐊᖏᓂᐊᖅᑲᑕ ᐱᐅᖅᓯᐊᓂᖏᑦ ᓂᖏᐸᑎᓂᑲ ᒪᓕᓪᑐᑦ ᐱᓕᕆᔨᒪᓂᖅᓯᓂᔪᓂᓪᓕ ᐊᒥᓯᑦ ᑎᒥᐅᔪ ᐃᓕᓕᔾᐅᓂᐊᖅᑐᑦ ᐊᑐᓕᖅᑎᓂᑎᓂᖏᒥᑦ ᑲᒪᕈᑦᓴᐊᓕᕆᓂᖏᓐᓂ ᐊᓕᕆᓂᖏᓐᓂ ᑲᑎᒪᔨᓂᖅᓯᒪᓂᖏᓐᓂ ᐊᑐᓕᖅᑎᓂᑎᓂᖏᒥᑦ ᑲᑎᒪᔨᓂᖅᓯᒪᓂᖏᓐᓂ ᑲᑎᒪᓪᓗ ᓯᓕ ᐊᓯᔪᓂᓂᖅᓯᒪᓂᖏᓐᓂ ᑲᑎᒪᓪᓗ ᑲᑕᒥ ᒥᓂᔪᓂᖅᓯᒪᓂᖏᓐᓂ ᐅᐸᓂᖅᑐᑦ, ᐅᐱᓂᒋᔭᓂᓂᑦ ᑭᓚᖅᑐᑐᓂᑐᖅ. ᑲᑕᒥᐅᑕᓚᒻᒪᑦ ᖃᐃᓂᔪᐅᔨᑦ ᐃᑲᔪᖅᑐᐃᓗᑎᑦ ᐊᐅᓚᖅᑎᓂᑎᓗᑎᓚᓪ ᐸᓂᖅᑐᐃᓂᖅ ᐃᑲᔨᑕᐅᑦᓴᖅᓯᑦ ᑲᑕᒥᐅᑕᓂᖓᓪᓚᑦ.

ᐊᑐᓚᖅᑎᑕᐅᓂᖏᑦ ᐊᐅᓪᓗᐊᑎᓴᐃᓪᓚᓂᑦ ᒪᓚᑦᑐᑦ ᓄᓪᒪᑦᑎᐊᕿᔨᓗᑎᓂᑦ, ᓯᐅᓪᓚᖅᐸᐅᑎᕆᓪᓚᓪ ᑭᓇᐅᔨᖅᑐᐃᓐᓇᑕᓪᓚᓪ ᑭᓚᓪᑐᖏᑦ ᒪᓚᑦᑐᐃᑦ ᑲᐃᔪᖅᑎᑎᑦᓴᖅ.

ᐃᓕᓴᕆᔨᐅᔪᓂ

ᓗᐊᖅ ᓯᒪᔪ, ᓴᓗ ᐊᐅᓚᑦ (ᐅᒪᔨᓕᕆᓇᔨᖏᔪᐊᓂ ᐊᓗᒪᓗ ᒪᓕᕆᓕᕆᓇᓗᓪᓕ, ᐅᒪᔨᓕᕆᓇᔨᖏᔪᐊᐅᑎᓂ ᑲᑎᒪᔨᖅᑐᑦ, ᑲᑕᒥ
ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂ) ᐊᓗᒪᓗ ᓄᑉᓂᑦ >ᑦᓪᑕᒃ (ᓂᖏᔪᑎᓂᒃ ᐅᓗᓕᐊᓇᖅᑐᓂᓂ ᐊᑐᓕᖅᑎᑎᓇᓪᓕ,
ᐅᒪᔨᓕᕆᓇᔨᖏᔪᐊᐅᑎᓂ ᑲᑎᒪᔨᖅᑭᒃ, ᑲᑕᒥ ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂ ᐱᔨᑎᑎᖅᑎᖅᑭᑦ) ᑲᒪᒋᐅᓪᓚᑎᓂ
ᖃᓄᒪᑐᖅᑎᓂᒃᑯᓂᖅᓯᒪᓂᖅ (ᐃᓕᓴᒃ 1) ᑲᑕᒥ ᓇᓄᓕᕆᓂᖏᓪᓕ ᐊᐅᓚᑦᑎᐊᑎᐊᓚᓄᓂ. ᑐᓂᓯᓂᒪᔨᓂ ᑭᐅᑕᓚᐃᓐ
ᓚᑕᓇᐅᔨᑭ, ᕿᐃᒃᓐ ᔨᓴᒍᓐ (ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂ ᒪᓕᕆᖃᓚᒍᓪ ᑲᒪᔨᓂ, ᐅᒪᔨᓕᕆᓇᔨᔨᐊᐅᑎᓂ ᑲᑎᒪᔨᖅᑭᑦ, ᑲᑕᒥ
ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂ ᐱᔨᑎᑎᖅᑎᖅᑭᑦ, ᐱᑕ ᕿᐊᐃᔨᓂ (ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂᒃᑯᓂᒪᔨᖅ ᐊᓗᒪᓗ ᒪᓕᕆᓕᕆᓇᔨᐅᑎᓂᓪᓕ,
ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂ ᑲᑎᒪᔨᖅᑭᒃ, ᑲᑕᒥᓗ ᐅᒪᔨᓕᕆᓇᓂᖅᓯᒪᓪ ᐱᔨᑎᑎᖅᑎᖅᑭᑦ, ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂ
ᐱᔨᑎᑎᖅᑎᖅᑭᑦ), ᓴᓪᓕᐊ ᓚᐃᑦ (ᓴᓪᓕᐊᓗᒃ ᐅᒪᔨᓕᕆᓇᓂᖅᓯᒪᓪ ᖃᐅᔨᓴᖅᑭᑦ, ᐅᒪᔨᓕᕆᓇᓂᖅᓯᒪᓪ ᐱᖁᔨᓂᓪᓕ
ᐱᓕᕆᖃᑎᖃᑦᑕᖅᑐᓗᓗ, ᑲᑕᒥ ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂ) ᓄᓇᓕᖅᑐᓂ (ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂᒃᑯᓂᒪᔨᖅ ᐊᓗᒪᓗ ᒪᓕᕆᓕᕆᓇᔨᐅᑎᓂᓪᓕ,
ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂ ᐱᔨᑎᑎᖅᑎᖅᑭᑦ, ᐃᑕ ᕼᐊᐃᔨᓂ (ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂᒃᑯᓂᒪᔨᖅ ᐊᓗᒪᓗ ᒪᓕᕆᓕᕆᓇᔨᐅᑎᓂᓪᓕ
ᐅᓗᓕᐊᓇᖅᑐᓂᒃᑯᓂᖅᓯᒪᓂᖅᑐᐃᓐᓇᔨᐅᑎᓂ, ᐅᒪᔨᓕᕆᓇᔨᔨᐊᐅᑎᓂ ᑲᑎᒪᔨᖅᑭᑦ, ᑲᑕᒥ ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂ
ᐱᔨᑎᑎᖅᑎᖅᑭᑦ), ᓴᓐᓇᓕᒃ (ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂᒃᑯᓂᒪᔨᖅ ᐊᓗᒪᓗ ᒪᓕᕆᓕᕆᓇᔨᐅᑎᓂᓪᓕ ᐱᔨᑎᑎᖅᑎᖅᑭᑦ,
ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂ ᐱᔨᑎᑎᖅᑎᖅᑭᑦ), ᐅᓐᓇ ᑕᐃᒪᓐᓇᖅᑐᓂ (ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂᒃᑯᓂᒪᔨᖅ ᐊᓗᒪᓗ ᒪᓕᕆᓕᕆᓇᔨᐅᑎᓂᓪᓕ
ᐱᔨᑎᑎᖅᑎᖅᑭᑦ), ᓴᓐᓇᓕᒃ ᒪᓕᒐᓂᖅ (ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂᒃᑯᓂᒪᔨᖅ ᐊᓗᒪᓗ ᒪᓕᕆᓕᕆᓇᔨᐅᑎᓂᓪᓕ), ᓂᐅᓚᓐᓇᓂᖅ
ᐊᓂᓐᓇᓂᖅ ᐊᓗᒪᓗ ᑕᐃᓂᐅᖅ ᕼᐊᓐᓄᓗ (ᓂᖏᔪᑎᓂᒃᑯᓂᒪᔨᖅ ᖃᐅᔨᓴᖅᑭᑦ, ᐅᒪᔨᓕᕆᓇᓂᖅᓯᒪᓪ ᓄᓇᓕᖅᑐᓂᓪᓕ ᖃᐅᔨᓴᖅᑭᑦ,
ᖃᐅᔨᓴᖅᑭᑦ ᐱᓴᓇᐊᑐᓕᕆᓇᔨᐅᑎᓂᓪᓕ), ᔪᐊᓐ ᑕᐅᖁᐅᑦ (ᐱᐅᓐᓇᖅᑐᓂᒃᑯᓂᒪᔨᖅ ᐃᑲᔪᐃᑭᑦ, ᐸᖅᑭᑎᑎᓂᓪᓕ ᓄᓇᓕᖅᑐᓂᓪᓕ
ᐱᓂᓐᓇᐊᓚᖅᑐᓂᒃᑯᓂᖅᓯᒪᓂᖅᑐᐃᓐᓇᔨᐅᑎᓂ, ᐅᒪᔨᓕᕆᓇᓂᖅᓯᒪᓪ ᓄᓇᓕᖅᑐᓂᓪᓕ ᐱᔨᑎᑎᖅᑎᖅᑭᑦ,
ᖃᓄᖅᑭᑐᖅᑎᓂᒃᑯᓂᖅᓯᒪᓂᖅᑐᐃᓐᓇᔨᐅᑎᓂ, ᐅᒪᔨᓕᕆᓇᔨᐅᑎᓂ ᐃᓄᐃᑦ ᐃᓄᐃᑦ ᐊᓗᒪᓗ ᐃᓄᐃᑦ ᐃᓄᐃᑦ
ᐃᓄᐃᑦ ᐊᓗᒪᓗ ᐃᓄᐃᑦ ᐃᓄᐃᑦ ᐊᓗᒪᓗ ᐃᓄᐃᑦ ᐃᓄᐃᑦ ᐊᓗᒪᓗ ᐃᓄᐃᑦ ᐃᓄᐃᑦ ᐊᓗᒪᓗ ᐃᓄᐃᑦ ᐃᓄᐃᑦ ᐊᓗᒪᓗ
ᐃᓄᐃᑦ

ᐊᐃᑦᑐᖃᓪᓚᕆᐊᓕᖅᑐᑦ, ᐅᑭᐅᕐᕆᕐᑐᒥ ᓴᖅᓯᒪᑐᖅᑲᓕᖅᑐᓗ ᓂᕆᓪᓕᔪᓐᓇᖅᑕᑕᓯᐅᕐᓂᖅᓯᓐᓄᑦ ᐱᓪᓇᖅᑕᐅᓂᖅᓯᔪᓕᓗ ᐊᕐᑭᑦᑎᓯᐅᑎᕆᓗᒃᑐᒃ ᑕᒪᒃᑯᓂᖅ:

- ᐃᓄᐃᓕᐊᓗᐃᑦ ᓂᕆᔨᐅᑎᓪᓗᒍᑦ ᑲᑎᒪᔨᖏᑦ
- ᐅᒪᔨᓪᓇᓂᓂᒪᓕᑦ ᐅᖅᐅᓵᔨᐸᖅᑎᑦ ᑲᑎᒪᔨᖏᑦ (North Slope)
- ᓴᐳᒃᑲ ᓴᖅᓯᒪᓂᖏᑦ
- ᐅᒪᔨᓪᓇᓂᓂᒪᓕᑦ ᐅᖅᐅᓵᔨᐸᖅᑎᑦ ᑲᑎᒪᔨᖏᑦ (ᓄᓇᕆᑎᐊᖅ)
- ᓄᓇᕆᑎᐊᔨ ᓴᖅᓯᒪᓂᖏᑦ
- ᓄᓇᓄᑦ ᐅᒪᔨᓪᓇᔨᔨᐊᓂᑦ ᑲᑎᒪᔨᖏᑦ
- ᓄᓇᓄᑦ ᑕᓐᖓᕕᓂᑦ
- ᓄᓇᓄᑦ ᓴᖅᓯᒪᓂᖏᑦ
- ᐃᓅᔪᑐᔨ ᓴᖅᓯᒪᓂᖏᑦ
- ᐊᓐᑎᐅᓇᔨ ᓴᖅᓯᒪᓂᖏᑦ
- ᒪᑭᕕᐅ ᓂᐊᓕᕆᓂᖏᑦ
- ᓄᓇᓄᑦ ᐃᓕᓪᓇᓂᓪᓕᑦ ᓂᕆᔨᐅᑎᓪᓇᓂᓪᓕᔪᓐᓇ ᑲᑎᒪᔨᖏᑦ
- ᐊᕐᔨ ᐃᓕᓪᓇᓂᓪᓕᑦ ᓂᕆᔨᐅᑎᓪᓇᓂᓪᓕᔪᓐᓇ ᑲᑎᒪᔨᖏᑦ
- ᓂᐊᐸᐃ ᓴᖅᓯᒪᓂᖏᑦ
- ᑐᖏᓐᖓᖅ ᐅᒪᔨᓪᓇᔨᓂᖅ, ᓄᓇᒥᓗ ᐱᑭᖅᑐᓂᓄᑦ ᐊᓚᒪᓗ ᐃᖅᓗᓪᓇᓪᓇᓂᓪᓕᑦ ᑲᒪᓐᓗ
- ᓄᓇᕐᔨᐊᕐᓂᑦ ᓴᖅᓯᒪᓂᖏᑦ
- ᓴᖅᓯᒪᓂᖏᑦ ᓄᐸᕐᓇᑦ ᓇᐸᓗᐊᑐ
- ᑲᓇᑕᐅᐸᑦ ᒥᖏᖅᐱᓪᓕᖅᑐᖏᑦ

ᑭᖓᔪᓕᖅᐸᒥᓕᓕᒫ, ᐃᑲᔨᖅᑭᒪᔨᓂ ᐃᓄᑐᐃᓐᓇᐃᑦ, ᓴᖅᓯᒪᐅᓕᖅᑎᓂᑐᑦ ᑲᑐᔾᔨᖅᑎᑎᑦ, ᓄᓇᖅᖁᑲᖅᑐᒥᓂᕐᒥ ᑲᑐᔾᔨᖅᑎᑎᑦ, ᖅᐅᔨᔪᖅᑎᑦᓯᓇᑦ ᐊᓯᖏᓐᓂᓗ ᐱᖅᑕᐅᔪᒪᓕᓕᒫ, ᓂᕆᓕᖅᑭᒪᔨᓂ ᐊᓚᒪᓗ ᐊᑐᓕᖅᑐᓗᒃ ᐅᖅᑭᑕᒪᑦᑎᐊᕆᓂᖅᓯᓐᓄᑦ ᐊᐅᓚᓕᑦᑑᒪᓂᖅᓯᓗ ᐃᓕᓴᕐᕕᐊᓂᖅᓯᒪᔪᓂᒃᑯᑦ ᐊᐅᓚᓕᑦᑑᒪᓂᖅᓯᓐᓄᑦ ᐃᓕᓐᓂᐊᕐ

ᐱᒋᐊᑭᐅᑦ ᐊᓯᔨᖅᑕᐅᓂᖏᓪᓗ ᐊᑐᖅᑕᐅᓂᐊᓪᓂᖅᑐᓄᓇᖅ ᑎᑎᕆᖅᓯᒪᔪᓂᒃ

ᑎᑎᕆᖅᓯᒪᔪᑦ ᐱᖅᓯᐅᑎᓯᒪᓕᒐᑦ ᑲᒪᕈᑎᐅᔨᖅᓯᒪᔪᓂᒃ ᓇᓗᓇᐃᔨᖅᓯᒪᔪᓂᒃ ᐱᓕᕆᐊᓪᓂᒃ ᓴᓕᒪᑐᖅᑯᓂᓂ
ᓂᕆᐅᓂᒃ ᐅᓗᓗ ᐊᓇ ᖃᑐᑕᓂᒃ ᐱᖓᓱᖏᓐᓂᒃ (SARA) ᑲᒪᕈᐅᓐᖏᑐᒋᐊᓐᓇᓇᐊᓪᓂ ᑭᓪᓕᖏᑦ ᒪᓪᓕᑐᒋᑦ
ᐊᐅᓪᓚᐅᑎᓯᐅᓕᓄᒃ ᐅᕐᓂᓇᓗᓂ ᐊᒥᓱᑐᖅᑎᑦᑎᐅᓂᕆᓯᐊᓂᓪᓗᑦ <ᕆᓇᐅᑦᑐᑦ ᓇᓂᓪᓄ (*Ursus maritimus*)
(ᐃᓪᓚᖏᑦ 2, 3, 5 ᐊᒻᒪᓗ 6 ᑕᕐᓂᓂ ᑎᑎᕆᖅᓯᒪᔪᓂᑦ, ᐅᖅᐅᓱᓪᓚᓂ ᑭᖓᔪᓂᖓᓂ “ᑭᓪᓕᖅᖃᑐᑦ
ᐊᐅᓪᓚᑎᓯᐅᓕᓄᓂᒃ ᐅᕐᓂᓇᓗᓂ ᐊᒥᓱᑐᖅᑎᑦᑎᐅᓂᕆᓯᐊᓂᓪᓗᑦ <ᕆᓇᐅᑦᑐᑦ”), ᐊᒻᒪᓗᓂᓂ ᐅᓪᓚᒥᓪᓗᑦ
ᐋᖅᑭᓱᓯᖅᓯᒪᔪᓂᒃ ᑐᓂᓱᓗᓂᒃ ᐅᕐᓂᓇᓗᓂ ᑐᑭᓱᓯᐊᐸᑎᓂᖅᓂᓂᑦ. ᐃᓪᓚᖓ 4 (ᐃᓂᔅᑐᐸ) ᐊᒻᒪᓗ 7 (ᑲᓪᐸᓪᓪᓕᑦ
ᓪᓕᐸᑐᐊᓗ) ᐃᓪᓕᓪᐅᓪᓴᐅᓪᓪᓕᖅᑐᑦ ᐊᑐᓕᖅᑕᐅᓗᑎᓪᓗ ᑲᒪᕈᑎᐅᓪᓚᓪᓗ ᐊᐅᓪᓚᑎᓯᐅᓕᓄᓂᒃ
ᐱᓴᐅᓱᒪᓕᖅᑲᒥ ᐊᐳᑎᓕᓪᓂᓪᓕᑦ ᐊᒻᒪᓗ ᓱᓪ ᐊᓱᓴᐸᓪᓕᐊᓂᖅᓴᓪᓂᒃ ᑲᓇᑕᒥ.

ᐃᓗᐊᓂ ᓂᕆᔨᑎᑦ ᐅᓗᓇᐊᓇᖅᑐᒃᓂᓪᓕᑦ ᐱᕆᐝᖏᑎᓂᓂ (SARA), ᐱᔨᓂᓇᑎᑦᑎᖏᑦᑐᑦ ᒪᓯᓂᖓ ᐸᖅᑭᑦᑎᓂᕆᑎᑦ
ᓂᕆᔨᑎᓂᒃ ᐊᒻᒪᓗ ᐃᓂᖏᑎᓂ ᐊᑐᖅᑕᐅᔪᓇᖏᑦᑐᑦ ᓂᕆᔨᑎᓂᑦ ᐃᓱᒪᓗᐃᑎᑦᑐᐅᔨᓂᒃ. ᐸᖅᑭᑦᑎᓂᓪᓕᑦ
ᑭᓪᓕᖏᑎᓂ ᐊᐅᓪᓚᑎᓯᐅᓕᓄᒃ ᑲᒪᔨᓂᒃ ᐸᖅᑭᑦᑎᓂᓪᓕᑦ ᐃᓕᒥᒃᓯᖅᑐᓂᒃ ᐊᒻᒪᓗ ᐃᓂᖏᑎᓂ ᐊᑐᖅᑕᐅᓗᑎᓪᓚᒃ
ᐊᑐᐊᑕᐃᑦ ᐱᐅᖅᓯᐊᑎᓕᕆᓂᖅᓴᓂᒃ ᑭᓯᐊᓂᓕ ᑕᐃᒪᐃᑦᑐᓴᖅᑐᑐᖅ ᓴᓂᒪᖅᑐᑦᑐᑦ ᐸᖅᑭᑦᑎᓂᓪᓕᑦ.

1. COSEWIC ᓂᕆᔨᑎᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᖏᓐᓄᑦ ᑐᑭᓯᓯᐊᑎᑦ

ᖃᐅᔨᓴᖅᑕᐅᓯᒪᔨᑦ ᓇᐃᔭᖅᑐᒍ ᐅᓂᒃᑲᑦ – ᑯᐃᐸᐱᓇ 2018[5]

ᑕᐃᔨᐅᐠᔨᓯᓇᒪᔨᑦᑕᖏᑦ
ᓇᓄᖅ

ᖃᐅᔨᓴᖅᑎᑦ ᑕᐃᔪᓯᖓ
Ursus maritimus

ᖃᓄᐃᓕᓵᖅᓴᓂᖏᑦ
ᐃᓯᒪᓄᓇᖅᑐᑦ

ᐱᐠᔨᑎᖏᑦ ᓇᓗᓇᐃᖅᑕᐅᔪᒪᓂᖏᑦ
ᖁᓂᑦᑎᓂᖅᓵᕐᖓᑕᐅᓐᓄᓂ ᓂᑭᖓᖅᓯᐅᖅᑎ ᑕᑎᖃᖅᐸᑦᑐᖅ ᐊᑐᐃᓇᓇᓂᑦ ᓯᓂᒥ
ᓂᑭᖓᖅᓯᐅᐃᒋᔨᒪᓂᖅᐱᐅᓐᓄᐅᓐᓄ–ᓯᓂᒥᑦᑐᓂᓂ ᓇᑦᑎᖅᓂᑦ. ᓯᓂᒥᓇᖏᓂᓂᖅᐱᐅᓐᖃᖅᑕᑦᑕᓚᖅᑐᓄᑐᓇᖅᑐᒃ ᓯᓚ
ᐅᖅᓂᒍᓯᓚᐅᓚᖅᓂᖅᑐᓂᒃ ᑲᓇᑕᐅᓐᓄᑦ ᐅᑭᐅᖅᑕᖅᑐᒃ, ᓂᑭᖓᖅᓯᐅᓇᖏᓂᓂᖅᐱᐅᖅᑕᑕᒪᓇᖅᑐᒃ ᑕᐃᒫᒃ,
ᑕᒪᓇᓇ ᐅᓗᓗᐊᓇᖅᓴᑎᑎᖓᒃ ᑕᐃᒪᐃᑦᑐᐃᓇᓇᖅᑲᑦ ᓇᓂᓪᓂᑦ. ᑭᓯᐊᓂᓚ, ᐊᑦᑐᐃᔨᔪᐊᖓᔪᓇᖅᓴᓂᑦ
ᑕᒪᒃᑯᓂᖓᒃ ᓇᓗᓇᖅᑐᖅ ᐊᒻᒪᓗ ᐊᓱᒋᖅᑕᑦᑕᓂᒪᒥᑦ ᓇᒋᓇᓂᓂᖅ. ᓇᓂᐃᑦ ᐊᒥᓱᓂᑦᑎᑦ ᐊᑭᓯᐅᑦᑎᓂᒃ
ᓇᒋᓇᓂᓂᖅ ᒧᓇᖅ, ᓇᓂᐃᑦ ᒥᔪᐊᑎᑎᓂᒃ ᑲᓇᑕᒥ ᖃᓄᐃᓕᓵᖅᓴᓂᖏᑦ ᑲᓇᑕᒥ COSEWIC
ᖃᐅᔨᓴᓪᓚᐅᖅᓯᒪᓂᓪᓕᑦ 2008–ᒥ ᐊᕐᓇᖅᑐᓂ ᖃᑦᑎᓇᐅᓂᖅᓴᐃᓚᐅᖅᓯᒪᔨᑦ ᐊᒻᒪᓗ ᖃᐅᔨᓴᐃᐅᓯᒪᔨᑦᑕᖏᑦ

[5] ᑯᐃᐸᐱᓇ 2018 COSEWIC ᓂᕆᔨᑎᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᖅᑐᓂ ᑐᑭᓯᐊᓂᖅᑐᑦ ᐱᖅᑭᒋᐊᓐᓇᓇᐊᓪᓂ ᑕᕐᓇᓇᖅᑐᑦ 2018–ᓪᓚᕆᓂᑦ ᓴᖅᑭᖅᖃᑕᐅᓯᒪᔨᓂᒃ COSEWIC
ᖃᐅᔨᐅᑎᒥᓂᓂᑦ ᖃᓄᐃᓕᓵᖅᓴᓂᖏᓂᓂᓪᓚᓂ ᐅᓂᒃᑲᓂᑦ ᓇᓄᐃᑦ *Ursus maritimus* ᑲᓇᑕᒥ.

ᐊᓯᔾᔨᖅᓯᒪᓕᖅᑐᑎᑦ. ᑕᐃᒪᐃᓐᓂᖅᓴᓄᑦ ᐊᒥᓱᓂᕐᓂᓂ ᑕᑎᑭᔾᔪᑎᐅᓪᓗᐊᓚᕐᑐᑦ ᐊᓯᔾᔨᑕᖅᑎᑦᓯᑦ ᖃᐅᔨᔪᖅᑕᐅᓯᒪᔪᓂᖅ ᑲᑎᒪᔨᖅ ᐊᒥᓱᓂᕐᓂᓂ. ᑲᑎᑦᑐᑦ ᐊᒥᓱᓂᕐᓂᑦ ᖃᓄᑕᒥ ᐅᖓᑖᓂᒃᓴᖓᓂᒡᓗᐃᔨᓚᐊᑦ 10,000 ᐃᓚᓇᐃᑦ. ATK ᓇᓗᓇᐃᖅᓯᓪᓚᐅᖅᑐᑦ ᖃᓄᐃᓚᕐᑐᑎᑦᓴᖅᑕ ᒥᓂᓇ ᐅᕙᓘᓐᓃᑦ ᐊᒥᓱᑲᑲᓂᕐᓂᖅᓴᐅᔪᑦ 13-ᓂᑦ ᐊᐅᓪᓕᑕᐅᔪᓂᑦ ᐊᕐᓇᑐᖅᓯᒪᔪᓂᑦ, ᖃᐅᔨᔪᖅᑎᑦᓱᓕᓴᓪᓗ ᖃᑦᑎᓚᓇᑲᖅᓯᓪᓗᓯᒪᓂᖅᐸᓪᓕᐊᔪᑦ ᑎᒥᖅᑐᑦ ᓯᖃᓂᖅᓴᐅᓕᑕᑎᓪᓗᑦ, ᐱᑲᖅᓯᓪᓗᐊᓕᑎᑦ, ᓯᓚᖅᑐᓂᖅᓴᐅᖃᑦᑕᓪᓗᖅᑎᓪᓗᒍᓗ ᐱᖓᓱᓂᑦ ᐊᐅᓪᓕᐅᔪᓂᑦ ᐊᖏᔪᑦᑐᖅᓯᒪᔪᓂᑦ ᓂᐅᒍᓂᑎᓂᑦ (ᐊᖏᖅᔪᒍᑦ 35) ᓯᓚᐃᖃᑦᑕᓪᓗᐊᖅᓯᓪᓗᐊᓂᖓᓐᓄᑦ. ᐅᓗᑎᐊᓕᖅᑐᒍᑕᓯᓕᖅᑐᑦ ᓯᑲᓂᑎᓂᑦ ᐱᖓᓱᓂᒡᓗᒍ ᑕᐃᒪᐃᓐᓂᖅᓴᐅᓂᖅ ᖃᐅᔨᔪᖅᑕᐅᓂᖅᑐᑦᓴᐊᖅᑐᑦ ᖃᐅᔨᔪᖅᑕᐅᖓᓂᕐᓂᓕᕆᓂᖅᓴᓪᓗᒍ.

ᑕᐃᒪᐃᓐᓇᖅᓂᖓ

ᐊᒃᑲᓐ, ᓄᓇᕐᑎᐊᖅ, ᓄᓇᕗᑦ, ᒥᓂᔅᑐᓪ, ᓯᓚᐅᑉᐳᓐ, ᐊᓐᑎᐅᑉᓱ, ᓯᐸᓐ, ᓅᐸᑦᓗᐸᓐᓇᖅᑐᑦ ᓴᓇᐸᓐᓇᖅᑐᑦ, ᐅᑭᐅᖅᑕᖅᑐᑦᓗ ᐃᒪᐃᖅᓯᒪᓂᖓᓐᓄᑦ.

ᖃᓄᐃᓚᔅᑕᖅᑕᐅᓯᒪᓂᖓᓐᓂᑦ

ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᓂᑦ ᐅᓗᓇᐊᓇᖅᑐᒍᑦᑐᖅᓯᐊᖓᑕ ᐊᐃᐳᓗ 1986-ᒥ. ᖃᓄᐃᓕᓴᓚᓪᓂᖓᓐᓂᑦ ᖁᒥᖁᑭᐅᑦᒃᓂᖅᑐᑎᑦ ᐊᓚᒪᓗ ᓇᓗᓇᐃᖅᑕᐅᓂᑕᓕᖅᓂᑦ ᐃᓯᒧᓗᓇᖅᓯᓂᖓᓐᓂᓂ ᐊᐃᐳᓗ 1991-ᒥ. ᖃᓄᐃᓕᓴᓚᓪᓂᖓᓐᓂᑦ ᖁᒥᖁᑭᐅᑦᒃᓂᖅᑕᑎᑦᓴᐊᖅᑐᑦ ᐊᐃᐳᓗ 1999-ᒥ, ᓄᓇᕕᓚᐅ 2002-ᒥ, ᐊᐃᐳᓗ 2008-ᒥ, ᐊᓚᒪᓗ ᓄᓇᕕᓚᐅ 2018-ᒥ.

2. ᐅᒪᔪᑦ ᖃᓄᐃᓕᓴᓚᓂᖓᓐᓂᓄᑦ ᑐᑭᓯᓯᐊᕈᑲᑦ

ᒥᔪᖅᑕᐅᓯᒪᔪᓂᑦ ᑕᒧᓂᖃᐃᐱ 60%-ᖓᓂᑦ ᓯᓚᖁᔪᐊᒥ ᐊᒥᓱᓂᖅᓴᓂᓂ ᓇᓄᐃᑦ ᑲᓇᑕᒫᑦᑐᑎᓂᑦ (ᐅᐃᒃet al. 2015; ᐅᐸᑦ et al. 2010). ᓯᓚᖁᔪᐊᒥ ᑲᑐᔪᖃᑎᒌᑦ ᐱᐅᖅᓯᐊᓂᖁᑦ ᓄᓇᓂᑦ (IUCN) ᓇᓗᓇᐃᖅᓯᓯᒪᔪᓂᑦ ᓇᓄᖁᑦ ᓯᓚᖁᔪᐊᒥ ᐊᑦᑐᖅᑕᐅᔪᓇᖁᓂᖓᓂᓄᑦ ᐅᓗᓇᐊᓇᖅᑐᑎᑦ (A3c) ᐱᔪᓐᓇᑎᓪᓗᑎᑦ ᖃᓄᐃᓕᓴᓚᓪᓂᖓᓐᓂᓂ ᓯᓚᖁᔪᐊᑦ ᓇᓄᖁᑦ ᓯᓄᐃᓇᖅᑎᐃᖃᑦᑕᓪᓂᖅᓴᓂᓂ ᐊᒧᓚᓗ ᐅᑭᐅᓄᑦ ᐊᒥᓱᐊᓗᓂᓄᑦ ᐱᐅᓂᖅᓴᓂᒡᓚᕐᓂᖓᓐᓂᑦ ᓄᓇᓄᑦ (ᐅᐃᒃet al. 2015). ᓯᓚᖁᔪᐊᒥ, ᑲᓇᑕᒥ, ᑲᓇᑕᐅᑦ ᐊᐃᑕᑦᑐᖅᓴᓂᓂ ᐅᑭᐅᖅᑕᖅᑐᑎᑦᓗᓗ ᓄᓇᑦᑎᑦᓯᓂᓂ (NatureServe) ᓇᑦᓂᓂᓂᓂᓂ ᓇᓄᐃᑦ ᓇᓗᓇᐃᔭᖅᓯᒪᔪᓂᑦ ᑎᑎᕋᖅᓯᒪᔪᓂᑦ 1-ᒥ, ᐊᑕᓂᓂ.

ᑎᑎᕋᖅᓯᒪᔪᓂᑦ 1. ᑎᑎᕋᖅᓯᒪᔪᓂᑦ ᓇᓗᓇᐃᖅᓯᒪᓪᓗᑎᓪᓗ NatureServe* ᖃᓄᐃᓕᑕᓕᓴᓂᓂᓂ ᓇᓄᐃᑦ.

ᐊᖏᔪᑦᑐᖅᓯᒪᓂᖓᓐᓂᑦ:	ᖃᓄᐃᓕᓴᓚᓪᓂᖓᓐᓂᑦ:
ᓯᓚᖁᔪᐊᖅ	G3 (ᐊᑦᑐᖅᑕᐅᔪᓇᓂᖅᐸᑦ)
ᑲᓇᑕ	N3
ᐊᒃᑲᓐ	S1
ᓄᓇᕐᑎᐊᖅ	S2S3
ᓄᓇᕗᑦ	S3

ᒪᓂᑐᑦ	S2
ᐊᓪᑎᐅᕆᔨ	S3
ᔪᐸᑦ	S2
ᓄᐸᓪᓚᑦ ᓯᐸᑐᐊᓗ	S2S3

* ᑕᑦᔪᐊ ᓇᓗᓇᐃᖅᓯᐅᑦ (NatureServe) ᓇᒻᓕᓂᖅᑭᓂᓂ ᓇᓄᓇᐃᔨᐃᓯᓚᐅᑦ ᐊᒥᓱᓂᖅᑭᓂᓂ 1–ᒥᑦ 5–ᒧᑦ, ᑎᑎᖅᑲᓂᑦ ᐱᔨᐅᓯᒪᔪᓕᓐᓂᑦ ᓇᒻᓂᖅᑭᓂᓂᓕᓗ ᖅᐅᔨᓴᖅᑕᐅᓯᒪᔪᓂᑲᑦ (G = ᓯᓚᖏᐊᖅ, N = ᓄᓇᕗᖏᐊᖅ, ᐊᒃᒪᓗ S = ᐊᐃᑦᑐᖅᓯᒪᔭᖅᑲᓂᖅᑐᓂᑲᑦ). ᐊᒥᓱᓂᖅᑭᓂ ᑐᑭᓯᓚᑦ ᐃᐃᒃᑦ: 1 = ᓄᖓᒍᐃᓄᓇᓕᐊᖅᖄᓚᐅᑦᑐᑦ, 2 = ᐅᓗᓕᐊᓇᖅᑐᒻᒪᖅᑐᑦ, 3 = ᐊᑦᑐᖅᑕᐅᓂᓇᖅᑐᑦ, 4 = ᐊᑦᑕᓇᐃᖅᓯᒪᔪᓚᑦᑐᑦ, 5 = ᐊᑦᑕᓇᐃᖅᓯᒪᔪᑦ.

ᑲᓇᑕᒥ, ᓇᓄᐃᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᓂᕆᔨᑎᑦ ᐃᓱᒪᓗᓇᖅᑐᒃᓴᓕᒥᑦ ᑲᑎᒪᔨᕐᓯᒪᓂᑦ ᖃᓄᐃᓕᓐᓂᕆᔨᖅᓯᓂᖅᑐᓂᑦ ᓂᕆᔨᑎᑦ ᑲᓇᑕᒥ (COSEWIC) 1991–ᒥ ᐃᓱᒪᓗᓇᖅᑐᑎᓪᓗ ᓇᓗᓇᐃᖅᑕᐅᓕᐅᖅᓯᒪᔪᓪᓗᑎᑦ ᑕᑯᔨᓇᖅᓴ COSEWIC–ᔨᓐᓄ 1999–ᒥ, 2002–ᒥ, 2008–ᒥ 2018–ᒥᓗ (COSEWIC 2018). ᓇᓄᐃᑦ ᓇᓗᓇᐃᖅᑕᐅᓪᓚᑎᑦ ᓂᕆᔨᑎᑦ ᐃᓱᒪᓗᓇᖅᑐᑐᓄᖅᓴᓂᓐᓂᑦ ᒪᓕᓪᑐᑎᑦ ᓂᕆᔨᑎᑦ ᐅᓗᓇᓕᓇᖅᑐᑦᑐᓪᓗᓕᒫᓂᖅ ᑲᓇᑕᒥ 2011–ᒥ (SOR/2011-23). ᐃᓱᒪᓗᓇᖅᑐᒥᑦ ᑎᑎᕋᖅᓯᒪᔪᑦ ᑕᕝᕙᓕᑕᐅᑎᑎᓪᓕᓚᓗᖅ ᑲᙵᒪᑐᖅᑕᖅᑐᑦ ᓄᖅᑲᖅᑎᑕᐅᕈᑕᐊᖅᓯᒪᓕᕐᓂᑦ – ᖃᒪᓕᕆᐅᓂᐊᑐᐃᓐᓇᐊᓕᓂᑦ ᓇᓄᐃᑦ ᑲᓇᑕᒥ ᑕᐃᒪᓗᖅ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᓚᒪᑕ ᒪᓕᓪᑐᑎᑦ. ᐃᓱᒪᓗᓇᖅᑐᒥᑦ ᑎᑎᕋᖅᓯᒪᔪᑦ ᑭᓯᓂᕐᓗᑎᑦ, ᐊᖅᑭᑦᓴᓚᐊᖅᑕᐅᓂᖅᑐᑦ ᑲᙵᒪᑐᖅᑕᖅᑐᑦᑐᓂᖅᓴᓂᓐᓂᑦ ᓂᕆᔨᑎᑦ ᐅᓗᓇᓕᓇᖅᑐᑦᑐᓪᓗᓕᒫᓂᖅ ᑐᓴᕐᓯᒪᓂᖅ ᐅᓗᓇᓕᓇᖅᑐᑦᑐᓪᓗᓕᒫᓂᖅ ᓂᕆᔨᑎᑦ ᐊᑎᓕᐅᖅᑐᑎᓪᓗᑎᑦ ᑲᙵᒪᑐᖅᑕᖅᑐᑦᑐᓪᓗᓕᒫᓂᖅ ᑐᓴᕐᓯᒪᓂᖅ ᐅᓗᓇᓕᓇᖅᑐᑦᑐᓪᓗᓕᒫᓂᖅ ᓂᕆᔨᑎᑦ ᐊᑎᓕᐅᖅᑐᑎᓪᓗᑎᑦ ᑲᙵᒪᑐᖅᑕᖅᑐᑦᑐᓪᓗᓕᒫᓂᖅ ᓂᕆᔨᑎᑦ ᑲᓇᑕᒥ ᐃᓱᒪᓗᓇᖅᑐᒥ

ᓇᓄᐃᑦ ᑎᑎᕃᖅᑭᒃᑯᑦ ᐃᓗᐊᓂ ᐃᓕᒍᑕᖏᓐᓂ II <ᖅᑭᑦᑎᓂᕐᓗᑎᑦ ᓯᓚᕐᔪᐊᒥ ᑕᐅᖅᓯᓂᕐᓗᑎᑦ ᓄᖓᑐᐃᓇᓕᒫᓂᑦ ᓂᕐᔪᑎᓂᑦ ᐱᑭᖅᑐᓂᑦ ᓄᓇᒥ (CITES) ᑎᑎᕃᖅᑕᐅᓯᒪᓕᖅᑐᑎᓪᓗ ᑕᐃᒪᓐᓇᑐ CITES ᐱᑎᐊᓕᐅᖅᓯᒪᓕᒪᑕ 1975–ᒥ. ᑕᒪᓐᓇ ᑐᑭᓯᑑᑦ ᓯᓚᕐᔪᐊᒥ ᐊᐅᓪᓚᓕᖅᑎᑕᐅᖅᑕᕐᓂᖅᑐᑦ ᓇᓄᐃᑦ ᐃᓕᖅᑐᓪᓚᓐᓂᑦ ᓯᓚᑦᑐᒃᑯᑎᑕᕆᐊᓕᓂᑦ ᑐᓴᐃᓂᐊᕐᓗᑎᑦ ᐊᓯᐊᓂᑦ (ᑲᓇᑕᐅᑦ ᓴᓇᒪᓂᖅᑐᑦ, 2017a). ᑲᓇᑕᒥ, CITES–ᓂᑦ ᐊᑐᓚᖅᑎᑦᑎᓪᓚᐅᖅᑕᕐᓂᖅᑐᑦ ᓴᓇᒪᑐᖅᑲᓂᓂᖅᑐᓄ ᑕᐅᓂᔪᓐ ᓂᕿᔪᑎᑐᓪᓚᑦ ᓴᓇᖅᑭᐅᓯᐊᖅᑎᓂᕐᓂ ᐊᓯᒪᓪᓚᑦ ᒪᓕᒪᓐᓗᐊᑦᑎᓪᓚᑦ ᑕᐅᖅᓯᓂᕐᓗᑎᑦ ᐱᔾᔪᑎᑦ(WAPPRIITA). ᑐᖅᑭᐅᓯᐊᕐᓂᖅᑐᒥᓂᓂᑦ CITES–ᒥᑦ ᐊᓪᓚᓪ WAPPRIITA–ᒥᑦ, ᖃᐅᔨᓕᐊᓂᑦ ᐃᓕᓴᕐᓂᑦ 6–ᒧ.

3. ᐅᒪᔨᐃᑦ ᒥᓴᓂᑦ ᑐᖅᑭᓕᐊᖅᑎᑦ

3.1ᐅᒪᔨᐃᑦ ᖃᓄᐃᑦᑐᓂᖏᓐᓄᑦ ᓇᓗᓇᐃᔨᐃᓕᓚᔨᑦ

ᓇᓄᐃᑦ ᐊᖏᕈᔨᐊᔪᓪᓗᑎᑦ ᓂᕈᑐᖅᑎᑦ ᓄᓇᖃᓕᑦ ᓄᓇᒥ ᐃᒪᓂᓗ ᑲᓇᑕᒥ ᑕᐃᒪᐃᖃᑦᑕᓕᑦ, ᑲᓪᓚᑦᑐ ᓄᓐᓂᐃᐃᐃ (Svalbard), ᐅᓪᓴ, ᒥᐊᓪᓚᑎᐃᓪᓗ ᓄᓇᖓᓂᓂ. ᓇᓄᐃᑦ ᖃᓄᑎᓂᖅᓴᖓᖃᑕᐅᔨᑦ ᓂᕈᑦᑎᓂᖅᓯᐅᑎᑦ, ᖃᓄᑎᓂᖅᓴᒥᓪᓗ ᐅᕈᐅᖅᑕᖅᑐᒥ ᐅᒪᔨᐃᓪᓗᑎᑦ (ᑕᐃᒪᓐet al. 2008). ᓇᔨᖅᑕᐅᓂᖏᑦᑐᒥ, ᐊᖃᓇᓪᓗᐃᑦ ᐅᕈᐅᓇᑦ 30–ᓇᑦ ᐃᓄᔪᓇᖅᑐᑦ, ᐊᖏᔪᓪᓗᐃᑦ ᐃᓄᔨᓇᖅᑐᑎᑦ ᐅᕈᐅᓇᑦ 25–ᓇᑦ (ᑯᕼᐊᓐ 2004). ᐊᖃᓇᓪᓗᐃᑦ ᐊᑕᐅᔪᖏᑦ ᒪᖃᓂᓪᓚᓄᓂᑦ ᐊᑎᖅᑕᖅᑕᓄᑦ ᐊᑕᐅᑦᑎᓄᑯᑦ, ᖃᓄᒪᓪᓚᐅᔪᓄᑯᑦ ᐱᓄᒪᔪᓐᓇᖅᑐᑦ (ᐃᒪᓕ ᔨᑐᓪᓗ, 1988). ᓇᒥᓪᓕᐊᓪᓴ, ᐊᖃᓇᓪᓗᐃᑦ ᐊᑎᖅᑕᓪᓕᔨᑦ ᐅᕈᐅᓇᓴ ᐱᓄᒪᔪᓄᓐᓇᓂᑦ, ᐊᖃᓇᐃᓪᓗᑦ ᓇᓪᓕᐊᔪᑦ ᐊᑕᐅᔨᔪᖅᑐᑎᑦ ᐅᕈᐅᑦ ᐱᓄᒪᔪᑦ ᐊᓂᔭᕐᓂᖅᑐᓂ (ᔨᒃᔨᑐᓪᓗ, 1988).

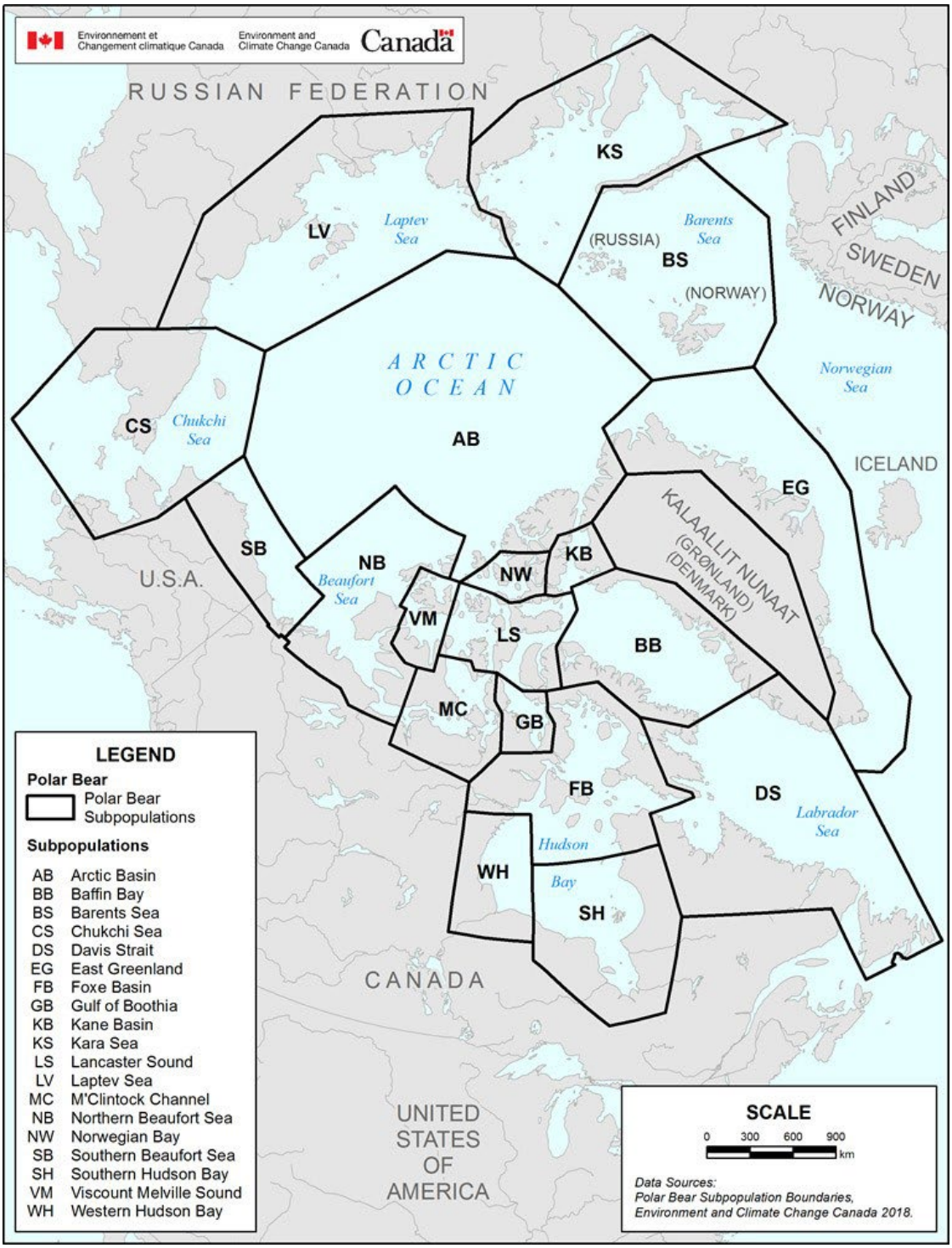
ᐃᓕᖏᑦ ᐃᓕᑲᓇᖏᑦᑐᑦ ᓇᕈᓇᓂᔪᓂᖏᑦ ᓇᓇᖃᑦ ᑲᓇᑕᒥ ᑕᐃᒪᐃᔪᑦ, COSEWIC ᐅᖃᓕᐅᖅᑐᑦ ᐊᐱᕆᓇᖏᓇᓂᖏᑦ ᒪᓕᓕᐅᓇᖏᑦᑐᑦ ᒪᓕᒃᖃᑦ ᐊᐃᑦᑐᖅᓯᒪᔨᓴ ᑲᓇᑕᐅᐸ ᓇᓇᖏᑐᓴ ᐊᒥᔨᓄᑦ ᐊᐱᕆᓇᖏᑦᑐᑦ ᓇᕈᓇᓂᔪᖅᓯᒪᓂᖏᑐᓴ (DU) (COSEWIC 2018). ᐊᐅᓪᓚᑎᐃᓪᓗᑎᓂᓄᑦ ᐱᓕᑦᑎᓄᑦ, ᓇᓄᐃᑦ ᐊᐃᑦᑐᖅᓯᒪᓕᒪᑕ 19–ᖃᓕᓪᓚᓂᑦ, 14 ᐊᐃᑦᑐᖅᓯᒪᓇᖅᖃᐊᖅᑐᑦ ᐅᒪᓕᓪᓚᓂᑦ ᐃᓕᐃᓇᐃᖏᓐᓂᑦ ᐃᓇᑐᓪᓚᓂᑦ ᐊᐱᕆᓇᖏᑦᑐᑦ ᓇᕈᓇᓂᔪᖅᓯᒪᓂᖏᑐᓴ ᑲᓇᑕᒥ (ᑕᓂᓪᔪ ᑎᑎᕃᖅᑭᒃᑯᑦ 1, ᐊᑕᓐᓄ). ᑕᐃᑲᓂᐊ 14 ᐊᐃᑦᑐᖅᓯᒪᓇᖅᖃᐊᖅᑐᑦ ᐃᓯᒪᒋᔭᐅᓕᑦ ᐅᓇᓐᓪᓚᓂᑦ ᐊᐱᕆᓇᖏᑦᑐᑦ ᓇᕈᓇᓂᔪᖅᓯᒪᓂᖏᑐᓴ (DU) ᑲᓇᑕᒥ (COSEWIC, 2018). ᐊᒥᓯᓂᖏᑦ ᖃᐅᔨᔫᖅᑕᐅᓪᓚᓂᑦ ᐊᖏᓪᓚᓪ ᖃᓇᐃᓕᓐᓂᕐᓂᖏᑦ ᐊᓯᔾᔨᑕᕐᓂᒃᑕ ᖃᐅᔨᔫᖅᑕᐅᓂᖏᑐᓴ ᐊᐃᑦᑐᖅᓯᒪᓇᖅᖃᐊᖅᑎᓪᓚᑦᑎᓂᑦ. 13 ᑲᓇᑕᒥ 14–ᖏᑐᓴ ᐊᐃᑦᑐᖅᓯᒪᓇᖅᖃᐊᖅᑐᓂᓴ ᐊᐅᓪᓚᓕᐅᑕᖅᑐᑦ ᑲᓇᑕᒥ, ᑕᐃᑲᓂᐊᓕᐅᖅᑕᖅᑐᑦ ᑲᑎᒪᓂᖅᑐᑦ ᐊᐱᕆᓇᖏᑦᑐᑦ ᐊᐃᑦᑐᖅᓯᒪᓇᖅᖃᐊᖅᑐᑦ, ᐱᓕᕆᓇᖅᓯᒪᓕᕆᓂᖅᑐᑦ, ᐊᐅᓪᓚᓕᐅᑕᖅᑐᑦ ᑕᐃᑲᓂᐊ. ᓴᓇᒪᖅᑯᓂᓂᕐᓂᑲᖅᑐᑦ ᑲᓇᑕᒥ ᓇᓂᕋᓂᖅᓴᓪᓗᑎᑦ ᐊᐅᓪᓚᓕᖅᑎᑦ ᑲᓇᑕᒥ ᓇᓂᕋᓂᖅᑐᑦ ᐊᐅᓪᓚᓕᐅᑕᖅᑐᑦ ᓇᓗᓇᐃᔨᐃᓕᓚᔨᑦᑐᑦ ᐊᐅᓪᓚᓕᐅᑕᖅᑐᑦ ᐃᓗᐊᓂ ᐊᐅᓪᓚᓕᐅᑕᖅᑐᑦ.

ᑕᐅᖅᓯᓂᕐᓗᑎᑦ ᐅᒪᔨᐃᑦ ᐃᓕᓴᕐᓂᑦ ᓄᓇᕗᑦᑐᓪᓗᑎᑦ ᓇᓂᕋᓂᖅᑐᑦ, ᖃᐅᔨᓕᐊᖅᑐᓂᖅᑐᑦ ᐃᓕᓐᓂ 2 – 7 ᑕᕐᔪᓂ ᐊᐅᓪᓚᑎᐃᓪᓗᑎᓂᕐᓂᖅ.

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229 ## *3.2ᐊᒥᓱᓂᖏᓪᓕ ᐱᔭᐅᖃᓪᓕᖅᓂᖏᓪᓕ*

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232 **ᑎᑎᕋᓱᒃᑐᖅ 1: ᓱᓕᔨᐊᒥ ᓇᓄᐃᑦ ᐊᐃᑕᑐᓱᒃᑐᓂᑦ (ᐱᔭᐅᓱᒃᑐᖅ: ECCC-ᑯᓘᓂ 2018b)**

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ᑲᓇᑕ ᑕᐃᓂᖅᐃᐃ 16,000[8] ᒥᓴᐅᓴᑦᑕᐅᓯᒪᔪᓗᑎᑦ 20,000 – 26,000 ᓇᓄᐃᑦ ᓯᓚᖁᐊᑦ ᐅᑭᐅᖅᑕᖅᑐᖅᓱᓂᓂᓄ. ᐊᕐᓇᑦᑐᖅᓯᒪᔪᖅᑐᓂᒃ ᖃᐅᔨᓴᖅᑕᐅᓯᒪᔪᑦ ᒪᓕᑦᑐᑎᑦ ᓯᓚᖅᑐᓂᓄᑦ, ᑐᖏᑐᖅᑐᑎᑦ ᐅᑦᓗᒥᒃ ᐃᓚᖅᑭᑦ ᑲᖅᑭᓴᖅᑕᐅᓗᑎᑦ ᒥᓴᐅᓴᑦᑕᐅᕙᑦᑐᑦ ᐊᖁᑦᑐᖅᓯᒪᔪᖅᑐᓂᒃ ᐃᓚᖅᑭᑦ 15–ᒪᓂᑦ ᑎᑭᑦᑐᑦ 15 ᐃᓗᐊᓂ. ᑕᐃᒪᐃᓐᓂᖅᓂᑦ, ᐊᓕᓯᓐᓇᖅᑐᑦ ᒥᓴᐅᓴᓪᓚᕆᑦᑕᓯᐊᕐᓇᓗᑎᑦ ᐊᒥᓯᓂᖅᑎᑦ ᓇᓂᐃᑦ ᑲᑎᒪᔨᖅ.

ᑭᓪᓕᖅᐳᓂ ᓇᓂᐃᑦ ᐊᐃᑦᑐᖅᓯᒪᓕᐅᔪᓂᒃ ᑲᑎᒪᔨᖅ ᓇᓗᐃᐃᖅᑕᐅᓯᒪᔪᑦ ᐱᐅᓂᖅᓴᖅᑎᒍᑦ ᖃᐅᔨᓴᕐᑕᐅᓯᒪᔪᔪᓂᒃ ᐊᖁᓪᓗ ᓄᓇᖅᑲᖅᑐᓂᒃ ᓄᑦᑕᕐᓂᖅᐳᓂᓄᑦ ᓄᓇᕗᑦᐃᓚᖅᑭᑦᑐᓄᓪᓗ ᓇᓂᐃᑦ, ᐊᖁᓪᓗ ᐊᐅᓚᑦᑎᐊᕐᕕᖅᑕᖅᑐᓂᓂᒃ ᐱᔨᔪᑎᖅᑐᑎᑦ (ᑎᑎᕋᖅᓯᒪᔪᖅ 1) (ᓚᓐet al. 2010). ᐅᖃᐅᓯᖅ “ᐊᐃᑦᑐᓴᓐᖅᓯᒪᔪᑦ”, ᐊᑕᐅᖅᑕᐅᖅᑕᑦᓂᓕᕆᖅᑐᖅ ᑕᓐᓇᓂ ᑎᑎᕋᖅᓯᒪᔪᓂᒃ, ᒪᓕᑦᑐᖅ ᐊᑐᖅᑕᐅᖅᑕᑦᓂᓕᕆᖅᑐᓐᓂᑦ ᓯᓚᖁᐊᑦ ᑲᑎᒪᓂᒃ ᐃᓐᓇᐃᓐᓇᓕᒫᑦ ᐱᔨᑦᑕᕐᓂᖅᑐᓐᓂᑦ (IUCN)/ᓂᓪᓚᑲᑦ ᐊᓐᓇᐅᒪᓇᓯᓂᖅᓐᓂᓐᓂᑦ ᑲᑎᒪᓂᖅᑎᑦ (SSC) ᓇᓄᓕᕆᓂᕐᓂᒪᓕᒃᑦ (PBSG), ᐊᑎᒪᓗ ᑲᓇᑕᒥ ᓇᓄᓕᕆᓂᕐᑦ ᐱᓴᕆᐊᑐᓕᕆᓂᕐᑦ ᑲᑎᒪᓂᕋᓕᖅᑎᑦ (PBTC) (ᑐᑭᓯᑎᐊᖅᓂᖅᑭᒪᔭᖅᑕ ᑕᒪᐃᒥᖅᓗ PBTC–ᒥᑦ, ᖃᐅᔨᓴᐃᓚᐅᔭᓕᖅᑐᖅ ᐃᓕᖅᓴᓂᐅᖅ 6.1–ᒥ). ᐅᖃᐅᓯᖅ ᐊᖁᓪᓗᑐᖅᓯᒪᔪᖅᓂᖅᓂᖅ ᐊᐅᖅᑕᐅᔨᖅ ᓇᓂᖅᓂ ᑕᐃᒪᐃᑦᑐᓗᐊᖅᑐᓂᒃ ᐅᖃᐅᓯᖅᓴᐃᓚᐅᔭᓕᖅᑐᖅ “ᐊᐅᓕᑦᑎᓯᐊᕈᑎᑦ” ᐊᐅᖅᑕᐅᒥᒪᓕᑦ COSEWIC–ᑯᓘᓇ ᖃᓄᐅᓴᖃᑦᑕᖅᐅᓂᒃ ᖃᓇᐃᓕᓕᒪᓐᓇᑕ ᐅᓂᒃᑲᓕᐅᖅᑕᖅᑐᑦᑕᐅᓂ ᓂᓪᓚᑲᑦ ᒥᓴᐃᓚᖅᑭᑦ.

ᑲᓇᑕᒥ, ᓇᓄᓕᕆᓂᖅᓴᓪᓗ ᐊᐅᓕᑦᑎᐅᓂ ᑲᑐᓄᔪᑕᐅᕙᑦᑐᑦ ᓴᕐᓚᑐᖃᖅᑯᓂᓂ, ᑲᓇᑕᒥ ᐊᖁᑦᑐᖅᓯᒪᔪᖅᓂᒃ ᐅᑭᐅᖅᑕᖅᑐᐅᑉᓯᒪᔪᖅᓂᒃ ᐃᓚᓕᔪᓂᖅᓂᒃ/ᐅᖃᐅᓄᔪᓕᖅᑎᓂᒃ ᑲᑎᒪᔪᖅᓂᓂᒃ, ᓄᓇᑕᑭᑎᓄᑦ ᑲᑐᖃᓐᓇᖅᑐᓂᒃ ᓄᓇᖃᖅᑲᖅᑐᑐᒃᑯᑦ ᐱᔪᓐᓇᐅᑎᖅᑐᓂᒃ ᑎᒍᒥᐊᖅᑐᓄᑦ. ᐱᓕᕆᑦᑐᓗᐊᑦ ᓴᖅᓯᒪᔪᑦ ᒪᓕᒐᓂᑦ, ᑲᑎᒪᓂᒃ ᐊᖁᑦᑐᖅᓯᒪᔪᖅᓂᒃ ᐅᑭᐅᖅᑕᖅᑐᐅᑉᓯᒪᔪᖅᓂᒃ ᐱᔪᓐᓇᖅᑎᑎᑕᐅᓯᒪᔪᖅᑐᓂᒃ ᓇᓄᕕᓂᖅᑎᑦ ᑲᑎᒪᓂᒃ ᐊᖁᑦᑐᖅᓯᒪᔪᖅᓂᒃ ᐅᑭᐅᖅᑕᖅᑐᐅᑉᓯᒪᔪᖅᓂᒃ ᓄᓇᖃᖅᑲᖅᑐᑐᒃᑯᑦ. ᓴᖅᓯᒪᔪᖅᑐᓂᒃ ᓴᖅᓯᒪᔪᖅᑐᓂᒃ ᓄᓇᖃᖅᑲᖅᑐᑐᒃᑯᑦ ᐃᓚᖅᑭᑦ ᑲᑎᒪᓂᒃ ᐅᑭᐅᖅᑕᖅᑐᐅᑉᓯᒪᔪᖅᓂᒃ ᐃᓚᓕᔪᓂᖅᓂᒃ/ᐅᖃᐅᓄᔪᓕᖅᑎᓂᒃ ᑲᑎᒪᓂᖅᑎᑦ ᐊᖁᑦᑐᖅᓯᒪᔪᖅᓂᒃ ᓄᓇᖃᖅᑲᖅᑐᑐᒃᑯᑦ ᑎᒍᒥᐊᖅᑐᓄᑦ ᐱᔪᓐᓇᖅᑎᑎᑕᐅᓯᒪᔪᖅᑐᓂᒃ ᐊᓯᔪᓄᑦ ᐃᓚᖅᑭᑦ ᐱᔪᓐᓇᖅᑎᑎᑕᐅᓯᒪᔪᖅᑐᓂᒃ ᐊᖁᑦᑐᖅᓯᒪᔪᖅᓂᒃ ᐅᑭᐅᖅᑕᖅᑐᐅᑉᓯᒪᔪᖅᓂᒃ ᓄᓇᖃᖅᑲᖅᑐᑐᒃᑯ

ᐅᖃᐅᔨᒪᔪᓂᒃᑯᑦ ᓇᓄᐃᑦ ᑲᓇᑕ ᐱᑕᖃᖏᓪᓗᑎᑦ ᓴᖅᓯᒪᔭᖅᑯᓂ ᓄᓇᖃᖅᑲᖅᑐᒥᓂᓪ ᐊᖏᕈᑎᖓᑕ
ᐃᓕᓐᓄᓂ. ᓄᓇᒋᑦᑎᐅᓪ ᐃᓗᐊᓂ, ᑲᑎᑦᑐᑦ ᐱᔨᐅᔪᓇᖅᑐᓂᒃ/ᐊᓯᔾᖅᑕᐅᔪᓇᖅᑐᑦ ᐊᒥᓱᓂᖏᑦ
ᐊᐅᓪᓕᐅᕙᓪᓕᑦ ᑕᒪᒃᑯᐊ ᐅᒪᔪᓕᓇᕐᔪᐊᑯᓂᓄᑦ ᑲᑎᒪᔨᖏᓂᓄᑦ/ᐅᖅᑲᐅᔭᕐᔪᐊᖅᑎᑦ ᑲᑎᒪᔨᖏᓂᓄᑦ.
ᑎᑎᕋᖅᓯᒪᔪᖅ 3 ᓇᓴᖅᑕᐅᓯᒪᔪᑦ ᓇᓗᒪᓂᓂᖏᑦ ᐅᒪᔪᓕᓇᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᓂᓄᑦ/ᐅᖅᑲᐅᔭᕐᔪᐊᖅᑎᑦ
ᑲᑎᒪᔨᖏᓂᓄᑦ ᐅᕝᕙᓚᓂᖏᓂᓄᑦ ᐊᓯᖏᓂᓂ ᐊᖏᔪᓂᓄᑦ ᑎᑎᐅᔪᓂ ᐊᑐᓂ ᐊᕕᑦᑐᖅᓯᒪᒃᑲᓂᖅᑐᓂᒃ, ᐊᓗᒪᓗ
ᓴᖅᓯᒪᔾᖅᑯᓂᓂ, ᑲᓇᑕᐅᑦ ᐊᕕᑦᑐᖅᓯᒪᓂᖏᓂᓂ ᐅᑭᐅᖅᑕᖅᑐᐃᓪᓗ ᓴᖅᓯᒪᖏᓂᓂ ᓇᓄᓕᕆᓂᖅᑎᑦ
ᐃᓯᒪᓕᐅᑎᐊᓕᓂᓂᒃ ᐅᕝᕙᓪᓕᐊᓂᓂ ᐊᑐᓕᖁᓪᓕᐊᑦᑐᓂᓂ ᒪᑎᓇᓕᕐᓂᒃ. ᑭᓕᓕᖏᓂᓄᑦ ᕿᖏᐅᑎᑦ
ᐃᓕᓐᓂᓂᑐᑦ 2-7 ᐊᐅᓪᓕᑎᔨᐊᑎᓄᑦ (ᑎᑎᕋᖅᓯᒪᔪᑦ 3–Γ) ᑐᑭᓯᑎᐊᑐᑎᑕᖅᑲᓂᖅᑐᑦ ᓇᓄᐃᑦ
ᐊᕕᑦᑐᖅᓯᒪᓂᕆᓂᖏᓂᓂ ᑲᓇᑕᑦ ᐊᓗᒪᓗ ᑭᓕᓕᖏᓂᓂ ᓇᓗᓇᐃᔭᖅᓯᒪᔪᓂᒃ ᐊᐅᓪᓕᑎᔨᐊᑎᓄᑦ ᑐᕋᓐᖏᓂᓂ
ᐱᑎᐊᑐᑕᐅᓯᒪᔪᓂᓪᓗ.

ᑎᑎᕋᖅᓯᒪᔪᑦ 3. ᑲᓇᑕᑦ ᓇᓄᐃᑦ ᐊᕕᑦᑐᐅᓂᖅᓯᒪᓂᖏᑦ ᐊᓗᒪᓗ ᐊᐅᓪᓕᑎᔨᐊᑎᓄᑦ ᑐᑭᓯᑎᐊᑐᑎᑕᖅᑲᓂᖅᑐᑦ ᐃᓐᓇ ᑲᑐᔾᔨᖅᑕᖅᑐᑦ
ᐃᓯᒪᓕᐅᑕᐅᑎᐅᓂᐊᖅᑐᓄᑦ ᐱᔨᔪᑎᖅᑕᖅᑐᑦ.

ᐊᕕᑦᑐᖅᓯᒪᓂᖏᑦ	ᐅᒪᔪᓕᓇᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᓂᑦ, ᐅᖅᑲᐅᔭᕐᔪᐊᖅᑎᑦ ᑲᑎᒪᔨᖏᓂᑦ ᐊᖏᔪᓂᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᓂᒃ ᐃᓚᖓ ᑎᑎᕋᖅᓯᒪᔪᑦ *	ᑲᑎᒪᔨᖏᓂᑦ, ᓄᓇᕗᑦ ᓇᓗᓇᐃᓕᓐᓂᒃ ᑎᑎᕋᖅᓯᒪᔪᑦ ᑲᑎᒪᔨᖏᓂᑦ ᐊᕕᑦᑐᖅᓯᒪᓂᖏᓂᓂ ᐊᓯᔾᔨᒃᑯᑦ ᐊᑐᓕᖁᓪᓕᐊᑦᑐᓂᓂ	ᑲᑎᒪᔨᖏᓂᑦ ᓴᖅᓯᒪᔾᖅᑯᓂᑦ, ᓄᓇᕗᑦ ᓇᓗᓇᐃᓕᓐᓂᒃ ᐊᕕᑦᑐᖅᓯᒪᓂᖏᓂᓂ ᐊᓯᔾᔨᒃᑯᑦ ᐊᑐᓕᖁᓪᓕᐊᑦᑐᓂᓂ	ᑎᑎᕋᖅᓯᒪᔪᑦ ᐅᖃᐅᔨᒪᔪᓂᒃ ᐊᕕᑦᑐᖅᓯᒪᓂᖏᓂᓂ ᐊᓯᔾᔨᒃᑯᑦ ᐊᑐᓕᖁᓪᓕᐊᑦᑐᓂᓂ
ᐅᑭᐅᖅᑕᖅᑐᑦ ᑕᓪᓕᐅᖅᑲ * (AB)	NWMB, IGC, WMAC (NT)	ᓄᓇᕗᑦ, ᓄᓇᕗᑦ	ᑲᓪᓕᓂᑦ ᓄᓇ, ᓄᐊᕕᐃᐃᓐ, ᐅᓪᓕᓂᑦ ᐊᒥᓱᓂᖏᓂᓂ ᓄᓇᖅ	ᑕᓯᔭᒍ ᐃᓕᓐᓂ 2 ᐊᒥᓱᓪ 3 ᑎᑎᕋᖅᓯᒪᔪᓂᒃ ᑕᕆᓂᕕᒃ
ᓴᓐᓄᑎᐅᑦᑐᑦ ᐃᒪᖅᑲ (BB)	NWMB	ᓄᓇᕗᑦ	ᑲᓪᓕᓂᑦ ᓄᓇ	ᑕᓯᔭᒍ ᐃᓕᓐᓂ 3 ᑎᑎᕋᖅᓯᒪᔪᓂᒃ ᑕᕆᓂᕕᒃ
ᖃᑭᖅᑕᓗᑦ ᐃᑭᖅᑲ (DS)	NWMB, NMRWB, HFTCC, TWPCB	ᑲᓇᑕ, ᓄᓇᕗᑦ, ᔨᐸᐃᒃ, ᓄᐸᓪᓚᑦ ᓚᐸᑐᐊᓪ	ᑲᓪᓕᓂᑦ ᓄᓇ	ᑕᓯᔭᒍ ᐃᓕᓐᓂ 3, 6 ᐊᒥᓱᓪ 7 ᑎᑎᕋᖅᓯᒪᔪᓂᒃ ᑕᕆᓂᕕᒃ
ᓴᓂᕋᐅᑦᑐᑦ ᑕᓪᓕᐅᖅᑲ (FB)	NWMB, NMRWB, HFTCC	ᑲᓇᑕ, ᓄᓇᕗᑦ, ᔨᐸᐃᒃ,	ᐱᑕᖅᓴᖏᑕᑐᖅ	ᑕᓯᔭᒍ ᐃᓕᓐᓂ 3 ᐊᒥᓱᓪ 6 ᑎᑎᕋᖅᓯᒪᔪᓂᒃ ᑕᕆᓂᕕᒃ
ᐃᑭᕋᐅᔭᑦᑐᑦ ᐃᒪᖅᑲ (GB)	NWMB	ᓄᓇᕗᑦ	ᐱᑕᖅᓴᖏᑕᑐᖅ	ᑕᓯᔭᒍ ᐃᓕᓐᓂ 3 ᑎᑎᕋᖅᓯᒪᔪᓂᒃ ᑕᕆᓂᕕᒃ

ᐊᕕᓪᑐᖅᓂᖅᓯᒪᓂᕐᒧᓪ	ᐅᒪᔨᓕᓇᔨᕋᐊᖅᑯᓪ ᑲᑎᒪᔨᕐᒧᓪ, ᐅᖅᐅᔾᔨᒋᐊᖅᑎᓪ ᑲᑎᒪᔨᕐᒧᓪ ᐊᓯᔪᓕᕐᒧᓪ ᐊᓯᔾᔨᓪᓚᖅᓂᓂᓪ ᑲᓚᖅᓴᓪ ᑎᒥᓪ †	ᑲᓇᑕᒥ ᓴᖅᑭᑐᖅᑐᑯᓪ, ᑲᓇᑕᒥ ᐊᕕᓪᑐᖅᓯᒪᔨᓪ ᐅᑭᐅᓪᓕᖅᓯᒪᓪᓚᖅᑐᓪ ᐊᐅᓪᓚᓪᑎᓂᖅᓯᒪᓪᓚᖅᑐᓪ	ᓄᓇᕗᑦᑐᓪ ᓴᖅᑭᑐᖅᑐᑯᓪ ᐊᐅᓪᓚᓪᑎᓂᖅᓯᒪᓪᓚᖅᑐᓪ	ᑎᑎᕋᖅᓄᖓᔨᓪ ᑭᓪᓕᖅᑲᓂᖅᓴᓪ ᐱᖅᓄᐅᑎᔨᓪ:
ᐊᐅᓄᐃᐱᑦᑐᓪ ᖁᑭᖅᑕᓚᐊᓂ ᐊᒻᒪᓚᓪ ᑲᓇᓕᔾᔨᓪ ᑕᕆᐅᖅᓴᖅ (KB)	NWMB	ᓄᓇᕐᑐᓪ	ᑲᓇᓕᔾᔨᓪ ᓄᓇᓗ	ᑕᑯᓚᔪ ᐃᓕᖅᓴᖅ 3 ᑎᑎᕋᖅᓄᖓᔨᓂᖅ ᑕᕝᕙᓂ
ᑕᓪᓚᔭᑎᐅᐸᓪ ᐃᒪᖅᓴᖅ (LS)	NWMB	ᓄᓇᕐᑐᓪ	ᐱᑕᖅᓴᕐᓂᑕᖅ	ᑕᑯᓚᔪ ᐃᓕᖅᓴᖅ 3 ᑎᑎᕋᖅᓄᖓᔨᓂᖅ ᑕᕝᕙᓂ
ᐃᓪᑕᐊᖅᑐᖅ (MC)	NWMB	ᓄᓇᕐᑐᓪ	ᐱᑕᖅᓴᕐᓂᑕᖅ	ᑕᑯᓚᔪ ᐃᓕᖅᓴᖅ 3 ᑎᑎᕋᖅᓄᖓᔨᓂᖅ ᑕᕝᕙᓂ
ᐅᐊᓴᓇᖅᓴᖅ ᐅᐊᓕᓂᐅᐸᓪ ᑕᕆᐅᖅᓴᖅ (NB)	NWMB, IGC, WMAC (NWT)	ᓄᓇᕐᑐᓪ, ᓄᓇᓪᑎᐊᖅ	ᐱᑕᖅᓴᕐᓂᑕᖅ	ᑕᑯᓚᔪ ᐃᓕᖅᓴᖅ 2 ᐊᒻᒪᓚᓪ 3 ᐅᑎᑎᕋᖅᓄᖓᔨᓂᖅ ᑕᕝᕙᓂ
ᐃᑎᓕᓴᖅ ᑕᕆᐅᖅᓴᖅ (NW)	NWMB	ᓄᓇᕐᑐᓪ	ᐱᑕᖅᓴᕐᓂᑕᖅ	ᑕᑯᓚᔪ ᐃᓕᖅᓴᖅ 3 ᑎᑎᕋᖅᓄᖓᔨᓂᖅ ᑕᕝᕙᓂ
ᓂᕈᐊ ᐅᐊᓕᓂᐅᐸᓪ ᑕᕆᐅᖅᓴᖅ (SB)	IGC, WMAC (NWT), WMAC (NS)	ᓄᓇᓪᑎᐊᖅ, ᓱᒃᓴ	ᒥᐊᓕᑲᐃᓪ ᓄᓇᖅᓴᖅ, ᐃᓄᓵᐱᐊᓪ	ᑕᑯᓚᔪ ᐃᓕᖅᓴᖅ 3 ᑎᑎᕋᖅᓄᖓᔨᓂᖅ ᑕᕝᕙᓂ
ᓂᕈᐊ ᑲᖏᖅᓯᐊᓗᓵᓵᐸᓪ ᐃᓗᐊ (SH)	NWMB, NMRWB, EMRWB, HFTCC	ᑲᓇᑕ, ᓄᓇᕐᑐᓪ, ᑯᐸᐃᑦ, ᐊᓴᑎᐅᓇᔨ	ᐱᑕᖅᓴᕐᓂᑕᖅ	ᑕᑯᓚᔪ ᐃᓕᖅᓴᖅ 3, 5 ᐊᒻᒪᓚᓪ 6 ᑎᑎᕋᖅᓄᖓᔨᓂᖅ ᑕᕝᕙᓂ
ᖃᓄᖅᓱᒥᑎᖅᓴᑦ ᑕᕆᐅᖅᓴᖅ (VM)	NWMB, IGC, WMAC (NWT)	ᓄᓇᕐᑐᓪ, ᓄᓇᓪᑎᐊᖅ	ᐱᑕᖅᓴᕐᓂᑕᖅ	ᑕᑯᓚᔪ ᐃᓕᖅᓴᖅ 2 ᐊᒻᒪᓚᓪ 3 ᑎᑎᕋᖅᓄᖓᔨᓂᖅ ᑕᕝᕙᓂ
ᐅᐊᓴᓇᖅᓴᖅ ᑲᖏᖅᓯᐊᓗᓵᓵᐸᓪ ᐃᓗᐊ (WH)	NWMB	ᓄᓇᕐᑐᓪ, ᒪᓂᑐᐸ, ᐊᓴᑎᐅᓇᔨ	ᐱᑕᖅᓴᕐᓂᑕᖅ	ᑕᑯᓚᔪ ᐃᓕᖅᓴᖅ 3, 4 ᐊᒻᒪᓚᓪ 5 ᑎᑎᕋᖅᓄᖓᔨᓂᖅ ᑕᕝᕙᓂ

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287 *ᵗᓇᐃᓪᓕᑎᖅᓱᒪᓕᐅᓪ. EMRWB: ᐃᓕᐅ ᐃᓚᓕᕆᓂᖅᓯᒪᓪ ᐅᑕᒪᓕᕆᔨᖁᐊᓪ ᑲᑎᒪᔨᖅᑎᑦ; HFTCC: ᓴᐃᒻᒪᓪ ᐸᐃ ᐊᓯᒪᓗ ᑯᓕᐸᐃᑦ ᑕᖅᖁᓐᓂ ᐊᑐᑭᑎᑎ (JBNQA) ᐊᓯᓂᖅᓯᒪᓪ, ᐃᖃᓗᓯᓂᖅᓯᒪᓪ ᒥᑭᐊᓕᕆᓂᖅᓯᒪᓪ ᑐᑭᒧᐊᓂᑎᓂᖅᓯᒪᓪ ᑲᑎᒪᔨᖅᑎᑦ; IGC: ᐃᓅᓚᐊᓗᐃᓪ ᓂᖁᐊᓕᕆᓂᖁᓪᓕᐅᑦ ᑲᑎᒪᔨᖅᑎᑦ; NMRWB: ᓄᓇᓚᐦ ᐃᓚᓕᕆᓂᖁᓪᓕᐅᑦ ᐅᓪᓚᕆᔨᖁᐊᓕᓪᓗ ᑲᑎᒪᔨᖅᑎᑦ; NWMB: ᓄᓇᓄᓪ ᐅᓪᓚᕆᔨᖁᐊᓐᓂᑦ ᑲᑎᒪᔨᖅᑎᑦ; TWPCB: ᑐᖁᓴᖅ ᓂᖁᐊᓕᕆᓂᖅ ᐱᑭᖅᑐᓂᓪᓗ ᓄᓇᒥ ᐊᐅᓪᓚᕆᑐᖅᑐᖅᓯᒪᓪᓕᐅᑦ ᑲᑎᒪᔨᖅᑎᑦ; WMAC-NS: ᐅᓪᓚᕆᔨᖁᓪᓚᐃᓐᓂᑦ ᐅᖃᐅᔨᓂᕆᐊᖅᑎᑦ ᑲᑎᒪᔨᖅᑎᑦ – North Slope; WMAC (ᓄᓇᕐᑎᐊᖅ): ᐅᓪᓚᕆᔨᖁᐊᓐᓂᑦ ᐅᖃᐅᔨᓂᕆᐊᖅᑎᑦ ᑲᑎᒪᔨᖅᑎᑦ - ᓄᓇᕐᑎᐊᖅ.*

293 ** ᖃᐅᔨᒪᔨᐅᑭᓚᐅᒃ ᒪᓐᓇ ᐅᑉᓯᓴᖅᑐᖃᖃᓕᑦᓴᕐᓚᒪᓕᑦ ᐅᑉᓴᓇᓂᓂᓕᑦ ᐊᐅᓪᓚᕆᓂᖅᓯᑦᑐᑦ ᐅᑭᐅᖅᑕᖅᑐᑉᑐᐊᑦ ᑕᓚᐅᖅᓯᒪᓪ*
294 *ᐊᐃᔭᑦᑐᖅᓱᒪᒃᑯᓂᓂᓯᓂᓪ*

295 ᖃᓄᐃᓕᓖᒪᓕᕐᓂᖅᓯᒪᑦ ᑲᓇᑕᒥ ᓇᓄᐃᑦ ᐊᐃᔭᑦᑐᖅᓱᒪᒃᑯᓂᖅᑐᑐᓂᑦ ᐅᑉᓗᒥᓕᕆᓂᖅᑐᑦ ᓇᓄᓕᕆᓂᖅᓯᒪᓪ
296 ᐱᔪᓚᐊᑐᓕᕆᓂᕐᑐᒃ ᑲᑎᒪᔨᖁᓕᓴᖅᑎᓂᓄᑦ ᐊᑐᐃᓐᓇᑭᖅᓱᒪᓕᖅᑲᑕ ᐊᑐᐃᓐᓇᐅᓕᕐᓂᖅᑐᑦ, ᑐᑭᓯᒥᐊᑭᒪᓐᓂᑭᐃᓕᓕᓪ
297 ᐊᐃᔭᑦᑐᖅᓱᒪᒃᑯᓂᖅᑐᑐᓂᑦ ᖃᓄᐃᓕᓖᒪᓂᕐᑎᓐᓂ ᖃᐅᔨᒥᐊᑭᓐᓇᖅᑐᑎᑦ ᐅᐊᖅᓴᒃ Polar Bear Administrative Committee's website[9]. ᑐᑭᓯᒥᐊᒃᑲᓂᓂᑭᒪᓐᓂᑭᓄᑦ ᓇᓄᓕᕆᓂᖅᓯᒪᓪ ᐸᐃᑉᐸᓕᕆᔨᖁᓕᕐᓂᖅᓯᒪᓪᓕᐅᑦ ᑲᑎᒪᔨᖅᑎᑦ ᐊᓚᐅᖅᑕᖅᑐᑉᑐᐊᑦ ᐊᑐᐃᓐᓇᐅᓕᕐᓂᖅᑐᑦ, ᖃᐅᔨᒥᐊᑭᓐᓇᖅᑐᑎᑦ ᐃᓕᓴᕐᓂᓄᑦ 6.1–Γ ᐃᓕᓴᒃ 1 ᐊᐅᓪᓚᕆᔨᖁᓪᓕᐅᑦ.

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302 <u>ᓄᓇᖃᖅᑲᖅᑐᒥᓂᑦ ᓇᓄᐃᑉᓗᓪ:</u>

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304 ᑲᓇᑕᒥ, ᓇᓄᐃᑦ ᑕᐃᒪᐃᓕᕐᓂᓕᕆᓂᖅᓯᒪᑦ ᐃᓕᒋᔨᐅᓕᕐᓂᓕᕆᓂᖅᓯᒪᑦ ᐃᓅᓂᓕᓚᓂᓕᒥᑦ, ᐱᖅᔪᓂᕐᓂᓂᓄᑦ,
305 ᒪᑭᒪᔨᖁᑎᖁᓂᑦ ᐅᑭᐅᖅᑕᖅᑐᑐᒥ ᓄᓇᖃᖅᑲᖅᑐᑐᒥᓂᓄᑦ. ᑕᒪᒃᑯᐊ ᐅᒪᓐᓂᑦ ᐃᓕᒋᔨᐅᓪᓚᕆᑕᑐᑐᒥᐃᓪᓚᐃᓐᓇᑦ
306 ᐊᑐᑐᐊᓪᓚᑎᑦ ᐱᖅᔪᓂᕐᓂᓂᓄᑦ ᐅᑭᐅᖅᑕᖅᑐᑐᒥᐅᑦ ᓄᓇᖃᖅᑲᖅᑐᑐᒥᓂᓄᑦ ᓇᓂᓂᐊᖅᑕᖅᑐᑐᒥ
307 ᑕᐅᔨᖅᑎᓂᑐᑐᒥ ᐊᖅᑦᒍᒧᓂᑦ ᐅᐸᐱᓚᐅᑦᑎᐊᖅᑐᑐᒥᓪᓚᓂ ᓂᖁᔨᕐᑎᑦ ᓂᓚᐅᐅᓂᖅᑐᑎᑦ ᓂᕆᔨᖁᔨᐅᓂᓪᓚᓂ
308 ᐊᑐᖅᑕᐅᓂᖅᑐᑦ (COSEWIC 2018). ᓇᓄᐃᑦ ᑕᑯᔨᓕᓂᓪᓚᕆᑦᑎᐊᖅᑐᑦ ᐱᖅᑯᓂᕐᓂᓂ ᐃᓕᖅᑯᓂᕐᓂᓂᓪᓚᓂ
309 ᐅᖅᑕᐅᓂᓚᓂᕆᑎᓂᓂ ᐃᓂᒪᓂᖅᓱᐊᖅᑕᑎᓂᓄᓪᓚᓂ ᓂᔪᓪ ᐅᓂᖅᑲᐅᓂᖅᓱᐊᖅᑎᑎᒍᑦ, ᐅᓂᖅᑲᖅᑐᐊᖅᑎᑎᒍᑦ, ᑕᔪᓂᑯᑦ,
310 ᓴᓇᓄᖅᓱᐊᓂᑯᑦ ᐃᓄᖅᑎᐅᓂᖅᑯᓚᓂ (ᓴᓚᑎᓄᑦ 1990; ᐱᓕᓚᖅᑕᐅᓪᑦ ᐊᓪᓚᓇᒪᒥ 2017).

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312 ᓄᓇᖃᖅᑲᖅᑐᒥᓂᑦ ᐃᓕᓴᖅᓂᓂᒪᒪᑕ ᓇᓄᔪᓂᑦ ᐱᒪᓚᐊᑉᓂᓂᖅᑐᓄᓂᑦ ᐱᐅᖅᓂᐊᓚᐊᖅᑎᔪᓂᖅᑐᓄᓂᑦ ᐱᖅᑯᓂᕐᓂᓂᓄᑦ
313 ᒪᓕᓐᑐᑎᑦ ᐊᓐᑐᐊᓂᖅᑐᓂᓚᓂ ᐊᐋᑎᑎᑎᓄᓂᑦ (ᓂᔪᓴᑎᑦ ᐅᓗᓚᐊᓇᖅᑐᒋᑦᑐᓂᑐᓄᓂᑦ ᑲᑎᒪᔨᖁᓕᕐᓂᖅᑐᑦ 2021).
314 ᐊᓂᐋᓚᐊᖅᑎᖅᓴᒪᑕ ᓴᑭᖅᓴᑎᑦᐸᑦᓚᐊᓚᓂᑦᓚᓂᓪᓚᓂ ᑎᒍᓂᐋᑦᓚᐊᑦᓚᓂᑦᓚᓂᓪᓚᓂ ᐃᓄᓇᑦ ᐅᒪᓐᓂᑦ ᐸᒪᓚᓂ ᐃᓄᓇᑦᓚᓂ
315 ᐱᓚᓇᖅᑎᑎᓂᖅᓯᒪᓂᓂᓄᓂ (ᑕᐅᓂ ᐸᒪᓚᓂ ᐅᐊᓂᑦᑦ 2008), ᓴᓇᖅᑭᑦᖅᑎᑎᓂᖅᑎᓂᑦ ᖁᐃᐊᓂᑎᖅᑎᓂᖅᓯᒪᓂᑦ ᓄᓇᓕᓂᓂᓂ,
316 ᐃᓄᓇᑦ ᑲᑎᒪᔨᖅᑎᑦ ᐅᓂᖅᑲᖅᑐᐊᖅᑕᑎᓂᓄᓂᑦ, ᓂᓚᖅᑎᑎᒪᑦᑎᓂᓄᓂᑦ ᐅᒪᓐᓂᑦᑕᒥᓂᖅᓯᒪᓂᓂᓄᓂᑦ (ᓂᓪᓕᐃᒃ2013). ᓇᓄᐃᑦ
317 ᐊᓂᓇᐅᒪᔨᖁᑕᐅᓂᑦᓂ ᐊᒥᓂᓄᑦ ᐅᑭᐅᖅᑕᖅᑐᑐᒥ ᓄᓇᓕᓂᓄᑦ ᓂᓚᖅᑎᑎᓂᖅᑐᑦ ᓂᖅᑭᖅᑎᑦ (ᓂᓪᓕᐃᒃ 2010;
318 ᐅᐊᓂᑦ 2011; ᐳᓚᒪᓂ ᐊᒪᓚᓂ ᐅᐊᓂᑦ 2006). ᐊᒪᓚᓂ ᐊᓂᓇᐅᒪᔨᖁᑕᐅᓪᓚᓂᑎᓂᒃ ᐊᒪᓚᓂ ᐱᖅᔪᓂᕐᓂᓂᓄᑦ
319 ᐱᒪᓚᓂᐊᔪᖁᑦ ᓇᓄᐃᑦ, ᐊᒥᖅᑎᑦ, ᑭᔪᑎᖅᑎᑦ, ᔪᑭᖅᑎᑦ, ᓴᐅᓂᖅᑎᑦ, ᓂᐊᖁᑦᓂᖅ ᓇᓂᓄᑕᒥᓂᖅᓯᒪᓂᑦ
320 ᐊᓂᓄᖁᔨᐅᑦᑐᖅᓴᖅᑐᑦᑐᓂᓂ, ᐊᐅᒪᒥᑐᑦ, ᓴᓇᖁᑭᑦ, ᐃᓪᓚᔨᓪᓚᐅᑦ ᐃᓂᓂᐊᓚᐅᑭᑎᓂᑐᓂᓚᓂᑦ, ᐊᒪᓚᓂ
321 ᓂᐅᐃᐊᑦᓴᓇᓄᐅᐊᓪᑕᑐᓂᓚᓂᑦ ᐱᑐᖅᑲᓇᑦ ᓴᓇᐅᑦᓪᓚᓂ. ᒪᑭᒪᔨᖁᑎᖁᓂᑦ ᐱᓪᓚᓂᑦ ᓂᖁᔨᕐᑎᓄᓪᑦ, ᓄᓇᓕᐃᑦ ᐊᒥᖅᑎᑦ,
322 ᑭᔪᑎᖅᑎᑦ, ᔪᑭᖅᑎᑦ, ᓴᐅᓂᖅᑎᑦ ᓂᐊᖁᑦᓂᖅᑐᓪᓚᓂ ᓂᐅᖁᑎᑕᐅᓄᓇᕐᓂᑦ ᐊᓯᐊᔪᑦ (ᓯᓚᐃᒃ 2013; ᐱᐅᒃ et al. 2011;
323 ᑭᐊᓪᑐᓗᒃ 2013). ᐊᓯᓂᖅᑕᐅᖅᑐᓂᓄᓕᕆᓂᖅᑐᑦ ᐊᑐᑎᖁᓂᖅᓱᕐᔪᓂᖅᑐᓄᑦ ᑭᒃᔨᓂᖅᑐᓂᓪᓚᓂ,

[9] https://www.polarbearscanada.ca/en/polar-bears-canada/canadas-polar-bear-subpopulations

ᐅᕐᐸᒪᖅᑲᓂᖅᑐᓄᓪᓕ, ᐃᓅᓯᓕᐊᕐᓂᖅᑐᓄᓪᓕ, ᐱᖅᑯᓯᖅᑐᓄᓪᓕᓪᓚ ᐅᑭᐅᖅᑕᖅᑐᑎᐅᓪᓂ ᓄᓇᖅᑲᖅᑐᑎᓂᓪᓂ ᑲᓇᑕᒥ.

3.3ᐱᑕᖅᓀᐊᖅᓂᖅᑐᓂᓂᕐᓴᐅᓪᓂ

ᑲᓇᑕᒥ, ᐊᓄᐃᓪ ᑕᑎᖅᑲᖅᑕᑦᓭᓚᑕ ᐃᒪᖏᐅᑕᑦᓂᓪ (ᓯᑯᒥ) ᓄᓇᒥᐅᑕᓂᓗ ᐊᓯᑦᓂᐊᖅᑕᖅᑐᓂᓂ ᐃᓄᓯᖏᒥᓂᓪ ᑕᐃᒪᐃᑎᐊᖅᑲᖅᓚᑕ. ᐊᓯᖅᓴᑦᑕᖅᑐᑦ ᓯᑯᓂᓪ ᓄᓇᒧᑦ ᖃᓂᑦᑐᓂᓪ, ᐃᒪᕕᓂᓄᑦᑐᓂᓪ ᓯᑭᓂᓪ, ᓯᓴᒥ ᖃᐃᓐᓇᔪᓂᓗ ᓄᓇᒥᓗᓗ (ᐃᓗᐊᓂ 50 ᑭᓚᒋᑕᓂᓪ ᓯᓴᒋᓐᓇᖅᑐᓂᓪ ᑎᑭᑦᑐᒍ 120–ᒧᑦ ᑭᓚᒋᑕᓂᓪ ᐅᖅᓱᓯᑦᑐᒥᑦ) ᓵᓴᑐᐊᒥ, ᑯᓴᐃᓕᒥ, ᐊᓐᑎᐅᑉᓯᒥ, ᓗᓂᑐᓴᒥ, ᓄᓇᖅᑐᐊᒥ, ᔭᐅᒥᓗ (COSEWIC 2018). ᐅᖅᓱᓯᑦᑎᒋᓀᑦᑐᑐ ᓯᑯᒥ ᑭᓯᐊᓂ ᐊᐅᓴᖅ ᐊᐅᓴᒃᑯᑦ (ᑕᒪᓐᓇ ᐊᑦᑕᐃᔨᓪᒥᑦ ᓯᑯᓂᕐᓇᖅᑕᐅᔪᖅ); ᓯᓴᒥ ᓯᑯᓀᓪᓕᐊᔪᓂᖅ ᖃᐃᓐᓇᒧᑦ ᐊᐅᓴᒃᑯᑦ ᓯᑯᒃᑯᓯᓐᓇᓕᖅᑐᑐᓂ; ᓄᓇᓕᓂᓂ ᓯᑯᓀᑐᓂᓂ ᐅᓐᓀᓐᓇᓂᓂ ᓴᖅᑭᑦᑐᓂᓂ ᐃᓕᓴᕐᓂᖅᑐᓂᓂ ᐊᐅᔪᓐᓇᖅᑐᓂᑐᑦ) (ᐋᑦᓂᓂ et. al 2016). ᐃᓕᖅᑐᑦ ᐊᓄᐃᓪ ᓯᑯᑐᖃᓂᑯᓯᑦ ᐊᖅᑯᑎᖃᖅᑐᑐᑎᑦ ᓄᑦᑕᐸᑦᑐᑦ, ᐃᓕᖅᑐᑦ ᐊᓂᔨᓚᓗᓂ ᓄᓇᖅᐸᓯᒪᒧᑦ ᐃᒪᐃᓕᒥᑦ (ᑲᑐᔪᓂᖅ ᐊᑦᓭᒧᑦᑐᓂᓂ 2015). ᑕᕐᑯᓯᓂᖅ ᐅᒪᓴᑦ ᓇᓴᖏᑎᓂᓪ ᐊᑦᑐᑐᖃᖅᑎᑉᑐᑐᑦ ᓯᑯᐃᓪ, ᑕᒪᖃᑯᓯᐊ ᓇᓄᐃᓪ ᓇᓴᖅᑭᑦ ᖃᓄᐅᕐᓂᑦ ᓯᑯᓂᓪ ᐃᕐᓴᓂᖅᑐᓂᓪᓚᓯ ᓯᑯᒥᐅᑕᑐᑦᓇᖅᑕᒥ ᓇᓕᑎᓐᓂᑦ, ᐱᓚᐊᖅᑐᖅ ᓇᑦᑕᑐᐃᓕᓂᑦ (*Pusa hispida*) (ᓯᑐᓚᓐᓄ et al. 1997; ᓯᑐᓚᓐᓄ 2002; ᐱᐅᑦᑐᑦ et al. 2015).

ᐊᑦᑐᐊᓂᑦ ᓇᓄᐃᓪ, ᓯᑯ, ᓂᕆᔨᖅᑭᓚ (ᐱᓚᐊᖅᑐᒥᑦ ᓇᑦᑏᑦ ᐅᕐᔪᓚᓚ) ᓇᓚᓇᖅᑐᖅᐸᓚᑦ, ᓯᑯᐃᓚᓚ ᖃᓄᐃᓪᑐᓂᑦ, ᐃᕐᔪᓚᓱᑦ (ᓯᑦᓚ ᐊᑦᑕᐃᔨᓪᒥᑦ ᓯᑯᖃᖅᑦᓯᑦ ᐊᑦᑕᐃᒪ ᓯᑯᑐᐃᓇᓇᐃᓪ, ᓄᓇᓕᓂᓂ ᖃᓄᐅᑎᓪᓗᓂᑦ ᐊᑦᑕᐃᒪᓕᖅᑐᑦ (ᐋᔪᕋᒥᐅᑦ ᖃᑎᒌᓕᕐᓂᑦ (pressure ridges), ᐋᔪᕋᐃᑦ (open leads), ᐊᖏᓚᓂ ᓯᑯᖃᓚᓇᑦ (rubble ice)), ᐃᕐᔪᓂᖅᑐᑦ ᓇᒥᓂᖅᑐᓚᓂ (SARC 2021). ᓇᓄᐃᓪ ᓇᒧᓂᓂᓪ ᑎᑎᖅᑐᓚᓂ, ᖃᓄᐃᓕᓴᕐᓂᖅᑐᓂ, ᖃᓄᐃᓕᓴᐅᕐᓇᖅᑐᓂ ᐱᓕᕆᐊᑐᒍᒪᒋᑦ ᐊᑦᑕᐊᓂᖃᖅᑎᓪᓚᑦᑐᓂ ᓯᑯᐃᓪ ᖃᓄᐃᓕᓴᐅᓂᖅᑐᓂ, ᐃᓚᖏᑎᑐᓚᑦᑐᓂ, ᓇᑦᑕᑐᓂ, ᑐᑭᓯᓂᑦᑐᓂᓪᓚᓂᑦ ᐊᑦᑕᐊᓂᖃᖅᑎᓪᓚᑦᑐᓂ ᐱᓕᕆᐊᑐᒍᒪᒋᑦ (SARC 2021).

ᑐᑭᓯᐊᓂᖅᑲᓂᔪᓂᑐᐃᓐᓇᑦ ᐅᒪᓴᑦ ᑎᑦᓱᓄᑦ ᓄᓇᒧᑦᑐᑐᓂᑦ ᒪᑕᑦᑐᓂᑦ IUCN-CMP–ᓂᑦ (ᓯᓚᖏᐊᒥ ᐱᐅᖅᓯᐊᖏᓂᔪᒧᑦ ᑲᑐᔪᖅᑎᑎᓂᓪᓕᑦ ᐅᑦᑐᑎᖅᑐᑦᑐᓂᑦ ᐱᓚᓀᖅᑎᑎᓂᓪᓕᑦ) ᓇᓚᓇᐃᖅᓯᒪᑦᑐᓂᑦ ᐅᓚᓂᐊᓇᖅᑐᒋᓐᓂᒃᑯᓂᓂᓪ ᖁᓂᓐᓂᓂᓪ, ᓱᓐᓂᑕᓂᓐᓂᓪ. ᐅᓚᓂᐊᓇᖅᑐᑦ ᓇᓚᓇᐃᔨᖅᑕᐅᔪᑦ ᐅᖅᓱᓯᓂᓂᓪᓂ ᖃᓄᐃᓕᓴᐅᓂᖅᑐᓂᓪ ᐅᕐᔪᓂᖅᑐᑦ, ᐊᖏᓚᓂᖅᑐᑦ, ᐅᕐᔪᓂᖅᑐᓂ ᐊᑦᑕᐃᐃᓂᖅᑐᓂᓪ ᐊᑦᑕᐃᔨᓪᒥᑦᑐᐊᔪᑦ, ᐊᑦᑕᐃᔨᓪᓕᐊᔪᑦ, ᐅᕐᔪᓂᖅᑐᓂ ᐊᑦᑕᐃᔪᓇᖅᑐᑦ ᓯᓚᑦᑐᓂᓪ ᓯᕆᑎᖅᑕᐅᓚᑦ, ᐱᐅᓐᓂᑦᑐᓂᓪᓚᑦ, ᐊᑦᑕᐃᔨᓪᓕᐊᔪᑦ ᑎᑎᐅᔪᑦ ᖃᐅᔨᓴᖅᑕᐅᔪᑦ (ᐊᒥᓱᓂᖅᑐᓂ, ᓂᕆᔨᑦ, ᓄᓇᓕᓂᓂ ᐅᕐᔪᓂᖅᑐᓂ ᐅᑎᓂᖅᑐᓂᓪᓚᑦ ᐊᑦᑕᐃᔨᓪᒥᑦᑐᐊᔪᑦ (ᐊᒥᓱᓂᖅᑐᓂ, ᓂᕆᔨᑦ, ᓄᓇᓕᓂᓂ ᐅᕐᔪᓂᖅᑐᓂ ᐅᑎᓂᖅᑐᓂᓪᓚᑦ ᐊᑦᑕᐃᔨᓪᓕ

ᓯᕐᕿᑎᑕᒪᔨᓇᖅᑐᑦ ᐃᓱᒪᒋᐅᐅᔪᑦᑎᑦᑐᑦ ᐱᖅᓯᐅᖅᓴᐅᑎᐊᖏᑦ ᑕᕐᖅᓂ ᖃᐅᔨᓴᕐᓂᖅᑎᑦ. ᐅᓪᓗᐊᓇᖅᑐᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᖏᑦ, ᐊᓐᓇᓕᓴᐃᑦ ᓯᐅᓂᑎᓪᓂᓪᓕᓪ ᐅᓪᓗᐊᓇᓕᐅᔪᓇᖅᑐᑦ (ᐅᑭᐅᓄᑦ ᕿᓯᐅᓂᐊᖅᑐᓄᑦ) ᐃᓱᒪᒋᔭᑦ. ᐅᐊᑦᑎᐊᑭᕐᓂᓴᑦ ᐅᓪᓗᐊᓇᓕᐅᔪᓇᖅᑐᑦ, ᐊᑦᑐᐃᓪᓕᓚᓪᓕᓪᓗᑎᑦ ᐊᖅᓄᖅᖃᕐᓗᑎᓪᓕᔪᓐᓇᖅᑐᑦ ᐅᓪᓗᐊᓇᓕᐅᔪᓇᕐᓂᖅᑐᑦ ᐃᓱᒪᒋᔭᑦ, ᐅᕙᓪᓕᐊᔪᖅᑐᑦ ᐊᓱᖅᑐᓂᓄᑦ ᑐᑭᓯᓱᒪᒋᐅᐊᖅᑐᓄᑦ ᐅᓪᓗᐊᓇᓕᐅᔪᓇᕐᓂᖅᑐᑦ ᐃᒪᓐᓇᖅᑐᓂᓄᑦ ᐅᓪᓗᐊᓇᓕᐅᔪᓇᖅᑐᑦ ᐊᑐᖅᑐᓂᓄᑦ ᐱᖅᓯᐅᖅᓴᐅᑎᐊᖏᑦ ᐃᓱᒪᒋᐅᐊᖅᑐᓄᑦ.

ᐅᓪᓗᐊᓇᓕᓴᒥᒃᑐᑦ ᖃᐅᔨᓴᐅᑎᓂᑦ ᓇᓂᓴᓂᑦ (ᐊᑦᑕᓂ) ᑎᑎᕋᖅᑕᐅᓪᓚᐅᖅᓯᒪᔪᑦ ᐊᐃᐳᓪ 2018–ᒥ, ᑲᒪᒋᔭᐅᓪᓚᓂᑦ COSEWIC–ᓂᑦ. ᓇᓂᓪᓗᓂᒥᒃᑐᑦ ᐊᐅᓪᓚᓕᑎᑕᑎᖃᖅᑎᑎᑦ (ᓯᐢᓪᓗ ᓴᖅᓯᒪᑐᖃᖅᑐᓂᒥ, ᑲᒪᒋᔭᖅ ᕿᓯᐅᓂᐊᖅᑐᓄᑦ ᐊᕐᕌᒍᓐᓇᖅᑐᓂᒥ ᑲᑎᒪᔨᖅᑐᑦ/ᐅᖃᐅᔨᔪᓕᐊᓂᖅᑐᓄᑦ ᑲᑎᒪᔨᖅᑐᑦ, ᐅᑭᐅᓂᖅᑐᑦ ᐊᓯᖏᓐᓂᖅᑐᓄᑦ ᐊᑐᖅᑐᓂᒥ ᑲᑎᒪᔨᖅᑐᑦ, ᐃᓕᓴᕐᓂᔨᕿᐊᓯᑦ ᑲᑎᒪᔨᖅᑐᓂᒥ ᑲᑎᒪᔨᖅᑐᑦ, ᓴᓇᖃᖅᑲᖅᑐᓂᒥ ᑲᑎᒪᔨᖅᑐᑦ, ᓴᓇᖃᖅᑲᖅᑐᓂᒥ ᑲᑎᒪᔨᖅᑐᑦ, ᐊᓕᒪᓪ ᓯᓚᑦᑐᖅᓴᓐᓂᕐᕕᐊᑦ ᖃᐅᔨᓴᖅᑎᖅᑐᓂᒥ) ᐊᑦᑐᐃᓪᓕᖃᖅᑐᑎᑦ ᑲᑎᒪᔨᖅᑐᑦ. ᐅᓪᓗᐊᓇᓕᖅᑐᓂᒥ ᖃᐅᔨᓴᐅᑎᑦ ᐊᑎᑦᑐᓯᓚᑦ ᐊᓱᒪᒋᔭᖅᑐᑦ ᓇᓂᓴᑦ ᓇᓪᓗᓇᐃᖅᑎᑐᓯᒪᔪᑦ ᐱᓕᒥ ᑲᑎᒪᔨᖅᑐᑦ, ᑕᐃᒪᓐᓇᖅᑐᑦ ᓇᓪᓗᓇᐃᖅᑐᓕᕆᓚᑦ COSEWIC–ᓄᑦ, ᐊᑦᑭᓯᓂᑎᑕᐅᓯᒪᔪᑦ ᐊᑐᖅᑐᑎᑦ ᐊᑐᐃᓐᓇᐅᓯᒪᔪᑦ ᑐᑭᓯᓱᒪᒋᐅᐊᖅᑐᓄᑦ.

ᑎᑎᕋᖅᑕᐅᓪᓚᐅᖅᓯᒪᔪᑦ 4. ᐅᓪᓗᐊᓇᖅᑐᑦ ᖃᓄᐃᑎᐅᓪᓗᓂᑦ ᖃᐅᔨᓴᖅᑕᐅᓯᒪᔪᑦ[10].

ᐅᓪᓗᐊᓇᖅᑐᑦ #	ᐅᓪᓗᐊᓇᖅᑐᑦ ᓇᓪᓗᓇᐃᖅᑎᑐᓯᒪᔪᑦ	ᐊᑦᑐᐃᓐᓇᖅᑐᓂᖅᓱᵃ	ᑕᑯᓇᖅᑕᐅᓪᓗᓂᖅᓱᵇ	ᖃᓄᐃᑎᐅᓪᓗᓂᑦ	ᖃᓄᖅᓱᑯᓪᓗᓂᖅᓱᵈ
1	ᐊᖏᓂᕆᓕᐅᓄᑦ ᓂᐅᔨᕈᑎᖃᕆᔨᖅᓴᓂᐅᔨᓂᑦ	ᒥᑭᓂᖅᓴᖅᑎᑐᑦ	ᒥᑭᓂᖅᓴᖅᑎᑐᑦ (<1%)	ᐊᖅᓯᐊᓚᐅᖅ (71-100%)	ᔨᑯᕐᓇᓯᑐᑎᖅ (ᑲᓯᑐᑕᐃᓇᓚᖅᑎᖅ)
1.1	ᐃᓕᓚᓕᐅᔨᓂᖅ ᓄᓇᓕᐸᐅᕐᓂᓕᓚ	ᒥᑭᓂᖅᓴᖅᑎᑐᑦ	ᒥᑭᓂᖅᓴᖅᑎᑐᑦ (<1%)	ᐊᖅᓯᐊᓚᐅᖅ (71-100%)	ᔨᑯᕐᓇᓯᑐᑎᖅ (ᑲᓯᑐᑕᐃᓇᓚᖅᑎᖅ)
1.2	ᓂᐅᔨᕈᑎᖃᕆᔨᖅᓴᓂᐅᔨᓂᖅ ᓴᓇᖃᓂᓕᓚ	ᒥᑭᓂᖅᓴᖅᑎᑐᑦ	ᒥᑭᓂᖅᓴᖅᑎᑐᑦ (<1%)	ᐊᖅᓯᐊᓚᐅᖅ (71-100%)	ᓇᓪᓕᖅᑐᑎᑦ/ ᒥᑭᓂᖅᓴᖅᑎᑐᑦ (ᐅᐊᑦᑎᐊᑭᕐᓂᓴᑦ ᐊᑦᑕᐃᓚᓕᓂᖅᑐᑎᑦ)
3	ᐅᓪᓚᖅᓄᑎᓕᐅᔨᓂᖅᓂᐅᔨᓂᖅ ᐅᓴᕐᓂᓂᐊᕐᓂᓕᓚ	ᒥᑭᓂᖅᓴᖅᑎᑐᑦ	ᒥᑭᓂᖅᓴᖅᑎᑐᑦ (<1%)	ᐊᖅᓯᐊᓚᐅᖅ (71-100%)	ᐊᑦᑎᑦᑐᑎᖅ (ᐊᓄᓂᒍᑐᐃᓇᓗᐊᓕᓚᖅ, >10 ᐊᑦᕿᔪᑦ/3 ᑭᖑᓂᖓᓴᑦ)
3.1	ᐅᖃᓄᐊᓚᑦ ᐄᓄᓄᐅᔨᓂᒍᓕᓚ ᐳᑐᓗᓂᑦ	ᒥᑭᓂᖅᓴᖅᑎᑐᑦ	ᒥᑭᓂᖅᓴᖅᑎᑐᑦ (<1%)	ᐊᖅᓯᐊᓚᐅᖅ 71-100%)	ᐊᑦᑎᑦᑐᑎᖅ (ᐊᓄᓂᒍᑐᐃᓇᓗᐊᓕᓚᖅ, >10 ᐊᑦᕿᔪᑦ/3 ᑭᖑᓂᖓᓴᑦ)
3.2	ᐅᓴᕐᓂᓂᐊᕐᓄᑦᐅᓴᖅᑭᑎᐊᕐᓄᑦ	ᒥᑭᓂᖅᓴᖅᑎᑐᑦ	ᒥᑭᓂᖅᓴᖅᑎᑐᑦ (<1%)	ᐊᖅᓯᐊᓚᐅᖅ (71-100%)	ᐊᑦᑎᑦᑐᑎᖅ (ᐊᓄᓂᒍᑐᐃᓇᓗᐊᓕᓚᖅ,

[10] ᐅᓪᓗᐊᓇᖅᑐᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᖏᑦ ᐱᓴᐅᓕᓴᑦ 2018 ᐱᓂᓪᓕᐊᔨᓪᓚᓕᓚ COSEWIC ᖃᐅᔨᓴᖅᑕᐅᓂᖏᓐᓂᑦ ᖃᓄᐃᓕᓴᕆᓂᖏᓐᓂᓪᓕᓚ ᐅᓂᒃᑲᖏᓂᑦ ᓇᓂᓴᑦ *Ursus maritimus* ᑲᓇᑕᒥ.

ᐅᓄᕆᐊ ᓇᖅᑐᖅ #	ᐅᓄᕆᐊᓇᖅᑐᑦ ᓇᓄᓇᐃᖅᓯᒪᔪᑦ	ᐊᑦᑐᐃᓂᖅᓴᐅᓂᖓᓄᵃ	ᑕᑯᔪᓇᖅᑕᐅᓂᖓᓄᵇ	ᖃᓄᐱᒋᐅᓂᖓᓄᑦ	ᖃᖓᓄᑲᑯᓂᖓᓄᵈ
					>10 ᐊᖏᕐᒪᑦ/3 ᑭᖑᓪᓚᕆᑦ)
4	ᐃᖅᑲᖏᖅᓯᕆᓂᖅ ᐱᔨᑦᑎᕐᐅᑎᓴᑯᓗᓪᓕ ᐊᖅᑯᒋᐅᐅᓪᓚᑦᑐᑦ	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ	ᒥᑭᔪᐊᓕᵇ (1-10%)	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ (<1%)	ᐊᑦᑎᑦᑐᖅ (ᐊᑯᓂᒍᑐᐃᓇᓕᐊᓕᒃᵇ, <10 ᐊᖏᕐᒪᑦ/3 ᑭᖑᓪᓚᕆᑦ)
4.1	ᐊᑐᓕᐊᓕᐅᖏᓂᖅ ᓄᓇᓱᐅᑎᓂᑯᑉᓕᓪᓕ ᐊᑐᓕᐊᑦᑎᓂᵇ	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ (<1%)	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ (<1%)	ᐊᑦᑎᑦᑐᖅ (ᐊᑯᓂᒍᑐᐃᓇᓕᐊᓕᒃᵇ, >10 ᐊᖏᕐᒪᑦ/3 ᑭᖑᓪᓚᕆᑦ)
4.2	ᖃᐅᔨᒪᓱᐅᑎᓂᑦ ᐱᔨᑦᑎᕐᐅᑎᓄᑯᓪᓕ ᓱᓕᓪᓕᑦ	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ (<1%)	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ (<1%)	ᓇᒪᒫᑦᑐᖅ/ ᒥᑭᓂᖅᓴᖅᑎᒍᑦ (ᐅᐊᑦᑎᐊᑭᐅᓂᒃᑦ ᐊᑦᑐᐃᓕᓚᓐᓂᒫᑦᑐᖅᑦ)
4.3	ᐅᒥᐊᖏᐊᖅᓂᑦ ᐊᖅᓂᑎᑦ	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ	ᒥᑭᓚᐊᓚᵇ (1 – 10%)	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ (<1%)	ᐊᑦᑎᑦᑐᖅ (ᐊᑯᓂᒍᑐᐃᓇᓕᐊᓕᒃᵇ, <10 ᐊᖏᕐᒪᑦ/3 ᑭᖑᓪᓚᕆᑦ)
4.4	ᖃᖓᓪᑕᓗᑦ ᐊᖅᓂᒍᖓᓕ	ᐅᓄᕆᐊᓇᓐᖑᑦᑐᖅ	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ (<1%)	ᓇᓕᐊᓐᓂᐅᐅᓐᖑᓕ ᐃᑲᔪᑎᑐᐃᓐᓇᓇ ᐊᓕᓂᵇ	ᖃᓄᐃᓐᓇᓕᑦᑐᖅ (ᑲᔪᓕᑐᐃᓐᓇᖅᑐᖅ)
5	ᐱᑭᖅᑐᓂᑦ ᐊᑐᖅᑕᐅᓐᓇᓕᑦᑐᑦ	ᐊᑦᑎᑦᑐᖅ	ᖃᑕᒪᔪᐊᐅᓐᖑᓕ (71-100%)	ᓂᖏᓕᑭᓚᵇ (1-10%)	ᖃᓄᐃᓐᓇᓕᑦᑐᖅ (ᑲᔪᓕᑐᐃᓐᓇᖅᑐᖅ)
5.1	ᐊᓂᓐᖏᓂᑦ ᓄᐊᑦᑎᐅᓵᑦᓕ ᓄᓇᒥᑦᑐᑭᓂᑦ ᓂᖏᔪᑎᓂᑦᓕ	ᐊᑦᑎᑦᑐᖅ	ᖃᑕᒪᔪᐊᐅᓐᖑᓕ (71-100%)	ᓂᖏᓕᑭᓚᵇ (1-10%)	ᖃᓄᐃᓐᓇᓕᑦᑐᖅ (ᑲᔪᓕᑐᐃᓐᓇᖅᑐᖅ)
6	ᐃᓄᐃᑦ ᐸᕐᕕᐊᓵᓂᖓᓂᑦ ᐊᑦᑐᐃᓂᖓᓂᑦ	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ	ᐱᑦᑕᐃᑕᓂᑦ (11-30%)	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ (<1%)	ᖃᓄᐃᓐᓇᓕᑦᑐᖅ (ᑲᔪᓕᑐᐃᓐᓇᖅᑐᖅ)
6.1	ᒥᖏᔭᐃᖅᓯᖅᑐᑦ	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ	ᒥᑭᔪᐊᓚᵇ (1 – 10%)	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ (<1%)	ᖃᓄᐃᓐᓇᓕᑦᑐᖅ (ᑲᔪᓕᑐᐃᓐᓇᖅᑐᖅ)
6.2	ᐅᓇᑕᕕᓵᔪᐊᖅᑐᑦ, ᐃᓄᐃᑦ ᐅᓇᑕᖅᑐᑦ ᓴᐃᓕᓐᓂᖏᑦᑐᑦ ᐅᓇᓕᓪᓕ ᐱᓕᒪᓴᖅᑐᑦ	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ	ᐱᑭᓂᖅᓴᖅᑎᒍᑦ (<1%)	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ (<1%)	ᖃᓄᐃᓐᓇᓕᑦᑐᖅ (ᑲᔪᓕᑐᐃᓐᓇᖅᑐᖅ)
6.3	ᐃᖅᑲᓇᐃᕆᖅᑐᑦ ᐊᓯᖏᓐᓂᓕᓪᓕ ᖃᓄᐃᓕᔪᖅᑐᑦ	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ	ᐱᑦᑕᐃᑕᓂᑦ (11 – 30%)	ᒥᑭᓂᖅᓴᖅᑎᒍᑦ (<1%)	ᖃᓄᐃᓐᓇᓕᑦᑐᖅ (ᑲᔪᓕᑐᐃᓐᓇᖅᑐᖅ)

ᐅᓗᕆᐊ ᓇᖅᑐᖅ #	ᐅᓗᕆᐊᓇᖅᑐᑦ ᓇᓗᓇᐃᖅᓯᒪᔪᓪ	ᐊᑦᑐᐃᓂᖅᓯᓂᖅᓱᵃ	ᑕᑯᔪᓇᖅᑕᐅᓂᖅᓱᵇ	ᖃᓄᑎᑭᐅᓂᖅᓱᑦ	ᖃᖅᓱᐅᑯᓂᖅᓱᵈ
7	ᓄᓇᐃᑦ ᐊᓯᔨᖅᑐᖅᑕᐅᓂᖏᑦ	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᒥᑭᔪᐊᓗᵇ (1 – 10%)	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᖁᑦᓴᓇᓕᑐᖅ (ᑲᔪᓯᑐᐃᓇᓪᓚᖅᑐᖅ)
7.1 ᐃᑭᑦᑐᑦ ᐃᑯᐊᓕᒍᓪᓚ ᓯᕿᖃᑎᖅᑐᑦ	ᐅᓗᕆᐊᓇᓪᓗᑎᑦᑐᖅ	ᒥᑭᓂᖅᓯᖅᑎᒍᑦ (<1%)	ᓇᓕᐊᓪᓂᐅᓪᓗᑎ ᐃᑲᔪᑎᑐᐃᓪᓇᑉ ᐊᓕᓵᵇ	ᖁᑦᓴᓇᓕᑐᖅ (ᑲᔪᓯᑐᐃᓇᓪᓚᖅᑐᖅ)
7.2 ᓴᐳᓗᑕᐃᑦ ᑯᓪᓗᑦ ᐃᒪᖏᑉᓗᓗ ᐊᐅᓪᓕᑎᒍᑎᑦ /ᐊᑐᖅᑕᐅᓂᖏᑉᓗᓗ	ᐅᓗᕆᐊᓇᓪᓗᑎᑦᑐᖅ	ᒥᑭᓂᖅᓯᖅᑎᒍᑦ (<1%)	ᓇᓕᐊᓪᓂᐅᓪᓗᑎ ᐃᑲᔪᑎᑐᐃᓪᓇᑉ ᐊᓕᓵᵇ	ᐊᑎᑎᑐᖅ (ᐊᑯᓂᒧᐃᐃᓪᓇᓚᓕᓵᵇ, >10 ᐊᖏᖅᒧᑦ/3 ᑭᖓᔪᓱᓴᑦ)
7.3 ᐊᓯᖏᑦ ᓄᓇᒋᑎᑐᓂᵇ ᐅᒪᔨᓂᓪᓗ ᐊᓯᔨᖅᑕᐅᓂᖏᑦ	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᒥᑭᔪᐊᓗᵇ (1 – 10%)	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᖁᑦᓴᓇᓕᑐᖅ (ᑲᔪᓯᑐᐃᓇᓪᓚᖅᑐᖅ)
8 ᐸᕐᕕᒃᓴᓂᖅ ᐊᐅᐅᓂᖏᓕᐅᑕᐅᔪᓄᑦᓗᓗ ᓂᖏᐅᓄᑦ ᑕᐃᒪᒪᐃᑦᑐᖅᑎᐅᓂᓄᑦᓗᓗ	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᖁᒪᒐᔪᐊᐅᓂᖏᑦ – ᐊᖏᔪᐊᓗᵇ (31-100%)	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᖁᑦᓴᓇᓕᑐᖅ (ᑲᔪᓯᑐᐃᓇᓪᓚᖅᑐᖅ)
8.1 ᐸᕐᕕᒃᓴᑦ ᐅᒪᔨᑦ /ᐊᑦᓯᓂᑦ ᓂᖏᐅᓂᒃ	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᖁᑦᓴᓇᓕᑐᖅ (ᑲᔪᓯᑐᐃᓇᓪᓚᖅᑐᖅ)
8.2 ᐊᐅᐅᓂᖏᓕᐅᑕᐅᖁᖏᓂᖅ ᐅᒪᔨᓂᒃ ᓂᖏᐅᓂᓂᑦ/ ᖃᓂᒪᓂᓗᓚᐃᑦ	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᖁᒪᒐᔪᐊᐅᓂᖏᑦ – ᐊᖏᔪᐊᓗᵇ (31 – 100%)	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᖁᑦᓴᓇᓕᑐᖅ (ᑲᔪᓯᑐᐃᓇᓪᓚᖅᑐᖅ)
8.3 ᓴᖅᑭᖅᑕᐅᔨᑦ ᐊᓯᖏᑦᑐᑦ ᓄᑦᑦᑐ ᓇᑭᓂᓴᖅᓯᒪᔨᑦ	ᒥᑭᓂᖅᓯᖅᑎᒍᑦ	ᒥᑭᔪᐊᓗᵇ (1 – 10%)	ᒥᑭᓂᖅᓯᖅᑎᒍᑦ (<1%)	ᖁᑦᓴᓇᓕᑐᖅ (ᑲᔪᓯᑐᐃᓇᓪᓚᖅᑐᖅ)
9	ᐳᔨᓪᓕᐊᓪᓚᵇ ᐱᐅᓂᖏᑦᑐᑕᐊᓪᓚᵇ	ᐊᑦᑐᑎᑦᑐᖅ	ᖁᒪᒐᔪᐊᐅᓂᖏᑦ (71-100%)	ᔨᑦᓯᑕᒧᓪᓚᵇ (1-10%)	ᖁᑦᓴᓇᓕᑐᖅ (ᑲᔪᓯᑐᐃᓇᓪᓚᖅᑐᖅ)
9.1 ᐃᓇᓂᓂᑦ ᓄᓇᓕᐸᐅᖃᓂᓪᓗ ᐃᒥᑦᓪᓗᐃᑦ ᑯᓂᓂᖏᑦ	ᒥᑭᓂᖅᓯᖅᑎᒍᑦ	ᒥᑭᓂᖅᓯᖅᑎᒍᑦ (<1%)	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᖁᑦᓴᓇᓕᑐᖅ (ᑲᔪᓯᑐᐃᓇᓪᓚᖅᑐᖅ)
9.2 ᓴᓇᕆᐊᓪᓂᓄ ᐅᓇᓕᓂᓄᓪᓗᓗ ᓄᖕᒍᑕᐅᔪᓪᓚᐊᓕᑦ	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᒥᑭᔪᐊᓗᵇ (1 – 10%)	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᖁᑦᓴᓇᓕᑐᖅ (ᑲᔪᓯᑐᐃᓇᓪᓚᖅᑐᖅ)
9.3 ᐱᑭᖅᓱᓄᑦ ᐱᑭᖅᓯᐊᑦ ᓇᓯᖅᑐᐃᑦᓗ ᓄᖕᒍᓯᓚᓕᐊᓕᑦ	ᒥᑭᓂᖅᓯᖅᑎᒍᑦ	ᒥᑭᓂᖅᓯᖅᑎᒍᑦ (<1%)	ᖃᐅᔨᒪᔭᐅᓪᓗᑎ	ᖁᑦᓴᓇᓕᑐᖅ (ᑲᔪᓯᑐᐃᓇᓪᓚᖅᑐᖅ)
9.4 ᓴᓄᑦ ᑭᓴᓚᐃᑦᓗ	ᒥᑭᓂᖅᓯᖅᑎᒍᑦ	ᒥᑭᔪᐊᓗᵇ (1-10%)	ᒥᑭᓂᖅᓯᖅᑎᒍᑦ (<1%)	ᖁᑦᓴᓇᓕᑐᖅ (ᑲᔪᓯᑐᐃᓇᓪᓚᖅᑐᖅ)
9.5 ᓯᓚᵇᑯᖅᑐᖅ ᐳᔨᓪᓕᐊᓪᓚᵇ	ᐊᑦᑐᑎᑦᑐᖅ	ᖁᒪᒐᔪᐊᐅᓂᖏᑦ (71 – 100%)	ᔨᑦᓯᑕᒧᓪᓚᵇ (1-10%)	ᖁᑦᓴᓇᓕᑐᖅ (ᑲᔪᓯᑐᐃᓇᓪᓚᖅᑐᖅ)

ᐅᓗᓇᐊ ᓇᖅᑐᖅ #	ᐅᓗᓇᐊᓇᖅᑐᑦ ᓇᓗᓇᐃᖅᓯᒪᔪᑦ	ᐊᑦᑐᐃᓂᖅᓴᓂᖓᓱᵃ	ᑕ�posᓇᖅᑕᐅᓂᖓᓱᵇ	ᖃᓄᑎᒋᐅᓂᖓᓱᑦ	ᖃᖓᓱᑲᑯᓂᖓᓱᵈ
10	ᐊᐊᕐᑎᐅᓐᒃ ᖃᓄᐃᑦᑐᐊᓗᑦᑕᓕᓂᖅ	ᒥᑭᓂᖅᓯᖅᑎᑐᑦ	ᒥᑭᓂᖅᓯᖅᑎᑐᑦ (<1%)	ᒥᑭᓂᖅᓯᖅᑎᑐᑦ (<1%)	ᖁᔭᐊᓯᑦᑐᖅ (ᑲᔪᓯᑐᐃᓇᖅᑐᖅ)
10.3	ᑎᓯᖅᑐᑦ/ᐊᓕᐊᖅᑲᓪᓗ	ᒥᑭᓂᖅᓯᖅᑎᑐᑦ	ᒥᑭᓂᖅᓯᖅᑎᑐᑦ (<1%)	ᒥᑭᓂᖅᓯᖅᑎᑐᑦ (<1%)	ᖁᔭᐊᓯᑦᑐᖅ (ᑲᔪᓯᑐᐃᓇᖅᑐᖅ)
11	ᓯᓚ ᐊᓯᔨᓯᓕᐊᓂᖓᓇᓪᓂᓕ ᓯᓚᖁᓂᓪᑐᐊᓗᑦᓪᓗ	ᖁᔭᑎᑦᑐᖅ	ᖃᑭᒪᖏᖅᑕᖅᓯᖓ (71-100%)	ᐱᒋᒪᓚᐊᓗᑦ (31-70%)	ᖁᔭᐊᓯᑦᑐᖅ (ᑲᔪᓯᑐᐃᓇᖅᑐᖅ)
11.1	ᐅᒪᔪᑦ ᓇᔪᖅᑕᖅᓯᑦ ᐊᓯᔨᓯᓕᐊᔪᑦ ᓯᖁᑎᑦᑐᑦ	ᖁᔭᑎᑦᑐᖅ	ᖃᑭᒪᖏᖅᑕᖅᓯᖓ (71 – 100%)	ᐱᒋᒪᓚᐊᓗᑦ (31-70%)	ᖁᔭᐊᓯᑦᑐᖅ (ᑲᔪᓯᑐᐃᓇᖅᑐᖅ)
11.2	ᓯᓚᓗᖏᑦᑕᐅᓂᖓᓇᓪᓂᓕ ᐸᓂᖅᑐᐊᓗᑦ ᓄᓇ	ᖃᑭᒥᓂᖅᓯᖅᑎᑐᑦ (<1%)	ᖃᑭᒥᓂᖅᓯᖅᑎᑐᑦ (<1%)	ᖃᐅᔨᒪᔨᐅᓂᖓᓯᖓ	ᐊᑎᑎᑦᑐᖅ (ᐊᑯᓂᒧᑐᐃᓇᓚᐊᓕᒃ, >10 ᐊᖏᖅᔪᑦ/3 ᑭᖑᓂᖅᓴᓕᑦ)
11.3	ᓯᓚᐅᐸ ᓂᓪᓕᓇᖅᓂᖓ ᐅᓇᖅᓂᖓᔪᓚᓪᓂᓕ ᖁᔭᓂᖓᓗᐊᖅᑐᖅ	ᖃᐅᔨᒪᔨᐅᓂᖓᓯᖓ	ᒥᔪᐊᓗᑦᑐᑦ (1 – 10%)	ᖃᐅᔨᒪᔨᐅᓂᖓᓯᖓ	ᖁᔭᐊᓯᑦᑐᖅ (ᑲᔪᓯᑐᐃᓇᖅᑐᖅ)
11.4	ᓯᓚᖁᓂᓗᐃᑦ ᐅᓕᔪᐃᓴᓪᓗ	ᖃᐅᔨᒪᔨᐅᓂᖓᓯᖓ	ᖃᐅᔨᒪᔨᐅᓂᖓᓯᖓ	ᖃᐅᔨᒪᔨᐅᓂᖓᓯᖓ	ᖁᔭᐊᓯᑦᑐᖅ – ᐊᑎᑎᑦᑐᖅ
11.5	ᐊᓯᖏᓂᓄᑦ ᐊᑦᑐᖅᑕᐅᔪᑦ	ᖃᐅᔨᒪᔨᐅᓂᖓᓯᖓ	ᖃᐅᔨᒪᔨᐅᓂᖓᓯᖓ	ᖃᐅᔨᒪᔨᐅᓂᖓᓯᖓ	ᖃᐅᔨᒪᔨᐅᓂᖓᓯᖓ

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380 ᵃ **ᐊᑦᑐᐃᓂᖅᓴᓂᖓ** – ᖃᐅᔨᓕᓴᖅᑕᐅᖃᑦᑕᖅᓯᖏᑦ ᓂᖅᔪᑎᑦ, ᖃᓄᐃᒍᑕᐅᔨᓂᓇᖅᑐᐃᓂᓪᓂ, ᐅᐸᓇᓂᓕᑦ ᐊᑦᑐᖅᑕᐅᔪᓂᓪᓂ ᑕᑦᓂᓇᖅᑐᖅ
381 ᐊᖅᓄᖅᖃᓗᑎᒃᓴᓂᓕᑦ ᐅᓗᓇᐊᓇᖅᑐᑎᒥ. ᐊᑦᑐᐃᓂᖅᓴᓂᖏᓂᓂ ᐊᑐᓂ ᓇᓗᓇᐃᔾᔨᖅᓯᒪᔪᑦ ᖃᓄᑎᒋᐅᓚᖓᔾᔪᑎᒃᑕ ᑕᓄᐅᑕᐅᔪᓂᒃᓗ ᖃᓄᑎᒋᐅᓚᖓᔾᔪᑎᒃᑕ
382 ᐊᓚᒪᓗ ᒧᐊᓇᒍᑐᐊᖅ ᓄᓇᓕᒋᑎᓂᓕᓂᓪᓂᓕᑦ ᐅᓗᓇᐊᓇᖅᑐᑎᒍᔪᓇᖅᓯᖏᓂᓇᓕᑦ. ᑕᒪᕐᓂᐊ ᐅᓗᓇᐊᓇᖅᑐᑎᒍᑎᒋᓐᓂᔪᑦ ᐊᑦᑐᐃᓂᖅᓴᓂᖏᓂᓂ
383 ᖃᑦᑎᐊᓇᓄᖅᑭᓪᓕᓂᑎᒋᓐᓂᔪᒪᓕᑕ ᓂᓪᓯᔪᑎᑦ ᐊᒥᓱᓄᖏᓂᓂ ᐅᐸᓇᓂᓕᑦ ᐱᐅᔪᓂᓂᑕᐅᓇᓪᓕᓪᓚᓂᑎᑦ ᐅᒪᓂᖅᖃᖅᑐᓂᓕ ᓇᔪᖅᓂᓂᕐ
384 ᐊᑦᑐᐃᖅᑎᑦᓂᓂᖓᓇᓂᓂ. ᐊᐊᓂᓇᖏᔪᓪᓚᓪ ᖃᑦᑎᐊᓇᓄᖅᑕᐅᓂᓂᑕ ᐅᐸᓇᓂᓕᑦ ᑲᑎᓯᒪᓪᓚᑦᑕᓂᑕ ᐊᒥᓱᑦ ᐊᖅᐅᓂᖓᓪᓕᐅᑎᑎᓂᑕ ᑕᓂᓇᖅᑕᐅᔪᓂᓂᕐ
385 ᖃᓄᐃᒍᑕᐅᔨᓂᓂᓪᓚᓪᓂᓕ ᓇᓗᓇᐃᔾᔨᖅᓯᒪᔪᑦ ᐊᕐᕕᑦᑐᐃᓂᓂᑕ: ᐊᑦᑐᐃᖅᑎᑦᓂᓂᖓᓇᓂᓂ: ᐊᑦᑐᖅᑕᐅᔪᓂᓂᕐ (75% ᖃᑦᑎᐊᓇᓄᖅᑭᓪᓕᓂᓪᓚᓪᓂᓕ),
386 ᖁᔭᑎᑦᑐᐃᓚᐅᑦ (40%), ᐊᑯᓂᓇᖏᔪᓂᓕ (15%), ᐊᑦᑎᑎᑐᖅᓗ (3%). ᖃᐅᔨᒪᔨᐅᓂᖓᓯᑦᑐᐃᓂᓕᑦ: ᐊᑐᖅᑕᐅᔪᓂᓕᑦᑐᑦ ᐊᑦᑐᐃᓂᖅᓴᓂᖏᓂᓂ
387 ᓇᓗᓇᐃᖅᑕᐅᔪᓂᖓᓯᑐᖅ (ᓄᓇᓗ, ᖃᐅᔨᒪᔨᐅᓂᖓᓯᖓᓕᐸᑕ ᑕᑯᓇᖅᑕᐅᔪᓂᖓᓯᖓ ᖃᓄᐅᑕᐅᔪᓂᖓᓯᖓᓕᓗᓪᓗ); ᓴᓴᖅᑕᐅᔪᓂᓂᑕ: ᐊᑦᑐᖅᑕᐅᔪᓕᐊᓂᓕ
388 ᓴᓴᖅᑕᐅᔪᓂᓂᑕ ᐅᓗᓇᐊᓇᖅᑐᖅᓱᓂᓂ ᓄᓇᒥᓂᖅᓴᓂᓂᑕ ᖃᓄᐅᔨᓴᖅᓂᖓᓂ (ᓄᓇᓗ, ᖃᖓᓱᑲᑯᓂᓂ ᓴᓴᒪᓂᓇᒍᑐᐃᓂᓂᑕ/ᒥᓂᖅᓯᖅᑎᑦᑐᖅᓱᓂᓗᒍ
389 ᐅᓪᓚᓂᓂᕕᖅᓯᓂᑦᓗᒍ ᐅᓗᓇᐊᓇᖅᑐᖅᓱᓂ ᐃᓄᒪᑎᐅᐅᓂᖅᓴᓂᑕ ᐅᐊᑎᑎᐊᑦᓂᓴᐅᓂᐊᓕᖅᓱᓂ); ᒥᑭᓂᖅᓯᖅᑎᑦᑐᖅᓱᓂᑕ: ᑕᑯᓴᐅᓂᖓᓯᖓᓂᑕ
390 ᐅᓪᓚᓂᓂᕕᖅᓯᒪᔪᑦ ᒥᑭᓂᖅᓯᖅᑎᑦᑐᖅᓱᓂᑕ; ᐅᓗᓇᐊᓇᖅᑐᑎᒍᑎᒋᓐᓂᔪᒪᓕᑕ: ᖃᓄᐃᒍᑕᐅᔨᓂᓂᓪᓚᓪᓂᓕ ᑕᐃᒪᓕᐃᑕᐃᓇᖅᑐᖅᓱᓂᑕ
391 ᐊᑦᑐᖅᑕᐅᓂᖓᓂᑕᖅ ᐃᑲᔪᖏᐅᔨᓇᖅᑐᑦᓪᓚᓂᓂᕐ.

392 ᵇ **ᑕᑯᓇᖅᑕᐅᓂᖓᓱᑦ** – ᐃᓕᖓᓂᓂ ᓂᓪᓯᔪᑎᓂᑦ ᓂᓚᐅᑎᓴᐅᔨᓇᖅᑐᑦ ᐊᑦᑐᖅᑕᐅᔪᓇᓂᖓᓂᓂᓇ ᐅᓗᓇᐊᓇᖅᑐᐃᓇᑦ ᖁᔭᑦ ᐊᖅᑭᒍᑦ ᐃᓗᓪᓗᓂ.
393 ᐅᑦᑐᖅᑕᐅᔪᓇᖅᑐᑦ ᐃᓕᖓᓂᑦ ᓂᓪᓯᔪᑎᑦ ᐊᑎᓯᓂᖓᓂᑦ ᑕᑯᐅᑦᓴᐅᔨᓇᖅᑐᑦ (ᖃᖓᓱᑲᑯᓂᓂᕐᑐᖅ = 71–100%; ᐊᖓᔪᔨᐊᓗᓂᓂᑦ= 31–70%; ᐱᑦᑕᐃᓕᓂᔨᑦ
394 = 11–30%; ᒥᑭᔨᑕᓗᐃᑦ = 1–10%; ᒥᑭᓂᖅᓴᖅᓯᓗᐃᑦ < 1%).

395 ᶜ **ᖃᓄᑎᒋᐅᓂᖓᓱᑦ** – ᐃᓗᐊᓂᓕ ᑕᑯᓇᖅᑕᐅᔪᓂᓂ, ᖃᓄᑎᒋ ᓯᑐᖅᑕᐅᔪᓂᓂᓂᓂᓂ ᓂᓪᓯᔪᑎᑦ ᐅᓗᓇᐊᓇᖅᑐᓂᓂᓂᓂ ᓂᓚᐅᑎᓴᐅᔨᓇᖅᑐᑦ
396 ᐊᑦᑐᖅᑕᐅᔪᓇᓂᖓᓂᓂᓄᑦ ᐅᑭᐅᓂ ᖁᔭᓂᑦ ᐃᓗᐊᓂ ᐅᐸᓇᓂᓕᑦ ᐱᖓᓱᓇᓄᑦ ᑭᖑᓂᖅᓴᓕᓄᑦ ᑕᑭᑎᑎᓂᑦ. ᐅᑦᑐᖅᑕᐅᔪᓯᑦ ᖃᓄᑎᒋᐅᓂᖓᓂᑦ

397 ᖃᑦᑎᐊᓇᓚᐅᓂᖏᓪᓄᑦ ᓂᕆᔨᑎᑦ. (ᐊᑦᓯᐊᓕᔅᖅᑐᖅ = 71–100%; ᐱᓪᓚᓇᐊᓕᔭᒃ = 31–70%; ᐊᑯᐊᓇᖅᑭᔨᖅ = 11–30%; ᓯᑦᓚᑭᓕᔭᒃ = 1–10%;
398 ᒥᑭᓂᖅᓴᖅᑎᒍᑦ < 1%; ᑕᐃᒪᐃᑐᐃᓇᖅᑐᖅ ᐃᒃᔨᑎᖅᑭᓇᖅᑐᑦᔪᓪᓂᑦ ≥ 0%).

399 [d] **ᖃᓄᖅᔨᑯᓂᖅ** – ᖃᑦᑎᑦᑐᖅ = ᑲᔪᓯᓇᖅᑐᖅ; ᐊᑯᓇᓇᑭᔨᖅ = ᓯᐅᓂᑎᓂᑯᓂ ᑭᓯᐊᓂ (ᖃᑭᒥᑭᓕᔭᒃ ᑕᐃᒪᐃᔪᓇᖅᑐᖅ [< ᐊᑦᕿᔪᑦ ᖃᑯᓂ
400 ᐅᐸᓂᔪᓂᓂᑦ ᐱᖓᓱᑭ ᑭᖓᓂᕿᕋᓛᒃ]) ᐅᐸᓂᔪᓂᓂᑦ ᓄᖅᑲᖓᑲᐃᓇᑭᓇᖅᑐᖅ (ᐅᑎᑭᓇᖅᑐᖅ ᖃᒥᒥᑭᔭᒃ); ᐊᑦᑎᑦᑐᖅ = ᓯᐅᓂᑎᓂᑯᓂ ᑭᓯᐊᓂ
401 (ᐊᑯᓂᒧᑦ ᑕᐃᒪᐃᓕᓪᔪᓇᖅᑐᖅ) ᐅᐸᓂᔪᓂᓂᑦ ᓄᖅᑲᖓᑲᐃᓇᑭᓇᖅᑐᖅ (ᐅᑎᑭᓇᖅᑐᖅ ᖃᒥᒥᑭᔭᒃ); ᓇᓱᒪᓂᓪᓕᖏᓪᓕᑐᖅᑐᖅᔪᓪᓂᑦ/ᒥᑭᔭᐊᖅᑐᖅᓴᓪᓗᒃ =
402 ᐅᐊᑦᑎᐊᑭ ᑭᓯᐊᓂ ᐅᑎᓪᓗᑐᑐᐃᓂᓇᓚᐅᓪᓗ, ᐅᐸᓂᔪᓂᓂᑦ ᐊᑦᑐᐃᓂᖅᑲᓚᑲᓪᓕᓪᓗᑐᑦ ᑭᓯᐊᓂ ᐃᓯᖅᑎᒋᔪᖅ.

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404 ***4.2 ᓇᓕᓇᐃᔨᖅᓯᒪᔪᑦ ᑭᓯᐅᓕᓇᐊᓇᑭᓴᑦ***

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406 ᑐᑭᓯᒋᐊᑭᓴᑦ ᐃᓕᓐᓂᓪᓕᑐᖅ 4.2–ᒥ ᐅᖅᐅᓯᓕᓂᒃ “ᐅᓕᓇᓇᖅᑐᑦ” ᐃᓕᓐᓂᓪᓂ ᑕᐃᒃᓂ COSEWIC–ᒥ ᖁᐅᓴᓴᖅᑕᐅᔪᓂᒃ ᐊᓴᒪᓕ
407 ᖁᓇᐃᓕᓐᓄᓕᓴᖏᓪᓂ ᐅᓂᒃᑲᑦ ᓇᓄᓂᑦ, ᓴᖅᑭᖅᑕᐅᓕᐅᖅᓯᒪᔪᑦ ᐅᑭᐅᓴᓴᑯᑦ 2019–ᒥ. ᑐᑭᓯᒋᐊᒃᓂᓂᑭᓂᓂᕆᔨᑦ
408 ᐅᓕᓇᐊᓇᖅᑐᑐᓂᒃ ᓇᓄᓂᑦ ᒥᔅᓴᓄᑦ ᑲᓇᑕᒥ, ᑕᐃᓕᐊᑭᓂᓇᖅᑐᑎᑦ ᐃᓕᓐᓂᓪᓂ 2–ᒥᑦ – 7–ᒧᑦ ᐊᐅᓪᓚᕐᒥᔨᓴᓴᓂᑐᑐᓂ ᑕᐅᓂᓪᓗ.
409 ᐅᓕᓇᐊᓇᑭᑎᓂᓂᖅᓴᑦ ᓇᓄᓂᑦ ᑲᓇᑕᒥ ᐃᒪᐃᑦᑐᓕᓚᑎᑦ:

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411 <u>ᐅᓕᓇᐊᓇᑭᑎᓂᔨᖅᓴᓕᐃᑦ ᐊᕕᑦᑐᖅᓯᒪᓂᑦ:</u>

412

413 ***ᓯᓚ ᐊᓯᔾᔨᓴᕐᓂᐊᓂᓕᓂᓂ ᓂᓂ ᓯᓚ ᖃᓄᐃᓕᕐᓗ (IUCN/CMP ᐅᓕᓇᐊᓇᖅᑐᑦ # 11.1 – ᓇᔨᓚ ᖃᓂᑦ ᐊᓯᔾᔨᖅᑐᑦ ᐊᓯᔾᔨᖅᑕᐅᔨᕐᓗ):***

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416 ᐊᖏᓂᓂᖅᓴᑎᒍᑦ ᐊᑦᑐᖅᑕᐅᓂᖅᓴᖅᓯᒪᓂᑦᑐᑦ ᑲᓇᑕᒥ ᓯᓚᖃᕐᓂᓕ ᓇᓄᐃᑦ ᐊᒥᓱᓂᖏᓪᓂ ᓯᓚ ᓇᔨᓚᖏᓚ
417 ᓄᖅᓯᓴᕐᓂᐊᓂᖅᑎᓪᓗᒍ ᓯᓚ ᐅᓇᖅᓯᓂᓪᓂᐊᓂᕐᓂᖅᓚᓂᓄᑦ ᓯᑭᓐᓇᖅᑐᑎᑦ (greenhouse) ᓴᖅᑭᖅᑲᑦᑕᖅᑐᓂᓄᑦ
418 (ᑕᐃᓇᓄ ᐊᓚᓕᓗ ᑎᒪᔨᑐ 1997; ᑎᑭᑦᓯ et al. 2004; ᓕᐃᑦᑐᑏ et al. 2008; ᑯᓂᖏᔪ et al. 2010; IPCC
419 2013). ᐅᑭᐅᓄᑦ 40–ᓄᑦ ᐊᓂᔪᖅᑐᓄᑦ, ᖁᓚᑦᑕᖅᑎᑕᐅᓯᒪᔪᓄᑯᑦ ᑕᑯᔭᐅᓯᒪᔪᑦ ᐅᑭᐅᓄᖅᑕᖅᑐᑎᒥ ᓯᑯᐃᑦ
420 ᒥᑭᓪᓕᓂᓪᓕᐊᑐᐃᓇᕐᓚᑕ ᐊᔪᐱᓄᖏᑦᑎᐊᖅᑕᖏᑦ ᐅᑭᐅᖅᔪᓕᐅᖅᑐᓄᑦ 150–ᓄᑦ (ᑐᖓᓄ et al. 2019).
421 ᐃᓄᐃᐊᓗᓕᐃᑦ ᖁᐅᒪᔭᑕᖏᑦ ᑕᑯᓯᒪᓚᑕ ᐊᑦᑐᐃᓂᖅᑐᑎᓂᖅᓴᓂᓄᓂᓂᓂᓄ ᓯᓚ ᐊᓯᔾᔨᓴᕐᓂᓕᓂᖅᓂᓂᓄ ᐃᒪᓕᒪᒥ
422 ᐊᒪᓚᓗ ᓯᓚ ᐊᓯᔾᔨᖅᓯᒪᓕᖅᑐᓄ 1980–ᖏᓐᓄᓂᑦ. ᓯᓚ ᓯᓂ ᐊᓯᔾᔨᓴᕐᓂᐊᑐᐃᓇᖅᑐᖅ ᓯᑯᑦᑎᓂᓄ
423 ᓴᒪᑦᓴᕐᓂᐊᓕᓗᑎᒃ ᓇᔨᖅᑕᐅᔭᓕᑦᑐᖅ ᑦᑐᑯᓄᖅ ᐊᖅᑯᑎᖅᑐᑦᑐᓗᓂᓪᓗᓂᓂᓂ ᓇᓄᐃᓕᓗ
424 ᑎᒥᖏᓂᓄ ᐊᓯᔾᔨᔭᕐᓂᐊᓕᓗᑎᒃ, ᐃᓂᓇᖏᑦ ᐊᑎᑦᑕᖏᓕᓗ ᐊᓂᓇᐅᒪᓄᖏᑦ ᐊᓯᔾᔨᓴᕐᓂᐊᔨᑦ,
425 ᐃᕐᓂᐅᖅᑕᕐᓂᖏᓕᓗ, ᓇᓂᓄᑦᑕᐅᔭᓂᓄᖏᓕᓗ ᐊᒥᓱᓂᖏᓕᓗ ᓂᖅᓴᓕᖅᓯᐅᖅᓴᕐᑎᑦ,
426 ᓯᕐᓇᖅᑐᖅᑦᖅᓴᕐᓂᐊᓕᓗᑎᓕᓗ, ᓇᔨᓕᓗ ᓯᕆᑦᑎᓴᕐᓂᐊᓕᓗᑎᑦ. (COSEWIC 2018). ᓯᐢᓗ,
427 ᖃᑦᑎᓇᓇᕐᓴᕐᓂᐊᓂᖏᑦ ᓇᑎᑐᐃᓇᓇᑦ (ᓂᓚᕆᐅᓚᔨᑦᑐᑦ ᓇᓄᐢᓄᑦ ᓇᒥᓂᒪᖅ) ᐅᖅᐅᓯᓯᐅᓚᔨᑦ ᐊᒪᓚᓗ
428 ᐊᑦᑐᐊᓕᓗᑎᑦ ᑎᓴᐃᖅᓴᕐᓂᐊᓂᖏᓪᓄᑦ ᐊᒪᓚᓗ ᐊᐱᓪᖏᓂᖅᓴᓴᖅᑕᖏᑦᑐᑦᓯᓂᖏᓪᓂᓕᓗ (ᐳᔪᓴᓪ et al. 2005).
429 ᖃᑦᑎᓇᓇᕐᓴᕐᓂᐊᓕᓗᑎᓕᓗᑎᑦ ᐱᕆᐅᖅᑕᖅᑐᑦ ᐊᒥᓱᓂᖏᓕᓗ ᓇᑎᑎᑦ ᐊᑦᑐᐃᓂᖅᑐᖅᑐᑦ ᓇᓄᐢᓄᑦ
430 ᐱᕆᐅᓇᓱᐊᕐᓂᖏᓪᓄᑦ (ᓱᔅᓗᓪᓚ ᐊᒪᓚᓗ ᐅᓚᑦᓪᓚ 1995; ᕼᐊᑦ ᐊᒪᓚᓗ ᐋᒧᑭ 2004; ᑭᑦ 2005; ᑲᑐᔨᓪᓗᑎᑦ
431 ᐊᓪᓪᓚᕕᓪᓚᓂᕐᒥᑦ 2015; ᔾᐊᑲ *et al.* 2015).

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433 ᐱᐅᓪᖏᑦᑐᑲᑯᑦ ᐊᑦᑐᖅᑕᐅᓂᖏᑦ ᓯᑯᒥ ᓇᔨᑦᑕᐅᔭᕐᓇᒪᔭᖅᑐᑎᓂᐊᑦ ᑎᑎᕆᖅᑕᐅᓯᒪᒥᒥᔨᑦ ᐊᒥᓱᓂᖏᓕᓗ
434 ᐊᕕᑦᑐᖅᓯᒪᔨᓂᓵᖅᑐᑦ, ᐊᔨᔨᑭᖅᑕᖏᑦᑐᑦᑐᑎᓪᓗᐊᑦ ᓇᒋᓐᓂᖏᓪᓂ (ᑐᖓᓄ et al. 2019). ᒪᓕᑦᑐᑎᑦ
435 ᐊᓯᔾᔨᓴᕐᓂᐊᓂᖏᑦ, ᓂᓚᐅᑎᓪᓕᐅᔨᑦ ᐳᔨᔪᓄᓂᓄᑦ (greenhouse) ᓴᖅᑭᖅᑲᑦᑕᖅᑐᓂᖏᓪᓂᓕ
436 ᒥᑭᓪᓕᓄᑦᓂᑎᑦᑐᑐᓂᓇᖅᑐᑦᑐᑦ, ᓄᖅᑲᓴᓴᕐᓂᐊᖏᓪᓇᔪᓂᑦ ᓯᑯᐃᑦ ᓇᔨᖅᑕᐅᔭᕐᓂᑦ (ᓱᔅᓗᓪ ᓕᐃᑎᓚᓗ

2016; ᐅᐃᒃ et al. 2015). ᓄᖏᓗ, ᐅᑭᐅᖅᑕᖅᑐᑦ ᐃᓕᓐᓂᒃᓂᓐ, ᐊᖏᕐᓂᖅᓴᓂᑦ ᐃᓕᖏᓂᓐ, ᐊᐅᔪᓂᓐᓂᑦᑐᓐᓂ ᐃᓕᓴᒃᓂᓐ, ᐊᓯᔨᔪᑦᓕᐊᕐᖅᑐᑦ ᐊᖏᑦᑎᒍᑦ ᐊᑕᐅᓯᖏᑦ ᓯᑯᓐᓄᑦ, ᐊᐅᔪᓂᓐᓂᑦ ᐊᐅᖅᑎᑦᑕᖅᑐᓄᑦ (ᑐᖏᓂ et al. 2019). ᖃᐅᔨᒪᔭᐅᓗᐊᖅ ᓯᓕ ᐊᓯᔨᔪᑦᓕᐊᓂᒃᓂᓄᑦ ᓇᔨᖅᑕᐅᓂᒃᑯᑦᑐᑦ ᒥᑭᓂᖅᓴᖅᑕᓕᕆᑐᐊᑐᐃᓂᓕᓂᖅᑐᑦ ᓇᓄᖏᓄᑦ, ᐃᓕᓐᓂᑦ ᐃᓯᒪᒋᔭᐅᔨᑦ ᖃᐅᔨᑕᖅᑐᖅ ᓯᓕ ᒪᓂᓇ ᐃᔨᔨᐊᓗᓂᓂᓂᖅ ᐊᐅᔪᓇᓐᓂᑦᑐᓂᓂᑦ ᓯᓯᖏᖃᑎᒌᖅᑐᖅ ᓯᓕᐃᑦ ᐃᓕᓐᓂᑦ/ᐊᐅᔪᓇᓐᓂᑦᑐᓂᓂᑦ ᓯᓯᐃᑦ (ᑎᑭᑦᓯ et al. 2004). ᓯᖏᓂᖅᑕᐅᑎᓪᓗᓂᑦ ᓯᓕ ᒪᓕᑦᑐᐃᑦᓂ ᓯᓯᐃᑦ ᐊᐃᓂᐅᓂᖅᓴᐅᔪᓇᖅᑐᑦ, ᐊᒻᒪᓗ ᓯᖏᓐᓂᓂᖅᓴᐅᑎᓪᓗᓂᑦ ᐅᒪᔨᔾᔪᑎᓂᓂ ᐱᑕᖅᑐᖏᓐᓂᖅᓴᐅᓕᕆᓪᓗᑎᑦ ᐅᑭᐅᖅᑕᖅᑐᑎ ᐅᓐᓱᓯᑐᓂᓐᓂᒃᑎ. ᐃᓕᓐᓂᑦ ᖃᐅᔨᓴᖅᑎᑦ ᐅᖃᖅᓯᒪᔨᑦ ᑕᒪᓐᓇᒃᑯᓐᓂᑦ ᐊᓯᔨᔪᑦᓕᐊᓂᒃᓂᓄᑦ ᐃᓚᖓᔪᖅᑎᑦᑎᓐᓂᑦ ᐊᐅᔪᓇᓐᓂᑦ ᐊᑐᐊᓂᖅᓴᐅᓕᕆᓪᓗᑎᑦ ᐊᐅᔪᓇᓐᓂᑦ ᐊᑐᐊᓂᖅᓴᐅᓕᕆᓪᓗᑎᑦ ᐃᓚᖓᔪᖅᑎᑦᑎᓐᓂ

ᐊᑦᑐᐃᓂᖏᐊᖅᑐᑦ ᓯᑯᖏᑭᓐᓂᖏᓪᓗᓂᓂᓂ ᓇᓂᕆᐃᓇᖅᑐᖅ, ᑐᑭᓯᔾᓂᖅᑎᑦᑐᐊᒍᓱᒪᓪᓚ ᓯᑯ ᓇᔨᖅᑕᐅᖓᓂᖅᓴ (SARC 2021). ᓯᑯᐃᑦ ᖃᓄᐃᑦᑐᓂᖅᑎᑦ ᐱᓱᒪᓕᐊᒍᓱᒪᒃᑕ ᐊᓱᒪᓚ ᓇᓂᐃᓚ ᓄᑦᑕᔾᓂᖅᑎᑦ ᐅᖓᓱᓯᑦᑐᒍᓱᒪᒃᑎᓪᓚᑦ, ᑭᓯᐊᓂ ᐊᒥᓯᓂᖅᑎᑦ ᑎᒥᖅᑎᓪᓚ ᖃᓄᐃᑦᑐᓂᖅᑎᑦ ᑕᑯᖖᓇᓕᖃᖅᑕᐅᑦ ᐊᑯᓂ ᐱᖓᓱᖓᓂ ᓂᑎᐅᓇᖓᓂ ᑎᑭᓄᑦᑐᐅᑦ ᑕᒪᐃᓐᓇᖅᑐᑦ, ᑕᒪᐃᑯᐊᖏᓚᐅᖃᖅᑎᓪᓗᑎᑦ ᐃᓯᒪᑎᑲᓇᖃᖅᑎᒋᔭᐅᑦ ᐊᑦᔨᑦᖃᑦᑕᖅᑐᓂᖅᑎᑦ ᓯᓚᐃᑦ ᐅᑭᐅᓚᓂᖅᑐᑦ (JS 2015).

ᐊᑐᖅᑕᐅᓯᒪᔨᓂᒃ ᐊᑦᑕᐃᔪᓐᓇᖅᑐᖅ ᓯᓚ ᐊᓯᔨᕐᓂᖏᓐᓄᓐᓂᑦ ᐅᑭᐅᖅᑕᖅᑐᑎ ᐃᒪᖏᑦ ᐅᒪᔨᑦ ᐊᓯᔨᖅᑕᐅᔾᔨᒧᔨᑦ ᓱᕐᓗ ᓯᑯᑐᖃᕐᓂᑦ, ᐊᐅᔾᔨᒃᓴᓂᖅᑐᑦ ᐊᓯᔨᕐᓂᖏᓐᓄᓐᓂᑦ ᓯᑯᑐᖃᕐᓂᖅᓴᐅᓂᑦ (ᑐᑦᓚᓐᖏᓐ et al. 2019). ᖃᓄᐃᓕᓂ ᐅᖃᖅᓯᒪᓕᒪᓕᑦ, ᐊᓯᔨᕐᓂᖅᑎᑦ ᓯᑯᑐᖃᐃᑦ ᐱᔨᔪᑎᖃᓕᒫᖅᑐᑦ ᓯᑯᑐᖃᖅᓂᑦ ᓯᓚᔾᓗ ᒪᓕᑐᑐᒍ ᐱᑕᖃᖅᑲᓇᐃᓕᓂᐅᓚᓕᒫᖅ ᓯᑯᑕᖅᑐᐅᔾᔨᓗᑎᑦ ᓇᔨᖅᑕᐅᔾᔨᑦᑐᑦ. ᑕᒪᔾᓇ ᓯᓕᔨᐊᓵᔾᓂᖅᖃᖅᑎᑦ, ᐊᓯᔨᕐᓂᑦ ᐃᐅᔨᑎᖃᖅᑐᑦᑎᓂᖅᑐᑦ ᓇᔨᖅᑕᐅᔾᔨᑦᑐᑦ ᓯᑯᑐᖃᖅᓂᖅᓴᐅᓕᖅᑐᑦ ᓇᓂᐃᑦ ᐱᔨᐅᖃᖅᑐᑦ ᐊᓯᖏᑎᔾᔨ (ᓯᑐᓕᓐ ᐊᒪᓚ ᑎᑭᓄᑦᑐᐅᑦ 2012). ᑭᓯᐊᓂᓕ, ᓇᓂᓇᖏᓐᓄᑦ ᐊᓂᑎᓂᖅᑐᑦ ᐱᑭᖅᑐᐅᔾᔨᓗ ᐊᓯᔨᕐᓂᖏᓐᓄᓐᓂᑦ ᐊᓯᖏᑎᔾᔨ ᐊᓯᔨᕐᓂᖏᓐᓄᓐᓂᑦ ᐊᑐᖅᑕᐅᔾᔨᑦᑐᑦ ᐊᓯᖏᑎᔾᔨ ᐊᑐᖅᑕᐅᔾᔨᑦᑐᑦ ᐊᓯᔨᕐᓂᖏᓐᓄᓐᓂᑦ

516 ᖃᐅᔨᓴᕆᐅᔪᖅ ᓇᓄᐃᑦ ᑕᑎᖃᓄᐃᓕᐊᖏᑦᔨᓂ ᓯᓂᖅ ᓂᕿᑦᑐᑎᓕᕐᓂᑦ (ᓄᓇᓕ ᓇᑦᑎᕐᓂᑦ) (ᓄᑖᓴ ᐊᓚᒪᓕ
517 ᓕᐃᑐᑎ 2016), ᑭᓯᐊᓂᓕ, ᖃᐅᔨᓴᖏᖃᓂᖅᑐᑦ ᑐᑭᓯᖃᓴᓂᑕᒪᓕᒪᓕᑕ ᐊᑦᑐᖅᑕᐅᓂᖏᓴᓂ ᓯᓕ
518 ᐊᓯᔨᔪᑦᓕᐊᓂᖓᓴᓄᑦ ᓇᓄᐃᑦ, ᖃᓄᑎᒋ ᐊᑦᑐᖅᑕᐅᓕᒪᖓᓕᑕ ᓯᓕᓕᒃ ᐊᓯᔨᔪᑦᓕᐊᓂᖏᓴᓄᑦ ᐊᓯᖏᓴᓄᑦᓗ
ᐅᓗᓖᐊᕿᑎᑎᔪᓴᖅᑐᓂᑦ ᑎᑎᕋᓯᒪᔪᖅᑕᓕᓂᒃ ᐊᑕᐃᓂ. ᓄᑦᓗ, ᐃᓯᒪᑎᖅᐅᓯᒪᓕᒪᓕᑕ ᓇᓄᐃᑦ ᑎᓕᑦᑐᐅᓴᕐᓇᖖᓕᑕ
ᓯᓕᐃᑦ ᐊᓯᔨᔪᑦᓕᐊᓂᖏᓴᓂ ᓂᯓᕋᖅᓗᓕ ᓄᓇᑐᓂᖅᓴᓂᖅᓗᓕᑎᓗᓕᑎᓂᖅ (COSEWIC 2018),
521 ᑕᒪᒃᑯᐊ ᓇᓗᑎᖅᐅᓪᓕᓓᒪᓕᑕ ᓯᓕ ᑕᐃᒪᐃᒪᖓᓕᑕ ᐃᒪᖏᑕᖏᑦᓂᑦ ᓇᓄᐃᑦ ᐃᒪᖏᑕᖏᑦᓂᑦ ᓂᕿᑦᑐᑎᓕᕐᓂᑦ
522 (ᑭᑦ et al. 2015; ᓯᑭᐅᓗ et al. 2016).
523
524 ᑕᒪᒃᑯᐊ ᓇᓗᓇᑭᑎᑎᓂᑕᑦ ᐊᓚᒪᓗ ᐊᖅᔨᑦᓴᑦᓴᖏᑦ ᓇᓄᐃᑦ ᓇᔪᖅᑕᖏᑦ, ᐊᓚᒪᓗ ᓯᓕᑐᓂᑦ
525 ᐃᓕᓴᑕᐅᓇᔪᓂᖏᓴᓂᓪᓗ ᓇᓄᐃᑦ, ᓄᓇᖃᖅᑲᖅᑐᒥᓂᑦ ᖃᐅᔨᒪᓂᖏᑦ ᐅᖃᖅᓯᒪᔪᑦ ᐃᓄᐃᑦ
526 ᑐᑭᓯᐅᒪᓕᐊᖃᖅᓯᖏᓴᓂᑦ ᓇᓄᐃᑦ ᓇᔪᑦᑕᖏᓴᓂ, ᐱᒪᓕᕆᐅᒪᓕᑕ ᒪᓗᔪᓯᑐᐃᓴᓇᖖᓕᓂᓗ ᓯᓂᓂᑎᓴᓂ
527 (ᑲᑐᔨᔪᑦ ᐊᓪᓚᓂᑎᑦ 2015).
528
529 ᑐᑭᓯᐊᐸᑲᓴᓂᑭᒪᓴᓂᑭᘐᓄᑦ ᓯᓚᐃᑦ ᐊᓯᔨᔪᓪᓚᐊᓂᖏᓴᓂ ᐊᓯᖏᓴᓂᓪᓗ ᐱᒋᐊᑭᑕᐅᓯᒪᔪᓂᐸ
530 ᐊᐅᑎᓕᓵᕆᐸᑯᓴᓂ ᐊᒪᓚᓗ ᓯᓕ ᐊᓯᔨᔪᓪᓚᐊᓂᖏᓴᓄᑦ ᑲᓇᑕᒥ, ᑐᑭᓯᓕᑭᓴᓇᖅᑐᑎᑦ ᐊᓯᖏᓂᑦ ᕿᖏᐅᑎᓂᐸ,
531 ᐃᓕᖓᓴᓂ 6–ᒥᒧ. ᑐᑭᓯᓕᐸᑲᓴᓂᑭᒪᓴᓂᑭᘐᓄᑦ ᓯᓕ ᐊᓯᔨᖏᓂᖓᓴᓄᑦ ᐱᒋᐊᑭᑕᐅᓯᒪᔪᐸ ᑲᒪᒋᔨᐅᔪᓂᐸ ᑲᓇᑕ
532 ᐊᕐᓇᖅᑐᓕᕆᓂᖏᓴᓂ ᐊᒪᓚᓗ ᐅᑭᐅᖅᑕᖅᑐᒥ ᐃᓕᖓᓴᓂ 2–ᒥ 7–ᒧᑦ ᑕᑯᓕᐊᑭᓇᖅᑐᑦ ᑕᕐᕈᓂ
533 ᐊᐅᓪᓗᒍᓂᔪᓂᓴᓂᐸ.
534
535 <u>ᐅᓗᓖᐊᓇᓂᖏᓂᖅᓴᐃᑦ:</u>
536
537 ***ᐅᒪᔪᐃᑦ ᐃᓕᓴᕐᓯᓂᖏᓴᓂ ᖃᐅᔨᓇᓯᔪᐊᓂᖅ ᐊᑐᖅᑕᐅᖃᑦᑕᓂᓂᖏᓂ (IUCN/CMP ᐅᓗᓖᐊᓇᖅᑐᑦ # 5.1***
538 ***– ᐊᓯᕈᖃᑦᑕᖅᑐᑦ ᓂᑭᔪᓂᖅᓯᐅᕐᓂᑐᓂᐸ ᓄᓇᒥᐅᑕᓂᓂᑦ ᐅᒪᔪᓂᐸ):***
539
540 ᓇᓄᐃᑦ ᒪᓕᑦᓂᖅᑎᒍᑦ ᕿᖅᑭᐅᐅᓂᖏᓴᓄᑦ ᐊᓯᕈᖅᑕᐅᔨᓇᖅᑐᑦ ᑭᓯᐊᓂ ᓄᓇᖃᖅᑲᖅᑐᒥᓂᔪᓄᑦ ᑲᓇᑕᒥ.
541 ᑲᓇᑕᒥ ᑕᐃᒪᐃᓕᑐᖃᖅᓂᓪᓗᒍ ᓄᓇᑕᐸᑕᐅᓯᒪᔪᓂᐸ ᐊᖏᑭᑎᑎᒥ, ᓇᓴᓄᑕᐅᔨᓇᖅᑐᑦ ᑭᓯᐊᓂ ᑯᑕᑎᒍ
542 ᐅᕐᕈᓗᓴᓂᓂᑦ ᐊᑐᓕᓂᔪᐅᓯᒪᔪᓂᐸ ᐅᒪᒪᔨᓕᓕᕐᓂᔪᐊᑯᑯᓂ ᑲᑎᒪᔨᖏᓴᓂ ᐅᕐᕈᓗᓴᓂᓂᑦ ᐅᖃᐅᔨᔭᑦᑕᕐᑲᑎᑦ
543 ᑲᑎᒪᖏᓴᓄᑦ ᑭᓱᖃᑐᐃᔪᓂᓪᓗ ᑲᓇᑕᐅᐸ ᓴᕈᒪᑯᖏᓴᓂ, ᑲᓇᑕ ᐊᐃᑦᑐᖅᑕᐅᓯᒪᔪᓂᖏᓴᓂ ᐅᑭᐅᖅᑕᖅᑐᐃᓪᓗ
544 ᓴᕈᒪᑯᖏᓴᓂ, ᐊᒪᓚᓗ ᓄᓇᖃᖅᑲᖅᑐᒥᓂᑦ ᑲᐃᔨᖃᑎᒌᖏᓴᓂᓂ/ᓴᕈᒪᓂᑦ. ᑲᑎᑦᑐᒥᑦ ᐅᒪᔪᓂᐸᑕᐅᔨᓇᖅᑐᑦ
545 (ᑯᑕᖃᖅᑐᑎᑦ) ᓯᓇ ᐸᖅᑭᑦᑕᐅᓯᒪᔪᑦ ᓄᓇᕗᒥ, ᐃᓄᙳᐊᑐᐃᓕᐊᑦ ᐊᖏᑭᑎᑎᖏᓴᓂ (ᔫᑲᒥ ᓄᓇᑦᑎᐊᒥᓗ) ᐊᒪᓚᓗ
546 ᓄᓇᑦᓯᐊᕐᓂ (ᓄᓪᓕᐊᓪᓚᑦ ᓪᓚᐸᑐᐊᓗ) ᐊᐅᓪᓗᒍᓂᖃᖅᑕᐅᓯᒪᔪᓂᐸ ᐅᒪᔪᖅᑕᐅᕐᓂᑐᓂᐅᓴ. ᓄᓇᙳᖅ ᐃᒪᓕᕆᓂᖓᓪᓗᒍ
547 ᐃᓗᐊᓂ ᐊᒪᓚᓗ ᖃᓕᓵᔪᓯᒪᔪᓴ ᓄᓇᕗᒥ ᐃᒪᓕᕆᓂᖓᓪᓕᑦ ᐊᒪᓚᓗ ᐃᓱ ᐃᒪᓕᕆᓂᖓᓪᓗᒍ, ᐃᒪᙳᒪᒥ ᑯᐸᒥ, ᑯᑕᓂᓴ
548 ᐸᖅᑭᒋᓯᒪᔪᖅ ᑲᓇᑕᐅᐸ ᓴᕈᒪᑯᖏᓴᓂ ᐊᒪᓚᓗ ᓄᓇᕗᒥ ᓴᕈᒪᑯᖏᓴᓂ ᓂᕿᑦᑐᖅᑕᐅᓂᖏᓴᓂ ᓯᓂᓂᑎᓴᓂᐸ ᐃᓗᐊᓂ
549 ᐊᙳᑦᑐᖅᓯᒪᔪᓂᐸ. ᓄᓇᖅᐸᓯᒥ (ᓯᓚᕐᓂᑦ) ᐊᓛᑎᐅᓗᔪᒥ, ᓯᓂᑐᐸᓕᑦ ᑯᐸᐃᒥᑦᓗ, ᐊᓯᕈᖅᑕᐅᓂᖏᓴᓂ ᐊᐅᓪᓚᑕᐅᔨᓇᑦ
550 ᑭᑦᓂᖏᓴᓂ ᒪᓕᑦᑐᓂᑦ ᐊᙳᑦᑐᖅᑕᐅᓯᒪᔪᓂᐸ ᑲᓇᑕᐅᐸ. ᐊᓛᑎᐅᓗᔪᒥ, ᒪᓕᑕᐃᑦ ᐊᖏᑭᑎᑎ 9 ᓇᓗᓇᐃᖅᓯᓯᒪᓛᖏᓂᑐᑦ
551 ᐱᓕᓗᖅᑎᖅᑯᓂᐊᓂᓪᓗᒍ ᑲᓇᒪᑐᖅᑯᓯᒪᔪᓂᐸ ᑲᑎᒪᔨᖏᓴᓂ ᓄᓇᖃᖅᑲᖅᑐᒥᓂᔪᓄᑦ ᑲᓇᑕᐅᐸ
552 ᐊᓯᕈᑦᓇᓂᖏᓴᓂ ᐊᐅᓪᓚᐅᑕᐅᔨᓇᖅᑐᑦ, ᓄᓇᖃᖅᑲᖅᑐᒥᓂᑦ ᐊᑐᓕᖅᑎᑎᓯᒪᔪᓂᐸ ᑲᓇᑕᐅᐸ ᑲᓇᑕ
553 ᐊᙳᑦᑐᖅᓯᒪᓂᖏᓴᓂ ᐃᓯᖃᖅᑎᑦᓴᑦ ᐃᓯᒪᖅᓯᑕᐅᓪᓚᑦᓗᑦ. ᒪᓂᑐᐸᑦ, ᐊᙳᑦᑐᖅᓯᒪᔪᑦ ᒪᓕᑦᑐᖅᑯᓂᖓᓴᓂ
554 ᓇᓴᓂᑕᐅᕆᓚᖃᖅᓴᓂᑦᑐᑦ. ᑯᓂᐃᒪᑦ, ᓴᐃᒪᓗ <ᐃᒥ ᑯᓂᐃ ᑕᕐᕋᖅᓴᓂ ᐊᖏᑭᑎᑎᖅᓴᓂᓂ (JBNQA) ᐅᖃᖅᓯᒪᔪᓂᐸ
555 ᓇᓴᓄᔭᓇᖅᑐᑦ ᐊᖏᓇᐅᒪᔪᐊᕐᑕᐅᓇᓯᓂᖏᓴᓂᓂ ᑭᓯᐊᓂ, ᒪᓕᑦᑐᑦ ᒪᓕᑦᓴᓂᑦ ᐱᐅᖅᓯᐊᓚᐊᖃᕐᓂᖓᓪᓕᑎᑦᑕᑦ.

ᐊᐅᓪᓚᑉᐳᐅᓯᒪᔪᑦ ᓇᔪᓂᕆᔨᑐᑎᓪᓗᒍᖅᑐᑦ ᓄᓇᕗᒻᒥ ᐊᓪᒪᓗ ᐃᓄᐃᐊᓗᐃᑦ ᐊᖏᑭᑎᖏᔪᓂ (ISR), ᑐᓂᓯᓗᑎᑦ ᐱᔪᔪᓇᐅᑎᖏᔪᓂ, ᐊᓪᒪᓗ ᑕᒪᖅᑭᖅ ᑭᓪᓕᔪᓂᐊᕐᓂᖅᑐᑦ ᐅᓇᓱᒪᔪᓂᖅᑐᑦ ᐃᓕᖏᔪᓂ ᓄᓇᕗᑦ. ᐊᐅᓪᓚᑉᐳᐅᓯᒪᔪᑦ ᒪᓕᒐᓱᑎᒍᑦ ᐊᑐᖅᑐᑦ ᐃᓄᐃᑦ ᓄᓇᓕᖏᔪᓂ ᐊᓯᔪᓐᓇᖅᑐᑦ ᐊᐅᓪᓚᑎᓂᒃᑯᑐᓂᖅᑐᑦ ᖃᓄᐃᓕᖏᔪᓂ ᐅᐱᒋᔭᐅᓂᖅᑐᑦ. ᑕᒪᑭᑭᓂᖅ ᑭᓪᓕᖅᑐᖅᑎᓂᖅ, ᐊᐅᓪᓚᑉᐳᐅᓯᒪᔪᓐᓇᖅᑐᑦ ᐊᑐᕐᓗᑎᑦ ᐱᖅᓯᓂᕆᐅᕙᓯᒪᔪᖅ ᓄᓇᓕᓂ, ᖃᐅᔨᓴᓂᑦ ᐃᖏᑐᕐᓴᓗᑎᒃ. ᑭᓪᓕᖅᑎᖅᑐᓂᖅ ᑕᒪᑭᑭᓂ, ᓄᑎᑐᑦ ᓇᓂᑦᑕᐅᔪᓐᓇᖅᑐᑦ ᐊᐅᓪᓚᑉᐳᐅᓯᒪᑎᓪᓗᒍ ᐊᒥᓱᑕᓚᐅᕙᓯᒪᔪᓂᖅᑎᑦᑐᑦ ᓇᓂᑦᑕᐅᔪᓐᓇᖅᑐᑎᑦ ᓄᑎᑐᑦ. ᐊᓪᒪᓗᓂᒃᑲᓂᖅ, ᐃᓄᐃᐊᓗᓂᒥ ᐊᖏᑭᑎᖏᔪᓂ ᓇᓂᑦᑕᐅᔪᓐᓇᖅᑐᑦ ᐊᐅᓪᓚᑉᐳᐅᓯᒪᑎᓪᓗᒍ ᐊᒥᓱᑕᓚᐅᕙᓯᒪᔪᓂᖅᑎᑦᑐᑦ. ᐊᓪᒪᓗᓂᒃᑲᓂᖅ ᐃᓄᐃᑦ ᑐᓂᓯᓗᑎᑦ ᐃᓄᐃᑦ ᑐᓂᓯᓗᑎᑦ (ᑭᓪᓕᔪᓂᖅᑐᑦ et al. 1997; ᒪᑭᐃᓐ ᑯᐊᐱᓂᖅᑐᑦ 2001; ᑭᑐᓪᓚᖅ ᐊᓪᒪᓗ <ᑭᓂᓴ 2006; ᑕᐅᔭᓪ 2007; ᑕᐅᔭᓪ ᐊᓪᒪᓗ ᐅᐊᓂᓪ 2008; ᑲᓇᑕᒥ ᐅᒪᔨᓕᕆᓂᖅᓗᒍ ᐱᔨᑎᑎᖅᑐᑦ 2009; ᓂᓗᖓᔨᖅ ᐊᓪᒪᓗ ᓄ 2009; ᑕᐅᓴᑦ et al. 2009; ᕼᐊᓴᓚ 2010, 2012; ᑯᑎᑎᖅ 2010; ᓪᒥᓪᓴ et al. 2010; ᑲᓀᑦ et al. 2012). ᐊᒥᓱᓂᑦ ᐱᔨᔪᑎᖅᑐᑦ ᓴᐅᓂᐊᖅᓂᒍᑦ ᑐᓂᑎᑦᑕᖅᑎᓂᖅᑐᑦ. ᐃᓕᖏᑦ ᐊᑯᓂᐅᓂᖅᓴᐅᖅᑕᑎᑦᓂᖅᑐᓂᖅᑐᑦ ᓄᓇᒥ ᓇᓄᐃᑦ ᓱᑯᐃᖅᓴᐊᓚᖅᓂᖓᓂᓴᓂᑦ, ᓇᓄᐃ ᐃᓄᐃᓕᓗ ᑲᑎᓂᓂᖅᓴᐅᖅᑕᑎᑦᓂᖅᑐᑦ, ᐃᓄᓂᑲᖅᑕᑎᑦ (ᓱᑦᓗ ᓄᓇᓕᑦ ᐊᖏᑦᓕᓂᐊᓕᒫᓂᐊᓚᐅᐃᓂᓇᓂᖅᑐᓂᖅᑐᑦ, ᓱᓂᑕᑕᑐᓕ, ᓴᓕᖅᑐᑎᓂᖅᑐᑦ, ᐅᓴᕐᓂᐅᓂᖅ, ᐅᔨᕐᓂᐊᖅᐲᖅ ᐱᓕᕐᓂᐊᓂᖅᑐᓕ, ᐅᖅᓱᓚᖅᑐᑎᓗᒍ ᐆᓱᓂᑕᑐᑦ, ᐅᖅᓱᓚᖅᑐᑎᓗᒍ ᐆᒪᔨᖅᑐᑦ) ᓇᓄᐃᑦ ᓇᔨᖅᑕᖏᔪᓂ, ᓴᓂᑕᖅᓂᖅᓴᖅᓯᒪᓕᕐᓂᖅᑐᓗᒍ ᐅᓇᓱᑕᓗᒍ ᐃᓕᔨᐊᓂᔪᓂᓗᒍ ᓇᐃᒪᔨᐅᕙᓕᕐᓂᓗᒍ ᓇᓄᐃᑦ (ᓱᑕᓴᕼᐊᐅᓴ et al. 1988; ᓱᑐᓐᓂ et al. 1999; ᑎᑭᑦᓱ et al. 2004; ᑕᐃᑦ 2006; ᓱᓕᐱ et al. 2008). ᑯᑕᑕᓕᖏᓂ, ᓴᐳᒥᔨᑦ ᐃᓄᓱᒥᓂᑦ ᐱᔪᔪᓇᐅᑎᖏᔪᓂ ᑐᓂᑎᑦᕙᑦᑐᑦ ᐊᖏᑕᐅᓴᔨᑦᑐᑦ ᑲᑎᑦᑐᑭᑦ ᐅᒪᔨᔨᖅᑕᐅᔪᓐᓇᖅᑐᓂᖅᑐᑦ. ᓇᓄᖅ ᖁᓂᒪᓕᖏᓂᖅᑲᑦ ᐋᓕᓂᖏᔪᖅᓯᒪᔪᓕᒍᑦ, ᐅᒪᔨᔨᓂᐊᖅᑎᑯᓕᓄᑦ ᑐᓂᑎᑦᑐᑭᑦ. ᑕᐃᒪᐃᓴᔨᑦᑐᑦᑐᓂᑦᑕᓕᓕᒫ ᓇᓱᒥᑦ ᓴᐳᒥᔨᑦ ᑐᓂᓯᓗᑎᑦ ᐱᔪᔪᓇᐅᑎᖏᔪᓂ ᐊᖏᑕᐅᓴᔨᑦᑐᑦ ᐃᓄᐃᑦ ᑲᑎᑦᑐᑭᑦ ᐊᐅᓪᓚᑉᐳᐅᓯᒪᔪᓐᓇᖅᑐᑦ ᐃᓄᐃᑦ ᐊᖏᑕᐅᓴᔨᑦᑐᑦ (ᐊᓪᒪᓗ ᐊᖏᑕᐅᓴᔨᑦᑐᑦᑐᑦᑕᓕᓕᒫᓂᐊᓚᐅᐃᓂᓇᓂᖅᑐᓂᖅᑐᑦ) ᑕᒥᓂᓕᕆᓂᖅ 519.3 ᐊᖏᑭᒍᒥᒃ.

ᑲᓇᑕᒥ ᐊᑐᖅᑕᑕᓕᕆᓂᖅᑐᑦ ᐃᓕᓴᑐᑎᓪᓗᒍᑦ ᐊᐅᓪᓚᑎᓂᖅᑐᑦ ᓇᓄᐃᑦ ᐅᑭᐅᓂᖏᔪᓂᖅᑐᑦ (PBAC 2011). ᑕᒪᓐᓇ ᐊᐅᓪᓚᑉᐳᐅᓂ ᒪᓕᓕᑐᑦ ᐱᐅᖅᑭᐊᓂᖅᑎᑦ ᒪᓕᒪᓂᓂᑦ ᓄᓇᖅᑲᖅᑲᑐᑎᓂᒪᓕᖏᔪᓂᑦᑕ ᐱᔪᓐᓇᐅᑎᖅᑐᓂᖅ (PBAC 2011). ᑕᒪᓐᓇ ᑲᔪᓯᓐᓇᖅᓂᐊᖅᑐᖅ ᐱᓕᕆᖅᑎᖅᑕᐃᓐᓇᓕᓂᑦ ᐃᓕᒥᔨᐅᑦᑐᑦᑕ ᐱᔪᓐᓇᐅᑎᖅᑐᓂᖅᑐᑦ ᐊᐅᓪᓚᑉᐳᐅᓯᒪᔪᓐᓇᖅᑐᑦ ᑲᑎᑦᑐᑭᑦ. ᓇᓄᐃᑦ ᐊᔪᓯᓂᖅᓴᐅᖅᑕᑎᑦᓂᖅᑐᑦ ᐃᓕᒥᔨᐅᑦᑐᑦᑕ ᐱᔨᑦᑎᖅᑐᑦ ᐃᓕᖏᔪᓂ ᐃᓄᐃᑦ ᐃᓕᖏᔪᓂ, ᐃᓄᐃᑦ ᐃᓕᖏᔪᓂ 2–ᒥ – 7–ᒧᑦ ᑕᕐᓴᓂ ᑎᑎᕋᖅᓯᒪᔪᓂᖅ.

ᓇᓄᐃᑦ ᐊᒥᓱᓂᒃ ᐱᐃᖅᔪᕐᓗᐊᖅᐸᓚᒪᑕ, ᓱᐅᓗ ᓇᔨᖅᑕᑐᐅᑎᖅᑐᕐᓂᑦ ᐃᔪᓇᓕᔪᖅᑐᓄᓪᓕᑦ ᓇᔨᓇᓕᔪᖅᐸᑦᑐᑦ, ᒥᑭᔨᓗᑎᑦᓗ ᐃᓕᕐᓂᑦ, ᒪᖏᑉᓂᓂᒃ ᐱᖃᓐᓇᖅᑐᑦ ᐊᐅᔪᕐᓇᒪᒃᑐᑦ ᐊᓯᖏᓐᓂᖅᑐᑦ ᐊᒥᖅᑕᐃᓕᓴᐅᑎᖅᑐᑦ ᓇᔨᖅᑕᑐᑦᓴᖅᑐᑦ, ᐊᒻᒪᓗᐊᖅᑐᑦ ᐊᒥᖅᑕᐃᓕᓴᐅᑎᖅᑐᑦ ᐊᒥᓱᓂᒃ ᐃᓕᓴᒃᑐᓂᒃ ᑐᓴᖅᑐᑦ ᐊᒥᓱᓂᒃ ᐊᒥᓱᓂᒃ ᐊᒥᓱᓂᒃ

ᐱᓚᖓᖏᖅᖁᑎᓪ ᖃᐅᔨᓴᓂᖏᓪ ᖃᐅᔨᓴᓯᒪᔪᓪ ᐅᒪᔪᓚᔪᓂᓪ ᑲᒪᒋᐅᔨᔪᓂᐅ (ᓴᐃᓐᓗ ᐱᑭᖅᑕᓪᓚᐊᓂᖏᔪᓄᓪ ᐱᑭᖅᓴᐃᓂᓪ, ᓴᐅᓂᓪᓗ ᑎᓴᓂᖏᓪ) ᓴᑭᔪᓇᖅᑐᑕᖏᖅᓂᖏᔪᓂ ᐊᖏᓕᔪᓂᐅ (ᓴᓂ 2010). ᑕᐃᒪᓚ, ᓇᓗᓇᖅᑐᖅ ᖃᓄᐅᑎᓪᓚᔪᐅ ᐊᑲᐅᔪᖏᓚᐅᑭᑐᖅᑎᖏᓴᑦᑕ ᓴᑭᔪᓇᖅᑐᓂᔪᓴᖅᑐᓂᐅ (ᓴᔪᓴᔪ et al. 2015). ᑭᓴᐊᓂᓚ, ᐊᑕᐅᓴᑎᑦ ᖃᐅᔨᓴᖅᓴᒪᔪᓂᐅ ᒪᓂᓂᖅ ᑎᑎᖏᔪᔪᓂᐅ ᐃᓚᐅᑭᑎᓴᐅ ᐋᓴᐱ (PCB, DDT), ᐊᓴᖏᔪᓂᓪᓗ ᓂᖏᖅᓄᓂ ᖃᐅᔨᓴᓚᐅᖅᓴᒪᒪᑕ ᑕᐃᑲᓂ (Svalbard) ᓴᑭᔪᓇᖅᑐᖃᓪᓂᖏᔪᓂ ᐱᑭᖅᓯᓪᓚᐊᔪᖏᓪᓂᖅᓴᐅᔪᓇᖅᓄᑕ ᓇᓂᐃᑦ ᑕᐃᒪᐃᔪᐅᓇᖅᓄᑕ ᐃᓂᓪᓗᐊᓂᓪ ᐊᑐᓂᓪᓗᐊᓂᓪ ᐊᑐᓕᖅᑐᓂᓪ ᐊᑐᓂᓪᓗᐊᓂᓪ ᐃᓂᓪᓗᐊ

ᐃᓱᒪᖏᖅᑎᒪᒡᒐ ᑲᓇᑕᐅᐅᑦ ᐅᑭᐅᖅᑕᖅᑐᖓᓕᖅᓂ (COSEWIC 2018). ᑯᐃᔪᖏᖅᓂᖅᑲᑦ ᓂᖏᔪᑎᑦ ᐅᓪᓗᕆᐊᖃᖅᑐᖅᑐᑦ ᐃᓕᓴᕐᓗᓂᓕᑦ ᐊᑦᑐᖅᑕᐅᓪᓗᑎᑦ, ᓄᖏᓪ ᐅᖅᓄᐊᓪᓴᕐᓗᓂᕐ (hydrocarbons), ᓴᓪᒪᓖᖅᓴᐃᔪᕐᑎᑕᖅᓚᒪᑦ ᓇᒥᑐᐃᓐᓇᖅ ᑕᐃᒪᐃᑦᑐᓂᕐ (COSEWIC 2018). ᑲᓇᑕᐅᔨᑦ ᓴᖃᒪᐅᑯᓂᕐᑐᑦ ᐃᓕᓐᓂᐊᕐᓂᖅ ᐱᓕᕆᔨᒃᑯᓂᖅ ᐊᑎᖅᑕᐅᓪᓗᑎᑦ ᓄᓇᒥ ᐱᖓᓱᐅᓪᓚᐅᔪᓂᖅ ᐊᑎᖅᑕᐅᓪᓗᑎᑦ ᐊᑐᖅᑕᐅᓪᓗᑎᑦ ᐱᑕᖅᑖᓂᓪᓕᐊᓂᖅᑐᑦ ᓄᓇᒥ ᐅᖅᑕᐅᓪᓗᑎᑦ ᐱᖓᓱᐅᓪᓚᐅᔪᓂᖅᑐᑦ (ᐃᓐᓇᕐᓗᒍ 2018a). ᓄᖏᓪ, $1.5 ᐱᓕᐊᓂᒃ (billion) ᓴᓂᖏᓐᓇᐃᓕᓴᑦ ᑲᓇᑕᐅᓪᓗᑎᑦ ᐃᓚᓕᕆᓂᖓᓪᓗᑎᑦ ᐸᖅᑭᑎᑎᓴᐃᓪᓗᑎᑦ ᐸᖅᑭᑎᓂᐊᕐᓗᓂᑦ ᑲᓇᑕᐅᔨᑦ ᓴᓴᕐᑐᓂᓕᕆᓂᖓ ᐃᓚᖏᑦ $161 ᒥᓕᐊᓂᒃ ᑕᐃᑲᓇᖅᑕᖅ $1.5 ᐱᓕᐊᓂᒃ (billion) ᓴᓂᖏᓐᓇᐃᓕᓕᒫᑦ ᐃᑲᔪᑎᐅᓂᐊᖅᑐᓂᒃ ᐃᓚᖏᑦ ᐸᖅᑭᑎᑎᓴᐃᓪᓗᑎᑦ ᑲᑎᒪᔨᖅ ᐅᑭᐅᖅᑕᖅᑐᖓᓕᖅᓂ, ᐱᑎᐊᕐᑎᑐᓪᓗᒍ ᐊᑐᖅᑕᐅᓪᓗᑎᑦ ᑲᑎᒪᔨᖅ ᐊᑐᖅᑕᐅᓪᓗᑎᑦ ᐊᑐᖅᑕᐅᓪᓗᑎᑦ ᑲᑎᒪᔨᖅ

ᐅᑭᐅᓄᑦ ᖃᓄᐅᓄᑦ ᐊᓂᔪᖅᑐᓄᑦ, ᐊᒥᓱᓂᖅᓴᐅᓕᕐᖓᓪᓗᒍ ᐅᒥᐊᕐᕕᐊᑦ ᑲᓇᑕᐅᑦ ᐅᑭᐅᖅᑕᖅᑐᖓᔪᓂ (ᑐᑦᓴᔪ et al. 2019). ᐸᕐᓇᓴᑕᐅᓂᖅᓴᐅᓕᖅᑐᓄᑦ ᐊᓚᒪᓗ ᐅᒥᐊᕐᕕᐊᑦᓄᑦ ᐱᕐᑐᓗᐊᖏᔪᓐᓇᖅᑐᑦ ᐅᒥᐊᕐᕕᐊᑦ ᐅᑭᐅᖅᑕᖅᑐᒍᑎᖅᑕᒋᓐᓂᑦ, ᒪᓂᕆᓪᓗ ᐅᓇᓕᔪᓄᑦ ᓂᓇᑦᓂᑕᒃᑕᐅᔪᓂᕐᓂᑦ, ᓴᓇᔨᓪᓗ ᐅᒥᐊᕐᕕᐊᑦᓂᑎᓂᕐᓂᑦ ᐊᓚᒪᓗ ᐳᓪᕋᖅᑐᓕᕆᓂᖅ, ᐅᓗᓄᐊᓇᖅᑐᒃᑐᑦ ᐱᓇᓴᖅᑎᑎᓂᑦ ᐃᓇᓴᓂᖅᑐᑦ (PBAC 2011).

ᓴᓇᐅᖅᑲᑦᑕᔪᖅᑐᓪᓗ ᓄᑖᑦ ᑐᓪᑕᑦᑲᐃᑦ ᐊᖏᕐᕋᓪᒪᒥᒥ ᐊᑐᖅᑕᐅᔨᓇᖅᑐᑦ ᓯᓂᓯᐅᑎᓄᑦ ᓇᓄᐃᑦ ᐊᓯᐊᓂᔨᔪᓐᓇᖅᑎᑦ ᖃᐅᒪᓗᑎᑦ ᐃᒪᐩᓂ ᓂᖃᓴᖏᑦᑐᖓᓂᑦᑕᕐᓗᐊᖅᑐᓪᓗ, ᐱᐅᔪᑐᓪᓗ ᐃᓕᓴᕐᕕᒃᓴᖅᑐᑦ ᐊᑕᑐᓂᑦ ᓇᓄᐃᑦ ᓂᖃᓴᖏᑦᑐᓂᓪᓗ (ᓯᖏᓪ ᓇᑦᑎᑦ) (ᐱᓕᕆᔨ ᐊᓚᒪᓗ ᑕᑦ> 1992; ᓯᕗᓪᓕᐩ 2010, 2013; ᑲᓇᑕᒥ ᐅᒪᔨᕕᓂᖅᓴᒍᑦ ᐱᔨᑎᕋᖅᑎᖏᑦ 2009). ᓯᓂᓯᐅᑎᑦ ᐅᖃᓕᓴᖅᑐᑦ ᐊᖅᓂᖓᓕᔪᓂᖅᓴᐅᓕᖅᑐᖅᑕ (Northwest Passage) ᐅᖃᓕᖅᑕᖅᑐᒥ ᒪᑐᐃᓕᔪᐊᖅᑐᓪᓗ ᐅᐊᑦᑎᐊᕈᑲᐩᓂᖅ 2000 ᐊᖏᔪᒍᑦᑕ ᖃᑎᖒᔨᖏᓂᓂ ᐊᓚᒪᓗ ᐅᒥᐊᕐᔨᐊᖅᑕᖅᓯᖏᓂᖅᓴᐅᓕᕐᓗᑎᑦ ᐅᓯᔨᓂᐩ (COSEWIC 2018; ᓯᒥᑦ ᐊᓚᒪᓗ ᓯᑎᐸᓵᔪᓂ 2013).

ᑐᖃᓯᒥᐊᕆᓂᓂᕈᒪᓂᓂᕈᐃᒃᑐᑦ ᓇᓄᐃᑦ ᐃᓕᑦᑎᔨᓕᕆᓂᖅᑎᒋᓂᓗ ᐱᓕᑎᑎᐅᑎᓂᓗ ᐊᖅᓄᑕᐅᓂᖅᑐᓗ, ᑕᓄᒥᐊᕈᓐᓇᖅᑐᑦ ᐅᓂᓕᖅᑎᓂᓂᓕᓂᓂᑦ ᐊᒥᓱᓂᖅᓴᐅᓕᕐᓗᑎᑦ ᐊᒥᓱᓂᖅᓴᐅᓕᕐᓗᑎᑦ ᐊᖅᓄᑕᐅᓂᖅᑐᓗ ᐊᑐᖅᑕᐅᓂᖅᓴᐅᓕᕐᓗᑎᑦ ᐊᒥᓱᓂᖅᓴᐅᓕᕐᓗᑎᑦ ᐃᓕᓴᕐᕕᒃᓴᖅᑐᑦ

ᖃᓪᓗᓈᖅᑕᐅᑎᑦ ᐅᒥᐊᖏᐊᑦ ᐊᓂᒪᓗ ᐊᓯᖏᑦᑐᑦ ᑕᑯᔪᒪᑦ ᓇᓄᐃᑦ ᑎᓯᖏᑦᓂᓂ (ᐱᓗᐊᖅᑐᒥᑦ ᐃᓕᓗᓕᕆᔨᖏᑦ, ᐃᓚᔨᒃᑯᑦ) ᐊᒥᓱᑭᓂᖅᐳᓕᖅᓯᒪᑕ, ᖃᐅᔨᔪᖅᑎᓕᓗ ᖃᐅᔨᔪᕿᒪᓂᖅᓯᖅᐳᓕᖅᓯᑐᑎᑦ ᐊᑐᐅᓂᖅᖃᖏᓂᖅᓂᓂᓂᓗ ᐊᐅᓚᓂᑦ ᐃᓕᓴᕐᓂᑦ ᐊᑐᑐᔪᒪᔭᑎᖅᑎᓯᖅᑎᓕᓗ ᓇᓄᖏᓂᑦ.

ᑐᑭᓯᐊᖅᑲᓂᕐᒪᓂᑐᐃᓐᓇᑦ ᓇᓄᐃᑦ ᐃᓄᐃᓕᓗ ᐸᕐᐃᔪᖏᓂᓂᓗ, ᑕᒪᓕᒫᑦ ᐅᖃᓕᒫᑦ ᐊᑐᐅᓂᖅᓯᖅᑎᓕᓗ

ᐊᒥᓱᓪᓚᑕ ᖃᐅᔨᓴᕐᔪᐊᕐᓂᑦᑐᑦ ᓄᓇᕗᑦ ᐃᓄᖅᑐᑦ ᓄᓇ/ᐃᓚᖅ ᐊᓯᔨᖅᑕᐅᓂᖅᓴᓂᓄᑦ, ᐃᓱᒪᓕᕐᓂᐅᔪᑦ ᐅᒪᓚᔪᑦ ᐅᒪᔪᕐᓂᑐᓪᓗ ᐊᓯᔨᓂᖅᖃᑕ ᖃᓄᖅ ᐊᑐᑐᐃᓂᖅᖃᕐᓂᖅᖃᑦ ᐱᐅᖅᑐᓂ ᐊᓯᔨᐸᖅᖃᓂᖅᖃᑦ ᓇᓄᐃᑦ ᐅᒪᔪᕐᖅᕿᑦᑕᕐᓂᓐᓄᑦ ᐊᖏᕐᕕᐃᓕᔭᓇᖅᓴᑕ ᓱᔪᓗ ᓱᓄ ᐊᓯᔨᓂᖅᖃᑦ (ᑎᑭᑦᓱ et al. 2004), ᐊᒥᓱᓂᖏᑦ ᐊᑐᑐᖅᑕᐅᑎᖅᑐᑦ ᓇᑦᑏᑦ ᓂᐅᑭᑎᖃᕐᓇᖅᑐᓄᑦ ᐃᖃᓗᓯᑦᑐᓄᑦ (ᑎᒪᔨᑐ et al. 2001), ᐅᕐᓴᓪᓂᓂᑦ ᖃᑦᑏᓪᓇᕐᕿᑦᓂᓂᖅᖃᑕ ᓇᑦᑏᑦ ᐊᓱᐊᓂᑦ ᐱᔨᐸᑎᖃᑦᓴᑎᑦ ᓂᕆᔨᖅᑐᓂᓪᓗᑎᓪᓗᒍ (COSEWIC 2018), ᐊᒃᓚᓗ ᐊᖏᒥᓂᑕᖃᑦᓂᖅᓴᐅᓕᖅᖃᑦ ᓇᓄᐃᑦ ᐊᖏᑕᖃᑦᓂᖅᓴᐅᓕᖅᓴᓂᐅᑎᓪᓗᒍ ᐊᖏᑕᖃᑦᓂᖅᓴᐅᓕᖅᓴᓂᓪᓚᕆᐊᓂᑦ ᐃᓕᓴᕐᓂᐅᔪᑦ (ᑎᓪᓗᒥᓂ et al. 2016).

ᒪᑭᒃᑲ ᐅᑦᑐᑎᑕᐃᒃ ᐅᒪᔨᕆᓭᓐᓂᒃ ᐊᓱᔨᖅᑐᖃᑦᓂᖅᖃᒃ ᓄᓇᒥ ᐱᐅᖅᑐᓂᓐᓂᒥᑦ ᑯᑦᑐᖃᖅᑎᑦᓂᒥᑦ ᑯᑦᑐᖃᖅᑎᑦᓂᒃᑯᑭᓐᓂᒃ ᑲᓇᐅᔭᓐᓂᑦᑐᑦᑐᓂᒃ ᑯᑦᑐᖃᖅᑎᑦᓂᒃᑯᑭᓐᓂᒃ ᐃᓚᖓᑦᑐᑦ (ᐸᐅ2015), ᐊᒪᓚᓗ ᐊᓱᔨᖅᑕᐅᓂᖅᖃᒃ ᐃᓚᐅᐸ ᐃᓕᓴᕐᕿᓂᖅᓴᓂᒃ ᐊᑕᐃᓂᖅᖃᕐᓂᖅᓴᐅᓕᖅᓴᓂᐅᑎᓪᓗᒍ ᐃᓚᖏᑕᐃᓕᓴᕐᓂᖅᓴᐅᓕᖅᓴᓂᐅᑎᓪᓗᒍ ᐃᓚᖓᑦᑐᑦᑐᓂᒃ ᐃᓚᖓᑦᑐᑦᑐᓂᒃ ᐃᓚᖓᑦᑐᑦᑐᓂᒃ

820 ᒪᑭᖅᓂᓕᔾᓇᑦᑎᐊᖏᓪᓗᑎᑦ, ᖃᓄᓇᓕᑦᑐᑦ ᐊᐅᓪᓚᑦᑎᐊᕐᓂᑦ ᑐᖃᓗᐃᑦ ᐊᑐᖏᓪᓗᓪᓗᑎᑦ, ᓂᕐᔨᑎᓂᓪ
821 ᐊᒥᓯᖅᑎᑦᑎᕆᔾᓂᓕᔾᓇᑦᑎᐊᖅᑐᑐᒍᑦ ᐃᓱᒪᓗᓇᓪᓚᐅᖅᑎᓪᓗᓕᑦ. ᑕᒪᓐᓇᐊ ᒪᑭᒪᕆᔾᓂᓕᔾᓇᓪᓚᓕᑦ ᑲᓇᑕᐅᑦ
822 ᐊᒥᓯᓂᖏᑦ, ᐅᓪᒪᑦᑐᓂᑦ ᐊᓪᔨᐅᖏᔾᓂᖏᔾᓂᓂ ᓇᑭᔾᓴᖅᓯᒪᓂᖏᑦ, ᑎᒥᖏᑦ, ᐊᕕᑦᑐᖅᓯᒪᓂᖏᓪᓗᓗ
823 ᐊᒥᓯᖏᔾᓇᓚᐊᖅᑎᖅᓴᑦ ᑕᐃᒪᐃᑎᔾᓇᕆᓯᐊᖅᑎᖅᓴᑦ ᑲᓇᑕᐅᑦ ᓇᓂᖏᑦ ᖃᓄᐃᓕᑎᓇᒥᑦ
824 ᐅᓗᓚᐊᓇᖅᑐᑕᖃᖅᑎᑦᓗᒍ (ᓯᑦᓗ ᓄᑦᓂᓂᑦ ᖃᓂᒪᒍᓂᓂ, ᓄᓇᐃᑦᓗ ᐱᖓᓗᐊᖅᓂᖏᑦ ᐊᓯᖏᑦᓗ)
825 ᒪᑭᖅᓂᓪᓗᑎᑦ ᖃᓄᐃᒍᑎᑎᓂᓂᕐᓂᑦ, ᓄᓇᖃᖅᑲᖅᑐᒥᓗᓐᓂᓗ ᑎᒍᒥᐊᖏᔾᓂᓂᓗᑎᑦ
826 ᓇᔾᓄᒍᔾᓇᓂᖏᔾᓂᓂ. ᑲᓇᑕᒥ ᓇᓄᐃᑦ ᓯᓚ ᐊᒥᓯᓂᖏᑦ ᑕᐃᒪᐃᑦᑐᖏᔾᓇᖅᑲᑕ, ᐱᐅᓂᖅᓴᐅᑎᖅᑐᑦ
827 ᐊᒥᓯᖅᑎᑦᑎᖅᓂᓂᕆᓯᐊᕐᓂᖏᔾᓂᓂ ᐸᕐᕕᓴᑦᑕᐅᓯᒪᔨᓂᖅ ᐅᕐᓂᓵᔾᓂᑦ ᐃᓱᒪᓗᒍᑕᐅᔨᓂᖅ (ᓯᑦᓗ
828 ᓇᔾᓄᑦᑕᐅᓗᐊᖅᑦᑕᖅᑲᑕ, ᐅᖅᓯᐊᓗᔾᓂᑦ ᔪᕕᔨᒥᓂᕐᓂᑦ, ᖃᔪᐱᖓᓚᑦᑕᓚᓗᓗᓂᕐᓂᖅᑦ ᐊᓯᖏᔾᓂᓪᓗᓗ).
829
830 ᐱᑕᖅᑲᖅᓂᕐᓂᖏᑦ, ᖃᔪᓪᓚᑦᑎᐊᖅᑎᓄᑦ ᑐᖃᓗᐃᑦ ᐊᑐᖏᓪᓗᑎᑦ, ᐊᒥᓯᓂᖅ ᓯᐊᖏᒪᖅᓯᒪᔨᓂᖅ
831 ᐊᕕᑦᑐᖅᓯᒪᔨᓂᖅ ᓂᕐᔨᑎᓂᖅ ᐊᔪᓂᒧᑦ ᐱᑕᖅᐃᓇᖏᔾᓂᑦ ᓄᓇᓂᑦ ᐅᒪᔨᓂᓪᓗᑎ ᐊᕙᑎᐅᓪᓗᓗ
832 ᐊᓯᔾᔨᑕᑦᐸᓪᓚᐊᓚᕆᐊᖅᑎᓪᓗᓗᑎᑦ ᓇᓗᓇᐃᖅᓯᒪᔨᓂᖅ ᓇᒧᓂᓂᖏᓪᓂ. ᑲᓇᑕᒥ ᓯᓚᑦᔨᐊᒥᓗ, ᑲᓇᑕᒥ ᓇᓄᐃᑦ
833 ᐊᒥᓯᓂᖏᑦ ᐊᐅᓚᑕᐅᔨᑦ ᐊᑕᐅᓯᖏᓪᓗᑎᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓪᓗᑎᑦ ᑲᑐᔪᔾᔨᖏᑦ. ᑭᓪᓚᖅᑎᓂᖏᓪᓂᓪᓗᓗ, ᓇᓄᐃᑦ
834 ᐊᐅᓚᑕᐅᔨᑦ 14–ᖓᓪᓗᓗᑎᑦ ᐊᕕᑦᑐᖅᓯᒪᔨᑦ 7–ᓂᑦ ᑲᓇᑕᒥ ᐊᕕᑦᑐᖅᓯᒪᔨᓂᖅ ᐅᑭᐅᖅᑕᖅᑐᒥᓪᓗᓗ ᑲᓇᑕᒥ.
835 ᓂᕐᔨᑎᑦ ᐱᑕᖅᐃᓇᓐᓂᕆᐊᖅᑐᑦ ᐊᔪᓂᒧᑦ ᑕᕐᔪᐊ 14 ᐊᕕᑦᑐᖅᓯᒪᔨᑦ ᑕᐃᒪᐃᓚᖓᔾᓇᖅᑲᑕ.
836
837 ᑭᖑᓂᖅᑐᖅᑕᐅᓂᖏᑦ, ᐊᑐᖅᑕᐅᔨᓂᖅ ᖃᓄᓇᓂ ᐊᐅᓚᑦᑎᓂᓪᓗᑎᑦ ᑐᖃᓗᖓᑦᓂ, ᐅᖅᐅᓯᓚᖅ ᐱᑕᖅᑦᓂᖏᑦᓂ
838 ᓇᓄᑦᓂᑦ ᐅᒪᓂᖅᖅᑐᑦ ᓇᔨᖏᕆᓂᖅ ᐊᑦᑐᐊᖅᑎᑎᒋᔭᓂᖏᓪᓗᓂ (ᐅᖅᖅᓯᒪᔨᓇᖅ ᐃᓚᖓᔭᓂ 3–ᒥ
839 ᑐᑭᓯᒋᐊᕆᔭᓂᓂᕐᒪᙵᑦ ᐊᔪᓴᑦᓂᖏᑦᑐᑦ ᑕᒪᓐᓇᐊ ᒥᔪᓗᑦ), ᓇᑭᔾᓴᖅᓯᒪᓂᖏᔾᓂᓂ ᓂᕐᔨᑎᑦ, ᓂᕐᔨᑎᑦ
840 ᐱᔨᔭᓇᓂᖏᑦ ᐊᕙᑎᓕᒥ ᐊᔭᓇᐅᒪᔪᔭᓇᓂᖏᑦ ᐊᓯᔾᔨᖅᑎᓪᓗᒍ. ᑲᒪᒋᐅᐃᔭᓇᓚᓯᐊᕐᓗᑦᑐᑦ ᓇᓄᐃᑦ
841 ᐅᖓᓚᓴᑦᑲᓗᐊᖅᑎᓪᓗᑦᑐᑦ ᓇᔨᖅᑕᖏᑦ ᑭᓪᓚᖅᑐᖅᑕᐅᓚᓕᒪᓪᓗᑦᑐᑦ ᐃᓚᑦᑎᐊᕐᓯᐊᕐᓗᑦᑐᑦ. ᖃᐅᔨᒪᔨᐅᔭᖏᑦᑐᓂᓂ
842 ᖃᓄᖅ ᓯᓂᒥᑦ ᖃᓄᐃᑦᑐᓂᓪᓚᓴ ᐊᓯᔾᔨᕙᒪᖓᑎᓂ ᑲᓇᑕᐅᑦ ᐅᑭᐅᖅᑕᖅᑐᖓᔭᓂ ᐱᑕᕐᓗᐅᓗᐊᖅᑐᑦ, ᐊᒪᓗᓐ
843 ᖃᓄᖅ ᓄᓇᐃᑦ ᐃᓕᓴᕐᑐᖅᓯᒪᔨᓂᖅ ᐊᓂᓂ ᑕᐃᒪᐃᓕᕆᓚᓕᖅᑲᑦ; ᐃᓕᖓᔭᓂ 4.2 ᓇᓗᓇᐃᔨᖅᓯᒪᔨᑦ
844 ᐅᓗᓚᐊᓇᓂᖏᑦ (ᓯᓕ ᐊᓯᔾᔨᓂᖓᔭᓂ ᓯᓕᕐᓂᓗᔭᓂᒥᓗᓐᓂᓗ (IUCN/CMP ᐅᓗᓚᐊᓇᖅᑐᖅ # 11.1 –
845 ᓇᔨᖅᑕᖏᑦ ᐊᓯᔾᔨᓂᓂᖏᑦ ᐊᓯᖅᑭᖅᑕᐅᓂᖏᑦᓗᓗ) ᑐᑭᓯᒋᐊᖅᑲᔭᓂᓂᕐᒪᙵᑦ.
846
847 ᓇᓄᐃᑦ ᐊᐅᓚᑦᑎᓂᓪᓗᑎᑦ ᑐᖃᓗᖓᑦᓂ ᐊᑐᓂ 14–ᓂᑦ ᐊᕕᑦᑐᖅᓯᒪᔨᓂᖅ, ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔨᑦ ᑲᓇᑕᒥᑐᑦ
848 ᑕᒪᖅᓂᓕᖓ ᑕᓂᒋᐊᑭᓇᖅᑐᑎᑦ ᑭᓪᓚᖅᑎᓂᖏᑦᓂᑦ ᐊᐅᓚᑦᑎᐊᕐᓂᓕᑦ ᐊᒥᓯᖅᑲᖅᓂᖏᔾᓂᓂᕆᓯᐊᖅᑎᓂᓗᓗ
849 ᐸᕐᓇᐅᑎᓂᖅ ᐃᓕᖓᔭᓂ 2–ᒥ – 7–ᒧᑦ ᐊᐅᓚᑦᑎᐊᕐᓂᖅ.

850 6. ᐊᓯᖏᔾᓂ ᐸᕐᓇᐅᑎᓚᐊᖓᓯᒪᔨᑦ ᐊᐅᓚᑦᑎᐊᕐᓄᓪᓗᓗ ᐱᒋᐊᑕᐅᓯᒪᔨᑦ

851 ***6.1 ᐱᒋᐊᑕᐅᓯᒪᔨᑦ ᐱᓕᕆᖅᓯᒪᔨᓪᓗᓂᑦ ᐅᔾᔨᓴᔾᓂᑦ ᐃᓚᖓᔭᐅᔾᔨᓚᐊᔨᑦ***

852
853 **ᐱᐅᖅᓯᒪᔪᖅ ᐊᐅᓚᑦᑎᓂᓪᓗᓗ ᓇᓄᓚᓓᓂᕐᒥᑦ ᓇᔨᖏᖑᔾᓂᓪᓗᓗ ᑲᓇᑕᒥ:**

854 2011–ᒥ, ᐊᔨᑎᑎᕐᓄᓂ ᓯᓚᑦᓗᓗ ᐊᓯᔾᔨᐸᕐᓚᐊᓂᖏᓂ ᑲᓇᑕᒥ ᐱᓚᓗᖅᑎᑦᑎᖅᑐᑦ PBAC–ᓄᓇᓂ
855 ᐅᖅᓚᒪᒐᓂᑦ ᓴᖅᑭᔭᑎᑦ ᑲᓇᑕᒥ ᓇᓄᓂᑦ ᐱᐅᖅᓯᒪᓂᓪᓗᒍ ᐸᕐᓇᐅᑎᓂᖅ ᑲᓇᑕᒥ. ᑕᒫᓇ ᐸᕐᓇᐅᑎ
856 ᓴᖅᑭᑎᑕᐅᓚᐅᖅᓯᒪᔨᖅ PBAC–ᓄᓇᓓ ᐊᒥᓚᓗ ᐱᔪᓂᖏᑦ ᐊᑐᐊᖅᓯᔪᓂᑎᑦ ᓇᓄᓂᑦ ᐊᐅᓚᑦᑎᑎᒪᖅᓂᑎᑦ
857 ᐱᓕᕆᖅᑎᖅᓂᓗ ᑲᓇᑕᒥ, ᐱᖅᓯᐅᑎᓚᑦᑎᑦ ᑲᓇᒧᑐᖅᓯᒪᔨᓂᖅ, ᑲᓇᑕᒥ ᐊᕕᑦᑐᖅᓯᒪᔨᓂᖅ ᐅᑭᐅᖅᑕᖅᑐᒥᓗᓗ

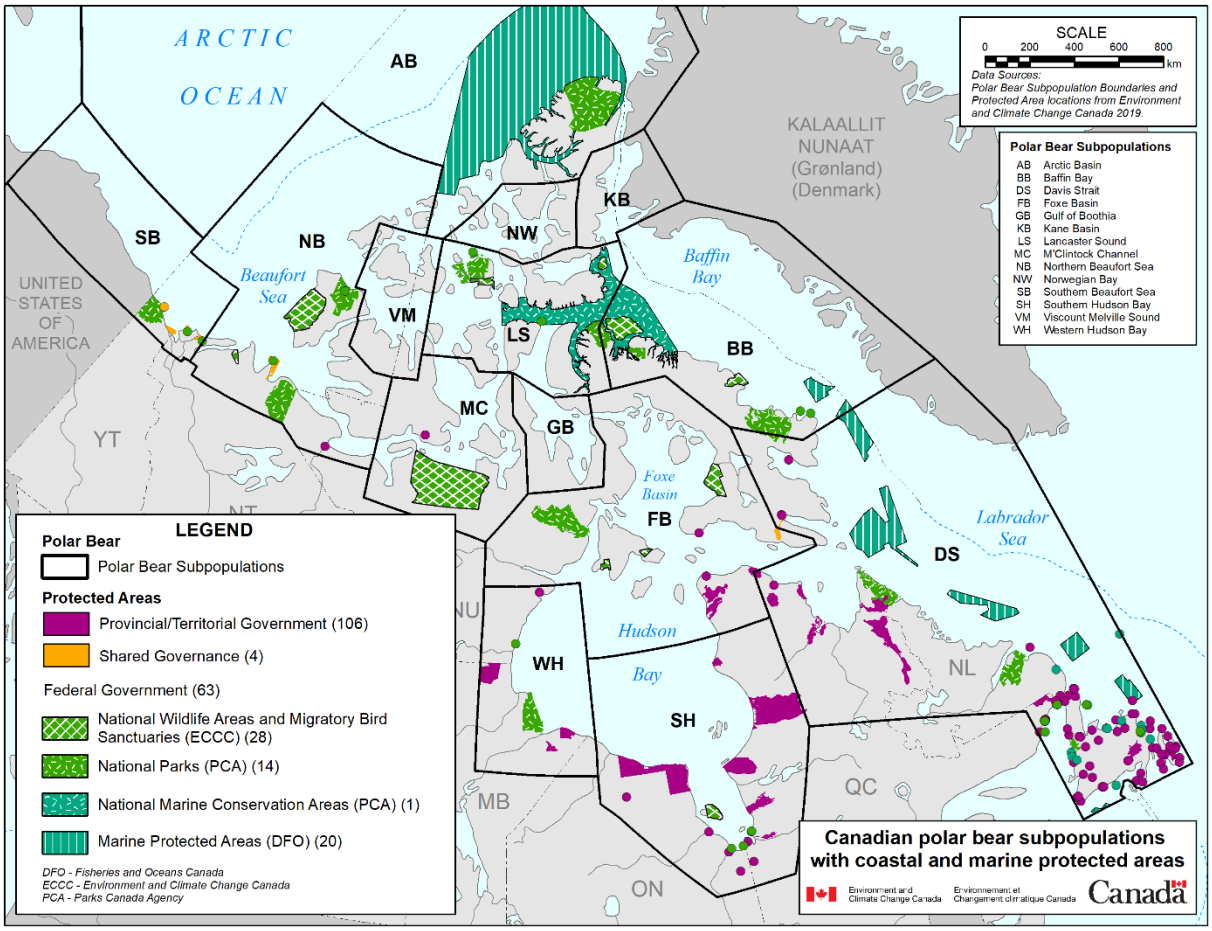
ᓴᖅᓯᒪᕐᓂᓂ, ᐅᑕᒪᓕᕆᓂᖅᓯᐊᕐᓂᑦ ᑲᑎᒪᔨᖅᕿᓂᓂ/ᐅᖅᐅᓵᕿᐊᖅᑎᕐᓂᓂ ᑲᑎᒪᔨᓂᑦ, ᓄᓇᖅᖁᑲᖅᑐᒥᓂᓪᓂᓗ ᑲᑐᔨᖅᑎᑭᓂᓂᑦ. ᐊᖅᕿᓯᐊᓗᓂᓂᑦ ᑐᑦᑐᖅᑐᑦ ᒪᓕᓂᖅ ᓴᖅᑭᔭᖅᑎᑦᑎᓂᓕᓴᓪᓗᑦ ᑐᑭᒧᑦᑕᐅᓂᖅᓯᕿᓂᓗ ᐊᑐᑦᑕᐅᓯᓕᔪᓂᑦ ᐊᐅᓪᓗᒍᓴᐃᔨᓴᑦ ᐃᐅᖅᓯᐊᖅᑕᐅᓂᖅᓯᕿᓂᓗ ᐱᑐᐊᑕᐅᓯᓕᔪᓂᑦ ᑲᑎᒪᓗ ᐊᐅᓪᓗᒍᓴᐃᔨᓴᑦ ᐃᓇᓂᑦ ᐊᐅᓪᓗᑕᐅᓂᖅᓯᕿᓂᓂᑦ ᐱᐅᖅᓯᐊᖅᑕᐅᓂᖅᓯᕿᓂᓗ ᐱᑐᐊᑕᐅᓯᓕᔪᓂᑦ ᑲᑎᒪᓗ ᐅᑕᐅᓂᖅᓯᕿᓂᓗ ᐊᐅᓪᓗᒍᓴᐃᔨᓴᑦ ᑲᑎᒪᓗ ᐃᓕᓴᕐᓂᖅᓯᕿᓂᓗ ᐊᐅᓪᓗᒍᓴᐃᔨᓴᑦ ᐃᓇᓂᑦ ᐊᐅᓪᓗᑕᐅ

45%–ᒥᑦ ᐊᑕᐠᓂ ᑕᐃᑲᓂ 2005–ᒥ, ᑕᐃᑯᓴᒃ ᑎᑭᓪᓗᒍ 2030 (ᐊᓪᓚᕆᓴᓂ ᓯᓚᓕᖅᑎᓯᒪᕕᐅᔪᑦ, 2021). ᓯᓚᓂᕐᑎᓂ ᐱᓕᕆᔨᕕᖅᓴᓪᒍᑦ ᐊᑐᓕᖅᑎᑕᑎᓗᑎᑦ ᒥᑭᓪᓕᓴᓪᓕᑎᑕᑎᕐᓯᑯᓪᓗᓕᒥᑦ ᓯᓚᔪᐊᑦ ᐅᓴᓯᖅᓯᓴᓪᓕᐊᕐᓂᖓᒥᑦ (greenhouse gas) ᓴᖅᑭᓴᖅᓯᓂᖅᓴᐅᓕᕆᓪᓗᑎᑦ ᐱᖓᓱᓯᑦ ᑲᓇᒥᑦ ᐱᓕᕆᓂᐊᕐᓂᖓᓂᖅ ᓴᓪᓚᒪᑲᓂᓪᓴᑯᓪᓗᓕᒥᑦ ᓯᓚᓗ ᐊᓯᔪᕐᓚᓪᓕᐊᓂᖓᓂᓗ (ECCC 2016). ᐊᒪᓗᓴᑲᓂᓪᓴ, ᐊᓴᖅᑎᕐᓚᓪᓕᐊᓂᖓᓂᓗᑦ ᑲᒪᓗᓗ ᓯᓚ ᐊᓯᔪᕐᓚᓪᓕᐊᓂᖓᓂᓂᑦ ᑲᑕᑦᑐᖅᑕᐃᔨᓯᑦ ᓄᓇᖅᑲᖅᑐᑎᓯᓂᑦ ᐊᑐᓚᖅᑎᑕᐅᕐᓗᓂᑦ ᓯᓚ ᐊᓯᔪᕐᓚᓪᓕᐊᓂᖓᓂᓂᑦ <ᖃᓄᐅᑎᓂᓴ, ᓱᖃᓗ ᑲᓇᒥᑦ ᐃᓄᐃᑦ ᓯᓚ ᐊᓯᔪᕐᓚᓪᓕᐊᓂᖓᓂᓂᑦ <ᖃᓄᐅᑎᓂᓴ (ECCC 2019b). ᑲᓇᒥᑦ ᐊᖏᑐᑐᓯᔨᓴᓴ ᐅᑭᐅᖅᑕᖅᑐᒥᓗᓗ ᓴᖅᑭᓯᒪᓕᖅᑐᑐᓂᑦ ᓯᓚ ᐊᓯᔪᕐᓚᓪᓕᐊᓂᖓᓂᓂᑦ <ᖃᓄᐅᑎᓂᓴ. ᑐᑭᓯᓯᐊᖅᓴᓪᓕᐊᓂᖓᓂᑦ ᓯᓚ ᐊᓯᔪᕐᓚᓪᓕᐊᓂᖓᓂᓂᑦ <ᖃᓄᐅᑎᓂᓴ, ᓱᖃᓗ ᑲᓇᒥᑦ ᐃᓄᐃᑦ ᐊᖏᑐᑐᓯᔨᓴᓴ ᐅᑭᐅᖅᑕᖅᑐᒥᓗᓗ ᑲᑕᑦᑐᖅᑕᐃᔨᓯᑦ ᓄᓇᖅᑲᖅᑐᑎᓯᓂᑦ ᐊᑐᓚᖅᑎᑕᐅᕐᓗᓂᑦ ᓯᓚᔪᐊᑦ ᐱᓕᕆᔨᕕᖅᓴᓪᓒᓪᓗᑎᑦ ᐊᑐᓚᖅᑎᑕᐅᕐᓗᓂᑦ ᓯᓚᔪᐊᑦ ᐃᓄᐃ

938 ᖃᒪᑎᐅᓗᓂᑦ ᐊᑦᑐᐃᓂᖅᓂᖏᓪᓕᒪᑦ ᖁᒥᖅᑭᐅᑦ ᑲᑎᒪᖁᔪᓂᑦ (IRB) (ECCC 2018a). ᐊᑦᑐᐃᓂᖅᓂᖏᓪᓕᒪᑦ
939 ᖁᒥᖅᑭᐅᑦ ᑲᑎᒪᔨᖁᑦ (IRB) ᐋᖅᑭᓯᖅᑕᐅᔪᓗᑎᑦ ᓄᓇᑦᑕᑎᐅᕐᔨ ᐊᖁᕈᑎᖁᔪᓂᓂ ᓕᓚᑦᑐᑦ
940 ᖃᒪᖅᑕᕆᐊᖅᓂᐊᖅᑐᑎᑦ ᐊᐸᑎᑦᑎᓂᑦ ᑕᐃᒧᐅ ᐱᓚᕆᓴᕆᐊᖅᓀᓪᑕ ᐊᑐᖅᑕᐅᔪᓂᓇᖅᑐᑦ
941 ᓄᓇᑕᒥᒥᑎᑦ ᐊᖁᕈᑎᒥᑦ ᖃᒪᑎᐅᓗᓂᑦ (ECCC 2018a). ᓱᐃᓗ ᐱᓚᕆᐊᔪᑦ ᐊᑦᑐᐃᓂᖅᓂᐊᖅᑐᑎᑦ
942 ᓇᓄᐃᓂᑦ ᐊᒪᓚᓗ ᐊᐸᑎᓕᕆᓂᖏᓪᓕᒪᑦ ᖃᐅᔨᓴᖅᑕᐅᖅᑲᒧᓚᐅᐃᓪᓗᓂᑦ ᓱᐃᓗ ᐅᖅᓱᐊᓗᓚᕆᓪᓕᒪᑦ ᐃᓱᓄᓕᓗ >ᑐᑎᔪᒪᔪᑦ,
943 ᐅᓴᕐᑕᕆᐊᖅᓂᐊᖅᓂᓕᔭᓄᑦ ᐊᒪᓚᓗ ᐅᓴᖅᑭᐅᖅᓴᓕᓂᑦ.
944
945 ᐃᖏᕐᕿᔪᓕᕆᔨᖅᑯᑦ ᖃᓇᑎᒥᖅᑯᓗᒍᑕ ᖃᒪᔪᑦ ᐃᓄᑐᐃᓕᓇᐃᑦ ᐊᑐᓕᖅᑎᑕᐅᕈᐊᖅᑎᖅᓂᖏᓪᓗᓂᓄᓪ ᓱᓕᕿᔪᐊᒥ
946 ᒪᓕᑎᖅᓂᑦ ᐋᖅᑭᑕᐅᕈᔪᒪᔪᓂᖅ ᓱᓕᕿᔪᐊᒥ ᐃᒪᓕᓴᒥ ᖃᑐᐃᖅᑎᑦᑎᓂᖏᓪᓄᓂᑦ (IMO) (ᐃᖏᕐᕿᔪᓕᕆᔨᖅᑯᑦ ᖃᓇᑎᒥᖅᑯᓗᒍᑕ
947 2017). ᓱᐃᓗ, *Polar Code* (ᓱᓕᕿᔪᐊᒥ ᓇᓗᓇᐃᖅᑯᓗᑎ ᐊᑦᑕᓇᖅᑕᐃᓕᓕᒪᓂᖅᓗᒍᑦ ᓱᕐᖅᓴᐃᑦᑕᐃᓕᓕᒪᓂᖅ
948 ᐅᒥᐊᕐᔪᐊᓂᓴᖅᑐᑎᓂᐅᓂᖅ ᐅᑭᐅᖅᑕᖅᑐᑦ ᐃᒪᖏᓪᓂᑦ, ᑎᒍᕐᓯᒪᓕᒫᓗᒍᑦ ᐊᑐᖅᑕᐅᔪᓂᓇᖅᑐᑦ ᐅᑭᐅᖅᑕᖅᑐᑦ
949 ᐅᑭᐅᖅᑕᖅᑐᒥ ᐅᒥᐊᕐᔪᖅᑯᖅᑕᕐᓂᖏᓪᓂ ᓱᓕᕿᔪᐊᒥ. ᑕᒪᒃᑯᓂᖓ ᐊᓱᖏᓪᓂᓕᔫᓚᐅᖅᓄᑦ, *Polar Code*
950 ᐃᑲᔪᑎᖅᖁᑎᑦ ᐃᒪᕐᒥᐅᕐᓂᖅ ᐸᖅᑭᑎᓕᓚᑎᑦ ᐅᓚᓗᐊᓇᖅᑐᒋᔭᓇᖅᑐᓂᓄᓪ ᐅᑭᐅᖅᑕᖅᑐᑦ ᐃᒪᖏᓪᓄ
951 ᐃᓚᐊᓂᓪᖏᑦᑐᓂᓄᓪ ᓱᓕᕿᔪᐊᑦ ᐃᒪᓕᓚᒥ ᖃᑐᐃᖅᑎᑦᑎᓂᖏᓪᓄᓂᑦ (IMO) (International Maritime
952 Organization, n.d.). ᓱᐃᓗ, *Polar Code–ᒥ* ᐃᒧᓇᖅᓱᒥᐊᖅᓯᖏᓪᑕᑐᓂ ᐅᖅᓱᐊᓚᓪᓂᓄᓪ, ᓱᕐᓇᓇᖅᑐᐊᓚᓪᓂᓄᓪ,
953 ᐊᒪᓚᓗ (ᐊᓱᖏᓪᓂᓄ ᐃᓕᖏᓪᓚ ᖁᓇᐃᓚᐊᓪᓂᖏᓪᑕᑎᓗᓚᐊᑦ) ᑭᐅᓚᐃᑦ, ᓴᓂᓪᓚ, ᐊᑦᑐᐃᓂᖅᓂᖏᓪᓕᒪᑦ
954 ᓇᓄᐃᓂᑦ ᐊᓱᖏᓪᓂᓪᓚ ᐅᒪᔨᓇᓂᑦ ᐃᒪᕐᒥᐅᑕᓂᑦ, ᑭᓱᑐᐃᓇᓪᓂᑦ ᐃᑎᑕᑎᐅᖅᓇᖏᓪᑕᑐᑐᖅ ᐃᒪᓕᒪᓕᑦ (ᓱᓕᕿᔪᐊᑦ
955 ᐃᒪᓕᒪᑦ ᖃᑐᐃᖅᑎᑦᑎᓂᖏᓪᓂᑦ, n.d.). ᐊᒪᓚᓗ, *Polar Code–ᓄᑦ* ᐱᖅᑏᐊᖅᑎᑦᑎᓂᑎᔨᑦ ᐅᒥᐊᕐᔪᐊᓪᓂᑦ
956 ᐅᑭᐅᖅᑕᖅᑐᑦ ᐃᒪᖏᓪᓂᑎᔭᖅᐸᓪᓕᐅᓂᑦ ᐅᒥᐊᕐᔪᐊᓂᖏᓪᑕᑦ ᖃᓄᐃᖅᖁᓪᓗᓂ ᒪᕐᒋᐅᓂᑦ ᐅᖅᓱᐊᓚᓪᓂᑦ ᑯᓇᓂᓂᖅᑲᑦ
957 ᐃᓚᓄᕿᓂᖏᓪᒪᑕ ᐃᑭᐊᖏᓇᐅᐃᓂᓇᕿᖅᑐᒥᑦ (ᓱᓕᕿᔪᐊᖅ ᐃᒪᓕᒪᑦ ᖃᑐᐃᖅᑎᑦᑎᓂᑦ, n.d.). *ᐃᒪᓕᒪᓗ*
958 *ᐸᖅᑭᐅᓂᖏᓂᓄᑦ ᐸᖁᐅᑎᑦ* ᐃᓕᒥᑦᐅᒪᒪᔪᖅ ᐱᑎᐊᑕᑕᐅᕈᒪᔪᖅ ᖁᒪᑦᐅᑕᐅᕈᒪᓕᒫᓂ ᐃᖏᕐᕿᔪᐊᓪᓂᑯᓂᓂ
959 ᖃᓇᑕᒥ ᐸᖅᑭᐅᖅᓴᑦᓚᓂᑦ ᓇᓄᐃᑦ ᓇᔪᖏᓪᑕ. ᑐᑭᓯᑎᐊᖅᑲᓂᓂᕈᒪᓂᓂᕈᐃᓕᑦ *ᐃᒪᓕᒪᓗ* *ᐸᖅᑭᐅᖅᓂᖏᓂᓄᑦ*
960 *ᐸᖁᐅᑎᖏᓂᓂ* ᐱᑕᓚᐅ ᐃᓕᖏᓂᓂ 4.2–ᒥ (ᒥᑭᓂᖅᓯᖅᑎᑐᑦ ᐅᓚᓗᐊᓇᖅᑐᑦ ᓇᓚᓇᐃᓕᖅᑲᓪᓚᔪᓂᖅ:
961 ᐅᓪᓚᖅᓄᑕᐅᖅᓂᖅ ᐅᓴᖅᓂᓂᐊᖅᑎᓪᓚᓚ) ᑕᕐᓂᓂ ᑎᑎᕋᖅᓱᒪᔪᓂᑦ.
962
963 2004–ᒥ, ᓇᓇᑕᐅᑦ ᓴᓂᒪᑯᖏᓪᑕ, ᐱᓕᕆᖁᑎᖁᔨᑐᑎᑦ ᓇᓇᑕᒥ ᐊᐃᑦᑐᖅᓱᒪᔪᓂᖅ ᐅᑭᐅᖅᑕᖅᑐᒥᓪᓚᓚ,
964 ᓴᖅᑭᓪᓚᐅᖅᓱᒪᔪᑦ "ᑕᒪᓂᒥᐅᑕᐅᕐᓂᖏᓪᑕᑐᓂᑦ ᓂᕐᔪᑎᑦᓂ ᕿᓐᓄᐅᑎᓂᖅ ᓇᓇᑕᒥ". ᕿᓐᓄᐅᑎᖅ
965 ᒥᑭᓪᓕᓵᓪᓕᑎᑦᑎᓇᖅᑐᓂᖅᓴᖅᑐᖅᓴᖅ ᐊᑦᑐᖅᑕᐅᓗᐊᖅᓂᐊᖅᑎᑦᑕᒪᓕᑦ ᓂᕐᔪᑎᑦ ᐊᓱᖏᓪᓂ ᑕᐃᓂᒥᐅᑕᐅᕐᓂᖏᓪᑕᑐᓗᓂᑦ
966 ᐋᖅᑭᐅᑎᓪᓚᒥᑦ ᖃᐅᔨᓴᕆᐊᖅᓂᓪᓚᖅᑐᑦ ᑕᕐᓴᖅᑐᑎᖅᑲᓂᓂᕆᐊᖅᓂᓪᓚᖅᑐᑦ ᐊᒪᓚᓗ ᕿᓐᓄᑦᑕᒥ ᑐᑭᓯᑎᐊᖅᑐᑎᑦ,
967 ᑎᒍᕐᓯᒪᐊᖅᓯᓚᑎᑦ ᐊᐅᓪᓚᐅᑕᒪᐊᖅᓯᓚᑎᓪᓚᓚ ᑲᒪᓚᖅᑐᑦ (ECCC 2004). ᐊᒪᓚᓚᖅᑲᓂᓴᖅ, ᔨᓂᒥ 2018,
968 ᓴᖅᑭᓪᓕᖅᑲᓂᑦ, ᓇᓇᑕᒥ ᐊᐃᑦᑐᖅᑕᐅᕐᓂᖏᓪᑕᑐᓚᓚ ᓴᖅᑭᒪᐅᔨᓂᖅ ᐱᕕᓰᖅᓯᓪᓚᐅᖅᑐᑦ ᐱᓴᒪᓂᓄᑦ
969 ᐊᖏᕐᕈᑎᓂᖅ ᓇᓇᑕᒥ ᖁᒪᓂᐊᖅᑐᑎᑦ ᓂᕐᔪᓰᑦ ᖃᓄᐃᓂᖅᓴᓇᓕᑦ ᑎᑎᕋᑦᑕ". ᑕᒪᓐᓇ ᑐᑭᒧᐊᑦᑕᐅᔨᑦ ᓂᕐᔪᑎᓂᖅ
970 ᖃᓄᐃᓂᖅᓴᓇᐅᒪᑎᑦ ᐅᐊᑦᑎᑎᐅᔨᓪᓚᑎᑐᓪᓚ ᐊᒪᓚᓗ ᖃᓄᐃᑦᑐᐃᓇᓪᓂᑦ ᖁᒪᑦᐅᑕᐅᔨᓪᓚᓚ
971 ᓴᓇᒪᐅᔨᓂᖅ, ᐊᒪᓚᓗ ᓴᓇᒪᓐᓂᑦᑐᑎᓪᓚᐊᓂᑦ ᐱᓕᕆᖁᑎᖁᔨᑎᑦ, ᐱᓕᕆᔨᒪᓕᒫᓂᓪᓚᓚ,
972 ᓄᓇᖃᖅᑲᓂᑦᑎᓪᓚᓚ ᐱᔨᓇᐅᑎᑎᓂᓂᓂᓄᓪ, ᖃᓄᐃᓂᖅᓴᓇᔪ ᖁᓇᑕ ᖃᓂᒪᓐᓇᐅᔪᓇᖅᑐᓂᓪᓚᓚ ᓂᕐᔪᑎᓄᑦ
973 ᐅᓚᓗᐊᓇᖅᑐᓄᑦ ᒪᓕᑎᓕᐅᖅᓱᒪᓪᓚᑎᑐᑦ (ECCC 2018c).
974
975 ᖁᓇᑕᒥ, ᐊᐅᓪᓚᕆᓂᖏᓪᓂ ᐃᒪᓕᒪᑦ ᐱᓇᓪᓕᐊᔨᓕᓗᑎᓂᑦ ᖁᒪᑦᐅᑕᐅᔨᑦ ᑭᓪᓕᖃᓂᖏᓪᓂ ᒪᓕᑎᓂᑦ ᖁᓇᑕᐅᑦ
976 ᐊᖁᑕᑐᓱᒪᓂᖏᓪᓂ ᐅᑭᐅᖅᑕᖅᑐᑎᓪᓚᓚ, ᐱᔨᓇᓕᓂᖃᖅᑐᓪᓚᓚ ᑭᓪᓕᖃᖅᑐᓂᓄᓪ ᑐᑭᓯᑎᐊᖅᑐᑎᑦᑎᓂᖏᓪᓂᓇᓕᒫᓕᐊᔨᑦ
977 ᑕᒪᒃᑯᐊ ᒥᓴᓗᓂ ᓇᓚᓇᐃᓕᖅᑲᓪᓚᔪᓂᖅ ᐱᓕᕆᓚᐅ. ᑭᓱᐊᓂᓪ, ᓴᓇᔨᐅᓂᖏᓂ ᐃᒪᓕᒪᑦ ᐅᓪᓚᖅᓄᑕᐅᖅᓂᖅᓴᓂᓕᕆᓂᑦ

ᓴᐅᓗᑕᓕᐅᖏᓗᑎᑦ ᑲᒪᒋᐅᐅᓂᖅᓴᐅᓴᖅᑐᑦ ᓴᓇᒪᑐᖅᑯᑦ ᒪᓕᓴᖅᑎᓂᑦ, ᐱᓗᐊᖅᑐᒥᑦ *ᑲᓇᑕᒥ ᐊᓇᑎᓕᕆᓂᖏᓐᓇᑦ ᖃᐅᔨᓴᖏᓂᖏᓐᓇᑦ ᐱᕐᕿᖅᖢᓂᖏᓐᓇᑦ,* CEAA) (ᓴᓇᒪᑯᑎᑦ ᐊᓂᑎᐅᕆᔪ 2017). Ċᑯᑯᐊ CEAA–ᑯᑦ ᐃᑲᔪᖅᑎᖢᑦ ᑐᓵᔨᕿᑕᐅᔪᓂᑯ ᐃᒥᖏᒧᑦ ᐅᓴᒪᖅᑯᓕᐅᕈᒪᓴᖅᑐᓂᑯ ᐊᓇᑎᑦᑎᓂᓂ ᖃᐅᔨᓴᖅᑲᖅᖢᐊᖅᖃᖏᓐᓇᖅᑐᑦ ᐊᓇᑎᑦᑎᓂᓂ, ᐱᑕᖅᑎᓂᖅᑲᖅᑲ, ᑕᐃᒪᐃᓂᑐᑕᖅᑎᓂᖅᑲᖅᑲ ᐱᓕᕆᑦᓴᓐᓂᓪᓗ ᖃᓄᖅ ᐊᑦᑐᐃᓂᖅᑲᖅᓯᒪᔨᓇᖅᓯᒪᓕᑕ ᐊᓇᑎᑦᑎᓂᓂ, ᐱᑕᖅᑎᓂᖅᑲᖅᑲ ᐱᓕᕆᑦᓴᓐᓂᓪᓗ ᐊᐅᓚᑦᑎᓂᓂ ᐊᓇᑎᑦᑎᓂᓂ 2017).

ᖃᓇᑕᐅᐸ ᓴᓇᒪᑯᖏᑦᑐᑦ ᐱᓕᕆᓂᐊᖏᑐᓇᖏᓂᖅᑐᑦ ᐋᖅᑭᒃᓯᓐᓂᓪᓗ ᖃᒪᖅᑕᑦᓯᓐᓂᓪᓗ ᓴᐸᑦᑎᐱᓐᓂᑐᑦ ᓇᔨᖅᑕᐅᔨᔪᓂᑦ, ᓄᑦᓗ ᖃᓇᑕᐅᐸ ᑎᑎᕕᖅᑲᖅᖢᑎᑦᑎᓂᖅᑲᖅᑲ, ᖃᓇᑕᐅ ᐃᒪᑎᑦ ᓴᐸᑦᑎᐱᓐᓂᓪᓗ ᐅᓴᑕᐅᐅᓕᐊᖏᓐᓇᖅᑐᓂᑦᑐᑦ ᐊᒪᓪᓗ ᐃᒪᑎᑦ ᓴᐸᑦᑎᐱᓐᓂᓪᓗ (ECCC 2018b; ECCC 2019a). ᑎᑎᕆᖅᓭᒪᔨᖅ 2 ᑕᑯᓴᓴᐅᑎᑦᑎᔨᑦ ᓴᓇᒪᑐᖅᑯᖏᑦᑐᓂᓪᓗ ᓴᓇᒪᑐᖅᑯᖏᑦᑐᓂᐅᓚᑦᑐᑦᑐᖅ ᖃᓇᑕᐅ ᐃᓗᐊᓂ ᓇᓄᖅᑕᐅᓚᑦᑐᓂᓪᓗ. ᖃᓇᑕᒥ ᒥᔨᔪᐃᖅᓯᓇᖏᑦᑐᓂ ᓭᑦᓗ ᓭᒥᓕᒫᒥ ᖃᓇᑕᒥ ᒥᔨᔪᐃᖅᓯᓇᓕᒥ ᐊᒪᓗᓗ ᐅᑯᓯᖏᓐᓇᖅᑐᐸ ᖃᓇᑕᐅ, ᖃᓇᑕᒥ ᒥᔨᔪᐃᖅᓯᓇᕐᓂᑦ ᐊᐅᓕᑦᑎᑦᑎᓂᑦᑐᓂᓪᓗ ᓇᓄᐃᑦ ᑕᓭᖏᑦᑐᓂ ᑲᓭᖏᑦᑐᓂ ᑭᖑᓂᖓᓂᑦ (ᖃᓇᑕᐅᐸ ᒥᔨᔪᐃᖅᓯᓇᖏᑦᑐᓂ 2018b). ᐃᓚᖏᑦ ᓴᖅᑭᐅᔾᔨᓂᖅ ᖃᓇᑕᒥ ᓴᖅᑭᐅᔾᔨᑦ ᐅᔾᔭᕋᓂᐊᕋᓴᓂᑦ, ᐅᖅᓯᐊᓗᑐᓂ ᐄᓯᓂᓗ ᐱᔾᐅᐃᐅᒋᐊᖅᑎᓪᓗᑎᑦ, ᐊᑦᑕᕋᐃᐅᒋᐊᖅᓴᖅᑐᑦᑐᓂ ᑲᓂᑦᑐᖅᑲᐊᖅᓯᓂᓗ ᐃᖅᑲᖏᑦᑐᓂ ᐃᓚᐃᓕ (ᓴᓪᓴᓂ et al. n.d.). ᐊᓰᑎᓂᓯ 2019–ᒥ, ᖃᓇᑕᐅᐸ ᓴᓇᒪᑯᖏᑦᑐᓂ ᐅᖅᓯᓇᐅᖅᓯᓚᑦᑐᑦ ᐊᖏᑎᑐᑎᓂᐅᓭᓪᓚᑦᑐᓂᑕ ᖃᓇᑕᐅᐸ ᓴᓇᒪᑯᖏᑦᑐᓂ, ᓄᓇᕗᑦ ᓴᓇᒪᑯᖏᑦᑐᓂ ᐊᒪᓚᓪ ᖁᑭᖅᑕᓂᓄ ᐃᓄᐃᑦ ᑲᑐᔾᔨᐃᑦᑐᖅᑎᑎᑦ. ᑐᓴᐃᔨᐃᖅᑐᖅ ᐃᓚᖏᓐ ᐸᖅᑭᔨᐅᓄᓄ ᖃᓇᑕᒥ ᐊᖏᑎᓄᓵᕐᓗᖅ ᐃᓚᖏᑦ ᐸᖅᑭᔨᐅᔪᑦ ᐊᒪᓚᓪ ᖃᓇᑕᐅᐸ ᐃᓗᐊᓄ ᑐᓴᒐᖏᑦᑐᓄ ᐸᖅᑭᔨᐅᓭᓐᓂᓪᓗ 10%–ᒥ ᐃᓚᕐᒥ ᑕᐃᒃᓄᓄ 2020.



ᑎᑎᕋᖅᓯᒪᔪᖅ 2: <ᖃᐅᔨᐅᔪᑦ ᐃᓗᐊᓂ ᑲᓇᑕᐅᔨ ᓇᓄᖅᓂᑦ ᐊᐃᑦᑐᖅᓯᒪᔪᓂᖅ (ᐱᔨᐅᓯᒪᔪᖅ: ECCC 2018b). ᑎᑎᖅᑐᖅᓯᒪᔪᑦ ᑐᐊᓕᐊᑦᑐᑦ ᑕᒪᐃᓕᐊ ᑲᓇᑕᒥ ᒪᑭᒡᔪᑎᑎᕈᔪᑦ ᓄᓇᖓᓂᓂ.

ᓯᓚᖏᐊᒥ ᐱᓕᓇᖅᑎᑦᓂᖓᓂᑦ

ᐊᑎᓕᐅᖅᓯᒪᔪᓂᖅ ᐊᖏᕐᕈᑎ <ᖃᐅᑦᑎᓂᐊᕐᖏᓐᓇᑎᑦ ᓇᓄᖏᓂᑦ(1973–ᒥ), ᑲᓇᑕ ᐱᓕᓇᖅᑎᖅᑕᖅᑕᑦᑐᖅᑐᑦ ᐊᓯᖏᓀᓂᓂ (ᑲᓱᓪᓚᑦ ᓄᓐᓀᓂ, ᓄᐊᕐᐃᐃ, ᐅᓱᐊᑦ ᐊᓪᓚᓗ ᒥᐊᓕᑕᐃᐸᑦ ᓄᓇᖓᓀᓂ) <ᖃᐅᑦᑎᓕᓐᓗᑎᑦ ᓇᓄᖏᓂᑦ ᓇᔪᖅᖓᓀᓕᓐᓗ. 2015–ᒥ ᑕᒃᑯᐊ ᐅᖓᓚᓯᓂᖓᓀᓀᓂ ᑭᓕᓕᖅᓀᓀᓂ ᑎᑎᕋᒪᐅᖅᓯᒪᔪᑦ ᓯᓚᖏᐊᒥ ᐱᓕᓇᖅᑎᖅᑕᖅᑕᑦᑐᖅᑐᑦ, <ᖃᐅᑦᑎᓂᖅᓗᑦ <ᕿᓇᐅᑎᓂᒃ ᓇᓄᖏᓂᑦ ᓯᓚᖏᐊᔨᑦ ᐅᑭᐅᖅᑕᖅᑐᖅᓂᖓᓀᓂ. ᓯᓚᖏᐊᔨᑦ ᐅᑭᐅᖅᑕᖅᑐᖅᓂᓀᓂ ᐱᑎᐊᑎᑦ ᐅᖅᓯᓂᖓᓀᓀᓂ ᑭᓕᓕᖅᓀᓀᓂ ᓇᓗᓇᐃᖅᓯᒪᔪᖅᑐᖅᓂ ᖃᓄᖅ ᑲᒪᓂᐊᓕᒫᓂᑦ ᑲᒪᓗᑎᓂ ᐊᓯᖏᓀᓂ ᐅᓗᓕᐊᓇᖅᑐᖅᓂᖓᓀᓂ ᓯᓚᖏᐊᑎᑦ ᐱᓕᓇᖅᑎᖅᑕᖅᑕᑦᑐᖅᑐᑦ ᐊᓯᖏᓀᓂ ᓄᓇᖓᓀᓂ (ᓇᓄᖏᓂᑦ ᐅᖅᓯᓂᖓᓀᓀᓂ ᑭᓕᓕᖅᓀᓀᓂ 2015). ᐱᓗᐊᖅᑐᑦ, ᑕᒃᑯᐊ ᐅᖅᓯᒪᔪᓂᖓᓀᓀᓂ ᑭᓕᓕᖅᓀᓀᓂ (ᐱᖅᓯᐅᑎᓕᔪᑐ ᑲᓇᑕ) ᑲᑐᔨᓗᑎᖅ, ᐊᑐᓕᖅᑎᑎᓂᐊᕐᖏᓐᓄᑦ ᐱᐅᓂᖅᓴᓂᓂ (BMP–ᓂ) ᐅᓗᓚᐊᓇᖅᑐᒋᓂᖓᓀᓀᓂ ᓇᓄᐃᑦ ᑲᓇᑕᒪᓂᑎᓂᖅᑐᑦ ᑕᒪᐃᓕᐊ ᓄᓇᕗᒻᒥᐅᑦ, ᐅᒥᐊᔨᔪᐊᓂᑦ ᐃᓄᓐᓂᓕᓐᓗ ᑲᑎᓯᖅᑕᕐᓂᖓᓀᓂ (ᓇᓄᐃᑦ ᐅᖓᓚᓯᓂᖓᓀᓀᓂ ᑭᓕᓕᖅᓀᓀᓂ 2015).

ᓇᓄᕐᓂᑦ ᑭᓚᓪᓕᖅᑐᑦᑕᓂᒃ ᑲᑐᔂᔅᓂᖅᑲᑕ ᐊᑯᔪᓂᕆᔪᓂ ᑲᓇᑕᒥ ᓱᓚᕐᔪᐊᒥᓗ ᐊᐅᓚᓪᑎᖅᑎᖅᕐᓗᑎᑦ, ᓱᓚᕐᔪᐊᒥ ᐊᖏᑕᑎᑦ ᓱᕐᓗ ᐊᖏᑕᑕᐅᓱᒪᔪᓂᒃ ᐅᐟᔅᓚᔪᓄᓂᑦ ᐊᑐᖅᑎᓂᒃ ᐊᑐᐅᓂᕐᔪᑦᑐᓂᑦ ᐊᑲᖅᑭᓱᒪᔪᓂᒃ ᑎᑎᕋᖅᑕᒥᓂᕐᓂᑦ ᒪᓚᕐᓂᑦ ᓄᓇᑦᑕᑎᐅᕐᔨ ᐊᖏᑕᑎᖅᓴᓐᓂ ᐊᒻᒪᓗ ᑭᓚᖏᑐᓂ ᒪᓚᑦᓂᑦ ᐅᐟᔅᓚᔪᓄᓂᑦ ᑭᓚᑕᑎᓂᒃ ᐊᖏᑕᑎᓂᒃ. ᑕᐃᒪᐃᓕᑐᑦ ᐊᖏᑕᑎᑦ ᒪᓚᕐᑕᐅᑦᓴᖅᑐᑦ ᐊᑕᐅᑦᑎᓯᖅᑎᖅᑐᑦ ᐊᐅᓚᓪᑎᓂᕐᓕᑦ ᑐᕌᖓᖏᓐᓂ, ᑲᑎᑦᓯᑦ ᐅᒪᔪᖅᑕᐅᔪᓐᓇᖅᑐᓂᒃ, ᑲᑐᔨᔪᑦ ᐅᒪᔪᖅᑕᐅᔪᓐᓇᖅᑐᓚᓪᓗ. ᑕᐃᒪᐃᓕᑐᑦ ᐊᖏᑕᑎᑦ ᐱᖓᓱᐅᔨᔪᑦ ᐃᓚᓐᓇᐅᑦᑐᓂᒃ–ᐃᓚᓪᐸᐱᐊᑦ ᐊᖏᑕᑎᑎᖅᑑᓂᒃ ᑲᑐᔂᔅᓂᖅᑲᑕ ᐅᑭᓚᓪᓗᑎᑦ ᐅᐊᓚᓂᐅᐅᓪᐸ ᑕᓚᐅᖅᓱᓂ ᐊᕐᓇᓂᒃᑐᓂᒃ – ᐊᑎᓚᐅᖅᑕᐅᓚᐅᖅᓭᓚᔨᓗᐊᖅ 1988–ᒥ; ᐊᖏᑕᑎᑦ ᑦᑐᔨᓂᕐᓂ ᑲᓇᑕᒥ ᒥᐊᓚᑦᓗᓪᓚ ᓄᓇᖅᑐᓂ ᑲᑐᔨᔪᑦ ᓂᒥᐊᓂ ᑕᓪᓗᑎᐅᕐᔨ ᐃᒪᖅᑐᓂ ᐊᐅᓱᐃᑦᑐᑦ – 2008; ᐊᓚᓪᓗ ᐊᖏᑕᑎᖅᑐᑦᑐᓂ ᑦᑐᔨᔪᖅ ᑲᓭᓪᓕᓂᑦ ᓄᓐᔪᓂ, ᓄᓇᕆᑦ ᑲᓇᑕ ᑲᑐᔨᔪᓪᓗᑎᑦ ᐊᐅᓱᐊᑦᑐᔨ ᖃᑭᖅᑕᓪᓗᐊᓂ ᐊᓚᓪᓗ ᑲᓭᓪᓕᓂᑦ ᑕᓚᐅᖅᓱᓂ ᐊᒻᒪᓗ ᐃᒪᖅᑐᓂ ᐊᖏᑕᑎᓂᒃ – 2009.

ᑲᓇᑕᒥ ᐊᑎᓚᐅᖅᑕᐅᕙᒪᒃᑕ ᑲᑎᒪᓂᐅᔪᓂᒃ ᓱᓚᕐᔪᐊᒥ ᑕᐅᖅᓱᓂᕐᒧᑦ ᐱᑕᖅᑭᑲᓂᕐᔪᖅᑕᐅᖅᑐᓂᒃ ᓂᕐᔪᐊᑎᓂᒃ ᐅᒪᔪᓂᐅᔪᓂᒃ ᐱᖓᓱᐅᖅᓯᓂᒃ (CITES) (ᑲᓇᑕᐅᐸ ᓴᙳᒪᑦᑐᑦ 2018). CITES ᑐᕆᖅᑐᖅ ᑕᒪᑦᑐᓂᖅ ᓱᓚᕐᔪᐊᒥ ᑕᐅᖅᓱᓂᕐᒧᑦ ᐊᑎᓚᐅᖅᑕᐅᓱᒪᔨᓚᑦᑐᑦ ᓂᕐᔪᐊᑎᓂᒃ ᐅᓗᓇᐊᓇᖅᑐᑦᑐᑦᑐᑦ ᐊᓪᓇᐅᒪᓇᓱᕐᓂᖏᓐᓂ. ᐃᓗᐊᓂᑐᑦ ᑲᑎᒪᓂᐅᔪᓂᒃ ᓱᓚᕐᔪᐊᒥ ᑕᐅᖅᓱᓂᕐᒧᑦ ᐱᑕᖅᑭᑲᓂᕐᔪᖅᑕᐅᖅᑐᓂᒃ ᓂᕐᔪᐊᑎᓂᒃ ᐅᒪᔪᓂᐅᔪᓂᒃ ᐱᖓᓱᐅᖅᓯᓂᒃ (CITES), ᓇᓄᐃᑦ ᑎᑎᕋᖅᑕᐅᓱᒪᔪᑦ ᓇᓗᓇᐃᖅᑕᐅᓱᒪᓕᕆᓗᑎᑦ ᐃᓕᔪᑕᖓᓐᓂᖏᓐᓂ II–ᒥ ᑕᐃᒪᓐᓇᓂᒃ ᑲᑎᒪᓂᐅᓕᐅᖅᓭᓚᔨᓗᐊᖅ 1975–ᒥ ᐊᓚᓪᓗ ᓱᓚᕐᔪᐊᒥ ᑕᐅᖅᓱᓂᕐᒧᑦ ᓂᕐᔪᐊᑎᓂᒃ ᓇᒥᓕᖓᑎᑕ ᖃᐅᔨᔫᖅᑕᕐᓂᖏᓐᓂ. ᐱᔨᓐᓇᐅᑎᑕᓚᐊᓕᓪᓕ ᐊᓐᓂᔨᔭᒧᓐᓂᖅᑲᑕ ᓇᓄᕐᓂᑦ ᑲᓇᑕᒥ ᒪᓕᑦᓂᑐᑦ ᑎᑎᒥᐊᖅᑕᐅᑎᓕᓪᓕᑦ (ᐱᖓᓱᐅᑎᑦᓯ ᐃᓕᖏᓐᓂ ᓇᓄᒥᓕᖓ) ᐊᓚᓪᓗ ᐅᖃᐅᔨᔪᐊᑦᑎᓐᓂᒃ ᑲᑎᒪᓂᐅᔪᓂᒃ ᓱᓚᕐᔪᐊᒥ ᑕᐅᖅᓱᓂᕐᒧᑦ ᐱᑕᖅᑭᑲᓂᕐᔪᖅᑕᐅᖅᑐᓂᒃ ᓂᕐᔪᐊᑎᓂᒃ ᐅᒪᔪᓂᐅᔪᓂᒃ ᐱᖓᓱᐅᖅᓯᓂᒃ ᓇᓄᕐᓂᑦ (CITES). ᖃᐅᔨᔫᑎᑎᓚᓵᑦ ᐱᔨᓇᔭᓐᓂᑦᑕ ᑲᓇᑕᒥ ᐅᖃᖅᓭᓚᔨᑦ ᑕᐅᖅᓱᓂᕐᒧᑦ ᐅᓗᓇᐊᓇᖅᑐᑦᑐᓂᒃᐊᖅᑕᐅᖅᑐᓂᒃ ᑭᓱᐊᓂ ᐅᖃᐅᔨᓚᐅᖅᑕᕐᓂᖏᓐᓂ ᓂᕐᔪᐊᑎᓂᒃ. ᑕᒪᓇᓗ ᐅᖃᐅᔨᓭᓚᔨᖅ ᐅᓗᓇᐊᓇᖅᑐᑦᑐᓂᒃᐊᖅᑕᐅᖅᑐᓂᒃ ᐅᕙᓂᐊᖅᑐᑦ NDF–ᒥᑦ (ᑲᓇᑕᐅᐸ ᓴᙳᒪᑦᑐᑦ 2017a). ᐅᓗᓇᐊᓇᖅᑐᑦᑐᓂᒃᐊᖅᑕᐅᖅᑐᑦᑕᓂᒃ ᐃᓚᒋᑦᓴᐅᓴᖅᑐᑦ ᐊᓯᔪᓄᓪᓕᐊᑦ, ᐸᖅᑭᐅᑦᑐᖅᑕᐅᖅᑐᓂᒃ, ᑕᐅᖅᓱᓂᕐᒧᑦ ᐊᑎᓚᓪᓗ ᐊᓯᔾᔨᓂᕐᓗᑎᑦ ᐊᐅᓚᓪᑎᖅᑎᖅᑐᑦᑐᓂᒃ ᓂᕐᔪᐊᑎᓂᒃ, ᑐᑭᓯᐊᓂᕐᓂᖅᑐᑦ Government of Canada website[14]. ᑲᓇᑕᒥ, ᑲᑎᒪᓂᐅᔪᓂᒃ ᓱᓚᕐᔪᐊᒥ ᑕᐅᖅᓱᓂᕐᒧᑦ ᐱᑕᖅᑭᑲᓂᕐᔪᖅᑕᐅᖅᑐᓂᒃ ᓂᕐᔪᐊᑎᓂᒃ ᐅᒪᔪᓂᐅᔪᓂᒃ ᐱᖓᓱᐅᖅᓯᓂᒃ (CITES) ᐊᑐᓚᖅᑎᑕᐅᓚᔨᓂᑦ ᓄᓇᒧᑦᑐᓂᕐᒧᑦ ᐅᒪᔪᓂᒃ ᐊᒻᒪᓗ ᐱᖓᓱᐅᖅᑐᑦ ᐸᖅᑭᐅᑦᑐᖅᑕᐅᖅᑐᓂᒃ ᐅᓗᓇᐊᓇᖅᑐᑦᑐᓂᒃ ᓱᓚᕐᔪᐊᑦᑐᑦ ᐱᓚᓪᓕᖅᑐᓚᐅᖅᓭᓚᔨᓗᐊᖅ ᑕᐅᖅᓱᓂᕐᒧᑦ ᐱᔪᓐᓇᖅᑐᓂᒃ (WAPPRIITA) ᑦᑐᔨᔪᖅ ᐊᐊᑎᓚᓪᓕᐊᓂᕐᒧᑦ ᓱᓚᑦᓗ ᐊᓱᓴᓇᖅᓯᓐᓄᑦ ᑲᓇᑕᒥ (ᑲᓇᑕᐅᐸ ᓴᙳᒪᑦᑐᑦ 2017b).

ᓱᑦᑐᕼᐅᐳᒡ (Stockholm) ᑲᑎᒪᑎᑦᓗᓂᑦ ᐱᑕᖅᑲᐃᐧᓇᑦᖅᑕᐅᖅᑐᓂᒃ ᐅᒪᔪᓄᑦ ᓱᑕᑕᐅᓱᑦ (POP) ᐊᑎᓚᐅᖅᑕᐅᓚᐅᖅᑐᓚᔨᑦ ᐊᑐᑦᖅᑎᑕᐅᓚᔨᑦᑎᓚᑦᓗ ᑲᓇᑕᒥ 2001–ᒥ (ECCC 2017). ᑐᕆᖅᑐᓂᒃ ᒥᑭᑦᓭᑦᑎᑎᑕᒧᒪᔪᑦᑎᓚᑦᓂᑦᓗ ᑲᓇᑕᒥ ᐱᖓᓱᐅᖅᑐᑦ ᐅᒪᔪᓄᑦ ᓱᑕᑕᐅᓱᑦ (POP) ᐊᐧᐊᑎᑕᑎᐅᓄᖅᑲᖅᑕᐅᖅᑐᓂᒃ ᐊᑯᔪᓂ; ᑕᐃᒪᐃᐧᑐᓂᖅᓱᓚᐅᑦ ᐱᓴᖅᑕᐅᓚᔨᓚᑦ ᐅᖃᓕᓐᓂᒃ ᐊᑐᖅᑕᐅᖅᑲᑕᒥᑦᑐᓚᔨᑦᑎᓚᑦᓂᑦ ᐱᑕᖅᑲᐃᐧᓇᑦᖅᑕᐅᖅᑐᓂᒃ ᐅᒪᔪᓄᑦ ᓱᑕᑕᐅᓱᑦ (POP) ᐃᓕᓴᕐᓇᓂᑦ ᑕᒪᑦᑐᓂᖅ ᐊᑐᖅᑕᐅᖅᑲᑕᒥᑦᑐᓚᔨᑦᑎᓚᑦᓂᑦ ᐱᑕᖅᑲᐃᐧᓇᑦᖅᑕᐅᖅᑐᓂᒃ ᐅᒪᔪᓄᑦ ᓱᑕᑕᐅᓱᑦ

[14] https://www.canada.ca/en/environment-climate-change/services/convention-international-trade-endangered-species/non-detriment-findings/polar-bear.html

(POP) ᐃᓚᓵᐸᓂᖅ ᑐᖏᔪᖅᑕᐅᓯᒪᔨᑦ ᓴᓂᐅᓪᓚᖅᑐᑦ ᐱᑕᖏᐃᖅᓇᓪᓚᖅᑐᓂᖅ ᐅᒪᔨᓂᖅ ᓯᑕᑭᑕᐅᓯᑦ (POP) (ECCC 2017). ᑲᓇᑕᒥ ᑎᑎᕐᖅᑐᑎᑦ ᑐᓂᓯᖏᑦᑕᓯᖓᒍᔨᑦ ᖃᓄᖅ ᐱᔾᐅᕐᔪᐅᔾᔪᖓᒡᑕ ᒪᓚᖏᑎᒍ ᓴᖅᑭᖅᑐᓂᖅ ᐊᒪᒪᓵᓐᓂᑦ ᓯᕗᓪᓚᐸᐅᔾᔨᐅᓗᑎᒃ ᐃᓚᓵᐸᓂᖅ ᐱᑕᖏᐃᖅᓇᓪᓚᖅᑐᓂᖅ ᐅᒪᔨᓂᖅ ᓯᑕᑭᑕᐅᓯᑦ (POP) ᐃᓚᔪᑕᖏᓪᓐᓂᑐᑦ A, B ᐅᕐᖅᓵᓪᓐᓂᑦ C ᓯᑕᒃᕼᐅᒻ (Stockholm) ᑲᑎᒪᓂᖏᓪᓂ (R. ᓚᑦᓯ, pers. comm.).

ᑲᓇᑕᒥ, ᒪᓕᑕᐃᑦ >ᓚᕆᖅᑐᓕᓪᓂᓴᒃᓴᔨᑦ ᐃᓗᐊᓐᑦᑐᑦ ᑭᓪᓕᓂᖅᑐᓂᖅ ᐊᕐᕌᑦᑐᖅᓂᖅ ᐊᒪᒪᓗ ᐅᑭᐅᖅᑕᖅᑐᒥ. ᑭᓯᐊᓕᓕ, ᓯᓚᕆᐊᕐᕼ ᐅᑭᐅᖅᑕᖅᑐᖏᓪᓂ ᐱᑎᐊᑕᐅᓯᒪᔨᑦ ᑭᓪᓕᖏᓪᓂ ᐃᓚᒋᔭᐅᔨᓂᖅ “ᓄᐊᑎᑕᑎᓗᑎᒃ ᑐᑭᓯᓯᐊᑕᓪᓗᑎᓂᒃ, ᐊᖅᑭᒋᓯᐃᓚᓪᓗᑎᓂ BMP-ᓂᑦ, ᑕᐃᒪᐃᓪᓗᐊᖅᑎᑕᑎᓇᓯᐊᖅᓗᑎᓂᒃ >ᓚᕆᖅᑐᓕᓪᓂᕐᑕᑦ ᐊᒪᒪᓗ ᐊᑦᑐᐃᓂᖅᑲᓂᖅᑐᓂᓪᓂ ᓇᓄᖅᓄᓪᓂ” (ᓇᓄᐃᑦ ᐅᖓᓯᓂᖅᑐᓂᓪᓂ ᑭᓪᓕᖏᓪᓂᓪᓗ 2015: ᒪᐟᐱᒐᖅ 59).

ᖃᐅᔨᓴᖅᑎᒪᓱᑦ ᐊᒪᒪᓗ ᓄᓇᖃᖅᑲᖅᑐᒥᓂᑦ ᐅᖃᐅᔨᒪᓂᖏᓪᓂᑦ ᐅᖃᐅᔨᓴᖅᑕᐅᓂᖏᓪᓂᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᖏᓪᓂᓪᓗ

ᐱᓕᕆᖃᑎᒌᓂᖏᓪᓂᑦ ᖃᐅᔨᓴᖅᓂᒃᑐᑦ ᐅᖃᐅᔨᓂᒃᑐᓪᓗ ᑲᓇᒪᑐᖃᖅᑎᓂᑦ ᐊᒪᒪᓗ ᐱᓕᕆᖃᑎᖅᑎᓂᑦ ᐱᐅᖅᓯᐊᐸᓪᓕᐊᓂᑐᖅᑐᓂᒃ ᐊᐅᓚᓪᓕᐊᓂᖅᑐᓂᓪᓗ ᓇᓄᖅᓄᓪᓂ ᑲᐅᖃᓪᓚᕆᐊᖃᖅ. ᐱᓕᕆᖃᑎᖅᑎᓂᑦ ᐊᒪᒪᓗ ᐱᐅᖅᓯᐊᐸᓪᓕᐊᓂᑐᖅᑐᓂᒃ ᐱᓕᕆᖃᑎᖅᑎᓂᑦ ᑲᑎᒪᓂᖏᓪᓂᑦ, ᑲᓇᑕᒥ ᐊᖏᖅᑭᒪᔨᖅᑕᐅᓂᖏᓪᓂᑦ ᐊᐅᓚᓪᓕᐊᓂᖅᑐᓂᒃ ᐱᓕᕆᖃᑎᖅᑎᓂᑦ ᐊᒪᒪᓗ ᐊᐅᓚᓪᓕᐊᓂᖅᑐᓂᒃ ᐱᓕᕆᖃᑎᖅᑎᓂᑦ ᑲᑎᒪᓂᖏᓪᓂᑦ ᑲᑎᒪᓂᖏᓪᓂᑦ ᐊᐅᓚᓪᓕᐊᓂᖅᑐᓂᒃ ᐱᓕᕆᖃᑎᖅᑎᓂᑦ ᐊᒪᒪᓗ ᐊᐅᓚᓪᓕᐊᓂᖅᑐᓂᒃ ᐱᓕᕆᖃᑎᖅᑎᓂᑦ ᑲᑎᒪᓂᖏᓪᓂᑦ

1093 ᑲᑎᒪᔨᕆᓭᓚᓪᓗ (ᓯᑦᓗ COSEWIC–ᑯᓚᓄ ᐊᖏᒪᓗ PBTC–ᑯᓚᓄᑦ) ᖃᑎᖅᑐᒃᓴᖅᑎᑦᑕᖅᑐᓄᓪᑦ
1094 ᖃᓄᐃᓕᓴᖓᓕᖅᑎᓂᓚᖅᑐᓂ ᓇᓄᐃᑦ ᑲᓇᑕᒥ.
1095
1096 ᐊᐦᖏᑎᓕᓇᔭᖅᑯᑦ ᐊᖏᒪᓗ ᓯᓚ ᐊᓯᔨᐸᓪᓕᐊᓂᖓᓂᓂ ᑲᓇᑕᒥ ᖃᐅᔨᓴᖅᓂᐅᔪᑦ ᑕᑯᓚᖅᑐᑦ
1097 ᑐᖃᓯᖅᓂᕆᓯᐊᖅᑐᑎᑎᑦ ᓇᓄᖅᓂᑦ ᐅᒪᔪᑦ ᓇᔪᖓᑎᑕ ᓯᓚᑎᓪᓗᒍᓂᑦ ᐊᖏᒪᓗ ᐅᑭᐅᖅᑕᖅᑐᑐᒥ
1098 ᐃᒪᓕᕆᓂᖅᓗᒍ, ᖃᐅᔨᓴᖅᑕᐅᓂᖓᓂᓂᓪᓗ ᓇᓄᐃᑦ ᐊᐃᖅᑐᑐᒥᓂᖓᓂ ᐊᑎᓯᓂᖓᓂ ᐊᓯᔨᓴᖃᑦᑕᖅᓂᖓᓂᓪᓗ,
1099 ᑐᖃᓯᐅᒪᔪᓯᓂᖓᓂ ᐊᑦᑐᐊᓂᖓᓂ ᓇᓄᐃᑦ, ᓂᕿᑎᓭᑦᑕᖓᓂᓪᓗ, ᓯᑯᓪᓗ. ᐃᓐᓇᐅᔪᖅ, ᐊᐦᖏᑎᓕᓇᔭᖅᑯᑦ ᐊᖏᒪᓗ
1100 ᓯᓚ ᐊᓯᔨᐸᓪᓕᐊᓂᖓᓂᓂ ᑲᓇᑕᒥ ᑕᓪᓕᒪᓂᑲ ᖃᐅᔨᓴᖅᑭᒪᓕᒡᓗ ᓄᓇᖃᖅᑲᖅᑐᑐᒥᓂᓪᓗ ᖃᐅᔨᒪᓂᖓᓐᓂ
1101 ᖃᐅᔨᓴᖅᑕᐅᖓᑦᓯᓂᓪ ᓯᐅᔪᓕᖅᐸᐅᑎᑎᓯᓕᖅᓂᖓᓂ, ᓇᓗᓇᐃᔪᖅᓯᒪᔪᓚᑐᑎᑦ 5–ᒥ ᖃᐅᔨᓂᓂ. ᐃᖅᑲᓇᐃᔪᖅᕃᓘᑲ
1102 ᐃᓕᓴᖅᓯᓯᒪᔪᑦ ᐱᓕᒪᓇᐅᑎᑎᓂᖓᓐᓂᓂ ᖃᐅᔨᓴᖅᓂᕆᒥᑦ ᓄᓇᖃᖅᑲᖅᑐᑐᒥᓂᓪᓗ ᖃᐅᔨᒪᓂᖓᓐᓂᓂ ᓇᓄᖅᓂᑦ
1103 ᖃᐅᔨᓴᖅᑕᐅᑎᔪᓚᑦ ᐅᔨᔭᖅᓯᖅᑕᐅᑎᔪᓚᑐᓪᓗ ᐊᒪᓪᓗ ᐱᓕᓇᖃᑕᐅᔪᑦ ᐃᓕᓕᐅᔨᓴᐅᑎᖃᖅᓂᖓᓂ
1104 ᓄᓇᖃᖅᑲᖅᑐᒥᓂᓪ ᑲᑐᔨᖃᑎᒋᖓᓂᑦ ᓄᓇᓕᖓᓂᓪᓗ. ᐊᑐᓂ ᑕᔪᓕᒪᓂᑲ ᖃᐅᔨᓴᖅᑭᒪᔪᑦ ᓯᓚᔪᓕᐸᐅᑎᔪᓚᑐᓂᓂ
1105 ᑲᔪᓯᓇᓂᕐᐊᖅᑐᑎᑎᔪᓪᓗ ᐱᓕᓇᖃᑎᖃᖅᔪᓚᑎᑦ ᖃᐅᔨᒪᔨᑎᒥᓂᓪᓗ ᐅᓂᒃᑲᖃᖅᑕᖅᑐᑦᑕᖅᑐᑎᓪᓗ ᐅᑭᐅᖅᑕᖅᑐᑐᐃᓪ
1106 ᓄᓇᕆᓂᕐᓂᓪᓕ, ᓄᓇᖃᖅᑲᖅᑐᑐᒥᓂᓪᓕ ᑲᑐᔨᖃᑎᒋᕐᓂᓪᓕ, ᐊᒪᓪᓗ ᐱᓕᓇᖃᑕᐅᔪᓂᓪᓕ. ᑭᓕᓚᖅᑐᑦ
1107 ᖃᐅᔨᓴᖅᑭᒪᔨᖓᓕᑦ ᓯᓯᓕᓚᐸᐅᑎᒍᒪᔨᖓᓂᑦ ᐅᖃᐅᔪᐅᐅᖅᓂᒥᔪᑦ 2-7–ᒧᑦ ᐊᐅᓪᓗᐊᑎᓴᓕᑦᑐᑦ.
1108

1109 **ᑎᑎᕋᖅᓯᒪᔪᑦ 5: ᐊᐦᖏᑎᓕᓇᓂᖅ ᐊᒪᓪᓗ ᓯᓚ ᐊᓯᔨᐸᓪᓕᐊᓂᖓᓐᓄ ᑲᓇᑕᒥ ᖃᐅᔨᓴᖅᑕᐅᖅᑲᓇᐃᓕᓂᑦ**
1110 **ᓇᓄᓕᕆᓂᖓᓕᑦ**

ᖃᐅᔨᓴᖅᑕᐅᖅᑲᓇᐃᓕᓂᑦ	ᖃᓄᐃᓕᓴᖓᓂᓐᓄ	ᐅᑦᑐᑎᑦ ᖃᐅᔨᓴᖅᑕᐅᖓᑦᓇᓕᓇᐃᓕᓂᑦ
ᓇᔪᖓᑦᑎᑦ ᓯᓚᑦᓗ ᐊᓯᔨᓴᓂᖓᓐᓄ	ᑐᖃᓯᐅᒪᓂᖅ ᐊᑦᑐᐊᖃᖅᐸᐅᓂᖅ ᐊᓯᔨᓴᖅᑐᒃᓗ ᓯᓚᑦ, ᓯᑯᑦ ᓇᔪᖓᑎᖓᓂ, ᓇᓄᐃᑦᓗ ᖃᓄᐃᓕᓴᖓᓂᑦ, ᑎᑎᓯᖓᓂᑦ ᖃᓄᐃᓕᓴᖓᓂᑦ ᐊᑎᓯᓂᖓᓂᓪᓗ ᓯᓚᑦ ᐊᓯᔨᓴᖅᑐᒃᓗ ᖃᓄᐃᓕᓴᖓᓂᑦ	▪ ᐊᑯᓂ ᖃᐅᔨᓴᖅᑕᐅᓗᑎᒃ ᐊᑦᑐᖅᑕᐅᓂᖓᓐᓂᓂ ᓯᓚ ᐊᓯᔨᐸᓪᓕᐊᓂᖓᓐᓄ ᐅᒪᔪᑦ ᓇᔪᖓᑎᖓᑕ ᓯᓚᑎᓪᓗᒍᓂᑦ ᐊᑎᓯᓂᖓᓂᑦ, ᖃᐃᓕᓴᖓᓂᑦ, ᖃᐅᔨᓴᕆᓂᖓᓂᓂᓪᓗ ᓇᓄᐃᑦ ▪ ᐊᑦᑐᐊᓂᖓᓂ ᖃᐅᔨᓴᖅᑕᐅᓗᑎᒃ ᓇᓄᐃᑦ ᓇᓕᑎᓂᖓᓂᑦ ᐊᓯᔨᓴᖅᑐᒃᓗ ᓯᓚᑦ ▪ ᐊᓯᔨᐸᓪᓕᐊᓂᖓᓐᓄ ᐅᒪᔪᑦ ᓇᔪᖓᑎᖓᑕ ᓯᓚᑎᓪᓗᒍᓂᑦ ᖃᐅᔨᓴᖅᑕᐅᓗᑎᒃ ᓇᓄᐃᑦ ᓯᓚᑦ ᐊᓯᔨᓴᖅᑐᒃᓗ ᓯᓚᑦ ▪ ᐊᓯᔨᐸᓪᓕᐊᓂᖓᓐᓄ ᐅᒪᔪᑦ ᓇᔪᖓᑎᖓᑕ ᓯᓚᑎᓪᓗᒍᓂᑦ ᓇᓄᐃᑦ ᓯᓚᑦ ᐊᓯᔨᓴᖅᑐᒃᓗ ᓯᓚᑦ ▪ ᐊᑯᓂᓗ ᐅᓂᒃᑲᖃᖅᓗᑎᒃ ᐊᓯᔨᓴᕆᓂᖓᓂᑦ ᓯᓚᑦ ᐊᓯᔨᐸᓪᓕᐊᓂᖓᓐᓄ ᓇᓄᐃᑦ ᓇᔪᖓᑎᖓᑕ ᓄᓇᕗᑦᑐᑎᓪᓗᒍᓂᑦ

ᖃᐅᔨᓴᖅᑕᐅᖅᑲᓚᐊᓕᑦ	ᖃᓄᐃᑦᑐᓂᓴᒃ	ᐅᑦᑐᑎᑦ ᖃᐅᔨᓴᖅᑕᐅᖓᓂᓈᓚᐊᓕᑦ
ᐊᒥᓱᓂᖓᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᖓᑦ	ᐱᓇᓕᔪᐊᓂᖓᑦ ᓄᑖᖅᓂᑦ ᓵᓴᖅᑕᐅᔪᑎᓴᓂᒃ ᖃᐅᔨᓴᖅᑕᐅᓂᖓᓂᓂ ᓇᓄᐃᑦ ᐊᒥᓱᓂᖓᑦ ᓇᒧᓂᖓᑦᓕᓗ	▪ ᐱᓇᓕᔪᓗᑎᑦ ᑲᑎᖅᓱᖅᓭᒪᔪᓂᒃ ᐊᒥᓱᓂᖓᓂᓂ ᖃᐅᔨᓴᓱᐊᖅᓗᑎᑦ ᐊᓱᓇᖅᓂᒡᓕᖓᔪᓂᒃ, ᐃᓕᒥᒃᑯᑦ ᓄᑦᑕᖅᓂᖓᑦ ᓄᓇᖃᖅᑲᖅᑐᒥᓯᓕᓗ ᖃᐅᔨᒪᓂᖓᑦ ▪ ᐅᑭᖅᑭᓱᐃᖅᑎᖅᖏᖅᓗᑎᑦ ᖃᐅᔨᔪᖅᑎᒻᒪᓵᑦ ᐊᒻᒪᓗ ᓄᓇᖃᖅᑕᖅᑐᒥᓯᓕᓗ ᖃᐅᔨᒪᓂᖓᑦ ᖃᐅᔨᔪᖏᓗᑎᑦ ᓇᓄᐃᑦ ᑎᒥᖓᓂᓂ ᖃᓄᐃᑦᑐᓂᓂᖓᓂᓂᓗ
ᓇᑭᓐᓇᖅᓱᒪᓂᖓᑦ ᑎᒥᖓᑦᑕᓗ ᖃᓄᐃᓐᓂᖓᑦ	ᖃᐅᔨᓴᖅᑕᐅᓗᑎᒃ ᐊᒥᓱᓂᖓᑦ ᓇᑭᓐᓇᖅᓱᒪᓂᖓᓂᓗ ᓇᓄᐃᑦ ᑎᒥᖓᑦ ᖃᓄᐃᑦᑐᓂᖓᑦ	▪ ᖃᐅᔨᔪᖏᓗᑦ ᓇᓄᐃᑦ ᑎᒥᖓᑦ ᖃᓄᐃᑦᑐᓂᖓᑦ ᐊᐳᔨᑦᓐᓂᑦᑐᑐᒃᓄᑦ ᖃᐅᔨᓴᐅᑎᓂᒃ ▪ ᑐᑭᓯᓱᐊᕐᑎᓂᒃ ᐱᓗᑎᑦ ᓇᓄᐃᑦ ᑎᒥᖓᑦ ᖃᓄᐃᑦᑐᓂᖓᑦ, ᓱᔪᓗ ᐊᐅᑦᑕᔪᑦᓭᖅᑎᓪᓗᒍ, ᐊᓱᓴᖅᑎᓂᒃ ᐊᐱᖅᓱᓭᑦᑕᔪᓂᑦ ᓄᓇᖃᖅᑲᖅᑐᒥᓯᓕᓗ ᖃᐅᔨᓴᓂᖓᓂᓂ ▪ ᖃᐅᔨᔪᖏᓗᑎᑦ ᐊᓂᓂᐊᓂᑦ ᓇᓄᓂᓵᑦᑐᓂᑦ ▪ ᖃᐅᔨᔪᖏᓗᑎᑦ ᑎᒥᖓᓂᓂ ᐊᑐᔪᓗᑎᑦ ᐅᒪᔪᓂᒃ ᖃᐅᔨᔪᐅᑎᓂᒃ ▪ ᐅᐸᓱᔪᖏᓗᑎᑦ ᐅᐊᑦᑎᓗᑎᓪᓗ ᓱᕐᓂᓇᖅᑐᒥᒃ ᓴᕐᔪᐅᖅᑐᓂᓂᓗ ᐅᖅᓱᖓᓂᓂᓗ ᓇᓄᐃᑦ ᑎᒥᖓᓪᓗ ᖃᓄᐃᓐᓂᖓᓂᓂᓗ ᖃᓄᐃᑦᑐᓂᓂᓗ ᖃᐅᔨᓴᓂᖓᓂᓂᓗ ᖃᐅᑎᒥᖓᓪᓗ ᖃᐅᔨᓴᖅᑕᐅᓂᖓᓂᓂ

ᖃᐅᔨᓴᖅᑕᐅᖅᑲᓇᐊᕆᓪ	ᖃᓄᐃᑦᑐᓂᓴᓐ	ᐅᑦᑐᑎᑦ ᖃᐅᔨᓴᖅᑕᐅᖏᓪᓗᓇᐊᕆᓪ
		ᓇᔨᓴᒥᓂᔪ ᐊᑦᑐᐊᖃᖅᑎᓯᓂᓴᓂᓂᓂ ᐊᐅᓚᓂᖏᑦ ᐅᑭᒪᓱᓂᖏᑦᓗᓂ
ᓄᓇᖃᖅᑲᖅᑐᒥᔅᓂᑦ ᖃᐅᔨᒪᓂᖏᑦ ᓄᓇᓕᓪᓗᓂ ᐃᔨᒪᒋᔭᖏᑦ ᓇᓄᔅᓂᑦ ᓇᓂᕐᓂᑦ ᐅᑭᐅᖅᑕᖅᑐᒥᓪᓗᓂ ᐃᒪᓕᕆᓂᐅᑦᑐᓂᓂ ᐅᓚᓐᖃᖅᑎᑦᑐᓂᓂ ᐅᓚᓂᖅᑐᑦ ᐊᑦᑐᐊᖃᖅᑎᓯᓂᓴᓂᓂᓂ	ᑲᑎᒪᖃᑎᖅᓱᓂᑦ ᓄᓇᖃᖅᑲᖅᑐᒥᔅᓂᑦ ᐱᓕᕆᖃᖅᑐᑦ ᓇᓂᐃᑦ ᒥᓴᓂᑦ ᖃᐅᔨᓴᖅᓂᕆᑦ ᐅᔾᔨᓂᓂᕆᓪᓗᓂ	▪ ᑎᑎᕋᖅᑕᐅᓱᓂᑦ ᓄᓇᖃᖅᑲᖅᑐᒥᔅᓂᑦ ᖃᐅᔨᒪᓂᖏᑦ ᓇᓄᐃᑦ ᐊᒥᓂᓂᖏᑦᑕ, ᐱᔪᐅᖃᑦᑕᕐᓂᖏᓐᓂᓂ, ᑎᒥᖏᑦ ᖃᓄᐃᓐᖏᓐᓂᖏᓐᓂ ᓇᔨᓴᖏᑦᓗᓪ ᖁᑭᖅᑕᓗᒍ ᐃᑭᕋᓴᖓᓂ ᐊᐃᓪᑐᒧᐊᓂᑦᑐᑦ ▪ ᑲᑎᒪᖃᑎᖅᐃᓐᓇᖃᖅᑕᕐᓱᓗᓂᑦ ᐊᒻᒪᓗ ᖃᐅᔨᒪᔪᒥᓂ ᐅᖃᐅᔨᖃᕐᓱᓂᑦ ᐅᑭᐅᖅᑕᖅᑐᒍ ᓄᓇᖃᖅᑲᖅᑐᒥᔅᓂᑦ ᑲᑐᔾᔨᖃᑎᖅᑎᓂᓐᓂᓂᓂ, ᓄᓇᖃᖅᑲᖅᑐᒥᔅᓂᑦ ᑲᑎᒪᖃᑎᖅᐃᓐᓇᖃᖅᑕᕐᓱᓗᓂᑦ ᐊᐃᓪᑐᒧᐊᓂᑦᑐᑦ ᐊᒻᒪᓗ ᐊᐅᓚᓂᖏᓐᓂᖏᓐᓂᓂ

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1112 ᐊᒥᔨᓂᑦ ᖃᐅᔨᓴᖅᑐᖃᐃᓐᓇᖃᖅᑐᖅ ᐊᑕᓂᓂ ᑎᑎᕋᖅᔨᒪᓪᓗᓂᑦ ᐱᓕᕆᐊᖓᔨᒪᔪᓂᑦ ᐱᓕᕆᓂᖏᑎᖅᑐᓂᑦ
1113 ᐊᖁᔪᑐᖅᔨᒪᔪᓂᖅ ᑭᓪᓕᖏᓐᓂᓂ ᒪᓕᓪᑐᑐᓂᑦ ᔨᓕᓴᔪᐊᒥᓗ ᐱᓕᕆᓂᖏᑎᖅᑐᓂᓂ.

1114 ᑎᑎᕋᖅᔨᒪᔪᖅ 5 (ᕿᑦᓭᓂᓂ) ᐅᖃᐅᔨᓕᓂᖅ ᐊᓂᖏᑎᓕᕆᓂᕐᒥᑦᑐᑦ ᐊᒻᒪᓗ ᔨᓕ ᐊᔨᔾᔪᓕᓕᐊᓂᖓᓂᓂᓂ ᑲᓇᑕᒥ
1115 ᖃᐅᔨᓴᖅᑎᖏᑦᑐᑦ ᐊᒻᒪᓗ ᓄᓇᖃᖅᑲᖅᑐᒥᔅᓂᑦ ᖃᐅᔨᒪᓂᖏᓐ ᖃᐅᔨᓴᖅᓂᕆᑦᑐᑦ ᐅᑦᔨᔨᓭᐊᖃᖅᓂᖏᓐᓂᓂᓂᓗ
1116 ᔨᓂᓕᓂᖅᐸᐅᑎᑎᐊᓕᓕᓂᓂᖅ. ᓇᓗᓇᐃᔨᖅᑭᒪᓕᕆᓂ ᑐᑭᔨᑎᐊᑭᑐᑦ ᖃᐅᔨᓴᖅᑐᓕᓕᓂᕆᓪᓕᑦᑐᑦ ᓄᓇᖃᖅᑲᖅᑐᒥᔅᓂᑦ
1117 ᖃᐅᔨᒪᓂᖏᓐᓂᓂ ᐅᑦᔨᔨᓭᐊᖃᖅᑎᓂᖏᓐᓂᓂ ᖃᐅᔨᓴᖅᓂᖏᓐᓂᓂᓂᓗ ᓇᓄᓕᓕᓂᓂᕆᓪᓕᑦᑐᑦ ᐊᖁᔪᑐᖅᔨᒪᔪᓂᖅ
1118 ᑕᑯᐅᔨᓐᓇᖅᑐᑦ ᐃᓕᓐᓴᓂᓂ 2 – 7–ᒥ ᐊᐅᓚᑎᑎᐅᓂᑦᑐᓂᓂᖅ.

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1120 **ᑭᐅᑯᑐᐃᓐᓇᖅᑎᓂᑦ ᑐᓴᖅᑎᑦᑎᓚᓯᐊᖅᑎᓂᖅ ᐃᓕᓐᓂᓂᐊᑎᑦᑎᓂᓂᓗᓪᓗᓂ**

1121 ᐊᔾᔨᑎᓕᓕᐅᑦᑯᑦ ᐊᒻᒪᓗ ᔨᓕ ᐊᔨᔾᔪᓕᓕᐊᓂᖓᓂᓂ ᑲᓇᑕᒥ ᖃᕆᓴᐅᑦᑦᑯᑦ ᐱᑕᖃᐃᐸᐃᓐᓇᖅᑐᖅ ᑐᑭᔨᑎᐊᑭᑐᓂᓐ
1122 ᑭᐅᑯᑐᐃᓐᓇᖅᑐᓂᑦ ᐱᑎᐊᑭᑎᖃᖅᑎᓂᐅᔪᑦ ᒥᓴᓂᑦ ᐃᓕᒥᑦᐅᔨᓕᓕᐊᓂᑦ ᑲᓇᑕᒥᐅᑦ ᑲᓂᔾᔨᑎᖅᑐᓂᓂᓂ
1123 ᐊᐅᓚᑎᑎᓂᓕᒧᐊᓂᑦᑐᑦ ᐱᐅᖃᐅᔨᐊᓂᓕᒧᐊᓂᓗᓪᓗᓂ ᓇᓄᓕᓂᓂ ᑲᓇᑕᒥ. ᐱᓗᐊᖃᖅᑎᑦᑎᓂᓂ, ᑕᓐᓇ ᖃᕆᓴᐅᑦᑦᑯᑦ ᑐᑭᔨᑎᐊᑭᑐᑎ
1124 ᐅᖃᐅᔨᓕᓂᖅ ᓇᓄᓕᓂᓂ ᐊᒻᒪᓗ CITES–ᓂᓂ, ᓇᓗᓇᐃᖅᑭᒪᓕᕆᓂᖅ ᐊᐅᓚᑎᑎᓂᓕᒧᐊᓂᓂᓂᓗᓪᓗᓂ
1125 ᑲᒪᒋᐅᓗᓂᑦ ᑲᓇᑕᐅᑦᑐᑦ ᑲᓂᔾᔨᑎᖅᑐᓂᓂ ᐊᒻᒪᓗ ᑲᓇᑕᒥ ᔨᓕᕐᓱᓕᕆᓪᓗᓗ, ᐱᑎᐊᑭᑎᖃᖅᑎᖅᑭᒪᓕᕆᓂᓂᓗᓪᓗᓂ
1126 ᐊᑦᑐᐃᓂᖃᖅᓂᖏᓐᓇᓂᓂᑦ ᔨᓕ ᐊᔨᔾᔪᓕᓕᐊᓂᖓᓂᓂᓂ, ᖃᐅᔨᒪᓂᓕᒧᐊᓂᓗᓪᓗᓂ ᖃᐅᔨᒪᓂᖏᓐᓂᓂ
1127 ᖃᐅᔨᓴᑭᑎᔾᔨᓂᓂ ᐱᑎᐊᑭᑕᐅᔨᒪᔪᓂ ᓇᓄᓕᓂᓂᓂᕐᔪᓪ. ᖃᕆᓴᐅᑦᑦᑯᑦ ᑕᑯᑎᐊᑕᖅᔨᒪᔪᖅ ᐅᔪᓂ here[15].

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[15] https://www.canada.ca/en/services/environment/wildlife-plants-species/wildlife-habitat-conservation/conservation-polar-bears.html

ᐊᖅᑎᓕᕆᔨᐅᑎᒃᓴᒃ ᑎᒥᒐᓪᓗ ᓯᓚᐅᑉ ᐊᓯᔪᓐᓇᕐᓂᐊᓂᖅᓯᒪᔪᓂ ᑲᓇᑕᒥ ᐱᓕᕆᔨᓂᒃᑯᓐᓂᑦ ᓄᓇᕗᑦ ᓴᖅᓯᓯᒪᔪᓂᖅ ᑲᑎᒪᔨᖅᑎᑦᑎᓂᒃ [PBAC website](#)[16]. ᑕᒪᓐᓇ ᐱᔨᔪᑎᖃᖅᓯᒪ ᖃᕋᓴᐅᔪᖅᑎᓂᑦ ᑐᑭᓯᐅᑉᐳᖅᑎᓂᒃ ᑲᑎᒪᔨᖅᑎᑦᑎᓂᒃ ᐱᓕᕆᔨᓂᖅᓴᓐᓄᑦ ᓴᖅᑭᑎᓂᒃ ᑲᑎᒪᔨᖅᑎᑦᑎᓂᒃ, ᐅᑭᐅᖃᑕᖃᖅᑐᑦ ᑲᑎᒪᔨᖅᑎᑦᑎᓂᒃ, ᓴᓇᒪᑐᖃᖅᑎᓂᒃ ᑲᑎᒪᓗ ᓯᓚᕐᔪᐊᒥ ᒪᓕᒐᓱᐃᓐᓇᖅᑐᑦ; ᓄᓇᕗᑦ ᑲᑎᒪᓗ ᓯᓚᕐᔪᐊᒥ ᓇᓂᕐᓂᑦ ᐊᖅᑎᓕᕆᓂᖅᓴᓪᑎᑦ ᓇᓐᓚᐅᑕᐅᔨᓚᕐᓂᑦ; ᑲᑎᒪᓗ ᖃᐅᔨᔪᖅᑐᓕᕆᓂᖅᑎᑦ ᑲᑎᒪᓗ ᓄᓇᖃᖅᑐᖃᓂᒃ ᖃᐅᔨᓚᓂᖅᓯᒪᓂᒃ ᐱᑎᐊᑕᐅᔨᓚᕐᓂᑦ. ᑕᒪᐃᔪᐊ ᐱᑎᐊᑕᕆᓂᑦ ᑐᓂᔾᐅᓚᑦᑕᐃᓕᓕᑦ ᐅᑭᐅᖃᑕᖃᖅᑐᑦ ᑐᑭᓯᐅᑉᐳᖅᑎᓂᒃ ᐅᑭᐅᖃᑕᖃᖅᑐᑦ ᑐᑭᓯᐅᑉᐳᖅᑎᓂᒃ ᐅᑭᐅᖃᑕᖃᖅᑐᑦ ᑲᑎᒪᔨᖅᑎᑦᑎᓂᒃ ᐅᑭᐅᖃᑕᖃᖅᑐᑦ ᑲᑎᒪᔨᖅᑎᑦᑎᓂᒃ ᑲᑎᒪᓗ

ᑭᓪᓕᖏᓂᕐᓂᖅᓄᑦ ᐊᒥᓱᑐᖅᑎᑕᐅᔪᓂᕐᓂᖏᓐᓄᑦ ᓴᖅᓇᐅᑎᖅᓯᓄᑦ ᐊᓯᒪᓕ ᐊᐅᓚᑕᑎᓯᐊᖅᓴᖅᓯᓄᑦ (ᐃᓚᖅᑎᑦ 2 – 7 ᑕᕐᕕᓂ ᐊᐅᓚᑕᑎᓯᐊᖅᓴᒪᑦ).

6.2 ᐊᖏᓂᖅᓴᐃᑦᓱᓚᒋᓂᑐᑕᐅ ᓴᖅᓇᐅᓂᒃ

ᐅᓪᓗᐊᓇᑕᑕᐅᑎᔨᑦᑐᑦ ᓇᓄᐃᑦ ᓇᔨᖏᖅᑎᑦ ᓱᓚ ᐊᓱᓴᓴᓪᓕᐊᓂᖓᓐᓄᑦᑐᖅᑐᑦ (ᑕᐃᓇᓵ ᐊᓯᒪᓕ ᑎᒥᔪᑐ 1997; ᑎᑭᑦᓱ et al. 2004; ᒪᐃᑐᓗ et al. 2008; ᔨᕕᵇᑦ et al. 2010; IPCC 2013). ᐊᓱᖏᓪᓕᓕ ᖃᐅᔨᖅᑕᐅᓱᒪᔨᑦ COSEWIC–ᔨᓵᓄᑦ ᒥᑭᔨᑑᓪᓗᑎᑦ ᐅᓪᓗᐊᓇᖅᑐᑦ, ᐊᖏᓪᓕᓕᕐᓕᐊᔨᓗᑦ ᐊᑦᑐᐃᓂᖃᑭᓇᖅᑐᖓᓐᓄᑦ ᐊᒪᓚᓗ ᑲᑎᓱᒃᓕᓕᓂᖅ ᐅᓪᓗᐊᓇᖅᑐᓂᒃ ᐃᓱᒪᓗᓇᑭᓇᖅᑎᒥᔨᑦ, ᖃᐅᔨᒪᓂᒃᔨᑦ ᐊᑦᑐᐃᓂᖃᖅᓴᖅᓯᐊᖅᑐᓂᒃ ᐊᖏᓪᓕᓕᕐᓕᐊᔨᓂᒃ ᖃᐅᔨᒪᔭᐅᑦᑐᐊᓕᖏᓐᓄᑦᑐᖅ ᑭᓱᐊᓂ (ᓵᓴᔪᕐᓵᓄ ᐊᒪᓚᓗ ᓇᑦᓱᓕᕐᓂ 2011). ᑕᒪᒃᔨᐊ ᐊᐅᓚᑕᑎᐊᖅᑕᐅᑭᐊᓕᓂᖅ ᐊᖑᑎᓄᖓᓐᓄᑦᑐᑐᒃᓴᓂᑦ ᓴᖅᓇᒪᐅᔨᓂᑦ, ᓇᓇᖅᑲᖅᑲᖅᑐᒥᓂᖅ ᐱᓕᕐᓂᖅᑐᓂᑦ, ᑲᑎᒪᔨᖅᑎᓂᖅ ᐊᐅᓚᑕᑎᐊᖅᑕᐅᑭᐊᓕᓂᖅ ᐊᑐᐃᓂᖃᖅᓴᖅᓯᐊᖅᑐᓂᒃ ᐅᓱᐊᓂ, ᓴᖅᓇᒪᓂᒃᑲᖅᑐᒥᓂᖅ ᐅᓱᐊᓂ (ᓵᓴᔪᕐᓵᓄ ᐊᒪᓚᓗ ᓇᑦᓱᓕᕐᓂ 2011). ᑕᒪᒃᔨᐊ ᐊᐅᓚᑕᑎᐊᖅᑕᐅᑭᐊᓕᓂᖅ ᐊᖑᑎᓄᖓᓐᓄᑦᑐᑐᒃᓴᓂᑦ ᓴᖅᓇᒪᐅᔨᓂᑦ, ᓇᓇᖅᑲᖅᑲᖅᑐᒥᓂᖅ ᐱᓕᕐᓂᖅᑐᓂᑦ, ᐅᓪᓗᐊᓇᖅᑐᓂᒃ ᐊᐅᓚᑕᑎᐊᖅᑕᐅᑭᐊᓕ

ᖃᐅᔨᓴᖅᑎᓂᒃᓵᑦ ᓄᓇᖃᖅᑲᖅᑐᒥᓂᓪᓕ ᖃᐅᔨᓕᓂᖏᑦ ᖃᐅᔨᓴᕐᓂᖏᑦ ᐅᕙᓪᓕᐊᓂᖏᓪᓕ; ᑭᒃᑯᑐᐃᓐᓇᕐᓄᑦ ᑐᓴᐅᒪᑎᑦᑎᓂᖅ ᐃᓚᓐᓂᐊᑎᑦᑎᓂᕐᓂᖓᓪᓕ. ᑐᑭᓯᒪᐊᖅᑲᓐᓂᕐᒥᔪᖅᑕᑐᑦ ᐱᐅᖅᓯᐊᕐᓯᕐᓂᕐᒧᑦ ᑲᒪᒋᔭᐅᔪᓂᖅ ᓇᓄᕐᓄᑦ ᐊᕐᓇᑦᑐᖅᓯᒪᔪᓂᖅ ᑲᑎᕋᐅᓂᖏᓪᓕ ᐊᐅᓪᓚᕆᓂᕐᒥᐅᑎᓪᓗᑦ ᐅᑎᖅᑎᑕᐅᓂᖅᓯᐅᑦᑐᓂᖅ ᐱᖓᓱᖏᓪᓕ (ᐃᓚᖓᑦ 2 – 7 ᑕᕝᕙᓂ ᐊᐅᓪᓚᕆᓂᕐᒥᔪᖅᑕᑦ). ᒡᓗᓇ ᑕᑯᓗᓇᓂᖅᓴᐅᔪᖅ ᓴᓇᒪᑐᖅᑯᑦ ᑭᓪᓕᖓᓗᓂᑐᓂᓪᓗ.

ᑎᑎᕋᖅᓯᒪᔪᑦ 6. ᐱᐅᖅᓯᐊᕐᓯᐊᕐᓂᓪᓕᑦ ᖃᒪᑭᕆᐅᔪᑦ ᐊᓪᓚᓗ ᐊᑐᓕᖅᑎᑕᐅᕙᓘᓴᖓᓂᑦ

ᓯᓚᒋᓂᑐᑦ ᕿᓐᓄᐅᑎᑦ	ᐱᐅᖅᓯᐊᕐᓯᐊᕐᓂᓪᓕᑦ ᖃᒪᑭᕆᑦ	ᓯᐅᒃᑎᓕᖅᕿᒃ ᐅᑎᑭᐊᓕᖅ e	ᐅᓇᓱᐊᓂᖅᓴᓂᑦ ᐃᓯᒪᓇᑎᒋᔭᐅᓂᒃ ᖃᒪᓕᕆᔨᐅᔪᑦ	ᖃᖓᑐᓂᔭᓂ ᖃᓄᐃᓕᖅᑐᑦ
ᐊᐅᓚᑦᑎᑎᖅᑎᖅ ᖁᓕᖅ ᐱᐅᖅᓯᐊᓂᕐᓗ ᓇᓄᕐᓂᑦ ᖃᓄᐃᓕᖅᑐᑦ	1.1 ᐱᓕᕆᖅᑎᖅᑕᕐᑎᐊᕐᓗᑎᑦ ᐃᓄᐃᓂᑦ ᖃᑎᒌᓂᖅᓯᑦ ᖃᓄᐃᓇᓱᒋᔭᖏᑦ (PBAC) ᐊᖏᒪᓗ ᓇᓄᕐᓄᓂᕐᒥᑦ ᐱᓵᓐᐊᑐᓕᕐᓂᓂᖅᓯᑦ ᖃᓄᐃᓇᓱᒋᔭᖏᑦ (PBTC) ᐱᓭᓕᓪᓕᐊᓂᖅᓯᑦ ᑐᓴᐅᒪᖅᑕᐅᑎᓂᖅᓯᒪᔪᓕᓪ ᐱᖁᔨᓂᓕᓪ, ᐃᖅᓴᕐᓗᑎᓂᖅ ᐊᑐᐊᕈᑎᓴᓂᓕᓪ ᐊᐅᓚᑦᑎᑎᓴᓂᖅ ᐅᓇᓱᐊᓂᖅᓴᐅᓪᓗ ᐱᐅᖅᓯᐊᓂᕐᒪᔪᓕᓪ ᓇᓄᕐᓄᑦ ᓇᔪᖏᓐᓂᓕᓪ, ᐱᓇᐊᖅᑐᒥᑦ ᓇᔪᖏᓐᓂᑦ ᐱᑕᖅᑭᓐᓂᕐᓕᐊᓂᓕᓪᓂᑦ ᓯᓚ ᐊᓯᔾᔨᓕᕐᓕᐊᓂᖏᓐᓇᓐᓄᑦ	ᖁᓯᑎᑦᑐᖅᑯᑦ	ᐅᓇᓱᐊᓂᖅᓴᐅᑎᓪᓗᑦ ᓕᒫᑦ	ᐃᔪᓐᓇᖅᑐᑦ ᖅ
ᐊᐅᓚᑦᑎᑎᖅᑎᖅ ᖁᓕᖅ ᐱᐅᖅᓯᐊᓂᕐᓗ ᓇᓄᕐᓂᑦ ᖃᓄᐃᓕᖅᑐᑦ	1.2 ᖃᐅᔨᖅᑐᑎᐊᕐᓗᑎᑦ ᓄᑖᑦ ᐅᑦᓗᒥᓗᓪ ᖃᐅᔨᓴᕐᓂᒍᓐᓇᕐᑎᑦ ᓄᓇᖃᖅᑲᖅᑐᒥᓂᖅ ᖃᐅᔨᓕᓂᖏᓐᓂ ᑐᓴᐅᒪᑎᑦᑎᓇᓐᓂᑦᑎᓪᓗ ᐊᐅᓚᑦᑎᔪᓂ ᐱᐅᖅᓯᐊᖅᑐᓂᓪᓗ ᐃᓯᒪᓕᐅᕈᑎᑦᑎᓂᓕᓂᖅᓯᒪᔪᓂᖅ ᐱᑎᐊᕈᑎᑦᑐᒥᓂᓪᓗ	ᖁᓯᑎᑦᑐᖅᑯᑦ	ᐅᓇᓱᐊᓂᖅᓴᐅᑎᓪᓗᑦ ᓕᒫᑦ	ᐃᔪᓐᓇᖅᑐᑦ ᖅ
ᐊᐅᓚᑦᑎᑎᖅᑎᖅ ᖁᓕᖅ ᐱᐅᖅᓯᐊᓂᕐᓗ ᓇᓄᕐᓂᑦ ᖃᓄᐃᓕᖅᑐᑦ	1.3 ᐃᖅᔪᖅᑐᐃᓗᑎᑦ ᑭᓪᓕᖅᖃᑐᒥᔪᖅ ᐱᓕᕆᖅᑕᐅᔪᖅᑐᑎᓪᓗ ᐱᓕᕆᖅᑎᖅᓴᓂᑦ ᓄᓇᖃᖅᑲᖅᑐᒥᓂᕐᓂᑦ ᓄᓇᓕᓂᓄ ᐅᑭᐅᖅᑕᖅᑐᐃᑦ ᓄᓇᓕᖏᓐᓄᓄ ᓇᓄᕐᓄᓕᕐᓯᕐᓂᕐᓕᐊᓂᖅᓴᐅᔪᓂᖅ ᐅᓴᐃᓕᑎᐊᕐᓗᑎᓂᓪᓗ ᑕᑯᖅᑕᐅᑎᓗᐊᓂᖏᓐᓇᕐᓂᖅᓱᓐᓂᑕ. ᐱᐅᖅᓯᐊᕐᑎᓄᑦ ᐱᑎᐊᕐᑐᑦ ᑐᓴᐅᒪᖅᑕᐅᓂᖅᓴᐅᑎᓪᓗᑦ ᓄᓇᖃᖅᑲᖅᑐᒥᓂᖅ ᐊᖏᔪᐅᑎᓂᓪᓗ ᐱᐅᖅᓯᐊᕐᑎᓄᑦ ᓄᓇᓕᓂᓄ (ᐊᓱᐃᓇᓐᖏᑕᒪᐃᖅᑕᑦ) ᐱᖅᓱᐅᑎᓗᑎᑦ ᓄᓇᓕᓂᑦ ᐊᐃᑦᑐᖅᓯᕐᓂᓪᓗ ᐱᑎᐊᕐᑎᓂᖏᑦ (ᓱᐃᓪᓗ ᑲᑎᓱᑦᑕᐅᓕᖅᑎᑦ, ᐅᐊᑦᑎᓂᖅ ᐅᓇᓱᐊᓂᖅᓴᐅᓪᓗ, ᑲᑎᕋᐅᓂᖅᓴᐅᓪᓗ ᓄᓇᖃᖅᑲᖅᑐᒥᓂᖅ ᖃᐅᔨᓕᖅᑐᑦ) ᖁᓯᑎᑦᑐᖅᑯᑦ (ᓱᐃᓪᓗ,	ᖁᓯᑎᑦᑐᖅᑯᑦ	ᐃᓄᐃᓂᑦ ᐅᐸᑦᑕᑦ ᕿᓐᓄᐅᑎᑦᑕᑦ (IUCN/CMP ᐅᓇᓱᐊᓂᖅᓴᐅᑎᓪᓗᑦ #6)	ᖁᓯᑎᑦᑐᖅᑯᑦ ᖅ

ᓯᓚᑦᓂᑦᑐᑦ ᐸᕐᓇᐅᑎᑦ	ᐱᐅᖅᓯᐊᕐᓯᐊᓂᕐᒧᑦ ᑲᒪᒋᔭᑦ	ᓯᓂᓪᓂᖅᐸ ᐅᑎᑭᐊᓂᖅ e	ᐅᓗᓚᐊᓇᖅᑐᑦ ᐃᓱᒪᓗᑎᓕᓪᓗᓂᑦ ᑲᒪᓐᓇᔨᐅᐸᑦ	ᖃᖅᑲᖅᑯᓂ ᖃᑦᑭ
	ᐱᖃᑕᐅᖃᑦᑕᕐᓗᑎᑦ ᑲᓇᑕᒥ ᐱᐅᖅᓯᐊᓂᕐᒧᑦ ᓂᕐᔨᑎᓂᓪᓗ ᖃᐅᔨᓴᕐᓂᕐᒥᑦ ᐱᒋᐊᕈᑎᓂᖅ).			
ᐊᐅᓪᓕᑎᑐᑎᖃᖅ ᕐᓂᖅ ᐱᐅᖅᓯᐊᓂᕐᓗ ᓇᓄᕐᓂᑦ ᑲᓇᑕᒥ	1.4 ᐃᑲᔪᖅᑐᐃᓗᑎᑦ ᑭᓚᓂᖃᖅᑐᑐᓂᖅ ᐱᓚᓇᖃᑕᐅᑲᑲᓂᖅᑐᓗᓚ ᐱᓚᓇᖃᑎᖃᕐᓗᑎᑦ ᓄᓇᖃᖅᑲᖅᑐᒥᓂᕐᓂᓂ ᓄᓇᓚᓂᓂ ᐅᑭᐅᖅᑕᖅᑐᐃᑦ ᓄᓇᓚᑭᓂᓂ ᓇᓄᖅᓯᑕᐃᓚᒪᓇᓯᐊᑲᑲᓂᑦ ᐅᔨᔪᓯᑎᐊᕐᓗᑎᓚᓂᓗ ᑕᔪᖃᑦᑕᐅᑎᓗᓚᖅᑐᑲᓚᕐᒪᑦᑕ. ᐱᐅᖅᓯᐊᑭᑎᓄᑦ ᐱᑎᐊᑭᑎᑦ ᑐᓴᐅᒪᓕᑦᑎᐊᕐᓗᑎᓂᑦ ᓄᓇᑦᑭᑎᑦ ᐊᖏᕐᑭᑎᖏᓂᓂᓂ (ᐊᔪᕐᓇᒪᖏᑕᐃᓕᑦ) ᐱᖃᓯᐅᑎᓗᑦᑎᑦ ᓄᓇᓕᓂᑦ ᐊᕐᕿᑦᑐᖅᓯᒪᔨᓚᓗ ᐱᑎᐊᑭᑎᖏᑦᑎᑦ (ᓯᑦᓗ ᑲᑎᓯᑦᑐᖅᓯᒪᓕᕐᓂᑦ, ᐅᐊᑦᑎᐊᑎᓂᖅ ᐅᔨᓴᖅᑎᓂᒃᑯᓗ ᓄᓇᖃᖅᑲᖅᑐᒥᓂᕐᓂᓗ ᑲᑎᑦᑐᑎᓂᖅ) ᖃᖅᑲᖅᑯᓂ (ᓯᑦᓗ, ᐱᖃᑕᐅᖃᑦᑕᕐᓗᑎᑦ ᖃᖅᑲᖅᑯᓂ ᐱᐅᖅᓯᐊᓂᕐᒧᑦ ᓂᕐᔨᑎᓂᓪᓗ ᖃᐅᔨᓴᕐᓂᕐᒥᑦ ᐱᒋᐊᕈᑎᓂᖅ).	ᖃᓄᑕᑎᑦᑐᖅ	ᐅᓗᓚᐊᓇᖅᑐᑦ ᑲᑐᑦᑐᖅᑐᑦ (IUCN/CMP ᐅᓗᓚᐊᓇᖅᑐᖅ #5)	ᑲᔪᓯᓇᖅᑐᖅ ᖃᖅ
ᐊᐅᓪᓕᑎᑐᑎᖃᖅ ᕐᓂᖅ ᐱᐅᖅᓯᐊᓂᕐᓗ ᓇᓄᕐᓂᑦ ᑲᓇᑕᒥ	1.5 ᐱᓚᓇᖃᑎᖃᕐᑎᓗᑎᓂᑦ ᓄᓇᖃᖅᑲᖅᑐᒥᓂᕐᓂᓂ, ᒪᓂᒪᖅᑯᓂ ᓴᓇᔨᓂᓚᓗ ᐱᐅᓵᕐᑐᑐᒃᑯᑦ ᐊᑦᑐᐃᓂᕐᒧᖅᑕᒪᑦ ᐃᓄᐃᑦ ᖃᖅᑲᖅᑯᓂ ᓇᓄᕐᓂᑦ ᓇᔨᖅᑕᕐᓂᓂᓚᓗ	ᐊᑯᓵᔪᕐᔪᓂᖅ	ᐅᓗᓚᐊᓇᖅᑐᑦ ᓚᒧᒃ	ᑲᔪᓯᓇᖅᑐᑦ ᖃᖅ
ᐊᐅᓪᓕᑎᑐᑎᖃᖅ ᕐᓂᖅ ᐱᐅᖅᓯᐊᓂᕐᓗ ᓇᓄᕐᓂᑦ ᑲᓇᑕᒥ	1.6 ᑭᖅᑯᑐᐃᓇᕐᓂᑦ ᑲᑎᒪᑎᑦᑎᖃᑦᑕᕐᓗᑎᓂᑦ ᐊᑦᑕᓇᖅᑐᒥᕐᑯᓚᑦ ᐊᔪᐅᖅᑐᕐᓗᓚᓂᓚ ᐱᖃᑕᐅᕐᑯᓗᓂᑦ ᑲᓇᑕᒥ ᐊᖏᕐᑭᑎᖏᑦᑎᑦ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᐅᔨᔪᓯᑎᐊᕐᓗᑎᓚᓂᑦ ᐃᓕᓴᕐᓂᖅᑐᐃᓐᓇᖅᑐᑦ ᐃᓕᓴᕐᓂᑦ, ᐊᓯᒪᓚᓗ ᓇᓂᓕᑦᑎᐅᓚᐊᕐᑯᓕᑦ ᐅᓪᓗᒥᐅᑦᑐᖅᑐᑦ ᐱᓕᕐᓂᐊᕐᓂᖅᑐᑦ ᐃᓕᓴᕐᓂᑦ, ᐊᓯᒪᓚᓗ ᓇᓂᓕᑦᑎᐅᓚᐊᕐᑯᓕᑦ ᐅᔨᔪᓯᑎᐊᕐᓗᑎᓚᓂᑦ ᓴᓇᐅᓂᖅᑐᓂᓚ	ᑲᑎᑦᑐᖅᑐᑦ	ᐃᓕᓴᕐᓂᖅᑐᑦ ᐊᑐᓪᓚᕐᓂᑦ (IUCN/CMP ᐅᓗᓚᐊᓇᖅᑐᖅ #5) ᐃᓇᓂᓂ ᐅᐸᑦᑐᑦ ᐸᕐᓇᐃᑦᑐᑦ (IUCN/CMP ᐅᓗᓚᐊᓇᖅᑐᖅ #6)	ᑲᔪᓯᓇᖅᑐᑦ ᖃᖅ

ᓱᓕᑦᓂᕐᑐᑦ ᐸᖅᓇᐅᑦᑎᓪᓗᒍ	ᐱᐅᖏᓱᐊᕆᓱᐊᓂᖅᓯᒪᔪᑦ ᑲᒪᒋᔭᖅ	ᓱᓂᓕᖏᓐᓂᐸ ᐅᑎᑭᐊᓕᖏᓐᑲᖅ e	ᐅᓇᓗᐊᓇᖏᓐᓄᑦ ᐃᓱᒪᓕᕐᓂᑎᓪᓗᒋᑦ ᑲ ᑲᒪᖓᔪᐅᔪᑦ	ᖃᖓᑐᓱᒋᓂ ᖏᑎᑦ
	ᑐᖅᓯᒋᑎᑕᐃᓕᓚᓗᑎᑦ ᐱᖅᓯᑎᓂᓪᓕ ᓱᕐᖏᑎᓂᓪᓕᑦᑐᖅᑎᑦ			
ᐊᐅᓚᓕᑎᖏᑎᖏᖅ ᖅᓂᖏᖅ ᐱᐅᖏᓱᐊᓂᖅᓗ ᓇᓂᖅᓂᑦ ᑲᓇᑕᒥ	1.7 ᑭᓪᓕᖏᖅᑐᓂᑦ ᐊᐅᓚᓕᑎᓂᖅᓯᒪᔪᑦ ᐱᓕᓇᐸᖅᑲᐃᑦ (ᐱᖏᓱᐅᑎᓪᓗᒋᑦ ᐊᐅᓚᓕᑎᖏᑕᐅᔪᓂᖅ ᒪᓕᓗᐃᑦ, ᑲᓇᑕᒥ ᐊᕕᑦᑐᖅᓱᒪᔪᓂᖅ ᐅᑭᐅᖅᑕᖏᑐᑎᓪᓗ ᒪᓕᓗᐃᑦ, ᓄᓇᑕᑭᑎᑦ ᐊᖓᑭᑭᑎᓴᓂᓂ ᐊᐸᒪᓗ ᐊᓱᖓᓂᓂ ᑭᓪᓕᖏᖅᑐᓂᑦ ᐊᖓᑭᑭᑎᑦ ᒪᓕᓪᑕᐅᑎᑎᓪᓗᒍᓐᓇᑕ	ᖃᓄᑎᑐᑦᑐᖅ	ᐅᓇᓗᐊᓇᖏᓐᑐᑦ ᓕᒻᒥᑦ	ᑲᔪᓯᓂᓇᖏᓐᑐᖅ ᖅ
ᐃᑲᔪᖏᖅᑐᑦᑐᖅ ᐱᐅᖏᓱᐊᓂᖅᓗ ᓇᓂᖅᓂᑦ ᑲᓇᑕᒥ	2.1 ᐃᑲᔪᖏᖅᑐᖅᓯᒪᔪᑦ ᐱᖏᑕᐅᓚᓂᓗ ᓯᓚᖅᔪᐊᒥ ᓇᓂᖅᓂᑦ ᐱᐅᖏᓱᐊᓂᒪᔪᑦ, ᖏᐅᔨᓴᖅᓂᒪᔪᑦ ᐊᓕᒪᓗ ᐅᓪᓴᓯᖅᓂᒪᔪᑦ ᐱᑎᐊᑭᑎᑦ (ᓯᖅᓗ ᐊᑐᓚᖅᑎᑕᐅᓂᖏᑦᑐ ᐊᖏᓪᓕᐊᑎᑦ ᐱᐅᖏᓱᐊᓂᒪᔪᑦ ᓇᓂᖅᓂᑦ (1973), ᓯᓚᖅᔪᐊᓵ ᐅᑭᐅᖅᑕᖏᑐᑎᓪᓗᒋᑦ ᐱᑎᐊᑭᑎᑦ (2015 – 2025), ᐊᓯᖏᓪᓂᓚᓗ) ᑐᖅᓴᖏᖅᑐᓂᑦ ᐊᐅᓚᓕᑎᓂᖅᓯᒪᔪᑦ ᐱᐅᖏᓱᐊᓂᒪᔪᑦ ᓇᓂᖅᓂᑦ ᓇᔨᖏᓪᓂᓚᓗ ᓇᒥᑐᐃᓇᖅᑐᓂᓚᖅᑕ	ᖃᓄᑎᑐᑦᑐᖅ - ᐊᑯᓂᓇᑭᔪᖅ	ᐅᓇᓗᐊᓇᖏᓐᑐᑦ ᓕᒻᒥᑦ	ᑲᔪᓯᓂᓇᖏᓐᑐᖅ ᖅ
ᐃᑲᔪᖏᖅᑐᑦᑐᖅ ᐱᓕᓯᔪᐊᒥ ᐱᓕᓚᖏᑕᓯᓂᑦ	2.2 ᒪᓕᖏᓕᐅᖅᑭᓇᖏᑦᑕᓯᓚᑎᑦ ᐱᓕᓯᔪᐊᒥ ᑕᐅᖅᐱᓂᓯᒧᑦ ᓇᓂᖅᓂᑦ ᐱᓇᑲᑯᑕᖅᑐᐱᒪᔪᓂᖅ, ᒪᓕᖏᐃᑦ ᒪᓕᓪᑐᑎᑦ ᐊᑎᓕᐅᖅᑕᐅᐱᒪᔪᓂᖅ ᐊᒥᐱᓂᑦ CITES–ᑯᓂᓂ	ᖃᓄᑎᑐᑦᑐᖅ - ᐊᑯᓂᓇᑭᔪᖅ	ᐅᒪᔪᓂᑦ ᐊᑐᖅᓂᖅᑐᑦ (IUCN/CMP ᐅᓚᓇᐊᓇᖏᓐᑐᖅ #5)	ᑲᔪᓯᓂᓇᖏᓐᑐᖅ ᖅ
ᖃᐅᔨᒃᖅᓴᒪᓇᓗᑦ ᓄᓇᖃᖅᖃᖅᑐᒥᒋᑦ ᓂᑦ ᖃᐅᔨᒪᓂᖅᑐᑦ, ᖃᐅᔨᒃᖅᓂᖅ ᐅᓪᓴᓯᖅᓂᒪᔪᑦ	3.1 ᐃᑲᔪᖏᖅᑐᐃᓚᓂᑦ ᖃᐅᔨᒃᖅᓂᑎᒪᓕᓰᑦ ᓄᓇᖃᖅᐸᖅᑐᐃᓚᒋᓂᓪᓗ ᖃᐅᔨᒃᖅᓂᖅᑐᑦ, ᐊᓕᒪᓗ ᓄᓇᓕᓂᓂ ᐅᓪᓴᓯᖅᑕᐅᔪᓰᑦ ᐱᓕᓯᔪᐊᓂᖅᑐᑦ ᑐᖅᓴᖏᖅᑐᑦᑐᖅ ᐊᕕᑦᑐᖅᑲᐃᑦ ᐊᓕᓚᓂ ᐱᐅᖏᓱᐊᓂᒪᔪᑦᔨᖓᓂᐊᖅᑐᓄᑦ	ᖃᓄᑎᑐᑦᑐᖅ – ᐊᑯᓂᓇᑭᔪᖅ	ᐅᓇᓗᐊᓇᖏᓐᑐᑦ ᓕᒻᒥᑦ	ᑲᔪᓯᓂᓇᖏᓐᑐᖅ ᖅ
ᖃᐅᔨᒃᖅᓴᒪᓇᓗᑦ ᓄᓇᖃᖅᖃᖅᑐᒥᒋᑦ ᓂᑦ ᖃᐅᔨᒪᓂᖅᑐᑦ,	3.2 ᐅᓪᓴᓯᖅᑎᐊᓪᓗᑦ ᐃᓐᓇᐅᔪᓰᖅ ᐊᓕᒪᓗ ᖃᐅᔨᒃᖅᓗᑦ ᑕᐊᑐᐃᓂᖅᑕᓐᓇᖅᑐᑦ ᓯᑕᓇᖅᑐᑦ ᐊᐅᓪᓕᐊᑎᓪᓗᒋᑦ ᓇᓂᖅᓂᑦ	ᐊᑯᓂᓇᑭᔪᖅ – ᐊᑎᑎᑐᑦᑐᖅ	ᐳᓴᓪᓗᑦ (IUCN/CMP	ᑲᔪᓯᓂᓇᖏᓐᑐᖅ ᖅ

ᓱᓕᑦᓂᓪᑐᓪ ᐸᖏᓇᐅᑎᐤ	ᐱᐅᖏᓱᐊᕿᓱᐊᓄᖏᔪᓪ ᑲᒪᒋᐅᓪ	ᓱᓀᓂᓄᖏᐸ ᐅᑎᑭᐊᓂᖏ e	ᐅᓗᓚᐊᓇᖏᑐᓪ ᐃᓱᒪᓗᑎᓂᓴᓂᓀᓂ ᓪ ᑲᒪᖏᒋᐅᐳᐸᓪ	ᖃᖏᑲᓂᓀᓄ ᖏᑭᓪ
ᖃᐅᐅᔨᖏᓄᖏ ᐅᐢᐅᓱᖏᓂᓪᓗ			ᐅᓗᓚᐊᓇᖏᑐᓄᖏ #9) ᐅᐢᒪᖏᓄᑎᓂᐅᐖ ᓄᖏ ᐅᐅᖏᓂᓄᐊᖏᕕᓂᓪᓗ (IUCN/CMP ᐅᓗᓚᐊᓇᖏᑐᓄᖏ #3)	
ᖃᐅᐅᔨᖏᓄᒪᓚᓴ ᓄᓇᖃᖏᓴᖏᑐᒥᒥ ᓂᓪ ᖃᐅᐅᒪᓄᖏᑭᓪ, ᖃᐅᐅᔨᖏᓄᖏ ᐅᐢᐅᓱᖏᓂᓪᓗ	3.3 ᐊᑐᖏᓗᑭᓪ ᖃᐅᐅᔨᖏᑎᒪᓰᑦ ᐊᒪᒐᓗ ᓄᓇᖃᖏᓴᖏᑐᒥᒥᓄᓪ ᖃᐅᐅᒪᓄᖏᑭᓪ ᑐᑭᓐᓂᐊᓄᖏᑭᓪ ᐊᓱᐢᐅᓪᓕᓂᓪᐸᓪ ᓱᓪ ᓱᓪᓕᔪᐊᒥ, ᓱᓄ ᓇᔪᖏᑕᐅᕐᓴᑐᖏᓴ, ᓇᓄᐃᓪᓗ ᖃᓄᐃᖏᑕᖏᓴᖏᑐᓪ, ᑎᒥᖏᓪᓗ ᖃᓄᐃᑦᑐᓄᖏᑭᓪ ᐊᒥᓱᓴᓪᓗ ᖃᓄᐃᓇᓪᓚᖏᓴᖏᑐᓪ	ᖏᓄᓱᓂᓄᖏᑐᓴ	ᓱᓪᓚ ᐊᓱᐢᐅᓪᓕᓪᐸᐊᓄ ᖏᓚ ᓱᓇᖏᓪᓕᓄᓂᐅᐊᓗᓪᓴ (IUCN/CMP ᐅᓗᓚᐊᓇᖏᑐᓄᖏ #11)	ᑲᔪᓱᓂᓇᖏᑐᓄᖏ
ᖃᐅᐅᔨᖏᓄᒪᓚᓴ ᓄᓇᖃᖏᓴᖏᑐᒥᒥ ᓂᓪ ᖃᐅᐅᒪᓄᖏᑭᓪ, ᖃᐅᐅᔨᖏᓄᖏ ᐅᐢᐅᓱᖏᓂᓪᓗ	3.4 ᖃᐅᐅᔨᖏᓗᑭᓪ ᐊᒥᓱᓄᖏᑭᓪ ᓇᑭᓂᓴᖏᓱᒪᓄᖏᑭᓪ ᓇᓄᐃᓪᓗ ᑎᒥᖏᓪᓗ ᖃᓄᐃᓂᖏᑭᓪᓄᖏᑭᓪ	ᐊᓱᓂᓇᖏᓱᐅᔨᖏᓄᖏ	ᐅᓗᓚᐊᓇᖏᑐᓄᖏ ᓕᒧᑦ	ᑲᔪᓱᓂᓇᖏᑐᓄᖏ ᖏᓄᓱᓂᓄᖏᑐᓴ
ᖃᐅᐅᔨᖏᓄᒪᓚᓴ ᓄᓇᖃᖏᓴᖏᑐᒥᒥ ᓂᓪ ᖃᐅᐅᒪᓄᖏᑭᓪ, ᖃᐅᐅᔨᖏᓄᖏ ᐅᐢᐅᓱᖏᓂᓪᓗ	3.5 ᖃᐅᐅᔨᖏᓗᑭᓪ ᓇᓄᐃᑦ ᓂᖏᓴᖏᓴᖏᓱᐅᖃᑦᑕᖏᓄᖏᑭᓪ ᓄᓇᓂᓪ ᐊᑦᑐᐊᓄᖏᑭᓪᓗ ᓂᖏᓴᖏᓴᖏᓂᓄᑦ ᐃᒪᕆᐅᑦᑕᓂᓪ ᓄᓇᒥᐅᑦᑕᓂᓪᓗ	ᐊᓱᓂᓇᖏᓱᐅᔨᖏᓄᖏ ᓕᒧᑦ	ᓱᓪᓚ ᐊᓱᐢᐅᓪᓕᓪᐸᐊᓄ ᖏᓚ ᓱᓇᖏᓪᓕᓄᓂᐅᐊᓗᓪᓴ (IUCN/CMP ᐅᓗᓚᐊᓇᖏᑐᓄᖏ #11)	ᑲᔪᓱᓂᓇᖏᑐᓄᖏ ᖏᓄᓱᓂᓄᖏᑐᓴ
ᑭᓱᓂᑐᐃᓇᖏᓂᓪ ᑐᓴᖏᑎᓂᓪᑎᓄᖏ ᐃᓕᓴᐸᑎᓂᓪ ᓂᖏᓪᓗ	4.1 ᓴᖏᑭᓱᖏᑎᓂᑎᓄᓱᓂᓴᓂᓪᓗᓂ ᓄᑐᐢᖏᓂᓪᓂᓴᓂᓪ ᖃᐅᐅᔨᖏᓄᖏᑎᒪᓰᑦ ᐊᒪᒐᓗ ᓄᓇᖃᖏᓴᖏᑐᒥᒥᓄᓪ ᖃᐅᐅᒪᓄᖏᑭᓪ (ᐱᓴᒪᓗᐅᓄᖏᑭᓱᓂᓪᓗ ᓄᓇᖃᖏᓴᖏᑐᒥᒥᓄᓪᓂᓪ ᓇᓄᐢᓄᓪ, ᐊᒪᒐᓗ ᐊᑦᑐᖏᓂᐅᐊᓄᖏᑭᓱᓂᓪᓗ ᓱᓪ ᐊᓱᐢᐅᓪᓕᓪᐸᐊᓄᖏᓴᓄᓪ ᓇᓄᐃᑦ)	ᓱᓪᓚᓂᓂᑐᖏᓴ	ᐅᓗᓚᐊᓇᖏᑐᓄᖏ ᓕᒧᑦ	ᑲᔪᓱᓂᓇᖏᑐᓄᖏ ᖏᓄᓱᓂᓄᖏᑐᓴ

ᓯᓚᑦᓂᓪᑐᑦ ᐸᖕᓇᐅᑦᑎᓂ	ᐱᐅᖅᓯᐊᕐᓯᐊᓂᖕᒧᑦ ᑲᒪᒋᔭᖅ	ᓯᒃᓴᓪᖅᐸ ᐅᑎᑭᐊᓂᖅ e	ᐅᓗᓚᐊᓇᖅᑐᑦ ᐃᓕᓴᐃᓗᑎᓪᓗᓂᒃᑐᓂ ᑦ ᑲᒪᖓᔪᐅᔨᑦ	ᖃᖅᑐᒃᑯᓂᖅ ᖁᓕᖅᓂ
	ᑲᓇᑕᒥᐅᑕᖕᓄᑦ, ᓯᓚᖖᐊᒥ ᑐᑭᓯᒪᓕᔨᓄᑦ ᐃᓕᓴᕐᐃᖅᑎᓄᓪᓗ			
ᑭᒃᑯᑐᐃᓇᖖᓂᑦ ᑐᓴᖅᑎᑎᓂᖅ ᐃᓕᓐᓄᐊᑎᑎᓂ ᓂᖕᓗ	4.2 ᐃᑲᔨᖅᑐᖕᓗᑎᑦ ᐊᖏᓕᓕᓵᓕᖖᓗᓚᑦ ᐃᓐᓇ ᐱᐅᖅᓯᐊᖖᓂᐅᑕᓯᐊᖅᑐᑦ ᐸᖅᑭᐅᐅᓗᓂ ᑲᓇᑕᒥ ᓴᓇᖅᑭᐅᖅᑎᑎᓂᖅᓂᒃᑯᑦ ᓇᓄᖖᓂ ᐱᐅᖅᓯᐊᓂᖕᒧᑦ ᐱᑦᑎᐊᓇᐊᖏᖅᖢᓕᓂᓗ ᐃᑲᔨᐅᓂᖅ	ᐊᑯᓂᓇᖓᔪᓂᖅ	ᐅᓗᓚᐊᓇᖅᑐᑦ ᓕᐃᑦ	ᑲᔪᓯᓇᖅᑐᑦ ᖅ
ᑭᒃᑯᑐᐃᓇᖖᓂᑦ ᑐᓴᖅᑎᑎᓂᖅ ᐃᓕᓐᓄᐊᑎᑎᓂ ᓂᖕᓗ	4.3 ᐃᑲᔨᖖᓗᑎᑦ ᐱᓚᒪᓕᐊᓂᖓᓂᓂ ᐊᑐᓕᖅᑎᑎᓂᖅᓂᖓᓂᓪᓗ ᐃᓕᓐᓂᐊᑎᑎᓂᖅᓂᖖᑎᑦ, ᑐᓴᐅᒪᑎᑎᓂᖅᓂᖖᑎᑦ ᑭᒃᑯᑐᐃᓇᖖᓂᑦ ᑲᑎᒪᖁᖅᑎᖅᑕᖖᑎᓂᑦ ᓂᖕᓗᑎᓂᖅ ᓇᓄᖖᓂᑦ ᐱᐅᖅᓯᐊᓂᖕᒧᑦ ᐱᓕᑎᐊᓇᐊᖏᖅᖢᓕᓂᓗ	ᐊᑯᓂᓇᖓᔪᓂᖅ	ᐅᓗᓚᐊᓇᖅᑐᑦ ᓕᐃᑦ	ᑲᔪᓯᓇᖅᑐᑦ ᖅ

1210 *ᵉ "ᓯᓚᖖᓕᖅᐸᐅᓂᖅ" ᒪᓕᓐᑐᖅ ᖃᓄᑎᒥ ᐃᑲᔨᓂᑎᓂᓂ ᑭᑦᑐᓂᔨᐊᖏᒪᖓ ᐱᐅᖅᓯᐊᓯᐊᖅᑎᓪᓗᓂ ᓂᖖᔪᑎᓂᒃ ᐅᖕᓂᓚᓵᓂᓂᑦ*
1211 *ᐱᔪᐊᖏᖅᑕᑎᓂᓂ ᖃᓄᑎᑎᑦ ᑭᑦᑐᕆᔭᖅᖃᓂᑦ ᐃᑲᔨᖓᓂᓂᑦ ᐱᐅᖅᓯᐊᓂᖕᒧᑦ ᓂᖖᔪᑎᓂᒃ. ᖁᔨᑎᓂᖅᐸᑦᖢ ᓯᓚᖖᓕᖅᐸᐅᑎᓯᐊᖏᖅᖢᓂᖅ ᐃᓯᒪᒋᔭᐅᓂᖅᖃᓂᑦ*
1212 *ᑕᖕᓂᕐᑕᐅᑎᑎᓂ ᐊᐱᒪᓚᓂᓂ ᑕᑯᓄᖅᖢᓂᓪᓕᓂᒃ ᑲᒪᓇᔨᖏᓚᓂᓂ ᑐᖅᑭᖏᖅᑕᖕᓂᑦ ᐅᖕᓂᓚᓵᓂᓂᑦ ᐃᑲᔨᖓᓂᓂᑦ. ᐊᑯᓄᓇᖅᑭᑦᑕ ᓯᓚᖖᓕᖅᐸᐅᑎᓯᐊᖏᖅᖢᓂᒃ ᐃᓯᒪᒋᔭᐅᓂᖅᖃᓂᑦ*
1213 *ᑕᖕᓂᕐᑕᐅᑎᑎᐅᓯᐊᖅᓄᖕᑎᑕᑦ ᐅᖕᓂᓚᓵᓂᓂᑦ ᑕᖕᓄᖓᓂᓪᓕᑎᓚᐊᖏᖅ ᐊᐅᓪᓚᑎᑎᑦᑕᐃᓪᓕᓪᓂ ᑐᖅᑭᖏᖅᑕᖓᓂᑦ ᐊᐅᓪᓚᑎᑎᑦᑕᐃᓪᓕᓪᓂ ᑐᖅᑭᖏᖅᑕᖓᓂᑦ ᐃᑲᔨᖓᓂᓂᑦ ᐱᐅᖅᓯᐊᓂᖕᒧᑦ*
1214 *ᐱᓴᓚᐅᓴᒋᔨᓂ ᓯᓚ ᐊᐅᓪᓚᑎᑎᓂᖅᓂᖖᓂᓂ ᓂᖖᔪᑎᓂᒃ. ᐊᑯᓂᓇᖅᑭᑦᑕ ᓯᓚᖖᓕᖅᐸᐅᑎᑎᓯᐊᖏᖅᖢᓂᑦ ᐱᐅᖅᓯᐊᓂᐅᔨᑦ ᐱᓕᑎᐊᓇᐊᖏᖅᖢᓂᑦ ᖃᓄᑎᒥ ᐃᓚᒋᔭᐅᓂᖅᓂᖖᑎᑦ*
1215 *ᑕᖕᓂᕐᑕᐅᑎᑎᐅᖕᓂᕐᑕᐅᓚᓵᓂᓂᑦ ᐊᐅᓪᓚᑎᑎᓂᖅᓂᖖᑎᑦ, ᐅᓯᐊᓂᖅᑕᐅ ᐱᓴᓚᐅᓴᒋᔨᓂᖅᓂᖖᑎᑦ ᐃᑲᔨᖓᓂᓪᓗᓂᑦ ᐃᓕᓴᕐᐃᖅᑎᓪᓗᓂᒃᑐᓂ ᖃᓄᑎᑎᑦ ᐃᓕᓴᕐᐃᖅᑎᓪᓗᓂᒃᑐᓂ ᖃᓄᑎᑎᑦ ᐃᑲᔨᖓᓂᓂᑦ*
1216 *ᐊᓴᓚᓵᓂᓂᑦ ᐅᑭᑕᐃᓵᓇᐃᑦ ᐱᖃᑕᐅᓯᐊᖏᖅᑎᓂᖅᓂᖖᑎᑦ ᓇᓴᓯᓂᐅᓂᖅᓂᖖᓂᓂᓪᓗ ᓂᖖᔪᑎᓂᑦ.*

1217 **7. ᖃᐅᔨᓴᖅᑕᐅᓂᖖᑎᑦ ᐱᓕᓐᓂᐊᓂᖖᑎᑦ**

1218

1219 ᐊᖏᖏᔪᑦ ᑕᓐᓂᒪᑦ ᐊᓂᔪᕐᕃᐱᒪᑕ, ᖃᐅᔨᓴᖅᑕᐅᖃᑦᑕᕐᓗᑕ ᐊᑐᓂᖅᑎᑕᐅᓯᒪᔨᑦ ᐊᐅᓪᓚᑎᑭᖑᓂᓴᐃᑦ
1220 ᐱᓕᓐᓂᐊᓂᖖᑎᓂᓂᓪᓗ ᑲᔪᓯᓕᓐᓂᐊᓱᒪᓕᖅᓂᒃ ᑕᒪᐃᓄᐊ ᒪᓂᕆᑐᑎᑦ ᓇᓗᓇᐃᖅᑐᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᖅᑐᑦ:

1221

1222 - ᒪᑭᖅᓂᓂᕈᓕᖏᓂᖕᓂᑦ ᖃᒪᐃᓕᖏᓕᒃᑕ ᑲᓇᑕᐅᕐᓂ ᓇᓄᖕᓂᑦ ᐊᒥᓱᓂᖕᓂᑦ: ᑎᒥᖕᓂᑦ ᖃᓄᐃᓂᓂᖕᓂᑦ ᐊᒪᒪᓗ
1223 ᓇᑭᓐᓇᖅᓯᒪᓂᖕᓂᓂ ᑲᓇᑕᐅᐸᑦ ᐊᒥᓱᓂᖕᓂᑦ, ᐊᒪᒪᓗ ᐊᐃᑦᑐᖅᓯᒪᓂᖕᓂᓂ ᖃᓄᐃᓂᑎᑎᒃᑕᕐᓗᑕ
1224 ᖃᓄᑎᓂᖅᓴᐅᓗᐊᖏᒪᓕᒃᑕ ᒥᑭᓂᖅᓴᓂᖅ, ᐊᐅᓪᓚᑕᐅᓕᕐᑐᓂᖅ ᓄᑦᓗ ᑲᓇᑕᒥ ᓇᓄᐃᑦ ᐊᒥᓱᓂᖕᓂᑦ
1225 ᒪᑭᑕᑎᐊᑭᓇᖏᓐᓂ ᖃᓄᐃᓂᑐᖃᑦᑕᐊᓗᓚᐊᖅᑎᑦᓗᒍ, ᐸᕐᐃᓴᑦᑕᐅᐳᖃᑦᑕᕆᔨᓗᓚᐊᖅᑎᑦᓗᑎᑦ
1226 ᐅᑎᑦᑎᐊᑭᓇᖏᓓᓂᑦ, ᐊᑯᓂᖕᓗ ᑕᐃᒪᐃᓂᑐᑦᑯᑦᔪᓕᓚᐊᖅᑎᑦᓗᑎᑦ ᐊᓇᓇᐅᒪᔨᓇᖓᓂᖕᓂᑦ; ᓂᖖᔪᑎᑦ
1227 ᒪᑭᒪᔨᓇᑦᑎᐊᖅᑐᑦ ᑲᓇᑕᒥ. ᑕᒪᑯᑯᐊ ᒪᑭᒪᔨᓇᑦᑎᐊᖖᓂᖅ ᐃᑲᔪᑎᖃᖅᑐᑦ
1228 ᐊᑭᓯᖅᑕᐅᔨᓇᖖᓂᖕᓂᓇᑦ ᓄᓇᖃᖅᑲᖅᑐᒥᖖᓂᑦ ᐱᔨᓇᐅᑎᖃᖖᓂᖕᓂᓇᑦ
1229 ᐊᐅᓪᓚᑕᐅᑦᑎᐊᖕᓂᓇᖅᑐᑎᑦᓗ.

1230

1231 - ᐊᒥᓱᓂᖕᓂᑦ ᑕᐃᒪᐃᑦᑐᕆᔭᐅᑭᒪᔨᑦ ᑲᓇᑕᐅᑦ: 14–ᓂᒃ ᐊᐃᑦᑐᖅᑭᑭᒪᔨᔨᑯᑎᖃᖖᓂᖕᓂᑦ ᐊᑯᓂ
1232 ᑕᐃᒪᐃᖕᓂᓇᖅᑐᑎᑦᓗ ᑲᓇᑕᒥ ᑭᓪᓕᖕᓂᓂᓂ ᓇᓄᐃᑦ ᐊᓐᓇ ᓇᔨᖅᑕᖕᓂᑦ, ᑕᒪᑯᑯᐊ

ᐊᓯᔨᐸᑕᖏᓐᓄᐊᖅᑎᓪᓗᓂᑦ ᓇᔨᖅᑕᖏᓂᑦ ᐊᓂᒪᐅᓪᓕᓐᓄ; ᓂᕿᐊᑎᑦ ᐊᒥᓯᓂᖏᓂᑦ ᑕᐃᒪᐃᑦᑐᕼᐃᔪᓇᐸᓪᓕᑦ ᑲᓇᑕᒥ

- ᑭᖑᖅᑐᖅᑕᐅᑦᑎᐊᖏᔪᓇᖅᑐᑎᑦ ᑲᓇᑕᐅᔪ: ᓇᓄᐃᑦ ᐅᒪᓂᖅᖅᑐᑦ ᓇᔨᖑᒥᓂᑦ ᐊᑦᑐᐊᖅᑎᑦᓂᖏᓂᑦ, ᐊᐅᓪᓚᑕᐅᑦᑎᐊᖅᑐᑎᓪᓗ ᐃᔪᓇᓚᖅᓯᒪᓂᖏᓂᑦ, ᐊᒪᓪᓗ ᐊᐅᓪᓚᑕᐅᑦᑎᐊᖅᑐᑎᑦ ᐊᓂᒪᓂᖅᑎᑦ ᐊᓯᔨᐸᑕᖏᓐᓄᐊᖅᑎᓪᓗᒍ; ᓂᕿᐊᑎᑦ ᑲᒪᒋᔨᐅᑦᑎᐊᖅᑐᑦ ᑲᓇᑕᒥ

8. ᐊᑦᑐᖅᑕᐅᓂᖏᓂᑦ ᐊᓂᒪᓂᑦ ᐊᓯᖏᓪᓗᓂ ᐅᒪᔨᑦ

ᐸᖏᓇᐅᑎᖏᓂᑦ ᐊᓂᒪᑦᑎᓐᓂ ᖃᐅᔨᓴᖏᓂᖓᑦ (SEA) ᑲᔨᓯᑎᑕᐅᓪᓚᐅᖅᓯᒪᔨᑦ ᑕᐅᑯᓇᖓᓕ ᓂᕿᐊᑎᓂᑦ ᐅᓗᓖᐊᓇᖅᑐᑦᑕᐅᓂᖅ ᐱᖏᖓᓐᓇᓂᑦ (SARA) ᐊᒥᓯᔪᖅᑎᑕᐅᐳᑲᓐᓂᕆᔨᖏᓪᓂᑦ ᐸᖏᓇᐅᑎᑦ ᑎᑎᕋᖅᓯᒪᔨᑦ, ᒪᓕᑦᑐᑎᑦ ᑕᐅᑯᓇᖓᓕ [Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals](#)[18]. ᐱᔨᔪᑎᖏᓂᑦ ᑕᐅᑯᓇᖓᓕ ᐸᖏᓇᐅᑎᖏᓂᑦ ᐊᓂᒪᑦᑎᓐᓂ ᖃᐅᔨᓴᖏᓂᖓᑦ (SEA) ᐊᑐᓕᖅᑎᑕᐅᔨᑦ ᐊᓂᒪᓕᕆᓂᖏᓪᓂᑦ ᐃᓱᒪᒋᐳᐅᓕᐅᔨᓕᕆᔨᑦ ᐳᐅᑯᑐᐃᓐᓇᖅᓯᒪᓂᑦ ᐱᖓᔪᓂᑦ, ᐸᖏᓇᐅᑎᑦ, ᐃᑲᔪᖅᑎᐅᔨᔪᓕᐊᔨᓪᓗ ᐃᑲᔪᖅᑐᐃᓐᓇᖅᑐᑎᓪᓗ ᐃᑲᔪᖅᑐᐃᓐᓇᖅᑐᑎᑦᑎᓪᓗᓂᑦ ᐊᓂᒪᑦᑎᓐᓂ ᐃᓱᒪᓕᐅᑦᑎᐊᖅᑎᑦᓂᑦᑎᓂᑦ ᐊᒥᓯᔪᓂᑦ ᐊᑦᑐᐊᖅᑎᑦᓂᑦ ᖃᐅᔨᓴᖏᓂᖓᑦ ᐅᑎᑦᑎᓂᑦᑎᓯᐊᖅᓯᒪᔨᑦ ᐊᒥᓯᔪᓂᑦ ᐃᓱᒪᓕᐅᑦᑎᐊᖅᑎᑦᓂ

ᐃᒪᖏᑦ ᓇᔪᖏᓪᓂ, ᓯᐅᓗ ᓇᑦᑎᐅᓪᑦ (*Pusa hispida*), ᐅᓵᔪᓪᓄᑦ (*Erignathus barbatus*) ᖃᐃᕈᓕᓪᓄᑦ (*Phoca Groenlandica*) ᓇᑎᐅᓪᓄᑦ, ᐊᐃᕐᓚᓄᑦ (*Odobenus rosmarus*), ᖃᓭᓗᓴᐅᓄᑦ (*Delphinapterus leucas*), ᑐᐃᓕᓪᓄᑦ (*Monodon monoceros*), ᑎᓗᓴᓂᐊᓄᑦ (*Vulpes lagopus*), ᐊᓯᖏᓪᓄᓕᓗ. ᑐᐃᓕᑦ, ᓯᐅᓗ, ᐊᑦᑐᖃᐅᕈᓯᒪᑦᓭᓗᒥᔪᑦ ᓯᓭᐅᑦ ᐊᓯᔪᓄᓴᖅᑐᑦ, ᓄᑦᓂᓗ ᐅᒪᔪᓂᑦ ᐱᑕᖃᖅᐸᖏᑦᑐᓂᑦ ᐱᑕᖃᖃᑦᑕᓪᓗᑎᑦ, ᓂᐱᓕᔪᓂᓗᑎᑦᓗ ᐅᒥᐊᓪᔪᐊᑦᑕᖃᖅᑎᓪᓂᐅᕐᓪᓗᑎᓪᓄᖅᑐᓂᓗ ᓴᓇᔪᒪᔪᓂᓗ. ᑕᐃᒪᐃᓂᓄᖅᑐᓄᑦ, ᑐᐃᓕᑦ ᐃᓄᐃᑦᑐᓄᑦ ᐃᓕᓴᕐᓂᖅᑐᑦ ᖃᐅᔨᓴᖅᑕᐅᖏᖅᑐᓂᓗ ᓂᐲᑦᑕᐅᓂᖅᑐᑦ ᐊᐅᓚᑦᑎᓗᒃ ᐃᓕᓴᕐᓂᖅᑐᑦ ᐊᐅᓚᑦᑎᓗᒃ ᐃᓕᓴᕐᓂᖅᑐᑦ ᐃᓄᐃᑦᑐᓄᑦ

9. ᖃᐅᔨᒋᐊᖅᑕᐅᔨᓂᓇᖅᑐᑦ

AMAP. 2017. ᐃᓚᓴᐃᓪ ᓴᖅᑭᑦᓚᐊᓚᕐᖓᑕ ᐅᑭᐅᖅᑕᖅᑐᒧᑦ ᐃᓱᐊᒪᓗᓇᖅᓯᓚᖅᑐᑦ, ᐅᑭᐅᖅᑕᖅᑐᒥ ᐅᔨᔨᓯᖅᑎᐊᓕᐊᓚᑦ ᖃᐅᔨᓴᓗᑎᑦᓗ ᐃᑲᔪᑎᓴᖅᑎᒍᑦ, ᐊᑲᓗ, ᓄᐊᕐᕿᐃ.

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1793 ᐊᐅᓪᓕᑎᐱᓱᒃᑲᓄᑦ, ᑎᑎᕋᖅᑕᐅᓯᒪᔪᖅ ᐊᓪᓚᕆᖓᓂᒃᓴᓂ ᐃᓄᐃᖅᑲᓇᐃᑦ
1794 ᐊᖏᕈᑎᖓᓂᒃᓴᓂ

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ᐃᓕᖓ 3: ᓄᓇᕗᑦ ᓇᓗᓀᓇᓂᒪᓕᕆᔨᑦ ᐊᐅᓪᓕᐊᔪᖏᖅᑕᐅᓯᒪᔪᖅᑐᑦᑐᑦ, ᑎᑎᕋᖅᑕᐅᓪᓗᑎᑦ ᓄᓇᕗᑦ ᓇᓗᓀᓇᓂᒪᓕᕆᔨᑦ ᐊᐅᓪᓕᐊᔪᖏᖅᑕᐅᓯᒪᔪᖅᑐᓵᓂᒪᓕᕆᔨᑦ ᕿᕐᓇᑦᑎᑦ

ᐃᓕᖓᒃ 4: ᐊᒥᓯᕗᖅᑎᑕᐅᔾᔨᓄᕐᓯᐊᕐᓂᕐᓗᑦ ᐸᕐᓇᐅᑎᑦ ᓇᓂᓕᓵᓂᕐᓗᑦ (*Ursus maritimus*) ᐃᓄᑐᐸᒥ

ᖃᐅᔨᒪᔨᐅᒋᐊᓕᖅ: ᐊᒥᓯᕗᖅᑎᑕᐅᔾᔨᓄᕐᓯᐊᕐᓂᕐᓗᑦ ᐸᕐᓇᐅᑎᑦ ᓇᓂᓕᓵᓂᕐᓗᑦ ᐃᓄᑐᐸᒥ ᐊᑐᖅᑕᐅᔪᒪᖅᑐᖅ ᐃᓕᖓᓄᓂ 4–ᒥ ᑲᓇᑕᒥ ᓇᓂᓕᓵᓂᕐᓗᑦ ᐊᐅᓪᓕᕐᒥᔭᕐᓂᐊᕐᓂᕐᓗᑦ ᐱᓕᐅᓯᒪᓕᖅᑐᑕ ᐊᐸᑎᓕᓵᓂᕐᓗᑦ ᐊᓱᒪᓗ ᓯᓚ ᐊᓯᔾᔨᐸᓕᐊᓂᖅᓄᓂᕐᓂᒃ ᑲᓇᑕᒥ.

ᐃᓕᓐᓴ 5A: ᑎᓪᓗᒡᓗᑦ ᑭᐅᓂᕆᓕᐅᖅᓯᒪᔪᖓᓪᓕ ᐊᒥᓱᖅᑎᑕᐅᑲᓚᐅᖅᓂᓂᕐᓗᓂᓪᓕᐅᑦ ᕿᖅᓇᐅᑎᖓᓪᓕ ᓇᓄᖅᓂᓪᓕ, ᑎᑎᕋᖅᑕᐅᓯᒪᔪᓗᑎᑦ ᐊᓚᑎᐅᕆᔨ ᒥᓂᑦᑕᖏᓚᓂᓪᓕ ᓄᓇᕗᕆᓂᖅᓴᓪᓕ ᐊᒻᒪᓗ ᓇᐸᖅᑐᑦᓴᕗᕆᓂᖅᓴᓪᓕ (2016)(ᐅᒪᔨᑦ-ᓇᓗᓇᐃᖅᓯᓯᒪᔨᑦ ᐱᖅᔪᖓᑦ)

ᖃᐅᔨᒪᔨᐅᑭᐊᓕᓚᖅ: ᑎᓪᓗᒡᓗᑦ ᑭᐅᓂᖅᓯᒪᔪᖓᓚᓂ ᓇᓄᓕᕆᓂᖅᓴᓪᓕ ᐊᓚᑎᐅᐅᓇᐸᒥᑦ ᐅᖃᓕᓴᐃᔨᓕᓗᑎᑦ ᑲᑎᑎᕋᖅᑕᐅᓯᒪᔪᓕᒡᓗᑎᑦ ᐱᓕᕆᔨᒃᑯᑦ ᐊᓚᑎᐅᐅᓇᐸᒥᑦ ᐊᓯᔨᓴᐸᓪᓕᐊᓂᖅᓴᓪᓕᐅᑦ ᕿᖅᓇᐅᑎᑦ ᐱᓕᕆᔨᑕᑎᓂᓪᓕᐅᑦ ᐊᓚᑎᐅᐅᓇᐸᒥᑦ ᐊᐸᑎᓕᕆ

ᐃᓕᖓ 5B: ᐊᒥᓱᑭᖅᑎᑕᐅᑲᐊᖏᓂᔪᐊᖏᓂᒃᓗᑦ ᐸᖏᓐᓄᐅᑎᖓᑦ ᓇᓄᖏᓂᑦ, (*Ursus maritimus*) ᐊᖑᑎᐅᕆᔨᒥ, ᑎᑎᕿᖅᑕᐅᓱᒪᔨᑦ M.B. ᑐᖓᒍᑦ ᐊᒻᒪᓗ T.L. ᐱᑦ (2011) (ᐱᔭᕆᐊᑐᓱᓕᓂᒍᑦ ᐅᖅᐅᓴᐃᒥᐊᕆᓂᖓᑦ)

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ᐃᓕᖓ 6: ᐊᐅᓪᓕᕐᒥᔭᕐᒥᔪᓂᒃ ᓇᓄᓕᓪᓂᖅᓗᒍᑦ (*Ursus maritimus*) ᑯᐸᐃᒻᒥ, ᐋᔨ ᐃᒪᓕᓪᓂᖅᓗᒍᑦ ᐊᒻᒪᓗ ᓄᓇᕗᒃ ᐃᒪᓕᓪᓂᖅᓗᒍᑦ, ᑎᑎᕋᖅᑕᐅᔪᒪᔨᑦ ᑯᐸᐃ - ᐋᔨ ᐃᒪᓕᓪᓂᖅᓗᒍᑦ - ᓄᓇᕗᑦ ᐃᒪᓕᓪᓂᖅᓗᒍᑦ ᓇᓄᓕᓪᓂᖅᓗᒍᓪᓗ ᐸᖅᓇᑦᑎᓄᑦ

ᐃᓕᖓ 7: ᐊᐅᓪᓕᕐᒥᔭᕐᒪᓂᕐᓂᖅ ᓇᓄᓕᕆᓂᖅᓴᓪᓕᓕᒃ (*Ursus maritimus*) ᑕᑯᓇᖓᓂᕐᓂᖅ ᓄᓪᓚᓪᓕᒥ ᓪᓚᑐᑐᒃᐳᓪᓕᒥᓗ

ᖃᐅᔨᓴᓕᕆᔨᐊᓕᓕᑦ: ᐊᐅᓪᓕᕐᒥᔭᕐᒪᓂᕐᓂᖅ ᓇᓄᓕᕆᓂᖅᓴᓪᓕᓕᒃᑎᑦ ᓄᓪᓚᓪᓕᒥ ᓪᓚᑐᑐᒃᐳᓪᓕᒥᓗ ᐊᑐᖅᑕᐅᓕᓕᓐᓄᑦᓗ ᐃᓕᖓᓂᓄᓂᕐ 7 ᑲᓇᑕᒥ ᓇᓄᓕᕆᓂᖅᓴᓪᓕᓕᒃ ᐊᐅᓪᓕᕐᒥᔭᕐᒪᓂᕐᓂᐅᓂᖅᓴᓪᓕᓕᒃ ᐱᓕᐅᔪᒪᓕᖅᑲᑕ ᐊᐸᑎᓕᕆᓂᖅᓴᓪᓕᓕᒃ ᐊᓚᒪᓗ ᔪᓚ ᐊᔪᕐᓴᑦᓕᐊᓂᖅᓄᓂᕐᓂᖅ ᑲᓇᑕᒥ ᑕᑯᓇᖓᓂᕐᓂᖅ ᓄᓪᓚᓪᓕᒥ ᓪᓚᑐᑐᒃᐳᓪᓕᒥᓗ

ᓇᐃᓭᖅᓯᒪᔪᓂ ᐅᓂᒃᑲᓂ ᓴᖅᓚᒐᖅᑯᓗᒃᓄᓂ ᐃᓕᓴᐅᑎᔪᓂ ᖃᓄᐃᑎ ᓇᓄᐃᓂ ᐊᐅᓚᑦᑎᐊᖅᑐᓂᓄᓂ ᕿᓐᓄᐅᑎᓄᓂ

ᐃᓗᐊᖅᑐᑐᓂ ᓂᕆᔨᑦᑎᓂ ᐅᓗᓚᐊᓇᖅᑐᑐᓂᓕᒫᓂ ᐱᖓᓱᐃᓂ (SARA), ᐊᐅᓚᑦᑎᐅᔨᓴᓂᒃ ᐊᖅᑭᐅᓯᒪᔪᖅᑐᖓᓂ ᐊᑐᓂ ᓂᕆᔨᑎᓂ ᑎᑎᕋᖅᓯᒪᔪᓂ ᐊᐅᔾᔨᖅᑎᑦᑐᓂᓂ ᐃᓱᒪᓕᑕᐅᓂᖅᑐᓄᓂ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓕᕐᓗᑎᓂ ᖃᓄᐃᑎ ᓴᖅᑭᑕᕐᓂᖓᓂᒃ ᐃᓕᓴᐅᑎᓄᓂ ᐊᐅᓚᑦᑎᐅᔨᓴᓂᒃ ᐊᑐᓂ ᓂᕆᔨᑎᓂ. ᑕᕐᓇ ᑎᑎᕋᖅᓯᒪᔪᖅ ᓇᓗᓇᐃᓴᐃᓱᒪᔪᖅ ᖃᓄᐃᓂᑐᓂ ᐊᖅᑭᑕᕐᕕᐊᓚᐅᓂᒃ ᐊᐅᓚᑦᑎᐅᔨᓴᓂᒃ ᕿᓐᓄᐅᑎᓄᓂ.

ᓂᕆᔨᑎᓂ ᕿᖅᑭᔭᐅᕕᐊᖅᓄᖅᑎᑦᑕ ᖃᓄᐃᓕᓐᓂᖅᑎᓂ

ᓇᓄᐃᓂ (*Ursus maritimus*) ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᓂ ᐊᐃᔾᐅᓐᖓᑎᑦᑐᓂᓂ ᐃᓱᒪᓕᑕᐅᓪᓗᓂ ᐃᓗᐊᓂ ᓂᕆᔨᑎᓂ ᐅᓗᓚᐊᓇᖅᑐᒃᑎᓂᖅᑐᓄᓂ ᐱᖓᓱᐃᓂ (SARA) (2011–ᒥᓂᑦ). ᓄᓇᕗᒻᒥ, ᐊᓄᐃᓂ ᑎᑎᕋᖅᓯᒪᔪᓐᓇᑎᑦᑐᒃ ᐃᓗᐊᓂ ᓄᓇᕗᑦ ᓂᕆᔨᓕᓚᓂᕆᔨᒃᑯᑦ ᐱᖓᓱᐃᓂ.

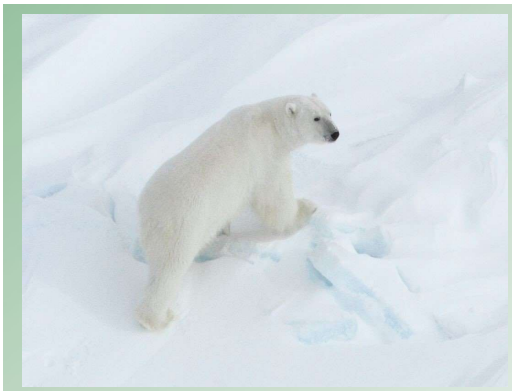
ᖃᓄᐃᓕᒃᑐᓂᖅᑎᑦ ᐱᔾᐅᖃᓕᒫᓂᖅᑎᓪᓗ

ᓇᓄᐃᓂ ᓂᕈᑐᖅᑎᓂ ᓄᓇᒥᐅᑕᐅᓪᓗᓂᑎᓪᓗ ᐃᒪᖓᐅᑕᐅᓪᓗᓂᑎᓪᓗ ᑲᓇᑕᒥ, ᑲᑎᒪᓂᑦ ᓄᓇᓕᒫ (Svalbard), ᐅᓪᓚᓴ, ᒥᐊᓕᑦᑕᐃᓪᓗ ᓄᓇᖅᑐᓂ. ᓇᓄᐃᓂ >ᖅᑐᓄᖅᓯᒋᑦᑐᓂᓂ ᓂᕈᓕᓂᖅᑎᓂ ᐅᑭᐅᖅᑕᖅᑐᒥᓪᓗ ᐃᒪᖓᐅᑕᓂᓂ ᖃᓄᐃᓂᑐᓂᖅᑎᑦᑕᒥᓪᓗ ᐃᒪᖓᐅᑕᓂᓂ.

ᑲᓇᑕ ᐊᖏᔪᖃᓇᓕᐅᖓᒪᑦᑕ ᑕᒪᓂᖅᑲᐃ 16,000–ᓄᑦ ᒥᖏᐅᓴᑦᑕᐅᓕᓪᓗᓂᑏ ᑕᒪᓂ 20,000 – 26,000 ᓇᓄᖅᑕᖅᑲᐊᖓᑏ ᓕᓚᔪᓪᓗᐊᑦ ᐅᑭᐅᖅᑕᖅᑐᑐᖓᓂᓂ. ᐊᐅᓚᑦᑎᓂᒥᓪᓗᑦ ᐱᔾᔨᓴᖅᖃᖅᑐᓂᑦ, ᑲᓇᑕᒥ ᓇᓄᐃᓂ ᐊᒥᓕᓂᖅᑕᕐᓂ ᐊᕕᓂᖅᑕᕐᕕᓕᖅᓴᓕᖅᓴᖅᑕᒪᑦᑕ 14–ᖅᓯᓪᓗᓂ, ᐊᓕᒪᓪ ᓕᓚᔪᐊᒥ ᓇᓄᐃᓂ ᐊᒥᓕᓂᖅᑕᕐᕕᓕᖅᓴᓕᖅᓴᖅᑕᐊᓚᓪᓗᓂ 19–ᓄᑦ (ᓄᓇᓕᖅᓴᖅᖃᖅ ᐊᑕᓂᑐᖅ ᑕᓄᓪᓗᔪ). ᑲᓇᑕᒥ ᓇᓄᐃᓂ ᓱᖁᒋᑦ, ᓄᓇᑎᑎᐊᖅᒥ, ᓄᓇᕗᒻᒥ, ᒪᓂᑐᑕᒥ, ᐊᓕᑎᐅᓚᔪᒥ, ᑯᔪᐃᓚᒥ, ᓄᓪᓕᐊᑦᑎ ᓪᓚᑕᒥ ᓪᓚᑕᐊᒥᓪ.

ᓇᔪᓚᐊᖅᑕᖅᑎᓂ ᐊᖏᓪᓕᖅᓂ

ᓇᓄᐃᓂ ᑕᑎᖅᓱᖓᓚᒪᑕ ᐃᒪᖅᒥ (ᓱᑯᑦᑯᓂ) ᓄᓇᒥᓪ ᐊᖏᓪᓕᖅᓚᓚᓚᐊᖅᖃᑕᖅᑐᓕᓐᓄ ᐱᓕᓚᓕᖏᓪᓗᓂ ᒪᓪᓕᐊᓂᖏᓂ. ᓇᔪᓴᖅᖃᑕᓪᓕᖅᓚᑕ ᓱᑯᐃᔨᓱᖓᓪᓚᓗᒍ ᐊᐅᔾᔨᑯᑦ (ᐊᓪᓕᐊᔭᒃᑕᒪᑦᑕ ᓱᑯᖅᑕᑕᖅᑐᓂᑦ ᐊᐅᓪᓚᑦᑎᓂ, ᐅᓂᒃᑳᖅᑐᓂᑦ ᓱᑯᑕᖅᑐᓂᑦ) ᓱᑯᖅᑕᑕᖅᑐᓂᓪᓗ ᓱᑦᓴᒥ ᐊᐅᔾᔨᑯᑦᓪᓗ ᐊᐅᑕᖅᑐᓂ, ᑭᓴᐃᓂ ᐃᓕᓐᓂᑦ ᖃᐃᓕᖅᑐᓂᑦ ᐃᓱᒪᓕᑕᐅᓂᖅᑐᓄᓂ ᓱᑯᑐᖅᑎᓂ ᐃᖏᓪᓕᖅᓂ (ᖃᓄᐃᓕᒃᑐᓂᖅᑎᑦᑕᒥᓪᓗ ᓱᑯᖅᑕᑕᖅᑐᓂᓪᓗ ᓱᑯᓴᓕᐅᑎᓪᓗ).



ᓇᓄᖅ © ᑕᐃᓴᑎᑎ ᒪᐃᓕᓱ

ᐅᓗᓚᐊᓇᖅᑐᒃᑎᓂᖅᑎᓂ ᓂᕆᔨᑎᓂ ᐊᓐᓇᐅᒪᓇᓱᓕᖅᓂᖅᑎᓂ

- **ᓱᓪᓚᐃᑦ ᐊᓱᐊᓐᓂᓪᓚᐊᓂᖅᑎᓂ:** ᓱᓕᒥᐅᑕᐃᑦ ᖁᒪᐃᓇᖅᓂᓪᓚᐊᓪᓕᖅᑐᒃᑐᓂ ᓱᓪᓚ ᐊᓱᐊᔨᓂᓪᓚᐊᓪᓕᖅᓂᖅᑎᓐᓄᑦ ᐅᓴᐅᓗᓂᓪᓗ ᓴᖅᑭᖅᑐᒃᖃᖅᑐᓂᓪᓚᐊᓪᓕᖅᓗᓂᑦ
- **ᐃᒪᒃᓂᓂᑦ ᐱᖃᑦᑕᕐᓂᖅᑎᓂ ᐊᑐᐃᓐᓇᖃᕐᓂᖅᑎᓂ:** ᐊᒥᓱᓪᓗᓂᓪᓚᑕ ᓇᓄᐃᓂ ᓂᕆᑭᓐᓄᑦᓱᓕᒫᓂ ᐊᓴᖅᔭᒋᑦᑕ ᐅᑎᖅᑕᑐᐃᓐᓇᖃᕐᓂᒃᑐᑎᓂᓪᓗ, ᓇᓐᓂᑕᐅᑎᖃᖅᑕᕐᓂᓪᓗᓂ ᐊᓱᓂᖅᓯᓂᓪᓗᓂ ᐃᓐᓇᓂᑦ ᑐᕐᒥᐊᓂᓪᓗ ᑎᒥᐅᑦᑎᓂᓪᓗ ᐅᓪᓗᓕᒫᓂᑦ ᑕᒪᓐᓇᖅᑐᓂᓪᓗᓂ ᑕᒪᐅᔪᓂ, ᐃᓄᓐᓂᑐᐃᓐᓇᖃᕐᓂᖅᑎᓂᓪᓗᓂ ᑕᒪᐅᔪᓂ
- **ᓱᑭᐃᑦ:** ᑕᐃᒪᐃᑦᑐᖅᑎᒥᓂᑦ ᓂᕆᑭᓐᓄᑦᓱᐅᖅᑕᐅᑎᓕᕐᓂᖅᑐᓂ, ᓇᓄᐃᓂᓪᓗ, ᓱᑭᓂᓇᖅᑐᓂᑦ ᐱᖓᓱᐅᖅᑕᐅᑎᓕᕐᓂᖅᑐᓂᑦ ᐊᓱᐊᔨᓂᓪᓗᓂᑦ ᐊᓱᓂᖅᓯᓂᓪᓗᓂᑦ ᐃᓕᓴᐅᑎᓄᓂ ᑕᒪᐃᓐᓇᖅᑐᓂᑦ ᐃᓕᓴᐅᑎᓄᓂ ᐊᓱᐊᔨᓂᓪᓗᓂᑦ ᐊᓱᓂᖅᓯᓂᓪᓗ

- **ᓄᓇᕗᑦᓂᖅᓯᒪᓕᕆᓂᖅ ᐊᓯᔨᐅᓪᓗᐊᕐᓂᖅ:** ᐃᓕᖅᓂᓄᑦ ᐃᓱᒪᓗᑎᒃᐅᓴᕐᓂ ᐊᑦᑐᐃᓂᖅᐳᓂᖅᓂᓄᓂ ᐅᒪᓴᓂᖅᑐᑦᑐᓂᓗ ᐃᓄᒃᑎᓂᑦᑐᓪᓗ ᓄᓇᑦᑎᓂ ᐊᓯᔨᐅᓪᓗᐊᓂᖅᓂᓄᓂ ᓄᓇᓕᒃ

ᐊᐅᓪᓕᐊᑎᐅᔪᓐᓇᓄᑦ ᑐᖏᓚᑦ

ᒪᑭᒃᓂᓂᖅᑕᖅᓴᓗᑎᑦ, ᑕᐃᒪᐃᑦᑐᖅᓂᓂᓪᓗ, ᒃᒪᒋᔭᐅᑎᐊᖅᑐᓂᓪᓗ ᐊᒥᓱᓂᖅᑐᑦ ᓂᕆᔨᑎᑦ ᓇᒥᑐᐃᓂᖅᓴᖅᑕᑦ ᒃᓇᒋᒥ.

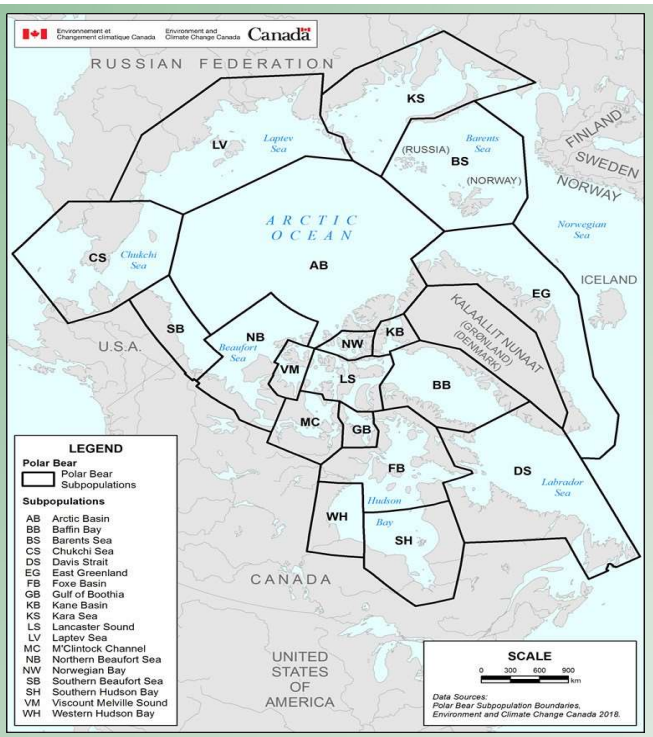
ᐸᕐᓇᑎᑦ ᒃᔨᓂᑎᔪᓇᕐᓗᓂᑦ ᑐᖏᓚᖏᑦ

ᓇᓗᓇᐃᔨᓪᓚᑎᑕᑐᒍᓱᓚᕐᖏᑦᑐᑦ ᒃᒪᒋᔭᐅᓂᐊᕐᓂᖅᑎᑦ ᐅᓗᓚᐊᓇᖅᑐᒥᑦᑐᑦ ᐊᖅᓇᐅᒪᓇᓱᐊᕐᓂᖅᑎᑦ ᐅᑎᖅᑎᓂᓱᐊᕐᓂᖅᑎᓪᓗ ᓂᕆᔨᑎᑦ ᐃᒪᐃᑦᑐᖓ:

- ᐱᐅᖅᓱᐊᕐᓂᖅ ᐊᐅᓪᓕᑕᑎᓂᕐᓗᓂ ᓇᓄᕐᓂᑦ ᐊᖏᕐᕋᖏᖅᓂᓪᓗ ᒃᓇᒋᒥ ᐱᒋᐊᕈᑎᖅᑐᓂᓗᓂ ᓄᓇᓕᖅᑐᓂ ᑭᓯᐅᓚᖅᑐᓂᓗᓂ ᐱᖓᓱᓕᒫᑐᓂᓗᓂᖅ, ᐃᓕᓴᓂᐅᕈᑎᒃᓴᓂᑦ ᐊᑐᐊᒃᓴᓂᓪᓗ ᐊᐅᓪᓕᐊᔪᓇᕐᓗᓂᑦ ᐅᓗᓚᐊᓇᖅᑐᒃᑐᓂᓗᓂᖅᑐᑦ ᐱᐅᓯᒪᔭᐅᓪᓚᑎᓪᓗ ᐱᐅᓯᔨᓪᓚᐅᖅᓴᓂᓪᓗᓂᓪᓗ ᓇᓂᐅᓕᒃ ᐊᖏᕐᕋᖏᓪᓚᑎᓪᓗ, ᐱᓗᐊᖅᑐᒃᑐᓂ ᑲᒪᓴᓗᒃᑐᓂ ᐱᐅᓯᔨᓪᓗᐊᓂᖅᓱᒪᓂᖅᓄᓂ;
- ᐱᓪᓚᖅᑎᖅᓴᓂᓂᑦ ᓯᓚᑦᔨᐊᒥ ᐱᐅᖅᓯᐊᕐᓴᓂᓂᑦ ᐊᐅᓪᓕᑕᑎᓗᑎᓪᓗᓂ ᓇᓄᕐᓂᑦ ᐊᖏᕐᕋᖏᓪᓚᑎᓪᓗ ᓯᓚᑦᔨᐊᓪᓚᒻᒪᑦ ᐱᐅᓂᖅᑎᑐᑦᑐᓂᓗᓂᖅ ᐃᓕᖅᑐᓂᓗᓂᖅ ᐱᖅᑕᐅᖅᑎᓂᑦᑕᐅᑎᓗᑎᓂᖅ ᐱᖅᑕᐅᖅᓴᓂᓂᑦ ᐅᐊᕐᓂᖅᓯᐊᕐᓂᖅᑎᑦ, ᖃᐅᔨᓴᖏᑦ ᐅᐊᕐᓂᖅᑕᓂᕐᓴᒻᒪᓪᓗ ᐱᐅᓂᖅᑎᖅᓴᓂᓂᑦ (ᓄᓇᓴ ᐊᑐᓂᖅᑎᑎᓗᑎᓂᑦ 1973 ᐊᖏᕐᕈᑎᒥᑦ ᐱᐅᖅᓯᐊᓂᓴᒍᑦ ᓇᓄᕐᓂᑦ, ᓯᓚᑦᔨᐊᓪᓗ ᐅᑭᐅᖅᑕᖅᑐᑎᓗᑎᓂᖅ ᐱᐅᓂᖅᑎᖅᑐᓂᖅ (2015 – 2025)
- ᖃᐅᔨᓴᓪᓚᑎᓂᑦ ᓄᓇᖃᖅᑲᖅᑐᒥᓪᓗ ᖃᐅᔨᓴᓪᓚᖅᑐᓂᖅ ᐅᐊᑦᑎᓗᑎᖅ ᖃᐅᔨᓴᓪᓚᑎᓪᓗ ᑕᒪᒃᑯᓂᖅ ᓯᕗᓪᓕᖅᑕᐅᑎᐊᓪᓚᖅᑐᓂᑦ:
  - ᐊᖏᕐᕋᖏᓪᓚᑦ ᓯᓚᓗ ᐊᓯᔨᐅᓪᓗᐊᓂᖅ,
  - ᓯᑭᓇᖅᑐᑦ ᓴᐃᓪᓗᐃᑦ ᖃᐅᔨᓴᖅᑕᐅᓪᓚᑎᓂᑦ,
  - ᓇᑭᓇᓗᖅᓯᒪᓂᖏᑦ ᑎᒥᖏᓪᓚᓗ ᖃᓄᐃᓇᖏᑦᑎᐊᕐᓂᖏᑦ,
  - ᓂᕈᓴᕋᖅᓯᐅᐸᓇᖏᑦ ᓄᓇᓪᓗ ᖃᓄᐃᑦᑐᓂᖏᑦ, ᐊᒻᒪᓗ
  - ᓄᓇᖃᖅᑲᖅᑐᒥᓪᓗ ᖃᐅᔨᓴᓂᖏᑦ ᓄᓇᓕᓪᓚᓗ ᐃᓯᒪᓂᖏᑦ ᓇᓄᐃᑦ, ᓇᑦᑎᓂ ᐅᑭᐅᖅᑕᖅᑐᑦᑐᓂᖅ ᑕᒪᒃᑯᓂᖅ ᓄᓇᖏᓪᓗᓂ ᒥᓴᓗᓂ
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351 Boulevard Saint-Joseph, Gatineau QC, J8Y 3Z5
ᖃᕐᓴᐅᔨᔪᓂᑦ ᑐᑭᓯᑎᑎᖅ: ec.planificationduretablissement-recoveryplanning.ec@canada.ca
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351 Boulevard Saint-Joseph, Gatineau QC, J8Y 3Z5
ᖃᕐᓴᐅᔨᔪᓂᑦ ᑐᑭᓯᑎᑎᖅ: ec.planificationduretablissement-recoveryplanning.ec@canada.ca
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EHTO CHAIRMAN'S REPORT

I am Bobby Greenley, Chairman of EHTO

Due to the Covid-19 outbreak, this has been a year of delays in our usual HTO business but we all manage to continue communication with online meetings and presentation.

EHTO received Country Food funds from Economic Development & Transportation (ED&T) which started April 1, 2020 and consist of Omingmak (muskox), Tuktu (caribou) from the Beverly Ahiak herd, Eklaluk (fish).

Country Food distribution funds:

Since April 2020 to February 2022 EHTO received $164,000 in contributed funds for Country Food distributions.

NTI funds $5000 in March of 2020
KIA funds $85,000 from March 2020 to date
Dept. of Environment (DOE) funds, April 2020 $25,000 and February 2022 of $25,000 one time funds
Economic Development & Transportation $24,000

Local Hunters harvested muskox, caribou, fish and a few seals.
Local Hunters received funds for gas/oil (DOE funds)
Labors that cut up country food and deliveries to Elders and single parents.

Thank you to all Departments and Organizations for country food distribution, our Community Members were able to continue their traditional meals for their families.

Our Elders requested caribou but the caribou was and is very far, HTO hired a hunter from Baker Lake to harvest 8 caribou to distribute to Elders only the spring of 2021.

Our Elders, Single Parents, Arctic College Students and those who have no equipment to provide for their family were very thankful to receive country food.

Our hunters and fishermen were thankful to continue to go out on the land to harvest country food and receive income as they are seasonal workers.

Qiviut

Thank you to, Jamie Panioyak, Joseph Keyok and Donna Tologanak who sheared Qiviut. The Qiviut was sold too Jacques Cartier Clothier Banff.

At the EHTO AGM on February 16th, 2016 a Motion was passed to put a Season on Muskox herd of Victoria Island, season closing April 15th and opens July 15th, 2016. This is still ongoing year after year (continuous)

Victoria Island Caribou, Muskox and their predators (VICMP):

EHTO submitted a proposal to Nunavut General Monitoring Program (NGMP) for 3 year funding, to conduct our own studies on caribou, muskox and their predators on Victoria Island. NGMP has granted the funding and the monitoring will continue up to 2022.

HTO hired Brandon Langan – VICMP Coordinator who works with Matilde Tomaselli, Wildlife researcher with Polar Knowledge Canada, and Dr. Susan Kutz, University of Calgary on this project.

As part of the NGMP – permit outline is to collected 20 sample kits for muskox and caribou, the kits have been sent to University of Calgary and we are waiting results. We also collected 20 wolves and wolverine to study the stomach contents (has not been studied yet). HTO has set up trail cameras around Surray River and 30 Mile to record any wildlife around the area. The Cameras were set in late August and retrieved in December 2020. The camera's recorded caribou at 30 Mile and a couple of predators. We plan to set the camera's up again this spring.

The cameras captured no wildlife on the Surray River trailcams, but the 30 mile captured 1 wolf and small herd of Dolphin and Union and some birds in the spring.

Department of Fisheries (DFO)

HTO continues to work with DFO on char studies. Char have tags clipped on their fins, the yellow tags ($25) shows where the fish traveled. Some of the char have acoustic implant ($40) so DFO

can detect time the char crossed a sensor. Red tagged fish ($100) is to age the fish but harvesters must give the whole fish to DFO for studies.

Lawrence Otokiak was hired by DFO to collect char samples at Gravel pit in the fall of 2021.

DFO and HTO will work on a "Microplastic project". DFO found microscopic plastics in fish stomach. Proposal had been submitted to Northern Contaminates Program.

Sports Hunts:

End of March 2020, we only had 2 sports hunters and 1 hunter was successful. Canada North Outfitting (CNO) and HTO had to cancel the rest of spring and fall Sports Hunts due to Covid-19.

CNO compensated guides with a little bit of funds for Covid relief but it had a hardship on the guides seasonal activities.

CNO and HTO will give a "Enhanced Tourist Training Course" for Guide Level II, April 5-9, 2021. We want to support our guides and give back some income they lost in 2020. We will have 3 senior guides assist with the training. The course was successful.

CNO has filled sports hunts for winter/spring and fall of 2022. Nine of our guides were successful with filling the muskox sports hunts.

Guides did our first Grizzly Bear sports hunts:

April 25-May 5th, hunter was successful in the Grizzly bear sports hunt.

April 25-May 11th, To be announced
May 7-20th, to be announced

We are planning a snow geese sports hunt in June to help with the over population and hopefully help the regrowth of the vegetation.

Ocean Protection Pilot Project: Victoria Island Waterways Safety Committee (VIWSC)

EHTO has been selected by Transport Canada (TC) to coordinate and report on the "Cumulative Effects of Marine Shipping, Proactive Vessel Management and Maritime Awareness Information System under the Oceans Protection Plan (OPP).

The VIWSC has set up a "Notice to Mariners" (see attached)

- Navigate in the Kitikmeot Region: Dolphin and Union herd migrates from Victoria Island and the Mainland. The open ice created by vessels jeopardized the migration of the caribou and in the fall and spring the people crossing between the mainland and island.
- Voluntary Avoidance: slowdown to minimum speed from December 1 to June 30th, (red area)

- Reporting: Notice is required prior to transiting the Northwest Passage between October 15the June 30th.

Small Vessel Operators Proficiency (SVOP) Training, May - June 2021 with Chad McCallum, Roland Emingak, David Klengenberg, Kyle Weese.

EHTO deployed a shallow water hydrophone to collect noise data from ships passing and hopefully hear seals and whales. The data is being extracted now. Trail cameras were set to take pictures of passing ships and to look at how ships wakes increase erosion.

8 VHF radios have been installed on community members boat and we have plans to order more for our membership.

EHTO did a presentation for NWMB in September on the work we have been doing with Transport Canada – Ocean Protection Pilot Project.

SmartIce

Monitors are measuring the ice thickness for SmartIce. We had little activities with SmartIce equipment because of some equipment failure. The last good reading was in November 2020.

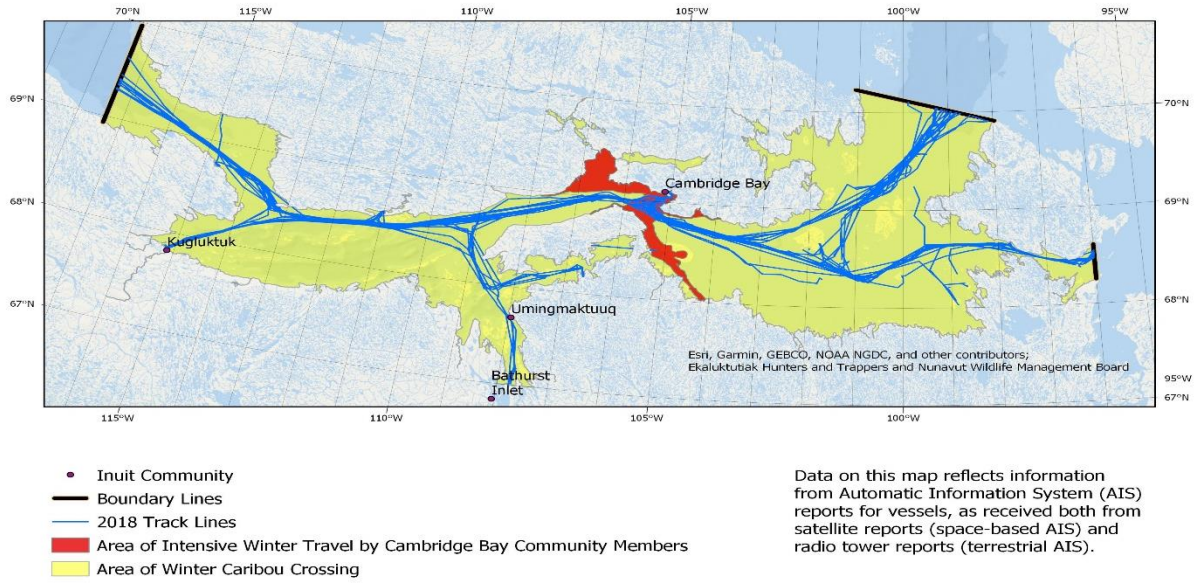
Trailmark:

EHTO will continue to work with Trailmark and Trailmark will give more training for coordinators and local membership.

EHTO continues to take Covid-19 precaution to protect our staff and membership.

Thank you,

7C Vessels Intending to Navigate in Kitikmeot Region in Canada's Northern Waters



Navigation In Kitikmeot Region

Dolphin and Union Caribou migrate from Victoria Island to the Mainland. The open ice created by vessels jeopardizes the migration of the caribou in the fall and spring and the safety of people crossing between the mainland and the island.

Voluntary Avoidance

Voluntary measures apply to any vessel transiting within the protection zone outlined in this notice (see yellow and red areas in map above) and should only be taken when they will not jeopardize the safety of navigation. These include:

1. Slowdown to minimum safe speed from December 1st to June 30th (Red Area);
2. Slowdown to minimum safe speed if caribou or people are encountered;
3. Use local information to avoid passing in front of caribou or people travelling on sea ice;
4. Avoid opening multiple leads.

Reporting

Notice required a week prior and follow up call/email before transiting the areas as follows. October 15th to November 30th and April 15th to June 30th to minimize risks to migrating caribou (Yellow Area), and December 1st to June 30th (Red Area) to minimize risks to people travelling across sea ice.

Calls should be made, in order, to:

1. Hamlet Main Office: 867-983-4600
2. Hamlet After Hours of Arctic Senior Administrative Officer: 867-983-5203
3. Ekaluktutiak Hunters and Trappers Organization (EHTO) Main Office: 867-983-2426
4. Ekaluktutiak Hunters and Trappers Organization (EHTO) After Hours: 867-445-3614

Western Boundary	69° 58' N 117° 22' W;	68° 56' N 117° 22' W
NorthEastern Boundary	69° 58' N 101° 04' W;	69° 54' N 097° 57' W
SouthEastern Boundary	68° 14' N 096° 00' W;	68° 36' N 096° 00' W

Authority: Transport Canada

Community-driven program to monitor muskoxen, caribou and their predators on Victoria Island, Nunavut

Interim Report, April 29, 2022

Prepared by Dr. Fabien Mavrot, Dr. Susan Kutz
Department of Ecosystem and Public Health, Faculty of Veterinary Medicine, University of Calgary

Summary

The project "Community-driven program to monitor caribou, muskoxen, and their predators on Victoria Island, Nunavut" (NGMP project # 19EC66) led by the Ekaluktutiak Hunters and Trappers Organization has completed its second year. The Kutz Research group (University of Calgary) has received and processed 48 of the 56 caribou and muskox kits collected in 2019-21. Lab analyses for these kits are about 75% complete. Additional caribou kits from the 2021-22 season arrived in early April 2022 and will be processed over the coming months. Notable results to date include an apparent decrease of stress level in DU caribou over the last year and a constant presence of the zoonotic bacterium *Brucella* in both species. A more detailed analyses will be provided in the next community bulletin and annual report.

Future work includes the completion of the pending analyses and the processing of the kits recently received. The collaboration between Ekaluktutiak Hunters and Trappers Organization and the Kutz Research group has also resulted in a successful grant on emerging diseases from the Canada Inuit Nunangat-UK grant as well as a grant from National Geographic to assess how the community-based wildlife health monitoring program has operated during COVID-19.

Introduction

The Ekaluktutiak Hunters and Trappers Organization in collaboration with Polar Knowledge Canada was successful in obtaining funding from the Nunavut General Monitoring Plan (NGMP) to carry out the 'Community-driven program to monitor caribou, muskoxen, and their predators on Victoria Island, Nunavut' (NGMP project # 19EC66) in the community of Ekaluktutiak during the years 2019-22.

The program aims to collect baseline knowledge and track change in the health and population dynamics of muskoxen and Dolphin and Union caribou around the community of Ekaluktutiak. The program is overseen in the community by the HTO with support from Matilde Tomaselli and Ian Hogg from Polar Knowledge Canada.

As part of the monitoring program, sample kits are made available to community harvesters and sent to the Kutz Research Group at the University of Calgary for analysis. In addition to specific samples, the kits also contain a datasheet used to record important information on the animals sampled or observed. Harvesters can also use the kits to collect any abnormal tissue they encounter in a harvested animal. This serves as a passive health surveillance system to detect possible health concerns in the muskox and caribou populations.

Below we present the preliminary results from sample and data analyses to date. Note that these analyses are ongoing and these are not the final results.

Update as of April 2022

Sample kits collected:

As of March 2022, 48 sample kits (32 DU caribou and 16 muskoxen) have been shipped to the University of Calgary. Eight additional kits have been collected but were not part of the shipment. The project monitor updated the database with the kits received and the information on the forms up until March 2021. Additional kits were shipped on April 2022 and will be processed this summer.

Datasheet:

When the harvester is able to observe the herd and can provide information on herd size and the number of young animals, this can give us really important insight into the population structure and what it might mean for the herd. As an example, below is a plot showing how the number of calves and yearlings observed in the DU caribou herd changes over time (Figure 1). There is a high proportion of calves observed in fall (after calving) and fewer calves observed in spring (just

before calving). **In the past years, it seems that the proportion of calves in fall fluctuates around 15-20% of the total number of DU caribou observed at the time.**

The plot also shows that some seasons have very broad confidence intervals. This happens when there were only a few observations available and highlights the importance of having every datasheet fully completed. It is important to note that the observations in Figure 1 are from sample kits collected in all three communities harvesting DU caribou (Ekaluktutiak, Kugluktuk, and Ulukhaktok).

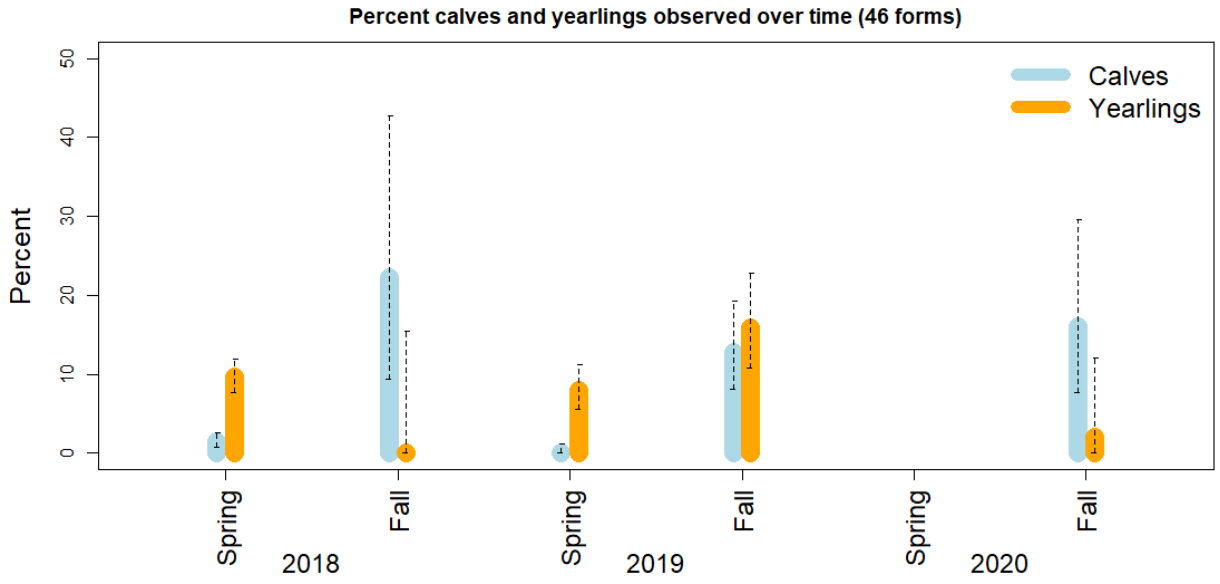


Figure 1: Proportion of calves and yearlings of total animals observed for Dolphin and Union caribou and recorded on the sample kit forms in Ekaluktutiak, Kugluktuk, and Ulukhaktok. Calves and yearling proportions are shown for spring (April to June) and fall (September to December).

Another important piece of information on the sample kit form is the body condition. By recording it, we can compare the information from year to year and across different populations. We use two different complementary measures for body condition: the backfat and the assessment made by the harvester (skinny, not bad, fat, or very fat). The backfat is a reliable metric if it is measured in the same way by all harvesters. The assessment of the harvester takes into account the harvester's experience and traditional knowledge about what would be expected for that season or age of the sampled animal. Backfat measures and harvester's assessments thus provide different, yet complementary measures of body condition.

In figure 2, we show the results of both the harvester assessment recorded on the sample kit datasheet and the results of the kidney fat index measured in our lab. On the upper panel, the body condition documented by the harvester is shown on the vertical axis and is qualitative

(ranging from skinny to very fat). The horizontal axis represents the timeline starting in 2017. The black circles represent which body conditions were reported for each month (a larger circle means that more harvesters reported an animal in this body condition category). The probability of a caribou being in a better condition than "skinny" is shown by the red lines for females (continuous) and males (dotted). Finally, the community where the data was collected is shown at the bottom of the chart as colored lines. **Note: the results presented here are from all sample kits and forms collected in Ekaluktutiak, Kugluktuk, and Ulukhaktok until 2019.**

It is also important to note that the body condition score assessed by hunters was removed from the data sheet of DU caribou sample kits in Ekaluktuktiak and thus this information could not be added for the years 2020-21. This is particularly relevant when assessing the DU caribou herd as the information from animal sampled in three communities (Ekaluktuktiak, Kugluktuk, and Ulukhaktok) are complementary and should be ideally collected in a standardized way. After discussing with the HTO, we agreed that the body condition should be put back on the data sheet.

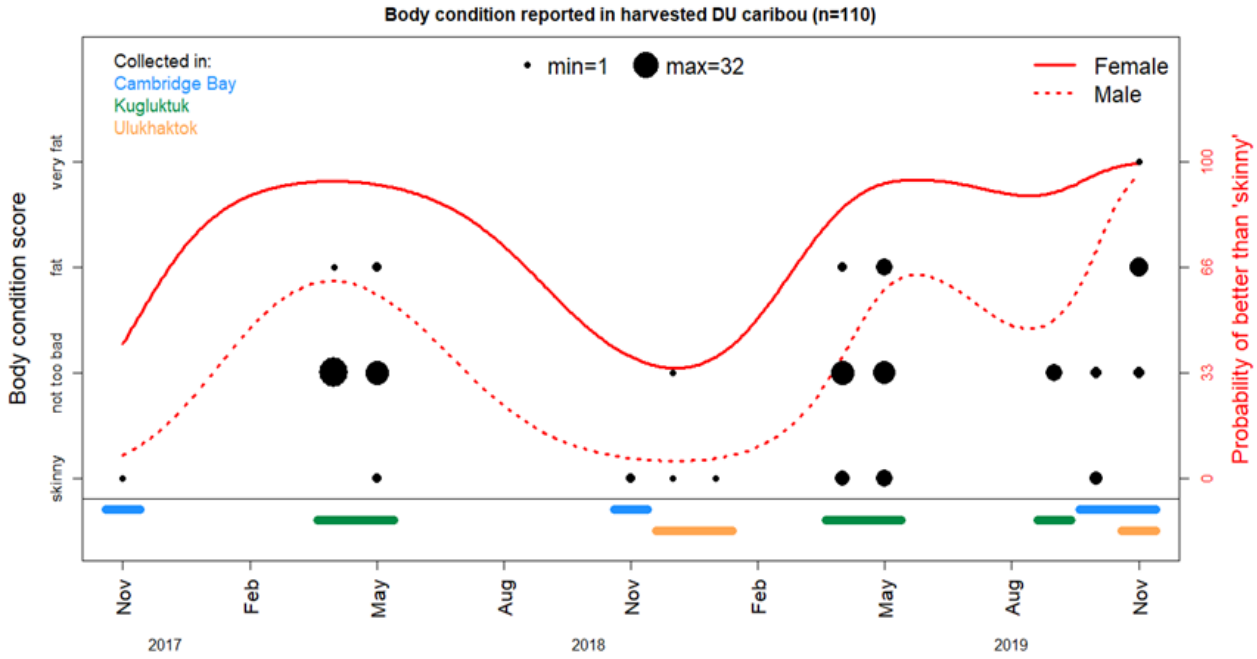


Figure 2: Body condition of Dolphin and Union caribou assessed by the harvesters on animals sampled in Ekaluktutiak, Kugluktuk, and Ulukhaktok.

Sample Analyses

Although 56 kits were reported as collected, only 48 kits were shipped down to Calgary so far. For muskoxen, lab analyses have been completed for parasitology, *Brucella* and *Erysipelothrix* serology, metatarsal measurement, *Besnoitia* examination, pregnancy, kidney and bone

marrowfat assessment, and corticosterone in feces. For caribou, analyses have been completed for parasitology, *Brucella, Erysipelothrix*, *Toxoplasma*, Herpes virus, and Pestivirus serology, kidney fat assessment, cortisol in feces, and cortisol in hair. In addition, genetic analyses were also performed on DU caribou muscle samples to evaluate the ecotype of the sampled animal. This is particularly relevant as there have been discussions about Barren-ground and Peary caribou mixing together with DU caribou and possibly responsible for changes in migratory behavior of the herd.

In the course of the fiscal year 2021-22, several barriers delayed the processing of the samples and the completion of the analyses: first the backlog from the previous fiscal year due to the COVID-19 pandemic and subsequent closure of the University and partner labs delayed sample analyses. In addition, we have modified several of our protocols (qiviut sorting, leg and jaw processing) and in some cases, had to run pilot studies to validate our new methods (e.g. quantifying cortisol in muskox hair using both qiviut and intermediate guard hair instead of qiviut only). Some issues with lab equipment for the hair mineral analyses also needed to be addressed before the analyses could be ran. Finally, the discovery of a *Brucella* case in a sampled kidney from an apparently healthy muskox from Ekaluktutiak (see Passive surveillance section in this report) has also forced us to change our workflow and biosafety procedures, slowing some of the sample processing.

Table 1: Summary of lab analyses conducted and still pending for the 48 received sample kits of muskoxen and DU caribou.

Analyses	Muskox	DU caribou
Coprology	Completed	Completed
***Besnoitia* examination**	Completed	Completed
Serology *Brucella*	Completed	Completed
Serology *Erysipelothrix*	Completed	Completed
Serology Herpes virus	Pending	Completed
Serology Pestivirus	Pending	Completed
Serology *Toxoplasma*	Pending	Completed
Metatarsal measurements	Completed	Completed
Bone marrow fat	Completed	Pending
Kidney fat	Completed	Completed
Jaw examination	Completed	Pending
Fecal stress hormones	Completed	Completed
Hair stress hormones	Pending	Completed
Pregnancy	Completed	Pending
Hair trace minerals	Pending	Pending

What follows is a preliminary summary of some of the analyses that have been completed. When summarizing trends over time, we included results from previous years of monitoring, and in the case of DU caribou, we also considered all DU caribou samples collected in Ekaluktutiak, Kugluktuk and Ulukhaktok.

Figure 3 shows the measured corticosterone for muskoxen sampled around Ekaluktutiak. Fecal corticosterone is an indicator on how stressed the animal was in the days/weeks before it was sampled. Exposure to different stress factors is known to vary a lot depending on the season, the age, and the sex (for example, muskox bull might be more stressed than juveniles or females during the rut). Therefore, it makes sense to control for those factors when considering the results. In addition, we separated our results between muskoxen from Victoria Island or the Kent Peninsula on the adjacent mainland. This distinction is important as we have indications that the animals on the mainland have different health and population trend than on the island. This adds to the complexity of the analyses and means we need more samples to be able to interpret the results of corticosterone analyses correctly.

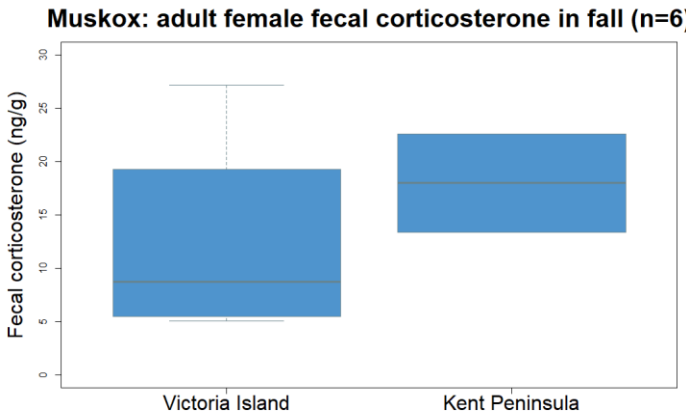


Figure 3: Level of fecal stress hormone (corticosterone) in adult female muskoxen sampled in fall on around Ekaluktutiak. Results are presented for animals sampled on Victoria Island (left) and the Kent Peninsula on the mainland (right).

Cortisol level in the hair is an indicator on how much stress the animal was exposed to when the hair was growing. When considering all DU caribou sampled since 2015 in Ekaluktutiak, Kugluktuk and Ulukhaktok, the level of cortisol in the hair seems to have decreased in the past years, indicating less stress.

Two out of 18 examined DU caribou legs (11.11%) had detectable *Besnoitia* cysts on the metatarsal bone. None of the examined muskox legs (0/14) had visible *Besnoitia* cysts. *Besnoitia* is a typical parasite of caribou that forms cysts under the skin, around the eyes, on the testicles and on the membrane covering the bones. It is usually not associated with disease although some individuals can present symptoms such as hair loss, swollen eyelids and in rare cases, poor body condition and general health. The parasite has also been reported in muskoxen.

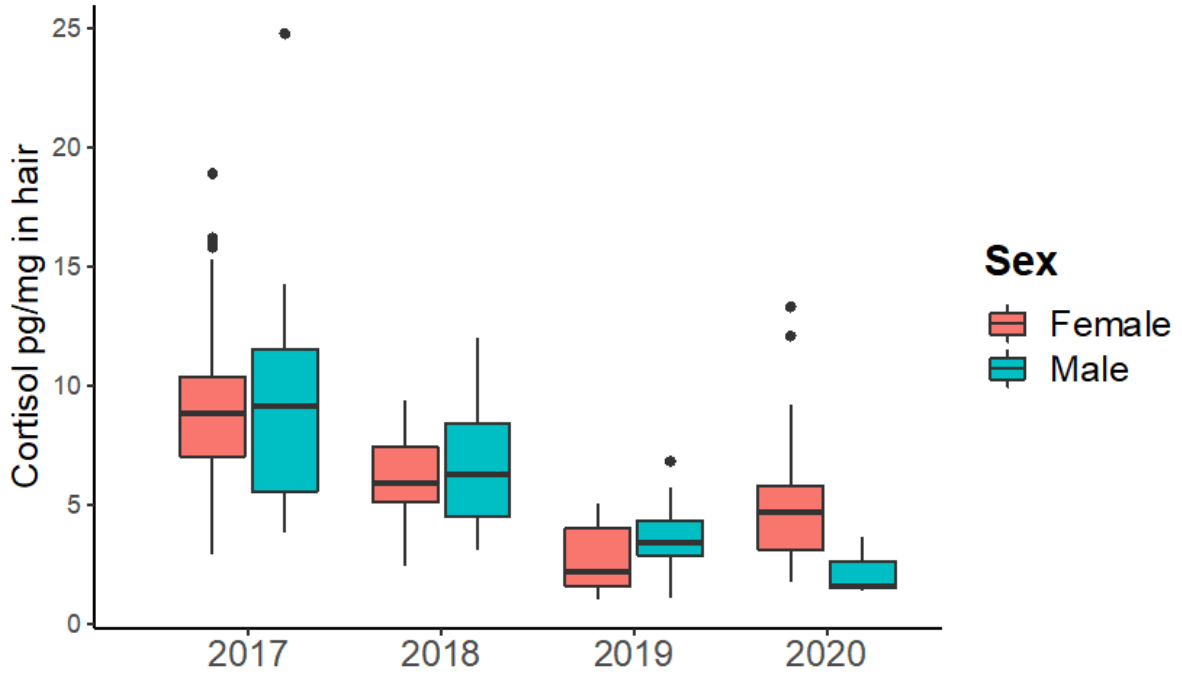


Figure 4: Cortisol hair level measured in DU caribou sampled in Ekaluktutiak, Kugluktuk, and Ulukhaktok.

For animals sampled around Ekaluktutiak in 2019-21, only one caribou out of 29 had parasite larvae (most likely the lungworm *Varestrongylus eleguneniensis* or *Parelaphostrongylus andersoni)* that could be detected in the fecal sample. In contrast, lungworms (*Umingmakstrongylus pallikuukensis* and *V. eleguneniensis)* were detected in almost all (13/14) muskox fecal samples analyzed, although most were with a low count of parasites (Figure 5). Lungworms are not dangerous to people but might reduce the overall health of heavily infected animals.

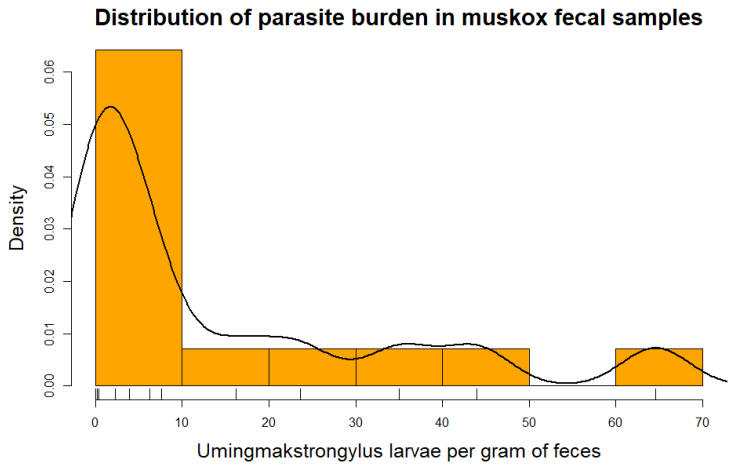


Figure 5: Distribution of burden of the lungworm Umingmakstrongylus pallikukensis *in muskoxen sampled around Ekaluktutiak in 2019-20. The observed distribution is typical of parasitic infection with most samples having a low count of parasites and only a few animals with high counts of parasites.*

We ran blood tests to determine if caribou and muskoxen had been previously exposed to two important pathogens, *Erysipelothrix* or *Brucella*. Among the caribou sampled around Ekaluktutiak in 2019-21, three out of 32 (9.4%) were seropositive (previously exposed) to *Brucella*. For muskoxen, 6.7% (one out of 15) were seropositive. For both species, the proportion of seropositive animals seems to be constant since 2014, although the lower number of samples collected during the COVID pandemic when compared to previous years limits our ability to capture changes in the epidemiology of the disease.

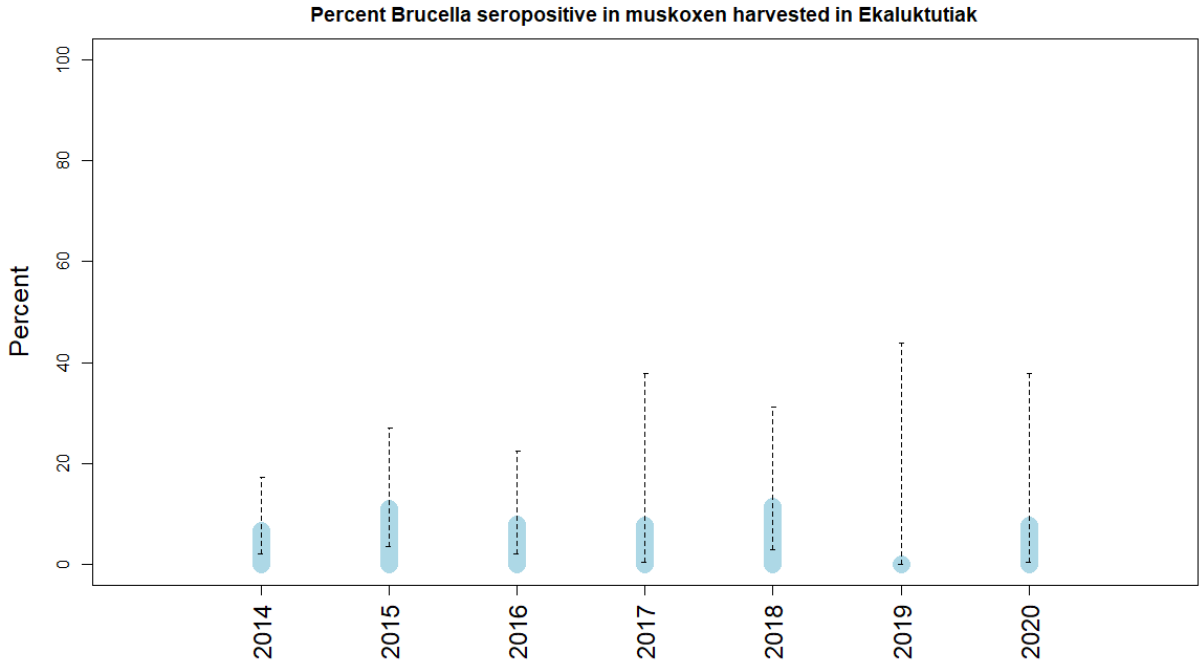


Figure 6: Percentage of muskoxen sampled around Ekaluktutiak that were previously exposed to Brucella*.*

None of the 32 DU caribou sampled around Ekaluktutiak in 2019-2021 was seropositive for the bacterium *Erysipelothrix.* In contrast, 3/14 (21.4%) of sampled muskoxen were seropositive for *Erysipelothrix*. This is particularly important as *Erysipelothrix* was the cause of several large muskox die-offs around Ekaluktutiak in 2009-2013. Yearly variations are apparent (figure 7) with a seroprevalence above 40% in 2019. However, the limited number of samples collected during the pandemic prevent us to infer more on any trend.

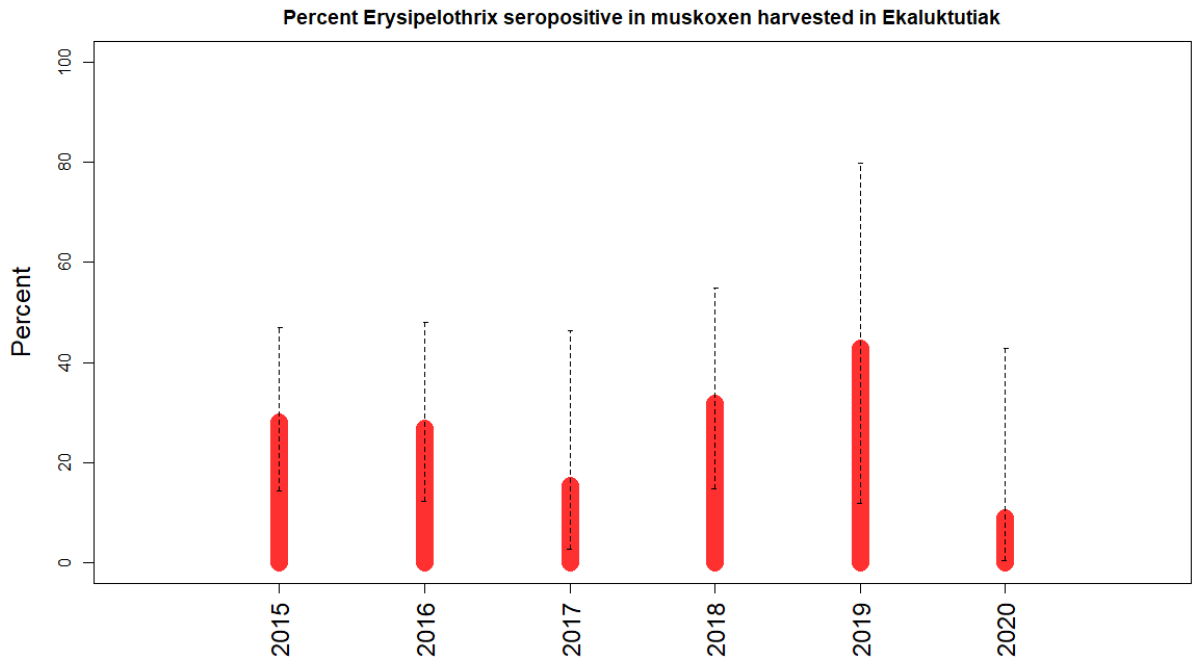


Figure 7: Percentage of muskoxen sampled around Ekaluktutiak that were previously exposed to Erysipelothrix.

Passive health surveillance:

During the processing of muskox kidney samples at the University of Calgary, we discovered one kidney with multiple abscesses. The kidney was sent to the Canadian Wildlife Health Cooperative for diagnostic and was positive for *Brucella*. *Brucella* is a bacterium and can be transmitted to people eating or handling sick animals. In this case the harvester didn't notice any sign of illness in the animal. The Canadian Food Inspection Agency, as well as Public Health Services and the territorial biologist in Nunavut were alerted. However, by the time the harvester was notified, the muskox had already been eaten, without anybody showing signs of infection, fortunately. This finding highlights the importance of maintaining a surveillance system to detect potential Public Health concerns in harvested animals.

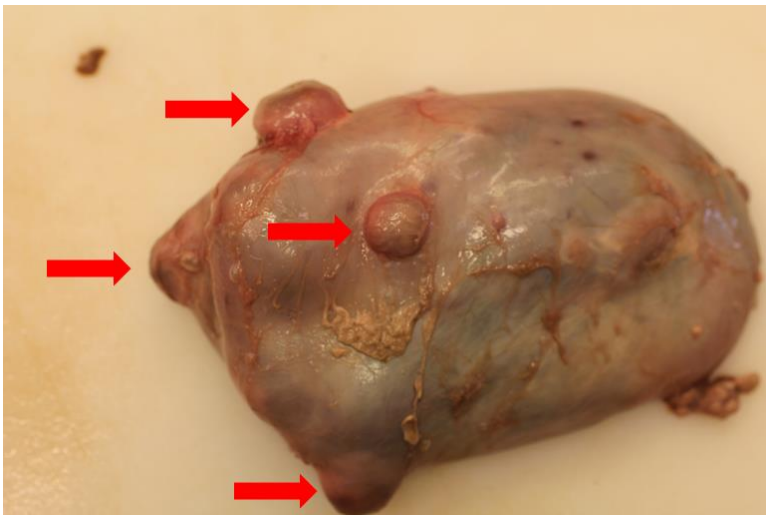


Figure 8: Kidney sample collected on an apparently healthy muskox. Note the multiple abscesses protruding from the surface of the kidney. Bacteriological investigations confirmed that the animal was infected with Brucella *spp., a bacterium that can also infect people.*

Reporting and data ownership:

The general meeting of the Ekaluktutiak Hunters and Trappers Organization did not happen last year, thus we could not present our results there. We did, however, arrange to present the preliminary results of the program to the Ekaluktutiak Hunters and Trappers Organization through a zoom meeting in June 2021. During this meeting we also presented a bulletin on all the muskox and caribou monitoring done by the Kutz Research group in collaboration with the communities and governments in the Kitikmeot and Inuvialuit regions. The EHTO expressed some concern about the *Brucella* results and how they may be used in management.

Future work

The lab analyses of the initial 48 kits as well as those received in April 2022 will be completed by the fall and final data analyses is planned for spring 2023. Preliminary results will be included in the community bulletin in summer 2022 and presented at the next general meeting of the Ekaluktutiak Hunters and Trappers Organization.

In addition to the caribou and muskox health monitoring, the Kutz Research Group facilitated the contact between Doug Clark (USaskatchewan) and the EHTO around a recently funded ArcticNet project on Grizzly bears. Additionally, the EHTO and the Kugluktuk and Ulukhaktok hunters and trappers organizations, together with the Kutz Research Group developed and successfully applied for two grants. The first is from National Geographic to evaluate how COVID-19 impacted the muskox and caribou monitoring program. This project and will help improve the community-based monitoring especially in regard to mobilizing local capacity. The second grant, a Canada-Inuit Nunangat-UK grant, is to fund traditional and scientific knowledge research on the two zoonotic pathogens – *Brucella* and *Erysipelothrix* – in Arctic wildlife.

The results generated by the monitoring program in Ekaluktutiak, together with information from similar monitoring in Ulukhaktok and Kugluktuk will help to better understand the drivers of muskox and caribou health and what it can tell us on the trajectory of the populations. This will ultimately help to guide the co-management of those species.

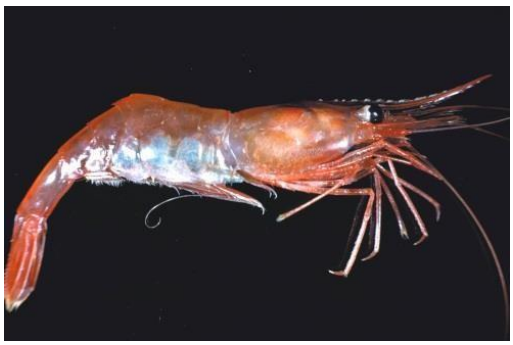
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ᓄᓇᐅᓪᒥ ᐃᒪᓚᓪᑕᓇᓴᓪᐊᐃᒣᓪ ᑲᑎᒪᓴᖏᑦ ᐊᒪᒪᓗ ᓄᓇᕆᒥ ᑕᑕᐅᒥᐅᑕᓪᑕᓇᓴᐃᒣᓪ ᑲᑎᒪᓴᖏᑦ

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⊃ᑭᓯᑎᐊᐣᑲᓂᓂᕐᒧᑦ: Δᓯᒪᓪᐅᓂᕐᒧᑦ: X ᐊ⊃ᓪᔪᐅᐅᐃᓪ:

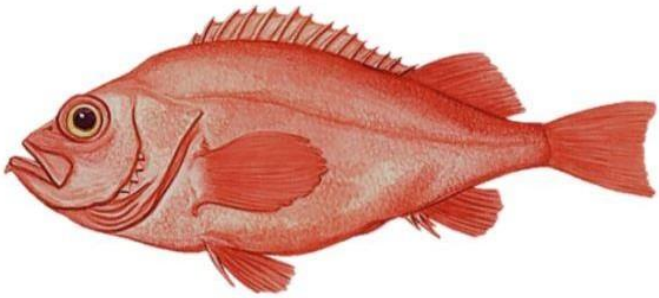
ᐱᖃᑎᖏᒐ: ᐅᖏᒫᓀᐊᖅᑕᐅᓂᖏᑦ ᒪᓪᑭᐊᓪᓂᓄ ᐃᖅᓄᑕᐅᖅᑲᓯᐅᑎᐁᓄᑦ ᐱᐸᓪᓴᖅᑐᓄᑦ ᐊᐅᐸᖅᑐᓄᑦ ᐃᖅᓄᓂᓄ (*Sebastes mentella* ᐊᒻᒪ *Sebastes fasciatus*) ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖓᔪᐸᕐᓯᐊᓕᒻᒧᑦ ᐱᖏᑐᓇᖏᓂ ᖃᐅᐅᓴᕐᓂᐅᔪᖅᓱᐃᑦ ᐃᓂᖏᓂ ᐊᒻᒪ ᑲᓇᓂᖅᑕᐅᔪᖅᓱᐃᑦ ᐃᓂᖏᓂ Ḷᖅ 31, 2023-ᒧᑦ.



ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖓᔪᐸᐃᑦ (*Pandalus borealis*)



>ᑭᓕᒃ ᑭᖓᔪᐸᐃᑦ (*Pandalus montagui*)



ᐊᐅᐸᖅᑐᖅ ᐃᖅᓄᒃ *(Sebastes mentella* ᐊᒻᒪ *S. fasciatus*)

ᖃᓄᐃᓕᓕᐅᕐᓂᐅᓱᒪᓕᕆᓂ

Ḷᖅᑭᒃ ᑭᖓᔪᐸᐃᑦ ᐊᓱᐅᑉᐧᓕᕐᑐᒃ *(P. borealis* ᐊᒻᒪ *P. montagui*) ᐱᑕᖅᑲᐅᖅᑐᑦ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖓᔪᐸᕐᓯᐊᕐᓂᐅᔪᓂᒃ ᑕᐅᔭᓂ ᖃᑭᖅᓭᑦᔨᐸᑦ ᐃᑭᕐᓴᖏᓂ ᐊᒻᒪ ᑲᓇᓂᖓᓂ ᓗᓪᓕᐊᓕᒻᒥᑦ. ᑭᓇᓇ ᐃᖅᑲᓕᓯᐊᕐᓂᐅᔪᖅᓱ ᐊᐅᓪᓚᑕᐅᔪᖅᓱ ᒪᓪᑭᒃᑯᓕᒃ ᒪᖅᑭᒃᓂᓂ ᐃᖅᑲᓕᑦᔪᓂᐅᔪᓂᒃ ᖃᐅᐅᓴᕐᓂᐅᔪᖅᓱᐃᑦ ᐃᓂᐅᔪᓂᒃ, ᐱᖏᑐᓇᖏᓂ ᖃᐅᐅᓴᕐᓂᐅᔪᖅᓱᐃᑦ ᐃᓂᖏᓂ (WAZ) ᐊᒻᒪ ᑲᓇᓂᖅᑕᐅᔪᖅᓱᐃᑦ ᐃᓂᖏᓂ (EAZ) (ᐃᓚᒋᑦᖏᓕ 1).

ᐅᑐᐱᓇ 2020-ᒥᑦ, ᑭᓚᖅᑐᐃᓴᐅᔪᓂ ᑕᓇᐅᖅᑕᑦ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᔪᐸᓕᓇᓴᑦ ᐅᖅᑲᐅᓯᖅᓚᐅᖅᑐᑦ ᐊᒥᓯᓂᑦ ᐱᖃᓕᓴᖅᑐᓂᒃ ᐊᐅᐸᖅᑐᑦᑐᓂᒃ ᐃᖅᑲᓂᑉᐧᑐᓂᒃ ᐃᖅᑲᓂᖅᑕᐅᖅᑲᓯᐅᑎᐁᓂᒃ ᑕᐃᒃᓂ ᑲᓇᓂᖅᑕᐅᔪᖅᓱᐃᑦ ᐃᓂᖏᓂ (ᖃᑭᖅᓭᑦᔨᐸᑦ ᐃᑭᕐᓴᖏᓂ ᐱᖏᑐᓇᖏᑦ) ᐊᒻᒪ ᑭᖓᔪᐸᓐᓂᐊᕐᓇᖅᑲᓂᕐᒧᖅ ᐃᓂᖏᓂ (SFA) 4 ᑕᐃᒪᐃᓕᖏᓂᖏᓂᓄᓂ ᐅᖏᓱᓕᓕᑎᐊᕐᓇᖅᑲᓂᖅᓱᖓᒪᒪᑕ ᒪᓕᕐᑕᐅᕐᓯᐅᔪᖅᓱᓂᕐ ᓕᐃᓴᐅᓱᒥᐅᒃ (COL).

ᑕᒃძᐊ ᒪᓕᕐᕈᐊᓵᓕ ᑕᐃᒪᐃᑎᑎᑐᐅᓕ ᐅᒥᐊᖏᐊᓕ ᐊᓗᖏᓴᓚᐊᓕᓂᒃ ᐃᖃᓗᒍᓱᖏᐃᕐᖏᕐᓂᓂᒃ ᐊᕐᑎᓂᖅᐸᒥᓕ 10 ᐃᐱᓂ ᒪᐃᔪᓂᒃ ᐃᖅᒃᖏᓚᓂᑐᓕ ᐃᖅᒃᓗᐃᓕ ᐃᖅᒃᓗᒃᑕᐅᖅᓱᐅᑎᔪᓕ (ᐊᐅᐸᖅᑐᓕ ᐃᖅᒃᓗᐃᓕ ᐱᖅᓱᐅᑎᓗᑎᓕ) ᐅᓂᐊᖅᑎᓪᓗᑎᓕ ᖃᒃᖏᕐᐅᑎᐸᐸᓕ ᐋᑦᕈᑎᓪᓚᖅᑕᑐᖅᑐᓕᓕ (ᐊᖏᕕᓂᓂᓚᖅ 2.5 ᐳᓚᕐᒥᒃ ᐅᕐᑯᒪᐃᓐᓂᒃᑯᓕ ᕈᖓᐸᐸᖅᑕᐅᔪᓂᒃ, ᐅᖏᖓᔪᓐᓂᓕ 100 ᕈᓗᒍᓪᓂᒃ) (ᐃᕕᒍᑕᖓ 2). ᐃᓐᓇᐅᔪᖅ ᒪᑐᐃᖏᓚᖅᖁᕐᑕᑐᖅ ᐊᐅᐸᖅᑐᓂᒃ ᐃᖅᒃᓗᓱᔪᖅᑐᓂᒃᑐᓂᒃ ᑕᖓᖓᓂ ᐃᓂᐅᓂ. ᐊᐅᐸᖅᑐᓂᒃ ᐃᖅᒃᓗᓱᔪᖓᒃ ᓄᐊᖅᐅᐊᓵᓂ ᐊᕐᓇᓐᑎᓂ ᐃᖅᒃᓗᓱᔪᐊᖅᑎᑦᑎᓂᒃ (NAFO) ᐃᓂᖏᓖ ᐊᖓᔪᓂᒍᔪᖅ 2 + ᐊᖓᔪᓂᒍᓂᖏᓖ 3K ᐊᖏᕈᑎᒃᓯᖅᓱᒍᔪᓂ ᑕᐃᒪᖏᓖᓂ 1997-ᒥᑦ.

ᐅᑭᐊᕼᓴᖏᓂ 2020, ᐃᖅᒃᓗᓕᓚᖓᓕᒃ ᐅᓂᒃᑲᓕᐅᕆᖅᑐᖅ ᑕᒃძᐊ ᐊᓱᐊᓄᖏᓴᑎᖅᑕᕆᐊᖅᑎᕆᓂᖏᓪᓕᓂ ᐊᑐᖅᑕᐅᓴᔪᓕᐅᕆᖅᑐᖅ ᑕᖓᖅᓂ ᑲᓇᓐᓴᒥᑦ ᖃᐅᔨᓴᖅᑕᐅᔪᑦᐸᑦ ᐃᓂᖏᓖᓂ ᐊᒪᒪ ᕈᖓᐸᐸᖅᑎᓂᓚᖅᑕᐅᑐᖅᑐᓕᑐᑐᖅ ᐃᓂᖏᓖᓂ 4 ᑲᔪᓱᓂᖅᑎᓱᐊᓕᐅᕆᖅᑐᖅ ᕈᖓᐸᐸᓂᓂᐅᕆᖅᑎᑕᖅᑐᑦᑕᓂ, ᕿᓇᐅᓴᓴᓴᓂᔪᑦ ᐃᓱᒪᒻᒧᑕᐅᓂᓪᓗᑎᒃ ᑕᓇᐅᖏᑦᑕ ᕈᖓᐸᐸᕆᓱᐊᖅᑐᓗᓂ. ᐱᑕᖅᖃᖅᑕᕆᓂᖓᖓᓚ ᐊᒥᓱᓂᓂ ᐱᖅᓕᒻᒪᖅᑐᓂᒃ ᐊᐅᐸᖅᑐᓂᒃ ᐃᖅᒃᓗᓂᓂᒃ ᐃᖅᒃᓗᐃᓕᓂᒃᑐᓂᒃᑐᓂᒃ ᑐᐊᓘᐃᖅᑐᒻᒪᓕᐅᕆᖅᑐᖅ ᐊᐅᐸᖅᑐᓂᒃ ᐃᖅᒃᓗᐃᓕᓂᒃ ᐃᖅᒃᓗᓕᓚᖅᑕᐅᑐᖅᑐᓕᑐᑐᖅ ᐊᒪᒪ ᑕᐃᒪᐃᑎᓕᖓᓕᒃᑎᓂᖏᓪᓕᓂ ᐃᖅᒃᓗᐃᓕᓂᒃᑐᓂᒃᑐᓂᒃ ᐊᐅᐸᖅᑐᓂᒃ ᐃᖅᒃᓗᐃᓕᓂᒃ

Δ>Ρ 2022-Γᑦ, Δᕿᒃᑕᓚᓯᔪᑦ, Δ⊃Ⅎᓂᓚᓄᑦ Δᕿᒃᑲᓇᐃᔨᕿᒃᑎᑦ ᑕᐃᑲᖏᑕ ᓄᓇᕐᒥᑦ ᐅᒪᔨᓪᓚᕆᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦᓂᒃ, ᐊᑦᒪ ᓄᓇᕆᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦᓂᒃ, ᐊᑦᒪ Δᒪᕿᑐᐅᑕᓪᓚᕆᐊᒃᑯᑦ ᒪᕿᐅᐊᓂᒃᑐᑎᓂᑦ ᑲᑎᒪ ⊃ᓴᐅᒪᑎᕐᑎᓂᑦ. Ⅰᓪᓇᐹᔭᓪᒃᑐᓂᒃ ᓄᐊᑕᐅᓯᒪᔨᑦ ⊃ᐹᓯᐊᐹᑎᕐᓴᓂᓂ (Δᓪᒧᔪᑕᖓ 3) ᓇᓗᓇΔᕐᓯᒪᔨᕐᓂ ᐊᑯᓂᓂᕐᓂᒃᑐᑎᓂ ᐊᐅᐸᓂᒃᑐᓂᒃ Δᕿᒃᑕᓂᓂᒃ Δᕿᒃᑕᓂᑕᐅᓯᐅᑎᒪᔨᑦ 1.3 >ᓴᓂᒃᑲ ᐊᒪᒪ ᓄᐊᑕᐅᓯᒪᔨᑦ ⊃ᐹᓯᐊᐹᑎᕐᓴᓂᓂ Δᑲᔨᕐᓯᓂᒃᑐᓂ ᖃᒃᓄΔᓪᓚᕆᐊᕐᓴᖅᓚᓂ ᓂᕆᐅᓇᖅᑕᑐᓂ ᐊᑐᕐᑕᐅᕐᑲᑎᑕᕐᓂᒃᑐᓂᒃ. Ⅰᓪᓇᐅᔨᕐᓂ, Δᑲᔨᕐᓯᓂᕐᑕᐅᔨᑦ Δᕿᒃᑕᓪᓚᕆᓂᒃ ᐱᑕᕆᐹᓪᓂᕐᓯᔪᓪᓕᐅᕐᓂᓪᓕᑦ ᐊᒪᒪ ᓇᐅᕐᑎᕐᓯᓂᓪᓕᑦ ᐊᑐᕐᑕᐅᕐᑲᑎᑕᕐᓂᒃᑐᓂᒃ. Ⅰᓪᓇᐅᔨᕐᓂ, Δᑲᔨᕐᓯᓂᕐᑕᐅᔨᑦ Δᕿᒃᑕᓪᓚᕆᓂᒃ ᐱᑕᕆᐹᓪᓂᕐᓯᔪᓪᓕᑦ ᐊᑐᕐᑕᐅᕐᑲᑎᑕᕐᓂᒃᑐᓂᒃ Δ⊃ᐅᒪᔨᑦ ᐊᑐᕐᑕᐅᕐᑲᑎᑕᕐᓂᒃᑐᓂᒃ

ᐃᖃᓗᓕᕆᔨᖏᑎᒋᔭᐅᓂᒃᑯᓐᓂᒃ ᐱᕈᓯᕐᓴᖅᑐᓂᒃ ᐊᐅᕐᓴᖅᑐᓂᒃ ᐃᖃᓗᓐᓂᑦ. ᒪᕐᕉᒃ ᐅᑦᑐᐃᑦ 17 ᒥᓕᒃᑕᓂᒃ ᐊᒻᒪ 15 ᒥᓕᒃᑕᓂᒃ ᐊᑐᓕᐅᖅᑐᑦ, ᑕ�posᖏᑎᒋᔭᐅᑎᓗᒍ ᐊᑐᖅᑐᑐᖏᕐᒥᑦ 22 ᒥᓕᒃᑕᑦᑕ ᐅᑦᑐᐃᑦ ᐊᑐᖅᑕᐅᓴᓯᖅ ᐃᖃᓗᓯᓚᓕᓴᓂᓪᓗᓂᑦ. ᑕᵒᓇ ᐱᓕᓴᐊᕐᓴᖅ ᑲᓇᓯᑎᑕᐅᓕᐅᖅᑐᑦ ᑕᐃᑲᓂ ᑭᖑᕗᑦᓯᓚᐅᖅᑐᑦ ᐃᓕᓴᕐᔪᐊᖅᑐᑦ. ᖃᐅᔨᓴᐅᙱᖑᖅᑐᑦ ᓇᓗᓇᐃᖅᓯᓕᐅᖅᑐᑦ ᒥᑭᓕᑎᐊᖅᑕᐅᓂᖓ ᐃᓕᓴᕐᓯᓚᓐᓂᒃ ᐊᒥᓯᖅᑎᓂᒃ 4 ᐊᒻᒪ 5. ᖃᐅᔨᓴᐅᙱᖑᖅᑐᑦ ᓇᓗᓇᐃᖅᓯᓕᐅᖅᑐᑦ ᒥᑭᓕᑎᐊᖅᑕᐅᓂᖓ ᐃᓕᓴᕐᓯᓚᓐᓂᒃ ᐊᒥᓯᖅᑎᓂᒃ ᐊᐅᕐᓴᖅᑐᑦ ᐃᖃᓗᓐᓂᑦ ᐃᖃᓗᓕᕆᔨᖏᑎᒋᔭᐅᑎᖓ 28.37 ᐳᓴᵒᒥᑦ 17 ᒥᓕᒃᑕᑦ ᐅᑦᑐᐃᓐᓂᒃ ᐊᒻᒪ 18.69 ᐳᓴᵒᒥᑦ 15 ᒥᓕᒃᑕᑦ ᐅᑦᑐᐃᓐᓂᒃ.

2022-ᒥᑦ, ᑕᕆᐅᖅᑎᑦ ᐱᓕᕆᓂᖏᓪᓗ ᑲᔪᓯᒍᓕᓴᖅ ᖃᐅᔨᓴᖅᑎᓂᒃ ᐊᑐᖅᓗᑎᒃ ᖃᐅᔨᓴᐅᙱᖑᖅᑐᑦ ᐅᓂᐊᖅᑕᐅᓯᑦ ᐊᑲᖅᑭᑦᓴᖅᑕᐅᓗᑎᒃ ᐃᒪᓕᒃᖅᑎᑦᓗᓂ ᐅᓂᐊᕐᓯᓯᖅ ᐊᐅᕐᓴᖅᑐᑦ ᐃᖃᓗᓐᓂᑦ ᐃᖃᓗᐃᑦ ᐃᖃᓗᓕᕆᔨᖏᑎᒋᔭᐅᓂᒃᓂᓂᒃ, ᐊᑐᖅᑕᐅᓕᕐᔪᐊᓯᖅ ᑕᵒᓇ ᐊᓯᕐᓂᒃᓂᓂ ᑭᓯᐅᖅᑕᕐᓯᓚᐅᖅᑐᑦ ᐱᖓᓱᓕᕆᓂᖅᑐᑦ ᐃᓕᓴᕐᓂᒃᑯᑦ ᐱᓕᕆᓂᒃᑯᑦᓗᓂ ᐊᑐᖅᑕᐅᓕᕐᔪᐊᓯᖅ ᐊᐅᕐᓴᖅᑐᑦ ᐃᓕᓴᕐᓯᓚᓐᓂᒃ ᐊᐅᕐᓴᖅᑐᑦ ᐃᓕᓴᕐᓯᓚᓐᓂᒃ

ᐃᓱᒪᒋᔭᐅᔪᓂᒃ ᑭᖓᓴᐸᕆᓱᐊᕐᓂᕐᒧᑦ.

ᑎᑎᕐᕿᑐᖅ: ᐃᕐᒃᓗᓪᓚᓂᕐᒧᑦ ᐊᐅᓪᓚᕆᓂᕐᒥᓪ, ᐃᒪᕐᒥᐅᑕᓪᓚᓴᒃᑯᑦ ᑲᓇᑕᒥ

ᐅᑦᓗᖓ: ᒪᐃ 6, 2022

<u>ᐃᓚᒋᑕᖏᑦ</u>

ᐃᓚᒋᑕᖓ 1 – ᓄᓇᖕᖓᐊᖅ ᐃᖅᒃᖓᑐᓂ ᐃᕐᒃᓗᐟᓂ ᐊᓯᒪ ᑭᖓᓴᐸᓂ ᐊᐅᓪᓚᕆᓂᕐᒧᑦ ᐃᓂᒋᔭᐅᔪᑦ ᐊᕐᓪᖏᑎᒃ ᑲᓇᑕᒥ

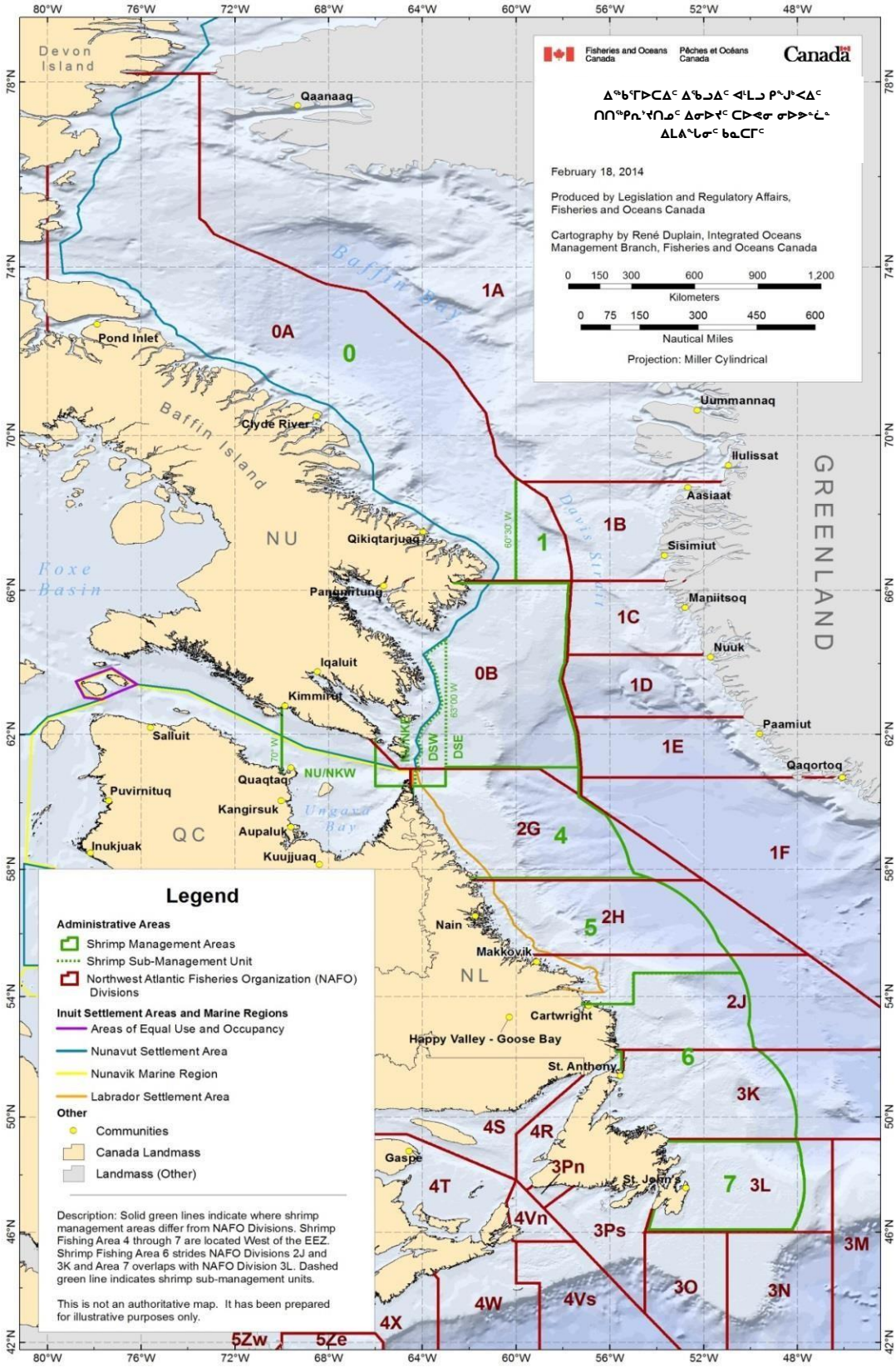
ᐃᓚᒋᑕᖓ 2 – ᒪᓪᓕᐊᓪᓕᑦ ᓪᐃᔨᖏᓪᒧᑦ ᐋᖅᑭᒋᐊᖅᑕᐅᔪᓄᑦ

ᐃᓚᒋᑕᖓ 3 – ᑎᓯᐱᓗ 2021-ᒥᑦ ᕿᑐᐊᓗ 2022-ᒧᑦ ᐊᐅᓴᖅᑐᑦ ᐃᕐᒃᓗᐃᑦ ᐃᕐᒃᓗᓕᒃᑐᕆᐅᑎᔪᓄᑦ ᐃᒧᓯᒪᔪᖅ ᐅᓂᒃᑲᓪᓕᐊᖅ

ᐃᓚᒋᑕᖓ 4 – ᓇᐃᓭᖅᓯᒪᔪᖅ: ᐃᕐᒃᓗᑦᑎᐊᑦ ᖃᒃᓄᐃᓕᓪᖏᓂᖓ ᐊᐅᓴᖅᑐᓄᑦ ᐃᕐᒃᓗᓐᓄᑦ ᑕᐃᒃᓂ ᐊᖏᓪᓗᑎᒃ ᐃᕐᒃᓗᓪᓚᓂᕐᒧᑦ ᑲᑐᔾᔨᖅᑎᑎᑦ ᐊᓚᐱᑐᖅᓯᒪᓂᖓ 2 + ᐊᕕᓯᓯᒪᔪᖅ 3K (ᖃᒃᐅᔾᔨᖅᓯᓪᓚᓂᕐᒧᑦ ᐅᖅᐅᓴᔪᖅᑏᑦ ᐅᓂᒃᑲᓪᓕᐊᖏᓪᑕ 2020/021)

ᐃᓚᒋᑕᖓ 5 – ᐃᓕᓴᐃᑐᖅ ᓴᖅᑭᑕᐅᔪᖅ: ᐃᕐᒃᓗᑦᑎᐊᑦ ᖃᒃᓄᐃᓕᓪᖏᓂᖓ ᐊᐅᓴᖅᑐᓄᑦ ᐃᕐᒃᓗᓐᓄᑦ ᑕᐃᒃᓂ ᐊᖏᓪᓗᑎᒃ ᐃᕐᒃᓗᓪᓚᓂᕐᒧᑦ ᑲᑐᔾᔨᖅᑎᑎᑦ ᐊᓚᐱᑐᖅᓯᒪᓂᖓ 2 + ᐊᕕᓯᓯᒪᔪᖅ 3K (ᖃᒃᐅᔾᔨᖅᓯᓪᓚᓂᕐᒧᑦ ᐅᖅᐅᓴᔪᖅᑏᑦ ᐅᓂᒃᑲᓪᓕᐊᖏᓪᑕ 2020/021)

ᐃᓚᒋᑕᖓ 6 – ᐃᓕᓴᐃᑐᖅ ᓴᖅᑭᑕᐅᔪᖅ: ᓄᐊᑕᐅᓯᒪᔪᑐᖅᓯᒪᔪᖅ ᖃᒃᐅᔾᔨᖅᓯᓪᓕᑦ ᐊᐅᓪᓚᖅᑐᓄᑦ ᐃᖅᒃᓗᓐᓂᖅ ᐃᖅᒃᓗᑦᑎᐊᑦᐅᔪᖅᑐᓄᑦ ᐅᐱᐅᖅᑕᖅᑐᒥᑦ ᑭᖓᓴᐸᓂᕆᓯᐊᓂᐅᔪᒥᑦ


Fisheries and Oceans Canada
Pêches et Océans Canada
Canada
ᐃᖃᓗᐊᕆᑦ ᐃᓄᒃᑎᑦ ᐊᑲᓇᑕᑦ ᑭᒪᔭᖅᑐᑦ
ᑎᑎᖅᑭᓐᓄᑦ ᐃᓕᓴᕐᓂᑦ ᑕᑯᔪᓂ ᓂᐅᑉᐳᓪᓗᒍ
ᐃᒪᐃᓕᒃᑐᑦ ᑲᓇᑕᒥᑦ
February 18, 2014
Produced by Legislation and Regulatory Affairs, Fisheries and Oceans Canada
Cartography by René Duplain, Integrated Oceans Management Branch, Fisheries and Oceans Canada
0 150 300 600 900 1,200
Kilometers
0 75 150 300 450 600
Nautical Miles
Projection: Miller Cylindrical
Devon Island
Qaanaaq
Pond Inlet
Baffin Bay
Baffin Island
Clyde River
NU
Qikiqtarjuaq
Foxe Basin
Pangnirtung
Iqaluit
Kimmirut
Salluit
Quaqtaq
Puvirnituq
Kangirsuk
Aupaluk
Inukjuak
Kuujjuaq
QC
Ungava Bay
Uummannaq
Ilulissat
Aasiaat
Sisimiut
Maniitsoq
Nuuk
Paamiut
Qaqortoq
GREENLAND
Davis Strait
Nain
Makkovik
NL
Cartwright
Happy Valley - Goose Bay
St. Anthony
Gaspé
St. John's
0A
0
1A
1
1B
1C
1D
1E
1F
0B
2G
4
2H
5
2J
6
3K
4S
4R
3Pn
4T
4Vn
3Ps
7
3L
3M
4W
4Vs
3O
3N
4X
5Zw
5Ze
NU/NKW
DSW
DSE
60° 30' W
65° 00' W
70° W
Legend
Administrative Areas
Shrimp Management Areas
Shrimp Sub-Management Unit
Northwest Atlantic Fisheries Organization (NAFO) Divisions
Inuit Settlement Areas and Marine Regions
Areas of Equal Use and Occupancy
Nunavut Settlement Area
Nunavik Marine Region
Labrador Settlement Area
Other
Communities
Canada Landmass
Landmass (Other)
Description: Solid green lines indicate where shrimp management areas differ from NAFO Divisions. Shrimp Fishing Area 4 through 7 are located West of the EEZ. Shrimp Fishing Area 6 strides NAFO Divisions 2J and 3K and Area 7 overlaps with NAFO Division 3L. Dashed green line indicates shrimp sub-management units.
This is not an authoritative map. It has been prepared for illustrative purposes only.
80°W
76°W
72°W
68°W
64°W
60°W
56°W
52°W
48°W
78°N
74°N
70°N
66°N
62°N
58°N
54°N
50°N
46°N
42°N

ᐃᒪᐃᓐᒥᑦ ᑭᓄᓚᕐᓂᓄᑦ ᒪᓕᑦᑕᐅᔨᓴᕆᖅᑎᑕᐅᔪᑦ ᓴᐃᔨᓯᓐᓄᑦ

5.2. ᐃᒪᐃᐸᑦ ᑲᑎᓗᑦᑕᖏᓕᑦ ᐃᖅᓗᑦᑕᐅᔪᑦ ᐊᑕᓐᓂᑎᓗᑦ ᐃᖅᑲᒥᐅᑕᑦ ᐊᑦᐱᑦᓴᑦᑐᑎᑦ ᑭᑭᑦᑕᐅᔪᑦ ᐅᓐᓴᕐᓂᐸᑦ 2.5%-ᒥᑦ ᐃᑦᑕᓇᓐᓂᒋᑎᔪᑦ ᐱᓕᐅᔪᑦ ᑭᖑᓂᐸᓐᑕᐅᔪᑦ ᐅᐊᓂᓕᓐᓂᑦ 100 ᑭᓗᔪᑦ, ᓴᐃᓴᓂᓯᒥᑦ ᑎᔪᒥᐊᖅᑎ ᐅᐊᓂᓕᓐᓂᑦ ᐅᒥᐊᕐᓴᐊᒥᑦ ᐊᐅᓪᓚᑎᓕᐊᓕᓐᓄᑦ ᐃᖅᑲᓱᒪᓕᖓᓄᑦ ᐃᓐᓇᑦ ᒥᑭᓕᖓᓄᑦ ᐃᓕᓴᕐᓂᖅᑐᑦ (10) ᓚᐃᓕᓂᑦ ᑕᐃᑲᖓᑦ ᐃᓂᒋᓴᖅᑕᖏᓂᑦ ᑲᑎᓐᓄᑦᐱᑦᓴᖅᑕᖏᓂᑦ ᐱᑦᑕᐃᓕᓂᕐᓂᑦ ᐃᖅᑲᓕᑕᖓᓂᑦ ᑕᑯᓂᓇᖅᑐᑦ ᐃᖅᑲᖏᑦᑕᐅᓂᑦ. ᓄᑲᓂᑦᐸᑕ ᐊᓚᓗᐃ ᐊᑕᓐᓂᑎᓗᑦ ᓄᓐᓂᑦ ᑭᖓᓂᐊᒍᑦ, ᑭᖓᔪᓕᖅ ᖃᑎᑕᓐᓂᑦ ᐅᓄᑦᓂᖅᑲᑦᐸᑕ 2.5% ᐃᑦᑕᓇᓂᖓᓄᓂᑦ ᐃᖅᑲᑦᑕᐅᔨᑦ ᑭᖓᔪᐸᐃᑦ ᐅᐊᓂᓕᓐᓂᑦ 100 ᑭᓗᔪᑦ, ᐅᒥᐊᕐᓴᐊᖅ ᑲᔪᓯᓇᐊᓕᓐᓄᑦ ᐃᓐᓇᕐᓂᓗᓄᑦ 10 ᓚᐃᓕᓂᑦ ᐃᓂᒋᓴᖅᑕᖏᓂᑦ ᑲᑎᓐᓄᑦᐱᑦᓴᖅᑕᖏᓂᑦ ᐱᓐᓂᑦᑐᑎᓄᖅᑐᑦ ᐃᖅᑲᓱᒪᓕᖓᓄᑦ ᐃᓐᓇᑦ ᒥᑭᓕᖓᓄᑦ ᐊᐅᓪᓚᑎᓕᐊᓕᓐᓄᑦ ᐱᓐᓂᑦᑐᑎᓄᖅᑐᑦ ᐱᓐᓂᕐᓂᑎᓗ

(ᐅᖃᐅᓯᕆᒥᓂᖅ ᐊᓕᓚᕆᒪ) ᓯᕗᓪᔨᐃᑐᒥᓂᖅ ᐱᕆᑌᓚᓯᐊᖏᓪᓗᒥᓂᖅ ᑲᓕᑕᐃᓂᖏᑦ ᐃᖃᓗᕆᔨᓂᖅ
ᐱᑕᖃᓗᖏᑐᐃᑐᕆᐊᖏᑦᐸᑕ , ᓇᓂᓐᓂᐃᓂᖏᓪᓗᒥᓂᖅ ᓇᓗᓴᖏᔪᓂᓂ (ᓄᓇᓖᐃᐊᑎᒍᑦ ᓇᓂᔨᓯᐊᓂᓚᓗᖅ ᑕᖏᔪᓗᒍ)
ᐃᖃᓗᕆᔨᓂᖅ ᐱᐃᐃᓂᖏᓪᓗᒥᓂᖅ ᑭᓗᓂᓗᒍ ᐊᑐᖏᔪᓂᓂ ᐅᖃᓖᖏᓪᓗᒥᓂᖅ ᐊᑐᖏᖏᑦ ᐅᑭᐅᖃᖅᑐᑦ ᐊᑐᖏᖏᑦ
ᐊᑐᖏᖏᑦ ᐱᐃᓂᖅᓯᐅᑎᓂᖅ ᐊᑐᖏᖏᑦ ᐊᑐᖏᖏᑦ ᐊᑐᖏᖏᑦ ᐊᑐᖏᖏᑦ ᐊᑐᖏᖏᑦ ᐊᑐᖏᖏᑦ ᐊᑐᖏᖏᑦ ᐊᑐᖏᖏᑦ
ᐊᑐᖏᖏᑦ ᐊᑐᖏᖏᑦ

ᓇᐃᓐᓇᖅᓯᒪᔪᖅ: ᐱᑕᖃᖅᓂᕆᓐᓄᑦ ᖃᓄᐃᑦᓴᓂᐅᕐᔪᑦ ᐃᖃᓗᕆᓭ ᑕᐃᒃᓂ ᐅᕐᕕᖏᓐᓄᑦ ᐱᓇᓐᓇᒥᑦ ᓂᐅᕗᓂᑦ ᐊᑐᓂᔪᒃ (NAFO) ᐃᓂᑦ 2 + ᐊᐃᒃᑐᖅᓯᒪᔪᑦ 3K (ᑭᒃᑕᓯᓂᐊᖅᓯᒪᔪᑦ ᐅᖃᐅᔾᔨᑎᐊᕐᑏᑦ ᐅᓂᒃᖄᓐᓂᑦ 2020/02)

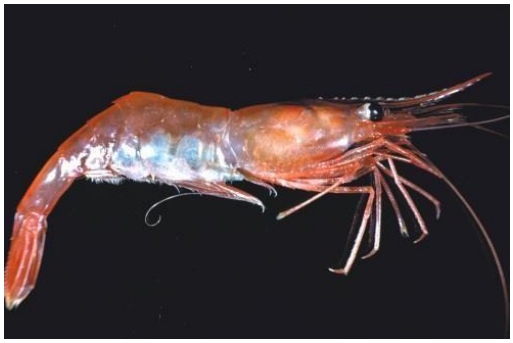
- ᐱᑕᖃᖅᑎᐃᐅᔪᑦ ᐅᓄᖅᓯᐊᖅᓯᒪᔪᑦ ᐊᓐᕆᔨᒪᓇᓐᒥᒃ ᑕᐃᐅᖓᓄᓂᑦ 2003-ᒥᑦ 2010-ᒧᑦ. ᐱᑕᖃᖅᑎᐃᐅᔪᑦ ᐱᓕᓇᑎᓪᓗᑎᑦ 2010-2015 ᒥᖅᑎᐅᖅᑕᐅᓯᒪᓕᐅᖅᑐᑦ ᓇᐸᐊᖓᓂᑦ ᑲᑕᖅᑲᖅᑎᓇᓕᑦ (1978–1990) ᖃᓄᖕᓂᓯᓕᖅᓂᑦ.
- ᐃᖅᑲᓇᐃᔨᓕᖅᑎᑎᓂᖅ (ᐱᑕᖃᖅᓂᕆᓐᓄᑦ ᐃᖃᓗᕆᓭ ᐊᐅᓂᖃᖅᑐᑦ < 15 ᓴᓇᑎᒋᑕᓂᖅ) ᑕᐃᒃᖄᓐᓂᑦ 2000 ᐅᓐᓚᑉᓂᓕᐅᖅᑐᑦ ᐊᑯᓂᐅᐸᑯᑦ ᑕᑯᐅᑭᓐᓄᓐᓂᑦ ᖃᖅᖢᒧᑯᓂᖓᓐ–ᐊᖅᑭᑯᓯᖅᑕᐅᓯᒪᔪᑦ ᖃᐅᔨᓕᐅᖅᑐᑦ ᑕᐃᒃᖄᓐᓂᑦ 2014-ᒥᑦ.
- ᐃᖃᓗᐃᑦ ᑐᖃᖅᑕᖃᖅᓂᓂᑦ ᐊᑐᖅᑕᐅᔨᓇᖅᓂᓂᑦ ᐊᐸᓯᑦᑐᖅᓴᐊᖅᓯᒪᔪᑦ (< 1%) ᑕᐃᒃᖄᓐᓂᑦ 2006. ᐃᖃᓗᓕᕆᓂᖅ ᓯᓕ ᐊᑐᖅᑕᐅᔨᓇᓚᕆᑎᑕᐅᓕᐅᒃᑐᖅ, ᐱᔨᐅᔨᒪᓚᑦᑐᑐᑦ (ᐃᓕᐅᓪᓗᑎᒃ ᐃᑎᑕᐅᔨᑦ) ᑕᐃᒃᖄᓐᓂᑦ 2006 ᒥᖅᑎᐅᖅᑕᐅᓯᒪᔪᑦ 500 ᐃᒃᑕᓇᖅᑐᑦ.
- ᒃᑎᒪᓐᓂᑦ ᐊᔨᓕᐅᖅᑐᑦ ᐅᕝᕙᓚᓪᓐᓂᑦ ᑕᐃᒪᐃᓪᓂᕿᐃᓕᓗᑎᒃ ᑕᐃᒪᐃᖓᓚᓪᓂᕿᐃᓕᓗᑎᒃ ᐱᑕᖃᖅᓂᖓᓂᒃ ᐅᖃᐅᓯᐅᔨᓄᑦ (ᐃᖃᓗᓕᕆᓂᕐᓂᑦ ᐊᒻᒪᓗ ᐃᒪᒋᐅᑕᕆᓕᕆᓂᕐᓂᑦ [DFO] 2012) ᐱᔨᐅᔨᑦ ᐃᖃᓗᓕᓯᓂᐅᐊᖅᑕᐅᔨᑦ ᐱᓵᔨᑕᐅᓪᓗᑎᒃ ᓇᓚᓇᐃᖅᑎᑯᓯᓚᑦ ᐃᓯᒪᓚᑕᐅᔨᑦ ᑕᒪᒃᑯᐊ ᐱᖓᐃᓕᐅᔨᑦ ᑎᑎᖅᑲᑯᑎᖅᑐᓂᒃ ᐊᒻᒪᓗ ᐱᐊᓂᓯᒪᓕᖅᑐᑦ ᑎᑎᖅᑲᑯᑦᑐᖅᓴᐃᓚᖅᑕᑦ ᑕᐃᒃᖄᓐᓂᑦ ᐊᖅᑭᑲᖅᑕᐅᓯᒪᔪᑦ ᐊᖅᑭᒃᑯᓕᕆᓂᖅᑕᐅᔨᔪᓂᑦ ᐊᖅᑭᒃᑯᓯᓂᑕᐅᓂᖅᑐᑦ.
- ᐊᓯᖏᑦ ᐊᑐᖅᑕᐅᓴᐅᓚᓇᖅᑐᑦ ᑕᒪᒃᑯᓚᓐ ᐱᔨᐅᔨᓚᓇᖅᑐᑦ ᐊᖏᓕᓪᓂ ᐱᑕᖃᖅᑎᐃᐅᓂᖅᑲᐅᔾᔨᑐᓂᒃ (LRP) ᐃᓯᒪᒋᔨᐅᓯᒪᔪᑦ. ᑭᓯᐊᓂᓕ, ᐃᓯᒪᒋᔭᓗᑎᑦ ᐊᔨᔾᓚᕐᑏᑦ ᐊᑐᓕᖅᑎᑦᑐᖅᓴᐅᓂᑦ ᐱᔨᐅᔨᓚᓇᖅᑐᑦ ᐊᖏᓕᓪᓂ ᐱᑕᖃᖅᑎᐃᐅᓂᖅᑲᐅᔾᔨᑐᓂᒃ (LRP) ᐊᖅᑭᒃᑯᑕᐅᓯᒪᔪᑦ ᑕᒪᒃᑯᓚᓐ ᐃᖃᓗᕆᓭᑐᖅᓴᐃᓚᖅᑕᑦ, ᐊᔨᔨᑎᖓᓂᑦ ᐊᐲᖅᑕᐅᓯᒪᔪᑦ, ᐊᒻᒪᓗ ᐊᓯᖏᑦ ᑎᑎᖅᑲᑦ ᑭᓱᓕᓚᖅᑕᐅᓯᒪᔪᑦ, ᐊᓯᖏᑦ ᑕᒪᒃᑯᓚᓐ ᐱᔨᐅᔨᓚᓇᖅᑐᑦ ᐊᖏᓕᓪᓂ ᐱᑕᖃᖅᑎᐃᐅᓂᖅᑲᐅᔾᔨᑐᓂᒃ (LRP) ᐊᑐᖅᑕᐅᓴᐅᓚᓇᖅᑐᑦ ᐊᖏᓕᖅᑕᐅᓕᐅᖅᖢᑦᑐᑦ.
- ᐱᑕᖃᖅᖢᑦᑐᖅ ᐱᔨᐅᔨᓚᓇᖅᑐᑦ ᐊᖏᓕᓪᓂ ᐱᑕᖃᖅᑎᐃᐅᓂᖅᑲᐅᔾᔨᑐᓄᓂᑦ (LRP) ᖃᐅᔨᔪᖅᑕᐅᓯᒪᔪᓂᒃ (ᐃᓕᐅᓪᓗᑎᒃ ᐃᖃᓗᕆᓭᑐᖅᓴᐃᓚᖅᑕᑦ, ᐊᒻᒪᓗ ᐃᓕᐅᒋᐅᑕᕆᓕᕆᓂᕐᓂᑦ [DFO] 2012) ᐃᓯᒪᒋᔨᐅᓯᒪᔪᑦ ᐊᑐᖅᑕᐅᔨᓚᓇᖅᑐᑦ ᐃᓕᐅᒋᐅᑕᕆᓕᕆᓂᕐᓂᑦ ᐊᑐᖅᑕᐅᔨᑦ ᐃᓚᖓᑕᐅᓯᒪᔪᑦ.
- ᐱᑕᖃᖅᖢᑦᑐᖅᓴᐅᓚᓇᖅᑐᑦ ᐊᖏᓕᓪᓂ ᐱᑕᖃᖅᑎᐃᐅᓂᖅᑲᐅᔾᔨᑐᓄᓂᑦ (LRP), ᐊᔨᓇᖅᑐᖅ ᓇᓚᓇᐃᔨᓕᖅᑎᑎᓂᖅ ᓇᓕᐊᖅᑲᖅᑎᓂᒃ ᐊᑐᖅᑕᐅᔨᓚᓇᖅᑐᑦ (PA) ᐊᖅᑭᒃᑯᓯᓂᐅᐊᖅᑕᐅᓯᒪᔪᑦ ᑕᒪᒃᑯᓚᓐ ᐃᓕᐅᓗᓂ. ᐃᓕᓴᖅᑐᖅᑕᐅᔨᔪᖅ ᐊᖅᑭᒃᑯᑕᐅᓯᒪᔪᑦ ᑕᒪᒃᑯᓚᓐ ᐅᓄᖅᓯᓚᑦᑐᒃ ᐊᑐᖅᑕᐅᓯᒪᔪᑦ ᐅᓄᖅᓯᓚᑦᑐᒃ ᑲᒪᔨᔪᑦ ᐊᑐᖅᑕᐅᓂᒃ ᑕᑯᓂᖅᑕᐅᓂᒃ ᐅᓄᖅᓯᐃᓚᔨᓇᓂᑦ ᐃᖃᓗᕆᓭᑐᖅᓴᐃᓚᖅᑕᑦ.

ᑐᓂᔨᐅᔪᑦ ᐅᑯᓇᖅᓯᒪᔪᑦ
ᓇᓇᕗᒻᒥ ᐅᒪᔪᓕᕆᓂᖅᓴᖅᑕᐅᓯᑦ ᑲᑎᒪᔨᖅᑎᑦ

ᐅᒧᖅᓯᒪ

ᑐᑭᓯᐅᕐᐳᖅᑲᓂᕐᓂᖓᑦ: ᐃᓕᒪᓕᐅᔪᓂᖓᑦ: ᐊᑐᓕᕐᔪᐊᔨᐅᔪᑦ: X

ᐱᔨᔪᑎᖅᓴ: ᑲᑎᕐᑐᑎᑦ ᐱᑎᑕᐅᔨᓐᓇᖅᑐᓄᖅ ᐱᔨᐅᓂᖅᑎᓐᓄᖅ ᕿᑎᙵᓕᓐᓂᖅᑎᑦ ᐅᑭᐅᑕᖅᑐᒥ ᑭᖑᕗᑦᐸᐃᑦ (*Pandalus borealis*) 2022ᒥᑦ ᑭᖑᕗᑦᓂᐊᕐᓇᒥᑦ ᑭᖑᕗᑦᓂᐊᕐᕕᖏᖅ 0



ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᕗᑦᐸᐃᑦ (*Pandalus borealis*)

ᖃᓄᐃᑦᑕᐅᖅᓯᐅᓕᕆᔨᑦ

ᐃᖅᑲᓗᑦᓱᓂᐅᔨᑦ ᐅᑭᐅᑕᖅᑐᒥ ᑭᖑᕗᑦᓂᕐ (Pandalus borealis) ᐱᑕᖅᑲᖅᑐᖅ ᑭᖑᕗᑦᓂᐊᕐᕕᖏᖅ (SFA) 0, ᓴᓐᓂᔪᑎᐅᕗᑦ ᐃᒪᓐᓄᓂ. ᑭᖑᕗᑦᓂᐊᕐᕕᖏᖅ (SFA) 0 ᐊᑐᐃᓂᖅᑲᖅᑐᖅ ᐅᕐᓂᒐᓐ ᐊᓕᒪ ᐃᑕᓐᓇ ᐃᓗᐊᓂᑐᓂ ᓇᓇᕐᑎ ᓇᔨᖅᑕᓐᓇᓂ (NSA) (ᑕᑯᔪᖅ ᓇᓇᖓᐊᖅ ᐃᑕᔪᑕᓐᓇ 1).

Ċᓚᓇ ᐃᖅᑲᓗᑦᓱᓂᐅᔨᖅᓴᖅ ᓴᓚᑭᖅᑕᑎᑎᒍᑐᔪᒍ ᐊᑐᐃᓂᖅᑲᖅᑐᖅᑐᔪᑦ ᓇᓇᕐᑎ ᓇᔨᖅᑕᓐᓇᓂ, ᐊᑐᐃᓂᖅᑲᖅᑐᖅᑎᑦ ᑲᑎᕐᑐᑎᑦ ᑲᑎᕐᑐᑎᑦ ᐱᔨᐅᓂᖅᑎᓐᓄᖅ (TAC) ᐅᑯᓇᖅᓯᒪ Pandalus borealis ᐅᕐᓂᓂ ᑭᖑᕗᑦᓂᐊᕐᕕᖏᖅ (SFA) 0 ᑐᓴᕐᖁᖑᔨᖅᓴᖅ ᐅᑯᓇᖅᓯᒪ ᓇᓇᕐᑎᓕᒻᒥ ᐅᓕᔨᓂᓚᓇᔪᐊᑦ ᑲᑎᕐᑐᑎᑦ (NWMB).

ᐃᖅᑲᓗᑦᓱᓂᐅᔨᖅᓴᖅ ᑭᖑᕗᑦᓂᐊᕐᕕᖏᐅᔨᖅᓴᖅ (SFA) 0 ᐊᐅᓪᓗᓂᖅᑲᖅᑐᑦ ᒪᓪᓂᓂᖅᑲᖅᑐᖅᑎᑎᑦ ᐅᑦᓗᖅᓴᐅᑎᓇᑦ ᐊᖅᖁᔭᒪᒧᑦ (ᓴᓐᓇᐊᓚᓗ 1 – ᑎᓴᐱᓚ31). ᑭᖑᕗᑦᓂᐊᕐᓂᒧᑦ ᐱᑎᓚᓴᐅᔨᑦ, ᐱᑕᖅᑲᕐᓂ, ᓴᓐᑭᕐᓴᖅᑐᑦ ᓴᕐᐅᓂᐊᔭᓇᑦᑐᖅ ᔨᑉᓂ ᓴᓂᓂᓚᓇᓐ ᐱᔨᐅᑎᑎᓐᓂᒪ.

ᑲᑎᕐᑐᑎᑦ ᐱᑎᑕᐅᔨᓐᓇᖅᑐᓄᖅ ᐱᔨᐅᓂᖅᑎᓐᓄᖅ ᐅᕐᓂᓂ ᑭᖑᕗᑦᓂᐊᕐᕕᖏᐅᔨᓕᒥᑦ (SFA) 0 ᐅᓇᐅᓴᒪᔨᓴᖅ 500 ᑕᓐᓴ 1996-ᒥᓂᑦ ᑭᓴᐊᓂ 2020, ᒪᓐᓇᐅᔨᒪᑦ ᑲᑎᕐᑐᑎᑦ ᐱᑎᑕᐅᔨᓐᓇᖅᑐᖅᑎᑎᑦ ᐱᔨᐅᓂᖅᑎᓐᓄᖅ ᐅᓇᐅᔭᓗᓂ 250 ᑕᓐᓴ ᐊᑦᑭᑦᑕᐅᓕᐅᕐᕕᖏᖅᑐᖅ ᑭᖑᔪᓕᖅᐸᒥ ᑲᑎᕐᑐᑎᑦ ᐱᑎᑕᐅᔨᓐᓇᖅᑐᖅᑎᑎᑦ ᐱᔨᐅᓂᖅᑎᓐᓄᖅ ᐃᓕᒪᓕᐅᕐᕕᖏᑕᐅᓇᓂ. ᑭᖑᕗᑦᑎᑕᐅᔨᓂᑦ ᑎᑎᕋᖅᑕᐅᓕᕆᔨᖅᑕᕐᕕᖏᓐᓂᑦᑐᖅ ᐱᑎᐊᔪᒪᓂᑦ ᑕᓚᓇᖅᑲᖅᑐᖅᑎᑎᑦ. ᓇᓇᕗᒻᒥᑦ ᐱᔨᐅᔨᓐᓇᖅᑐᑦ ᑭᖑᕗᑦᓂᐊᕐᕕᖏᓂᒥ (SFA) 0 ᐃᖅᑲᓗᑦᓱᓂᐅᔨᑦ ᐅᓄᔪᓚᐅᔨᖅᓴᖅ ᖃᑭᐅᑦᑕᓚᓇᖅ ᑯᐊᐳᓪᓚᖅᓯᑦ ᐃᒪᐃᓐᓇᖅᑐᓂ ᑕᒪᓐᓇᐅᔭᓂᖓᓂ, ᐊᒥᓱᓂ 50% ᓇᓕᒥᓂᖅᓂᒃᑯᑦ ᐃᒪᐃᓐᓇᖅᑎᒥ ᐅᓴᖅ ᕿᑕᕐᓂᓚᓂ.

Δ>ᑭᒥ 2021, ᓄᓇᕗᒻᒥ ᐅᒪᔨᓕᓗᐊᔨᔪᐊᑦ ᑲᑎᒪᔨᖏᑦ ᐊᑐᕐᑯᔨᓕᕆᔨᖅᑐᑦ ᒥᓂᑦᒪᒃ ᐊᓯᔪᔨᔪᑐᑦ ᖃᐅᔨᐃᓐᓇᕐᓂᕐᖏᑦ ᓕᐃᓴᓐᓯᒪ (CoL) ᐱᔨᓇᕆᑎᑕᐅᓪᓗᒋᑦ ᐃᓕᓴᕐᕕᖃᖅᑕᐅᔨᓄᑦ ᑎᒍᒥᐊᖅᑎᓄᑦ ᐱᔨᓇᓴᓪᓗᑎ ᑭᖑᓂᐸᐅᐊᖅᑐᖅ 0 ᐅᑭᐅᖅᑕᒥ ᑭᖑᓂᐸᐅᓂ ᐊᑭᑕᑐᐅᑎᖃᕐᓂᖅᑐᓄᑦ ᐃᖃᓗᓕᕐᓂᖅ. ᐱᔭᐸᑎᑦᓴᒍ ᑐᓴᓯᖓᔨᖅ, ᐃᖃᓗᓕᕐᓇᖅᑯᑦ ᐊᒻᒪᓕ ᑕᕐᐅᓕᕐᓇᖅᑯᑦ ᐅᖃᓕᕐᓂᖅᑐᑦ ᑕᑯᓐᓄᑕᐅᔨᔪᑦ ᓇᓕᓕᕐᓂᖅ ᑭᑭᓕᐅᕆᔨᖅᑐᑦ ᐃᓕᓴᕐᕕᖃᖅᑕᐅᔨᓄᑦ ᐃᖃᓗᓕᕐᓂᖅᑐᓂᖓᓪᓗᑦ ᐱᔨᓇᖃᖅᑎᓪᓗᒍ ᑎᑎᕋᐅᓂᖅᑐᖅ ᐅᑭᐅᖅᑕᒥ ᑭᖑᓂᐸᐅᓂ ᑭᖑᓂᐸᐅᐊᖅᑎᓕᖅᑐᑦ (SFA) 0 ᐱᔨᔪᑦᑎᓂᖅᑕᒥ. ᑐᓴᖓᓕᒫᑦᓯᒪᓕᒫᖅ ᐱᔨᓇᖃᖅᑎᓪᓗᒍ ᑭᖑᓂᐸᐅᐊᖅᑎᓕᖅᑐᑦ (SFA) 0 ᐃᑲᔪᑎᖃᖅᑐᖅ. ᑐᓴᖓ ᐃᓕᓐᓂᑕᐅᔨᔪᖅ ᓴᖅᑭᖅᑎᑕᐅᓕᐅᖅᑕᖅᑐᖅ ᐅᑭᐅᖅᑕᒥ ᑭᖑᓂᐸᐅᓂ ᐅᖃᖅᑎᖅᑕᐅᔨᔪᖅᑐᑦ ᑲᑎᒪᔨᖏᑦᑐᖅ (NSAC) ᐊᒻᒪ ᐱᕕᓴᖅᑎᖅᑎᑕᐅᓕᐅᖅᑎᕐᔪᑦ ᑐᓂᓕᓪᓗᒋᑦ ᐅᖃᐅᔨᓴᖅᑎᓂᑦ ᐱᓕᕐᓇᕕᒻᒧᑦ.

ᓄᓇᕗᒻᒥ ᐅᒪᔨᓕᓗᐊᔨᔪᐊᑦ ᑲᑎᒪᔨᖏᑦ ᐊᑐᕐᑯᔨᓕᖅᖏᑦ ᐅᖅᓯᓚᑦ 2021 ᖃᐅᔨᓕᐅᖅᑐᑦ ᐊᖑᑎᓕᕐᑎᕆᔨᓕᓂᑦ ᐱᔨᓴᓴᐅᓂᖏᑦ ᐅᖅᓯᓂ ᑭᖑᓂᐸᐅᐊᖅᑎᓕᖅᑐᑦ (SFA) 0 ᐅᑭᐅᖅᑕᒥ ᑭᖑᓂᐸᐅᓂ ᐃᖃᓗᓕᕐᓂᖅᑐᓪᓗᑦ, ᐱᖃᓗᐅᑎᓪᓗᒍ ᓇᒻᒥᐅᓂᖅᐅᔨᔪᑦ ᓄᓇᕗᒻᒥ ᐊᑭᑕᑐᐅᑎᖃᕐᓂᖅᑐᓪᓗᑦ ᐱᔨᓇᖃᖅᑎᓪᓗᒍ ᐅᑭᐅᖅᑕᒥ ᑭᖑᓂᐸᐅᓂ ᐃᖃᓗᓕᕐᓂᖅᑐᓪᓗᑦ, ᐱᖃᓗᐅᑎᓪᓗᒍ ᐅᑭᐅᖅᑕᒥ ᐃᓕᓴᕐᕕᖃᖅᑕᐅᔨᓄᑦ ᐃᓕᓴᕐᕕᖃᖅᑕᐅᓪᓗᑎᑦ (AFA), ᖃᐅᔨᓴᖅᑐᖅ ᐃᖃᓗᓕᕐᓂᖅᑐᓪᓗᑦ ᑲᑎᒪᔨᖏᑦ (BFC), ᐸᓚᓂᖅᑐᒥ ᐃᖃᓗᓕᕐᓇᖅᑯᑦ ᑎᒥᖓ (CSFL), ᐊᒻᒪ ᖃᐅᔨᓴᖅᑐᖅ ᑯᐊᐳᓇᓚᓐ (QC). ᓇᓗᓇᐃᖅᑕᐅᓕᐅᖅᑐᖅ ᐊᖑᑎᓕᕐᑎᕆᔨᓕᓂᖅᑐᖅᓂᖓ ᑕᕐᔪᒪᖓ ᐃᖃᓗᓕᕐᓂᖅᑐᐅᓪᓗᑦ ᓄᓇᕗᒻᒥᓪᓗᑦ ᓇᒻᒥᓕᕐᓂᖅᑎᓕᖅᑐᑦ ᐱᔨᓴᐳᔪᓕᐅᖅᑕᖅᑐᓂᑦ ᐅᖅᓯᓂ ᑭᖑᓂᐸᐅᓂ ᐊᑭᑕᑐᐅᑎᖃᕐᓂᖅᑐᖅ (SFA) 0 ᖃᐅᖅᖢᑎᐊᖅᑎᓂᑎᑲᖅᑐᖅ ᐱᔨᓇᓴᓪᓗᒋᑦ ᐊᒻᒪ ᐱᖃᓗᐅᑎᓪᓗᒍ ᓄᓇᕗᒻᒥᓪᓗᑦ ᐃᖃᓗᓕᕐᓂᖅᑐᓪᓗᑦ ᐱᖓᓱᒃᑐᓪᓗᑦ.

ᐱᑕᕆᐊᐅᔪᖅ ᐃᓕᒪᑎᕐᖏᖅᑐᑦ ᐊᑐᕐᑯᔨᓕᐅᔪᑦ ᑲᑎᒪᔨᓄᑦ ᖃᐅᖅᖢᑎᐊᖅᑕᐅᓪᓗᒋᑦ ᐱᔨᓇᓴᓪᓗᒋᑦ ᐅᖅᓯᓂ ᑭᖑᓂᐸᐅᐊᖅᑎᓕᖅᑐᑦ (SFA) 0 ᓕᓐ ᐱᑕᕆᔨᐅᓪᓗᒍ, ᐃᓕᓕᐅᖅᑕᐅᓕᐅᖅᑕᕐᓂᖅᑐᓂᖓᓪᓗᒋᑦ. ᑐᓴᖓᓕᒫᑦᓯᒪᓕᒫᖅ ᑐᓴᖓ, ᐊᒻᒪ ᑐᓂᔭᔭᐃᑦ ᐱᔨᓇᔪᑦ ᑎᒍᒥᐊᖅᑎᓂᐅᕐᖏᖅᑐᓂᖓᓪᓗᒋᑦ, ᐱᑕᕆᐊᐅᔪᖅ ᖃᐅᔨᓂᐅᐊᖅᑐᑦ ᐃᓕᓕᐅᖅᑕᐅᓂᕐᓕᑦ ᒥᓂᑦᒪᒃ 2022.

ᖃᐅᔨᔪᖅᑎᓂᑦ ᑐᐱᓓᕕᐊᕐᑐᑦ

ᖃᐅᔨᔪᖅᑕᐅᓂᕆᓚᔨᖅᑎᑦᑕᕐᓂᖅᓂᑦ ᖃᐅᔨᔪᖅᑕᐅᓂᖅᓂᒃᑐᑦ ᐅᑭᐅᖅᑕᒥ ᑭᖑᓂᐸᐃᑦ ᐱᑕᕆᐊᐃᖅᑭᖅᑕᕐᓂᖅᑐᑦ ᑭᖑᓂᐸᐅᐊᖅᑎᓕᖅᑐᑦ (SFA) 0 ᐱᑕᖃᓕᐅᖅᓯᒪᔨᖏᑦᑐᓂᖓᓪᓗᒋᑦ ᐱᑕᕆᓂᖅᑲᖅᑕᒥ ᐊᐃᖃᓕᑕᕆᓂᖅᑎᑦ ᓇᒥᖅᑎᓂᖅ. ᑭᖑᓂᐸᐅᐊᖅᑎᓕᖅᑐᑦ (SFA) 0 ᑭᖑᓪᓕᖅᐸᒥ ᖃᐅᔨᔪᖅᑕᐅᓕᐅᖅᑕᕐᓂᖅᑐᖅ 2010 ᑐᓂᔭᒪᓕᒫᑦᓯᒪᓂᑦ 2006 ᐊᒻᒪ 2008 (ᑲᓇᑕᒥ ᐅᖃᐅᔨᔪᑎᑦᓯᒪᓕᒫᖅᑐᑦ ᐅᓂᒃᑲᖅᑎᑦ 2010/024) (ᓇᓗᓇᐃᔨᖅᓯᒪᓂᖅᑎᑦ ᐃᓕᔪᑕᖓ 2).

ᑕᒃᑯᐊ ᖃᐅᔨᔪᖅᓂᐅᔨᔪᑦ ᓇᓗᓇᐃᖅᑭᖅᑕᕐᓂᖅᑐᑦ ᑕᒃᑯᐊ ᐊᒥᓱᑦ ᐅᒪᔨᓕᐊᔨᑦ ᑲᑎᒪᔨᖏᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔨᔪᑦ ᐊᔾᑎᓗᐊᓕᐅᖅᑕᖅᑐᑦ. ᐃᖃᓗᒋᑕᐅᔨᓴᕆᓚᖅᑕᒥ ᐊᒥᓱᑦ ᐅᒪᔨᓕᐊᔨᑦ ᑲᑎᒪᔨᖏᑦ ᐅᓇᐅᓕᐅᖅᑕᖅᑐᖅ 750 ᑕᓴᕐ (2006) ᐊᒻᒪ 1,100 ᑕᓴᕐ (2008) ᐊᖏᓇᖅᑎᑦ ᓯᕐᓕᓕᐅᖅᑕᒥ ᐱᒋᖃᖅᓂᖅᑎᑦ ᐊᒥᓱᑦ ᐅᒪᔨᓕᐊᔨᑦ ᑲᑎᒪᔨᖏᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔨᔪᑦ 580 ᑕᓴᕐ (2006) ᐊᒻᒪ 800 ᑕᓴᕐ (2008). ᐊᑭᑕᑐᐅᑎᓪᓗᒍ ᑲᑎᒪᔨᖏᑦ ᐱᑎᑕᐅᔨᓴᕆᓚᖅᑕᒥ ᐱᔨᓇᖅᑐᖅ 500 ᑕᓴᕐ, ᐊᑕᖓᑦᖃᖅᑐᓂ ᐱᔨᓄᑐᓂ, ᓴᖅᑭᑎᑦᑎᓂᕐᖏᖅᑕᒥ ᐊᑐᖅᑕᐅᓂᖓᓂᖅ ᑎᑎᕋᖅᑕᐅᓯᒪᔨᔪᑦ 40% (2008) ᑎᑭᑐᒍ 70% (2006) ᑐᓂᔭᒪᓕᒫᑦᓯᒪᓂᑦ ᖃᐅᔨᔪᖅᑕᐅᓯᒪᔨᔪᑦ ᐊᒥᓱᑦ ᐅᒪᔨᓕᐊᔨᑦ ᑲᑎᒪᔨᖏᑦ ᑕᒃᑯᓇᐅᑕᐅᑎᓂᓯᒪᓂᑦ. ᑐᓴᖓᔨᓂᑦᓯᒪᓂᑦ ᐊᒥᓱᑦ ᐅᒪᔨᓕᐊᔨᑦ ᑲᑎᒪᔨᖏᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔨᔪᑦ ᐅᖅᓯᓂ 2006 ᐊᒻᒪ 2008, ᐱᖃᓗᓯᑐᖃᓕᖅᑕᐅᔪᓂ 500 ᑕᓴᕐ ᑲᑎᒪᔨᓂᑦ ᐱᑎᑕᐅᓯᒪᓕᒫᖅᑐᓂᖅ ᐱᔨᑕᖅᖏᑦᓂᖅ ᐁᖃᑭᑕᐅᓂᓕᕆᐊᑎ ᐊᒻᒪ ᐊᑕᖓᑦᑐᓂᓂ ᐱᔨᑕᓂᖅ 2022, ᐊᑐᖃᑕᐅᓂᖅᖏᑦ ᖃᐅᔨᓯᓂᑐᓂᓕᕆᓚᖅᑕᖅᑐᑦ ᖃᐅᔨᓯᓯᑐᑦ (66.7 >ᓴᖅᑎᖓ ᐊᒻᒪ 45.4 >ᓴᖅᑎᖓ, ᑐᖓᑕᓪᓕᖅᑎᑦ ᐃᖃᓗᓕᕐᓂᕐᓕᕐᓇᖅᑐᓂ ᐊᒥᓱᑦ ᐅᒪᔨᓕᐊᔨᑦ ᑲᑎᒪᔨᖏᑦ ᐃᓕᔪᑕᖓ).

ᒪᖅᐱᐃᓐᓇᐅᑎᓪᓗᑎᑦ ᖃᐅᔨᓴᖅᓂᐅᕐᕕᒃ, ᐊᒥᓱᑦ ᐅᒪᔨᐃᑦ ᑲᑎᓐᓄᓕᒃ ᐊᓱᔨᖅᑕᕐᖅᓂᑦ ᐃᓗᐃᖅᑕᐅᕕᒃᓇᖅᑎᑦᑐᑦ ᐊᓕᒪ ᐃᓐᓇᐅᕕᒥᑦ ᐊᒥᓱᑦ ᐅᒪᔨᐃᑦ ᑲᑎᓐᓄᓕᒃ ᐅᕐᓂᓱᓐᓂᖅᑎᑦ ᐊᓕᒪ ᐱᑎᐊᖅᑎᑕᐅᓂᖅᓯᓂᓐᓄᑦ ᖃᓄᖅᓱᐅᑎᓂᒃ. ᐃᒋᓐᓂᖅᓯᓂᓐ ᐃᓐᖢᓗᓱᐊᕐᓇᐅᖅᑎᑦᑐᖅ ᐊᓕᒪ ᑐᓐᖅᓱᐅᓱᒋᐊᓂᑦ ᖃᐅᔨᓴᖅᓂᐅᓱᒋᐊᓂᑦ ᐊᒥᓱᑦ ᐅᒪᔨᐃᑦ ᑲᑎᓐᓄᓕᒃ, ᓱᓄᓂᔭᖅᓯ ᑲᐊᓱᑎᐊᖅᓂᖅᓯᓄᑦ ᐃᓐᖢᓗᑕᓂᓂᒪᑦ ᑭᑦᑕᖅᑲᑎᑕᐅᕐᐊᒃ. ᐃᓐᖢᓗᑕᓂᖅᑕᕐᖅᑐᑦ ᓇᐊᔪᑎᐊᖅᓯᓄᑦ ᐊᒥᓱᓕᒫᑦ ᐃᓐᖢᓗᓱᐊᕐᓇᐅᓪᓗᑐᑦ ᐃᓐᖢᓗᑕᓂᓂᒪᑦ ᐊᓕᒪ ᑐᓐᖅᓱᐅᓱᒋᐊᓂᑦ, ᓱᓄᓂᔭᖅᓯ ᑲᐊᓱᑎᐊᖅᓂᖅᓯᓄᑦ ᐃᓐᖢᓗᑕᓂᓂᒪᑦ ᑭᑦᑕᖅᑲᑎᑕᐅᕐᐊᒃ. ᐃᓐᖢᓗᑕᓂᖅᑕᕐᖅᑐᑦ ᓇᐊᔪᐃᓐᖅᓱᒍᑎᓄ ᐱᐊᒪᓂᖅᑲᓂᑦ ᐃᓐᖢᓗᓱᐊᕐᓇᐅᓪᓗᒍ ᓇᒃᑐᓂᖅᓯᓂ, ᑐᓴᕐᕕᑎᑦ ᖃᐅᔨᓴᖅᓂᐅᓄᑦ ᐅᓐᖢᓴᓂᐊᕐᕕᑎᑦ ᐃᓕᓴᒪᓐᖢᓂᖅᓯᓂ. <ᕐᓇᐅᑎᑕᖅᓯᕐᓂᑐᖅ ᓱᓄᓂᔭᖅ ᖃᐅᔨᓴᖅᓂᖅᑐᑦ ᐊᓕᒪ ᐃᓐᓇᐅᕕᒥᑦ.

ᐊᑐᓕᖁᓕᐅᔪᑦ

ᐊᑐᓕᖁᓕᐅᔪᖅ ᒐᖁᐊ ᑲᑎᕐᑐᑎᑦ ᐱᑎᑕᐅᔨᓴᖅᑐᓂᒃ ᐱᓕᐅᓂᕐᓂᓂᒃ ᐅᑭᖓᓐᓄᑦ (SFA) 0 ᐊᖏᕐᕌᒧᖏᑦ ᐊᓱᒪᓕᒃᓴᕐᑕᐅᑐᑐᓂ 500 ᑕᓐᖅ ᐊᖏᕐᕌᒧᖏᑦ 2022.

ᐅᖃᐅᓱᐅᔨᓂᑦ ᐃᑕᐅᖃᖅᑲᑕᐅᓂᖅᓯᓄᓐᓂᑦ, ᐱᑕᕆᓚᐅᔨᖅ ᑐᓂᓱᓂᐊᖅᑐᑦ ᒪᖁᑲᓐᓂᖅ ᐅᑭᖓᓐᓄᓂᒃ ᐅᒃᑯᖏᖅᓱᓐᓂᒃ ᒥᓂᑕᒧᑦ ᐃᓱᒪᑕᐅᓪᓗᑐᑦ ᐊᖏᕐᕌᒧᖏᑦ 2022, ᒐᖁᐊ ᐅᑯᓂᖅᓴᓕᑕᑎᓄ: 1) ᐱᓱᒪᖁᐅᓂᓯᓚᑦᑐᑐᓂ ᐃᑕᐅᖃᖅᑲᑕᐅᓂᖅᓯᓂ ᐊᑕᐅᓱᐅᑐᐊᒍ ᐃᒪᐃᓯᒋᐊᓚᓂᑦ ᐅᒥᐊᖏᕐᕌᒃᑯᑦ; ᐅᕐᓕᑐᓯᓂᑦ, 2) ᐊᓂᑦᑕᒥᐊᖏᓱᒪᔨᖅ ᐱᓴᓵᐅᓂᖅ ᐱᖏᓂᐅᔨᓴᓯᓚᕐᓇᖅᑐᖅ ᓄᓚᑭᓗᒥ ᐊᑕᐃᓂ ᐃᑕᐅᖃᖅᑲᑕᐅᔨᓚᓂᑦ ᑎᐃᒥᐊᖅᑎᐅᖃᖅᑲᑕᐅᔨᓚᓂᑦ ᐱᖏᓂᐅᑎᓚᑦᑐᑦ ᐃᓱᒪᓕᒃᓴᕐᑕᐅᑐᑐᓂ ᐃᓱᖏᓱᒪᔨᓂᑦ.

ᓄᐃᓇᖅᓱᒪᔨᖅ ᑐᓴᕐᕌᑕᐅᑎ

ᓇᓚᓇᐃᑭᓇᐅᓂᐊᖏᓪᓗᐃ ᓄᓚᑭᓗᒥ ᐅᒪᔨᐃᑦᑕᓪᓕᐊᑦ ᑲᑎᒪᔨᖅᑎᑦ ᐅᖃᐅᔨᓴᖅᑐᐊᕐᓂᖅ ᐊᑕᖅᑭᑦᓗᑕ ᐃᓕᓴᒪᓐᖢᓂᑦ ᐃᓱᒪᑕᐅᓪᓗᑐᑦ 2022 ᐊᐅᓕᕆᑎᓂᓪᓗᑦ ᐃᓱᒪᓕᐅᖃᖅᓂᐅᔨᑦ ᐅᑭᖓᓐ ᑭᖓᓱᐊᓂᐊᕐᓂᖅ (SFA) 0 ᐃᖃᓗᑕᓕᕆᓂᖅᓱᑦ, ᐱᑕᕆᓚᐅᔨᖅ ᑐᓵᓱᖃᖅᑐᑦ ᑲᑎᒪᔨᖅᑐᑦ:

1) ᐊᑐᓕᖁᓕᐅᔪᑦ ᑲᑎᕐᑐᑎᑦ ᐱᑎᑕᐅᔨᓴᖅᑐᓂᒃ ᐱᓕᐅᓂᕐᓂᓂᒃ ᐅᒍᖓᓐ ᑭᖓᓱᐊᓂᐊᕐᓂᖅ (SFA) 0.

ᐱᑕᕆᓚᖅ ᐱᓚᔨᓴᖃᖅᑎᑎᒋᔪᑦ ᐁᖃᑭᒋᐊᖃᖅᑕᐅᓚᑎ ᐅᕐᓂᓱᓐᓂᒃ ᑐᓂᓴᐅᖃᖅᑐᓚᑎ ᐊᑐᓕᖁᓕᐅᔪᑦ ᐱᔨᑎᑎᖃᖅᓯᓂᑦ ᐊᖏᕐᕌᒧᖏᑦ ᐱᓚᔨᐅᓂᖅᓯᓚᑎ ᐅᕐᓂ ᑭᖓᓱᐊᓂᐊᕐᓂᖅ (SFA) 0 ᐊᖏᕐᕌᒧᖏᑦ 2022.

ᑎᑎᕋᖅᑐᖅ: ᐃᓴᓕᓪᓕᖅᓱᒪᓪᓗᑦ ᐊᐅᓕᓯᓂᖏᑦ, ᐃᒪᖏᐅᑕᓕᕆᓚᐅᔨᓴᖅᑐᑦ ᑲᓇᑕᒥ

ᐅᓪᓗᓂᖅ: ᒪᐃ 18, 2022

ᐃᓕᓴᕐᓂᖅ

ᐃᓕᓴᕐᓄᑦ 1 – ᓄᓇᖓᐊᖅ ᐃᖅᑲᒥᐅᑕᐃᑦ ᐃᓴᓚᐃᑦ ᐊᓕᒪ ᑭᖓᓱᐊᐃᑦ ᐊᐅᓕᑕᐅᓇᐅᔨᑦ ᐊᒃᑲᐱᖓᓐᓂᑦ ᐊᑦᓯᓂᑎᒃ ᑲᓇᑕ (ᐱᓴᓵᐅᑎᓪᓗᑎᑦ ᑭᖓᓱᐊᓂᐊᕐᓂᖅ 0)

ᐃᓕᒍᖏᑐᒃ 2 – ᓇᐃᓐᓴᖅᓯᒪᔨᖅ: ᖃᐅᔨᓴᖅᑕᐅᓂᖏᓪᓗᑦ ᐅᑭᐅᑕᖅᑐᒥ ᑭᖑᔪᓕᐊᑦ (*Pandalus borealis*) ᐅᕝᓂ ᑭᖑᔪᓕᕆᔨᖅᑲᓕᒃ (SFA) 0, 2, 3 ᐊᓚᒪ ᖃᓂᔨᓂᑯᑦᓴᓂᑦ ᑭᖑᔪᓕᐊᑦ (*Pandalus montagui*) ᐅᕝᓂ ᑭᖑᔪᓕᕆᔨᖅᑲᓕᒃ (SFA) 2, 3 ᐊᓚᒪ 4 ᐱᖓᓱᓇᖓᓂᓂ 63° ᐱᖓᓱᓇᖅ (ᖃᐅᔨᓴᕐᑎᓂᑦ ᐅᖃᐅᔨᓴᓕᕆᖅᑎᑦ ᐅᓂᒃᑲᑦ 2010/024)

ᓂᕿᐅᓯᒪᔪᓂ

ᓄᓇᕗᑦ ᐅᒪᔪᓕᒫᓂᖅᓴᕐᕕᐊᓂᑦ ᑲᑎᒪᔨᖏᑐᓄᑦ

ᐃᒪᓕᐃᔨᖅᑕᐅᔾᔨᒌᒍᓂᑦ

ᑐᓴᐅᒪᔪᑎᒃᓴᑦ: ᐊᓯᒪᓕᐅᑦᑕᑦ: X

ᐊᑲᖅᑕᐅᔾᔨᕆᓚᐅᓕᒫᑦ: ᖃᐅᖅᑕᒋᓗᒍ ᑐᑦᑐᖏᑦ ᑲᑎᕐᑎᑦ ᑐᕐᑐᓕᐅᔪᓐᓇᖅᑐᑦ

ᐅᖃᑲᐅᔪᖅᑲᐅᒪᓂᖏᑦ:

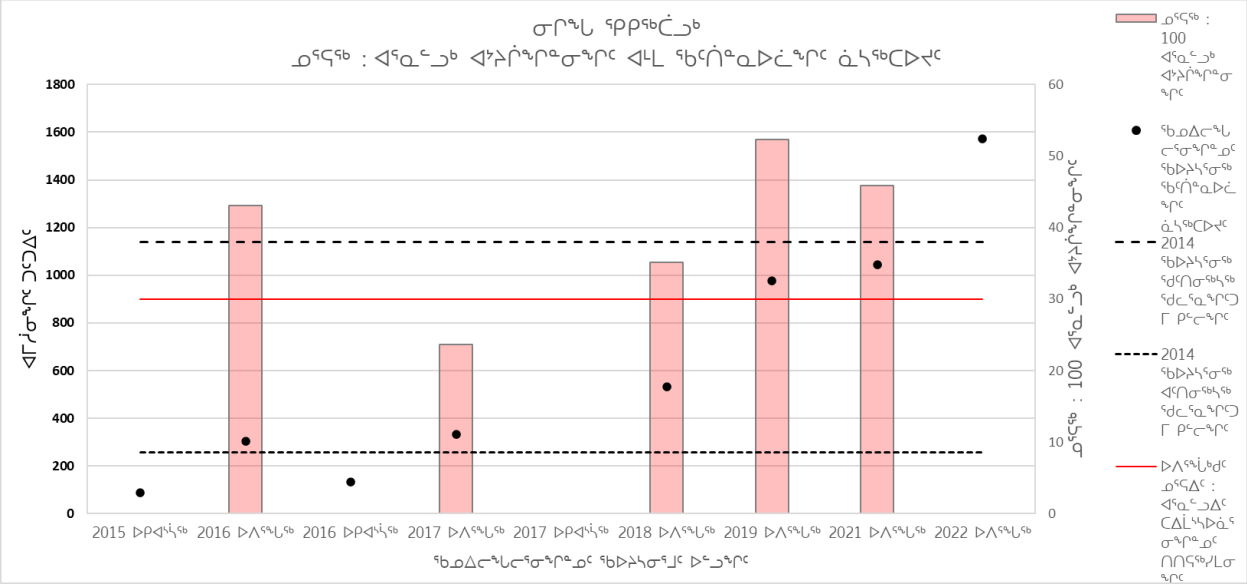
- ᔪᐅᑦᓕᓐᓂᒃᑯᖅ ᖃᐅᖅᑕᒋᓗᓕᒥ ᖃᑲᐅᓴᖅᓂᖅᑲᓕᐅᖅᑐᖅ ᖃᐅᖅᑕᒋᓚᑦ ᑐᕐᑐᓂᓐᓂ ᐃᑦᕿ 2014, ᐊᓚᒪ ᖃᓚᐃᓐᓂᕆᓚᖏᑦ ᓇᓗᓇᐃᖅᑲᔪᓚᐅᑦ ᐊᒥᓱᖏᑦᑐᑦ ᑐᕐᑐᓂᑦ ᖃᐅᖅᑕᒋᓗᒥ. ᒎᑲᔨᐊ ᐊᒥᓱᓂᕆᓚᖏᑦ ᒥᓴᐅᖅᐳᑲᔪᓚᒥᐅᖅᑲᔨᑦ ᐃᒪᓐᓇᐸᑎᐊᖏᑦ 4,652 ᑐᕐᑐᐃᑦ (3,462-6,250). ᐃᓐᓇᐅᔾᔨᒥ ᑲᑎᕐᑎᑦ ᑐᕐᑐᐅᔾᔨᓇᖅᑐᑦ (TAH) 250 ᑐᕐᑐᐃᑦ, ᐱᖅᓱᐅᑎᓪᓗᑎ ᑎᑭᔪᓚᓕᒃ 25 ᐊᖏᓇᓂᒃ.
- ᓇᓕᒧᕐᓪᓗᒍ ᐊᖓᔪᓇᓂᒃᑎᒧᑦ ᐊᐅᐅᖅᑕᐅᔾᔨᑦ, ᓄᓇᕗᑦ ᓚᖓᒪᑲᑦ ᐊᑐᓕᖏᔪᓚᒥᐅᑦ ᒎᑲᔨᐊ ᖃᐅᖅᑕᒋᓗᒥ ᐅᒪᔪᓕᒫᓂᖅᑲᑦ ᑲᑎᒪᓂᖏᑦ (QWB) ᐃᓕᐅᖅᑲᐃᓂᐊᖅᑐᑦ ᓂᕆᖓᔾᒋᓂ ᐃᓕᒥᓴᖏᓂᓂ ᐊᒥᓱᓂᖏᓂᓄᑦ ᑐᕐᑐᐃᑦ ᓇᒧᓐᓄᓇᓄ ᑐᓂᓯᓂᑲᖅᑐᑦ 2014 ᐱᓕᕆᔨᓂᖏᓂᓄᑦ ᒥᓴᐅᖅᓯᒪᔪᓚᒥᐅᑦ ᐊᓚᒪ ᐊᖅᑲᐅᔪᓚᓂᖏᑦ ᖃᐅᔨᓴᓂᖅᓯᒪᓂ ᖃᐅᔨᓴᐅᐅᔨᑦ.
- ᐱᓕᕆᖅᑎᓇᓂᑦ ᐊᖅᑲᐅᔪᐃᓕᑕᐅᑎᓂᓴᖅᑐᑦ ᑐᐸᔪᓂᐊᕈᑎᓴ, ᐳᖓᓯᓕᓂᖅᒥ ᐊᒥᓱᓂᖏᓇᓄᑦ ᖃᐅᔨᓴᓂᓂᐅᓪᓚᕆᖅᑐᖅᑐᑦ ᖃᐅᖅᑕᒋᓗᓯᒪᑦ ᐊᖏᕐᕌᖅ ᐊᓚᒪ ᐊᖏᕐᕌᓂᑦ ᑭᓇᐅᔨᕆᖅᑲᖅᑎᑦᑕᐅᔾᔨᖅ ᐱᓴᓇᖅᓯᒪᓂᑐᓄ ᑕᐃᒪᐃᓕᑐᑐᒥ ᖃᐅᔨᓴᓂᓂᒥᑦ ᖃᐅᔨᓴᓂᐅᔾᔨᒥᑦ ᐱᓗᐊᓕᖅᑎᑎᕐᓂᖅ ᐊᑐᑐᖅᑐᑦᑕᐅᔾᔨᖅᑐᑦᑐᓄ ᐊᑭᑐᑐᕈᑎᓇᓄᑦ ᐃᒪᓕᕆᓂᑦ ᖃᐅᔨᓴᓂᐅᔾᔨᓂᑦ ᓯᑭᓪᓕᓐᓂᒃᑯᑦᑎᓐᓂᖅ ᓄᓇᕗᓕᒥᓗᑦ.
- ᓄᓇᕗᑦ ᓚᖓᒪᑲᑦ (GN) ᐊᖓᑎᓕᓴᐃᑲᑦ (DOE) ᐃᖅᑲᐅᓇᐃᓂᖅᑲᖅᑎᒪᓂᖅᑲᖅᓚᔪᑦ ᐅᒪᔪᓕᐊᑎᐅᑲᑦ ᑲᑐᔨᖅᑎᑎᑦᑐᑦ (HTO) ᐅᓇᐅᓇᐃᖅᓯᓗᑎ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᓂᑦ ᒥᑭᓕᓕᑎᐊᓕᓗᒋ ᐊᑕᖏᖅᑐᒋᒍ ᖃᐅᔨᓴᓂᐅᔾᔨᖅ ᐊᒥᓱᒍᑎᑦ ᑐᑦᑐᖏᑦ ᐊᐃᑐᑐᖅᓯᒪᔪᓕ ᐃᖏᕐᕋᖅᑐᓂᖏᓐᓄᓇᓕᒫᑦ. ᒎᑲᔨᐊᓂ ᐅᖃᐅᔨᐅᔾᔨᓂᑦ, ᐊᑐᖅᑕᐅᓂᖏᓐᓄᑦ ᖃᐅᔨᓴᐅᐅᔨᑦᑕᐅᔾᔨᖅᑐᑦᑐᓄ ᐊᐅᓚᑦᑎᓐᓄᑦᑐᑦ ᐊᑐᖅᑕᐅᑦᑕᐅᔾᔨᓂᖅᑲᖅᑐᑦ ᐊᑐᖅᑕᐅᑦᑕᐅᓪᓗᑎ ᐊᑐᖅᑕᐅᑦᑕᐅᓂᖅᑲᖅᑐᑦ ᐊᑐᖅᑕᐅᑦᑕᐅᓂᖅᑲᖅᑐᑦ ᐃᓕᓴᐅᔾᔨᒥ ᐃᓕᓴᐅᔾᔨᒥ ᐊᑐᖅᑕᐅᑦᑕᐅᓂᖅᑲᖅᑐᑦ

- ᐊᖏᑎᓕᓇᓴᒃᑯᓯ ᐸᖅᓐᓄᓕᒻᒥᓯ ᐊᖓᑭᓕᓕᐊᖅᑐᐃᔪ ᖃᐅᔨᐊᖅᑎᑕᐅᓂᓕᒻᒥᓴᒃᑯᓯ ᑕᓪᓕᓇᒃᑯᓯᑐᑦ ᑐᑭᓯᐅᑭᐸᑎᖓᑦ ᑐᑭᓯᐅᑭᐸᑎᖓᑦ ᓄᑖᖅᑐᑐᖅᑭᑦᑐᓂᖅ ᐱᑕᓪᐊᒥ ᐅᐱᖅᖁᓪ 2022. ᐊᖏᑎᓕᓇᓴᒃᑯᓯ ᖃᕆᕐᓴᐅᕐᓴᒃᑯᓯ ᑎᑎᖅᑲᐅᓯᐊᓕᐅᖅᑐᑦ ᖃᐅᖅᑕᒋᔭᒥ ᐅᒪᔨᓕᓪᓇᓴᒃᑯᓯ ᐃᑎᒪᔨᖅᑎᓂᖅ ᐅᑦᔪᐃᐃᓐᓂᖅ ᐱᑕᓪᐊᒥ ᐱᑎᐊᖁᖃᐊᓕᖅᑎᑦᔪᐃ ᑐᓴᕐᖃᖅᑐᑦ ᓄᖅᖃᖅᑎᑕᐅᔭᓂᐅ ᓇᔭᓇᐃᖅᑭᑦᔭᓂᐅ ᐊᐃᒍᑐᓇᐅᑦᔭᓂᐅ ᖃᐅᖅᑕᒋᔭᒥ ᐅᒪᔨᕐᓂᐊᑎᓯᒃᑯᓯ ᐃᖃᓪᓚᕆᑦᑐᓂ ᑐᓂᖓᓕᒫᑦᑐᓂ ᐃᓕᓴᐅᓕᖅᑎᑦᑐᓂ ᐊᑐᓕᖓᔪᓕᕆᓂᖅᓯᓂᖓ ᓄᖅᖃᖅᑎᑕᐅᔭᓂᐅ ᐊᖏᑎᓕᓇᓴᒃᑯᓯ ᐱᓕᕆᔨᒃᑯᓕᖅᑐᑦ

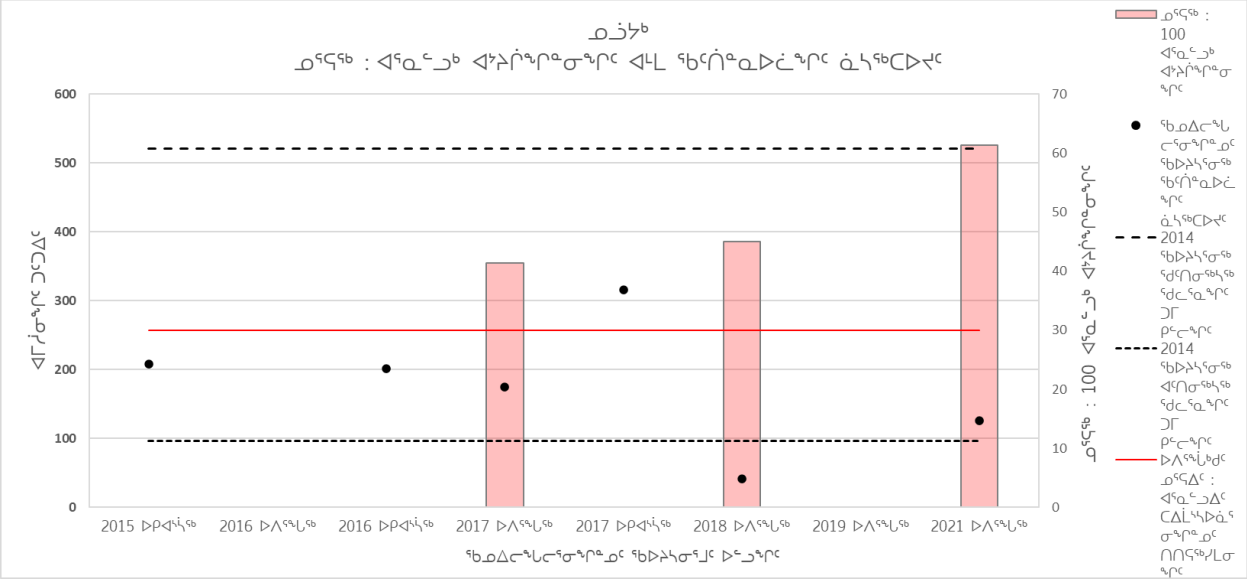
- ᐊᕐᑕᓇᓯᑎᐅᔨᓐᓇᖅᑐᑦ ᐊᕐᑐᐊᓂᓕᕆᑕᐅᓂᖅᑎᓂᓐᓄᑦ ᑐᑭᓯᒪᐊᖅᑕᐅᓂᖅᓂᓐᓄᑦ ᑐᕐᑐᑕᐅᔨᓐᓇᖅᑐᑦ ᐱᖅᓱᐅᑎᓪᓗᑎ ᐊᒥᓱᓂᖅ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᕐᓂᖅᑐᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᕐᓂᖅᑐᑦ ᐃᓂᕋᓱᖃᓕᕆᓂᖅ ᐊᑐᖅᑮᓂᖅ ᐊᐃᔪᖅᓯᒪᔨᓂᖅ ᓇᒃᑯᓂᖅᓂᖅ (ᖃᓄᐃᓕᓚᓂᖅᓂᓐᓄᑦ ᖃᐅᔨᔪᖅᓴᐅᔨᓪᓚᑦ), ᐊᖏᕐᒪ ᐃᓗᐊᓂ ᐊᓱᔨᕐᓂᖅᓂᖅᓂ ᓄᖏᓕᐅᖏᓂᖅᓂᓐᓄᑦ, ᐋᓐᓂᐊᓄ, ᐊᒻᒪ ᖃᐅᔨᒪᓕᐅᖅᓂᑦᑐᑦ ᑐᑭᑦᑕᓕᖏᓐᓂᖅᓂᖅ ᐅᒪᓕᖃᑦᑕᕆᓂᖅᓂᖅ ᖃᐅᔨᔪᖅᓴᐅᔨᓪᓚᑦ. ᑭᓱᐊᓂᓕ, ᓴᓚᒋᑐᓄᑦ ᐊᐅᓚᕐᑎᓂᖏᓪᓚᑦ ᐱᖅᓱᐅᑎᓪᓗᑎ ᐊᒥᓱᓂᖅᓂᖅᓄᑦ ᖃᐅᔨᔪᖅᓴᐅᔨᓪᓚᑦ ᐊᒻᒪ ᐊᑐᐊᓂᓕᕆᑕᐅᓂᖅᑐᑦ ᐊᕐᑐᑕᐅᔨᓐᓇᖅᑐᑦ ᐃᖏᕐᓂᐊᕐᓇᑕᐅᑎᓂᐅᑎᓪᓗᑎᓄᑦ ᑐᐅᓱᓂᐊᕐᓇᐅᑎᓪᓗᑎ ᐊᒥᓚᐊᖏᓐ, ᐊᒻᒪ ᑲᔪᓂᑕᐅᓯᒪᔪᖏᓐ ᖃᐅᔨᔪᖅᓴᐅᔨᓪᓚᑦ ᖃᓄᐃᓕᓚᓂᖅᓂᖅᓂᓐᓄᑦ, ᓄᓇᕗᑦ ᑲᒪᓂᖅ ᐅᓴᐱᓕᕐᓂᖅ ᐊᒥᓱᓂᖅᓂᖅᓄᑦ ᖃᐅᔨᔪᖅᓴᐅᔨᓪᓚᑦ, ᓄᓇᕗᑦ ᑲᒪᓂᖅ ᐅᓴᐱᓕᕐᓂᖅᓂᖅᓄᑦ ᖃᐅᔨᔪᖅᓴᐅᔨᓪᓚᑦ ᐊᕐᑐᑕᐅᔨᓐᓇᖅᑐᑦ ᓇᒃᑯᓂᖅᓂᖅᓂᓐᓄᑦ ᐊᕐᑐᑕᐅᔨᓐᓇᖅᑐᑦ ᓇᒃᑯᓂᖅᓂᖅᓂᓐᓄᑦ ᐊᕐᑐᑕᐅᔨᓐᓇᖅᑐ

ᐊᕐᕌᒍᑦᓯᖏᓐᓄᕐᓂᕆᐊᖅᑐᓂ ᖃᓄᖅᓭᓇᐊᖅᑐᓂ ᐃᓱᒪᓕᕆᔨᒃᑲᓂᕆᓂ ᑐᵒᖏᓚᐱᓕᕆᓂ ᓄᑦᓂ ᐃᓄᐃᑦ ᖁᑦᐅᓯᒪᓕᕆᔨᖏᓐᓂ ᐊᒻᒪ ᖁᑦᐅᓴᖅᑎᓄᑦ ᑐᑭᓯᐅᑉᐳᖅ.

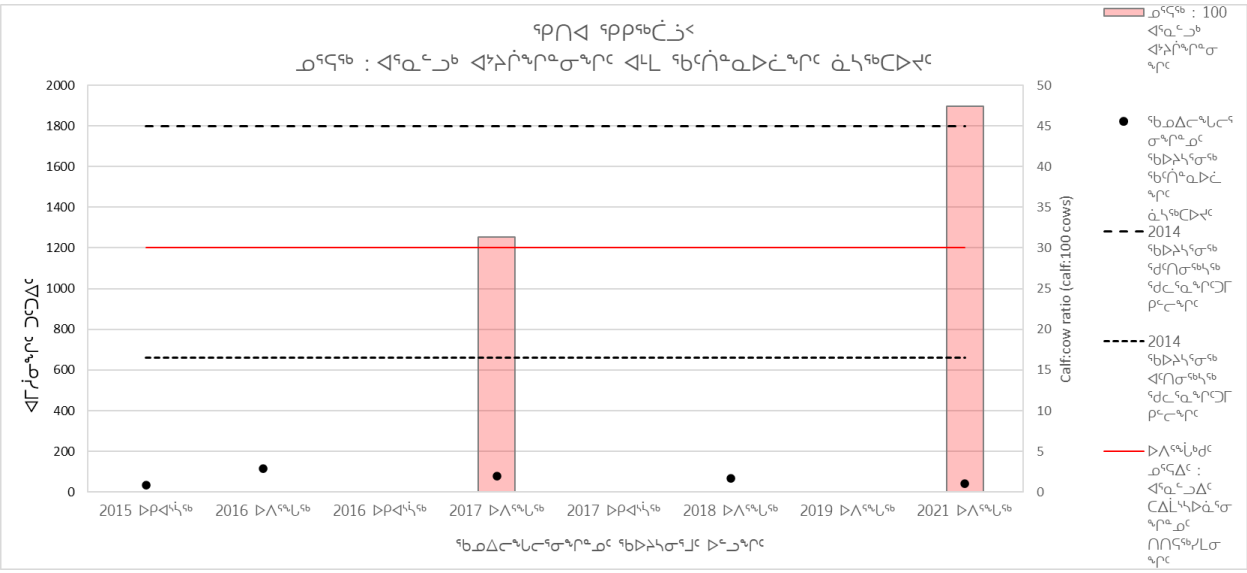
- ᓄᓇᕗᑦ ᓴᖅᓚᒃᖁᑦ ᐊᑐᕐᖁᓴᒃᑲᓂᕆᔨᑐᑦ ᑕᒃᖁᐊ ᖃᑭᖅᑕᒋᔭᒥᑦ ᐅᓚᓪᓕᔭᒃᖁᑦ ᑲᑎᓚᐅᖏᓐᖏᑦ ᐃᓕᑐᖅᑲᐃᔭᑐᑦ ᐊᐅᓚᑦᑎᓐᓂᖅᑲᖅᑐᑦᓄᓐᓂᑦ ᐱᐅᔪᓐᓇᖅᑐᑦ ᐊᒥᓱᓕᕆᔨᖏᓐᓂᑦ ᐊᑕᓗᒍᖏᓪᓗᓂᑦ ᐃᓕᓴᖅᖏᓪᓗᓂᑦ.
- ᓄᓇᕗᑦ ᓴᖅᓚᒃᖁᑦ ᐊᑐᕐᖁᓴᒃᑲᓂᕆᔨᖏᓐᓂᑦ ᐃᓕᓐᓴᐸᒃᑲᓂᕆᔨᑦ 50 ᓂᐃᓐᓴᑦ ᐅᑯᐊᓐᓴᐸᓂᑦ 25 ᐊᓐᔨᑎᑦ ᐊᒻᒪ 25 ᐊᖏᓪᓕᐃᓕᑦ ᑐᑎᑐᐃᓕᑦ.
- ᐱᔨᔪᑎᑕᓗᑦ ᐊᑎᑕᓇᕈᑎᐅᔨᓇᓕᖅᑐᑦ ᐊᑎᑐᐊᓂᓪᑦ ᑕᒃᖁᐃᓇᑦ ᖃᓄᖅᓭᓇᐊᖅᑐᓂᓄᑦ, ᓄᓇᕗᑦ ᓴᖅᓚᒃᖁᑦ ᑲᔪᖓᓂᖅᓱᒪᔨᑦ ᑲᑎᒪᓂᖅᓯᒪᓂᖅᑐᑎᓪᓗᒍ ᐃᓄᓂᑎᒍᑦ ᖁᑭᖅᑕᒋᔭᒥᑦ ᓄᓇᓕᓪᓂᑦ ᐊᐅᓚᑦᑎᓐᓂᖅᑲᖅᑐᑦᓄᓐᓂᑦ ᐃᓕᓴᖅᖏᓪᓗᓂᑦ ᐊᑐᕐᖁᓴᒃᑲᓂᕆᔨᑦ ᖃᓄᖅᓭᓇᐊᖅᑐᓂᓄᑦ ᐊᑐᕐᖁᓴᒃᑲᓂᕆᔨᖏᓐᓂᑦ ᐊᑎᒍᓯᒪᔨᓪᓗᒍ ᖃᓄᖅᓭᓇᐊᖅᑐᓂᓄᑦ ᐊᑐᕐᖁᓴᒃᑲᓂᕆᔨᖏᓐᓂᑦ ᐊᑐᕐᖁᓴᒃᑲᓂᕆᔨᑦ ᑐᑭᓯᐅᑉᐳᖅ ᐅᑎᖅᑎᑕᐅᔪᓐᓇᖅᑐᑦ ᐊᑐᕐᖁᓴᒃᑲᓂᕆᔨᖏᓐᓂᑦ ᐊᑐᕐᖁᓴᒃᑲᓂᕆᔨᓕᓪᓗᓂᑦ ᐊᑐᕐᖁᓴᒃᑲᓂᕆᔨᖏᓐᓂᑦ ᐊᑐᕐᖁᓴᒃᑲᓂᕆᔨᑦ ᑐᑭᓯᐅᑉᐳᖅ ᑐᑭᓯᐅᑉᐳᓪᓗᒍ ᐅᑎᖅᑎᑕᐅᔪᓐᓇᖅᑐᑦᓄᓐᓂᑦ ᐊᑐᕐᖁᓴᒃᑲᓂᕆᔨᖏᓐᓂᑦ ᐊᑐᕐᖁᓴᒃᑲᓂᕆᔨᓕᓪᓗᓂᑦ ᐅᑎᖅᑎᑕᐅᔪᓐᓇᖅᑐᑦᓄᓐᓂᑦ ᐊᑐᕐᖁᓴᒃᑲᓂᕆᔨᖏᓐᓂᑦ ᐊᑐᕐᖁᓴᒃᑲᓂᕆᔨ



ᐊᖏᓂᖅᓱᐊᖅ 2 ᓂᒋᖏᑐ ᖃᐅᖅᑕᓗᒃ, ᖃᐅᓕᓚᓕᖅᑎᑕᐅᓯᒪᔪᓕ 2014 ᖃᐅᖅᑕᓗᒃᓗᑎ ᐊᒥᓱᓂᖏᓪᓂᒋᓂᕐᓂ ᖃᐅᔨᓴᖅᓱᖅ, ᐅᐱᕐᓗᓂᓕ ᓄᕐᕋᐃᓐ : 100 ᐊᕐᓇᓪᓗᒃ ᐊᐱᔨᖏᒋᓂᖏᓪᓂᕐᓂ 2015-2021 (ᑕᓕᕐᒪᐃᓐᓇ ᐊᓚᒍᕆᔨᓱᖅ ᐃᓱᕐᑕᖅ ᐃᓗᓕᖏᑐᖅ) ᐊᓚᒪ ᖃᐅᔨᓴᖅᓱᓕᒍ ᖃᐅᔨᓴᖅᓱᖅ ᐊᔪᑎᓂᓕᕆᔨᖅ ᐃᓱᕐᑕᖅ ᖃᐅᔨᓴᖅᓱᓕᒍ ᑎᑭᓕᕐᓂᑐᑎᒍ ᐊᓚᒪ ᖃᐅᔨᓴᖅᓱᖅ ᐊᔪᑎᓂᓕᕆᔨ



ᐊᖏᓐᖓᒍᖅ 4 ᓄᓕᒃᑐᓂ, ᖃᓄᕐᓗᓂᕆᑎᓪᓗᒍᓂ 2014 ᖃᑭᖅᑕᓪᓕᐊᑦ ᐊᒥᓱᓂᖅᓂᓪᓕᐊᑦ ᖃᐅᔨᓴᓂᖅᓂᖅ, ᐅᐱᕐᓚᑦᑎᓄᑦ ᓄᕿᕋᐅᑦ : 100 ᐊᕿᓚᓪᓗᐅᑦ ᐊᖏᔪᖅᑭᓂᖅᓯᖅᑎᑦ 2015-2021 (ᑕᓕᕆᔨᒃᑯᑦ ᐊᓚᒍᕐᓚᕆᒃᑐᖅ ᐃᓱᕆᑕᖅ ᐃᓗᓕᖅᑐᓂ) ᐊᓕᒪ ᖃᐅᔨᓴᕐᓚᕐᓂᖅᓄᓪᓕᐊᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᖃᐅᔨᓴᓂᖅᓂᖅ ᖃᖃᓄᐃᓐᓇᐅᔨᓯᖅᑎᑦ ᐃᓗᓕᖅᑐᓂ ᐊᑐᐃᓐᓇᖅᑐᖅ (ᐱᐅᓪᓗ ᐊᖏᓚᐅᖅᓯᒪᔪᖅ, ᖃᓄᐃᓕᐅᕈᑎᖅ ᐃᓗᓕᖅᑐᖅ).



ᐊᖏᓐᖓᒍᖅ 5 ᖃᑎᖅᑐᓄ ᖃᑭᖅᑕᓪᓕᐊᑦ, ᖃᓄᕐᓗᓂᕆᑎᓪᓗᒍᓂ 2014 ᖃᑭᖅᑕᓪᓕᐊᑦ ᐊᒥᓱᓂᖅᓂᓪᓕᐊᑦ ᖃᐅᔨᓴᓂᖅᓂᖅ, ᐅᐱᕐᓚᑦᑎᓄᑦ ᓄᕿᕋᐅᑦ : 100 ᐊᕿᓚᓪᓗᐅᑦ ᐊᖏᔪᖅᑭᓂᖅᓯᖅᑎᑦ 2015-2021 (ᑕᓕᕆᔨᒃᑯᑦ ᐊᓚᒍᕐᓚᕆᒃᑐᖅ ᐃᓱᕆᑕᖅ ᐃᓗᓕᖅᑐᓂ) ᐊᓕᒪ ᖃᐅᔨᓴᕐᓚᕐᓂᖅᓄᓪᓕᐊᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᖃᐅᔨᓴᓂᖅᓂᖅ ᖃᖃᓄᐃᓐᓇᐅᔨᓯᖅᑎᑦ ᐃᓗᓕᖅᑐᓂ ᐊᑐᐃᓐᓇᖅᑐᖅ (ᐱᐅᓪᓗ ᐊᖏᓚᐅᖅᓯᒪᔪᖅ, ᖃᓄᐃᓕᐅᕈᑎᖅ ᐃᓗᓕᖅᑐᖅ).

ᐅᖃᐅᓯᕆᓂᖅᑕᐅᔪᓂ ᐅᑯᓇᖅᓯ

ᓇᓇᕗᒻᒥ ᐃᒪᔪᓕᕆᓇᖅᑐᔪᐊᖅᑯᓂ ᑲᑎᒪᔨᖏᓪᓗᓂ

ᑲᑎᒪᓂᖅᓴᓇᓱᒪᔨᖅᓯ ᑲᑎᒪᓂᖏᓐᓂ (ᐃᒪᔪᓕᕆᓇᖅᑐᔪᐊᖅᑯᓇᓪᓗᓂ)

ᓴᐃᐅᑎᓕᒻ 002-2022

ᒪᑐᒧᖅ

ᖃᐅᔨᓴᙱᖏᑦᑕᐅᓂᖓᓕᒫᑦ: ☐ ᐃᓱᒪᓕᐅᕈᑕᐅᔨᕆᔨᖃᖅᖃᓂᖓᓕᒫᑦ: ☒

ᐃᓱᒋᔭᑕᐅᔪᓐᓇᖅ: *ᐱᑎᐊᖅᑎᑕᐅᔪᒪᔪᓂ ᖃᓄᓂᑐᒃ 10 ᐊᖏᕐᕕᑐᒃ ᐊᒥᓱᑉᐸᐊᖅᑕᐅᑐᓂᖏᓐᓂᑐᒃ ᑕᒪᐃᓐᓄᑐᒃ ᑲᑎᒪᓂᖅᑐᑦᓯᓂ ᑐᑭᖅᑕᒃᑯᑦ ᑐᓴᕐᓗᒍ ᑕᒪᐃᓐᓄᑐᒃ 2022-2032*

ᖃᓄᖅ ᐱᓕᕆᓂᐊᓕᕆᔨᓐᓇᑕ:

ᐃᓕᑕᕆᔨᐅᓂᖓᓂ ᓱᓕᕆᓕᐅᓂᖅᓴᐅᔨᓴᕆᓕᒋᓪᓂ ᐃᓄᐃᑦ ᐱᐅᓱᑐᖃᓂᖓᓂ ᐅᒪᔪᓕᕆᓇᓂᖏᑦ ᐊᐅᓚᕋᓚᓂᖏᑦ ᐃᓱᒪᓕᐅᕈᑕᐅᔨᓕᓂᖓᓂᓕᒫᓂᖓᓂᒃ ᓇᓇᕗᒻᒥ

ᑕᒪᓐᓇ ᑎᓱᐱᓗ 2020-ᒥ, ᖃᑭᖅᑕᒍᓐᓇᒥ ᐊᖓᔪᓇᐱᑎᓕᒪᑦ ᑲᑎᒪᔨᖏᓂ ᐊᖓᑭᑕᑎᖃᓕᐅᖅᑐᑦ ᐊᑐᖃᑎᖅᑕᐊᓂᖅᖃᖅᓂᖅ ᓇᓇᕗᒻᒥ ᐊᖓᑭᑕᑎᓂᒃ, ᑲᓇᑕᐅᕐᕿ ᒪᓕᑎᓴᐊᖓᔪᒍᑦ ᓴᓇᔨᓕᕆᔨᐅᑎᑕᐅᓂᒃ ᐃᓇᖅᑐᑕᑎᓂᒃ ᐃᓇᖅᑐᓂ ᓇᓇᕗᒻᒥ, ᑲᓇᑕᐅᕐᕿᓗ ᑐᖓᔪᖅᑐᖅᑎᑦᑎᓂᒃ ᐃᓕᓴᕐᓂᐊᕐᓗᒍ ᐃᓇᖅᑐᓂ ᐃᓕᓴᕐᓂᐊᕐᓗᒍ ᐃᓕᓴᕐᓂᐊᕐᓗᒍ ᐃᓕᓴᕐᓂᐊᕐᓗᒍ

ᓇᓕᐅᑦᑕᑕᐅᖅᑐᑐᒃᓯᒪᓕᒃ ᖃᓄᖅ ᑐᓴᐃᓪ ᐊᒥᓱᓂᒃ ᐊᓯᔾᔨᖃᑦᑕᕐᓯᖓᓪᓕ ᓄᓇᓕᖅᓂ ᐊᓚᓗᓐ ᑕᓪᓕᐊᓐᓂ ᖃᑭᖅᑕᒥ ᓯᕗᓪᓕᐊᑦᑐᖅᑐᑦᑎᓐᓄᑦᑐᖅᑐᑦ ᐊᑐᖅᑭᑦᓯᐊᓕᖅᑎᑦ 70-90-ᓂᒃ ᐊᖏᕿᔪᒃ ᐊᑯᓂᐅᓂᓕᒃ.

ᑕᐃᒪᓐᓂ ᑕᒪᕆᑯᓂᖓ ᐊᑐᖅᑭᑦᓕᐊᓕᖅᖏᓐᓂᒃᑐᓂ ᐊᑯᓂᐊᓗᒃ, ᐃᓄᐃᑦ ᐊᖓᔪᓇᓯᕆᑕᖅᖏᓐᓂᒃᑐᓂ ᖃᐅᔨᐃᓕᐅᓯᓕᕐᓂᖓᓂ, ᑐᕈᓯᐅᑐᐃᓐᓇᖅᑐᒃ ᖃᐅᔨᒪᓂᖃᕆᑕᐃᓕᐊᑦᑐᒃ, ᑐᕈᓯᐅᒪᔨᐅᑎᓯᖅᑐᑦᑎᓐᓄᑦᑐᖅᑐᑦ ᐱᓕᕆᐅᕐᓂᖓᓂᑦ ᐊᒥᓱᓕ ᐊᓐᓂᓯᓇᓕᐅᑎᓯᖅᑐᑦᑎᓐᓄᑦᑐᖅᑐᑦ ᐱᓕᕆᐅᕐᓂᖓᓂᑦ, ᒪᓕᒐᓕᓂᖅᑐᑦ ᐊᒥᓱᓕ ᐊᑐᖅᑭᑦᓯᐊᓕᖅᖏᓐᓂᒃᑐᓂ ᐊᑯᓂᐊᓗᒃ ᖃᐅᔨᓴᖅᑭᑦᓯᐊᓕᖅᖏᓐᓂᒃᑐᓂ. ᓄᓇᓗ ᐅᓵᑐᑎᓪᓗᔪ:

“ᐊᐱᓯᒪᓂᖅᓂᖅ ᐊᖏᕐᕋᓕᐅᕐᓂᕐᓂᑐᑦ ᑭᓯᐊᓂ ᐊᑯᓂᓗᐊᖅᓂ ᑐᕈᑐᑦ ᐊᒥᓱᓗᐊᓕᐅᑎᓂᖓᓂᓐᓄᑦ.”

ᑕᒪᓐᓇ ᐅᖅᖏᐅᓯᖅᖏᓐᓂᖅ ᐃᓄᐃᑦ ᑐᑭᐅᐅᒪᔪᖓᓂᓐᓂᒃ ᓂᕈᑭᕐᓂᐃᑦ ᑐᕈᑐᑦ ᑎᖓᒪᐅᔪᐃᑦ ᐱᕐᓂᖓᓂ ᐅᑭᐅᖅᑯᐃᑦ ᐱᓕᕆᐅᔨᓂᒃ ᐱᔨᑦᑕᐅᓯᕐᓂᖓᓂᓐᓄᑦ ᐊᒥᓚ ᐊᒥᐊᓯᓐᓂᕐᓂᖓᓂᓐᓄᑦ ᐊᑐᖅᑭᑦᓯᐊᓕᖅᖏᓐᓂᒃᑐᓂ ᐱᔨᑦᑕᐅᓯᕐᓂᖓᓂᑦ ᐊᒥᓚ ᐊᑐᖅᑭᑦᓯᐊᓕᖅᖏᓐᓂᒃᑐᓂ ᐱᔨᑦᑕᐅᓯᖅᑐᑦ, ᓄᓇᓗ ᐊᒥᐊᓯᓐᓂᕐᓂᖓᓂᓐᓄᑦ ᐊᑐᖅᑭᑦᓯᐊᓕᖅᖏᓐᓂᒃᑐᓂ ᐱᔨᑦᑕᐅᓯᕐᓂᖓᓂᑦ, ᐊᑐᖅᑭᑦᓯᐊᓕᖅᖏᓐᓂᒃᑐᓂ ᐱᔨᑦᑕᐅᓯᖅᑐᑦ

ᓂᕆᐹᓴᖅᑭᓐᓇᐃᓕᓐᓇᑕᑎᒃ ᑕᐃᒪᐃᓂᖅᓱᓕᓐᓂᓪᓗ ᖃᑭᖅᑕᒍᓐᓇᒥ ᑐᖅᑐᕆᓂ ᐱᑕᓕᐊᔪᖅᑕᐅᓕᕆᓂᖅᓂᕐᓄᓕᓂ ᐊᓂᕐᔪᖅᓂᕐᓄᑦ 1970 – 2000-ᓂ ᐅᑎᑭᓇᐃᑕᓂᐊᖅᑐᑦ ᑕᐃᑯᓗᒃ ᐊᒥᓱᑎᑭᓚᐅᕆᓂᖅᓂᕐᓄᓕᓂ.

ᐊᓂᕐᔪᖅᓂᕐᓂᒥ 1950-ᓂᓪ 1960-ᖅᓂᕐᓂᓪ, ᐃᓄᐃᑦ ᐊᐅᑕᓂᑎᑭᓚᐅᕐᓕᒡ ᐊᓱᓂᑎᐊᓕᓚᖅᖃᓂᕐᓄᓂᖅ ᐱᐅᓱᖃᖅᓱᑎᒃ, ᐅᓪᓗᒥᔅᓯᓂ ᓱᓕ ᐊᑐᖅᑕᐅᕐᒪᑐᐃᓐᓇᖅ! ᐊᒥᓱᓕᕐᑲᐊᖅᑎᓪᓗᑎᓂ ᑐᖅᑐᐃᑦ ᐊᓂᕐᔪᖅᓂᕐᓄᒥ 1950-ᖅᓂᕐᓂᓂᒥ ᓱᓕ, ᐃᓄᐃᑦ ᐃᓕᓴᐅᑐᖅᓂᑦ ᖃᐅᔨᓚᒪᕆᓚᐅᖅᑐᑦ ᒪᓂᕐᒧᑦ.

“ᑐᖅᑐᓱᐅᖃᖅᑕᐃᓕᓚᐊᖅᖃᓪᓚᕆᓚᐅᖅᑐᑐᑦ ᓄᓇ ᖃᐅᖃᖅᑎᑕᐅᑲᐃᓕᓚᐊᖅᑎᓂᖅᓱᓕᓂᑦ.”

ᐊᓂᕐᔪᖅᓂᕐᓂᒥ 1950-ᓂᓪ 1960-ᖅᓂᕐᓂᓪ, ᐃᓕᓴᐅᑐᖅᑲᐃᑦ ᐃᓄᐃᑦ ᖃᐅᔨᓚᒪᕆᓚᐅᖅᑐᑦ *“ᐊᑯᓂᓪᓗᐊᖅ ᑐᖅᑐᐃᑦ ᐊᒥᓱᓪᓗᐊᓕᐅᔨᓂᖅᓯᒪᓂᓄᓕᓂ”* ᖃᐅᑕᐅᔪᓂᒥ ᐊᓂᕐᔪᐃᒪᓇᐅᔨᓱᓂᒥ ᐊᓚᒪᓪ ᑐᖅᑐᐃᑦ ᐊᒥᓱᓴᓂᒥᖅᓱᓚᓂᖅᓂᕐᓄᓕᓂ, ᐃᓄᐃᑦᓗ ᓇᓚᐅᑦᑐᕆᓚᐅᖅᑐᑦ 1930-ᓂᓪ ᐊᓚᒪᓪ 1940ᖅᓂᕐᓂᓪ ᑕᐃᒪᐃᓕᓪᓚᓂᖅᓂᕐᓂᓂᒥ ᓂᕆᐹᓂᖅᑎᐊᖅᓂᕐᑐᓄᑕᓂᓐᓇᖅᑐᑦ ᑎᖅᒪᐅᕗᖅᓂᖅ. ᖃᖅᐅᓕᒪᓕᐅᖅᑕᒪ *“ᓄᓇ ᖃᐅᖃᖅᑎᑕᐅᑲᐃᓕᓚᐊᖅᖃᓪᓚᕆᓚᐅᖅᑐᓂᖅ,* ᐊᒥᓱᓵᖅᓂᕐᓂᓂᒥ ᑐᖅᑐᐃᑦ ᖃᑯᓂᖅ ᐊᐖᑎᓄᑦ 10-20 ᐊᓂᕐᔪᒍᓂ ᑕᐃᓂᓱᒪᓂ ᐊᓂᕐᔪᖅᓂᕐᓂᒥ 1950-ᓂᓪ 1960-ᖅᓂᕐᓂᓪ,. ᑕᒪᑯᐊᐊ ᑐᖅᑐᓱᓕᕕᐅᖓᓂᖅᓂᕐᓄᓕᓂ ᖃᓄᐃᑕᐅᕗᑕᐅᖓᓂᕐᓂᖅᑐᑦ ᐱᔪᓐᓇᐅᑕᐅᖓᓂᕐᓂᒪᑕᒡ ᓱᓄᐃᑐᐊᑐᖅᒥᒃ ᐱᕗᖅᓐᓇᖅᑐᓂᖅᓂ ᑐᖅᑐᕆᓂ, ᐱᕗᐊᓂᑎᐊᓚᐊᖅᑎᓂᖅᓂᕐᓄᓕᓂ ᐊᖅᑎᔪᐊᑐᖅᒥ ᓄᓇᒥ ᑕᐃᒪᒃ ᐊᒥᓱᓂᖅ ᓂᕆᐹᓂᖅᑎᐊᖅᑎᓂᖅᓱᓚᓂᖅᓂᕐᓂᓂᒥ ᐅᖃᐅᓯᖅᑐᓂᖅ ᑐᖅᑐᕆᓂ ᐊᐅᑕᓂᑎᖅᓂᕐᓂᓂᒥ ᐊᐖᓐᓇᖅᑐᑦ ᐊᑐᖅᑐᕆᓂ ᐊᓂᕐᔪᒍᓂ ᐊᐖᓐᓇᖅᑐᑦ ᐊᑐᖅᑐᕆᓂ 10-20 ᐊᓂᕐᔪᒍᓂᖅᑐᓂ, ᑕᐃᒪᒃ ᐱᑕᖅᑲᐊᖅᑎᖅᓯᒪᓇᖅᑐᓂ ᓂᕆᐹᖅᓯᓇᐅᑕᓂ, ᑎᓴᒪᐅᖅᓄᑦ, ᐱᕗᐊᓂᔪᓇᕐᑎᐊᖅᓂᐊᖅᓯᒪᓂᑦ ᐃᓕᓴᕐᓂᐊᖅᑐᑦ ᓄᓇᕗᑦ ᐊᐅᓚᑦᑎᓂᖅᓂᕐᓄᓕᓂ ᐊᓂᕐᔪᖅᓂᕐᓂᓂᒥ

ᐊᓚᓗ ᐅᖃᐅᖅᓴᐅᓯᒪᔨᓗᑎᒃ ᑐᓴᖅᑎᑕᐅᓯᒪᓗᑎᒍᓗ ᑐᓐᖓᕕᒃᑯᓐᓄᑦ. ᑕᒪᐃᓐᓂᐅᕐᓴᖅ ᐊᖏᓇᓱᒋᑦ ᑲᑐᔾᖃᑎᒌᖓᑦ ᑲᑎᒪᔨᖃᑦᑕᐅᓯᒪᓗᑎᒃᓴᖅᑐᑦ, ᐊᔪᖃᓇᐅᓂᒃᑐᑐᐊᖅᐸᑦ, ᐊᐃᑦᑐᓱᓯᖅᑕᕆᓴᐅᓂᐊᖅᑐᓂᒃ ᓄᓇᓕᖓᓄ ᒪᑭᐃᐃᖅᑕᖅᓯᒪᓕᑎᑎᕐᓯᒃ ᑐᓂᔾᐅᓕᐅᑎᓂᒃ ᑐᑐᒍᐃᓇᓕᐅᑎᓂᒃ ᐊᓚᓗ ᐃᓕᖓᓂᒃ ᑕᒪᐃᓐᓂᐅᕐᓴᖅ ᐊᒥᓱᑉᐸᓕᐊᖅᑎᓯᖅᑐᑦ ᑕᒪᐃᓐᓂᐅᕐᓴᖅ ᑎᑎᖅᑕᐅᓂᒃ ᑕᒪᐃᓐᓂᐅᕐᓴᖅ ᑕᒪᐃᓐᓂᐅᕐᓴᖅᑐᑦ

a) ᓯᒪᓂᖅᓴᖅ ᐱᖓᓱᓂᖅ ᑐᓴᑕᐅᔪᖓᓂᕐᓂᖅ ᐊᑐᓂ ᓄᓇᓕᖓᓂ ᒪᓕᒃᓗᑎᒃ,

b) ᑕᒪᕆᕐᓂᐅᓯᒪᖏᓂᕐᓂᖅ ᑐᓴᓯᐅᕐᑎᖏᓂᕐᓂᖅ ᐊᑐᖅᑕᐅᓯᒪᓂᖏᓕ;

c) ᐊᖏᓪᓗ ᐃᓕᓴᐅᓗᑎᒃ ᐊᕐᕌᒍᑦ ᑕᒪᐃᓂᕐ ᑲᑎᒪᓂᕐ ᑐᓴᑕᐅᔪᓂᓇᖏᓂᕐᓂᖅ ᐊᒥᓯᕆᓇᐊᖅᑕᐅᓂᖏᓕ ᐊᖏᓪᓗ ᑕᒪᕆᕐᓂᐅᓯᒪᖏᓂᕐᓂᖅ ᑐᓴᒍᓇᐅᑎᖏᓂᖅ ᐊᑐᕐᓂᖅ,

d) ᐊᖏᓪᓗ ᐊᓯᖏᓂᖅ ᐁᖅᑭᒋᐊᖅᑕᐅᔪᓇᖅᑐᓂᖅ ᖃᑭᖅᑕᓗᖏᓐ ᐊᖓᔪᓂᓯᑎᓕᒫᓂᒪᓕᒡᓗ ᑲᑎᒪᓂᕐᒪᓂᓕᒡᓗ ᐃᓯᒪᑎᐅᐅᔪᓇᕐᒥᔪᓂᖅ ᓇᓱᒪᔾᔪᑎᖃᖅᑕᐅᔪᓇᖅᑐᓂᖅ.

6. ᖃᐅᔨᓴᕐᒪᕐᓗᑎᒃ ᑲᔪᓯᓯᒪᕐᑎᐊᕐᓂᖅᓂᕐᓂ ᐊᖏᓪᓗ ᐊᒥᒃᑯᓯᒪᐃᓐᓇᕐᓇᕐᓂᖅᓂᕐᓂ ᐊᑐᕐᓂᖅᓂᕐᒥᓂ ᓄᐃᓕᓐᓂ ᐱᐅᓯᑐᖃᖅᓂᕐᒥᖅᑎᒃ ᐊᐅᓪᓚᕐᑎᖅᓂᕐᕕᒃ, ᖃᑭᑦᑕᕐᓂᖅᓂᕐᒥᒃ ᐊᖓᔪᓂᓯᑎᓕᒫᓂᒪᓕᒡᓗ ᑲᑎᒪᓂᕐᒪᓂᓕᒡᓗ ᐃᓯᒪᑎᐅᐅᔪᓇᕐᒥᔪᓂᖅᓂᕐᓂ ᐊᖏᓪᓗ ᐊᓯᖏᓂᖅᓂᕐᒥᔪᓂᖅᓂᕐᓂ ᐊᑐᕐᓂᖅᓂᕐᒥᓂ ᓄᐃᓕᓐᓂ ᐊᖏᓪᓗ ᐊᓯᖏᓂᖅᑲᓇᐃᓐᓂᕐᒥ

ᑲᑎᒪᔨᑕᓂᖅ
Department of Environment
Avatiliqiyikkut
Ministère de l'Environnement

ᑲᑎᒪᓕᕆᔨᑲᖅ ᐅᒪᔾᔪᓂᐊᑎᒃᓴᓂ ᑲᑐᔾᔨᕆᑎᑦᑎᓕᕐᓂᓂᒃ ᖃᐅᖅᑕᒥᓗᒋᑦ ᑐᑦᑐᖓᓕᕐᓂᑦ

ᐅᖃᓕᒥᐅᑎᒃᓴᓂ ᑲᑎᒪᓂᖅ

ᐃᓕᓴᕐᕕᒃ 15 ᐊᒻᒪ 16, 2022

ᐅᑭᐊᓕᕆᓂᖅ ᐊᑐᖅᑕᐅᓯᒪᓂᖅ ᑲᑎᒪᓂᖅ
ᖃᐅᔨᓴᓕᕆᓂᖅ ᑐᑭᓯᐊᓂᖅ
ᐃᓚᖓᑕᒥ ᓄᓇᕗᑦ
ᑕᕆᐊᒃᑲᓐᓂᖅ, ᓄᓇᕗᒻᒥ

ᐊᐅᓪᓗᓂᔪᑦ ᓇᐃᓐᓴᕐᓚᓪᓕᐊᓂ

ᓄᓇᖅᑐᑦ ᓴᖅᓚᓵᒋᑦ (GN), ᐊᖅᑎᑕᕆᔨᒃᒋᑦ (DOE) ᑭᖑᖏᑐᐃᐃᔨᖏᑦ ᑲᑎᒪᖏᑎᖏᓕᐅᕈᑐᖏᑦ ᐅᒪᔪᖏᑎᐊᑎᒃᒋᑦ ᑲᑐᔨᖏᑎᑦᑎᓂᖅᑐᓂᖅ (HTO) ᖃᑭᖏᑦᑕᒍᒪᒥ ᐅᐊᖅᓇᖑᓂᓄ ᐊᖏᒪ ᓂᑎᖑᓂᓄ ᖃᑭᖏᑦᑕᒍᒪᒥ ᓄᓇᕐᓂᖅᑐᓂ, ᑭᖅᑯᓂᖅᑐᓂ 15 ᐊᖏᒪ ᐃᖅᑭᐊᓗ 16, 2022, ᑐᖓᑎᓕᖅᓇᖏᑦ.

ᐱᔪᐊᑎᓇᓯᐊᖏᑕᖓᑖ ᑕᒪᑐᒪᓂ ᑲᑎᒪᓂᐅᔪᓂᑦ ᑕᑯᔪᐊ ᐅᒪᔪᖏᑎᐊᑎᑯᔪ ᑲᑐᔨᖏᑎᑦᑎᓂᖅᑐᓂ ᖃᑲᓇᐅᓂᕐᐅᓚᖓᖓᓂᑐᓂ ᖃᑲᓇᐅᑕᖓᓚᕐᓂᖓᖓᓐᓄᑦ ᖃᑲᐅᔨᔪᖏᓂᐅᔪᓂᑦ ᐅᓇᐅᑎᑦᑕᒍᒍ 2021 ᐊᖏᒪᓗᑦᑕᐅᖏᖅ ᑐᖑᑕᐅᔪᓂᑦ ᖃᑲᓇᐅᓂᖓᓐᓄᑦ ᖃᑲᐅᔨᔪᖏᑦᑕᖏᓂᖅᓗᑦ ᐱᑕᖏᐊᖏᖅ ᖃᑭᖏᑦᑕᒍᒪᒥ. ᐊᖅᑎᑕᕆᔨᒃᒋᑦ ᑐᓂᔨᓕᐅᕈᑐᖅᑐᑦ ᖃᑲᐅᔨᔪᖏᑎᐊᑎᒃᒋᑦ ᐱᑕᖏᐊᖏᖅ ᐱᖃᑦᑐᐅᑎᑕᐅᑎᑦᑎᓂᖅᑐᓂ ᑐᑭᓯᐊᓂᖅᑐᓂᑦ, ᑲᔪᓯᑎᑕᐅᓂᖓᓐᓄᑦ ᖃᑲᓇᐅᓂᖓᓐᓄᑦ ᑎᒥᖓᑦ ᖃᑲᐅᔨᔪᖏᑦᑕᖏᓂᖅᖃᖅ ᐊᖏᒪ ᐅᖃᐅᔨᖏᑦᑕᑎᑦ ᑲᑎᑦᑐᑦ ᑐᖑᑕᐅᔪᓂᑦ ᐊᖏᒪ ᓄᓇᕐᓗᒍ ᑕᔪᐅᕐᖏᑦᑕᖏᖅᑐᑦ. ᐊᖅᑎᑕᕆᔨᒃᒋᑦ ᑐᓴᒪᓂᖏᓐᓄᑦ ᐱᔪᐊᑎᖏᑎᒃᒋᑦ ᐃᓕᓴᕐᓂᖅᑐᓂᖅ ᐊᖏᒪ ᐊᐅᓚᓯᒪᔪᖏᑦᑐᓂᖅ ᐱᔪᐊᑎᖏᑎᒃᒋᑦ ᐊᔪᕐᓇᐅᑉᐳᖓᓂᖅᑐᓂᖅ ᐱᔪᐊᑎᖏᑎᒃᒋᑦ ᐊᔪᕐᓇᐅᑉᐳᖓᓂᖅᑐᓂᖅ ᐊᖏᒪ ᐊᐅᓚᕐᓇᖏᑦᑐᓂᖅᑐᑦ ᐱᔪᐊᑎᖏᑎᒃᒋᑦ ᐅᓪᓚᕐᓇᖏᑦᑐᓂᖅᑐᑦ ᐊᖏᒪ ᐊᐅᓚᕐᓇᖏᑦᑐᓂᖅᑐᑦ ᐱᔪᐊᑎᖏᑎᒃᒋᑦ ᐃᓕᓴᕐᓂᖅᑐᓂᖅ ᐊᖏᒪ ᐊᐅᓚᕐᓇᖏᑦᑐᓂᖅᑐᑦ ᐱᔪᐊᑎᖏᑎᒃᒋᑦ ᐱᔪᐊᑎᖏᑎᒃᒋᑦ ᐊᔪᕐᓇᐅᑉᐳᖓ

ᐅᖅᑲᐅᓯᖅᓱᐊᓕᕆᔨᒪᖏᓐᓄᑦ

ᒎᓪᓗ ᐅᓂᒃᑲᓕᐊᖅ ᓴᖅᑭᑦᖅᑎᓂᒃᑐᖅ ᐊᐅᑎᓕᓵᔨᒃᑯᑦ ᐱᓕᕆᖏᓐᓇᐅᑦ ᐱᐅᓪᓚᒃᑯᑦ ᐱᓇᓯᓂᓱᓕᓚᐅᖅᑕᖏᓪᓕᓂ ᑕᒪᒃᑯᓂᐊ ᑲᑎᖅᓯᐊᑎᓕᔭᒋᓕᒃᑐᑦ ᑐᑎᓪᓗᖅᑲᑎᖅᑎᓕᔭᒋᓕᒃᑐᑦ ᐊᖏᔪᓯᒃᑎᓕᒃᑐᑦ ᒥᐅᓇᓯᒃᑎᓕᓚᐅᖅᑕᖏᓪᓕᓂ ᑲᑎᖅᓯᐊᑎᓕᖅᑎᓕᓚᐅᖅᑕᖏᓪᓕᓂ ᐊᖏᔪᓯᒃ

ᖃᑭᓂᖅᓴᖅ

ᐊᐅᓪᓚᑎᓂᕐᒧᑦ ᓇᐃᓐᓇᕐᓂᒪᓂᕐᓂᑦ i

ᐅᖃᐅᓯᖏᓐᓄᐊᓕᓪᓚᑎᑐᑎᖓ ii

ᐅᓂᒃᑲᓐᓂᕐ ᐱᓱᐊᑎᐅᓱᓂ ᐊᓗᒪ ᐊᑦᑭᒃᓯᒪᓂᖅ 1

ᐅᖃᓪᓚᖏᓐᓄᐊᖏᒃᑐᓂᕐᒧᑦ ᐱᓱᐊᑎᑎᕐᐅᓱᓂᕐᓂᑦ 1

ᐊᑦᑭᒃᓯᒪᓂᖅᓱᖓ ᑲᑎᒪᓂᖅ 1

ᑲᑎᒪᓂᖅᓱᖓ 2

ᐃᓕᓴᕐᕕᐊᓇ 15, 2022 2

ᐃᓕᓴᕐᕕᐊᓇ 16, 2022 3

ᓇᐃᓐᓇᕐᓂᒪᓂᕐᓂᑦ ᓄᓇᓕᒃᑎᒍᑦ 3

ᐃᓕᓴᕐᕕᐊᓇ 15 – ᐅᐊᓕᓐᖓᓂᓗ ᖃᐅᔨᖅᑕᕐᓗᒃ 3

ᓴᓂᖅᓱᒃ ᐅᒪᔨᖏᓂᐊᑎᒃᓯᑦ ᑲᑐᔾᖅᑎᑎᑦᑕᕐᓂᑦ (HBHTA) 4

ᐃᓚᓕᓕᒃ ᐅᒪᔨᖏᓂᐊᑎᒃᓯᑦ ᑲᑐᔾᖅᑎᑎᑦᑕᕐᓂᑦ 4

ᐃᑲᔨᖅᑎᑦ ᐅᒪᔨᖏᓂᐊᑎᒃᓯᑦ ᑲᑐᔾᖅᑎᑎᑦᑕᕐᓂᑦ 4

ᒥᕋᑎᒪᑕᓕᒃ ᐅᒪᔨᖏᓂᐊᑎᒃᓯᑦ ᑲᑐᔾᖅᑎᑎᑦᑕᕐᓂᑦ 4

ᓇᓐᓚᐅᑕᖅᑐ ᐅᒪᔨᖏᓂᐊᑎᒃᓯᑦ ᑲᑐᔾᖅᑎᑎᑦᑕᕐᓂᑦ 4

ᓄᓇᕗᑦ ᑐᓐᓴᕆᓚᐅᒃ 4

ᖃᐅᔨᖅᑕᕐᓂᒥᒃ ᐅᒪᔨᖏᓂᐊᑎᒃᓯᑦ ᑲᑎᒪᔨᓐᓇᑦ 5

ᓄᓇᕗᒥᒃ ᐅᒪᔨᑕᕆᔨᕿᐊᑎᒃᓯᑦ ᑲᑎᒪᔨᓐᓇᑦ 5

ᐃᓕᓴᕐᕕᐊᓇ 16 – ᓂᑎᓐᓴ ᖃᐅᔨᖅᑕᕐᓗᒃ 5

ᓇᕿᑎᐊᖅ ᐅᒪᔨᖏᓂᐊᑎᒃᓯᑦ ᑲᑐᔾᖅᑎᑎᑦᑕᕐᓂᑦ 5

ᐸᐅᓂᖅᑐᒥᒃ ᐅᒪᔨᖏᓂᐊᑎᒃᓯᑦ ᑲᑐᔾᖅᑎᑎᑎᓐᓇᑦ 5

ᒪᔨᖅᑲᑕᓕᒃ ᐅᒪᔨᖏᓂᐊᑎᒃᓯᑦ ᑲᑐᔾᖅᑎᑎᑦᑕᕐᓂᑦ 6

ᐊᒪᓕᖅ ᐅᒪᔨᖏᓂᐊᑎᒃᓯᑦ ᑲᑐᔾᖅᑎᑎᑦᑕᕐᓂᑦ 6

ᐊᐃᐃᕐᖅ ᐅᒪᔨᖏᓂᐊᑎᒃᓯᑦ ᑲᑐᔾᖅᑎᑎᑦᑕᕐᓂᑦ 6

ᓄᓇᕗᒥᒃ ᐅᒪᔨᑕᕆᔨᕿᐊᑎᒃᓯᑦ ᑲᑎᒪᔨᓐᓇᑦ 7

ᓄᓇᕗᑦ ᑐᓐᓴᕆᓚᐅᒃ 7

ᖃᐅᔨᖅᑕᕐᓂᒥᒃ ᐅᒪᔨᑕᕆᔨᓯᑎᒃᓯᑦ ᑲᑎᒪᔨᓐᓇᑦ 7

ᓇᓗᓇᐃᖅᑕᐅᔪᑎᑦ 8

ᐃᓕᑕᐅᖅᓴᐅᓕᕆᖅ 9

ᐅᓂᖅᑲᓇᑦ ᐱᓱᐊᑎᐅᔾᔪᑦ ᐊᒻᒪ ᐊᖏᕿᑎᓂᖅ

ᐅᑯᐊ ᐅᓂᖅᑲᑦ ᐱᓱᐊᑎᖏᓐᓇᖅᑐᑦ ᐊᖅᑭᕐᓯᐃᓗᑐᐃᑦ ᐊᒻᒪ ᓇᓗᓇᐃᔨᐃᓗᑐᐃ ᐅᖏᖅᐅᓯᕐᓴᓂᓂᑦ, ᐊᐱᓚᖅᑯᑎᓂᑦ ᐃᓕᓴᐃᓂᐊᕐᓂᐊᖅ ᐊᒻᒪ ᐅᖏᖅᐳᓴᐅᓕᐊᕐᑏᑦ ᑲᑎᓴᖏᑎᑎᕐᓂᓐᓂ ᐅᐸᓂᕐᑐᓂᓐᓂ ᑭᓂᐅᑦᓂᓗᓂ ᑐᓂᐅᔾᔨᖅᑎᑦᑎᓂᖅ ᐅᓇᐅᑎᓪᓗᐊᑦᑎᓂᓗ ᐃᓕᓴᐃᓂᐊᕐᓂᐊᖅᑎᑦᑎᓂᖅ ᑲᑎᓴᖏᑎᑎᕐᓂᓐᓂ ᐃᓕᓴᐃᓂᐊᕐᓂᐊᖅᑎᑦᑎᓂᖅ ᐊᒻᒪ ᐅᖏᖅᐳᓴᐅᓕᐊᕐᑏᑦ

ᓇᓗᓇᐃᖅᓱᓕᕆᓂᖅᑕᐅᔭᖅᑐᑦ ᑲᑎᒪᖅᑕᐅᔭᓗᑎ. ᐅᓪᓚᖅᓯᐅᑦ ᖃᐅᔨᓴᕐᓂᓄᑦ ᐃᓕᖅᑲᓐᓂᐅ ᓄᖅᑲᑎᕐᑎᑲᐃᓐᓇᕆᐅᔭᖅᑐᖅ ᑲᑎᒪᓂᐅᔪᑦᑕ ᐅᓐᓄᓴᖅᓱᓂ ᕕᖓᐅᐊᓗ 15 ᐊᓯᓂᐅᓂᖃᖅᖢᓪᓕᑐᓂ 20 ᒥᓂ ᓄᓇᕗᓴᓪᒃ ᐅᒪᔪᓕᓗᓴᔪᐊᖅᓯᑦ ᑲᑎᒪᔨᖏᑦᑕ, ᓄᓇᕗᑦ ᑐᙵᓱᕚᖅ ᑎᒥᖓᓂ ᐊᓪᒪ ᐃᖅᑲᓐᓂᒃᑐᑎᖅ ᑐᓴᔨ (ᐃᓐᓂᕆᕚᖅ ᐃᑲᔪᖅᑎᑦ ᓱᒥᖓᓂ) ᐃᓕᒥᐅᑲᒃᑯᑐᐃᓐᓇᐅᓕᕆᐅᖅᑐᑦ ᕈᓱᐊᓂ ᐅᓪᓚᖅᓯᐃᑦ ᐃᕈᓪᒪᑕ. ᐊᑐᓂ ᑲᑎᒪᓂᐅᔪᑦ ᐱᑎᐊᖅᓂᑲᑕᐅᔭᖅᑐᑦ ᑐᓂᔪᐅᓂᖅᓂᓄᑦ ᖃᓄᐃᓐᓇᖅᑐᓂᒃ ᐊᖏᖅᒋᔭᖅᓯᕐᒥᔪᓂᑦ ᖃᓄᐅᔨᓴᖅᓂᕐᒥᑦ ᐱᓕᕆᐊᓂᑦ ᐱᖃᓗᐊᓂᑦ ᐱᖃᓱᐅᑎᓪᓗ ᑎᑎᖅᓂᐅᓂ ᖃᓄᐅᔨᓴᖅᑕᓂᕐᒥᑦ, ᖃᓄᐃᓕᓚᓕᖅᓂᖅᓂᕐᒧᐃᓐᓇ ᖃᓄᐅᔨᓴᖅᓂᐅᔪᑦ ᐊᓪᒪ ᖃᐅᔨᓴᕐᓂᓄᑦᓯᕐᓗᒃ ᐅᐊᖓᓇᓕᓂ ᖃᐅᑉᐸᖅᑕᓪᓚᕆᑦ. ᑐᓂᓴᐅᔪᑦ ᐱᓕᕆᓪᓚᐊᖅᑕᓪᓚᐊᕆᐊᖅᑐᑦ ᖃᓄᐅᔨᓴᖅᓂᐅᔪᓂᐊᖅᑐᑦ ᓴᖅᑭᓂᐊᖅᑐᑦ 2021/2022 ᑭᓇᐅᔭᓕᓚᓂᕐᒧᑦ ᐊᖏᖅᑐᒍᑦ ᐊᓪᒪ ᑐᓴᕐᖓᓵᔪᖅ ᑐᓂᑐᐊᓂ ᖃᐅᔨᓴᖅᓯᐅᑉᐸᓂᕐᒥᑦ ᖃᓄᐃᓐᓇᖅᑐᓂᒃᑯᓂᕐᒧᑦ ᖃᑎᐊᓂ ᖃᐅᑉᐸᖅᑕᓪᓚᕆᑦ.

ᐅᓪᓚᕆᔪᓂᐊᖅᑐᑦ ᑲᑐᔾᖅᑎᑎᕐᓂᕐᓂ ᐊᐱᖅᓯᓂᐸᐅᓕᕆᐅᔭᖅᑐᑦ ᖃᓄᐅᔨᑕᑐᐃᓐᓇᕆᓂ ᐊᐱᖅᓂᐊᖅᑐᓂ, ᓴᖅᑭᑎᑎᕐᑕᐅᔭᖅᑐᑦ ᐃᓕᓴᕆᓚᐅᖅᓯᓂ, ᐅᕙᓘᓐᓃᑦ ᐅᖃᖅᑐᖅᑐᓂᒃ ᐅᖃᖅᑐᑦᓯᓕᕆᐅᔭᖅᑐᑦ ᐃᓕᓴᕆᓪᓚᐊᖅᑐᓂᒃ.

ᐅᒡᒍᓪᓚᐃᓂᖅ ᐃᓕᓴᕆᓪᓚᐊᖅᑐᓂᒃ ᑲᑐᔾᖅᑎᑎᕐᓂᕐᓂ ᐊᐱᖅᓯᓂᐸᐅᓕᕆᐅᔭᖅᑐᑦ ᐃᓕᓴᕆᓪᓚᐊᖅᑐᓂᒃ ᑲᑐᔾᖅᑎᑎᕐᓂᕐᓂ ᑐᓂᔪᐅᓂᖅᓂᓄᑦ ᐊᐱᖅᓯᐅᑉᐸᓂᕐᒥᑦ ᐊᐱᖅᓯᐅᑉᐸᓂᕐᒥᑦ ᐃᓕᓴᕆᓪᓚᐊᖅᑐᓂᒃ ᑲᑐᔾᖅᑎᑎᕐᓂᕐᓂ ᐊᐱᖅᓯᐅᑉᐸᓂᕐᒥᑦ ᐊᐱᖅᓯᐅᑉᐸᓂᕐᒥᑦ ᐃᓕᓴᕆᓪᓚᐊᖅᑐᓂᒃ

ᐃᕐᐳᐊᓗ 16, 2022

8:45 ᐅᖅᓯᒃᑯᑦ	ᐃᖏᕐᔪᑦ
9:00 ᐅᖅᓯᒃᑯᑦ	ᒪᑐᐃᖅᓂᖏᓐᓄᑦ ᑐᓴᕐᕕᖅᓂᖅ, ᓇᓗᓇᐃᖅᑕᐅᔪᑦ
9:10 ᐅᖅᓯᒃᑯᑦ	ᓄᓇᕗᑦ ᓚᖓᒪᒃᑯᑦ ᖃᐅᐅᔨᓂᖅᓯᒪᓪ ᑐᓂᓴᖏᑦ – ᑐᕈᓕᕐᕕᑭᐅᑦ ᐊᖅᖃᓂᔨᖅᓂᑦ
10:00 ᐅᖅᓯᒃᑯᑦ	**ᓄᖅᑲᖏᓚᐅᐃᓇᖅᑐᑦ**
10:15 ᐅᖅᓯᒃᑯᑦ	ᓄᓇᕗᑦ ᓚᖓᒪᒃᑯᑦ ᑐᓂᓴᖏᑦ–ᖃᐅᐅᔨᔨᖅᓂᐅᓂᐊᖅᑐᒍᑦ
11:00 ᐅᖅᓯᒃᑯᑦ	ᐅᒪᔪᓂᐊᑎᒃᑯᑦ ᑲᑐᔨᖃᑎᒋᖏᑦ ᑐᓴᖅᓚᐅᓂᖏᑦ – ᖃᓄᖅᑕᖅᖁᔪᓚᖅ, ᐸᓐᓂᖅᑐᖅ, ᑭᒪᒥᑦ, ᐃᖃᓗᐃᑦ, ᑭᖑᓚᐃᑦ
12:00 ᐅᓐᓄᓴᒃᑯᑦ	**ᐅᖅᑐᑭᒪᑕᖁᓚᖅ**
1:00 ᐅᓐᓄᓴᒃᑯᑦ	ᓄᓇᕗᑦ ᓚᖓᒪᒃᑯᑦ ᑐᓂᓴᖏᑦ – ᐃᑲᔪᖅᑕᐅᔨᕆᓚᐅᒋᔭᒃ
1:30 ᐅᓐᓄᓴᒃᑯᑦ	ᓄᓇᕗᑦ ᓚᖓᒪᒃᑯᑦ ᑐᓂᓴᖏᑦ – ᑐᑦᑕᐅᔪᓂᑦ ᑐᐱᒪᕐᕕᑭᐅᑦ/ᑲᑎᒪᓂᑕᑦ ᑐᑦᑕᐅᔪᓐᓇᖅᑐᑦ ᐅᖅᑲᐅᓴᐅᓂᖓᓚ
3:00 ᐅᓐᓄᓴᒃᑯᑦ	**ᓄᖅᑲᖏᓚᐃᓐᓇᖅᑐᑦ**
3:15 ᐅᓐᓄᓴᒃᑯᑦ	ᐅᒪᔪᓂᐊᑎᒃᑯᑦ ᑲᑐᔨᖃᑎᒋᖏᑦ ᑐᓴᖅᓚᐅᓂᖏᑦ – ᑭᖑᓚᐃᑦ, ᐃᖃᓗᐃᑦ, ᑭᒪᒥᑦ, ᐸᓐᓂᖅᑐᖅ, ᖃᓄᖅᑕᖅᖁᔪᓚᖅ
4:45 ᐅᓐᓄᓴᒃᑯᑦ	ᐊᐅᓪᓚᕐᖃᑎᒋᐊᓐᓂᔭᑦ ᐱᓪᓚᕐᖃᑎᒋᑦ ᐅᖅᖃᓕᓴᐃᓐᑦ/ᐊᐱᓴᒃᑯᑎᑦ. **ᐱᙵᓴᓴᖅᑕᕐᖃᕈᓂ
5:00 ᐅᓐᓄᓴᒃᑯᑦ	ᓄᖅᑲᖏᓚᐅᓚ

ᓇᐃᓇᕐᓂᒪᔪᑦ ᓄᓇᓕᒫᒍᒧᑦ

ᐃᓕᕐᕆᓇᖅ 15 – ᐅᐊᓐᓇᓚᓂ ᖃᑭᖅᑕᓗᒃ

ᐅᐊᓐᓇᓚᓂ ᖃᑭᖅᑕᓗᒃ ᑲᑎᒪᓂᖅ ᐱᑎᐊᖏᓴᖅᓚᐅᕐᖅᑐᖅ 9:00 ᐅᖅᓯᒃᑯᑦ ᑭᓂᐊᓂ 9:45 ᐅᖅᓯᒃᑯᑦ, ᓇᖓᒪᐅᑕᖅ ᐅᒪᔪᓂᐊᑎᒃᑯᑦ ᑲᑐᔨᖃᑎᒋᖏᑦ (ᑲᖏᕐᖅᑐᒍᓚᐅᒃ) ᐅᒪᔪᓂᐊᑎᒃᑯᑦ ᑲᑐᔨᖃᑎᒋᓐᓂᑐ ᑭᓚᖅᑐᐃᓐᔪᑐᐊᖓᔪᓚᐅᕐᖅᑐᑦ ᐅᖅᑲᓚᐅᑎᒃᑯᑦ. ᑭᓚᖅᑐᐃᓐᔪᖅ ᓴᓂᕐᔭᒃ ᐅᒪᔪᓂᐊᑎᒃᑯᑦ ᑲᑐᔨᖃᑎᒋᖏᑦ (ᓴᓂᕐᔭᒃ) ᐃᓕᒥᑲᐅᓇᓕᓕᐅᕐᖅᑐᑦ ᐅᖅᑲᓚᐅᑎᒃᑯᑦ ᑭᓇᐅᔭᖅ ᐃᓕᒥᑲᐅᓇᓕᓕᐅᕐᖅᑐᑦ. ᐱᓴᓐᓂᓪᓗᒍ ᑭᓚᖅᑐᐃᓐᔪᐸᕐᓴᖅᑎᐊᖓᔪᓂᓐᓄᑦ, ᐃᓕᒪᓕᐅᕐᖅᑕᐅᓕᐅᕐᖅᑐᖅ ᐊᑕᖓᕐᖅᑐᑦ ᐱᒋᐊᕐᓇᖅᑐᑦ ᐱᓕᕐᓂᐊᖅᑐᑦ ᑲᑎᒪᓂᖅ ᐃᓕᒥᑲᐅᓇᓕᓕᐅᕐᖅᑐᑦ ᑭᓇᐅᔭᖅ ᐅᖅᑲᓚᐅᑎᒃᑯᑦ ᑭᓇᐅᔭᖅ ᑭᓇᐅᔭᖅ ᑭᓇᐅᔭᖅ

ᓴᓂᕆᔨ ᐅᒪᔪᓂᐊᑎᓕᒃ ᑲᑐᔨᖅᑎᑎᑦᑕᖅ (HBHTA)

- ᓇᓗᓇᐃᖅᓯᓪᓚᐅᖅᑐᑦ ᐃᓱᒪᓕᑐᑎᒥᑦ ᒪᓕᑦᑎᖅᑎᑕᐅᖅᓯᕐᓂᑦ ᑐᑦᑐᕈᐅᔪᓂ ᖁᐃᔪᐸᐃ ᑐᑐᖅᓯᓪᓗ, ᐱᓗᐊᖅᑐᒥ ᐃᓗᐃᓕᓴᕐᕕ ᐊᖓᔪᖅᓯᕐᓗᓂ ᐃᐸᐱᐊᔪᓚᕐᒥ ᐊᓪᒪ ᒥᕎᒪᒃᓕᓕᓚᕐᒥ.
- ᑐᓴᓂᓕᕈᖅᑐᑦ ᐊᒥᓱᓂᖅᓯᓄᑦ ᖃᐅᔨᓴᓂᒥᑦ ᐃᓗᐃᓕᓕᓚᕐᒥ ᑐᓴᖅᐃᓴᖅᑎᓗᑎ ᐃᖅᑐᓕᓂᒃ ᐊᓪᒪ ᓴᓂᕆᔨ ᐅᒪᔪᓂᐊᑎᓕᒃ ᑲᑐᔨᖅᑎᑎᑦᑕᖅ <ᖅᓇᐃᓂᖅᓗᑦ, ᐊᑐᓕᖅᑎᑕᕈᓂᖅᓄᓂᓄᑦ ᐊᓪᒪ ᑐᓴᖅᑎᕋᓂᖅᓗᑦ.

ᐃᖅᑐᓕᓂᒃ ᐅᒪᔪᓂᐊᑎᓕᒃ ᑲᑐᔨᖅᑎᑎᑦᑕᖅ

- ᐃᓱᒪᓗᑎᖅᑲᖅᑐᑦ ᐊᓯᑎᓂᓂᖅᓄᓂ ᐅᓴᕆᐅᑎᖅᑎᑦ ᑐᑐᑐᓄᑦ ᐃᓗᐃᓕᓕᓚᕐᒥ.
- ᐱᔪᒪᓂᖅᑲᖅᑐᑦ ᖃᐅᖅᓱᓂᕆᐊᖃᖅᓯᓂᖅᑐᑦ ᑐᐱᕈᐊᑎᑎᓂᖅᓂᓂ ᐊᓪᒪ ᑭᓱᓂ ᐃᓕᓴᐅᓂᐊᖅᑲᒋᑎᓂᓂ.
- ᑕᑯᔪᒪᔪᓂ ᑕᑯᔭᐊᑎᓂᔭᐅᓗᑎᒃᓴᖅᑐᑦ ᖃᐅᔨᓴᓂᓕᓚᕐᒥ, ᐱᓕᕆᔨᒪᔨᑎᑦᑕᖅᑐᑦ ᐃᓗᐃᓕᓕᓚᕐᒥ ᐃᓕᓴᐅᓂᐊᖅᑲᒋᑎᓂᓂ ᐃᓕᓴᐅᓂᐊᖅᑲᒋᑎᓂᓂ ᐃᓕᓴᐅᓂᐊᖅᑲᒋᑎᓂᓂ ᐊᓪᒪ ᐃᓕᓴᐅᓂᐊᖅᑲᒋᑎᓂᓂ

- ᐅᖃᐅᓐᓇᒪᐅᖅᑐᑦ ᐃᓱᒪᓕᑎᑎᕐᓂᓐᓄ ᑐᑦᑐᐃᑦ ᐊᒥᓱᓂᕐᓂᓐᒥ ᖃᑭᖅᑕᓕᕐᓗᒥ ᐊᖏᑎᑐᒪᓕᕐᐅᑦ.
- ᓇᓕᓇᐃᖅᓱᐊᑦ ᐃᓱᒪᓕᑎᑎᕐᓂᓐᓄ ᐱᓕᐊᑎᖃᖅᑐᑦᓄᑦ ᐱᐅᓐᕐᑕᐅᔪᓕᑦ ᖃᐅᔨᓱᓕᖅᓱᖃᕐᓂᖅᓯᒪᓂᖅᓴᒥᑦ ᐊᒥᓱᓂᕐᓂᑦ ᐊᖏᑎᕐᑎᑎᑕᓗᑦ.
- ᓇᓕᓇᐃᖅᓱᐊᑦ ᐃᓱᒪᓕᑎᑎᕐᓂᓐᓄ ᐱᓕᐊᑎᖃᖅᑐᑦᓄᑦ ᒥᔪᑕᐅᓂᖅᓯᒪᐅᓕᑐᓂ ᐊᐅᑕᕐᑎᓂᖅᓴᒥᑦ ᑭᓪᓕᕐᓂᑦ ᐊᓚᒪ ᐃᓱᒪᒋᐅᔪᓂᖅ ᐸᕆᐊᖃᖅᑐᓂ ᓄᖅᑲᖅᑎᑕᐅᔪᓂᖅ ᓄᓇᕗᑦ ᑲᕈᒪᐅᖅᓂᖅ.
- ᓇᓕᓇᐃᖅᓱᓕᐅᖅᑐᑦ ᐱᔪᒪᓂᖅᑲᖅᑐᑦ “ᐃᓄᐃᓐᓇᐃᓐ” ᑲᑎᒪᓂᖅᑲᖅᓗᓀᑐ ᐅᐸᕋᓱᒪᔪᐃᓐᓇᐅᔭᓀᑐ ᑎᑎᐅᔪᓂᖅ ᑭᓱᔪᐊᓂ ᓄᓇᕗᑦ ᑲᕈᒪᐅᖅᓂ ᐊᒥᓱ ᓄᓇᕗᒥ ᐅᒪᔪᓕᓚᕋᔪᔪᐊᐅᖅᓂ ᑲᑎᒪᓂᖅᓴᒥᑦ.

ᖃᑭᖅᑕᓕᕐᓗᒥ ᐅᒪᔪᓕᓚᐅᖅᓂ ᑲᑎᒪᔨᖏᑦ

- ᓇᓕᓇᐃᖅᓱᐊᑦ ᐃᓱᒪᓕᑎᑎᕐᓂᓐᓄ ᐱᔪᒪᓂᖅᑲᖅᑐᑦᓄᑦ ᐊᐃᑦᑐᑕᐅᔪᓐᓇᖅᓯᓂᓐᓇᓄᑦ ᓄᓕᕐᔪᐊᐊᖏᓇᖅ-19 ᐃᓄᐃᓂᑦ ᑐᑦᑐᓄᑦ ᑐᓴᕐᖏᓐᓇᔪᑦ ᖃᐅᔨᓱᓕᖅᓱᖃᕐᓂᖅᓯᒪᓂᖅᓴᒥᑦ ᐱᓕᓚᐊᖃᖅᑲᑎᒪᓕᕐᓂᑦ ᓂᕐᓚᓂᑦ ᖃᑭᖅᑕᓕᕐᓗᒃ.
- ᐅᖃᐅᓯᓚᖅᓂᖅᑕᖏᑦ ᓄᓇᕗᑦ ᑐᖓᓚᐃᒃ ᑎᒥᖏᑦ ᐃᓱᒪᓕᑎᑎᕐᓂᓐᓄ ᐱᔪᒪᓂᖅᑲᖅᑐᑦᓄᑦ ᒥᑭᔨᑕᐅᓂᖅᓴᒥᑦ ᐊᐅᐅᓕᕐᑎᓂᓕᓴᒥᑦ ᑭᑦᑕᓕᕐᓂᑦ ᐊᖏᑎᕐᑎᑎᑕᓗᑦ.
- ᐅᖃᐅᓐᓇᒪᐅᖅᑐᓕᕐᒥᑦ ᐱᔪᒪᓂᖅᑲᖅᑐᑦᓄᑦ “ᐃᓄᐃᓐᓇᐃᓐ” ᑲᑎᒪᓂᖅᑲᖅᓗᓀᑐᐱᓕᐊᑎᖃᖅᑐᑦᓄᑦ ᓄᓇᕗᑦ ᑲᓚᒪᓂᖅᓴᒥᑦ ᐅᖃᐅᓯᒪᔪᖅ ᑐᑭᓯᐊᓂ ᓄᓇᕗᑦ ᑲᓚᒪᓂᖅᓴᒥᑦ ᐅᖃᐅᓯᓚᐅᖅᑐᑦ.

ᓄᓇᕗᒥ ᐅᒪᔪᓕᓚᐅᖅᓯᒪᓂᖅᓴᒥᑦ ᑲᑎᒪᔨᖏᑦ

- ᐅᖃᑲᓪᓕᐊᓕᐅᖅᑐᑦ ᒡᒃᑯᐊ ᓄᓇᕗᑦ ᑲᓚᒪᓂᖅᑲᖅᑐᑦ ᐅᖃᑲᓪᓕᐊᑎᑦᓯᓗᓂᑐᓂ ᐃᒪᔪᑦ ᐊᐅᑕᕐᑎᓂᖅᓴᒥᑦ ᐊᑐᖅᑕᐅᓴᒪᐊᑕᓐᓂᑦ ᐅᓪᓗᓐᓂᖅᓴᐅᑎᓪᓗᑎᑦ ᐃᓄᐃᓂᑦ ᐱᖅᑯᓯᖏᓐᓄᓪᓗ ᐃᓄᐃᓂᑦ ᐱᓕᓚᓴᐅᔪᑦ.
- ᐅᖃᑲᓪᓕᐊᓕᐅᖅᑐᑦ ᒡᒃᑯᐊ ᓄᓇᕗᑦ ᑲᓚᒪᓂᖅᑲᖅᑐᑦ ᐃᓕᑕᓕᐅᑎᕐᓂᐊᓂᓐᓇᖅᓴᐅᑎᓪᓗᑎᑦ ᐃᓄᐃᓂᑦ ᖃᐅᔨᓴᓕᖅᑐᑦᓄᑦ (IQ) ᓴᓇᓯᒪᓂᖅᓄᓪᓗ ᐊᖏᑎᕐᑎᑎᑕᓗᑦ ᐱᓕᐊᑎᖃᖅᑐᑦᓄᑦ ᐊᓕᕐᓂᐊᑕᐅᓂᖅᓴᒥᑦ ᖃᐅᔨᓴᓂᖅᓴᒥᑦ ᐱᓕᐊᑎᖃᖅᑐᑦᓄᑦ ᐃᓄᐃᓐᓇᐃᓐ ᐱᔪᒪᓂᖅᑲ

- ᑕᑯᔪᒪᔪᑦ ᐃᓕᓴᐃᖏᓱᓂᑦ ᐊᐅᓪᓚᑎᓂᔭᒧᑦ ᑭᓪᓗᕈᓐᓄᓂ ᑕᖅᓗ ᖃᑭᖅᑕᓗᓪᓕ< ᓂᕈᖏᑦ ᓂᐃᖏᓕᑦᑲᓂᖅᓴᐅᓗᓂ ᐃᓕᖅᑲᓐᓂᒃ ᐅᑎᖅᑎᑕᐅᓂᖏᓐᓄᑦ ᐅᐊᓐᓇᖏᓂ ᖃᑭᖅᑕᓗᓪᓕ.
- ᐃᑲᔪᓱᖅᑐᑦ ᓇᕆᐊᓐᒃ ᑐᔪᕐᔾᐅᑎᖏᓂ ᖃᑲᐅᔨᓴᕐᑲᕐᓗᓂ ᐊᑯᓂᓂᕐᑎᑦ ᒪᕐᕉᓂ ᓄᓇᓕᓂᓂᖅ.
- ᐊᑕᐅᔪᖅ ᑭᖏᓴᖅᑐᐃᓕ ᐅᖃᓕᐅᖅᑐᖅ; “ᐆᓴᑐᐃᓐᓇᕐᑎᒍ, ᓂᕆᖏᓂᓂ ᖃᑭᖅᑕᓗᓪᓕ ᑐᑦᑎᓐᓂ ᓄᓇᓕᓂᓂᖅ ᓂᕈᑭᖅᑕᓗᓪᓕ ᓂᕆᖏᓂᓂ ᖃᑭᖅᑕᓗᓪᓕ. ᓇᓱᒥᓂᖅᓱᕐᑕ ᖃᑯᐊᓐᓇᕐᓇᖅᑕᕐᒉᑦ ᑯᑕᖏᓂ ᓂᕈᑭᖅᑕᓗᓪᓕ?”.
- ᐃᑲᔪᖅᓱᓂᖅᑲᓇᐅᖅᓯᑐᓗᐊᓪᓚᐊᑦ ᖃᑯᖏᓱᕐᓱᖅᓱᕐᑕᓂᒥᑦ ᐱᔨᐊᑎᑦᑕᓗᒍ ᓄᓇᓕᓪᓚᒧᑦ ᐃᓱᒪᓕᑕᐅᔨᑦ, ᑲᑎᒪᓐᓂ ᑲᔪᖏᓂᖅᓱᓪᓚᕆᔨᑦ ᐅᓂᖅᑐᐃᓐᓇᖅᑐᑦᑐᓗ ᐱᓕᕆᔨᖏᑦ ᐃᓕᑎᐅᔨᖏᓐᓄᑦ.

ᒪᔨᖅᑲᓪᓕ ᐅᒪᔨᓂᓕᐊᑎᓴᑯᑦ ᑲᑐᔪᖅᑲᑎᑎᑦᖏᑦ

- ᐱᔨᒪᔨᑦ ᒪᑭᐊᑎᖅᓱᒪᓕᐊᖅᑕᑐᓂᑦ ᓂᕆᐃᒪᓕᒋᓂᑦ (+35).
- ᑐᓴᖅᑎᑎᓕᐅᖅᑕᑦ ᑕᑯᖅᑕᕐᓂᖅᓴᐅᓕᖅᑐᑎ ᑐᑦᑐᓂᑦ ᓄᓇᓕᓪᓚᒧᑦ ᖃᑲᓂᕐᔪᓐᓇᓄᑦ, ᑭᓱᐊᓂ ᐱᐅᖅᓯᓂᖅᓴᖅᑲᖅ ᐅᖅᑯᑎᓐᓇᒧᑦ ᐃᖅᑲᓐᓄᑦ.
- ᖃᑲᐅᔪᓐᓇᖅᑐᑦ ᐃᓕᓴᐃᖏᓐᓄᓂᓐᓂᓂ ᐱᔨᑎᖃᑎᖅᑐᑦᑐᓂᑦ ᐱᖁᔭᓂᖅ ᐅᖅᑯᑎᓐᓇᖅᑐᑦ ᐃᓕᓴᐃᖏᓐᓄᑦ

ᑭᖓᓂᐊᒍᑦ ᐊᑕᖏᑦᓱᑐᑎ ᐅᒪᔨᕐᓂᐊᑎᒃᓯᑦ ᑲᑐᔪᖅᑎᑎᒋᖏᑦ ᐊᐱᖅᓯᕐᓂᓇᓕᐅᖅᑎᓕᓪᓗᑦ ᐊᐱᐃᓂᖏᓐᓂᓂ ᐊᐱᐃᓂᖏᓐᓂᒃᑯᑦ ᐅᓴᖅᑭᓇᖅᑎᑕᐅᓕᐅᖅᓱᑦ, ᐊᐅᓕᕐᓂᖅᑎᑎᒋᓂᓂᕐᒧᑦ ᐱᓕᕆᖅᑎᑎᕐᓱᑦ ᐅᖅᑭᓇᖅᑎᑕᐅᓕᐅᖅᓱᑦ.

ᓄᓇᕗᒻᒥ ᐅᒪᔨᓕᕆᔨᕐᐊᒃᓯᑦ ᑲᑎᒪᔨᖏᑦ

- ᑭᐅᓕᐅᖅᓱᑦ ᐊᐱᖅᓯᑎᓄᑦ ᐅᒪᔨᕐᓂᐊᑎᒃᓯᑦ ᑲᑐᔪᖅᑎᑎᒋᖏᓐᓄᑦ ᐱᔨᑎᖅᑲᖅᓱᓂᑦ ᒪᓕᕐᕈᐅᓴᕆᓕᕐᓄᑦ ᑐᓴᕐᕕᓂᖏᓐᓄᑦ ᐱᓚᕐᓂᖅᓴᓂ.

ᓄᓇᕗᑦ ᑐᙵᓚᐃᓴᖅ ᑎᒥᖓᑦ

- ᓇᓗᓇᐃᖅᑲᓱᑦ ᐃᓱᒪᓕᕐᑎᒥᑦ ᐱᔨᑎᖅᑲᖅᓱᒥ ᐊᐅᓕᒋᐅᓂᖏᓐᓄᑦ ᐅᒪᔨᐃᑦ (ᓱᕐᓗᒪ ᖃᐅᖓᓱᑕᖅᑲᖅᑲᕐᕕᓂᖅ) ᐊᒻᒪ ᓱᐊᒪᓕᖅᑎᑕᐅᔨᓇᓕᕐᓂᖓᖅ ᓄᓕᖅᔨᐊᖃᓕᓇᖅ-19 ᐃᓄᓇᓂ ᑐᑐᓄᑦ.
- ᓇᓗᓇᐃᖅᑲᓱᑦ ᓴᒪᒪᔭᖏᓂᖏᓐᓄᑦ ᑲᑎᒪᓂᐅᔨᑦ ᐊᖅᑭᑲᓱᒪᓂᖏᓐᓄᑦ.
- ᓇᓗᓇᐃᖅᑲᓱᑦ ᐱᔨᓚᑎᓂᖏᓐᓂ “ᐃᓄᐃᓇᐃᓄᑦ” ᑲᑎᒪᓂᖅᑎᓪᓗᑎᑎᑐᑦ ᓄᖅᑲᓕᐅᖅᑎᓪᓗᑦ ᑕᒃᑯᐊ ᑲᑎᒪᓂᐅᔨᑦ ᐅᖅᑲᐅᓱᓇᓗᑐᑦ ᑐᓂᔪᓕᐅᖅᑐᑦ.

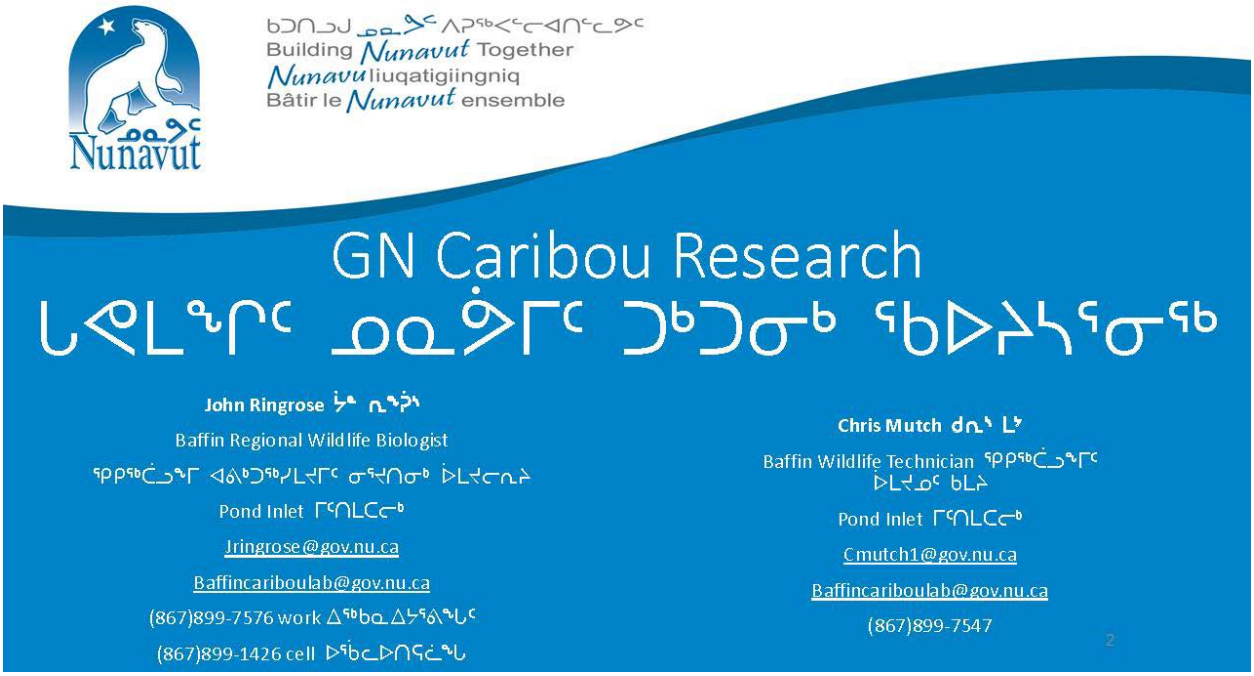
ᖃᑭᖅᑕᓪᓚᒻᒥ ᐅᒪᔨᓕᕆᓇᕐᐊᒃᓯᑦ ᑲᑎᒪᔨᖏᑦ

- ᓇᓗᓇᐃᖅᑲᓱᑦ ᐊᖏᔪᓪᓗᖓᓂ ᐃᓱᒪᓕᕐᑎᖓᓂ ᓄᓇᕗᑦ ᑐᙵᓚᐃᓴᖅ ᑎᒥᖓᑦ ᐱᔨᑎᖅᑲᖅᓱᒥᑦ ᖃᐅᖓᓱᑕᖅᑲᖅᑲᕐᕕᓂᖅ ᓄᓕᖅᔨᐊᖃᓕᓇᖅ-19 ᐊᓐᓂᑦᓯᐊᕐᓇᐅᑎᓪᓗᓐᓃᑦ.
- ᐅᖅᑭᐅᔨᖅᑕᐅᓇᖅᑐᑦ ᓇᓗᓇᐃᖅᑲᓱᑦ ᓴᓚᒪᓂᖏᓐᓂᖏᓐᓄᑦ ᑲᑎᒪᓂᐅᔨᑦ ᐊᖅᑭᑲᓱᒪᓂᖏᓐᓄᑦ ᐊᒻᒪ ᐊᐱᓴᓇᖅᑕᐅᓪᓗᑎᑦ ᐃᓕᓴᕐᕕᖏᓐᓄᑦ ᐅᖅᑭᒡᓘᓂᖅᑐᑦ ᑎᑎᕋᐅᓂᑦ ᐅᓪᓚᕆᓚᐅᖅᑐᑦ ᑲᑎᒪᓂᐅᔨᓪᓗᑎᑦ.
- ᐅᖅᑲᓚᐅᖅᑐᑦ ᒪᓕᑐᖅᑎᒍᑦ ᖃᓄᐃᓕᓐᓂᒃᑯᑦᓱᖓᓂᖏᓐᓄᑦ ᑕᒃᑯᐊ ᐃᓄᐃᑦ ᐊᑐᖅᑕᐅᔨᑦ ᐅᒪᔨᓕᐅᑎᓪᓗᑎᑦ ᓄᓇᕗᒻᒥᓂᑦ ᐊᐅᓕᕐᓂᖅᑎᑎᒋᓂᐅᔨᑦ ᓄᓇᕗᑦ ᐃᓄᐃᑦ ᐊᐅᓕᕐᓂᖅᑎᑎᒋᓂᐅᔨᑦ ᐊᐱᖅᓯᕐᓂᓇᓕᐅᖅᑎᓕᓪᓗᑦ ᐊᐱᐃᓂᖏᓐᓂᓂ ᐊᐱᐃᓂᖏᓐᓂᒃᑯᑦ ᐅᖅᑭᐅᔨᖅᑕᐅᓇᖅᑐᑦ ᑲᑎᒪ

ᓇᓗᓇᐃᖅᑕᐅᔪᑎᑦ

ᐃᓱᒪᓗᑎᒃᓴᓕᑕᐅᔾᔨᑦ ᐅᕐᓂᔨᓐᓄᑦ ᐅᖃᐅᓱᐅᔾᔨᑦ ᐅᒪᔾᔪᑎᒋᐊᕆᐹᒃᓯᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᑦ ᓄᑖᒥᖃᖅᑎᑦᓯᑎᑦ ᐱᓕᕆᐊᒃᓴᓕᑕᕐᖃᓕᕐᓂᖅᑐᑦ ᐃᓕᑎᒃᐅᖃᖅᑕᐅᓂᖅᖢᐃᓕᓐᓂᑐ ᓄᓇᕗᑦ ᑲᑎᒪᔨᓂᖅᓱᒪᑦ ᐱᓕᕆᐊᖓᓄᑦ ᑕᑐᓂᓂ ᐊᑐᐊᓕᕆᓂᖅᓱᒪᑦ ᐊᒻᒪ ᐃᑲᔪᖅᓂᖅᖢᓕᕐᖃᖅᑐᑦ ᖃᐅᔨᓴᓂᖅᓱᒪᑦ. ᐅᒪᔪᓂᒃᑯᓐᓂᖅᑐᑦ ᑲᑎᒪᔨᓂᖅᓱᒪᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᑦ ᑲᑎᒪᔨᓂᖅᓱᒪᑦ ᐃᓕᓴᕐᓂᖅᑐᑦ ᓄᓇᓕᒫᑦ ᑲᑎᒪᔨᓂᖅᓱᒪᑦ ᐃᓕᓴᕐᓂᖅᑐᑦ ᐊᑐᐊᓕᕆ

ᐃᓕᓴᐅᔪᐊᓯᒪᔪᖅ



Outline ᐅᖃᐅᓯᖃᓕᓕᐊᑕᕐᓕᓂ

1) Caribou Health Monitoring Program ᑐᐴᐃᑦ ᖃᓄᐃᙱᓚᕐᑎᐊᖏᓐᓂᕆᐹᓄᑦ ᖃᐅᐅᔨᐱᐃᓴᓐᓂᖏᓐᓇᓕᕐᓂᒪᑦ ᐱᓕᕆᐊᑦ
2) Composition surveys ᖃᑦᓯᐅᓂᓐᓂᕐᓂᑦ ᖃᐅᐅᔨᕐᓂᖅ ᐊᐱᖅᓯᖏᓐᓂᕆᑦ
3) North Baffin Collaring ᖃᑭᖅᑕᔭᕐᐸ ᐅᐊᓐᓇᓐᓚᓂ ᖃᐃᓐᓯᕐᓕᕐᓯᐃᓂᖅ
4) Planned Research ᖃᐅᔨᓴᕐᑎᑦ ᐸᓐᓇᑲᑕᐅᓯᒪᔪᑦ
5) Proposed Research ᖃᐅᔨᓴᕐᑎᑦ ᑐᑲᓯᕐᕋᑕᐅᔪᖅ
6) Support Letters Needed ᐃᑲᔪᖅᑐᐃᓂᖏᓐᓄᑦ ᑎᑎᖅᑲᐃᑦ ᐱᓕᐅᓴᓇᐊᓕᑦ
7) Harvest Update ᐊᐃᔭᓇᓯᕕᓂ ᑐᓴᖅᑎᑦᑎᑲᑲᓂᕐᓂᕐᑎ
8) Total Allowable Harvest (TAH) ᑲᑎᒪᓕᑦ ᐊᐃᔭᓇᓯᕕᐅᔪᓂᓇᖅᑐᑦ
9) Discussion ᐅᖃᖅᑕᓇᑲᕕᓂᖅ

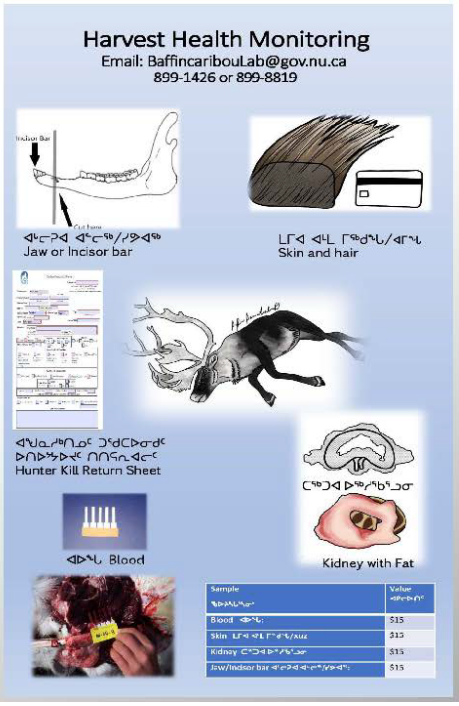
1) Caribou Health Monitoring Program
ᑐᑲᐃᑦ ᖃᓄᐃᖅᑭᑎᐊᖏᓂᖅᑭᓄᑦ ᖃᐅᔨᓴᐃᖅᓯᖏᓐᓇᑦ ᐱᓕᕆᐊᑦ

Samples collected from hunters to determine health of caribou

ᖃᐅᔨᓴᓱᖏᑦ ᓄᐊᑕᑦ ᐊᖏᔪᓕᓂᐅᓂᐅᓂ ᖃᐅᔨᓕᓂᔪᑎᑲ ᖃᓄᐃᖅᑭᓂᖅᓂᓂ ᑐᑲᑦ

Partnered with Northern Contaminants Program in North Baffin

ᐱᓕᕆᖏᑎᖏᖅᓱᑎᑲ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᓂᕈᐊᓄᑦ ᐱᓕᕆᐊᓄᑦ ᑕᐃᑲᓂ ᐅᐊᖏᓕᖏᓂᑦ ᖁᑭᖅᑦᑦ



1) Caribou Health Monitoring Program
ᑐᑲᐃᑦ ᖃᓄᐃᖅᑭᑎᐊᖏᓂᖅᑭᓄᑦ ᖃᐅᔨᓴᓱᖏᑦ ᐱᓕᕆᐊᑦ

Samples provided by Mittimatalik hunters to GN/Northern Contaminants (needed 20 samples from 1 hunting location)
ᖃᐅᔨᓴᓱᒋᑦ ᑐᓂᔨᐅᓕᐅᖅᑐᑦ ᒪᐅᑎᐅᓪᓚᑦ ᒥᕐᑎᒪᑕᓕᒃ ᐊᖏᔪᓕᓂᐅᓂᑦ ᒪᓕᒐᓚᓂᓪᓕᓂ ᓄᓇᕗᒻᒥᐅᖅᑐᑦᑕᖅᑐᒥᑦ ᓕᕆᔨᓴᓄ Δᖅᖢᓇᐃᓕᖅᑎᐅᔪᓂ (ᐱᓱᑎᐊᖅᖢᓇᐅᖅᑐᑦ 20 ᖃᐅᔨᓴᓱᖏᓕᓂᓂᒃ ᒪᒃᑯᓇᓪᓚᑦ 1 ᐊᖏᔪᓕᓂᐃᑎᖅ ᐃᓂᒥᑦ)

Sample type ᖃᐅᔨᓴᓱᖏᑦ ᖃᓄᐃᑎᑐᓪᓚᓱᒻᒪᑦ	# provided ᐅᓄᖅᑭᓕᒥᑦ ᑐᓂᔨᐅᔪᖅ 2020-2021	2021-2022 ***
Blood ᐊᐅᒃ	2	36
Skin and hair ᒪᒥᐊ ᐊᓘᒐᓗ ᒥᖅᑯᖏᓐᓂᑦ	2	37
Kidneys with fat ᑕᖅᑐᑦ ᑐᓄᓄᖅᓴᓗᑎᒃ	1	34
Jaw/ incisor bar and front teeth ᐊᓚᓕᑭᐊ/ᓕᐅᐊᖏᓘ ᐊᓘᒐᓗ ᓕᐅᖏᓘᖏᓂᑦ ᑭᒍᑎᑦ	1	29
Liver ᑎᖏᒍ	2	35
Musde/meat ᓄᑭ/ᓂᖏ	2	34
HKRS	180	45

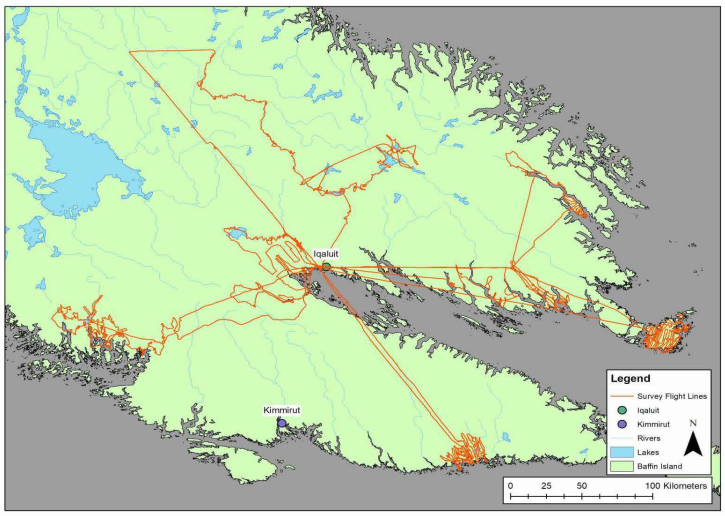
Caribou hunting was done in most South Baffin communities by the time support letters were provided
ᑐᐃᑐᓵᓕᓴᖅᑕᑕᓵᓂᓕᐅᔨᑐᑐᐃᑦ ᖁᑭᖅᑕᒍᓵᓕᓂᑦ ᑐᓂᔨᐅᔪᖅ ᐃᒪᐃᓴᐃᖅᑐᑦ ᓄᓇᕗᒻᒥᐅᖅᑐᑦᑕᖅᑐᒥᑦ ᓕᕆᔨᓴᓄ ᓄᓇᕗᒻᒥᐅᖅᑐᑦᑕᖅᑐᒥᑦ ᓄᓇᕗᒻᒥᐅᖅᑐᑦᑕᖅᑐᒥᑦ ᑎᑎᕋᐅᓂᖅᑐᑦ ᐃᓚᐃᓴᖅᑐᑦ ᐃᒪᐃᓴᐃᖅᑐᑦ ᐃᓚᐃᓴᖅᑐᑦ ᐃᒪᐃᓴᐃᖅᑐᑦ

Analysis identified increase in mercury compared to 1992.
ᖁᑭᕐᖁᑎᓪᓗᑎᑦ ᓇᓗᓇᐃᔾᔨᓕᐅᕐᓂᑐᑦ ᓴᓇᕐᓴᖅ ᐃᒪᒪᓵᖅᑐᒥ 1992-ᒥ ᑕᑯᓪᓗᑎᑦ.

Copper levels could cause reproductive issues...but small sample size.
ᑲᓇᓄᖅᑭᑦ ᖃᑯᑎᖕᓂᖅᑭᑦ ᐊᑲᐅᖏᓐᓂᐅᑕᐅᓂᐃᐃᓇᓕᓕᓂᒃ ᖁᑐᕐᖏᑎᐅᖁᑎᓂᑦ... ᑭᔾᔪᓂ ᑭᒥᔾᔨᓗᓂᑦ ᖃᐅᔨᓴᓱᖏᓴᓂᑐᑦ.

2) 2021 Composition Survey-South Baffin
ᖃᒃᓴᐅᓂᖅᓯᓪᓗᑉ ᖃᐅᔨᓴᖃᓂᖅ ᐊᐱᖅᓯᖃᓂᖅ

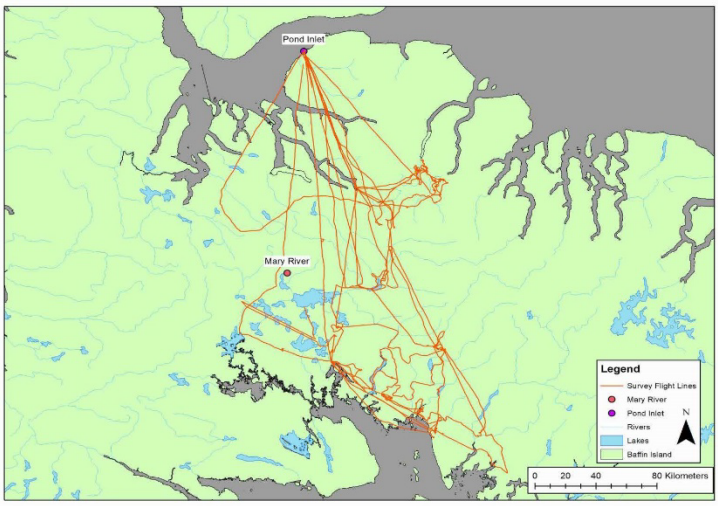
Year	2021								
Season	Spring								
Location	North	Central	Prince Charles Island	Central Baffin + Prince Charles Island	South (Meta + Hall +Loks Land)	Meta Incognita Penninsula	Hall Penninsula	Loks Land	Hall + Loks Land
Calves Observed	55	not completed	not completed	not completed	379	220	58	100	159
Cows Observed	87				805	480	140	183	324
Calves/100 Cows	63				47	46	41	55	49
Yearlings Observed	6				158	92	44	22	65
Bulls Observed	44				392	248	108	36	130
Bulls/100 Cows	N/A				N/A	N/A	N/A	N/A	N/A
Bull + Cows	131				1197	728	248	219	454
Adults + Yearlings Observed	137				1355	820	292	241	519
Total Observed (Calves, Yearlings and Adults)	192				1734	1040	350	341	678



5

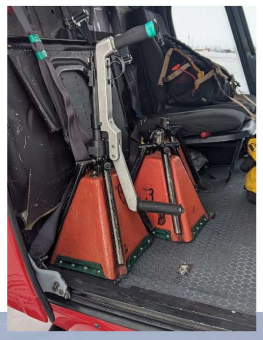
2) 2021 Composition Survey-North Baffin
ᖃᒃᓴᐅᓂᖅᓯᓪᓗᑉ ᖃᐅᔨᓴᖃᓂᖅ ᐊᐱᖅᓯᖃᓂᖅ

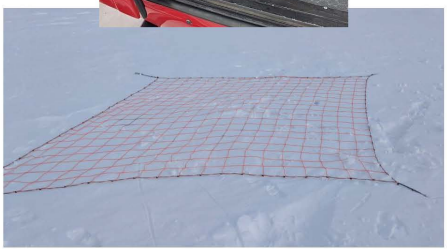
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Bull + Cows	131				1197	728	248	219	454
Adults + Yearlings Observed	137				1355	820	292	241	519
Total Observed (Calves, Yearlings and Adults)	192				1734	1040	350	341	678



6

3) North Baffin Collaring ᖃᑭᖅᑕᓗᒍᐸ ᐅᐊᖏᓐᓇᖏᓂ ᖃᐅᖏᓚᓱᑕᕐᓱᐃᓂᖅ





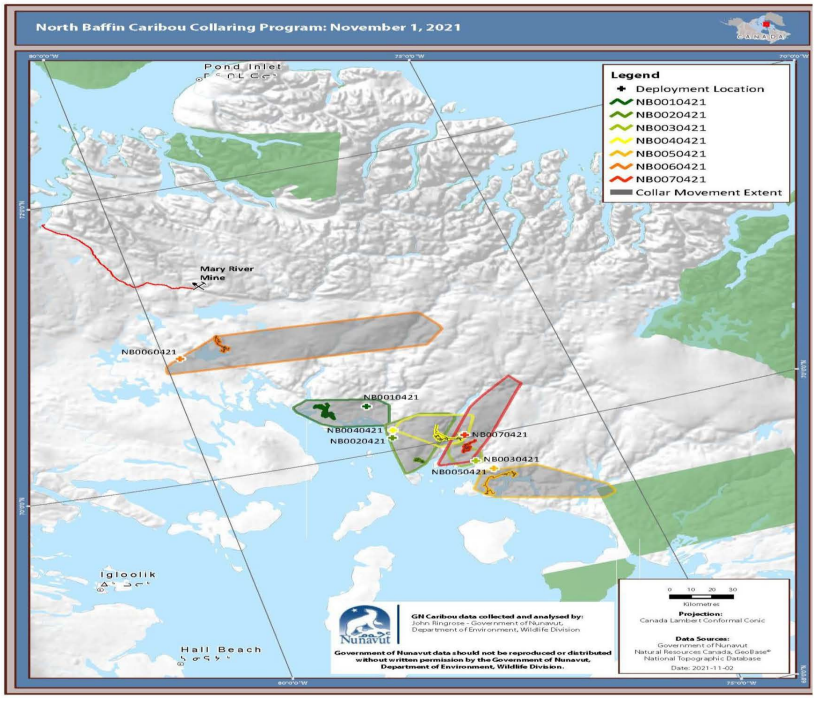
Planned on deploying 15 collars on adult female caribou ᐸᖏᓇᵇᑕᐅᓯᒪᔪᑦ ᖃᐅᓚᓱᑕᕐᓱᔪᒪᓪᓗᑎᵇ 15-ᓂᑦ ᐊᖏᓇᓪᓗᵇᓄᓂ

Put 7 collars on female caribou in one day ᐃᓪᓕᓚᓱᓗᑎᵇ 7-ᓂᑦ ᖃᐅᓚᓱᑐᖏᓂᑦ ᐊᖏᓇᓪᓗᵇᓂ ᐅᓪᓗᖏᒥ ᐊᑕᐅᓱᐅᒥᑦ

Could not put any more on due to weather ᖃᐅᓚᓱᑕᕐᓱᐃᵇᓄᓂᑭᓇᐃᓪᓕᓚᐅᑐᑐᑦ ᑐᵇᑐᓂ ᓱᓪ ᐱᵇᔪᑕᐅᓪᓗᓂ

We would like to put the remaining 8 collars on ᖃᐅᓚᓱᑕᕐᓱᔪᒪᐅᒍᒍ ᐊᒥᐊᵇᑯᓕᐅᑐᑐᓂ 8-ᓂᑦ

7



8

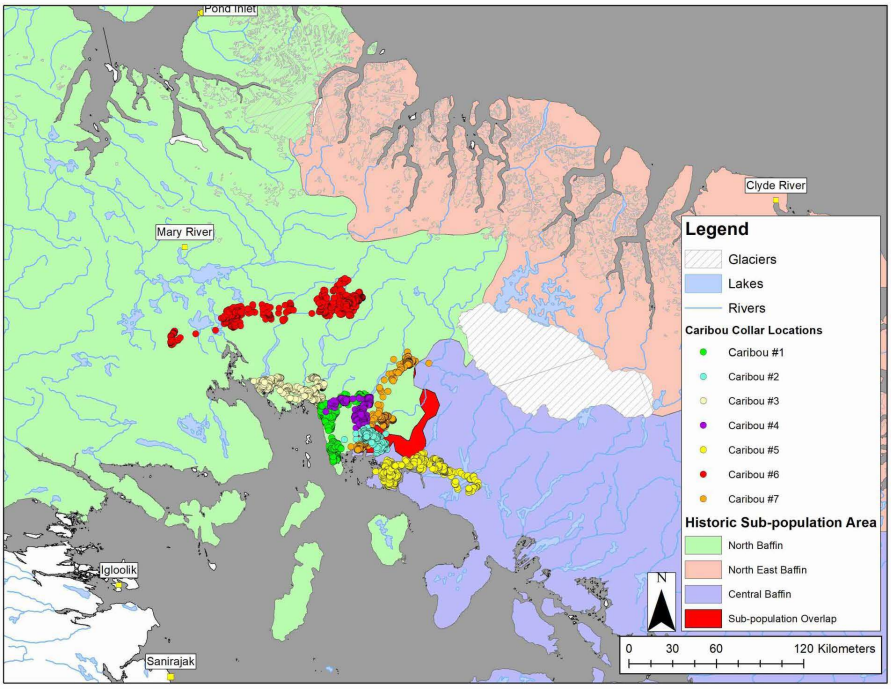
3) North Baffin Collaring ᖃᐅᖏᓚᓱᑕᕐᓱᐃᓂᖅ ᖃᐅᖏᓚᓱᑕᕐᓱᐃᓂᖅ

3) North Baffin Collaring

ᖃᑭᖅᑕᓗᒍ ᐅᐊᖏᓐᓇᖏᓂ ᖃᐅᖏᓪᓗᑕᖃᕐᓂᐊᕐᓂᖅ

Results support IQ and what we expected

ᖃᐅᔨᓴᕐᑎᕕᑦ ᐃᑲᔪᖅᑐᐃᓐᔪᑦ ᐃᓄᐃᑦ ᖃᐅᔨᒪᓴᑐᖃᖏᑦ ᐊᐱᒪᓗ ᓂᓚᐅᕈᓕᐅᖅᑕᕐᓂᒃ



9

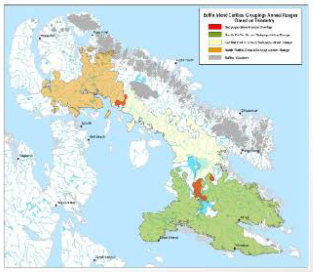
4) Planned research ᖃᐅᔨᓴᕐᑎᑦ ᐸᖏᓪᑕᐅᔨᒪᔪᑦ

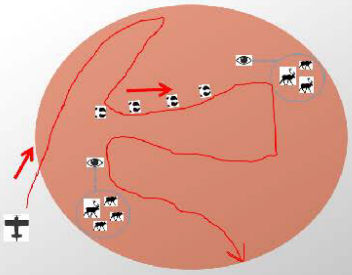
Health Monitoring Program (with support letters from HTOs)

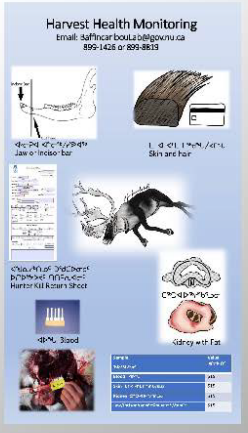
ᖃᐅᓂᐃᖕᑭᑎᐊᖅᓂᖕᖏᓐᓂᑦ ᖃᐅᐅᓴᐃᖏᓪᓚᖅᓴᒪᑦ ᐱᑕᓕᐊᖅ (ᐃᑲᔪᖅᓯᖅᑕᐅᓂᖅᓴᒪᑦ ᑎᑎᖅᑲᑦ ᑕᑲძᓪᖏᒪᑦ ᐊᖓᔪᓚᵇᑐᓂᓵᓴᑦ ᐊᓕᒪᓗ ᒥᑭᑎᐊᖅᓂᐊᖅᑎᑦ ᑎᒥᖅძᑎᖏᓂᓂᑦ)

Composition surveys in Spring 2022 (Location depends on funding)

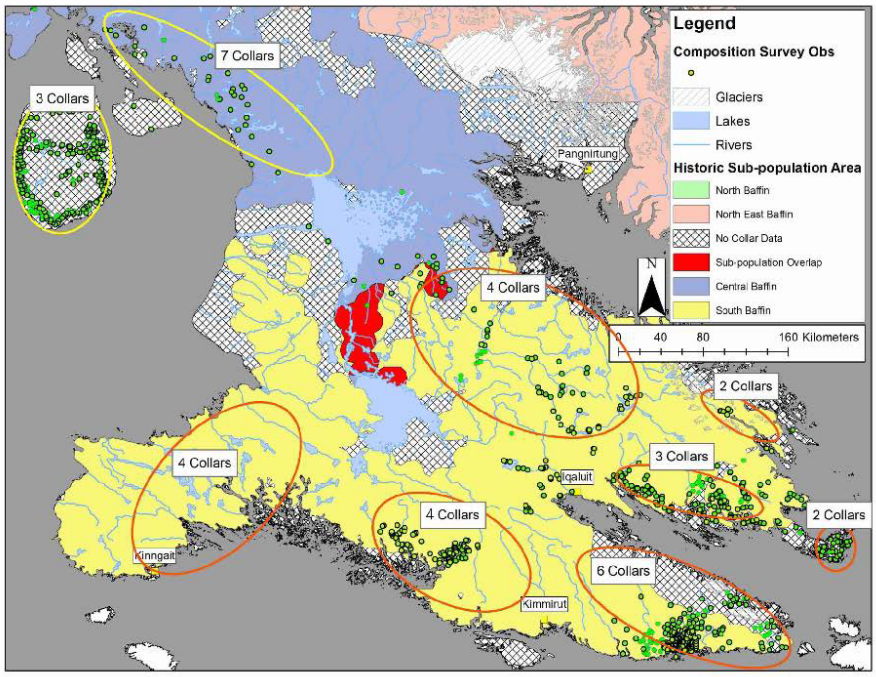
ᖃᐅᓂᐃᑕᖏᓂᖏᓐᓂᑦ ᖃᐅᐅᓴᖅᓂᑦ ᑕᐃᑲᓂ ᐅᐱᖅᖢᐃᖏᒪᓂᑦ 2022 (ᓇᓂᵅᓂᖏᒃ ᒪᑕᖏᓂᐊᖅᑐᑦ ᑭᓇᐅᔨᖅᑲᖅᑎᑕᐅᓂᖏᓐᓂᑦ)







10

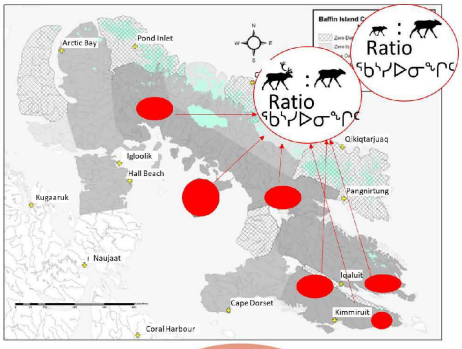


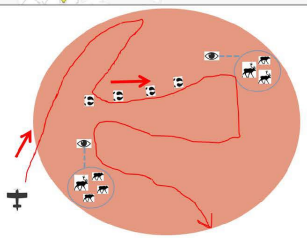
4) Planned research
ᖃᐅᔨᓴᖅᑎᑦ
ᐸᖏᓐᓇᑲᐅᔪᓐᓇᑦ

Collaring in South Baffin delayed until March/April 2022
ᖃᓄᖏᔪᓕᕐᓂᐊᓂᖅ ᖃᑭᖅᑕᓗᓂᑦ
ᓂᕆᐊᓂ ᑭᒍᓕᕆᐊᖅᑕᐅᔪᑦ
ᒪᑦᔪ/ᐊᐃᑎᓕ 2022-ᒍᑦ

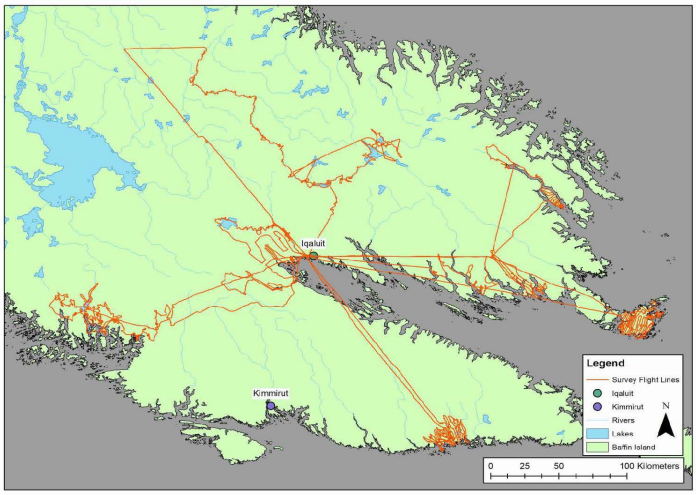
Include HTO participation
ᐃᓕᓕᐅᑎᓗᑎᑦ ᐊᖏᒐᓱᑦᑐᓕᕆᔨᓄᑦ
ᐃᓕᐅᓂᖏᑦ

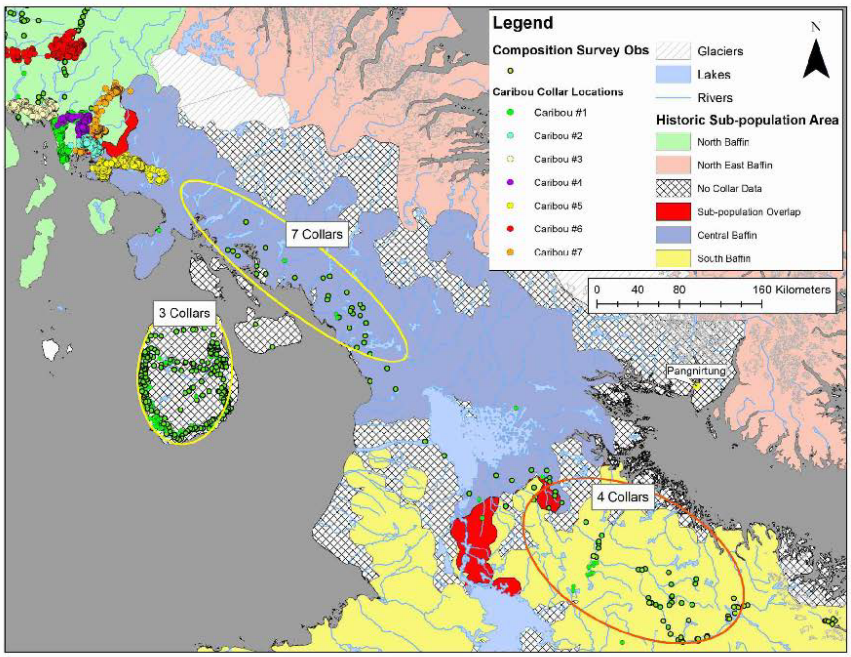
4) Planned research ᖃᐅᔨᓴᖅᑎᑦ ᐸᖏᓐᓇᑲᐅᔪᓐᓇᑦ





Composition Survey-South Baffin
ᖃᑲᔪᐅᓂᖏᑦᑐᓂ ᖃᐅᔨᓴᖅᓂᖅ ᐊᐱᖅᓯᓂᖏᑦ





5) Proposed research ᖃᐅᔨᓴᐅᑎᑦ ᑐᓴᕋᖏᑕᐅᔪᖅ



1)Finished before May 1 because of calving
ᐱᐊᓂᵇᑕᐅᓴᒪᓂᐊᖅᑐᖅ ᑎᑭᖅᑲᖅᑎᵒᓇᒍ
ᒪᐃ 1 ᐱᔨᑕᐅᑦᓗᓂ ᓄᕆᒪᐅᖅᓂᵒᓇᓄᑦ

2)Collar life - 4.5 years ᖃᐅᖅᓱᓴᐃᑦ
ᐊᑐᑎᖅᕿᓂᐊᖅᑐᑦ – 4.5 ᐊᕿᑦᒍᒪᓄᑦ

3) 6 waypoints per day (or more) 6
ᓄᖅᑲᖅᑕᕆᐃᐅᓂᐊᖅᑐᑦ ᐅᑦᓗᖅ ᐊᑐᓂ
(ᐅᕐᓂᔪᓐᓂᑦ ᐅᖅᓱᑦᓄᑦ)

4)Includes drop-off
ᐃᓕᐅᑦᓗᓂ ᑕᐃᑯᖅᓱᖅᑕᐅᓂᖅᑎᑦ

6) Support Letters Needed
ᐃᑲᔪᖅᓭᐃᓂᕐᒧᑦ ᑎᑎᖅᑲᑦ ᐱᖁᐅᔪᒪᔪᑦ

1) Health Monitoring Program (Northern Contaminants Program) ᖃᑲᓄᐃᖅᑭᑎᐊᕐᓂᖅᑭᵒᓄᑦ ᖃᑲᐅᓴᓴᐃᵒᓇᕐᓂᕐᒧᑦ ᐱᓪᓚᐊᖅ (ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᓭᑐᔪᖅᓄᑦ ᐱᓪᓚᐊᖅ)
2) Composition surveys 2023 ᖃᑲᓴᐅᓂᖅᑭᵒᓂᑦ ᖃᑲᐅᓴᓴᕐᓂᖅ ᐊᐱᖅᓭᕐᓂᖅᑭᑦ 2023
3) South/Central Baffin Collaring ᓂᒥᐊᓂᑦ/ᖃᑎᐊᓂᑦ ᖃᑭᖅᑕᒍᔪᑦ ᖃᐅᔨᓴᕆᖅᓭᐃᓂᖅ

7) 2021-2022 Harvest Update

As of January 10, 2022

Community ᓄᓇᓕᒃ	Tags Used ᓂᕆᔨᒋᑦ ᐊᑐᖅᑕᐅᔪᑦ	Tags Available ᓂᕆᔨᒋᑦ ᐊᑐᐃᓐᓇᐅᔪᑦ	Female Harvest ᐊᖏᓐᓄᖏᓂᒃ ᐊᖑᓚᓂᑐ
Arctic Bay ᐃᒃᐱᐊᖏᖅᑲᒃ	13	19	7 of 5
Clyde River ᑲᖑᑎᖅᓄᔨᒐᐱᒃ	21	31	2 of 2
Igloolik ᐃᒪᓗᓕᒃ	12	10	0 of 2
Iqaluit ᐃᖏᑲᓗᐃᑦ	43	43	3 of 2
Kimmirut ᑭᒪᒥᑐᑦ	35	35	0 of 2
Kinngait ᑭᖅᖏᒐᐃᑦ	15	21	2 of 4
Pangnirtung ᐸᓐᓂᖅᑐᑎᖅ	36	35	2 of 2
Pond Inlet ᒥᖏᑎᒪᑕᓕᒃ	37	34	3 of 3
Qikiqtarjuaq ᖁᑭᑭᖅᑕᖏᐊᖅ	0	19	0 of 2
Sanirajak	2	4	0 of 1
Baffin Total ᖁᑭᑭᖅᑕᓗᒍᒥ ᑲᑎᖏᑐᑦ	214	250	19 of 25



15

8) Total Allowable Harvest (TAH) ᑲᑎᓐᓗᑎᑦ ᐊᖑᒍᓂᐳᑦᑕᐅᔪᓐᓇᖅᑐᑦ

Current TAH 250 (up to 25 females) ᐃᓐᓇ ᑐᑲᑐᑕᐅᓇᓂᑲᓇᖅᑐᑦ 250 (25 ᐊᖏᓇᓐᓗᒃᑲᐃᑦ)

Composition surveys show some positive signs in some areas ᖃᐅᔨᔪᕐᑎᕕᓂᑦ ᐃᓕᓴᕐᓂᑦ ᐱᐅᔪᓂᑦ ᓴᖅᑭᕐᒪᓕᖏᑐᑦ ᐃᓕᓴᕐᓂᑦ

Hunters are reporting seeing more caribou close to Iqaluit, Kimmirut and Kinngait ᐊᖑᒍᓂᒃᑎᑦ ᑕᑯᓂᖏᐅᖃᖏᑕᑦ ᑐᑲᑐᓂ ᖃᓂᑦᑐᓂᑦ ᐃᖃᓗᓴᓕᑦ, ᑭᒪᒥᑭᒪᒧᑦ ᑭᖅᑎᖏᓴᓕᓗ

GN plans to submit a request to increase TAH to NWMB ᓄᓇᕗᑦ ᑎᕙᒪᒃᑯᕐᓂᑦ ᓇᒃᑭᐅᔨᔪᑦᑐᑦᑕᐅᓂᑦ ᑐᑭᓯᖏᑐᒧᑦ ᓄᓇᕗᒻᒥ ᐅᒪᔨᓕᓂᔨᖏᑦᑯᑦ ᑲᑎᓐᓂᒃᑎᑦ

there are risks to increasing TAH ᐊᑦᑕᖏᓇᖅᑐᑐᑦᑕᓕᒃ ᐃᓕᒥᐊᓚᓂᖅᒥᑦ ᐊᖑᒍᓂᐳᑦᑕᐅᔪᓐᓇᖅᑐᑦ



16

9) Discussion ᐅᕐᑲᑦᓪᓕᑕᑲᓂᕐᑲᑉ

17

Extra Information

18

Survey types and Methods

ᖃᐅᔨᓴᖅᑕᐅᔪᑦ ᑭᓱᓂᖏᑦ ᐊᓪᒪ ᖃᐅᔨᓴᑭᓱᓕᕆᑦ

Two Main Types of Caribou Surveys

Abundance- The number of caribou

Composition- The ratio of bulls, cows, calves and calf survival

Fall surveys are best for Bull:cow ratio and a benchmark for over-winter calf survival trends

Spring Surveys are for calf over-winter survival

Baffin Island Caribou **Abundance** last completed in 2014

Composition Surveys completed 2015 -2019.

ᓯᑭᖅᑕᐅᔪᑦ ᐊᐃᔨᔪᖏᓪᓗᓂᑦ ᑐᓴᐅᒃᑐᑦ ᑐᓴᐅᒍᓐᓇᖅᑐᑦ ᖃᐅᔨᓴᑭᓱᓕᕆᑦ

ᑐᓴᖅᑭᑎᐊᖅᑐᓪᓗ- ᑐᓴᐅᒍᓐᓇᖅᑐᑦ ᖃᖅᓱᐅᓂᖏᑦ

ᖃᓄᐃᓕᓐᓇᓂᖅ- ᖃᖅᓱᐅᓂᖏᑦ, ᓴᖅᑭᑦ, ᓄᖅᓯᐊᓂᑦ ᐊᓪᓚᑦ ᓄᖅᓯᐊᓂᑦ ᐅᓚᓪᓕᑦ

ᐅᑭᐊᖅᓴᐅᑦ ᖃᐅᔨᓴᖅᑭᓵᐅᑦ

ᐊᐅᐅᓪᓚᕐᒪᑦ ᓴᖅᓂᓄᑦ: ᓄᖅᓯᓪᓕᑦ

ᖃᖅᓱᐅᓂᖏᓐᓂᐅᓂᖅ ᐊᓪᓚᑦ ᐊᐅᓴᖅ

ᐊᓂᔪᖅᑎᓪᓗᔪᒍ ᓄᖅᓯᓪᓕᐅᖅᑭᓪᓕᐊᓪᓕᑦ

ᐅᐱᖅᖃᓗᐅᑦ ᖃᐅᔨᓴᖅᑭᓯᖅᑐᑦ

ᓄᖅᓴᖅᓄᑦ ᐅᑭᐅᐅᑦ ᐊᖅᓇᓗᓱᓪᓕᑦ

ᖃᑭᖅᑕᓪᓚᒥ ᑐᑲᑐᑦ **ᐊᒥᓱᓂᖏᑦ** 2014-ᒥᑦ ᑭᖓᔪᓪᓕᖅᑭᒥ ᐱᐊᓂᑲᑕᐅᓪᓚᖅ

ᖃᓄᐃᓕᓐᓇᓂᖏᑦ ᖃᐅᔨᓴᓂᓪᓕᐅᖅᓴᑦ 2015 -2019.



19

How do we determine how many caribou there are?

1) Pick where to fly on Baffin Island

ᖃᓄᓐᓂ ᐊᑲᑭᓴᓱᖃᑕᖅᐱᑕ ᖃᓄᐃᓂᓐ ᑐᑐᖃᖅᓂᕐᕋᖅᑕᐅᔨᓂᓐ?

1) ᓂᕆᐊᖅᓵᑎᓐ ᓇᐅᑦᓂᑦ ᖃᖅᖏᒪᑕᓂᐊᕐᓂᖅᓂᓐ ᖃᑭᖅᑕᓪᓚᑦᓂᑦ

ABUNDANCE**

ᐊᒥᓱᓂᖏᑦ**



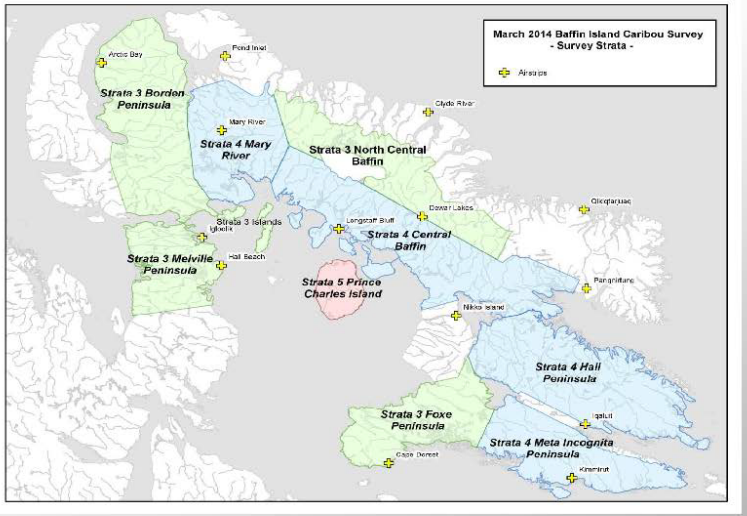
?

=

$$

+







20

How do we determine how many caribou there are?

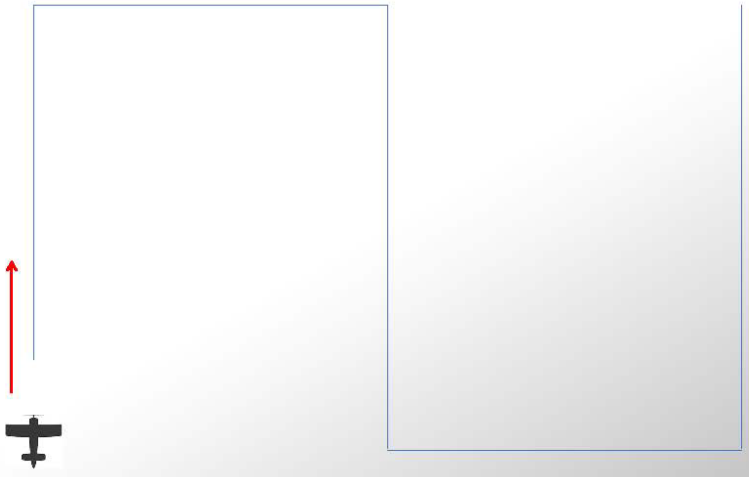
2) Place lines on the island and fly along them

ᖃᑲᓂᖅ ᐊᑦᑭᓱᖏᑦᑕᖅᐱᑕ ᖃᑦᓴᓂᑲ ᑐᑐᑦᑲᓂᕆᖅᑕᐅᔪᓂᑲ?

2) ᑐᑭᓕᐊᖅᑐᓂᑲ ᐃᓕᐅᖅᑲᐃᓕᓗᑎᑲ ᕿᑭᖅᑕᒧᑦ ᖃᖏᓐᓇᑦᑐᖅᑲᓗᑎᓕ

ABUNDANCE**

ᐊᒥᓱᓂᕐᓚᓐ**





21

How do we determine how many caribou there are?

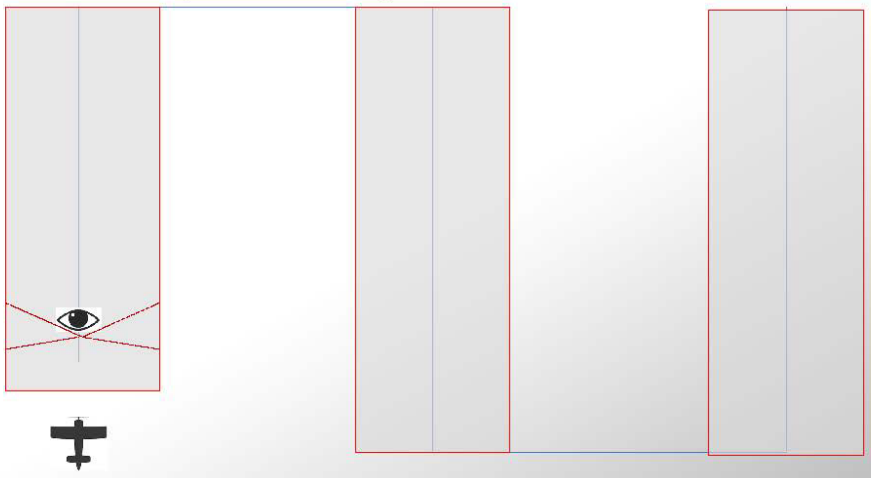
3) Look out the windows for caribou

ᖃᑲᓂᖅ ᐊᑦᑭᓱᖏᑦᑕᖅᐱᑕ ᖃᑦᓴᓂᑲ ᑐᑐᑦᑲᓂᕆᖅᑕᐅᔪᓂᑲ?

3) ᐃᑎᓪᓗᑯᒡ ᐃᑦᑐᐊᖅᓵᓗᑎᑲ ᑐᑐᑦᑕᖅᑕᒪᓐᓇᑦ

ABUNDANCE**

ᐊᒥᓱᓂᕐᓚᓐ**

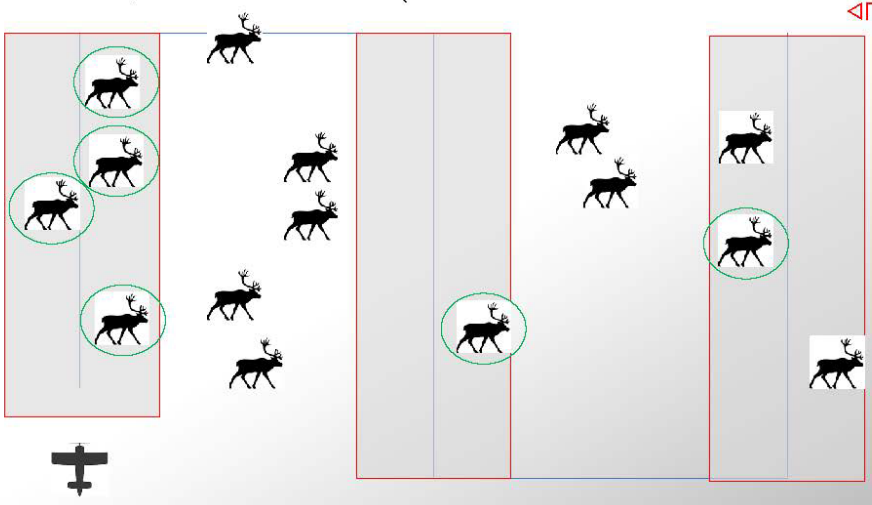




22

How do we determine how many caribou there are?
4) Count the caribou you see
ᖃᓄᐃᖅ ᐊᑦᑭᓱᖃᑦᑕᖅᐱᑕ ᖃᖅᐸᓂᒃ ᑐᖅᑐᖃᖅᓂᕆᖅᑕᐅᔪᓂᒃ?
4) ᑐᖅᑐᐃᑦ ᑕᑯᐅᐅᔪᑦ ᓇᓴᖅᑕᐅᐊᖅᓯᒪᓕᖅ

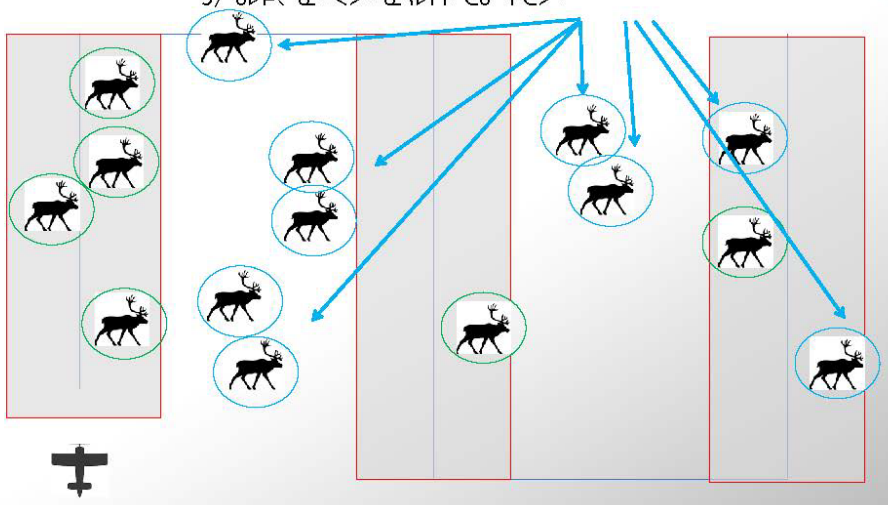
ABUNDANCE**
ᐊᒥᓱᓂᕐᒥᐠ**



Nunavut
23

How do we determine how many caribou there are?
5) We can find out the number we don't see
ᖃᓄᐃᖅ ᐊᑦᑭᓱᖃᑦᑕᖅᐱᑕ ᖃᖅᐸᓂᒃ ᑐᖅᑐᖃᖅᓂᕆᖅᑕᐅᔪᓂᒃ?
5) ᖃᐅᐅᔨᔪᓐᓇᖅᐸᐅᑦ ᓇᓴᐅᑎᑦ ᑕᑯᓐᓂᒋᐅᑦ

ABUNDANCE**
ᐊᒥᓱᓂᕐᒥᐠ**

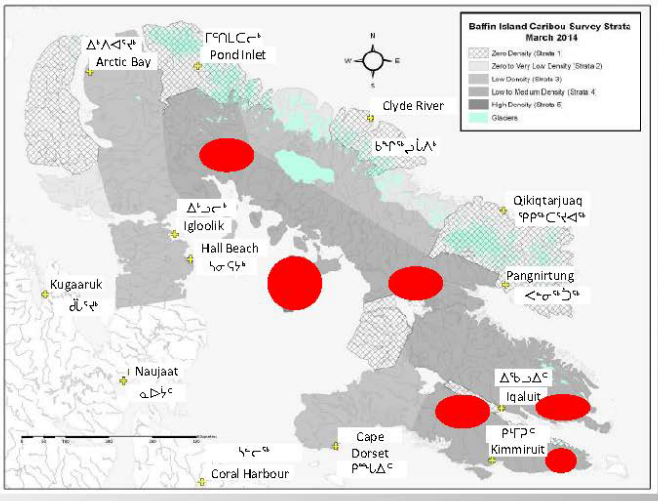


Nunavut
24

We know how many caribou there are. (ABUNDANCE)
How many bulls (Immature, Mature), cows, calves, etc?
ᑐᑲᑐᐃᑦ ᖃᑲᓱᐅᓂᖏᓐᓂᑲᑦ ᖃᑲᐅᓕᒪᖅᐳᑦ. (ᐊᒥᓱᓂᖏᑦ)
ᖃᑲᓱᐅᕙᑦ ᓯᖏᓂᑦ (ᓄᖅᐃᐃᑐᑦ, ᓯᖏᓂᑦ), ᓄᖅᐃᐃᑦ, ᓄᖅᓯᓂᑦ ᐊᓱᖏᑦᓗ?

COMPOSITION**
ᖃᓄᐃᓕᖏᓂᖅᑐᑦ**

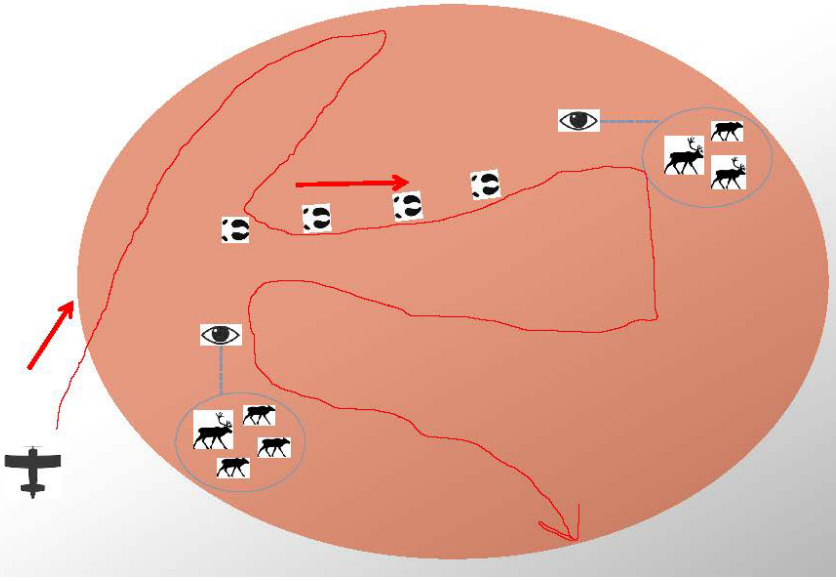
1) Locate main groups of caribou (HTO direction)
1) ᖃᓄᖅᓗᓂᑦ ᑐᑲᑐᐃᑦ ᑲᑎᖏᓚᓪᓕᑦ (ᐊᖏᔪᓇᑲᑐᓕᕆᔨᑲᑯᑦ ᑎᓕᐅᕆᓪᓕᑦ)



How many bulls (Immature, Mature), cows, calves, etc?
ᖃᑲᓱᐅᕙᑦ ᓯᖏᓂᑦ (ᓄᖅᐃᐃᑐᑦ, ᓯᖏᓂᑦ), ᓄᖅᐃᐃᑦ, ᓄᖅᓯᓂᑦ ᐊᓱᖏᑦᓗ?

COMPOSITION**
ᖃᓄᐃᓕᖏᓂᖅᑐᑦ**

2) Fly to the area and search for tracks or caribou
2) ᑕᐅᔭᓇ ᖃᖏᓚᑕᒃᓚᑎᑲᑎᒃ ᑐᒥᖏᓐᓂᒃ ᐅᕐᓇᓗᓐᓂᑦ ᑐᑲᑐᓂᒃ ᖃᓄᖅᓗᑎᒃ



ᐊᐅᓪᓗᓂᔪᓐᓇᖅ ᓇᐃᔨᖅᓯᒪᔪᓪ

ᓇᓪᓵᖅᑐᖅᓯᖅᑎᕆᐅᑕᓪ ᑐᔭᑐᓪ ᖃᑭᖅᑕᓗᓐᓴᓪᓕᐅᖅ ᐊᓪᒪ ᐊᐃᔭᑐᖅᓴᓯᒪᓪᓗᑎᔭ ᐅᐊᖏᓇᖏᓂ, ᓂᑕᐊᓂ ᐊᓪᒪ ᖃᑎᖅᕼᓯᐊᓂ ᖃᑭᖅᑕᓕᕆᓪᓚᓂ. ᐊᖏᔪᓇᓴᕐᓂᓪ, ᒥᑭᐊᖅᑕᕐᓂᓪ, ᓄᓇᓕᖏᓂᕆᐅᓪᓗ ᐅᓄᑭᓴᓂᖅᕼᓪᓕᐊᔪᓂᒃ ᖃᐅᔨᓕᓚᐅᖅᓴᓪᓂ ᖃᑭᖅᑕᓕᕆᓪᓚᓂ ᑐᔭᑐᓪᓗᑎᑦᓴᓂᒃ 1990 ᐃᓯᖅᕼᓯᐊᓂ. ᐃᓐᖏᐅᐊᓗ ᐊᓪᒪ ᐃᓱᔨ 2014 ᓄᓇᐅᓂ ᓚᖓᒪᖏᓐᓄ, ᐊᖓᑎᓕᓴᔨᔪᓂ, ᖃᐅᔨᓴᓪᓚᐅᖅᑐᑦᓂ ᖃᑭᖅᑕᓗᓐᓂᑦᑕ, ᐃᓗᐃᓪᓕᓂᑦᑕ ᐊᓪᒪ ᐊᖓᑎᖅᓱᓕᑦᑐᓂ ᖃᑭᖅᑕᓂᓪ, ᓇᓕᐅᑦᑕᕐᓯᔪᖅᓴᓕᓂ ᖃᓄᔨᐅᓂᓂᓂ ᑐᔭᑐᓪ ᖃᑭᖅᑕᓗᓐᓂᑦᑕ. 2014–ᒥᑦ ᖃᐅᔨᓴᖅᓴᓕᑎᒃ ᓇᓕᐅᑦᑕᓕᐅᖅᑐᑦᑕ 4,652 (95%CI=3,462-6,250; SE=702.79; CV=0.15) ᐃᓚᓇᑦ ᐊᓪᒪ ᓄᕐᓂᑦ ᑐᔭᑐᓂᓂ ᖃᑭᖅᑕᓗᓐᓂᑦᑕ ᐊᓪᒪ ᖃᑭᖅᑕᕐᑕᐅᔨᒪᔪᒥᑦ 1990–ᓂᓚᓂᓂ ᑐᖅᓱᐃᓕᓴᓕᔭᓪ ᐃᓄᑭᓂ ᖃᐅᔨᓴᓪᓚᐅᖅᑐᑦᓂ.

2014–ᒥᑦ ᖃᐅᔨᓴᕐᓂᖅ ᐊᓪᒪ ᓄᓇᓕᖓᓂ ᖃᐅᔨᓴᖅᑕᐅᔪᑦ ᐊᑭᖅᑭᔪᕆᐅᔪᖅ ᑕᖅᑭᑦ 8-ᓄᑦ ᑐᔭᑐᑐᓪᓚᐃᔪᓕᑎᑎᓕᓴᓗᑎᒃ ᐱᒋᐊᖅᓴᓂᑦ ᐃᓄᐊᓗ 1, 2015. ᑲᑎᒪᖃᑎᖅᕼᖏᑕᓕᐅᖅᓴᓗᑎᒃ ᑕᒪᐃᓐᓂ ᖃᑭᖅᑕᓗᒋᑦ ᓄᓇᓕᖓᓂᑦ, ᑎᑎᖅᕼᒥ ᑐᓪᓂᖅᓄᖅᓴᓕᐅᖅᑐᑦᑕ ᐃᔪᒪᓕᓂᐅᓚᖅᓂᖓᓂᒧᑦ ᓄᓇᖅᑎᒥ ᐅᒪᔨᓕᓂᐅᓚᖅᓂᖓᓂᖅ ᐊᑭᖅᑭᔪᓂᓪᓚᑎᒃ ᖃᓄᔨᓂ ᑐᑐᔪᓐᓇᖅᑐᑦᓂ, ᐃᔪᒪᓕᓂᐅᓚᖅᓂᖓᓂᒧᑦ 250-ᓂᒃ ᐊᖏᔪᓪᓚᓂᓂᒃ ᑐᑐᔪᓐᓇᖅᑎᑎᓂᒋᑦᑕ.

ᑕᐃᒪᖓᓂᑦ 2014 ᐊᖏᑎᓕᓚᔨᔪᑦ ᑲᔪᔪᑎᑎᔪᒪᓕᒃᑐᑦ ᐅᑭᐊᖅᓴᔪᑦ ᐊᒪᒪᓗ/ᐅᖏᓪᓕᓚᓂᓂᑦ ᐅᐱᖏᖅᓱᔪᑦ ᖃᖓᓕᑦᑐᓂᓪᓕᐊᓂᑦ ᖃᓄᐃᓕᓂᖓᓂᐅᓂᓂᒃ ᖃᐅᔨᓴᖅᓂᓂᓂᒃ 2015-ᒥᑦ 2021-ᒧ ᑕᒪᐅᓗ ᐊᑐᖅᑕᐅᓂᐊᖏᓪᓗᓂ ᓇᐅᑦᑎᕐᓂᔪᓕᖅᓯᔪᓂᒧᑦ ᖃᑐᖏᓐᓂᐅᓂᓂᕐᓴᓂᓚᐅᕐᓂᖅ ᖃᓄᐃᓂ ᐊᒥᓱᑎᑎᓕᐅᕐᓂᖅ ᑐᑐᐃᓐᓇᖅᑐᑦᓂ ᐃᓕᓴᐅᓂᒃᑐᓂᒥᒃ. ᑐᕆᑎᓚᓴᖅᑕᐅᑦᑐᓂᒃ ᐅᓄᑭᓴᓂᖅᕼᓪᓕᐊᓂᑦᑕ ᑐᑐᐃᓐᓇᖅᑐᑦᓂ ᐃᓕᓴᐅᓂᒃᑐᓂᒥᒃ ᐊᑐᖅᑕᐅᓂᐊᖏᓪᓗ

ᑐᓂᔨᐅᔪᖅ ᓄᓇᕗᑦ ᐅᒪᔪᓕᓇᔭᖅᑕᐅᓂᑦ ᑲᑎᒪᔨᖏᑐᓄᑦ ᓂᕆ 2022

ᐅᕗᖓ

ᑐᐊᒃᓴᖅ: **ᐃᓱᒪᓕᐊᓴᖅ: X**

ᐱᔭᕇᐅᔪᖅ:
ᐃᓱᒪᓕᐊᓇᔨᓇᐊᓕᑦ ᐱᔭᕇᑎᑦᓕᓗᒍ ᑮᖏᓐᓇᖅᑐᖓᓂᖅᓴᓐᓂᒃᑯᑦ ᑐᑭᓯᓇᓱᖅᑎᑦᓴᓐᓂᒃ ᓄᓇᕗᒻᒥ ᐊᒻᒪᓗ ᐃᓪᓚᖓ ᐃᓱᒪᓕᐅᓇᓗᑎᒃ ᐱᔭᕇᑎᑦᓕᓗᒍ ᐃᓕᓕᐅᑎᔨᕇᓂᑦ ᑎᑲᔪᑎᒃ ᑎᑎᕐᓯᐅᑦᑐᐅᓗᑎᒃ ᑕᒪᕐᕉᖓ ᐅᒪᓕᕐᓂ ᐃᓚᓕᓕᓐᓂᒃᓯᓐᓂᖅ.

ᖃᓄᐃᓕᓴᐅᓇᓱᒪᖓ:
ᑎᑎᕐᓯᓱᒪᔨᖅ 3.5 ᒪᓕᑦᑎᐊᓇᐊᖃᖅᖄᑦ ᑎᑎᕐᓯᓱᒪᔨᓇᐊᖃᖅᖄᓄᑦ ᐱᓕᓇᔨᐅᔭᕆᔨᓱᓱᖅ, ᐃᖃᓗᓕᓕᓇᔭᖅᑯᑦ ᐊᒻᒪᓗ ᐃᒪᕆᐅᑕᓕᓕᓇᔭᖅᑯᑦ ᑲᑎᒪᔨᖏᑦ ᑕᒪᑐᒥᖓ ᖃᓄᐃᒪᔨᕐᓂ ᐅᒪᓕᐅᓕᖅᑎᑦᓴᓐᓂᒃ ᓄᓇᕗᒻᒥ ᐅᒪᔪᓕᓇᔭᖅᑯᑦ ᖃᓄᐃᓕᓴᐅᓇᓱᒪᖓ ᐊᒻᒪᓗ ᐃᖃᓗᓕ

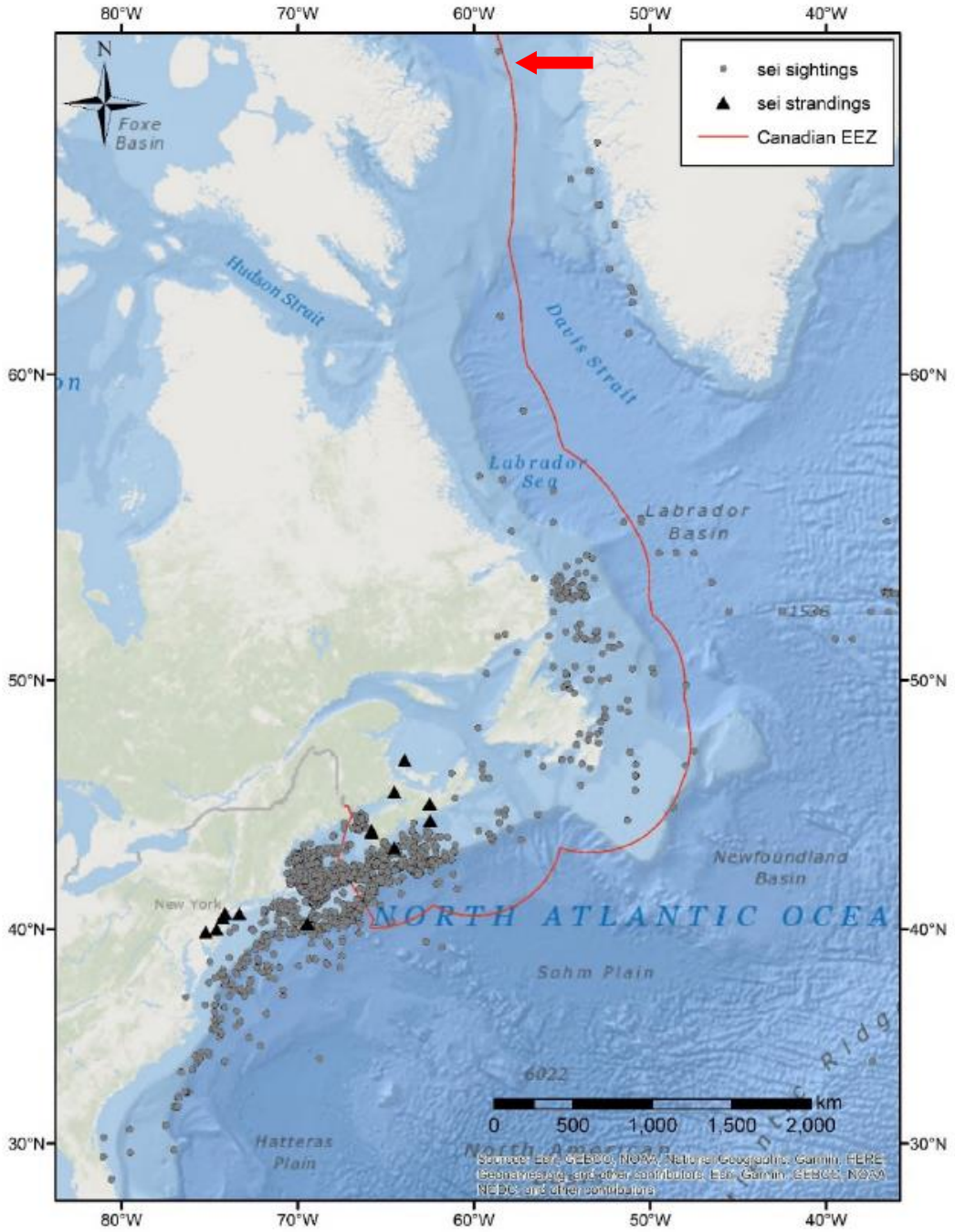


ᓴᖅᑭᖅᑐᖅ 1: ᐊᓯᔨᕐᓗᒃᑐᒃ ᑎᒃᔪᑎᑦ (*Balaenoptera borealis*) (© ᑲᓇᑕᒥ ᐃᒪᖃᐅᑕᓕᕆᔨᒋᑦ ᐊᓪᓚᓗ ᓄᓇᖃᐊᖅ ᓯᓚᑦᑐᖅ ᐊᓂᖅᓂᖅᓇᖅᑎᑦᑐᒥ 2019).

ᐱᑕᖅᐅᓯᖏᓪᓗᒍᑦ

ᐅᒋᐊ ᐱᖓᓱᐹᕐᐅᔪᑦ ᐊᖏᓂᓪᑦ ᐊᖏᔪᓂᑦ ᐊᖏᓂᓂᖅᓴᐅᓪᓚᑎᑦ ᐃᐸᑦ ᐊᓚᓗ ᕆᐃ ᐊᖏᔪᑦ, ᓴᐃ ᐊᖏᔪᑦ ᑐᑭᓯᑎᕐᓂᖅᑐᑦᑐᒥᑦ ᐊᒥᓯᓂᐊᕐᓇᓯᐅᑦᑐᑦ ᐊᒥᓯᐊᓗᐃᑦ ᑐᖅᑏᑕᐅᓪᓚᑎᑦ ᐊᖏᖅᓯᖓᐅᑦ, ᐱᓕᓇᐅᔪᖅ ᓇᒧᖓᓯᒪᓂᖏᑦ, ᓄᑦᑕᖅᖏᑦ ᐊᓚᓗ ᐃᓕᓴᓯᓱᖏᑦ ᓯᓕ ᐃᓕᑕᐅᓇᓯᑎᐊᖅᓯᒪᓂᖏᑦᑐᑦ. ᐱᔨᔪᑎᑕᓪᓗᒍ ᓴᐃ ᐊᖏᖅᐃᑦ ᐱᑕᖅᑲᓯᓂᖏᓕᑕ ᓯᓴᓂ ᐃᓄᖅᑎᓂᑦ, ᑐᑦᖅᑕᐅᓪᓗᐊᑎᖅᓗ ᐊᖏᖅᑎᑦᑐᖅᑐᑦ ᓴᒋᓂᖏᑦ ᐊᖏᔪᑦᑐᖅᑐᑦᑐᒥᑦ. ᑲᓇᑕᒥ ᐃᓕᓴᓯᓱᖏᑦ ᓴᐃ ᐊᖏᖅᐃᑦ ᐱᑕᖅᑲᓇᓯᖏᓪᓕᕆᓂᖅᓗ ᓄᓇᖅᑐᖅᓴᖅᓯᓚᔪᑦ ᑲᑎᒪᓂᕐᓗᒍ ᐃᓚᖓᑦᑐᖅᓴᖅᑐᑦᑐᒥᑦ ᓄᓇᖅᑐᖅᓴᖅᓯᓚᔪᑦ ᑲᑎᒪᓂᕐᓗᒍ ᐃᓚᖓᑦᑐᖅᓴᖅᑐᑦᑐᒥᑦ, ᐃᓕᓴᓯᓱᖏᑦ ᐃᓚᖓᑦᑐᖅᓴᖅᑐᑦᑐᒥᑦ ᐃᓚᖓᑦᑐᖅᓴᖅᑐᑦᑐᒥᑦ, ᐃᓕᓴᓯᓱᖏᑦ ᐃᓚᖓᑦᑐᖅᓴᖅᑐᑦᑐᒥ

ᐊᐅᓪᓗᐃᐅᔨᓄᑦ ᓄᓇᕗᑦᒥ ᐅᒪᔨᓪᓗᕆᔨᐊᕐᕈᑦ ᑲᑎᒪᔨᖏᑦᓴᓄᑦ, ᐃᖃᓗᓪᓗᕆᔭᕐᕈᑦ ᐊᖏᒪᓗ ᐃᒪᖅᑐᐅᑕᓪᓗᕆᔭᕐᕈᑦ ᖃᓄᖅᑐᑦ ᑲᑎᒪᔨᓄᑦ ᓄᓇᐅᖅᑯᓗᒃᑐᑦ ᑐᑭᓯᓇᓯᒪᐅᓄᐊᖅᑕ, ᐱᑕᖃᖅᓄᐊᕐᕕᒃ, ᑕᕐᔪᓇᖖᖅ >ᐃᔨᓇᑦ.



ᓴᖅᑭᖅᑐᖅ 2. ᖃᓄᐃᖅᓯᓕᓂᑐᑦ ᑎᑲᒍᑎᒃ (*Balaenoptera borealis*) (ᐊᑦᓯᓚᑎᒃ ᐊᖅᕕᖏᑦ) ᐅᑭᐅᖅᑕᖅᑐᖅ ᐃᒪᖏᓚᓂ (ᑕᒃᑯᓚᖏᑦ ᑲᑎᒪᔨᕿᓯᑦ ᓄᖓᓕᖅᑐᓄᑦ ᐅᒪᔨᓄᑦ ᑲᓇᑕᒥ 2019). ᐊᑕᐅᓯᖅ ᑕᑯᐃᐅᓯᒪᔨᖅ ᓂᕈᐊᓂ ᖃᑭᒃᑯᓕᒫᑦ ᑎᑎᕋᖅᑕᐅᓂᒃ ᐊᐅᔪᖅᑐᒍᑦ ᑎᑎᕋᖅᑕᐅᓂᒃ.

ᑐᑭᓯᓇᓱᖏᑎᒃᓴᖅ ᐊᒻᒪᓗ ᐊᖏᑕᖅᓯᓂᖅ:
ᑕᐃᒪᓗ ᓄᓇᕗᒻᒥ ᐅᒪᔨᓕᕆᔨᖅᑎᑦᔨᐊᕐᓂᑦ ᑲᑎᒪᔨᖅᑎᑦ ᐃᓚᒋᔭᖅᓯᒪᓕᒃ, ᐃᖅᑲᓕᕆᔨᕐᓂᑦ ᐊᒻᒪᓗ ᐃᒪᖓᑕᕐᓕᕆᔨᕐᓂᑦ ᑲᓇᑕ ᑐᑭᓯᓇᓱᖏᑎᖅᑎᖅᓯᐊᖅᑐᑦ ᓄᓇᕗᖏᖅ ᓇᓗᓇᐃᖅᑕᐅᔨᓂᖅ ᑲᑎᒪᔨᓂᑦ ᖃᓄᑐᐃᓇᖅ ᑐᑭᓯᓇᓱᖏᑎᖅᑎᑦ ᐊᒻᒪᓗ ᐅᖃᖅᐅᓱᐊᕐᓂᖅᑐᓄᑦ ᑕᐃᔨᖅᑐᑦ ᐊᒻᒪᓗ ᐅᑐᖅᑕᐅᓂᖅᑐᑦ ᑎᑎᕋᐊ ᑎᒃᔪᑎᑦ. ᐅᓂᐊ ᑐᑭᓯᓇᓱᖏᑎᔨᖅᑎᑦᑎᓂᓂᖅ ᖃᐅᔨᓴᖅᑎᑦᓯᐊᕐᓂᖅᑐᓄᑦ ᐃᓕᓴᕐᕕᒃᓴᕐᓂᖅᑐᑦ ᑐᑭᓯᓇᓱᖏᑎᖅᑎᑦᓯᐊᕐᓂᖅᑐᑦ ᐃᓕᓴᕐᓂᑦᑎᐊᑦᓂ ᑐᑭᓯᓇᓱᖏᑎᖅᑎᑦᓯᐊᕐᓂᖅᑐᑦ ᑐᑭᓯᓇᓱᖏᑎᖅᑎᑦᓯᐊᕐᓂᖅᑐᑦ ᐃᓕᓴᕐᓂᑦᑎᐊᑦᓂ ᐊᒻᒪᓗ ᐊᑐᖅᑕᐅᓯᐊᖅᑐᑦ ᒥᓴᑦ ᐃᓕᓴᕐᓂᑦᑎᐊᑦᓂ ᖃᓄᐃᓕᖅᑐᑦ ᐊᑐᓕᖅᑕᐅᓯᐊᖅᑐᑦ ᓯᓚᑦᑐᖅᑐᑦ ᐃᓄᐃᑦ ᐊᒻᒪᓗ ᐊᑐᖅᑕᐅᓯᐊᖅᑐᑦ ᒥᓴᑦ ᐃᓕᓴᕐᓂᑦᑎᐊᑦᓂ ᐊᑐᖅᑕᐅᓯᐊᖅᑐ

ᑐᓂᔨᐅᔪᖅ ᓄᓇᕗᑦ ᐅᒪᔪᓕᒫᔨᖏᔪᐊᓱᒋᑦ ᑲᑎᒪᔨᖅᑭᓐᓄᑦ ᓴᓂ 2022

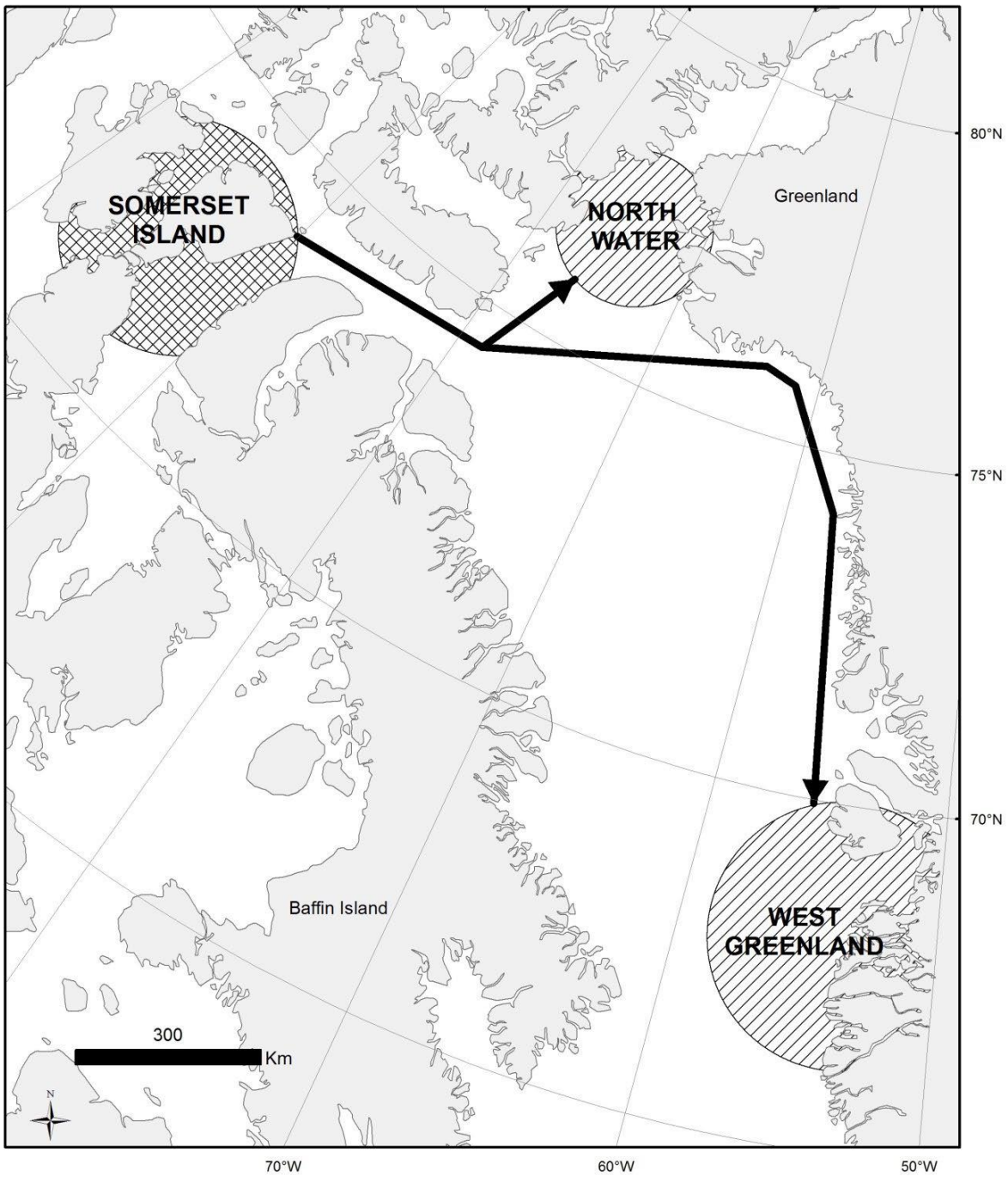
ᐅᕗᖅᓱ

ᑐᐃᒃᓴᖅ: X **ᐃᓱᒪᓕᐊᒃᓴᖅ:**

ᐱᔨᔪᑕᐅᔪᖅ: ᑐᐃᒃᓴᖅ ᐱᔨᔪᐊᑎᓕᓕᑦ <ᖏᓇᐅᑎᑦ ᑐᑭᓯᓇᖅᑎᑦᔨᑐᐃᓐᓇᒃᓴᓄᑦ ᐊᒻᒪᓗ ᐃᓱᒪᓕᐊᒃᓴᓄᑦ ᐱᔨᔪᐊᑎᓕᓕᒃ ᐅᓄᖅᓱᒃᓂᕆᔨᖅᓯᑕ ᖃᖏᐊᖅᑐᑦ ᖃᓄᐃᓕᐅᑦ- ᓴᓂᓂᑭᐅᐅᓯᑦ ᐃᒪᖅᑕ ᖃᓄᐃᓐᓇᕐᓂᑦ, ᑎᑎᕋᖅᑕᐅᓗᓂᒃ ᐅᒪᔪᓄᑦ ᐊᑦᑕᖏᓇᓕᖅᑐᓄᑦ ᑕᑯᓅᖓ *ᐅᒪᔪᓂ ᐃᓄᑦᓴᓕᐊᕐᕕᓂᓕᒫᓂᑦ ᓴᓚᖅ.*

ᖃᓄᐃᓕᓂᕆᔨᒪᔭᖓ:
ᐱᔨᔪᑎᓕᓕᒍ 3.5 ᒪᓕᑦᑎᐊᕆᐊᖃᖅᑐᑦ ᑎᑎᕋᖅᑕᐅᑎᑦᑎᓭᓕᔪᐊᓂᐊᕐᓗᑦ, ᐅᓚᐊ ᐃᖃᓗᓕᕆᔨᓚᓚᑦ ᐊᒻᒪᓗ ᐃᒪᖏᑕᐅᓕᕆᔨᓚᓚᑦ ᑲᑎᒪᔨᖅᑭᓐᓄᑦ ᑕᒪᑐᑎᖅ ᑲᑎᒪᔨᖅᑭᓐᓄᑦ ᐃᒪᖏᑕᐅᓕᕆᔨᓚᓚᑦ ᑲᑎᒪᔨᖅᑭᓐᓄᑦ ᐊᒻᒪᓗ ᐃᖃᓗᓕᕆᔨᓚᓚᑦ ᑲᑎᒪᔨᖅᑭᓐᓄ

ᐃᓂᓪᓗᐊᑕᒥᓐᓂ: ᑕᐃᓂ ᐱᓇᓐᓇᖏᑦ ᐊᑯᑭᑦᑐᖅ ᓂᕆᖏᓐᓂᓂ ᐊᒻᒪᓗ ᐅᐊᖏᓇᖏᓂ ᐃᐃᓂ ᐊᐅᕆᑲᖏᓐᓇᖅ ᑲᒪᑕᒥ ᐊᒻᒪᓗ ᐊᑯᑭᑦᑐᓂ. ᓴᖅᑭᑲᖅᑐᖅ 1 ᑕᑯᑎᑎᑲᖅ ᖃᐅᔨᒪᔭᐅᓂᓂᖅ ᐊᐅᓴᖏᓐᓂᑦ ᐊᒻᒪᓗ ᐅᑭᐅᖏᓐᓂᑦ ᓄᓇ ᑲᓇᖏᓐᓂᓂ ᖃᐅᑎᑐᑎᐅᑦ- ᓴᖅᓂᕆᑎᐅᓪ ᐃᒪᖏᑕ ᖃᓄᐊᓚᖏᑦ ᐊᒻᒪᓗ ᓄᑦᑕᖏᓐᓂᑦ ᐊᖏᑎᖏᑦ ᐊᕐᕿᑦᓂ ᑕᑯᑯᓂ ᓄᓇᐃᑦ. ᑐᓴᓴᓴᐃᑦ ᓇᒧᐊᓂᓕᖏᖅᓂᖅ ᐊᒻᒪᓗ ᓄᑦᑕᖏᓂᖅᓂᖅ ᖃᑯᖅᑐᑦ ᖃᓄᐊᓚᐃᑦ ᑕᐅᕐᓂᓂ ᑲᓇᖏᓐᓇᖅ ᖃᐅᑎᑐᑎᐅᑦ- ᓴᖅᓂᕆᑎᐅᓪ ᐃᒪᖏᑕ ᖃᓄᐊᓚᖏᑦ ᐱᓴᐅᓂᓕᖏᑦ ᖃᖓᖏᑕᐅᑦ ᓄᖓᑕᖏᓐᓂᑦ, ᖃᖓᖏᑕᖃᓄᐊᓚᐅᑎᒍᑦ-ᒪᓕᖅᑕᐅᓕᖏᑦ ᓂᐲᖏᑕᐅᓕᖏᑦ, ᐊᒻᒪᓗ ᐃᓄᐅᑦ ᐃᓕᓴᐅᑎᑦ ᐊᑐᖅᑐᖏᑦ ᐊᐅᓚᓂᖅ ᐅᖃᓪᓚᖏᑦ ᐊᑐᖅᑐᖏᑦ ᐊᐅᓚᓂᖅ ᐃᓕᓴᐅᑎ



ᓴᖅᑭᖅᑐᖅ 1. ᓇᒧᓐᓚᓗᓂᑐᐃᓇᖅᓯᑦ ᑲᓇᖅᓇᖅᓯᓂ ᖃᐅᔨᑐᕋᒥᐅᑦ- ᓴᓂᓕᑎᐅᑉ ᐃᒪᖅᓯᑦ ᕿᓚᓱᖅᓯᑦ ᓴᑭᖅᑐᑦ ᖃᓄᕿᓂ ᐊᐅᔪᕐᓇᕿᖅᓯᑦ (ᒪᓕᐃᖅᓱᓂᑦ ᐃᓕᓴᐅᔪᓐᓇᖅᑐᑦ) ()ᖃᓄᕿᔪᖅᓂ ᑯᓚᓴᑉᐸᑦ ᕿᑭᖅᑕᖅᓗ ᑲᓇᑕᒥ, ᒪᑭᑲᑎ ᐅᑭᐅᖅᓇᕿᖅᓯᑦ (ᐃᓕᓴᐅᔪᓐᓇᓴᑦ) ᐅᐊᖅᓇᖅᓂᓂ ᐃᒪᖅ ᐊᓚᓗ ᑕᒋᓂ ᐱᓇᖅᓇᖅᓂᓂ ᐊᑯᓂᑕᖅ ᓄᓚᕐᓇᖅᓯᑦ, ᐊᓚᓗ ᓇᖅᑐᒃᓄᖅᑕᕐᓯᑦ ᐊᐅᔪᓐᓇᕿᖅᓯᑦ ᐊᑐᖅᑕᕐᓯᑦ ᐃᓂᖅᑕᕐᓯᑦ ᐅᐱᖅᓱᓐᓂᑯᑦ ᐊᓚᓗ ᐅᑭᐊᖅᓴᓐᓂᑯᑦ. ᓴᖅᑭᑎᓄᖅᓂᖅᑕᕐᓯᑦ ᑮᕐᓴᖅᓂᖅ ᐊᓚᓗ ᕼᐊᖅᓂᖅ (2018).

ᑐᓂᔨᐅᔾᔪᑦ ᓄᓇᕗᒻᒥ ᐅᒪᔪᓕᕆᔨᖅᑎᑦᑕᐅᖅᑐᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ ᓴᓂ 2022

ᐅᒧᖏᖅ

ᑐᐱᖏᖅᑦ: X **ᐃᓱᒪᓕᐅᕆᔭᐅᑎ:**

ᐱᔭᐅᑎ: ᐊᖏᕐᕕᓂᖏᒧᑦ ᑐᐱᖏᐊᕐᑎ, ᖃᑎᖏᑕᐅᓂ

ᐱᔭᐸᑕᐅᑐᐃᓐᓇᕆᐊᓕᖅᑐ(ᓂᑦ) ᐅᕐᓭᔪᓐᓂᑦ ᐊᖅᑐᐃᑐᐃᓐᓇᕆᐊᓕᖅᑐ(ᓂᑦ):

- ᐅᑐᐱᕆ 1 2020 ᐊᒻᒪᓗ ᐊᑦ<> 14, 2021 ᐊᑯᓂᖅᓯᓂ, 11 ᐊᖏᕕᑦ (<ᓪᓚᐃᓇ ᒥᔅᑎᐅ�align="left" ᐅᓂᖅᓯᓂ ᓇᓂᔅᐅᓪᓚᒥᒃ ᓄᑦᑐᐱᐅᓂ, ᓄᓇᓕᓂ ᑯᐃᖏᓱᑦ, ᓄᓇᕗᑦ ᖃᓂᒋᔭᓯᓂ.
- ᐅᑎᕐᓯᐅᕐᑐᑦ ᑐᖏᑕᒥᓱᓂ ᕿᓪᒥᑉᑐᓗᒃ ᐊᒻᒪᓗ ᓄᓇᑭᓂᓯᓂᓄᑦ ᐃᓱᒪᓗᑕᐅᓪᓚᑎᑦ ᐊᕐᐳᓇᓱᑎᓄᑦ ᐊᒻᒪᓗ ᖃᐅᔨᓇᓱᑕᐅᓪᓚᕐᖏᓂᑦ ᐅᓇᒪᑎᑕᐅᓪᓚᓇᔨᑯᓂᑦ ᐅᓇᑕᒥ.
- ᑐᖏᑕᒥᓱᓂ ᐅᓪᓴᑕᐅᖃᑦᑕᓪᓚᐅᕐᑐᑦ ᐊᕐᐳᓇᓱᑎᓂᑦ ᐊᒻᒪᓗ ᓂᕿᑎᕐᓂᖏᓐᓂᑦ 8-ᓂᑦ ᐊᖏᔪᓂᑦ ᓄᐊᑕᐅᓪᓚᐅᕐᑐᖏᖅᑐᑦ ᖃᐅᔨᓇᓱᑕᐅᖏᖅᑐᓂᑦ ᐅᓇᑕᒥᓱᓂ ᐱᓪᓗᒍᑦ ᐅᓇᓱᑕᐅᖏᖅᑐᑦ ᐊᒻᒪᓗ ᐅᓄᖏᓪᓕᐊᖅᑎᑦ ᑐᖏᑕᒥᓱᓂ ᐱᓪᓗᒍᑦ.
- ᐱᔭᐸᑕᐅᑐᐃᓐᓇᕆᐊᓕᓪᓚᑦ ᑐᖏᑕᒥᓱᓂ ᐃᓕᖃᖏᑐᑦ ᐱᖏᓕᖏᓂᖏᓐᓂᑦ (ᑎᒥᖓ ᐊᖃᐅᖓᑎᑐᑦ), ᐊᑐᐊᔨᖏᑎᑐᓄᑦ ᓭᓕᒃᓴᒪᖓᓄᑦ, ᐊᑦᑕᖏᓐᓇᖅᑐᑦ ᐅᐸᐅᐸᐃᑦ ᐱᕐᑐᓄᑦ, ᖃᐃᑦᑐᖏᓐᓄᐃᓇᖅᑐᑦ ᖃᐅᔨᒪᓂᖏᓐᓄᖅ ᖃᓄᐃᒪᓕᒃᓴᖅ, ᖃᓄᐃᓕᖅᑐᓂᑦ ᑕᐃᒪᐃᑎᑕᐅᔨᓄᑦ ᐱᓕᕆᐊᓄᑦ ᓭᓐᓇᐊᓄᑦ, ᐊᒻᒪᓗ ᐊᑦᓗᖓᓂᑦ (ᐅᖏᓄᑦ ᐊᐅᒃᑲ) ᓂᖏᑎᐅᓂᖏᓐᓄᑦ.

ᐊᕕᑲᑐᖏᓕᔨᓂ/ᐊᒡᔪᖅᑐᖏᓕᔨᓂ/ᓄᓇᕗᑦᐊᑦᑎᒥ ᑐᓴᐅᒪᖃᖅᑎᑦᑕᐅᑎᓴᖃᖅᑎᓂᖅ ᐱᔪᓇᐊᓕᖅᑐ/ᐱᔪᓰᖅᑐᑐᖅ

- ᐃᒪᖏᑕᒥᓱᓂᑦ ᑲᓇᑕᒥᓱᓂ ᑐᓴᐅᒫᖅᑎᑐᑎᓕᔨᓂ ᐊᐅᓪᓚᖃᖅᑎᑦᑕᐅᑎᓴᖃᖅᑎᓂᖅ ᑎᒥᐅᔨᓂᑦ ᐊᒻᒪᓗ ᐊᐸᕐᑐᖏᓐᓄᑦ ᑐᓴᐅᒫᖅᑎᑐᑎᓕᔨᓂᑦ ᑐᓴᐅᒫᖅᑎᑐᑎᓂᑐᓗᒃ ᑐᓴᐅᒫᖅᑎᑐᑎᓂᑐᓂᒃ ᑐᓴᐅᒫᖅᑎᑐᑎᓕᔨᓂᑦ ᐊᐅᔪᖅᑐᓂ ᐊᐅᓪᓚᖃᖅᑎᑦᑕᐅᑎᓴᖃᖅᑎᓂᖅ ᐊᐅᓪᓚᖃᖅᑎᑦᑕᐅᑎᓴᖃᖅᑎᓂᖅ ᐊᒻᒪᓗ

ᓇᓗᓇᐃᖅᓯᓚᐅᖅᑐᑦ 6-ᖁᓱᓪ ᑕᕝᕙᖓᑦ 8-ᖁᓱᓂᓪ ᖃᐅᔨᓴᖅᑕᐅᔪᓂᓪ ᐊᖏᓴᓪ ᐃᓕᓴᕆᓚᐅᖅᑭᓚᓐᓂᓚᓐᓂᖅ, ᐅᑭᐅᓕᓪ ᐊᕐᕕᑦᓪ ᐊᑕᓂ.

- **ᓯᐅᖏᓐᓄᑦ:** ᐅᖅᓯᐃᓪ ᖃᐅᔨᓴᙱᓴᐃᓪ ᐊᖏᓴᓂᖅᓴᖅᑐᑦ ᐊᖏᕐᑕᐅᔪᓴᓂᓪᓂ ᑐᖏᔪᓕᐅᖅᑎᓚᓐᓇᑦᑕ (n=6, 2008-2020) ᐅᕝᕙᓕᓚᓂᓪ ᓇᓂᔾᐅᓂᔪᑦ ᑎᓄᔾᐅᓯᓭᓴᓂᓪ ᑕᐃᑲᓂ (n=6, 2020), ᐊᓘᒪᓗᑦᑕᐅᖅ ᖁᓕᓗᓴᖏᓂᓪ ᐊᖓᔪᑕᐅᔪᓴᓂᓪᓂ ᑕᐅᕙᓂᑕᐃᓚᓐᓇᖅ ᖃᐅᔨᓴᖅᑕᐅᓕᐅᖅᑐᑦ 209-ᓄᑦ ᖃᓪᓗᓈᓂᓪ ᓴᓇᐅᑉᖏᓄᑦ ᓯᐅᖏᓇᖅᑐᓄᑦ ᑕᐃᒪᐃᑎᑕᐅᔪᓄᑦ. ᓯᐅᖏᓇᖅᑐᐃᑦ ᓇᓂᔾᐅᓯᑦ ᐊᖏᓴᙳᓕᑦᑕ ᐊᖓᑎᓂᖅᖃᖅᑎᓕᐅᖅᑐᑦ 14.1-ᒥᑦ, 129.7 ng/g-ᒧᑦ <ᓂᖓᑦᑐᓂ ᐅᖏᐊᐃᓚᓐᓂᓂᓪ ᐊᖏᓗ ᐊᑦᑕᖏᓴᕐᕕᐅᑎᓂᖓᑦᑕᑦ ᐊᖓᔪᓄᑦ ᐅᕝᕙᓕᓚᓐᓂᓂᓪ ᐊᖏᓴᓄᑦ ᐅᕝᕙᓕᓚᓐᓂᓂᓪ ᐃᓄᐃᖓᓂᓪ ᓂᓕᔾᐅᑎᓪᓗᐊᖅᐸᑕ. ᑕᒪᑎᐅᑦ ᑲᑎᑦᓯᑦ ᓯᐅᖏᓇᖅᑐᐃᑦ ᖃᐅᔨᔾᐅᔪᓄᑦ ᐊᖓᔪᓄᑦ ᑎᓄᔾᐅᓯᑎᓕᐅᖅᑐᑦ ᐊᖓᔪᓄᑦ ᑎᓄᔾᐅᑲᑎᑦᓪᓗᑎᑦ ᐊᖓᔪᓂᖅᑐᑦ ᐊᖏᓴᓂᓪ ᑐᓴᐅᒪᔪᓂᓪ ᐊᖓᔪᓂᓪ ᑎᓄᔾᐅᓯᑎᓕᐅᖅᑐᑦ ᐊᖓᔪᓂᓪ ᐊᑦᑕᖏᓴᕐᕕᐅᑎᓂᖓᑦᑕᑦ.
- **ᖃᓄᐃᔪᓐᓇᓂᖓᓐᓂᑦ:** ᐅᖅᓯᐃᓪ ᑎᒥᓇᓂᙱᓴᐃᓪ ᐊᓘᒪᓗ ᓴᓇᓯᒪᓂᖓᓐᓂᑦ ᑎᓄᔾᐅᑭᓯᒪᔪᓂᓪ ᐊᖓᔪᓂᓪ ᓇᓕᔭᕐᑕᐅᓕᐅᖅᑐᑦ ᐊᙱᓐᓴᐅᑕᐅᓕᐅᖅᑐᑦ ᐊᖓᔪᓂᓪ ᖃᐅᔨᓴᐅᓇᓯᓄᑦ ᑐᓴᐅᒪᔪᓂᓪ ᐃᓕᓴᕆᓚᐅᖅᑐᑦ ᐊᐅᑐᐊᓂᖃᖅᑎᓪᓗᒋᑦ ᑐᓴᐅᒪᔪᓂᓪ ᐊᖓᔪᓂᓪ ᐊᑦᑕᖏᓴᕐᕕᐅᑎᓂᖓᑦᑕᑦ ᐊᖓᔪᓂᓪ ᑐᓴᐅᒪ

ᑭᓐᒍᓪᓕᒥ ᐊᑐᕐᓂᐊᖅᑐᖅ(ᑐᑦ):

- ᓯᒪᔨᓂᕆᑦ ᖃᐅᔨᓴᖃᑦᑕᕐᓂᐅᓭᐅᓪᒍᑦ ᐃᓕᖃᖅᑎᑦ ᖃᐅᔨᓴᐅᑎᕕᐊᓂᕐᓂᒃ ᖁᓕᒥᒍᑦᑕᑐᒍᑦ ᐊᓂᐅᓕᖅᑎᑦ ᐊᕐᕕᒃᓵᓕᕐᓂᒃ ᐅᓂᕐᓂᖅᓴᐅᔪᓂᒃ ᐊᕐᕕᑦᓂ ᖃᐅᔨᓇᓯᐊᕐᓗᓂᑦ ᑎᒥᖅᑦ ᖃᓂᐃᒪᓕᕆᓚᑦ, ᐃᕐᓂᐅᑕᕐᓯᓯᓂᖅᓯᓂ ᖃᐅᔨᐃᓴᐅᑎᖃᕐᓗᓂ, ᐅᓂᕐᓂᐅᖃᑦᑕᖅᓯᒪᓂᖅᑦ ᓯᖅᑲᖅᓵᓂ ᖃᐅᔨᐃᓴᐅᑎᖃᕐᓗᓂ, ᐅᓂᕐᓂᑕᕙᑦᑕᖅᑦ ᓇᓗᓇᐃᖅᑕᐅᕐᓯᒪᓗᑦ ᐊᓵᓇᐅᒪᓴᓇᕐᓂᖅᑦ, ᐊᒻᒪᓗ ᓇᓗᓇᐃᕐᓗᑦ ᑎᒥᖅᑦᑕ ᖃᓄᐃᓕᓚᓂᖅᑦ ᐊᖅᑐᐊᓂᖃᕐᓂᑦ ᓯᒪᔨᓂᕆᑦ ᐊᕐᕕᒃ ᐊᓵᓂᐊᖃᖅᑦᒪᓚᓂᑕ ᐊᖅᑎᓂᖅᓴᐅᔪ ᐊᙵᑎᒋᑦᑐᓇᖅᓯᒪᔪᓕᑦ.

ᐸᕐᓇᐦᑕᐅᔪᖅ ᐅᑯᓇᓖᓚᑦ:
ᓯᑎᐟ ᕆᑦᓴᔪᓵ ᐊᒻᒪᓗ >ᕎᓵᑦ ᓴᖅ, ᐃᒪᕐᒥᐅᑕᓕᓚᓵᔨᑯᑦ ᑲᓇᑕᒥ ᖃᐅᔨᓴᕐᕕᖅᒥ, ᐅᐃᓂᐱᖅ

ᐅᓵᓗᖅᓚ:
21 ᐃᐢ> 2022

ᑐᓂᔨᐅᔪᑦ ᐅᑭᖏᓐᓄ

ᓄᓇᕗᒻᒥ ᐅᒪᓚᓕᕆᓂᖅᓯᐊᖅᑯᑦ ᑲᑎᒪᔨᖏᑦ ᐊᓱᒪᓗ

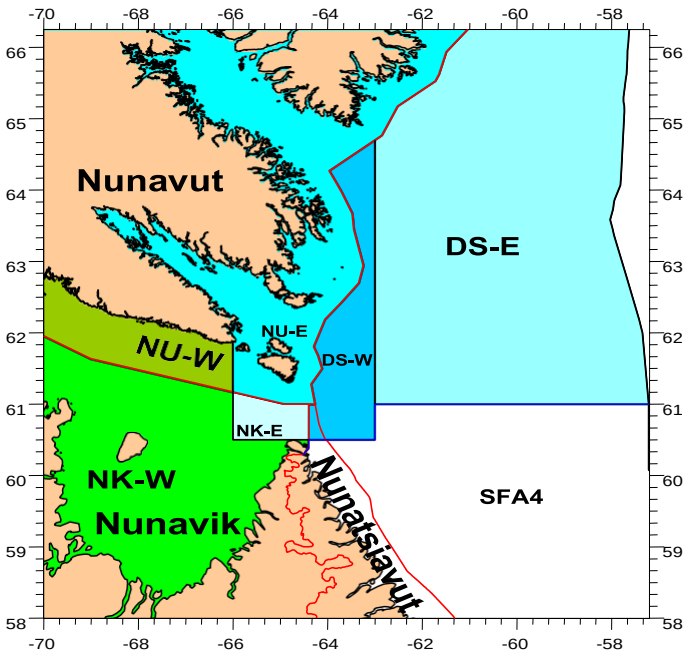
ᐅᒪᖏᓐᓄ

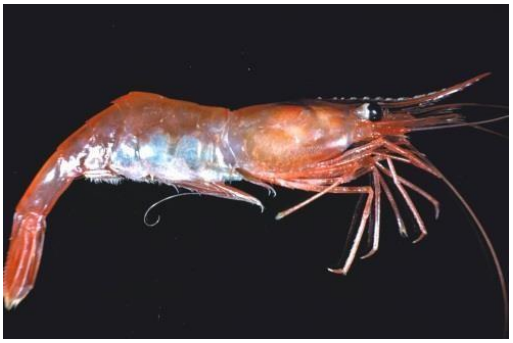
ᑐᑭᓯᐊᖅᑲᓐᓂᕐᒧᑦ: X ᐃᓯᒪᓕᐅᓂᕐᒧᑦ: ᐊᑐᓕᕐᑯᔨᐅᔪᑦ:

ᐱᔨᔪᑎᖏᓐᓄ: ᖃᑭᖅᑕᒪᓗᒥ ᐃᖅᑲᐅᓕᕆᓂᖅᑯᑦ ᑐᓴᕐᕋᒪᑕ ᑲᔪᓯᑎᑦᑎᔪᒪᓕᕐᓂᑐᖅ ᓯᖏᒪᐊᓂᑐᖅ 250 mt *Pandalus borealis* (ᑭᖏᑦᔪᐅᖅᑲᐅᔪᖏᑦ) ᑕᒪᓂ ᐅᑭᐅᖅᑕᖅᑐᑦ ᑭᖏᑦᔪᓕᔪᐊᖅᑎᓂ ᑲᓇᖅᓯᖅᑐᓂ ᖃᖅᐅᔪᓴᖅᑕᐅᔪᒥ ᐃᓂᖏᓐᓄᓂ, ᓄᓇᕗᑦᑲᓇᖅᓯᓂ ᐱᑎᐊᓕᓂ 2021/22 ᑎᑭᓕᑐᒍ 2022/23 ᑭᖏᑦᔪᓕᔪᐊᖅᓂᒪᓕᒃ ᓇᓕᓕᒋᑎᓂᒪᓕ

ᓄᓇᖓᔨᐊᖅᑲᖅ:
ᑐᖏᔨᖅᑐᐃᑦ ᐃᓂᓕ – ᑲᓇᖅᓇᖅᓯᓂ ᖃᑲᐅᔪᓴᖏᐊᕐᔨᑦ
ᐃᓂᓕ – ᐱᖅᓯᖅᓇᖅᓯᓂ ᖃᑲᐅᔪᓴᖏᐊᔨᕐ ᐃᓂᖅᓯ

ᐅᑭᐅᖅᑕᖅᑐᑦ ᑲᒪᓂᒻᒪᑦ ᓇᐃᔪᖅᑭᔨᔅᓴᑦ





ᐅᑭᐅᖅᑕᖅᑐᑦ ᑭᖏᑦᔪᐃᑦ (*Pandalus borealis*)



ᐳᑭᓂ ᑭᖏᑦᔪᐃᑦ (*Pandalus montagui*)

ᖃᐅᓄᐃᓕᐅᕐᖃᓂᐅᕐᓯᒪᔪᓕᒃ

ᒪᕐᒋᒃ ᑭᖓᓯᓕᐸᐃᑦ ᐊᕐᔨᑎᖏᑎᑐᒃ *(P. borealis* ᐊᓪᓚ *P. montagui*) ᐱᑕᕆᐅᕆᕐᒋᑦ ᐅᑭᐅᕆᕐᒋᑐᑦ ᑭᖓᓯᓕᐸᕐᓂᐅᕐᔪᓂᖅ ᑕᐅᖏᓂ ᕿᑭᑭᖅᑕᒍᓱ ᐃᑭᕐᓴᖓᓂ ᐊᓪᓚ ᑲᓇᖅᓇᖓᓂ ᓯᓚᒋᐊᒍᓪᑎᑦ. ᑕᖅᓇ ᐃᕆᒍᓴᕐᓯᓕᐸᕐᓂᐅᕐᔪᕆ ᐊᐅᓪᑕᐅᕐᔪᕆ ᒪᓕᓯᓴᑎᖅ ᒪᕐᒋᖅᓂᖅ ᐃᕆᒍᓴᕐᓴᕐᓂᖅ ᕆᑲᐅᓴᕐᓯᓕᐸᕐᓂᐅᕐᔪᓂᖅ ᐃᓂᐅᔪᓂᖅ, ᐱᖓᑦᓇᖓᓂᓂ ᕆᑲᐅᓴᕐᓴᕐᕕᐅᕐᔨᑦ ᐃᓂᖓᓂᓂ (WAZ) ᐊᓪᓚ ᑲᓇᖅᓇᑎᑦ ᕆᑲᐅᓴᕐᓴᖅᑕᐅᕐᔨᑦ ᐃᓂᖓᓂᓂ (EAZ) (ᐅᐃᒍᖓ 1).

ᓴᓂᖅᑭᑕᐅᖅᓯᓕᐸᔪᑦ ᐱᓴᐅᑎᑕᕆᑕᕐᓴᓕᑕᑦ ᐊᕐᕿᒍᒪᒪᒪᑦ ᑭᓇᐅᔪᑕᐅᓴᕐᓴᓕᐸᔪᓕᑎᒃ ᐃᕆᒍᓴᕐᓴᐊᕐᓴᖅᑎᓄᑦ, ᓇᓪᓕᓐᓄᑎᓂᖅ ᐃᑲᖅᑎᕐᑎᖅᓱᓂᖅ ᐱᓴᐅᒍᓇᖅᑎᑕᐅᕐᔪᓂᖅ ᐃᓕᓴᐅᓕᒫᖅᑐᑦ ᐊᐅᓚᑲᓴᓚᒋᑦ ᐃᕆᒍᓴᕐᓴᐊᕐᓴᖅᑎᓄᑦ ᐱᓴᐅᒍᓇᖅᑎᑕᐅᕐᔪᓂᖅ ᐃᓕᓴᐅᓕᒫᖅᑐᑦ ᐃᓂᖓᓂᓂ ᑕᒪᓂ ᐱᖓᑦᓇᖓᓂ ᕆᑲᐅᓴᕐᓴᖅᑕᐅᕐᔨᑦ ᐃᓂᖓᓂᓂ (WAZ) ᐊᓪᓚᓗ ᑲᓇᖅᓇᑎᑦ ᕆᑲᐅᓴᕐᓴᖅᑕᐅᕐᔨᑦ ᐃᓂᖓᓂᓂ (EAZ) ᑭᖓᓯᓕᐸᓕᓴᐊᕐᓴᓕᒪᒪᑦ ᐃᕆᒍᓴᕐᓴᓕᐸᐊᕐᓴᓕᒪᒪᑦ ᐱᐃᓇᖅᑎᑕᐅᕐᔪᓕᑎᒃ ᐃᑕᒃᑲᓂᑕᐅᕐᔪᓕᑎᒃ ᐱᑕᕆᐅᕐᔪᖅᑐᓂᖅᑐᒃ ᐱᓴᐅᑎᔾᔪᓕᑎᒃ ᓴᓂᖅᑭᑕᐅᕐᓴᓕᒫᓂᖅᑐᒃ ᐃᓗᐊᓂᒃᑐᓕᒫᖅᑐᒃ ᐊᓂᒃᑲᖅᓯᓕᐸᕐᓂᐅᕐᔪᓂᖅᑐᒃ ᐃᓗᐊᓂᒃᑲᖅᓯᓕᐸᕐᓂᐅᕐᔪᓂᖅᑐᒃ ᐱᓴᐅᒍᓇᖅᑎᑕ

ᑎᑎᕃᖏᒪᔪᖅ 1: ᐊᕐᕉᑐᖅᓯᒪᐅᓗᓂᑦ ᓄᓇᕗᒻᒥ ᓯᕗᓪᓕᐊᖅᑎᑕᐅᔪᓄᑦ ᑭᓚᒋᑎᑕᐅᔪᑦ:

ᖃᐅᖅᑕᖏᓪᓗᑉ ᐃᓕᑎᐃᖏᓕᑕ ᑲᓇᐃᓇᖏᓐᓂ (DSW)/ᓄᓇᕗᑦ–ᑲᓇᓇᖏᓐᓂ (NU-E) (140t)

ᖃᐅᖅᑕᖏᓪᓗᑉ ᐃᓕᑎᐃᖏᓕᑕ ᑲᓇᐃᓇᖏᓐᓄᑦ (DSE) (210t)

ᖃᐅᖅᑕᖏᓪᓗᒻᒥ ᐃᖅᑲᓗᓪᓚᕆᐊᖅᑯᑦ (35%) = 49t

ᖃᐅᖅᑕᖏᓪᓗᒻᒥ ᐃᖅᑲᓗᓪᓚᕆᐊᖅᑯᑦ (57%) = 120t

ᖃᐅᖅᑕᖏᓪᓗᓐᓄ ᑯᐊᐳᓴᓴ (35%) = 49t

ᖃᐅᖅᑕᖏᓪᓗᓐᓄ ᑯᐊᐳᓴᓴ (28.5%) = 59.5t

ᑎᓄᕐᕕᖏᓐᓄ–ᐸᓂᖅᑐᑦ ᐃᖅᑲᓗᓪᓚᕆᐊᖅᑯᖓᓂᑦ (CSPF) (15%) = 21t

ᑎᓄᕐᕕᖏᓐᓄ–ᐸᓂᖅᑐᑦ ᐃᖅᑲᓗᓪᓚᕆᐊᖅᑯᖓᓂᑦ (CSPF) (14.5%) = 30.5t

ᐅᑭᐅᖅᑕᖅᑐᖏᑦ ᐃᖅᑲᓚᕐᓂᐊᖅᑎᑦ ᐱᓗᖅᑎᑎᕐᓚᕐᓂᑦ (AFA) (15%) = 21t

ᐊᐃᓚᓪ 12, 2022–ᒥ ᖃᐅᖅᑕᖏᓪᓗᒻᒥ ᐃᖅᑲᓗᓪᓚᕆᐊᖅᑯᑦ (BFC) ᑐᓴᕋᓕᐅᕐᓕᒪᓕ ᐱᓗᓪᓚᕆᓕᒫᓐ ᐱᔪᓐᓇᖅᑎᑕᐅᔪᓕᒫᓂᓪᓗᑎᑦ 250t-ᓂᒃ ᓯᕗᓪᓕᐊᖅᑎᑕᐅᔪᕐᑯᓂᓪᓗᑎᑦ *P. borealis (ᐅᖃᓕᑦᑐᐅᖏᑕᐅᔪᓂᒃ)* ᐃᖅᑲᓇᓯᐊᓂᒻᒥᓴᓐᓂᓪᓗᐊᖅ ᐊᕐᕌᒍᒥᒃ 2021/22 ᑎᑭᓪᓗᒍ 2022/23 ᐃᖅᑲᓇᓯᐊᕆᐊᖓᐅᒥ ᑲᓇᐃᓕᒥᑦ ᖃᐅᐅᔨᖅᑕᐅᔪᓱᑦ ᐃᓂᓪᓚᕆᓂᒃ (EAZ), ᓇᔪᓴᖅᓂᓪᓚᕆᓂ ᓄᓇᕗᑦ–ᑲᓇᓇᖏᓐᓂᒃ (NU-E) ᐊᒻᒪᓗ ᓄᓇᕆᓕᖅ–ᑲᓇᐃᓇᖏᓐᓂᒃ (NK-E), ᑐᙵᓕᕆᓕᓪᓚᑦ ᓴᓂᐟᖅᑕᐅᓂᓪᓚᑦ (ᐅᐃᒍᖏᓐ 3). ᑐᙵᓕᕆᖅᒪᓕᑦ ᒡᓘᓇ ᑐᓴᕋᖅᓱᐅᔪᓱ ᒥᓂᔅᑕᐅᑦ ᐃᓕᒪᓕᐅᕈᑎᑎᓂᐅᓂᓪᓗᐅᒃ 2021/22–ᒥ ᐊᒥᓱᓂᖓᓂᑦ ᐱᖅᐅᒍᓇᖅᑎᑕᐅᔪᓱᑦ ᐃᖅᑲᓕᑕᐅᔪᓇᓕᓪᓚᑎᑦ (TAC) ᒡᒃᑯᓄᖏᓐ ᐊᐅᓪᓚᑕᐅᓂᖏᓐᓂᒃ ᐱᓕᕆᓂᐅᐃᓐᓇᓄᑦ (ᐅᐃᒍᖏᓐ 4) ᑕᒪᓇᓗ ᐅᖃᖅᖃᑎᒋᔭᑕᐅᓕᖅᑐᓂ ᖃᓄᓕᑎᓕᓗᒍ ᓯᑲᓐᓂᔪᓐᓇᖅᓯᒪᓕᐅᕈᑎᓕᒫᓂᑦ ᓄᓇᖅᑎᑕᐅᓂᖏᓐᓄᒃ ᐃᖅᑲᓇᓯᐊᓂᐅᓴᑦ.

ᐱᓕᕆᓂᖏᓐᓇ ᐱᓕᐅᕈᒪᓕᒪᓕ ᑐᓴᕋᖃᖏᓪᓕᐊᓂᒃ ᒪᑭᓂᖅ ᑎᒥᓵᑦᑕᓂᒃ ᖁᑲᖏᑐᐃᓐᓇᖅᑎᑕᐅᔪᓕᒫᓂᓪᓗᑎᑦ ᐃᓐᓇᑦ ᑭᓚᒋᑎᑕᐅᔪᓚᐅᖏᓪᓕᐊᓂᑦ (ᓯᕗᓪᓕᐊᖅᑎᑕᐅᓗᓂᒃ) ᐱᖅᐅᔪᓐᓇᖅᑎᑕᐅᓂᖏᓐᓄᑦ ᑕᐅᖅᓂ ᖃᐅᖅᑕᖏᓪᓗᑉ ᐃᓕᑎᐃᖏᓕᑕ ᐱᖏᓐᓇᖏᓐᓂ (DSW)/ᓄᓇᕗᑦ–ᑲᓇᓇᖏᓐᓂ (NU-E)/ᓄᓇᕆᓕᖅ–ᑲᓇᐃᓇᖏᓐᓂ (NK-E) ᐃᓂᒋᔭᐅᓪᓗᑎᑦ.

ᐱᒋᐊᕈᑎ ᐱᖅᐅᔨᓄᑦ ᖃᐅᐅᔨᒧᐊᑎᑦ ᖃᐅᐅᔨᓇᖅᓯᒪᔪᑎᒻᒪᓕᑦ ᑎᑭᐅᔪᒪᓇᖅᑎᑕᐅᔪᓕᒫᓂᓪᓗᑎᑦ ᐃᓐᓇᖅᑐᓂᒃ ᓴᓇᖅᑐᑎᑦ 50%-ᓄᑦ (478t) ᐃᓕᓴᕆᓐᓇᖅᑐᑦ *P. borealis (ᐅᖃᓕᑦᑐᐅᖏᑕᐅᔪᓂᒃ)* ᐊᒥᓱᓂᖓᓂᑦ ᐱᖅᐅᔪᓐᓇᖅᑎᑕᐅᔪᓱᑦ ᐃᖅᑲᓕᑕᐅᔪᓇᓕᓪᓚᑎᑦ (TAC) (948t) ᑕᐅᕐᓂ ᓄᓇᕗᑦ–ᑲᓇᓇᖏᓐᓂ (NU-E)/ᓄᓇᕆᓕᖅ–ᑲᓇᐃᓇᖏᓐᓂ (NK-E) ᐃᓂᒋᔭᐅᓪᓗᑎᑦ ᐱᖅᐅᓇᐅᒻᒪᓕᒪ ᐊᑐᖅᑎᑦᓚᓂᑦ 2021-22 ᐃᖅᑲᓇᓯᐊᕆᓇᖏᓐᓂ ᓇᑦᓂᔅᑎᑎᓂᒻᒥᑦ. ᖁᖏᓂᖏᓐᓂ ᐋᖅᑭᑦᑕᐅᓇᓇᖅᑎᑦᓚᓂᑦ ᒪᓂᓕᑦᑕᐅᖅᑯᔭᐅᔪᑦ, ᑭᓚᓇᑦᑎᑦ ᑲᑎᓚᑦᑎᑦ ᐱᖅᐅᔪᓐᓇᖅᑎᑕᐅᔪᓱᑦ ᓯᕗᓪᓕᐊᖅᑎᑕᐅᔪᓱᑦ ᐅᑯᓇᓂ ᖃᐅᖅᑕᖏᓪᓗᑉ ᐃᓕᑎᐃᖏᓕᑕ ᐱᖏᓐᓇᖏᓐᓄᑦ (DSW)/ᓄᓇᕗᑦ–ᑲᓇᓇᖏᓐᓄᑦ (NU-E) ᓄᓇᕗᒻᒥᓪᓗᑎᑦ ᐃᓕᒥᑯᖏᓐᓇᔪᑦ 2021/22–ᒥᒃ ᐃᖅᑲᓇᓯᐊᓂᒻᒪᖅ ᑎᑭᐅᔪᓚᐅᖏᓪᓕᐊᓂᑦ 2021/22 ᓇᑦᓂᔅᑎᑎᓂᒻᒥᑦ 140t ᐃᓚᖓᓕᒃ ᐊᒻᒪᓗ ᐊᕐᕌᒍᒥᒃ ᐅᖃᐅᓯᓕᓂᒃ ᐅᖃᐅᓯᓕᓂᑲᓐᓂᑦ ᑎᑎᕃᖏᓪᓕᐊᖅᑎᑦ 1.

ᖃᐅᖅᑕᖏᓪᓗᒻᒥ ᐃᖅᑲᓗᓪᓚᕆᐊᖅᑯᑦ (BFC) ᐱᔪᓐᓇᖅᓯᒪᔪᑎᒻᒪᓕᒪᓕ ᐅᑕᖅᑭᓂᒃᓂᑦ ᐱᖅᐅᔪᓐᓇᖅᑎᑕᐅᔪᓱᓂᒃ ᒥᔨᓂᐸᓗᑐᓂᒃ 186t ᐅᑯᐊᓂ ᓄᓇᕗᑦ–ᑲᓇᓇᖏᓐᓂ (NU-E)/ ᓄᓇᕆᓕᖅ–ᑲᓇᐃᓇᖏᓐᓂ (NK-E) ᑎᑭᓪᓗᒍ ᐃᓴᓕ 24, 2021. ᖃᐅᖅᑕᖏᓪᓗᒻᒥ ᐃᖅᑲᓗᓪᓚᕆᐊᖅᑯᑦ (BFC) ᐱᓕᐅᒻᒪᓕᒪᓕ ᐃᓕᓴᕆᖅᑭᐅᓂᒃᓂᓂᒃ ᐱᖅᐅᔪᓐᓇᖅᑎᑕᐅᔪᓱᓂᒃ ᐱᐊᓇᖅᓯᒪᔭᓪᓗᑎᒃ ᑎᑎᕃᖏᓪᓕᐊᖅᑎᑦ 24, 2021 ᐊᒥᓱᓂᖅᑲᓪᓗᑎᒃ 371.7t-ᓂᒃ. ᖃᐅᖅᑕᖏᓪᓗᒻᒥ ᐃᖅᑲᓗᓪᓚᕆᐊᖅᑯᑦ (BFC) ᐱᐊᓇᓕᐅᖅᑎᑦᓚᓂᑦ ᐅᑕᖅᑭᓂᒃᓂᑦ ᐱᖅᐅᔪᓐᓇᖅᑎᑕᐅᔪᓱᓂᒃ ᓯᕗᓂᑐᖅᑲᓐᓂᒃᓂᓂᒃ ᐊᑭᖏᑦ, ᑐᓴᕋᓕᐅᕐᓂᒃᓂᒪᓕ ᑕᒪᑐᒥᓱᓐ ᐱᔪᓐᓇᖅᑎᑕᐅᓗᓂᒃ ᐃᓕᓴᕐᓂᐊᓕᒫᓂᒃ ᐃᖅᑲᓇᓯᐊᕐᓂᐊᕐᓗᐅᑎᓂᒃᓂᑦ ᑎᑎᕃᖏᓪᓕᐊᖅᑎᑦ ᓄᓇᕗᑦᑐᐅᓚᐅᖅᑎᑦ ᓄᓇᕗᒻᒥᓪᓗᑎᑦ 12, 2021. ᓄᓇᕗᑦ 12, 2021–ᒥ, ᖃᐅᖅᑕᖏᓪᓗᒻᒥ ᐃᖅᑲᓗᓪᓚᕆᐊᖅᑯᑦ (BFC)

ᓄᑎᕐᑎᓕᐅᕐᓚᒪᒃ 100t-ᓂᒃ ᐱᔪᖅᓇᖅᑕᒥᓂᒃ ᐃᓚᖓᓕᖅᑎᕐᑎᓪᓗᑎᒃ ᐱᓴᐅᔪᓐᓇᖅᑎᑕᐅᔾᔨᓂ ᐊᒥᓱᓂᕐᓂᒃ 271.7t-ᓂᒃ ᐃᖃᓗᓯᔨᐊᕈᓇᐅᑎᒥᓂᒃ ᑕᒪᑐᒍᖓ 2020/21-ᒥ ᐃᖃᓗᓯᔨᐊᓂᒪᒥ. ᐊᓱᖏᑦ ᓴᓂᖅᓭᑦᑕᐅᔾᔨᓂᒃ ᑎᒍᒥᐊᖅᑎᑦ ᑐᓴᕋᕐᑕᒪᒪᒃᑕ ᐱᔪᓐᓇᕈᒪᓪᓗᑎᒃ ᒪᑯᓂᖓ ᓄᓇᕗᑦ-ᑲᓇᓇᖓᓂ (NU-E)/ᓄᓇᕕᒃ-ᑲᓇᓐᓇᖓᓂ (NK-E) ᐃᓂᒋᔭᐅᔾᔨᖅ ᐃᓕᓴᐅᑎᖅᑯᔭᒃᑐᓂ ᐃᖃᓗᓯᔨᐊᕈᓇᐅᑎᖓᓐᓂᓪᓂ ᐱᒋᐊᓕᕆᑦᓂᖓᓂ ᐊᖏᖅᑐᓪ ᐊᖏᓪ ᐃᖃᓗᖅᑐᑦᑕᕈᓇᖅᓯᒪᔭᒪᒪᑕ 465t-ᓂᒃ ᐃᓂᒋᔭᐅᒥ ᐊᑐᖅᑎᓪᓗᒍ 2021/22 ᓇᓪᓕᔅᑎᓂᖅ.

ᑕᐃᒪᓕ ᐱᔭᕆᑦᑕᔭᒍᑎᖓ ᐊᒥᓱᓂᖓᓪᓕ ᐱᔭᔪᓐᓇᖅᑎᑕᐅᔾᔨᓂ ᐃᖃᓗᑦᑕᐅᔭᓇᖅᑐᓄᓂ (TAC) ᐃᓱᒪᓕᐅᔾᑐᑎ ᐃᓚᖓᔪᓕᐅᖏᓪᓕᑦ ᑕᔭᖓᓂᒃ ᐃᓂᒋᔭᐅᔾᔨᒪᓂ ᐃᓕᓴᐅᑎᖅᑯᓂᖅᑐᓂ ᐊᖏᔪᐅᖅᑎᓂᓇᒍ ᓴᓐᓄᓕᐊᓇᒃ 2022, ᖁᑭᖅᑕᓪᓚᒥ ᐃᖃᓗᐊᓕᓇᓴᓂᑦ (BFC) ᐱᔪᓐᓇᓕᐅᖏᓪᓕᒪᑕ 87%-ᖓᓂᒃ ᐃᓱᓕᔭᑎᖓᓂᒃ ᐱᔪᓐᓇᖅᑕᖓᑕ ᓱᑎᐱᓇ 24-ᖓᓂ, 2021 ᐃᖃᓗᓕᐅᖅᑎᑦᓗᑦᑐ ᑐᖓᓂᓕᑐᒃ 12t (3%) ᐊᒥᓪᓗ ᐱᔭᐅᖓᓐᓄᑦᓪᓗᑎᒃ ᐊᓱᓴᓂᖓᓐᓂᒃ 100t-ᓂᒃ (27%) ᐱᒋᖏᖓᓐᓂᒃ ᓄᓇᕗᑦ-ᑲᓇᓇᖓᓂ (NU-E)/ᓄᓇᕕᒃ-ᑲᓇᓐᓇᖓᓂ (NK-E) ᐅᑕᖁᓂᖓᓐᓂᒃ ᐱᔭᐅᔪᓇᑦᑐᖅᑕᖓᓐᓂᒃ 2021/22-ᒥ ᓇᓪᓕᔅᑎᓂᒥᒪᒥ.

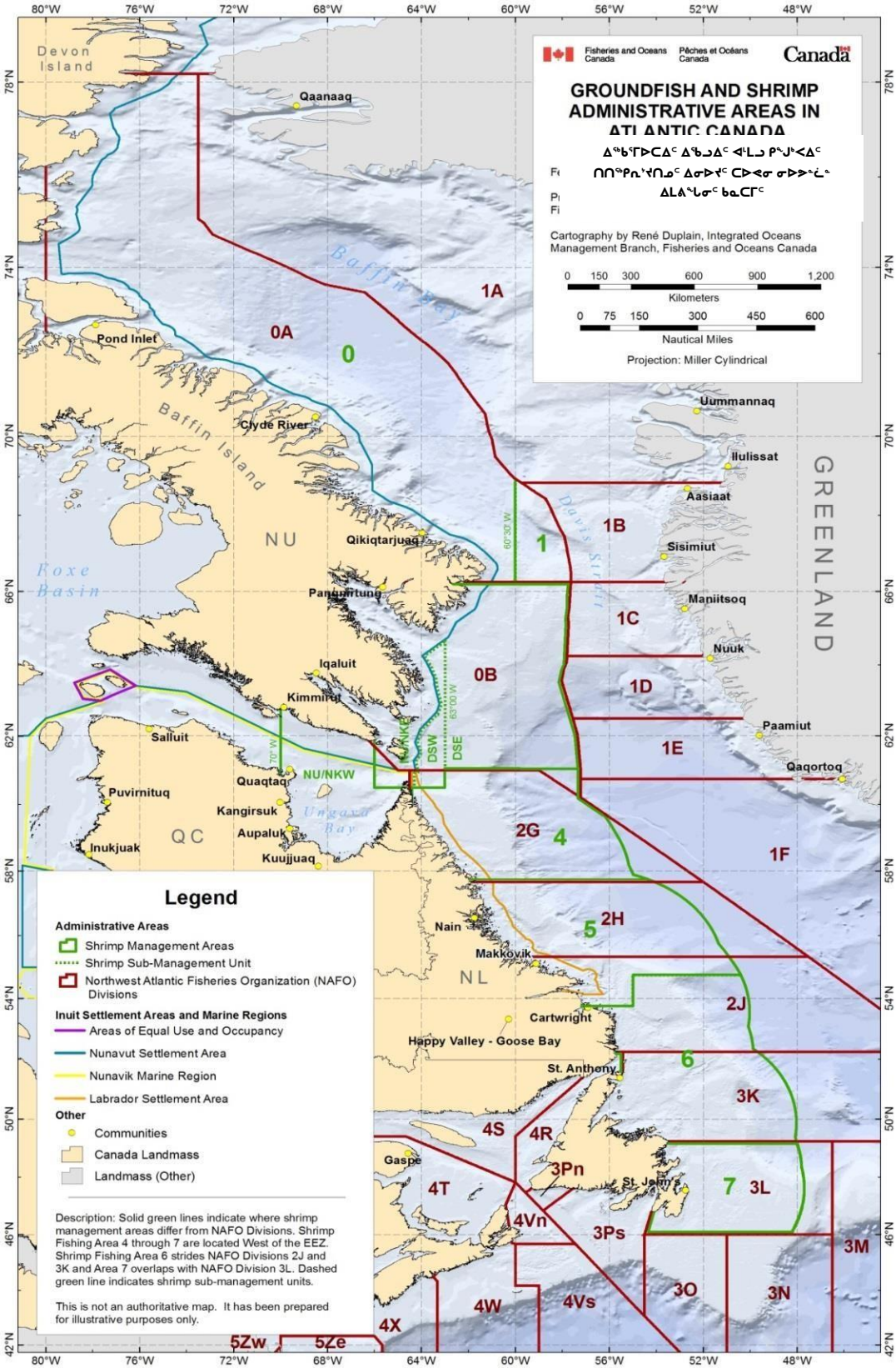
ᖁᑲᐅᓇᓱᐊᖅᓯᓪᓗ ᐃᓱᒪᓕᓴᖅᓱᐅᕈᑕᐅᓂᖓᓪᓗᑎᑦ

P. borealis (ᑭᖓᔪᐸᐅᖁᑕᐅᔾᔨᓂᒃ) ᐱᙵᐅᔪᓇᖅᑐᑦ ᑕᒧᓂ ᑲᓇᓐᓇᒥᑦ ᖁᑲᐅᓴᓴᖅᑕᐅᔾᔨᐸᑦ ᐃᓂᖓᓂ (EAZ) ᖁᑲᓄᐃᓂᖅᑲᖓᑎᑐᓕᒪᒪᓕᑦ ᐊᙵᓴᑐᖅᓯᒪᔭᕆᓕᓴᓂ ᐱᓂᓕᓐᓂᖅᑐᓂᒃ (PA) ᐋᖅᑭᔪᓱᖅᓯᒪᓂᒥ.

ᑲᑐᓗᑎᑦ, ᓇᓪᓕᔅᑎᓂᓂᒥᒃ ᐃᑲᖅᑎᑦᑎᓂᖅ ᓴᖅᑭᑎᑦᑎᑐᕓᒪᓕᑦ ᐊᖏᑦᓂᖅᓴᓴᒪᓕᑦ ᖁᑲᐅᔪᓇᓯᖁᙱᐅᔾᔨᐸᑦ ᖁᑲᓄᑎᑭᐅᓂᖓᓂᒃ, ᐱᓗᐊᖏᓪᓕᖁᙱᑐᒃ ᓯᔭᒪᐊᖅᑎᑕᐅᔾᔨᐸᑦᑕ ᐊᒥᓪᓗ ᐊᑐᖅᑐᐊᖅᑯᑕᐅᔾᔨᐸᑦ ᐱᔾᔨᐅᔪᓇᖅᑐᑕᐅᔾᔨᒃᑲᓂᒃ ᐃᖃᓗᓐᓂᑕᐅᔾᔨᐸᑦ ᑕᒪᑐᒪᓂᓴᐃᓚᖅ ᐊᖏᑦᑐᖅᑎᓂᒃ ᐃᑲᖅᑕᐅᔾᔨᐸᑦ ᐱᔾᔨᐅᔪᓇᖅᑐᑕᐅᔾᔨᒃᑲ

ᐱᑎᐊᓕᕆᔨᓂᖏᓚᓄᓪᓕᖅ ᐱᓕᕆᐊᖓᓂᖏᓪᓗᓂ ᐊᐅᖏᑭᒍᓱᒪᓕᒐᓂᓗ ᐅᓴᓕᑐᕆᐊᓐᓂᑯᓘᓐᓂ ᐱᓕᕆᐊᖓᓂᖏᓚᓇᓕᒃ.

ᐱᓕᕆᓚᐅᖅ ᐃᓕᓴᖅᓭᓪᓕᒃ ᓴᓇᓚᖅᑯᑎ ᑐᓴᕐᓭᓪᓕᓂᓂᓕᓂᖅ ᑕᐅᖅᓯᓂᐅᖅᓯᓂᖅ ᐅᖅᓯᖅᑎᑎᑭᒍᓱᑎᖅᑭᒪᓕᒐᓂᓗ ᑕᐃᒪᐃᓕᓕᒍᐅᓗᓂ ᐅᖅᓯᐅᓭᖅᑭᒪᓕᒐᓂᑎᑐᑦ ᐃᓐᓇ ᓇᒃᓕᐅᑎᓂᖅ ᐃᓯᖅᓇᖅᑎᑕᐅᖅᓯᓂᓗᒍ ᐱᓕᕆᐊᖓᓗᓂ ᐊᒻᒪᓗᓂ ᐃᒪᖓᓚᓂᐊᖅᓯᖓᓕᖅᓯᓂᓗᓂ. ᐃᓐᓇᐅᕐᓂᓚᓂ ᐃᒪᐃᓇᐃᓂᖅᓴᐅᖅᓴᕐᓂ ᑕᒪᐃᓇ ᐱᓕᕆᓂᖅ ᐃᓐᓇ ᐊᑲᖅᑭᑕᐅᓭᒪᔭᖅ ᒪᓕᕐᑕᐅᖅᓴᐅᖅᓯᓂᓗᓂ ᑕᒪᑐᒪᓂ ᓇᓴᓂᖅᑯᑎᓂᖅᓯᓂᖅ ᐃᓇᖅᑐᓂᖅᓯᓂᖅ (DFO) ᐊᑐᐃᓇᐅᖅᓴᕐᓂ ᑕᐅᖅᓴᖅᓯᓂᖅᓯᓂᖅᓴᐅᖅᓴᐅᒪᔪᑦᑦ ᐃᖅᑲᓕᓭᔭᖅᑎᓂᓕᕐᓂ ᐃᓕᓭᑕᐅᕈᑕᐅᖅᓯᓂᓕᓂᑐᒍ ᑕᒪᓐᓇ ᓄᑦᕈᕆᐊᖅᓭᓂᖅ ᐊᑐᖅᑕᐅᑎᐊᖅᑎᓇᓂᖅᓯᓂᖅ ᑕᑦᑦᓂᐅᕆᐊᖅᑎᓇᓂᖅᓯᓂᖅ ᑕᑦᑦᓂᐅᕆᐊᖅᑎᓇᓂᖅᓯᓂᖅ, ᐃᓕᓴᐃᓇᓕᒃᑎᓂᖅᓯᓂᖅ ᐃᓕᓴᐃᓇᓕᒃᑎᓂᖅᓯᓂᖅ ᐃᓐᓇᐅᕐᓂᓚᓂ ᐃᓕᓴᐃᓇᓕᒃᑎᓂᖅᓯᓂᖅ ᐃᓐᓇᐅᕐᓂᓚᓂ ᐃᓐᓇᐅᕐᓂᓚᓂ ᐃᓐᓇᐅᕐᓂᓚᓂ


Fisheries and Oceans Canada
Pêches et Océans Canada
Canada
GROUNDFISH AND SHRIMP ADMINISTRATIVE AREAS IN ATLANTIC CANADA
ᐃᖃᓗᐊᑕᐅᑦ ᐃᖏᓕᐅᑦ ᐊᑦᓚᓗ ᑭᒧᒋᐊᕐᕕᐅᑦ
ᑎᑎᖅᑭᒃᑲᒻᒥᑦ ᐃᓂᐅᔪᑦ ᑕᐅᔨᓂ ᓂᐅᐅᓵᓪᓚᓐ
ᐃᒪᐃᖏᓐᓂᑦ ᑲᓇᑕᒥᑦ
Cartography by René Duplain, Integrated Oceans Management Branch, Fisheries and Oceans Canada
0 150 300 600 900 1,200
Kilometers
0 75 150 300 450 600
Nautical Miles
Projection: Miller Cylindrical
Devon Island
Qaanaaq
Baffin Bay
Pond Inlet
Baffin Island
Clyde River
Uummannaq
Ilulissat
Aasiaat
GREENLAND
Davis Strait
Qikiqtarjuaq
Sisimiut
Foxe Basin
Pangnirtung
Maniitsoq
Nuuk
Iqaluit
Kimmirut
Salluit
Paamiut
Qaqortoq
Quaqtaq
Puvirnituq
Kangirsuk
Ungava Bay
Aupaluk
Inukjuak
Kuujjuaq
Nain
Makkovik
Cartwright
Happy Valley - Goose Bay
St. Anthony
Gaspé
St. John's
NU
QC
NL
0
0A
1A
1
1B
1C
1D
1E
1F
0B
2G
4
5
2H
2J
6
3K
4S
4R
3Pn
4T
4Vn
3Ps
7
3L
3M
4W
4Vs
3O
3N
4X
5Zw
5Ze
60° 30' W
65° 00' W
70° W
NU/NKW
DSW
DSE
Legend
Administrative Areas
Shrimp Management Areas
Shrimp Sub-Management Unit
Northwest Atlantic Fisheries Organization (NAFO) Divisions
Inuit Settlement Areas and Marine Regions
Areas of Equal Use and Occupancy
Nunavut Settlement Area
Nunavik Marine Region
Labrador Settlement Area
Other
Communities
Canada Landmass
Landmass (Other)
Description: Solid green lines indicate where shrimp management areas differ from NAFO Divisions. Shrimp Fishing Area 4 through 7 are located West of the EEZ. Shrimp Fishing Area 6 strides NAFO Divisions 2J and 3K and Area 7 overlaps with NAFO Division 3L. Dashed green line indicates shrimp sub-management units.
This is not an authoritative map. It has been prepared for illustrative purposes only.
80°W
76°W
72°W
68°W
64°W
60°W
56°W
52°W
48°W
78°N
74°N
70°N
66°N
62°N
58°N
54°N
50°N
46°N
42°N

ᐅᖏᓂᖅᐊᓕᓂᕐᒧᑦ ᐊᑐᑌᖅᑕᐊᑦ NU ᐊᓚᒪ NK ᑐᓂᓂᖅᑎᑦ ᐃᓗᐊᓄᑦ WAZ ᐊᓚᒪᓗ EAZ

ᐅᖏᓂᖅᐊᓕᓂᖅ

WAZ (*P. montagui)*
ᐱᑕᓚᖏᐅᑦ ᓴᖅᑭᒃᓗᑎᒃ 800t ᐊᑐᐃᖓᐅᑎᐊᖅᑐᑦ ᐃᓗᐊᓂ WAZ ᐅᖏᓂᖅᐊᓕᓂᕐᒧᑦ ᑕᒃᔪᓄᖏᑲ ᓄᓇᕗᑦ ᐊᓚᒪ ᓄᓇᕗᒃ ᑐᓂᓗᓕᐅᓴᑦ ᑎᒍᒥᐊᖅᑎᖓᓄᑦ ᐊᖅᖁᒍᒪᒃᓴᖅ; ᑐᓂᓕᐅᓴᑦ ᐊᒥᓴᓂᖓᓄᑦ ᒪᑕᓂᐊᖅᑐᑦ ᑐᓂᓕᐅᖅᑕᕐᓴᓂᖓᓄᑦ ᐊᖅᑭᑦᓕᐅᓴᒪᓂᖓᑦ ᑲᑎᒪᓕᐅᓴᑦ.

ᐅᑦᓗᒥᐅᔪᖅ, ᒪᑕᒃᓴᒍ ᑕᐃᓇ 50/50 ᐊᕕᒃᓴᒪᔪᐊᑎᐊ, ᓄᓇᕗᑦ ᐊᓚᒪᓗ ᓄᓇᕕᒃ ᐊᑐᓂ ᐅᖏᓂᕐᐃᔪᐃᓇᖅᑐᑦ ᑲᑎᑦᓗᒍ 400t ᐊᑐᓂᑦ. ᐊᑦᑕᐊᑐᐃᓇᖅ ᐅᖏᓂᖅᐊᓕᓇᕐᓂᖅ ᑯᑕᖓ ᐱᓕᐅᖅᑕᑐᖅ ᓴᑎᐱᓇ 30 ᐊᖅᖃᔪᓂᐊᖅᑐᒍᑦ ᑕᐅᑐᒃᑕᖅ ᐃᖅᑲᓇᑕᐅᓂᑯᖅᑕᖅ.

EAZ - ᓄᓇᕗᑦ ᑲᓪᓕᑦ ᐃᑭᖅᓴᖓ, NU/NK E[1] *(P. borealis)*
350t ᐊᑐᐃᓇᐅᑎᑕᐅᓗᑎᒃ ᐅᖏᓂᖅᐊᓕᓂᕐᒧᑦ ᓄᓇᕗᒍᑦ ᐊᓚᒪᓗ 20t ᓄᓇᕕᖓᒥ ᑐᓂᖅᓴᓗᓄᑦ, ᐃᖅᑲᓗᓴᒃᑕᐅᔪᓗᑎᒃ ᓴᕗᓂᐊᑕ ᔫᓕᐃ 31 ᐊᖅᖁᔨᓂᐊᖅᑐᒃᑦ. ᑯᑕᖓᑦ ᐃᖅᑲᓇᑕᐅᔪᖓᑎᑦᑐᑦ ᑭᖑᓂᐊᒍᑦ ᐃᖅᑲᓗᓴᑦᖃᖅᖓᑎᑦᑐᑦ.

ᑕᐃᒪᓕ ᑭᖑᓇᖓᑦ *P. borealis* ᐅᒪᔨᖅᑲᑎᑦ ᖃᓄᐃᓕᖓᑦᑐᒃᑦ ᐃᓂᖓᓂᒋᓐᓂᕐᒃᑐᖅᑎᒃ, ᑕᒃᑯᐊ ᐅᖏᓂᖅᐊᓕᓂᐅᑦ ᓇᐃᓴᐅᑎᖓᓕᑦ ᑲᑕᒥᐊᖅᑕᐅᓗᑎᒃ ᐅᑯᐊ ᒪᑕᒫᓂᐅᑦ:

- ᐅᒪᔨᖅᑲᑎᑦ ᐃᓂᖓᓂᒋᓐᓂᕐᑯᑎᒃ ᐅᓪᓗᖅᓴᓇᐊᓪᓚᑦ ᐃᓂᖓᓂᓂᒃ, ᐱᑕᐊᕆᔨᑕᑦ ᐅᖏᓂᖅᐊᓕᓂᕐᒧᑦ ᓇᐃᓴᐅᑎᖓᓕᑦ ᑲᑕᒥᐊᑦᓗᑕᑦ 13% ᐊᓚᒪ 26% ᑕᒃᑯᓇᓂ ᖃᐅᔨᖓᓂᖅᓴᖅ – ᐊᓚᒪ ᐊᖅᓯᔨᖓᓂᖅᓴᖅ – ᖁᑎᕆᖅᑐᓂᖓ ᐅᓪᓗᖅᓴᓇᐊᓪᓚᑦ ᐃᓂᖓᓂᔪᑦ, ᒪᑕᒃᑐᑦ ᖁᑎᕆᖅᑕᖓᓕᑦ.

- ᑭᖑᓂᖅᑐᑦ ᐅᒪᔨᖓᑦ ᐃᔨᒪᓗᖓᓇᖅᑐᑎᑦ ᐃᓂᒋᑎᓂᖅ, ᐅᖏᓂᖅᐊᓕᓂᔨᖃᖅᓯᓇᕐᓂᖅᑐᖅ.

ᐊᑐᖅᑐᐊᑭᑎᑦ

WAZ (*P. montagui)*
ᓄᓇᕗᑦ ᐊᓚᒪᓗ ᓄᓇᕗᒃ ᐊᕕᒃᔨᓂᐊᖅᑐᓴᒃ ᑲᑎᑦᓗᒍ 550t ᐊᑦᖁᔭᒪᒃᓴᖅ ᐊᑐᖅᑐᐊᑦᑭᓴᒃ ᒪᑕᒃᓴᒍ ᐊᕕᒃᔨᓂᖅᓗᑦ ᐊᖅᑭᒃᓴᑦ ᑲᑎᒪᓕᐅᓴᒪᓂᖓᓄᑦ, ᐅᑦᓗᒥ 275t ᐊᑐᓂ. ᐱᔨᒪᔪᑎᑦ ᐊᑐᖅᑐᐊᖅᓂᖅᓗᑦ ᑯᑕᒥᒃ ᖃᑎᖅᑭᐅᑦᑕᑦᓂᐊᖅᑐᑦ ᐱᑕᓚᖏᐊᑎᐅᓄᑦ ᒪᑕᓂᓗᒍ ᐊᑐᓅᖓᔪᓂ ᖃᑎᖅᑭᐃᓕᔪᑎᖓᔪᓂ ᐃᓂᒪᑎᓂᑦ ᔪᑯᖅᑐᓂᖓᓕ ᔪᓕᖓᑕᓗ ᐃᓕᖅᑯᓂᖅᑐᓂᖅ.

EAZ - ᓄᓇᕗᑦ ᑲᓪᓕᑦ ᐃᑭᖅᓴᖓ, NU/NK E[2] *(P. borealis)*
ᓄᓇᕗᑦ ᐊᓚᒪᓗ ᓄᓇᕗᒃ ᑎᑎᖅᑎᖓᑦ ᐊᔪᖅᑎᑕᐅᓴᖓᓂᕐᓕᑦ ᐊᑐᐃᓇᐅᑎᑦ ᐃᓂᖓᖅᖁᑐᒃ 225t ᐊᓚᒪᓗ 10t ᒪᑕᓄᓗᑦ ᐊᖅᖁᔨᓂᐊᖅᑐᒍᑦ ᑐᓂᖅᓴᖅᑕᐅᔪᖅᑕᖅ, ᐃᖅᑲᓗᓴᒃᑕᐅᓕᖅᖁᖅᑐᑦ ᑕᖅᑭᖓᓂᓂ ᑭᖑᓪᓕᖅᑭᑦ (ᒪᓴ) ᐃᖅᑲᓗᓴᒃᑕᐅᔪᓂᖅ.

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[1] ᑐᖓᓂᓂᐊᖅᑲᓂ ᒥᓂᑕᐅᑦ ᐊᖅᑭᑭᑕᐊᓚᖓᓂᓕᑦ ᐱᓴᐃᓂᒥᒃ ᐱᓇᓱᒃᑕᐅᖓᑕᑦ ᐃᖅᑲᓇᑕᐅᖅᑕᕐᓴᓂᑦ ᐃᖅᑲᓇᑕᐅᖅᑕᕐᓴᓂᖓᓄᑦ ᑕᓴᓱᒍᖓ *P. Borealis* ᐃᓗᐊᓂ NU/NK E.

[2] ᑐᖓᓂᓂᐊᖅᑲᓂ ᒥᓂᑕᐅᑦ ᐊᖅᑭᑭᑕᐊᓚᖓᓂᓕᑦ ᐱᓴᐃᓂᒥᒃ ᐱᓇᓱᒃᑕᐅᖓᑕᑦ ᐃᖅᑲᓇᑕᐅᖅᑕᕐᓴᓂᑦ ᐃᖅᑲᓇᑕᐅᖅᑕᕐᓴᓂᖓᓄᑦ ᑕᓴᓱᒍᖓ *P. Borealis* ᐃᓗᐊᓂ NU/NK E.

ᖃᑎᖅᑕᕐᓴᖅ 1. ᓄᓇᕗᑦ ᐊᓚᒐᓗ ᓄᓇᕆᔨ ᑐᵒᓂᓱᑦᐅᔨᵒᓇᖅᑐᑦ ᐊᑐᐃᵒᓇᑦ ᐅᖃᓕᕆᐊᕆᓂᖅᓯᑦ ᐊᑐᖅᑐᐊᑕᑎᓄᑦᓗ.

ᐃᓂᖃᑎ	ᓄᓇᕆᔨ		ᓄᓇᕗᑦ	
	ᐅᖃᓕᕆᐊᕆᓂᖅ	ᐊᑐᖅᑐᐊᑦᓴᖅᑎᑦ	ᐅᖃᓕᕆᐊᕆᓂᖅ	ᐊᑐᖅᑐᐊᑦᓴᖅᑎᑦ
WAZ *P. montagui*	400t	275t	400t	275t
WAZ *P. borealis*	ᐊᑐᖃᕐᑐᖅ – ᐱᓇᓴᒃᑕᐅᖃᕐᑐᑐᑦ ᐊᓯᖃᕐᑐᑦ			
EAZ *P. montagui*	ᐊᑐᖃᕐᑐᖅ – ᐱᓇᓴᒃᑕᐅᖃᕐᑐᑐᑦ ᐊᓯᖃᕐᑐᑦ			
EAZ *P. borealis* *(*ᓄᓇᕗᑦ ᑲᓪᓕᓪᓕ ᐃᑭᕐᓂᖓ, *NU/NK E*[3]*)*	20t	10t	350t	225t

[3] ᑐᖏᓱᓂᐊᖅᓴᓂᓂ ᒥᓂᑕᐅᑦ ᐊᖅᑭᑭᒋᐊᕆᔨᖏᓱᓄᑦ ᐱᓴᐃᓂᒥᒃᑲ ᐱᓇᓴᒃᑕᐅᖃᕐᑐᑐᑦ ᐃᖅᑲᓴᒃᑕᐅᖅᑎᐅᓴᓴᑦ ᑦᔨᓴᒍᖏᓐ *P. Borealis* ᐃᓗᐊᓂ NU/NK E.

APPENDIX 3

ᖃᑭᖅᑕᓂᖅ ᐃᖅᑲᓇᑦᑎᐊᕐᓂᖅ BAFFIN FISHERIES

April 12, 2022

To: The Honourable Joyce Murray
Minister of Fisheries, Oceans and the Canadian Coastguard
Government of Canada

Dear Minister Murray,

Baffin Fisheries requests approval to carry forward 250 m/t of borealis shrimp in fishing area EAZ, sub-area NU/NKE, from fishing year 2021-22 to 2022-23.

DFO's decision on allocations in area NU/NKE was made after the fishing season had ended due to heavy ice, which made further fishing impossible. Therefore, there was no time for consideration of reasonable carry forward provisions for Inuit fishing companies and licence holders in Area NU/NKE.

I believe 250 mt carry forward is equitable, conservative, and in line with the carry forward provisions offered to non-Inuit licence holders in similar shrimp fishing areas. Area EAZ is in the healthy zone, with an established PA framework.

Baffin Fisheries is the only active shrimp fishing company in Eastern Canada or the Arctic without a reasonable carry-forward provision for any of its licences. For unknown legacy reasons, Baffin Fisheries' carry forward allowance is only 49 tonnes, whereas Enterprise Allocation licence holders from the south may carry forward up to 750 tonnes.

We are requesting this carry forward on an interim basis, until DFO has had an opportunity to conduct a full review of carry forward discrepancies between southern licence holders and Inuit licence holders.

Thank you,

On behalf of the Board of Directors of Baffin Fisheries,

David Alexander,

Chairman, Baffin Fisheries

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Fisheries and Oceans Canada | Pêches et Océans Canada

January 20, 2022 / 20 janvier 2022

Northern Shrimp Advisory Committee / Comité consultatif de la crevette nordique

2021 Total Allowable Catches (TACs) for the Eastern Assessment Zone (EAZ)

Quotas for Nunavut and Nunavik in the EAZ have been increased by 15 per cent as follows:

FLEET / INTEREST	AREA	TAC (t)
Nunavut Borealis	NU E	758
Nunavik Borealis	NK E	190
Nunavut Montagui	NU E	346
Nunavik Montagui	NK E	148

If you have any questions, please do not hesitate to contact me.

2021 Total autorisé des captures (TACs) pour la Zone d'évaluation est (ZEE)

Les quotas pour le Nunavut et le Nunavik dans la ZEE ont été augmentés de 15 % comme suit:

FLOTTILLE/INTÉRÊT	ZONE	TAC (t)
Nunavut Borealis	NU E	758
Nunavik Borealis	NK E	190
Nunavut Montagui	NU E	346
Nunavik Montagui	NK E	148

Si vous avez des questions, n'hésitez pas à communiquer avec moi.

Todd Williams

Todd Williams
Chair, Northern Shrimp Advisory Committee /
Président, Comite consultatif de la crevette nordique

c.c.: RDGs / DGR
Gordon Goodkey

ᑐᓂᓴᐅᔪᑦ
ᓄᓇᕗᒻᒥ ᐅᒪᔨᓕᕆᔨᖅᑎᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ
ᒪᐃ 2022

ᐅᓗᖏᓐᓄ

ᑐᑭᓯᐊᕐᑭᑦ: X ᐃᓱᒪᓕᐅᖅᓯᒪᓂᖅ:

ᐱᖓᐊᑎᖏᓐᓄ: ᐃᒪᖅᑎᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ (DFO) ᑐᑭᓯᐊᕐᑭᑦ – ᐃᒪᖅᑎ ᓴᐳᒻᒥᑎᓂᖅᓗᑦ ᐱᓕᕆᔨᐅᔪᑦ

ᓇᓗᓇᐃᔨᖅᓯᒪᓂᖏᓐᓄᑦ

DFO ᐃᒪᖅᑎ <ᖅᓇᐃᓂᖅᓗᑦ ᐊᒻᒪ ᓴᐳᒻᒥᑎᓂᖅᓗᑦ ᐱᓕᕆᐊᖅ) ᐱᓕᕆᐊᖅᑲᓇᐊᖅᑐᑦ ᐊᑐᓕᖅᑎᑕᐅᓂᖓᓄᑦ ᑲᒪᕐᓴᑎᐅᓂᖅᑐᑦ ᐃᓗᐊᓂ *ᐃᒪᖅᓂᑦ ᐱᖅᒋᖅ*, ᐊᑐᖅᓗᑎᑎ ᐃᓕᓴᐅᔨᓯᒪᓂᑦ ᐃᒪᖅᓂᑦ ᐊᐅᓕᑕᐅᓂᖓᓐᓄᑦ ᐊᒻᒪ ᐃᒪᖅᑎ ᓴᐳᒻᒥᑎᓂᖅᓗᑦ ᓴᓇᖅᑭᑦ. ᐃᒪᖅᑎᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖅ ᐅᑭᐅᑕᖅᑐᑦ ᐃᖅᑲᓇᖅᑐᖅᑐᑦ ᐃᒪᖅᓂᑦ ᐃᓗᐊᓂ ᐊᒻᒪ ᐊᖅᑐᐊᓂᓕᓄᑦ ᓄᓇᕗᒻᒥ ᐱᓕᕆᖅᑎᖓᓄᖅᑐᑦ ᐃᓄᖅᓇᐃᔨᖅᑎᖓᓄᖅᑐᑦ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᐱᓕᕆᖅᑎᖓᓄᖅᑐᑦ ᐃᒪᖅᓂᑦ ᓴᓇᖅᑭᑦ. ᒡᒃᑯᐊ ᐱᓕᕆᔨᐅᔪᑦ ᐱᖓᑲᓇᐃᔪᔪᑦ ᓯᕐᓗᒍᑎᓕᕆᖅᑕᐅᓂᖓᓄᑦ ᐃᒪᖅᓂᑦ ᓴᓐᓂᐊᕐᓇᑦᑐᑦ ᐊᒻᒪ ᖃᐅᔨᓴᖅᑎᑦᑎᓂᖅᓗᑦ ᑐᓴᕐᕕᖏᓐᓄᑦ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᐊᐅᓚᑦᑎᓐᓄᑦ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᐃᓕᓴᐅᔨᓯᒪᓂᑦ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᓴᓇᖅᑭᑦ. ᑐᓴᕐᕕᖏᓐᓄᑦ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᐃᓕᓴᐅᔨᓯᒪᓂᑦ ᑐᓴᕐᕕᖏᓐᓄᑦ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᓴᓇᖅᑭᑦ (QIA) ᐊᒻᒪ ᓄᓇᕗᒻᒥ ᓴᓂᓕᐳᐊᖅ, DFO ᐃᓕᓴᕐᕕᐅᓕᕆᓕᕐᓂ ᑎᑎᕋᓕᐅᔨᓂᖅᓂᑦ ᐅᖅᑲᖅᑎᑎᑦᑕᐅᓂᖓᓄᑦ ᓯᕐᓗᒍᑎᓕᕆᖅᑎᑕᐅᓂᖓᓐᓄᑦ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᐅᓂᒃᑳᖅᑐᖅᑐᑦ ᓴᓇᖅᑭᑦ.

ᐃᒪᖅᑎᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖅ ᓯᕐᓗᒍᑎᓕᕆᖅᑎᑎᑎᓕᕐᓂᕐᓓᕆᕐᓂᕐᓂ ᐊᖏᑎᖓᓚᓄ ᐱᐅᓂᖓᓚᓄᑦ ᒪᓕᒐᖓᓂ ᐃᑲᔪᖅᓗᑎ ᒪᓕᒐᓚᑎᑎᑎᓕᕆᔨᖅᑐᑦ ᐱᖃᓐᓇᕐᓂᖅᓗᑦ ᐊᐅᓚᑦᑎᓐᓄᑦ ᐊᐅᓚᑦᑎᓐᓄᑦ, ᐊᒻᒪ ᐃᑲᔪᖅᓗᑎᑎ ᐊᑐᖅᓗᑎᑎᑦᑕᐅᓂᖓᓚᓄᑦ ᐊᑐᖅᓗᑎᑎᑦᑕᐅᓂᖓᓐᓄᑦ ᐊᐅᓚᑦᑎᓐᓄᑦ ᐅᑯᓇᖅᑐᓂᖓᓐᓄᑦ ᐃᓕᓴᐅᔨᓯᒪᓂᑦ ᐊᑭᓐᓂᖅᓄᑦ ᐱᓕᕆᖅᑎᖓᓄᖅᑐᑦ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᓴᓇᖅᑭᑦ.

ᐃᓐᓇᐅᔪᓂᑦ ᖃᓄᐃᓕᓐᓂᓚᓐᓂᖓ

ᓴᓐᓂᓪᓂ ᖃᐅᔨᓴᖅᑎᖓ ᐱᓕᒪᓂᓕᕆᔨᐅᔪᖅ

- ᐃᒪᖅᑎᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖅ ᐊᒻᒪ ᑭᐅᓐᓂᖅ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᑲᑐᔾᔨᖅᑎᑎᒋᔭᖅᑐᑦ (KIA) ᐱᓕᕆᖅᑎᖓᓄᖅᑲᓂᖅᓯᒪᓕᕆᔨᐅᔪᑦ ᓯᕐᓗᒍᑎᓂᑎᐊᕐᓇᑦᑐᒍ ᓴᓐᓂᓪᓂ ᖃᐅᔨᓴᖅᑎᖓ ᐱᓕᒪᓂᓕᕆᔨᐅᔪᖅ ᐱᐅᑕᖅᑭᖓᓚᐅᖅᑎᑦ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᓇᓗᓇᐃᔨᖅᓯᒪᓂᑦ ᓄᓇᕗᒻᒥ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᑲᑎᒪᔨᖅ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ, ᐃᓄᓐᓄᐊᖅᑐᓂ ᐊᑐᖅᓗᑎᑎᑦᑕᐅᓂᖓᓚᓄᑦ ᐊᑐᖅᓗᑎᑎᑦᑕᐅᓂᖓᓐᓄᑦ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᑲᑎᒪᔨᖅ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᐃᓕᓴᐅᔨᓯᒪᓂᑦ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᐃᓄᐃᓕᓐᓂᖅᓄᑦ ᐃᓄᐃᓕᓐᓂᖅᓄ

ᑲᑎᒪᓂᕐᒧᑦ ᐅᓂᒃᑲᓂ ᓴᖅᑭᖅᑎᑕᐅᓕᐅᕐᖅᑐᑦ. ᑎᑎᕆᖅᑕᐅᕈᐊᓐᖏᓴᖅᓯᒪᔪᑦ ᐅᓂᒃᑲᓂ ᖃᐅᔨᕐᓴᐅᓂᐊᕐᖅᑐᑦ ᐊᑐᓂ ᓄᓇᕗᒻᒥᐅᑕᓄᑦ Δᑦᓗᓂᑦᓴᐅᒃ ᐊᒻᒪ ᓴᑦᓂᓕᒃᓯᒋᐊᑦ ᐃᖅᑲᑦᑕᐅᓕᐅᕐᖅᑎᓐᓄᕐᕕᑦ.

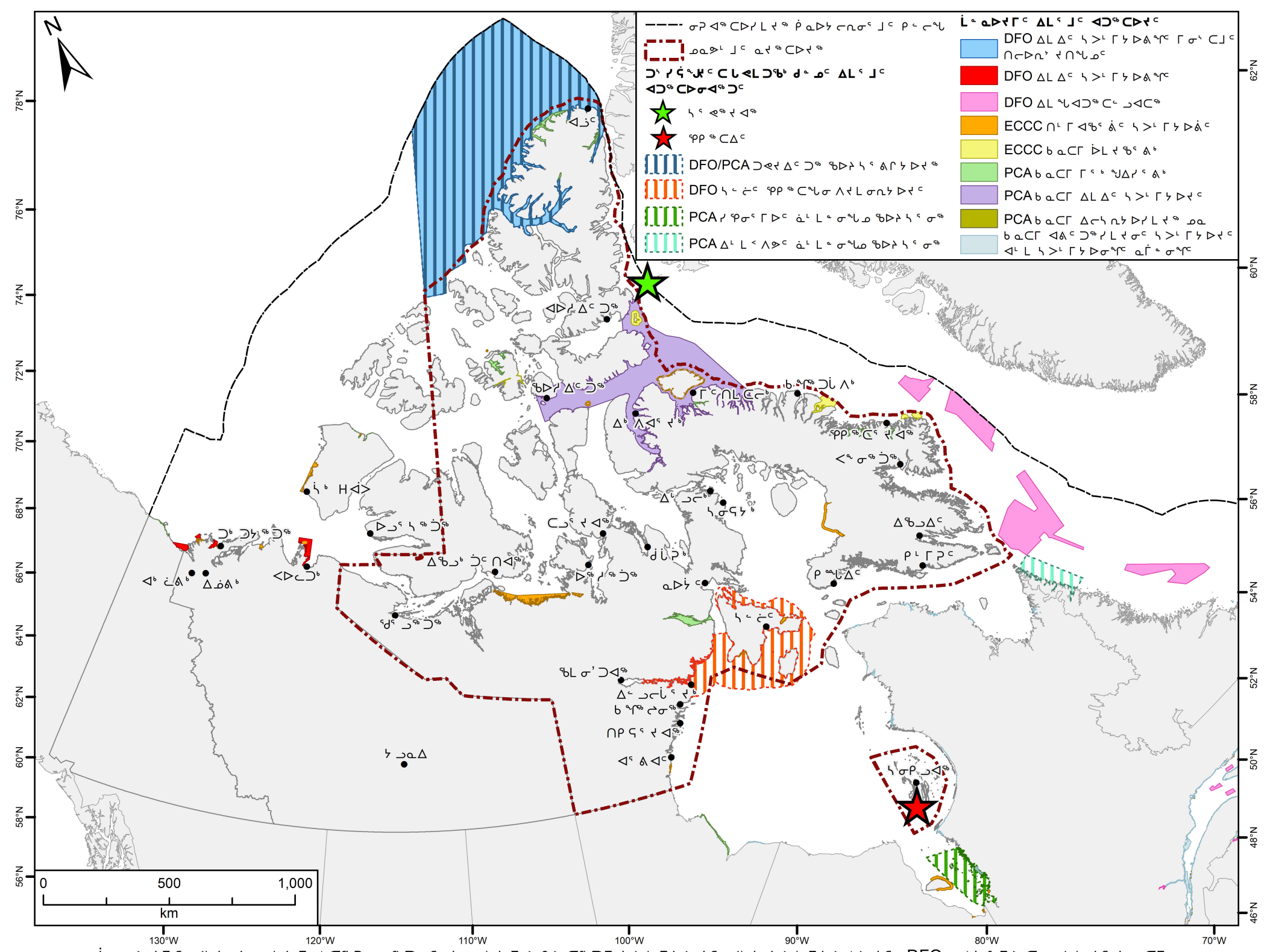
- Δᒪᖏᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ ᖃᐅᔨᓴᓂᖓᒧᑦ ᐅᕝᖃᐅᔨᔪᕈᐊᖅᑐᑦ ᑎᑎᕆᖅᓚᖓ (CSAS) ᑲᑎᒪᓂᖅᑕᓕᐅᖅᑐᑦ ᑎᓯᐊᓗ 2018 ᕐᐃᐅᓂᐸᐃᒃ ᐊᒻᒪ ᖃᑕᓴᐅᔨᒃᑯᑦ ᐋᒋᑎᓂᑦ 2020 ᓴᖅᑎᕆᑕᓗᑎ ᐅᒪᓕᐊᓂᑦ ᐊᒻᒪ ᐊᐅᑎᖓᓂᓄ ᓇᓗᓇᐃᔪᖅᓯᒪᓂᕐᓂᓄᑦ ᓴᓪᓕᓂᑦ. ᑲᑎᒪᓂᖓᒧᑦ ᑎᑎᕆᖅᓯᒪᔪᑦ ᐃᓄᓐᓄᑦ ᐊᑐᐃᓄᐊᕐᕕᑦ CSAS Δᕐᓂᓄᓇᕐᒥᑦ ᑐᑭᓯᐊᕐᓚᖓᓂ.
- ᐱᖅᓯᐅᑎᓪᓗᑎ ᐃᓄᐃᑦ ᖃᐅᔨᓪᓚᕐᔪᐊᖅᑐᑦ ᐅᕝᖃᐅᒃᑯᑦ ᐊᒻᒪ ᖃᐅᔨᓴᓂᖓᒧᑦ ᑎᑎᕆᖅᓯᒪᔪᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ, ᖃᐅᔨᓴᖅᑲᐅᕈᓐᓇᖅᑐᓂᖓᒧᑦ ᐊᐊᑎᖓᓚᐅᑦ ᐊᕐᑕᐃᓕᑐᐃᓐᓇᖅᑐᓂ, ᐃᓄᐃᖅᑎᑎᑦᓯᓂᖓᒧᑦ ᑭᓇᐅᔨᓴᖅᑲᐅᕈᓐᓇᖅᑐᓂᖓᒧᑦ ᐃᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ, ᐊᒻᒪ ᐅᖅᓯᐊᑐᐃᓐᓇᖅᑐᓂ ᐊᐊᑎᖓᓚᐅᑦ ᐊᐊᑎᖓᓚᐅᑦ ᐊᕐᑕᐃᓕᑐᐃᓐᓇᖅᑐᓂ ᐃᓕᓴᐅᔪᓐᓇᖅᑐᑦ ᐃᓕᓴᐅᔪᓐᓇᖅᑐᓂ ᐊᐊᑎᖓᓚᐅᑦ ᐊᐊᑎᖓᓚᐅᑦ ᐊᕐᑕᐃᓕᑐᐃᓐᓇᖅᑐᓂ

- ᖃᐅᔨᓴᓂᖏᑦ ᐱᓕᕆᐊᓕ ᓯᖏᓐ ᓇᓗᓇᐃᔪᑯᓚᓄ ᓂᐊᖏᓚᑦᑕᐅᓂᖅᑎᑦ ᐊᒻᒪ ᖃᐅᔨᓴᖃᑦᑕᓂᖏᑦ ᐊᑯᑭᑐᑦ ᖃᐅᓕᓕᖅᑎᓂᖅ, ᐊᑯᑭᑐᑦ ᐃᖃᐅᔨᔪᐊᖅᑎᑦ ᐊᒻᒪᓗᑦᑕᐅᖅ ᓯᐅᐱᑦ ᐊᒻᒪᓗᑦᑕᐅᖅ ᐃᖃᐅᓕᕆᓂᖏᑦ ᖃᐅᔨᓴᖃᓂᐅᔪᑦ ᑲᔪᓯᓐᓇᖅᑐᑦ ᐃᓗᐊᓂ ᐊᒻᒪ ᖃᐅᓂᑯᖅᑎᓂᓂ ᒡᒃᑯᐊ ᐃᒪᐃᑦ.
- DFO ᖃᑯᐃᐊᓯᓕᕆᓂᑦ ᐱᓕᕆᖃᑎᖃᓕᖅᑐᑎᑎᑐ ᐃᓇᓂᓂ ᑐᓴᖃᑎᑦᑎᓂᖏᓪᓗᑦ ᐱᓕᕆᐊᒥᑦ “ᓴᐳᒻᒥᑎᒧᑦ ᑕᕆᐅᖅᑎᑦ” ᑕᑯᔨᑦᑎᑎᓂᖅᑐᑦ ᖃᓇᓯᓂᖅᑐᑦ ᐃᒪᐃᑦ ᓴᐳᒻᑲᐅᐊᓪᓚᑦ.

ᓴᓐᖏᓪᓛᐃᖅ (ᐱᖃᓕᓯᓯᐊᖅ) ᐊᒻᒪ ᖁᑭᖅᑕᐃᑦ

- ᐱᖃᓕᓯᓯᐊᖅ ᑐᑭᖃᖅᑐᖅ *“ᐃᒪᒪᖅ ᐊᖏᕐᓂᒃ ᖃᓄᐖᓐᓂᒃᑲᓕᑦᓂᖅ”* ᐊᒻᒪ ᑲᓭᓴᓯᓕ (ᐅᐊᓂᖓ ᐊᑯᑭᑐᑦ) ᐊᑎᖓ ᐅᑭᐅᑕᖅᑐᒥ ᐃᒪᑦ ᓯᑯᓛᐃᑦᑐᖅ, ᐱᓪᒪᓗᐅᓪᓛᖅ ᓇᐠᓂᖓ ᐊᒥᓯᓕ ᐃᒪᑦᑎᐅᑕᓕᑦ ᐅᒪᓪᓛᓕᑦ , ᑎᓪᒥᐊᓕᑦ, ᐊᒻᒪ ᐃᖃᓗᓐᓕᑦ. ᑲᓇᑕᒥ, ᐊᑎᑎᖅᑕᐅᓯᒪᓪᓛᖅ ᓴᓐᖏᓪᓛᐃᖅ, “ᐊᖏᕐᓪᓛᖅ, ᐃᒪᐃᓐᓇᖅ” ᐃᓕᓴᑎᑐᑦ. It ᐱᖃᑯᓯᓕᑦ ᐱᓪᒪᓗᐅᓪᓛᖅ ᐊᒻᒪ ᐱᓪᒪᓗᐅᓪᓕᑐᓂ ᐊᐅᑦᓕᓂᑦᑐᑦ ᐊᖃᑯᓯᑎᐅᑦᓕᑐᓂ ᑲᓇᑕᒥᐅᑕᓕᑦ ᐊᒻᒪ ᐊᑯᑭᑐᑦ ᐃᓕᓐᓂᓕᑦ. ᑕᑯᔨᐊ ᓄᓇᓕᖓᐊᓕᑦ ᑲᑐᑎᓴᐅᓪᓛᑦ ᐃᓕᐃᑦ ᑲᓇᑕᒥ, ᐊᑯᑭᑕᑐᑦ ᐊᒻᒪ ᑎᐊᐣᒪᒃ.
- ᐅᐊᑎᑐᐊᐱᓯᒪᒥᑦ, ᐃᓄᐃᑦ ᐅᑭᐅᑕᖅᑐᑦ ᓯᓚᖓᔪᖏᑦ ᓴᖅᑭᑎᑎᓚᐅᖅᑐᑦ ᐱᖃᓕᓯᓯᐊᖅ ᑲᑎᒪᔨᖏᓂ, ᐊᑐᓕᖁᑎᓚᐅᖅᑐᑦ ᐅᑭᐅᑕᖅᑐᑦ ᐃᓕᑦᑐ ᓯᑯᓛᐃᑦᑐᖅᓯᑐᑦ ᐱᖃᓕᓯᓯᐊᖅ ᑲᑎᒪᔨᖏᓂ, ᐊᒻᒪᓗᑦᑕᐅᖅ ᐃᓄᐃᑦ–ᑕᓚᒪᑐᖅᑲᓐᓂᖅ ᐱᓕᕆᖃᑎᒌᓐᓂᖓᓪᓗᑦ ᑲᑎᒪᔨᕋᓕᑦ ᑲᑐᑎᓴᐅᓪᓛᓕᑦ ᐅᓂᒃᑲᑎᑐᑦ.
- DFO ᐃᖅᑲᓇᐃᔨᖅᑎᑲᖅᓯᒪᓕᕐᓂ ᖁᑭᖅᑕᓂ ᐃᓄᐃᑦ ᑲᑐᔨᖅᑎᑎᒌᓂᓪᓚᑐᓂ ᓯᐉᒧᑎᐊᖅᑎᑦᓗᒍ ᓴᐳᒻᒥᑎᒧᑦ ᑲᑭᖅᑕᓂ ᐃᓇᓐᓂᓕᑦ. ᓴᓯᖏᓐᓂᖅ ᓇᓕᒧᓂᖅᑲᓐᓂᒃ ᖁᑭᖅᑕᓂ ᐃᓄᐃᑦ ᑲᑐᔨᖅᑎᑎᒌᖏᑦ ᐱᖃᓕᓯᓯᐊᖅ ᑎᑎᕋᖅᓯᒪᓕᕐᓂ ᐃᓄᐃᑦ ᐅᒥᐊᓕᕆᓚᐅᖅᑐᑦ ᐊᒻᒪ ᑭᓇᐅᔨᓕᕐᓂ.
- ᐅᐊᖅᑎᐊᐅᓚᓂᖅᑐᑦ ᑲᔪᓯᓐᓇᖅᑐᑦ ᐊᒻᒪ ᐊᑐᐊᐅᓕᒃ:
    - ᖃᓄᖅ ᐱᐅᓕᒥᑦ ᐱᔪᓐᓇᖅᑐᖅᑎᑎᑐᓄᓗᒍ ᐊᒻᒪ ᐃᑲᔪᖅᓗᒍ ᑲᓇᑕᒥ ᐃᓄᐃᑦ ᐱᓕᕆᖃᑎᒌᖏᓐᓂᒃ ᐊᒻᒪ ᓄᓇᓕᓐᓂᑦ;
    - ᖃᓄᖅ ᓄᐊᑎᑎᒋᔨᖅ ᐊᒻᒪ ᐃᓕᓴᐅᑎᓗᒍ ᐃᓄᐃᑦ ᖃᐅᔨᓴᓕᕐᖃᖏᑦ ᐱᖓᓱᓕᕆᐊᓂᓕᒫᓐᓇᒧᑦ;
    - ᖃᓄᖅ ᐊᐅᓚᓂᖅᑎᑎᒋᐊᖅᑐᒥ ᑐᔨᐅᒪᖃᖅᑎᑎᒋᐊᖅᑐᑦ ᐃᓄᐃᑦ ᐱᓕᕆᖃᑎᒌᖏᓐᓂᒃ ᐃᓐᓇᓕᔪᓂᖅᑐᑦ ᐱᔪᒪᓂᖅᑎᑎᒋᓐᓂᒃ ᓯᓚᖓᔪᖏᑦ ᐊᑐᐊᐅᓕᒃ ᐅᖃᓕᓂᐊᕐᓂᖅ ᐊᒻᒪ ᐊᑯᑭᑐᑦ ᐅᓪᓗᒥᐅᑦ.
- ᖁᑭᖅᑕᓂ ᐃᓄᐃᑦ ᑲᑐᔨᖅᑎᑎᒋᐊᖅᑐᑦ ᐊᒻᒪ ᓄᓇᓕᓐᓂᒃ ᓴᓂᖅᓯᓗᓐᓄᑦ ᑐᓂᓯᔪᓚᑦᑎᓪᓚᕆᔨᑦ ᐱᔨᓚᓂᓗᒃᑐᓂᖅᑐᑦ ᐃᓕᑦᑐ ᓴᐳᒻᒥᑎᒧᑦ ᖃᓇᓯᓂᖅᑐᑦ ᐊᑐᐊᐅᓕᒃ ᐃᓄᐃᑦ ᐱᓕᕆᖃᑎᒌᖏᓐᓂᒃ

ᐱᓕᕆᐊᓪᓗᐊᑕᖅᑐᓪᓗᑎ ᐱᓗᐊᖏᐃᖅᓯᒪᑎᑕᑎᓂᕐᒧᑦ ᐊᑦᑕᓇᖏᑎᐅᔪᓇᖅᑐᓂ ᐃᓄᖅᓄᑦ ᐱᓕᕆᓂᖅᑎᖅᓄᑦ ᐊᔪᓯᖏᑐᑎᖅᑕᕐᓂᐊᔪᓄᑦ ᐃᒪᖏᑦ ᐊᐅᑎᖅᑎᑦᓯᐊᖅᑐᑦ ᐃᓕᖅᑎᑦ ᐊᐅᑎᖅᑎᑎᑦᓯᐊᖅᑐᑦ ᐱᓕᕆᖅᑐᑎᑦᓯᐊᖅᑐᑦ ᐊᐅᓚᑦᑎᑦᓯᐊᖅᑐᑦ ᐊᐅᓚᑦᑎᑦᓯᐊᖅᑐᑦ ᐱᓕᕆᖅᑐ


ᐃᓕᓴᕐᓂᑦ ᐊᒥᓱᓂᖅ ᓄᑖᖅᑐᓂᒃ ᓄᓇᓕᖕᓂᒃ ᐊᑐᕐᕕᒃᓴᖅᑐᑦ ᐊᒥᓱᓂᖅ ᓄᑖᖅᑐᓂᒃ ᐊᑐᕐᕕᒃᓴᖅᑐᑦ . DFO = ᐃᒪᓐᓇᐅᑉᑐᒃᓴᖅ ᐃᓕᓴᕐᓂᑦ ᐊᑐᕐᕕᒃᓴᖅᑐᑦ ; PCA = ᓇᓐᓂᐊᓕᓐᓂᒃ ᐊᓯᔾᔨᓐᓂᖅᓴᖅ ᐃᓕᓴᕐᓂᑦ ᑎᑎᕋᖅ ; ECCC = ᐊᓯᖏᑎᓪᓗᓂᖅᓴᖅ ᐃᓕᓴᕐᓂᑦ ᓇᓕᒃᓴᕐᓂᑦ ᐊᑐᕐᕕᒃᓴᖅᑐᑦ ᐃᓕᓴᕐᓂᑦ ᓄᓇᓕᖕᓂᒃ ᐊᑐᕐᕕᒃᓴᖅᑐᑦ

ᑐᓂᔭᐅᔪᑦ ᐅᑯᓇᖅ
ᓇᓇᕐᓕᒃ ᐅᒪᔨᓕᕆᓂᖅᓯᐊᖅᑯᑦ ᑲᑎᒪᔨᖅᑭᑦ
ᔨᓂ 2022

<u>ᐅᒧᖅ</u>

ᑐᑭᓯᑎᖅᑯᓂᓂᕐᒧᑦ: X ᐃᓱᒪᓕᐅᓂᕐᒧᑦ:

ᐱᖓᑎᖅ: ᐃᖃᓗᓕᕆᔨᑯᑦ ᐊᓪᒪ ᑕᕆᐅᓕᕆᔨᑯᑦ ᑲᓇᑕᒥ – ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᖁᓂᕐᒧᑦ ᐊᐅᓚᓂᖅᑭᓇᓂ ᑐᑭᓯᑎᕿᑎᑦ

ᑐᑭᓯᑎᕿᑎᑦ:

<u>*ᐃᒪᖃᐅᑕᐃᑦ ᐅᒪᔪᐃᓴᖅ:*</u>

1) ᑐᐃᓚᒋᑦ

- 2021/2022-ᒥᑦ ᑐᐃᓕᓂᖅ ᐊᖏᔪᓂᓂᖅ ᐃᓱᓕᓕᐅᖅᑐᖅ ᐊᓪᓚ 31, 2022-ᒥᑦ. ᐃᖃᓗᓕᕆᔨᑯᑦ ᐊᓪᒪ ᑕᕆᐅᓕᕆᔨᑯᑦ ᑲᓇᑕᒥ (DFO) ᖃᐅᔨᔨᖅᑲᐃᓱᒪᓕᖅᑐᑦ ᐅᒪᔪᓂᐊᕐᕕᖏᑯᑦ ᑲᑐᔨᓂᖃᖅᑎᑦᓯᓕᒻᒥᓂᖅ (HTO/HTA) ᐊᓪᒪᓗ ᓇᓇᕐᓕᒃ ᓴᖅᓚᑯᑦ (GN) ᐅᒪᔪᓕᕆᔨᑯᑦ ᐊᓯᓕᔭᖏᓕ ᐃᖃᓗᖅᑲᖅᑎᖏᓐᓂᓇᓂᑦ ᑐᓴᓂᖃᖅᓯᒪᓂᖅ 2021/2022 ᑐᐃᓕᓂᓇᓂᑦ ᓂᐃᖏᓕᐅᔪᑦ ᐅᑎᖃᑎᐅᔪᓂᖅ ᑭᓴᑯᓇᖅ ᐃᖃᓗᓕᕆᔨᑯᑦ ᐊᓪᒪ ᑕᕆᐅᓕᕆᔨᑯᑦ ᑲᓇᑕᒥ.
- ᐱᓕᕆᐊᓗᐅᖅ ᑕᒪᓐᓇ ᐊᑐᑎᓂᐅᔪᓕᔪᑦ ᐊᓪᒪᓗ ᐊᑐᖃᖅᑕᐅᔪᓕᓐᓂᑦᑐᑦ ᓂᐃᖏᓕᑦ 2021/2022-ᒥᑦ ᑕᐃᒃᑯᐊᓗ ᑐᐃᓕᓂᓇᓂᑦ ᐅᒪᔨᔨᖅᑲᐃᓱᒪᓕᖅᑐᑦ ᐊᖏᔪᒃᑕᐅᔾᔨᓕᕐᕕᔪᓂᑦ ᑎᑎᕋᖁᓪ ᐅᑎᖃᑎᐅᔪᓂᖅ ᐃᖃᓗᓕᕆᔨᑯᑦ ᐊᓪᒪ ᑕᕆᐅᓕᕆᔨᑯᑦ ᑲᓇᑕᒥᒃᑯᓂᓂᑦ ᕿᓚᒻᒥᐅᑉᓯᒃᑯᑦ. ᐊᒥᐊᒃᑯᑦ ᐊᑕᖃᒃᓯᐅᑎᓂᕐᑎᑦ ᑭᖑᔾᔨᓂᖅᓴᖅᓯᒪᔨᖅᑕᐅᔪᓐᓇᖅᑑᑎᓂᑦ ᑎᑭᓚᒥᐅᑉᓯᒃᑯᑦ ᐊᖏᔪᒃᑕᐅᓂᕐᒧᑦ ᑐᓴᓂᖃᖅᓯᒪᓂᖅ ᐊᓪᒪ ᑕᕆᐅᓕᕆᔨᑯᑦ ᑲᓇᑕᒥᒃᑯᓂᓂᑦ ᕿᓚᒻᒥᐅᑉᓯᒃᑯᑦ.
- ᑐᐃᓕᓂᓇᓂᑦ ᓂᐃᖏᓕᒋᑦ ᐊᓪᒪ ᑐᐃᓕᓂᖅᑲᐃᓱᒪᓕᖅᑐᑦ ᑲᑎᖃᖅᑐᖅᓯᒪᔨᖅᑐᑦ 2022/2023 ᕿᓚᓗᓚᕋᓕᔪᓐᓇᖅᑐᓗᒃ ᐃᓐᓇᐅᔾᔨᒥᑦ ᑎᑎᕋᖁᓕᐅᔪᓐᓇᖅᑐᑦ–ᓕᐊᔨᑦ. ᐃᖃᓗᓕᕆᔨᑯᑦ ᐊᓪᒪ ᑕᕆᐅᓕᕆᔨᑯᑦ ᑲᓇᑕᒥᒃᑯᑦ ᐱᓕᕆᖃᖅᑎᑦᓯᓕᒻᒥᖅᑐᑦ ᓇᓇᕐᓕᒃ ᐅᑎᖃᑎᐅᔪᓂᖅ ᐱᓕᕆᔨᐅᔪᓂᖅ ᑲᑎᖃᖅᑐᖅᓯᒪᔨᖅᑐᑦ ᐃᓕᓴᕐᓂᐊᕐᓗᒍ ᑲᑎᒪᔨᖅᑭᑦ 2022/2023-ᒥᑦ. ᓴᓇᔨᓴᕐᕕᓕᕐᓂᖅᑐᑦ ᐃᓕᓴᕐᕕᖏᓐᓂᒃᑯᑦ ᐱᖁᔭᖏᓕᕐᓂᖅᓯᒪᓂᖅ, ᓂᐃᖏᓕᒋᑦ ᑐᓂᓯᖏᓐᓄᑦᑎᓐᓂᒃᑯᑦ ᓇᓇᕐᓂᓂᑦ.

2) ᐊᐃᐃᑦ

- ᓴᓇᒪᑐᖏᓕᖅᑯᑦ ᒥᓂᔅᓴᓐᓂᑦ ᐃᖃᓗᓕᕆᔨᑯᑦᓂᓂᑦ ᐊᓪᒪ ᑕᕆᐅᓕᕆᔨᑯᑦᓂᓂᑦ ᐅᓱᒪᒃᓴᓕᐅᖅᑐᑦ ᓇᓇᕐᓕᒃ ᐅᒪᔨᓕᕆᓂᕐᕕᖏᓐᓂᒃᑯᑦ (NWMB) ᐃᓕᓴᕐᕕᖏᑕᓐᓂᓂ ᐊᓐᕐᖏᑕᐅᔾᔨᔪᓕᓗᑎᒃ ᑲᑎᓕᑐᓕᖅᑐᑦ 64-ᓂᒃ ᐊᐃᕐᓇᓕᔪᑐᐃᓐᓇᓂᕐᒧᑦ ᑎᑭᖏᑦᑕᖏᑐᓂᑦ 2022-ᒥᑦ (ᐊᖏᕕᐊᓂ 4, ᓴᓪᓕᓂ 35, ᓴᓂᕆᔨᒥᑦ 25).

- ᒋᖅᑯᐊ 2022 ᐊᐃᕐᓂᐊᓯᑐᐃᓐᓇᓕᒥᔭᑦ ᐊᐅᑦᓭᓄᕐᓯᑐᐃᓐᓇᖅᑐᑦ ᖃᐅᔨᓴᖅᑲᖅᑕᐅᓯᒪᔪᑦ ᑲᔪᓯᖏᑐᓂᖓᓂᒃᑯᓂᖓᓂᒃ ᑐᓴᐅᒪᓂᖅ. ᐃᓕᖅᑐᓪᓗᓴᖅᑯᑦ ᐊᒻᒪ ᑕᓗᐅᑦᓪᓗᓴᖅᑯᑦ ᖃᓄᖅ ᐱᓕᕆᔨᓕᕆᓂᖅᑐᑦ ᐊᐅᑦᓭᓄᕐᓯᑐᐃᓐᓇᖅᑐᑦ ᑕᖅᑭᑐᑦ ᐊᓯᖅᓯᑦᓭᐊᔪᓄᑦ ᑎᑎᖅᑲᑦᓭᐊᑦ ᐱᔨᐅᔪᓯᑎᒋᔭᖅᑕᑦ ᑕᒪᓐᓇᖅᑐᑦ ᐊᐅᑦᓭᓄᕐᓯᑐᐃᓐᓇᖅᑐᑦ ᐊᐅᓚᑦᓭᓄᕐᓯᑐᐃᓐᓇᖅᑐᑦ ᐱᓕᕆᔨᒃᑯᑦ ᐃᓚᖓᔪᓂᒃᑯᑦ ᐱᔨᑦᓭᓄᕐᓯᑐᐃᓐᓇᖅᑐᑦ ᐊᐅᑦᓭᓄᕐᓯᑐᐃᓐᓇᖅᑐᑦ ᐊᐅᓚᑦᓭᓄᕐᓯᑐᐃᓐᓇᖅᑐᑦ ᐊᐅ

- ᐃᖅᑲᓇᐃᔨᖅᑎᐅᔾᔪᑦ ᐃᖅᑲᓐᓂᑦ ᐃᖅᑲᓕᑕᕆᔨᒃᑯᑦ ᐊᒻᒪ ᑕᕆᐅᑕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ ᐄᓐᓇᐄᖓᓕᐅᑦᑐᖅᑐᑦ ᖃᐅᔨᖅᑲᐃᑕᐅᖅᑐᑦ ᐅᒪᔨᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔨᖅᑎᑎᑦᑎᓕᖅᑭᓐᓂᒃ ᐊᖏᔪᑦ ᓴᖅᓪᓚᒃᑯᑦ ᐅᒪᔨᕈᑕᕆᔨᒃᑯᑦ ᐊᖏᑕᓴᖅᓯᒪᓂᖅ ᐃᖅᑲᓇᐃᔨᖅᑎᖅᑭᓐᓂᒃ ᑐᓴᕐᕋᖅᓯᒪᓂ 2021/2022 ᐊᖏᔪᓇᖅᑕᐅᔨᓂᒃ ᑐᓴᐅᒪᑎᕐᕌᖏᓂᑦ ᖃᓄᑕᓗᓴᓐᓄ, ᐊᐃᕐᓴᓐᓄ, ᐊᒻᒪᓗ ᑐᐃᓕᓐᓄᑦ. ᐅᓂᒃᑲᑦ ᑲᑎᑦᑐᑦ ᐃᒪᓕᕆᑕᐃᑦ ᐅᒪᔨᐃᑦ ᐊᖏᔪᓂᓐᓂᑦᒧᑦ ᑐᓴᑎᕐᑕᐃᓐᓄᑦ (ᓄᓇᖅᑕᐅᔨᔪᑦ ᐊᒻᒪ ᓴᒪᐃᓴᐅᔨᔪᑦ) ᐱᑕᖅᑳᐊᖅᑲᖅᑐᑦ ᓴᖅᑭᑎᕐᑐᓗᓂ ᑐᓂᓚᐅᕐᓴᓴᐅᔨᓂᑦ ᐅᖅᑲᐅᔾᔨᑕᐅᑎᓂᑦ ᒪᑭᒪᑎᑕᓴᓴᐅᔨᓂᑦ ᐅᒪᔨᖅᑕᐅᔨᓂᑦᑭ.
- ᐃᖅᑲᓕᑕᕆᔨᒃᑯᑦ ᐊᒻᒪ ᑕᕆᐅᑕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ ᑕᐃᒪᐃᖅᑯᓕᑕᕆᑐᑦ ᐅᖅᑲᐅᔪᖅᑲᖅᑕᑦᑕᓗᑎ ᐊᔨᐅᐟᖏᕐᑐᑦ ᐃᒪᖅᑎᐅᑕᖅᓂᒃ ᐅᒪᔨᖅᑐᒃ ᖃᑯᔨᐅᓂᒃ ᐊᐅᒪᖅᑲᐅᔨᓂᒃᑐᖅᑐᑦᑎᒪᓕᒡ ᐊᐅᓕᕆᑎᔨᖅᑲᑎᑎᓐᔪᒃ, ᓄᖅᓗ ᓕᓕᔪᐊᖏᓚᐅᔪᓂᒃ ᐱᒻᒪᕆᐊᖃᓂᒃ, ᐊᒻᒪᓗ ᓄᓇᑭᐅᔨᓂᒃ ᔪᑯᔪᐊᔪᓕᐅᔨᓂᒃ.
- ᑭᖏᔭᖅᑎᑦᑭᕐᑎᑦ ᐊᒻᒪ ᑕᓪᓕᖅᓕᓚᑎᑦ ᐅᓂᒃᑲᓕᐅᖅᓂᖅ ᐱᑕᖅᑲᐊᖅᑲᖅᑎᑕᐅᔨᖅ ᐊᒋᓂ ᐃᖅᑲᓕᑕᕆᓂᖅᓗᑦ ᐱᖅᑯᖅᖅ, ᐃᒪᖅᑎᐅᑕᓄᐅᖅᑲᐃᑦᑐᖅ, ᐊᒻᒪ ᓄᓇᑭᐅᔨᓂᑦ ᐊᖏᔪᓂᓐᓂᑦ ᐊᐅᓕᕆᑎᔨᖅᑲᑎᑎᓐᔪᒃ ᐱᓕᕆᔨᒃᑯᑦ ᐃᖅᑲᓕᑕᕆᓂᖅᓗᑦ ᐊᒻᒪᓗ ᓄᓇᑭᐅᔨᓂᑦ ᐅᓂᒃᑲᓕᐅᖅᓂᖅ ᐱᓕᕆᔨᒃᑯᑦ ᐅᖅᑲᐅᔾᔨᑕᐅᑎᓂᑦ ᐊᒻᒪᓗ ᓄᓇᑭᐅᔨᓂᑦ ᐊᖏᔪᓂᓐᓂᑦ ᐃᒪᖅᑎᐅᑕᖅᓂᒃ

ᑕᓗᐅᓪᓚᕆᓄᑦ ᑲᓇᑕᒥ ᐅᑭᐅᖅᑕᖅᑐᖏᑦ ᑐᓂᓯᒪᔨᑦ ᑲᑎᒪᓂᑦ (8) ᐊᖏᔪᖓᒍᐊᖅᑎᑲᕿᓂ ᓇᓂᖏᐅᔨᓂ (CF) ᑐᕆᔭᐅᔪᑦ ᖃᑎᖃᐅᐊᖅᑕᐅᓯᓪᓕᐊᔨᑦ (ᑕᔪᓐᓇ ᑎᑎᕋᖅᓯᒪᔨᑦ 1).

- ᑕᑯᓂᓇ ᐊᒥᐊᓕᑲᐃᑦ ᓄᓇᖓᓂ ᐃᒪᓕᓴᒥ ᐳᐃᓐᓂᑲ ᓴᐳᒥᑲᓂᖏᓐᓄᑦ ᒪᓕᑎᖓᑎᒍᔪᑦ, ᐃᖃᓗᓕᓕᓚᐅᑦ ᐊᓕᕐᑐᖅᓯᒪᔨᑦ ᐊᐅᓪᓕᖅᑎᑕᐅᓂᖏᓐᓄᑦ ᐅᖃᖅᓯᓗᓂᑦ ᑭᑭᒪᓕᖅᑎᓂᑦ ᑐᖓᔪᓚᖅᖃᓂᖏᓐᓄᑦ ᐃᒪᖏᑕᐅᑦ ᐅᒪᔨᑦ ᐱᓕᕆᔨᒃᑯᑎᔨᑦ ᑕᐃᒪᐃᓚᕐᖓᖅᑐᑦ ᐃᖃᓗᓕᓕᓚᐅᑦ ᐊᐅᓚᓕᖅᑐᓂᓪᓗᑎᑦ.
- ᐃᓐᓇᐃᔨᓯᒪᓕᐅᖅᑐᖅ ᖃᐅᔨᓴᐅᖃᖅᑕᐅᓚᐅᖅᑐᑦ ᐃᖃᓗᓕᓕᓚᐅᑦ ᐊᒻᒪ ᑕᓚᐅᓕᓕᓚᐅᑦ ᑲᑎᒪᓂᑦ-ᐅᑭᐅᖅᑕᖅᑐᖏᑦ ᑎᐊᒪᑦ (4) ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᐃᖃᓗᓕᓴᕐᕕᒃ ᐊᐃᔪᑐᖅᑕᐅᔨᓕᔨᑦ ᐊᐅᓪᓚᖅᑎᑎᓂᑐᓂᖏᓪᓕᑦ ᑭᑭᑕᐅᔨᓕᓂᖏᓪᓕᑦ (ᑕᔪᓐᓇ ᑎᑎᕋᖅᓯᒪᔨᑦ 1). ᑕᒪᓐᓇ ᐊᐃᔪᑐᖅᑕᐅᖅᑲᓐᓂᖓᓕᒃ ᑭᖓᔪᓪᓚᖅᓴᕐᖓᐅᑦᓯᖅᑕᐅᖅᑐᖅ ᑲᑎᒪᓂᑦ ᑕᓚᐅᕐᓴᐊᓚᓕᓚᐅᓕᖅᑐᑦ ᐊᒻᒪᓗ ᐊᓂᖏᓂᓚᓕᓚᐅᓕᖅᑐᑦ ᐊᐅᓚᓕᑎᑦᓯᑎᑦ (NOAA) ᓴᖅᑭᖅᓴᓕ ᖃᐅᔨᓴᐅᓂᔪᓕᓂᒃ ᐊᖏᔪᖓᒍᐊᖅᑎᑲᕿᓂ ᓇᓂᖏᐅᔨᓂ ᓄᓇᕗᑦ 30, 2022 ᑐᖓᔪᓂ.
- ᑕᒪᖅᑭ ᐱᓕᓇᖅᑎᑕᐅᓕᔨᑦ ᐊᒻᒪ ᐊᐅᓪᓚᓕᑎᑎᓂᖏᓪᓕᑦ ᐃᖃᓗᓕᓕᓚᐅᓂᖏᓪᓕᑦ ᐱᑕᖃᓚᐊᖅᖃᖅᑎᑕᐅᓕᔨᑦ ᐱᓇᓕᔪᖓᑕᒥ ᐊᖏᔪᖓᒍᐊᖅᑎᑲᕿᓂ ᓇᓂᖏᐅᔨᓂ. ᑭᓕᐊᓂ, ᐊᐅᓪᓚᖅᑎᑎᓕᓕᒃ ᐃᖃᓗᓕᓕᓚᐅᓂᖏᓪᓕᑦ ᐅᖃᖅᑐᓂᖓᓂᒃ ᐱᓕᕆᔨᒃᑯᑎᔨᑦ ᐃᒪᖏᑕᐅᓂᖏᓪᓕᑦ ᐅᑭᐅᖅᑕᖅᑐᖏᑦ ᐊᖏᔪᖓᒍᐊᖅᑎᑲᕿᓂ ᓇᓂᖏᐅᔨᓂ ᑕᐃᒪᐃᓚᕐᖓᖅᑐᑦ ᑕᐃᒪᐃᓐᓇᖅᑐᑦ ᑕᑯᓂᓇ ᐊᒥᐊᓕᑲᐃᑦ ᐅᖃᖅᓯᓗᓂᑦ ᑕᑯᓂᓇ ᐊᐅᓚᓕᖅᑐᓂᓪᓗᑎᑦ.
- ᐃᓐᓇᐅᔨᖅᑐᖅ, ᖃᓄᐃᓕᓚᐅᖅᑐᑦᓯᖃᓕᐊᑐᖓᓕᒃᑐᖅ. ᐊᐅᓚᓕᑎᑦᓯᐅᖅᑎᑎᑦᓯᖓᓕᒃ ᑲᑐᔪᓕᖅᑎᑎᓂᑦ ᐊᒻᒪᓗ ᑎᒍᒥᐊᖅᑎᓂᑦ ᑐᓴᐅᒪᑎᑕᐅᓯᖃᓕᐊᑐᖓᓕᒃᑐᖅ ᐊᖏᔪᖓᒍᐊᖅᑎᑲᕿᓂ ᓇᓂᖏᐅᔨᓂ ᑕᐃᒪᐃᓐᓇᖅᑐᑦ ᐊᐅᓪᓚᖅᑎᑎᓕᓕᒃ ᐊᖏᔪᖓᒍᐊᖅᑎᑲᕿᓂ ᓇᓂᖏᐅᔨᓂ ᑐᓴᐅᒪᑎᑕᐅᓂᖏᓐᓄᑦ ᐊᐃᑐᓕᖅᑐᓂᓪᓗᑎᑦ.

ᓇᓂᖏᐅᔨᓂ 1: ᐃᓕᓴᕐᓂᖅᓴᓕᒃ ᐅᑭᐅᖅᑕᖅᑐᖏᑦ ᑐᓂᓯᒪᔨᓂᒃ ᐊᖏᔪᖓᒍᐊᖅᑎᑲᕿᓂ ᓇᓂᖏᐅᔨᓂ ᑐᓴᐅᒪᑎᑕᐅᓂᖏᓐᓄᑦ.

ᐅᒪᔨᐃᑦ	ᐃᓕᓴᕐᓂᓂᖅ/ᓇᒧᓐᓂᖓ	ᐃᓕᓴᕐᓄᑦᓯᐊᕐᕆᓂᑦ ᖃᓄᐃᓕᓚᐅᖅᑐᑦᓯᖃᓕᐊᑐᖓᓕᒃ)	ᑎᑎᕋᖅᑕᐅᓂᖓᓕᒃ
ᐃᓕᓴᕐᐃᑦ	ᐃᓕᓴᕐᓂᑐᑎᐊᖅ	ᐊᑲᐅᕐᓯᒪᔨᑦ ᐃᓕᓴᕐᓄᑦᓯᐊᕐᕆᓂᑦ; ᓄᓕᐊᑦ, ᓱᒋᔭᓂᖅ	ᐱᓕᓴᐅᓚᐅᓕᖅᑕᐅᓂᑐᓂᖓᓕᒃ
ᐃᓕᓴᕐᐃᑦ	ᐸᓐᓂᖅᑐᓂᖅ ᐃᑭᖓᒃ	ᐊᑲᐅᕐᓯᒪᔨᑦ ᐃᓕᓴᕐᓄᑦᓯᐊᕐᕆᓂᑦ, ᓄᓕᐊᑦ	ᐱᓕᓴᐅᓚᐅᓕᖅᑕᐅᓂᑐᓂᖓᓕᒃ
ᐃᓕᓴᕐᐃᑦ	ᓄᓇᕗᓚᒥ ᓇᔪᓕᐅᔪᒋᑐᓂᖅ (NSA)	ᐊᑲᐅᕐᓯᒪᔨᑦ ᐃᓕᓴᕐᓄᑦᓯᐊᕐᕆᓂᑦ, ᓄᓕᐊᑦ	ᐱᓕᓴᐅᓚᐅᓕᖅᑕᐅᓂᑐᓂᖓᓕᒃ
ᑭᖓᔪᐸᐃᑦ	SMU 0, 1, EAZ, WAZ	ᐃᖏᕐᕋᔨᑦ ᐃᓕᓴᕐᓄᑦᓯᐊᕐᕆᓂᑦ; ᒪᓕᒃᑲᒃ ᑲᓪᓕᑕᐅᔨᔪᑦ	ᐱᓕᓴᐅᓚᐅᓕᖅᑕᐅᓂᑐᓂᖓᓕᒃ
ᐊᑯᐹᑐᑦ ᖃᑲᓕᓇᖏᑦ	ᐸᓐᓂᖅᑐᓂᖅ ᐃᑭᖓᒃᓄᓇᖓᓂ ᐊᐅᓪᓚᕐᓂᐊᓚᐅᓕᖅᑐᖅ (CSTMA)	ᐊᑲᐅᕐᓯᒪᔨᑦ ᐃᓕᓴᕐᓄᑦᓯᐊᕐᕆᓂᑦ, ᐊᒋᐃᓇᓄᑦ	ᓄᓇᓕᕐᔨᐊᑦ ᓱᓕᑦᓇ
ᐊᑯᐹᑐᑦ ᖃᑲᓕᓇᖏᑦ	ᐅᐊᓐᓇᖅᓄᓇᖓᓂ ᐊᓕᓴᐅᓂᖅ ᐃᓕᓴᕐᓄᑦᓯᐊᕐᕆᓂᑦ ᑲᑐᔪᓕᖅᑎᑎᓂᑦ ᐊᒻᒪᓗᑎᒃᓯᒪᓂᖓᓕᒃ 0, 100 ᑕᓐᓇ	ᐊᑲᐅᕐᓯᒪᔨᑦ ᐃᓕᓴᕐᓄᑦᓯᐊᕐᕆᓂᑦ, ᐊᒋᐃᓇᓄᑦ	ᓄᓇᓕᕐᔨᐊᑦ ᓱᓕᑦᓇ
ᐊᑯᐹᑐᑦ ᖃᑲᓕᓇᖏᑦ	ᐅᐊᓐᓇᖅᓄᓇᖓᓂ ᐊᓕᓴᐅᓂᖅ ᐃᓕᓴᕐᓄᑦᓯᐊᕐᕆᓂᑦ ᑲᑐᔪᓕᖅᑎᑎᓂᑦ ᐊᒻᒪᓗᑎᒃᓯᒪᓂᖓᓕᒃ 0	ᐊᑲᐅᕐᓯᒪᔨᑦ ᐃᓕᓴᕐᓄᑦᓯᐊᕐᕆᓂᑦ; ᐊᒋᐃᓇᓄᑦ, ᓄᓕᐊᑦ	ᓄᓇᓕᕐᔨᐊᑦ ᓱᓕᑦᓇ
ᐊᑯᐹᑐᑦ ᖃᑲᓕᓇᖏᑦ	ᐅᐊᓐᓇᖅᓄᓇᖓᓂ ᐊᓕᓴᐅᓂᖅ ᐃᓕᓴᕐᓄᑦᓯᐊᕐᕆᓂᑦ ᑲᑐᔪᓕᖅᑎᑎᓂᑦ ᐊᒻᒪᓗᑎᒃᓯᒪᓂᖓᓕᒃ 0	ᐃᖏᕐᕋᔨᑦ ᐃᓕᓴᕐᓄᑦᓯᐊᕐᕆᓂᑦ; ᑲᓪᓕᑕᐅᔨᔪᑦ	ᓄᓇᓕᕐᔨᐊᑦ ᓱᓕᑦᓇ

ᑎᑎᕋᖅᑐᖅ: ᐃᓕᓴᕐᓂᑐᓂᖓᓕᒃ, ᐅᑭᐅᖅᑕᖅᑐᖏᑦ – ᐃᓕᓴᕐᓂᑐᓂᖓᓕᒃ ᐊᒻᒪ ᑕᓚᐅᕐᓂᑐᓂᖓᓕᒃ ᑲᑎᒪᓂᑦ

ᐅᓪᓗᖓᓕ: ᐃᓗᐳ 22, 2022