ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ

ᑲᑎᒪᔾᔪᑎᒃᓴᖏᑦ: ᑲᑎᒪᓂᕇᓐᓇᖅᐸᒃᑕᖓᓐᓂᒃ ᑲᑎᒪᓂᖏᓐᓂ 001-2021

ᒫᔅᓱ 10, 2021

ᖃᕆᑕᐅᔭᒃᑯᑦ ᑕᕐᕆᔭᐅᑎᒃᑯᑦ ᑲᑎᒪᓂᖏᓐᓂ

ᖃᖓᔪᒧᐊᕐᓂᖓᓂ	ᓈᓴᐅᑖ	ᑲᑎᒪᔾᔪᑕᐅᓂᖏᑦ:	ᒪᒃᐱᒐ	ᐅᓂᒃᑳᖅᑐᖅ:	ᐊᑯᓂᐅᑎᒋᔪᓇᕐᓂᖓᑦ
9:00 – 9:02 ᐅᓪᓛᒃᑯᑦ	1	ᑲᑎᒪᓂᖅ ᐱᒋᐊᖅᑎᑕᐅᓂᖓ		ᐃᒃᓯᕚᐅᑕᖅ	
9:02 - 9:03 ᐅᓪᓛᒃᑯᑦ	2	ᓇᓗᓇᐃᔭᐃᓂᖅ ᑲᑎᒻᒪᐅᑦᑕᐅᓂᐊᖅᑐᓂ ᐃᓚᐅᔭᕆᐊᖃᖏᓐᓂᖅ		ᐃᒃᓯᕚᐅᑕᖅ	1 ᒥᓂᑦᒥᒃ
9:03 - 9:05 ᐅᓪᓛᒃᑯᑦ	3	ᑲᑎᒪᔾᔪᑎᒃᓴᐃᑦ ᕿᒥᕐᕈᐊᖅᑕᐅᓂᖏᑦ ᐊᖏᕈᑕᐅᓂᖏᓪᓗ	1	ᐃᒃᓯᕚᐅᑕᖅ	2 ᒥᓂᑦᒧᑦ
		ᓄᓇᕗᑦ ᒐᕙᒪᐃᑦ – ᐃᑲᓇᐃᔭᕐᕕᖓᑦ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ			
9:05 - 10:00 ᐅᓪᓛᒃᑯᑦ	4	ᑕᒪᐃᓐᓂᒃ ᑲᑎᓪᓗᒋᑦ ᓇᓄᒃᑕᐅᔪᓐᓇᕐᓂᖏᑦ ᑕᐅᕙᖓᑦ ᐃᑐᐊᖅᑐᕐᕕᖏᒃ (ᐃᓱᒪᓕᐅᕈᑕᐅᔭᕆᐊᓕᒃ)	2	ᓄᓇᕗᑦ ᒐᕙᒪᐃᑦ	55 ᒥᓂᑦᒧᑦ
10:00 - 10:15 ᐅᓪᓛᒃᑯᑦ		ᓄᖃᖓᑲᐃᓐᓇᕐᓂᖅ			15 ᒥᓂᑦᒧᑦ
10:15 - 11:15 ᐅᓪᓛᒃᑯᑦ	5	ᑕᒪᐃᓐᓂᒃ ᑲᑎᓪᓗᒋᑦ ᓇᓄᒃᑕᐅᔪᓐᓇᕐᓂᖏᑦ ᑕᐅᕙᖓᑦ ᐃᑭᕋᓇᐅᑉ ᑕᕆᐅᖓᓂ Gulf of Boothia-ᒥᒃ (ᐃᓱᒪᓕᐅᕈᑕᐅᔭᕆᐊᓕᒃ)	3	ᓄᓇᕗᑦ ᒐᕙᒪᐃᑦ	60 ᒥᓂᑦᒧᑦ
		ᓄᓇᕗᑦ ᒐᕙᒪᐃᑦ – ᐃᑲᓇᐃᔭᕐᕕᖓᑦ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ			
11:15 - 11:45 ᐅᓪᓛᒃᑯᑦ	6	ᐃᖃᓗᓕᕆᓂᕐᒥᒃ ᓇᑎᓕᕆᕙᖕᓂᕐᒥᓗ ᓄᑖᑦ ᑐᓴᒃᓴᐃᑦ (ᖃᐅᔨᑎᑦᑎᒋᐊᕈᑏᑦ)	4	ᓄᓇᕗᑦ ᒐᕙᒪᐃᑦ	30 ᒥᓂᑦᒧᑦ
11:45 - 1:00 ᐅᓪᓗᑯᑦ		ᐅᓪᓗᕈᒥᑕᕐᕕᒃ			1 hr 15 ᒥᓂᑦᒧᑦ
		ᐃᖃᓗᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑕᕆᐅᕐᒥᐅᑕᓕᕆᔩᓪᓗ (ᐃᖃᓗᓕᕆᔨᕐᔪᐊᒃᑯᑦ)			

1:00 - 1:45 ᐅᓪᓗᑯᑦ	7	ᑕᒪᐃᓐᓂᒃ ᑲᑎᓪᓗᒋᑦ ᐱᔭᐅᔪᓐᓇᕐᓂᖏᑦ ᑭᖑᐃᑦ ᐊᒻᒪᓗ ᑭᖑᒃᐸᐃᑦ ᑕᖅᓴᖅᑐᑦ ᑕᒪᓂ ᐊᕐᕋᒍᒥ 2021-2022–ᒥ ᑭᖑᒃᓯᐅᕐᕕᐅᕙᓪᓕᐊᓂᖓᓂ ᑕᐅᕗᓂ ᐱᖕᒐᖕᓇᖅᐸᓯᖕᒐᓂ ᐊᒻᒪ ᑲᓇᖕᓇᖅᐸᓯᖕᒐᓂᒃ ᖃᐅᔨᓴᕐᕕᐅᕙᓪᓕᐊᓂᖏᓐᓂᒃ ᑕᓄᐃᕐᒥ ᐃᒪᕐᓂ (ᐃᓱᒪᓕᐅᕈᑕᐅᔭᕆᐊᓖᑦ ᐊᒻᒪ ᐊᑐᓕᖅᑯᔭᐃᑦ)	5	ᐃᖃᓗᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑕᕆᐅᕐᒥᐅᑕᓕᕆᔩᓪᓗ	45 ᒥᓂᑦᔫᑦ
1:45 - 2:15 ᐅᓪᓗᑯᑦ	8	ᑕᒪᐃᓐᓂᒃ ᑲᑎᓪᓗᒋᑦ ᐱᔭᐅᔪᓐᓇᕐᓂᖏᑦ ᑕᐃᒪᓐᓇ ᐊᕐᕋᒍᒥ 2021 ᑭᖑᒃᓯᐅᕐᕕᐅᕙᓪᓕᐊᓂᖓᓂ ᑕᐅᕗᓂ ᐃᒪᕐᓂ ᓇᓗᓇᐃᒃᑯᑕᖓᓂ 0-ᒥ (ᐊᑐᓕᖅᑯᔭᐃᑦ)	6	ᐃᖃᓗᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑕᕆᐅᕐᒥᐅᑕᓕᕆᔩᓪᓗ	30 ᒥᓂᑦᔫᑦ
2:15 - 2:45 ᐅᓪᓗᑯᑦ	9	ᑕᒪᐃᓐᓂᒃ ᑕᕆᐅᕐᒥᐅᑕᖅᓯᐅᕐᓂᕐᒧᑦ ᐃᖃᓗᒃᓯᐅᕐᓂᕐᒧᓪᓗ ᐊᐅᓚᑦᑎᕙᖓᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᖏᑦ ᐱᔪᑎᖃᖅᑐᑦ ᐃᖃᓗᒃᐱᓕᕆᕝᕕᒃ ᐃᖃᓗᒃᑑᑎᐊᕐᓂ (ᐃᓱᒪᓕᐅᕈᑕᐅᔭᕆᐊᓕᒃ)	7	ᐃᖃᓗᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑕᕆᐅᕐᒥᐅᑕᓕᕆᔩᓪᓗ	30 ᒥᓂᑦᔫᑦ
2:45 - 3:00 ᐅᓪᓗᑯᑦ		ᓄᖅᑲᖓᑲᐃᓐᓇᕐᓂᖅ			15 ᒥᓂᑦᔫᑦ
3:00 - 3:30 ᐅᓪᓗᑯᑦ	10	ᑐᑭᓯᑎᑎᑦᓯᐊᕈᑎᑦ ᐸᕐᓇᐅᑎᓂᒃ ᐱᔪᑎᖃᕐᓂᖅ ᑐᑭᓯᓂᐊᕐᕕᐅᔭᕆᐊᖃᕐᓂᖏᓐᓂᒃ ᐃᓱᒪᓕᐅᕈᑕᐅᔭᕆᐊᖃᕐᓂᖏᓐᓂᓪᓗ ᐃᓚᔭᐅᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᑦ ᓇᑦᑏᑦ ᒪᓕᒐᖏᓐᓄᑦ ᑕᐃᑯᐊ *ᐆᒪᔪᐃᑦ ᐊᒥᓱᖏᓗᐊᓕᕐᓂᖏᓐᓄᑦ ᒪᓕᒐᕐᓄᑦ* (ᖃᐅᔨᑎᑦᑎᔨᐊᕈᑏᑦ)	8	ᐃᖃᓗᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑕᕆᐅᕐᒥᐅᑕᓕᕆᔩᓪᓗ	30 ᒥᓂᑦᔫᑦ
3:30 - 4:00 ᐅᓪᓗᑯᑦ	11	ᐃᖃᓗᒐᐃᑦ – Juvenile Redfish - ᐱᖃᓯᐅᔾᔭᐅᕙᓪᓕᐊᓂᖏᑦ ᑭᖑᒃᓯᐅᕐᕕᐅᕙᓂ ᑕᐅᕗᖓᑦ ᑲᓇᖕᓇᖅᐸᓯᖕᒐ ᖃᐅᔨᓴᕐᕕᐅᕙᓪᓕᐊᓂᖏᒃ ᑕᓄᐃᕐᒥ (ᖃᐅᔨᑎᑦᑎᔨᐊᕈᑏᑦ)	9	ᐃᖃᓗᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑕᕆᐅᕐᒥᐅᑕᓕᕆᔩᓪᓗ	30 ᒥᓂᑦᔫᑦ
4:00 - 4:30 ᐅᓪᓗᑯᑦ	12	ᐃᖃᓇᐃᔭᕐᕕᖕᒐᑦ ᐃᖃᓗᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑕᕆᐅᕐᒥᐅᑕᓕᕆᔩᓪᓗ ᑲᓇᑕᒥ - ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᓄᑖᓂᒃ ᑐᓴᒐᒃᓴᐃᑦ (ᖃᐅᔨᑎᑦᑎᔨᐊᕈᑏᑦ)	10	ᐃᖃᓗᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑕᕆᐅᕐᒥᐅᑕᓕᕆᔩᓪᓗ	30 ᒥᓂᑦᔫᑦ
4:30 - 5:00 ᐅᓪᓗᑯᑦ	13	ᐃᖃᓗᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑕᕆᐅᕐᒥᐅᑕᓕᕆᔩᓪᓗ ᑲᓇᑕᒥ ᓄᑖᓂᒃ ᑐᓴᒐᒃᓴᐃᑦ – ᑕᕆᐅᕐᒥ ᓴᐳᓐᓂᐊᕐᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᑕᐅᓂᖏᑦ (ᖃᐅᔨᑎᑦᑎᔨᐊᕈᑏᑦ)	11	ᐃᖃᓗᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑕᕆᐅᕐᒥᐅᑕᓕᕆᔩᓪᓗ	30 ᒥᓂᑦᔫᑦ
5:00 - 5:45 ᐅᓐᓄᓴᒃᑯᑦ	14	ᐅᔾᔨᖅᑐᖅᑎᐊᖅᐸᕆᖅᑯᔭᐅᓂᖅ ᑐᖕᒐᕕᐅᓗᑎᒃ ᑭᖑᒃᓯᐅᕐᕕᖕᓂ ᑭᖑᒃᐸᒃᓯᐅᕐᕕᖕᓂᓗ ᑕᖅᓴᖅᑐᓂᒃ ᑕᐅᕗᓂ ᐱᖕᒐᖕᓇᖅᐸᓯᖕᒐᓂᒃ ᐊᒻᒪ ᑲᓇᖕᓇᖅᐸᓯᖕᒐᓂ ᖃᐅᔨᓴᕐᕕᐅᕙᓪᓕᐊᓂᖏᓐᓂ ᐃᒪᕐᓂ (ᖃᐅᔨᑎᑦᑎᔨᐊᕈᑏᑦ)	12	ᐃᖃᓗᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑕᕆᐅᕐᒥᐅᑕᓕᕆᔩᓪᓗ	45 ᒥᓂᑦᔫᑦ

		ᓄᓇᕗᒻᒥ ᐃᖃᓗᖕᓂᐊᖅᑐᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᑦ			
5:45 - 6:15 ᐅᓐᓄᓴᒃᑯᑦ	15	ᐊᑭᓖᔭᕆᐊᖃᖅᑎᑕᐅᕙᓐᓂᖏᑦ ᓄᓇᕗᒻᒥ ᐃᖃᓗᒃᓯᐅᖅᑎᑦ ᐱᓇᓱᐊᖅᑎᐅᓂᖏᑦ ᑕᐃᒃᑯᓄᖓ ᐃᖃᓇᐃᔭᕐᕕᖕᒍᓄᑦ ᐃᖃᓗᓕᕆᔩᑦᔪᐊᒃᑯᑦ ᑕᕆᐅᕐᒥᐅᑕᓕᕆᔩᓪᓗ ᑭᖑᒃᓯᐅᖅᐸᓐᓂᖏᓐᓄᑦ ᑕᐅᕙᓂ ᐱᖑᖕᓇᖅᐸᓯᖕᒐᓂᒃ ᐊᒻᒪᓗ ᑲᓇᖕᓇᖅᐸᓯᖕᒐᓂ ᖃᐅᔨᓴᕐᕕᐅᕙᓐᓂᖏᓐᓂ ᐃᒪᕐᓂ (ᐃᓱᒪᓕᐅᕈᑕᐅᓗᑎᒃ ᐊᒻᒪᓗ ᐊᑐᓕᕐᑯᔭᓕᐅᕐᓗᑎᒃ)	13	ᓄᓇᕗᒻᒥ ᐃᖃᓗᒃᓯᐅᖅᑏᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᑦ	30 ᒥᓂᑦᔩᑦ
6:15: ᐅᓐᓄᓴᒃᑯᑦ	16	ᑲᑎᒪᓂᐅᑉ ᐃᓱᓕᓐᓂᖓ ᑲᑎᒪᓃᓐᓇᖅᐸᒃᑕᖓᓂᒃ ᑲᑎᒪᓗᑎᒃ RM001-2021-ᒥᒃ		ᐃᒃᓯᕙᐅᑕᖅ	

ᑐᓂᓯᐅᓯᒪᔪᑦ

ᓄᓇᕗᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ

ᐃᒪᓇᐃᓘᖅᑕᐅᕐᑯᓗᒋᑦ

ᑐᓴᐅᒪᔪᑎᒃᓴᑦ: **ᐃᓱᒪᓕᐅᕈᑎᑦ:** X

ᐋᖅᑭᒃᑕᐅᓯᓇᐊᓕᒃ: ᑲᑎᙵᑎᒃ ᐱᔭᐅᔪᓐᓇᖅᑐᓄᑦ ᐃᓱᒪᓕᐅᕈᑎᒋᓯᐅᔪᑦ ᐆᒨᖓ ᖃᒃᑭᐅᔭᖅᒥᒃ (M'Clintock Channel) ᓇᓄᕐᓄᑦ

ᐅᖃᐅᓯᖃᒃᓯᒪᓂᖏᑦ:

- ᖃᒃᑭᐅᔭᖅ (MC) ᓇᓄᖃᖅᒪᑦ ᐅᓄᓗᐊᙱᓗᑎᒃ ᐊᐅᓚᑕᐅᓂᒃᑯᑦ ᓄᓇᕗᒥᑦ. ᑭᖑᓪᓕᖅᐹᑦ ᖃᐅᔨᓴᕈᑎᕕᓃᑦ ᐅᓄᖅᓂᖏᓐᓄᑦ ᐱᓕᕆᐊᖑᓚᐅᖅᓯᒪᔪᖅ ᐅᑯᐊ ᐊᑯᓐᓂᖓᓂᒃ 1998-2000, ᐊᒻᒪᓗ ᐃᓱᒪᒋᔭᐅᓪᓗᓂ 284-ᓂ ᓇᓄᖅᑲᖅᓂᖓᓂᒃ.
- ᐱᔭᐅᔪᓐᓇᓚᐅᖅᓯᒪᓂᐅᔪᖅ ᐃᒪᓐᓇ 34-ᓂ ᓇᓄᒍᓐᓇᖅᑐᑎ ᐊᖅᕿᒍᒥ ᐅᑯᐊ ᐊᑯᓐᓂᖓᓂᒃ 1979-1999 ᐊᑐᒃᑲᓐᓂᕈᓐᓇᖅᑐᓕᕆᓂᒃᑯᑦ ᓈᒻᒪᓚᐅᖅᓯᒪᙱᒻᒪᑕ ᓲᖅᑲᐃᒻᒪ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᖁᕝᕙᓯᖕᓂᖅᓴᐅᓚᐅᖅᒪᑕ ᐃᓱᒪᒋᔭᐅᔪᓂᒃ ᐅᓄᖅᓂᕆᔭᐅᔪᓂᒃ ᐃᒪᓐᓇ 700-ᓄᑦ ᓈᒻᒪᙱᑐᐊᕋᓱᒋᔭᐅᓪᓗᓂ.
- ᐱᔭᐅᑎᑦᑎᑦᑕᐃᓕᓚᐅᖅᓯᒪᔪᑦ 2001/2002 – 2003/2004 ᐊᒻᒪᓗ ᐅᓄᕈᓐᓃᖅᐸᓪᓕᖅᑎᑕᐅᓪᓗᑎᒃ ᑲᑎᙵᑎᒃ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ (TAH) ᐱᖓᓱᓂᒃ ᑎᑭᓪᓗᒍ 2015. ᓇᓄᐃᑦ ᐅᓄᖅᓂᖏᑦ ᐊᐅᓚᑕᐅᓚᐅᖅᓯᒪᔪᑦ ᐅᓄᖅᓯᕚᓪᓕᖅᑎᑕᐅᓇᓱᒃᑲᑎᒃ, ᐊᒻᒪᓗ ᓄᓇᖅᑲᖅᑐᓂᒃ ᐃᓕᖅᑯᓯᒃᑯᑦ ᖃᐅᔨᒪᓂᒃᑯᑦ ᓇᓗᓇᐃᕈᑎᐅᓚᐅᖅᓯᒪᔪᖅ ᐅᓄᖅᓂᖅᓴᓂ ᑕᑯᓯᒪᓂᖏᓐᓂᒃ ᐅᕙᓂ ᖃᒡᒋᐊᔭᖅᒥᑦ (MC) ᒫᓂ 2010-ᖏᓐᓂᒃ. ᐱᔮᑎᒋᓪᓗᒍ ᐅᓄᖅᓯᕚᓪᓕᕋᓱᒋᔭᐅᓂᖓ, ᐊᒻᒪᓗ ᓄᓇᓕᖕᓂ ᐱᔭᐅᔭᓇᐊᖅᑲᖅᓂᐅᔪᑦ, ᐅᓇ ᑲᑎᙵᑎᒃ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ (TAH) ᐅᓄᖅᓯᕆᐊᖅᑕᐅᓚᐅᖅᓯᒪᔪᖅ 12-ᒧ ᓇᓄᖅᓂ ᐅᕙᓂ 2015/16 ᓇᓄᕆᐊᕈᓯᖕᓇᒥ. ᐅᑯᐊ 12 ᓇᓄᐃᑦ ᐊᕕᒃᑐᖅᑕᐅᓚᐅᖅᓯᒪᔪᑦ ᓇᓕᒧᒌᒃᑎᑕᐅᓪᓗᑎᒃ ᐅᑯᓄᖓ ᐅᖅᓱᖅᑑᖅ, ᐃᖅᑲᓗᒃᑑᑦᑎᐊᖅ, ᐊᒻᒪ ᑕᓗᖅᔪᐊᖅᔫᑦ.
- ᐅᓄᖅᓂᓇᔭᐅᔪᑦ ᑲᑎᑕᐅᓯᒪᔪᑦ ᓄᑕᐅᙱᓗᐊᓚᐅᕐᒪᑕ, ᐊᒻᒪᓗ ᓄᑖᓂᒃ ᖃᐅᔨᓴᓇᐊᖅᑲᓚᐅᕐᓗᑎᒃ ᖃᔅᓯᐅᓂᖏᓐᓄᑦ ᑕᒪᐅᙵᖅᐸᒃᑐᑦ ᓇᓄᐃᑦ. ᓄᓇᓕᖕᓂ ᐅᖅᑲᓪᓚᖅᑲᑎᖅᑲᑲᑕᓚᐅᕐᑎᓪᓗᒋ 2012-ᒥᑦ ᐊᒻᒪ 2013-ᒥᑦ, ᓄᑖᒥ ᐊᖅᕿᒍᓄᑦ ᐱᖓᓱᓄᑦ ᖃᐅᔨᓴᖅᑎᖅ ᐱᕆᐊᖅᑕᐅᓚᐅᖅᓯᒪᔪᖅ 2014-ᒥᑦ.
- ᐊᑐᖅᑕᐅᓚᐅᖅᑐᖅᑕ ᖃᐅᔨᓴᖅᓂᖅᒧᑦ ᐸᒡᕕᓵᓇᓐᓇᙱᓐᓂᖅᓴᒥᑦ ᖃᓄᐃᑦᑑᓂᖏᓐᓂᒃ (DNA) ᖃᐅᔨᓴᖅᑕᐅᔪᒃᓴᓕᓇᓂᒃᑯᑦ. ᓄᑖᖅ ᖃᐅᔨᓴᖅᓂᐅᔪᖅ ᐱᓕᕆᐊᖑᓚᐅᖅᓯᒪᔪᖅ ᐅᑯᐊ 2014 ᐊᒻᒪ 2016 ᐊᑯᓐᓂᖓᓂ.
- ᓄᓇᕗᒥᑦ ᒐᕙᒪᒃᑯᑦ, ᐊᕙᑎᓕᕆᔨᒃᑯᑦ (DOE) ᐸᖅᓇᒃᓯᒪᓚᐅᖅᓯᒪᔪᑦ ᓯᕗᓪᓕᖅᒥ ᓄᓇᓕᖕᓂ ᐱᓕᕆᑎᑦᑎᓗᑎᒃ ᑲᑎᖅᓱᐃᓂᐊᖅᑐᓂᒃ ᐃᓕᖅᑯᓯᒃᑯᑦ ᖃᐅᔨᒪᔭᐅᔪᖅᑲᓂᒃ ᒫᓃᑦᑐᓄᑦ ᖃᒡᒋᐊᔭᒥ ᖃᓂᒃᓴᖅᑐᓂᒃ ᓄᓇᖅᑲᖅᑐᓂᒃ ᐊᒻᒪ ᐊᖑᓇᓱᒃᑎᓂᒃ. ᑭᓯᐊᓂᓕ, ᐅᓇ ᓄᕙᒡᔪᐊᖅᓇᖅ-19 ᐋᓐᓂᐊᕕᒡᔪᐊᖅᓇᖅ ᐊᔪᕈᑎᒋᔭᐅᓚᐅᖅᑐᖅ ᓄᓇᓕᖕᓂ ᐅᐸᑲᑦᑕᓗᓂ ᐊᐱᖅᓱᑲᑕᕆᐊᒃᓴᖅ 2020-ᒥᑦ. ᑕᒪᑐᒧᖓᓕ, ᖃᐅᔨᓴᓇᐊᖅᑲᓚᐅᖅᓯᒪᔪᑦ ᐅᖄᓚᐅᑎᑎᒎᑲᑦᑕᕐᓗᑎᒃ ᐊᒻᒪᓗ ᓱᓕ ᑲᔪᓯᓪᓗᓂ ᔭᓄᐊᓕ 2021-ᒥᑦ.

ᒫᓐᓇᐅᔪᖅ ᖃᓄᐃᓕᖓᓕᖅᓂᖓ:

- ᑭᖑᓪᓕᖅᐹᑦ ᐅᓂᒃᑳᑦ ᐊᒻᒪᓗ ᖃᓄᐃᒍᑎᐅᓂᑯᑦ ᐆᒧᖓ 2014-2016 ᖃᐅᔨᓴᕐᓂᕐᒥ ᐱᐊᓂᒃᑕᐅᓚᐅᕐᑐᑦ ᐊᒻᒪ ᑐᓂᐅᖅᑲᖅᑕᐅᓪᓗᑎᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐱᓕᕆᖃᑕᐅᔪᓄᑦ 2020 ᐊᐅᔭᖓᓂ.
- ᓄᑖᖅ ᐅᓄᕐᓂᕆᔭᐅᔪᓄᑦ ᐃᓱᒪᑦᔭᐅᓯᒪᔪᖅ ᒪᑯᓇᙵᑦ ᓂᕐᔪᑎᓂ ᐊᕐᕿᒍᕐᑲᖅᑐᓂᒃ ᒪᕐᔹᖕᓂ ᐅᖓᑖᓄᑦ ᒫᓃᓚᐅᕐᑐᖅ 716 ᓇᓄᐃᑦ (95% ᑕᑯᓯᒪᓪᓚᕆᖕᓂᒃᑯᑦ = 545 – 955), ᑕᒪᓐᓇᓗ ᐃᓱᒪᑦᔭᐅᓪᓗᓂ ᓇᓗᓇᐃᔭᐃᓂᒃᑯᑦ ᐅᓄᕐᓯᕚᓪᓕᕐᓂᐅᓪᓗᓂ ᓯᕗᓪᓕᕐᒥ ᐃᓱᒪᑦᔭᐅᓚᐅᕐᑐᓂ ᐃᒪᓐᓇ 284-ᓂ ᓇᓄᖅᑲᕐᓂᕐᒥᒃ.
- ᓄᑖᑦ ᖃᐅᔨᔭᐅᔾᔪᑎᐅᔪᑦ ᓇᓗᓇᐃᕐᓯᒪᔪᑦ ᑕᒻᑯᐊ ᓇᓄᐃᑦ ᑕᒪᐅᙱᖅᐸᒃᑐᑦ ᕿᑐᕐᖏᐅᑦᑎᐊᕐᓂᖏᓐᓂᒃ ᐊᕐᕋᒍᓚᑦ ᐊᒻᒪᓗ ᐊᑎᖅᑕᓖᑦ ᐊᖏᓂᖏᑦᑎᒍᑦ ᐅᑯᓄᖓ 2014-2016-ᒧᑦ ᐅᕙᙱᑦ 1.70 (ᑕᒻᒪᕐᓯᒪᑐᐃᓐᓇᓕᐊᕐᑲᕐᓂᖅ [SE] = 0.09) ᐊᒻᒪ 1.61 (ᑕᒻᒪᕐᓯᒪᑐᐃᓐᓇᓕᐊᕐᑲᕐᓂᖅ [SE] = 0.11), ᑐᓪᓕᕇᓂᒃᑯ.
- ᓇᐃᓴᐅᓯᕆᓂᒃᑯᑦ ᒪᑯᐊ ᐊᑎᑦᑖ ᖃᔅᓯᐅᓂᖕᒋ ᐊᑕᐅᓯᕐᒧᑦ ᐊᕐᓇᕐᓗᖕᒧᑦ ᐅᓄᕈᓐᓃᕐᐹᓪᓕᕐᓯᒪᔪᖅ ᐅᕙᙱᑦ 0.39 (SE – 0.10) ᐅᑯᓇᓂ 1998-2000 ᒪᐅᖓ 0.28 (SE = 0.06) ᐊᑯᓐᓂᖓᓂᒃ 2014-2016.
- ᐊᑐᕐᓂᐊᕐᓗᓂ ᐊᑐᐃᓐᓇᐅᔪᓂᒃ ᖃᐅᔨᓴᕈᑎᒃᓴᓂᒃ ᑲᑎᕐᓱᖅᑕᐅᓯᒪᔪᓂᒃ, ᐃᓱᒪᕆᔭᐅᔪᖅ ᐆᒪᔪᓐᓇᕐᓂᕐᒧᑦ ᓇᓄᕐᓄ ᐅᑭᐅᖅᑲᖅᑐᓂᒃ ᒪᕐᔹᖕᓂ ᐅᖓᑖᓄᑦ ᒫᓃᓚᐅᕐᑐᖅ 0.88 (SE = 0.02), ᑕᒪᓐᓇᓕ ᑐᑭᖅᑲᕐᑐᖅ ᑖᒫᓃᑦᑐᑦ ᐅᓄᕈᓐᓃᖅᐹᓪᓕᐊᓂᖏᓐᓂᒃ. ᑭᓯᐊᓂᓕ, ᓇᐃᓴᐅᓯᕆᓂᒃᑰᖅᓗᓂ ᐆᒪᔪᓐᓇᕐᓂᐅᔪᓂ ᐊᑐᖅᑕᑦᑕᕆᐊᖅᑲᕐᒪᑕ ᐱᓇᓱᖕᓂᕐᒧᑦ ᑕᐅᑐᒃᑕᐅᓯᒪᔪᑦ ᐅᓄᕐᓯᕚᓪᓕᕐᓂᐅᔪᖅ ᒫᓃᓚᐅᕐᓂᖓᓄᑦ 0.93. ᐊᔾᔨᒌᙱᔾᔪᑎᒋᔭᐅᔪᖅ ᐅᑯᓄᖓ ᒪᕐᔹᖕᓄ ᐃᓅᑯᑖᒍᓐᓇᕐᓂᕐᒧᑦ ᐃᓱᒪᒋᔭᐅᔪᑦ ᐱᔾᔪᑎᖃᕐᓱᕆᔭᐅᔪᖅ ᓇᒧᙱᐅᑲᑖᖅᓂᕐᒧᑦ ᑲᑎᑕᐅᕙᓪᓕᐊᔪᓂ ᐱᑕᖃᙱᓗᐊᕐᓂᖓᓄᑦ ᑕᒪᐅᖔᖅᑐᓂᒃ. ᓇᒧᙱᐅᑲᑖᖅᓂᕐᒧᑦ ᑲᑎᑕᐅᕙᓪᓕᐊᔪᑦ ᑐᓴᐅᒪᑎᑦᑎᒍᑎᐅᔪᖅ ᖃᔅᓯᑦ ᓇᓄᐃ ᑕᒪᐅᙱᖃᑦᑕᕐᒪᖔᑕ ᐊᒻᒪ ᐊᓯᐊᓄᙱᐊᖃᑦᑕᕐᒪᖔᑦ ᐅᓇ ᑕᐅᑐᒃᓱᒍ ᖃᔅᓯᑦ ᑐᕐᑯᓯᒪᕙᑦ.
- ᓇᓄᐃᑦ ᑕᑯᔭᐅᔪᑦ ᐅᐱᕐᖓᒃᑯᑦ ᐅᓄᕐᓯᕚᓪᓕᓚᐅᕐᑐᑦ ᐅᑯᐊ 1998-2000 ᐊᒻᒪ 2014-2016 ᐊᑯᓐᓂᖓᒍᑦ, ᑕᒪᓐᓇᓗ ᐱᔾᔪᑎᖃᕐᓱᕆᔭᐅᓪᓗᓂ ᓯᑯ ᐊᓯᙳᖅᐸᓪᓕᐊᓂᖓᓄᑦ (ᓱᕐᓗ, ᓯᑯᑐᕐᑲᖅ ᐱᑕᖃᕈᓐᓃᖅᐹᓪᓕᕐᓂᖓᓄᑦ) ᑖᒥᓂ ᖃᐅᔨᓴᕐᕕᐅᓯᒪᔪᒥᒃ. ᐊᓯᙶᕈᑎᐅᔪᑦ ᒪᑯᓇᙵᑦ ᓯᑯᑐᖅᑲᕈᓐᓃᕐᓂᖅᓴᐅᓂᕐᒧᑦ ᒪᑯᓄᖓ ᐊᕐᕿᒍᒧᑦ ᓯᑰᓂᖅᓴᐅᕙᓪᓕᕐᑐᓄᑦ ᐱᕕᖅᑲᕈᑎᐅᓂᖅᓴᐅᔫᓴᐅᖓᒪᑦ ᓇᓄᕐᓂ ᓂᕆᕙᒃᑕᖏᓐᓂᒃ ᐊᑐᐃᓐᓇᖅᑲᕐᓂᖅᓴᐅᓕᖅᐸᓪᓗᑎᒃ, ᑭᓯᐊᓂᓕ ᑕᒪᓐᓇ ᒫᓐᓇ ᖃᐅᔨᓴᖅᑐᓕᕆᓂᒃᑯᑦ ᖃᐅᔨᓴᐅᒃᓴᐅᙱᑦᑐᖅ.
- ᐱᔾᔪᑎᒋᓪᓗᒍ ᓇᒧᙱᐅᑲᓪᓕᐊᓂᖏᓐᓄᑦ ᑲᑎᑕᐅᕙᓪᓕᐊᔪᑦ ᐱᑕᖃᙱᓗᐊᕐᓂᖏᓐᓂᒃ (ᓱᕐᓗ ᓂᐱᓕᐅᕐᓯᒪᓂᒃᑯᑦ/ᐅᖓᓯᑦᑏᖕᓂᕐᒧ) ᑕᐃᒪᓕ ᐊᔪᕐᓇᖅᑐᕈᔫᖓᒪᑦ ᓇᓗᓇᐃᕆᐊᒃᓴᖅ ᖃᔅᓯᐅᔭᕆᐊᒃᓴᖕᒋᓐᓂ ᑕᒪᐅᙱᖅᐸᓪᓕᐊᔪᑦ ᐊᒻᒪ ᑖᒫᓃᒍᓐᓃᕐᓴᒪᔪᑦ ᒫᓃ ᐃᑦᓱᐊᖅᑐᖅᕕᒃᐅᓪᓗ (GB) ᐊᒻᒪ ᐊᓯᐊᓃᑦᑐᑦ ᓇᓄᐃᑦ. ᐱᑕᖃᕐᓗᐊᕐᑎᓪᓗᒍ ᑕᒪᐅᙱᖅᐸᒃᑐᑦ ᐃᓂᒋᕙᒃᑕᖏᑦ, ᓇᓄᐃᑦ ᐊᓯᐊᓂᒃ ᓄᓇᒦᑦᑐᑦ ᐅᑎᖅᑕᖃᐅᔭᖃᑦᑕᖅᑐᒃᓴᐅᖓᒪᑕ ᐃᓂᒋᔭᐅᔪᑦ ᐊᑯᓐᓂᖏᑦᑎᒍᑦ ᖃᓄᐃᓕᖓᓕᕐᓂᖓᓄᑦ ᓯᓚᐅᑉ. ᐅᓄᕐᓂᖏᓐᓄᑦ ᐃᓱᒪᒋᔭᐅᔪᖅ ᓴᖅᑭᑎᑦᑎᓯᒪᔪᖅ "ᐅᓄᖏᒃᑯᑦ" (ᓱᕐᓗ, ᐃᓚᐅᑎᑦᑎᓯᒪᔪᖅ ᑕᒪᐃᓐᓂ ᓇᓄᕐᓂᒃ ᐃᑦᓱᐊᖅᑐᖅᕕᒃᒥᑦ ᐊᐅᓚᑦᑎᕕᐅᔪᒥᑦ).
- ᒥᑭᑦᑑᑎᑦ ᖃᐅᔨᓴᖅᑕᐅᔫᓴᑦ, ᐊᑕᐅᓯᑦᑕᐃᓐᓇᕐᓂ ᓇᓄᕐᓂ ᐱᓇᔭᕆᐊᒃᓴᖅ ᐊᑦᑎᒃᑐᖅ, ᐊᒻᒪᓗ ᓇᒧᙱᐅᑲᓪᓕᐊᖅᑕᑦᑕᕐᓂᖏᓐᓄ ᑐᓴᒃᓴᖅᑲᙱᓗᐊᕐᓂᒃ ᓱᒃᑲᐃᒍᑎᒋᔭᐅᔪᑦ ᖃᐅᔨᓴᕈᑎᓄᑦ ᑕᒪᑐᒥᖓ ᓲᕐᓗᓂ ᐅᓄᕐᓂᖏᓐᓂᒃ ᐊᒻᒪ ᐆᒪᔪᓐᓇᕐᓂᖏᓐᓄᑦ ᖃᐅᔨᒍᑎᐅᔪᓐᓇᖅᑐᓂᒃ.

ᐊᐱᖅᓱᕐᓃᑦ:

- ᐅᐸᒍᑎᓂᒃᑯᑦ ᓄᓇᓕᖕᓂ ᐅᕐᑲᓪᓚᖅᑎᖅᑲᑲᑕᖕᓂᖅ ᑭᒡᒐᖅᑐᐃᔨᓄᑦ ᖃᖏᕐᐅᔭᕐᒧᑦ ᐊᖑᓇᓱᒃᑐᓕᕆᔨᒃᑯᓐᓂᒃ ᐱᓕᕆᓂᐅᓚᐅᕐᑐᖅ ᐅᒃᑑᐱᕆ 19-ᒧ 21-ᒧ ᐊᑯᓐᓂᖓᓂᒃ, 2020.
- ᑖᕝᕙᓂᓕ ᐅᕐᑲᓪᓚᑲᑕᕐᑲᑎᕐᑲᖅᑎᓪᓗᒋᑦ, ᐅᑯᐊ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ (DOE) ᑭᒡᒐᖅᑐᐃᔨᖏᑦ ᓴᖅᑭᑎᑦᑎᓚᐅᕐᑐᑦ ᐱᔭᐅᔪᓐᓇᖅᑐᓂᒃ ᐅᓄᕐᓯᕚᓕᖅᑎᑦᑎᓂᕐᒥᒃ ᑲᑎᑲᑎᒃ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ (TAH) ᒪᐅᖓ 16-ᓄ ᓇᓄᕐᓄᑦ.
- ᐊᖏᕐᑲᑎᒌᖕᓂᖅᑕᕐᑲᓚᐅᕐᑐᖅ ᐊᖑᓇᓱᒃᑐᓕᕆᔨᒃᑯᑦ ᐃᓚᖏᓐᓄᑦ ᖃᐅᔨᔭᐅᓂᑯᓂᒃ ᓄᓇᕗᒥᑦ ᒐᕙᒪᒃᑯᑦ ᐅᓂᒃᑳᖏᓐᓂᒃ.
- ᐃᓚᖏᑦ ᓄᓇᓕᐅᔪᑦ ᐱᔪᒪᓂᑯᑦ ᐅᓄᕐᓯᓇᐊᒍᑎᓂᒃ ᑲᑎᑲᑎᒃ ᐱᔭᐅᔪᓐᓇᖅᑐᓂᒃ (TAH) ᐊᕕᒃᑐᕈᒥᓇᓇᐊᖅᑲᕐᓂᐊᕐᑐᖅ ᐊᔪᕐᓇᙱᑉᐸᑦ ᐱᖓᓱᓄᑦ ᓄᓇᓕᖕᓄᑦ.

- ᐃᓕᖅᑭ ᓄᓇᓖᑦ ᓇᓐᓄᒐᓱᒍᒪᓂᖠᐅᖅᒪᑕ ᐅᕙᓃᑦᑐᓂᒃ ᖃᓄᕐᑭᐅᔭᕿᑦᑐᓂᒃ (MC) ᐊᓱᕐᕆᓐᓂᒡᓕ ᑕᐃᒪᓕ ᓂᕆᖓᑕᕐᓂᒃ ᑐᓂᐅᖅᑲᐃᓂᕆᔭᐅᔪᖅ ᑕᒪᑐᒨᖓ ᒪᓕᑭᐊᖅᑲᕐᑐᖅ.
- ᐃᖅᑲᓇᐃᔭᖅᑎᐅᔪᑦ ᓄᓇᕗᑦ ᑐᙵᕕᒃ ᑎᒥᖓᓂ ᐊᒻᒪ ᓄᓇᕗᕐᒥ ᐆᒪᔪᓕᕆᔩᔪᐊᒃᑯᑦ ᑲᑎᒪᔩᖅᑭᓐᓄᑦ ᐅᐸᒍᑎᔪᓐᓇᓚᐅᙱᑦᑐᑦ ᐅᑯᓂᖓ ᐅᖃᖅᑲᑎᒌᖕᓂᕐᒧᑦ ᑲᑎᒪᓂᕐᓄᑦ.
- ᕿᑎᕐᒥᐅᑦ ᐆᒪᔪᓕᕆᔩᔪᐊᒃᑯᑦ ᑲᑎᒪᔩᖅᑭᑦ (KRWB) ᑭᒡᒐᖅᑐᐃᔩᖅᑭᑦ ᐅᐸᒍᑎᓚᐅᕐᑐᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᒥ ᑲᑎᒪᓂᕐᒧᑦ (ᑕᑯᓗᑭᑦ ᓇᓗᓇᐃᕐᑕᐅᓯᒪᔪᑦ ᐅᖃᖅᑲᑎᒌᖕᓂᕐᒧᑦ ᓇᐃᑦᑐᓂᒃ ᐅᓂᒃᑳᓕᐊᓂᒃ ᐅᑯᓇᙵᑦ ᐊᕙᑎᓕᕆᔩᒃᑯᓐᓂᒃ (DOE)).

ᐊᑐᓕᕐᑯᔭᐅᔪᑦ:

1. ᐊᕙᑎᓕᕆᔩᒃᑯᑦ (DOE) ᐃᓱᒪᓕᐅᕆᔪᑦ **ᐅᓄᕐᓯᕖᓪᓕᖅᑎᑦᑎᓂᕐᒥᒃ ᖃᒃᑭᐅᔭᖅᒥᑦ (MC) ᑲᑎᕆᑎᒃ ᐱᔭᐅᔪᓐᓇᖅᑐᓂᒃ (TAH) ᐅᕙᙵᑦ 12-ᓂᒃ 18-ᓄᑦ ᓇᓕᒧᕌᒃᑐᒥᑦ ᐃᒪᓐᓇ 1:1 ᐊᖍᓴᓪᓗᐃᑦ ᐊᕐᓇᕐᓗᐃᓪᓗ ᐱᔭᐅᔪᓐᓇᕐᓗᑎᒃ.**

   <u>ᐱᔾᔪᑎᖏᑦ:</u>

   a. ᑎᑎᕋᖅᑕᐅᕙᓪᓕᐊᓂᒃᑯᑦ ᐅᑯᓇᙵᑦ ᐱᔭᐅᔪᑦ 2014-2016 ᖃᒃᑭᐅᔭᖅᒥᑦ (MC) ᖃᐅᔨᓴᕐᓂᕐᒧᑦ ᐃᓕᖅᑲᓚᐅᕐᓯᒪᔪᖅ ᐅᓄᕐᑐᓂᒃ ᖃᓄᑑᕐᓂᕐᒧᑦ ᐃᓱᖃᕆᓘᔭᕐᑐᓂᒃ ᐱᔾᔪᑎᒋᓪᓗᒍ ᑎᑎᕋᐅᓯᕆᔭᐅᓂᖁᑦ. ᖃᓄᖅᑑᕆᑎᓄᑦ ᐱᓕᕆᔾᔪᑎᒃᓴᑦ ᐊᑐᕆᓐᓇᕋᔭᕐᑐᑦ ᓇᓗᓇᐃᕐᓯᒪᔪᓂᒃ ᐃᓱᒪᒋᔭᐅᓂᑯᓂᒃ ᑭᓱᐊᓂ, ᑕᐃᒪᓕ ᑕᐃᒪᓐᓂᖓᓄᑦ ᐅᓄᕐᓂᕆᓂᕋᖅᑕᐅᔪᖅ ᐊᔾᔨᕌᙱᓗᐊᕆᑎᒋᔭᖓ. ᖃᓄᐃᓕᐅᕐᓂᐅᔪᖅ ᐆᒧᖓ ᖃᓯᐅᓂᕐᕆᓐᓄᑦ ᓇᓗᓇᕆᔪᖕᓂᖓᓄᑦ ᑕᐃᒪᓕ ᓇᓗᓇᐃᖅᑕᐅᓪᓚᓇᒍᓐᓇᙱᑦᑐᖅ ᑎᑎᖃᖅᑕᖃᙱᓐᓂᖓᓄᑦ.

   b. ᐃᓱᒪᒋᔭᐅᓯᒪᔪᖅ ᑲᑎᕆᑎᒃ ᐱᔭᐅᔪᓐᓇᖅᑐᓂᒃ (TAH) ᐃᓱᒪᒍᑎᐅᔪᓐᓇᖅᑐᖅ ᓈᒻᒪᓈᐸᓗᕐᓂᖓᓂᒃ ᓈᒻᒪᙱᓕᐅᕆᑎᐅᔪᓐᓇᖅᑐᓂᒃ ᐊᑐᒃᑲᓐᓂᕆᒪᙱᓐᓂᕐᒧᑦ ᐆᑐᓇᖅ ᐅᓄᖅᑎᒋᓂᕐᒨᖓᔪᓂᒃ, ᐱᓗᐊᕐᑐᒥ ᓇᓗᓇᕆᔫᔭᑲᑦᑎᓪᓗᒍ ᐅᓄᕐᓂᖏᑦ ᐊᒻᒪ ᐆᒪᔪᓐᓇᕐᓂᕐᕆᓐᓂᒃ. ᐅᓄᕐᓂᕐᕆᓐᓄᑦ ᐃᓱᒪᒋᔭᐅᔪᑦ ᐅᑯᓇᓂ 1970-ᖏᓐᓂᒃ ᐊᒻᒪ 1980-ᖏᓐᓂᒃ ᓇᓗᓇᕆᔪᓚᐅᕐᑑᕙᓗᐊᑦ ᑭᓱᐊᓂᓕ ᑐᙵᕕᐅᑎᑕᐅᓚᐅᕐᓯᒪᔪᑦ ᐱᔭᐅᔪᓐᓇᖅᑐᓕᕆᓂᒃᑯᑦ. ᐅᑯᐊ ᐱᔭᐅᔪᓐᓇᕐᑐᑦ ᐅᓄᕐᓂᕐᕿᑦ ᐊᑐᒃᑲᓐᓂᕆᓐᓇᕐᓂᕐᒧᑦ ᓈᒻᒪᓚᐅᕐᓯᒪᙱᒻᒪᑕ ᐊᑯᓂᕆᓗᒃ ᐊᑐᕐᓂᐊᖅᑐᓄᑦ ᐊᒻᒪᓗ ᐅᓄᕐᓂᕆᔭᐅᔪᑦ ᒥᒃᓱᕖᓪᓕᖅᑲᑎᒃ ᐅᑯᐊ ᖃᒃᑭᐅᔭᖅᒥ ᓄᓇᓕᐅᔪᑦ ᓈᒻᒪᙱᑦᑐᒃᑯᑦ ᐊᒃᑐᖅᑕᐅᓗᑎᒃ ᐅᓄᙱᓗᐊᖅᑐᓂᒃ ᐱᔪᓐᓇᖅᑎᑕᐅᓂᖏᑦᑎᒍᑦ ᐊᕐᕋᒍ ᕐᑯᓕᑦ ᐅᖅᓚᑖᓄᑦ. ᐋᖅᑭᒃᓯᓂᐊᕐᓗᑎᒃ ᖃᒃᑭᐅᔭᖅᒥᑦ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᐅᓄᕐᓂᕐᕆᓐᓂᒃ ᐅᓄᖅᑎᑦᑎᓗᐊᕐᐸᑕ ᐅᓗᕆᐊᓇᓕᕋᔭᒪ ᐅᓄᕆᓐᓃᖅᐹᓪᓕᕐᓂᕐᒥᒃ ᐱᑕᖃᕆᓐᓃᕐᓂᕐᒥᒡᔫᓐᓃᑦ ᐅᕙᓂᑐᐃᓐᓇᐅᙱᑦᑐᖅ ᖃᒃᑭᐅᔭᖅᒥᑦ ᑭᓱᐊᓂᓕ ᖃᓂᑦᑐᓂᒃ ᓇᓄᕐᓂ ᐱᔾᔪᑎᖃᖅᑲᕆᑎᒃ ᖃᐅᔨᒪᔭᐅᙱᓐᓂᖏᓐᓄᑦ ᑕᒪᐅᙱᖅᐸᓪᓕᐊᕙᒃᑐᑦ ᐊᒻᒪ ᑕᒫᓃᑦᑐᓃᖅᐸᒃᑐᑦ ᐅᓄᕐᓂᖏᑦ.

   c. ᐅᓇ ᐃᓱᒪᓕᐅᕆᔭᐅᓯᒪᔪᖅ ᑲᑎᕆᑎᒃ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ (TAH) ᐃᓱᒪᒋᔭᖅᑲᕆᑎᐅᔪᖅ ᐱᑕᖃᖅᑎᑦᑏᓐᓇᕆᓇᕐᓂᕐᒥᒃ ᓇᓄᕐᓂᒃ ᑕᒫᓂ. ᐅᓄᕐᓯᕖᓪᓕᕐᑎᓪᓗᒍ ᖃᐅᔨᓴᖅᑐᓕᕆᓂᒃᑯᑦ ᐱᔭᐅᔪᓐᓇᖅᑐᓄᑦ ᐃᓱᒪᓕᐅᕆᓂᖅ, ᐊᒃᑐᐃᒍᑎᐅᔪᓐᓇᖅᑐᑦ ᓇᓐᓄᒐᓱᖕᓂᒃᑯᑦ ᖃᐅᔨᓴᖅᑕᐅᖃᑦᑕᕆᐊᖃᖅᑐᑦ ᐊᒻᒪ ᖃᓄᐃᓕᐅᕆᐅᓇᓱᒡᓗ ᐊᑐᕐᓗᑎᒃ ᑐᓴᐅᒪᔾᔪᑎᐅᔪᓐᓇᖅᑐᓕᒫᓂᒃ (ᖃᐅᔨᓴᖅᑐᓕᕆᓂᒃᑯᑦ ᐊᒻᒪ ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖏᑦ).

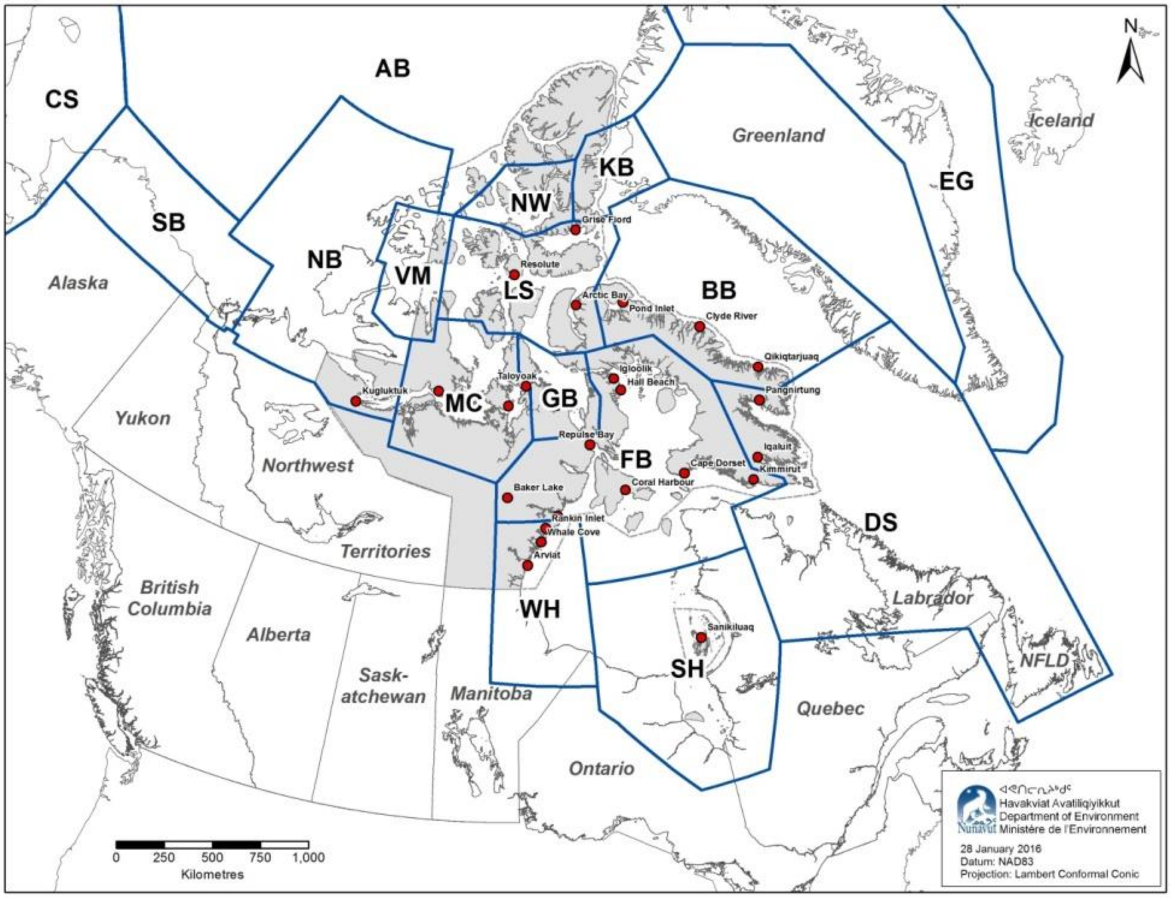
   d. ᐊᓱᙳᖅᐸᓪᓕᐊᓂᐅᔪᖅ ᓄᓇᐅᑉ ᖃᓄᐃᑉᐸᓪᓕᐊᓂᖓᓂᒃ (ᓲᕐᓗ ᓯᕼ ᖃᓄᐃᓕᖓᓂᖏᑦ) ᖃᐅᔨᓴᖅᑕᐅᖃᑦᑕᕆᐊᖃᖅᑐᑦ ᓲᖃᐃᒻᒪ ᐊᓱᙳᖅᐹᓪᓕᕐᓂᖓ ᓇᓗᓇᙱᒻᒪᑦ ᓯᓚᐅᑉ ᐊᓱᙳᖅᐸᓪᓕᐊᓂᖓᓄᑦ. ᓯᑯᑐᖃᐃᑦ ᐱᑕᖃᕆᓐᓂᓕᕐᑎᓪᓗᒋᑦ ᐊᒻᒪᓗ ᐊᕐᕌᒍᒧᑐᐃᓐᓇ ᓯᑯᑕᖃᓕᕐᑎᓪᓗᒍ, ᐊᑯᓂᕆᓗᒃ ᐊᑐᖅᑐᒃᑯᑦ ᐊᒃᑐᐃᒍᑎᐅᓇᔭᕐᑐᑦ ᓇᓄᕐᓄᑦ ᐊᒻᒪ ᓂᕆᕙᒃᑕᖏᓐᓄᑦ ᓱᓕ ᖃᐅᔨᒪᔭᐅᙱᑦᑐᖅ.

2. ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᐃᓱᒪᓕᐅᕆᔪᑦ ᕿᑎᕐᒥᐅᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᑯᑦ ᑲᑎᒪᔨᖏᑦ ᐅᖃᐅᓯᖃᕐᑰᔭᐅᓪᓗᑎᒃ ᖃᖓᐅᔭᖅᒥᑦ ᓂᕈᙵᑕᖅᑖᖅᑎᑦᑎᑲᑕᖕᓂᕐᒥᒃ ᓄᓇᓕᖕᓄᑦ ᐊᖑᓇᓱᒃᐸᒃᑐᓄᑦ ᖃᖓᐅᔭᕐᒥᑦ ᐊᒻᒪ ᐃᑦᓱᐊᖅᑐᖅᕕᒃᒥᑦ ᓇᓄᖏᓐᓂᒃ.

<u>ᐱᔾᔪᑎᖏᑦ:</u>

a. ᐅᖃᖃᑎᒌᖕᓂᕐᒧᑦ ᑲᑎᒪᑎᓪᓗᒋᑦ (ᐅᒃᑑᐱᕆ 19-ᒥᑦ 21-ᒧᑦ, 2020) ᐊᔾᔨᐸᓗᖏᓐᓂᒃ ᐃᓱᒫᓘᑎᓂᒃ ᐅᖃᑲᑕᓚᐅᕐᑐᑦ ᐊᑐᓂ ᓄᓇᓕᖕᓂ ᓂᕈᙵᑕᖅᑖᖃᑦᑕᖅᑐᓂᒃ ᖃᖓᐅᔭᖅᒧᑦ ᓄᓇᓕᖕᓂ ᐋᖅᑭᑎᐊᕐᑯᔨᓯᒪᓚᐅᕐᒪᑕ ᐊᒻᒪ ᑭᒃᑯᓐᓄᑦ ᐱᔭᐅᖃᑦᑕᕐᓂᐊᕐᓂᖏᓐᓄᑦ.

ᐊᔾᔨᖑᐊᖅ 1.   ᕿᒥᕐᕈᐊᕐᓂᖅ ᓄᓇᕗᒥᑦ ᓇᓄᐃᑦ ᐅᓄᕐᓂᖅᑎᓐᓂᒃ (GB = ᐃᑦᓱᐊᖅᑐᖅᑲᒃ, MC = ᖃᒡᑎᐅᔭᖅ).



ᒪᒃᐱᒑᖅ 5 ᐅᑯᓇᓂ 5

ᐊᕙᑎᓕᕆᔨᒃᑯᑦ
Department of Environment
Avatiliqiyikkut
Ministère de l'Environnement

ᐃᕐᑐᐊᖅᑑᒻᒥ ᓇᓄᐃᑦ ᑐᑭᓯᓂᐊᖅᑎᓄᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᖕᒐᓐᓂᒃ ᐱᔭᐅᔪᑦ

ᑐᑭᓯᓂᐊᕐᓂᖅ ᐅᑦᑑᕝᕙ 19-21, 2020

ᑐᑭᓯᓂᐊᕐᓂᕐᒥᒃ ᓇᐃᓪᓚᑎᖅᓯᒪᔪᑦ ᐅᓂᒃᑳᑦ

ᓇᓄᕐᓂᒃ ᖃᐅᔨᓴᕐᓂᒥᒃ ᐱᓚᕆᔪᑦ
ᒥᓂᔅᑕᐅᕕᖕᒐᓐᓂ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ
ᒐᕙᒪᒃᑯᖕᒋᓐᓂ ᓄᓇᕗᑦ
ᐃᖅᓗᓕᒃ, ᓄᓇᕗᑦ

ᓱᕗᓕᖅᑎᓃᖅᑖᖅᑐᑦ ᓇᐃᓪᓕᑎᖅᓯᒪᔪᑦ

ᒐᕙᒪᒃᑯᖏᓐᓂ ᓄᓇᕗᑦ, ᒥᓂᔅᑕᐅᕕᖓᓐᓂ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑭᒡᒐᖅᑐᐃᔨᖏᑦᑕ, ᑲᑐᔾᔨᖅᑎᖅᑳᖅᓱᑎᒃ ᑭᒡᒐᖅᑐᐃᔨᓂᒃ ᖃᑎᙳᐅᓂᒃ ᐆᒪᔪᓕᕆᔩᑦ ᑲᑎᒪᔨᖏᓐᓂᒃ (KRWB) ᑐᑭᓯᓂᐊᕐᓂᖅᑲᔪᑦ ᐊᖑᓇᓱᑦᑏᑦ ᒥᕐᒥᐊᕐᓂᐊᖅᑏᓪᓗ ᑲᑐᔾᔨᖅᑎᕇᖏᓐᓂᒃ (HTOs) ᐅᑦᑑᕝᕙᒥ 19-21, 2020. ᐱᔾᔪᑕᐅᔪᖅ ᑐᑭᓯᓂᐊᕐᓂᕐᒧᑦ ᐊᑐᐃᓐᓇᐅᑎᕝᓯᒍᒪᓪᓗᑎᒃ ᐊᐅᓚᕝᓯᖃᑏᑦᑐᓄᑦ ᐃᓅᓐᓇᐃᓐᓅᖓᔪᒥᒃ ᒫᓐᓇᕐᓂᑕᐅᓂᖅᐹᒥᒃ ᑐᑭᓯᓂᐊᓂᕐᒧᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᕐᒥᒃ ᐱᓯᒪᔪᓂᒃ ᐃᑦᑐᐊᖅᑑᒻᒥ (MC) ᓇᓄᕐᓂᒃ ᑲᑎᒪᐅᖅᑐᓂᒃ, ᐋᒻᒪᓗ ᓄᐊᕝᓯᓪᓗᑎᒃ ᑐᓴᕋᕐᓴᓂᒃ ᖃᐅᔨᔭᐅᔪᓂᒃ ᐊᑐᐃᓐᓇᐅᑎᑕᐅᔪᓂᒃ ᓄᐊᕝᓯᑦᓱᑎᓪᓗ ᕿᖓᒍᒃᑲᓐᓂᖅ ᖃᐅᔨᒪᓂᑐᖃᕐᓂᒃ (TK). ᐊᖑᓇᓱᑦᑏᑦ ᒥᕐᒥᐊᕐᓂᐊᖅᑏᓪᓗ ᑲᑎᒪᔩᑦ ᓄᓇᓕᓐᓂ ᐊᖑᓇᓱᒃᐸᑦᑐᑦ ᐃᑦᑐᐊᖅᑑᒻᒥᒃ ᑲᑎᒪᐅᖅᑐᓂᒃ ᑐᑭᓯᓂᐊᕈᐅᔪᑦ. ᑐᓴᖅᑕᐅᔪᑦ ᖃᐅᔨᒪᓂᑐᖃᐃᓪᓗ ᓄᐊᑕᐅᔪᑦ ᑖᒃᑯᓇᓂ ᑐᑭᓯᓂᐊᕐᓂᐅᔪᓂ ᐃᓱᒪᒋᔭᐅᖃᓯᐅᑎᓚᖅᑐᑦ ᐋᖅᑭᑦᓱᐃᓕᕈᑎᒃ ᑲᑎᓪᓗᑎᒃ ᓇᓐᓄᑦᑕᐅᒍᓐᓇᕐᑯᔭᐅᔪᓂᒃ ᐃᑦᑐᐊᖅᑑᒻᒥᒃ ᑲᑎᒪᐅᖅᑐᓂᒃ ᑐᓂᔭᐅᓗᑎᒃ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ ᖃᓄᖅᑑᕈᑕᐅᓂᐊᖅᑎᓪᓗᒋᑦ. ᑖᓐᓇ ᐅᓂᒃᑳᖅ ᓇᐃᓪᓕᑎᓇᓂᐅᕙᓱᐊᖅᑐᖅ ᐅᖃᐅᓯᐅᓯᒪᔪᓂᒃ ᐃᓚᐅᑎᑦᑐᓄᑦ ᑐᑭᓯᓂᐊᕐᓅᑦ ᐃᓗᐊᓐᓂ.

ᐃᓗᓕᖏᑦ

ᓇᓗᓇᐃᔭᐃᔾᔪᑎ

ᐅᑯᐊ ᐅᓂᒃᑳᑦ ᑕᑯᑦᓴᐅᑎᑦᓯᔪᑦ ᒥᓂᔅᑕᐅᕕᖓᑦᑕ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᐱᕕᓕᒫᒃᑯᑦ ᐱᓇᓱᐊᑦᓯᐊᕐᓂᖏᓐᓂᒃ ᑕᒻᒪᐅᖅᑲᖏᑦᑐᓂᒃ ᑲᑎᖅᓱᐃᒍᒪᓪᓗᑎᒃ ᑐᓴᕋᑦᓴᓂᒃ ᑐᓴᖅᑕᐅᔪᓂᒃ ᑐᑭᓯᓂᐊᕐᓂᕐᒧᑦ ᑲᑎᒪᓂᖅᑕᕐᑲᖅᑎᓪᓗᒍ ᐊᖑᓇᓱᑦᑏᑦ ᒥᑭᒋᐊᓂᐊᖅᑏᑦᓗ ᑲᑎᒪᔾᔨᖏᓐᓂᒃ ᐃᖅᑲᓗᒃᑑᑦᓯᐊᕐᒥ, ᐅᖅᓱᖅᑑᕐᒥ, ᐊᒻᒪᓗ ᑕᓗᕐᔪᐊᕐᒥ. ᐅᕐᑲᐅᓯᐅᔪᑦ ᐅᑯᓇᓂ ᑕᑯᑦᓴᐅᑎᑦᓯᑦᓴᐃᓐᓇᙱᑦᑐᑦ ᒥᓂᔅᑕᐅᕕᖓᓐᓃᙲᖅᑐᓂᒃ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᐊᒻᒪᓗ ᒐᕙᒪᒃᑯᖏᓐᓂᒃ ᓄᓇᕗᑦ.

1.0 ᐅᓂᒃᑳᑦ ᐱᕝᕙᑎᒧᑦ ᐋᖅᑭᑦᓯᒪᓂᖓᓄᑦᑐ

ᐅᑯᐊ ᐅᓂᒃᑳᑦ ᑐᕐᖓᕐᑲᖅᑐᑦ ᑲᑎᖅᓱᐃᓂᕐᒥᒃ ᓇᐃᓪᓕᑎᕆᓂᕐᒥᓪᓗ ᐅᕐᑲᐅᓯᐅᕙᓂᒃ, ᐊᐱᖅᑯᑎᓂᒃ, ᐃᓱᒫᓘᑎᓂᒃ ᐊᒻᒪᓗ ᐃᒫᕐᑲᐃᑭᑕᐅᕙᓂᒃ ᐊᑐᐃᓐᓇᐅᑎᑕᐅᕙᓂᒃ ᐊᖑᓇᓱᑦᑏᑦ ᒥᑭᑦᐊᕐᓂᐊᖅᑏᑦᑐ ᑲᑎᒪᔨᖏᓐᓄᑦ ᑭᐅᕝᕙᑕᐅᑦᓱᑎᒃ ᕐᑲᐅᔨᔭᐅᕙᓄᑦ 2014-2016 ᐃᑦᑐᐊᖅᑑᒥ ᑐᑭᓯᓂᐊᕐᓂᕐᒥ ᕐᑲᐅᔨᓴᕐᓂᕐᒥ. ᓯᕗᕐᖓᓂ ᕐᑲᐅᔨᓴᕐᓂᐅᑉ ᑐᑭᓯᓂᐊᕐᓂᐅᓯᒪᕙᑦ ᑖᒃᑯᓇᓂ ᓄᓇᓕᓐᓂ ᐋᑑᑎᕙᕙᑦ 2013–ᒥ.

ᐅᑯᐊ ᓄᓇᓖᑦ ᑐᑭᓯᓂᐊᕐᕖᐅᕙᑦ ᐅᑦᑑᕝᕙ 19-21, 2020:

- ᐃᕐᑲᓗᒃᑑᑦᓯᐊᖅ, ᐅᑦᑑᕝᕙ 19, 2020
- ᐅᖅᓱᖅᑑᖅ, ᐅᑦᑑᕝᕙ 20, 2020
- ᑕᓗᕐᕙᐊᖅ, ᐅᑦᑐᕝᕙ 21, 2020

ᑲᑎᒪᓂᕐᑲᖅᑎᓪᓗᒋᑦ ᒥᓂᔅᑕᐅᕚᖓᑦ ᐊᕙᑎᓕᕆᔾᔪᒃᑯᑦ ᑐᓴᖅᑎᑦᓯᕙᒧᑦ ᓱᓇᐅᒻᒪᖓᑖ ᒐᕙᒪᒃᑯᑦ ᓄᓇᕗᒻᒥ ᓇᓐᓄᑦᑕᐅᒍᓐᓇᖅᑐᓄᑦ ᐃᓱᒪᓕᐅᕈᑎᖏᑦ ᐃᑦᑐᐊᖅᑑᒧᑦ. ᑭᒡᒐᖅᑐᐃᔾᔫᑦ ᓄᓇᕗᑦ ᐆᒪᕙᓕᕆᔾᕙᐊᒃᑯᑦ ᑲᑎᒪᔾᔨᖕᓂᒃ, ᓄᓇᕗᑦ ᑐᙵᕕᒃᑯᓐᓂᓪᓗ ᕐᑲᐃᕐᑯᔭᐅᓯᒪᕙᕙᑦ ᑖᒃᑯᓄᖓ ᑲᑎᒪᓂᐅᕙᓄᑦ ᑭᓯᐊᓂ ᑭᒡᒐᖅᑐᐃᕙᑦᓴᓂᒃ ᐱᑕᕐᑲᕙᙳᑦᑐᖅ ᓇᕚᑎᒍᓐᓇᖅᑐᓂᒃ ᓇᕚᑎᓪᓚᓪᓗᑎᒃ. ᑭᒡᒐᖅᑐᐃᕙᒥᒃ ᕿᑎᕐᒥᐅᑦ ᐆᒪᕙᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔾᔨᖕᓂᒃ ᐃᓚᐅᕙᕐᑲᕙᕙᖅ ᐃᕐᑲᓗᒃᑑᑦᓯᐊᕐᒥ ᐊᒻᒪᓗ ᑯᓪᓗᕐᕙᒻᒥ. (ᐅᕝᕗᓇᔭᐅᓕ: ᒐᕙᒪᒃᑯᑦ ᓄᓇᕗᒻᒥ ᑭᒡᒐᖅᑐᐃᔾᔪᖓᑦ ᐅᓂᒃᑳᕐᑲᕙᕙᖅ ᐃᑦᑐᐊᖅᑑᒥ ᕐᑲᐅᔨᔭᐅᕙᓂᒃ ᕿᑎᕐᒥᐅᑦ ᐆᒪᕙᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔾᔨᖕᓂᒃ ᑭᒡᒐᖅᑐᐃᕙᒧᑦ ᑯᓪᓗᕐᕙᒥ ᐅᓂᒃᑳᕐᓂᖅᑕᕐᑲᓚᐅᖅᑎᓪᓗᒍ ᐃᑭᕐᓴᐅᑉ ᐃᒪᖓᓂᒃ ᐱᓯᒪᕙᓂᒃ ᑕᐃᑲᓂ ᓄᓇᓕᓐᓂ ᕿᑎᕐᒥᐅᑦ ᐆᒪᕙᓕᕆᔾᔪᒃᑯᑦ ᑲᑎᒪᔾᔪᑦ ᑭᔾᔭᖅᑐᐃᔾᔪᖓᑦ ᓇᕚᑎᒍᓐᓇᕙᙳᒋᓪᒪᑦ ᐅᖅᓱᖅᑑᕐᒥ ᑕᓗᕐᕙᐊᕐᓂᓗ ᑲᑎᒪᓂᐅᕙᓂ).

2.0 ᐱᕝᕙᑕᐅᕙᑦ ᑐᑭᓯᓂᐊᕐᓂᐅᕙᓄᑦ

ᐱᕝᕙᑕᐅᕙᖅ ᑖᒃᑯᓄᖓ ᑐᑭᓯᓂᐊᕐᓂᐅᕙᓄᑦ ᐅᕐᑲᕐᑲᑎᒦᒍᑎᕐᑲᕐᓂᖅ ᓄᑖᖑᓂᖅᐸᓂᒃ ᑐᑭᓯᓂᐊᖅᑎᓂᒃ ᑐᓴᕐᑦᓴᓂᒃ ᐱᕝᕙᑎᕐᑲᖅᑐᓂᒃ ᐃᑦᑐᐊᖅᑑᒥ ᓇᓄᕐᓂᒃ ᑲᑎᒪᐅᖅᑐᓂᒃ ᑕᐃᒫᒃ ᐅᕐᑲᐅᓯᐅᓯᒪᒻᒪᑕ ᒐᕙᒪᒃᑯᖏᓐᓂ ᓄᓇᕗᑦ ᑐᑭᓯᓂᐊᕐᓂᕐᒧᑦ ᕐᑲᐅᔨᕐᓴᓂᕐᒧᑦ ᐅᓂᒃᑳᓂ ᓴᖅᑭᖅᑕᐅᓯᒪᕙᓂ ᒐᕙᒪᒃᑯᖏᓐᓄᑦ ᓄᓇᕗᑦ ᓇᓄᓕᕆᔨᓄᑦ. ᐊᒻᒪᓗ, ᒐᕙᒪᒃᑯᖏᑦ ᓄᓇᕗᑦ ᓯᕗᒧᑦᑎᑦᓯᓯᒪᒻᒥᕙᑦ ᑲᑎᑦᓱᑎᒃ ᓇᓐᓄᑦᑕᐅᒍᓐᓇᖅᑐᓄᑦ ᐃᓱᒪᓕᐅᕈᑕᐅᕙᓂᒃ ᑖᒃᑯᐊ ᑐᑭᓯᓂᐊᕐᓂᐅᕙᑦ ᐊᑑᑎᑎᓪᓗᒋᑦ, ᑭᓯᐊᓂᑦᑕᐅᖅ ᐅᕐᑲᕐᑲᑎᒦᒍᑕᐅᑦᓱᓂ ᐊᐅᓚᕝᓯᓂᕐᒧᑦ ᑎᑭᐅᑎᔭᐅᒧᒪᕙᑦ ᐋᖅᑭᓱᖅᑕᐅᒍᓐᓇᖅᑐᑦ ᑐᙵᕕᐅᓗᑎᒃ ᓄᓇᓕᓐᓂ ᑮᙶᒪᒋᔭᐅᕙᑦ ᑎᑭᐅᑎᔭᐅᒧᒪᕙᑦᑐ ᑖᒃᑯᓄᖓ ᓇᓄᕐᓄᑦ ᑲᑎᒪᐅᖅᑐᓅᖓᕙᑦ.

2.1 ᐋᖅᑭᓯᒪᓂᖏᑦ ᑲᑎᒪᓃᑦ

ᑲᑎᒪᓂᖃᖃᑦᑕᔪᔪᑦ ᐅᓐᓄᒃᑯᑦ (ᓵᕐᓗ ᐱᒋᐊᖅᓱᑎᒃ 5 ᐊᒻᒪᓗ 6:30 ᐊᑯᓐᖓᓐᓂ) ᐊᑯᓂᐅᓂᖃᖅᐸᑦᓱᑎᒃ ᐃᑲᕐᕋᐃᑦ ᐱᖓᓱᑦ ᓯᑕᒪᓪᓗᑭᐊᖅ ᑐᙵᕕᐅᑦᓱᓂ ᐊᖑᓇᓱᑦᑎᑦ ᒥᑭᒋᐊᕐᓂᐊᖅᑏᓪᓗ ᑲᑎᒪᔨᖏᑦᑕ ᐃᓚᐅᑎᓐᓂᖏᑦ. ᑲᑎᒪᓃᑦ ᐊᐅᓚᑕᐅᔪᒧᑦ ᓯᕗᓕᖅᑕᐅᑦᓱᑎᒃ ᒐᕙᒪᒃᑯᖏᓐᓂᒃ ᓄᓇᕗᑦ ᓇᓄᓕᕆᔨᓄᑦ L. ᑎᒃ ᐊᒻᒪᓗ ᔨ. ᐅᐊᕐ, ᐅᓂᒃᑳᔪᒻᒥᔫᒃ. ᓇᓄᓕᕆᔩᑦ ᐊᑐᐃᓐᓇᐅᑎᑦᓯᔪᔪᑦ ᐱᐅᓯᐅᓯᒪᔪᓂᒃ ᐊᐅᓚᑦᓯᓂᕐᒨᖓᔪᑦ ᐃᓗᓕᖏᓐᓂᒃ, ᓇᓗᓇᐃᖅᓯᒪᑦᓯᐊᖅᑐᒥᓪᓗ ᐃᓅᓐᓈᒧᑦ ᕿᒥᕐᕈᑎᑦᓯᓂᕐᒥᒃ ᖃᐅᔨᔭᐅᔪᓂᒃ 2014-2016−ᒥ ᓇᓄᐃᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᖃᖅᑎᓪᓗᒋᑦ ᐃᑦᑐᐊᖅᑑᒻᒥ (ᐃᓱᐊᓃᑦᑐᖅ 1). ᑲᑎᒪᖃᑦᑕᐅᔪᑦ ᐊᐱᖅᑯᑎᑦᓴᖃᕈᑎᒃ ᐊᐱᖅᓱᕈᓐᓇᖅᑎᑕᐅᔪᑦ, ᐅᖃᐅᓯᑦᓴᖃᕈᑎᒃ ᐃᓱᒫᓗᑎᒥᓐᓂᒃ, ᐅᕝᕙᓘᓐᓃᑦ ᐃᓱᒪᓕᐅᕈᑎᑦᓴᖃᕈᑎᒃ ᑲᑎᒪᓃᑦ ᐃᓗᐊᓐᓂ. ᓇᓗᓇᐃᖅᑕᐅᔪᒻᒥᔪᖅ ᓱᓕ ᑲᔪᓯᒋᐊᖓ ᐃᑦᑐᐊᖅᑑᒻᒥ ᓱᓕ ᖃᐅᔨᓴᕐᓂᖅᑕᖃᓇᐊᖓ ᖃᐅᔨᓴᔪᓪᓗ ᓂᕆᐅᒋᔭᐅᑦᓱᑎᒃ ᓄᖑᐊᓂ 2020, ᑐᙵᕕᐅᓗᓂ ᖃᓄᐃᓕᖓᓕᕐᓂᖓ ᓄᕙᓐᓇᕐᔪᐊᖅ-19.

ᐅᓂᒃᑳᖅᑐᖃᓚᐅᖅᑎᓪᓗᒍ, ᐊᐱᖅᑯᑏᑦ/ᐅᖃᖃᑎᒌᓐᓃᑦ ᑲᔪᓯᔪᔪᑦ ᐊᐱᖅᑯᑎᓴᖅᑕᐃᕈᙱᓐᓂᓕᒫᖓᓂ. ᑲᑎᒪᓂᖅ ᐃᓱᓕᑦᑎᓪᓗᒍ, ᒐᕙᒪᒃᑯᑦ ᓄᓇᕗᒻᒥ ᐋᖅᑭᑦᓯᒪᓂᖓᑦ ᓇᓐᓄᑦᑕᐅᒍᓐᓇᖅᑐᓅᖓᔪᖅ ᐃᑦᑐᐊᖅᑑᒻᒥᒃ ᐊᑐᐃᓐᓇᐅᑎᑕᐅᔪᑦ. ᐊᒻᒪᓗ, ᐅᖃᖅᑐᖃᔪᒻᒥᕗᔪᖅ ᒐᕙᒪᒃᑯᑦ ᓄᓇᕗᒻᒥ ᐋᖅᑭᑦᓯᒪᓂᖓᑦ ᐊᑦᑐᐃᖃᙳᕐᑐᐃᓐᓇᖃᓇᐊᖓ ᐊᐅᓚᑦᓯᓂᕐᒧᑦ ᑎᑭᐅᑎᔭᐅᒍᒪᔪᓂᒃ ᑐᑦᓴᐅᔪᓂᒃ ᓄᓇᓕᓐᓄᑦ ᐊᒻᒪᓗ ᓄᓇᓖᑦ ᑎᓕᐅᖅᑕᐅᔪᑦ ᐱᓕᕆᖃᑎᖃᑦᑯᔭᐅᑦᓱᑎᒃ ᕿᑎᕐᒥᐅᓂ ᐆᒪᔪᓕᕆᔩᑦ ᑲᑎᒪᔨᖏᓐᓂᒃ ᐊᒻᒪᓗ/ᐅᕝᕙᓗ ᒐᕙᒪᒃᑯᖏᓐᓂᒃ ᓄᓇᕗᒃ ᐱᓕᕆᐊᖃᕐᓗᑎᒃ ᐱᕙᓪᓕᐊᑎᑕᐅᓂᖓᓂᒃ ᐊᐅᓚᑦᓯᓂᕐᒧᑦ ᑎᑭᐅᑎᔭᐅᒍᒪᔪᖅ ᐃᑦᑐᐊᖅᑑᒻᒥ ᓇᓄᖃᕐᓂᕐᒧᑦ. ᓇᓄᓕᕆᔩᑦ ᑐᑭᓯᑎᑦᓯᔪᔪᑦ ᐃᓱᒪᑦᓴᖅᓯᐅᕈᑕᐅᓂᖏᑦ ᑲᑎᓪᓗᑎᒃ ᓇᓐᓄᑦᑕᐅᒍᓐᓇᖅᑐᑦ ᐊᔾᔨᒌᙱᑦᑕᖏᑦ ᒐᕙᒪᒃᑯᖏᑦᑕ ᓄᓇᕗᑦ ᐃᓱᒪᓕᐅᕈᑎᖏᑦᑕ ᐱᖅᓯᐅᔾᔨᒋᐊᓖᑦ ᓇᓗᓇᕐᓂᖏᓐᓂᒃ ᖃᐅᔨᔭᐅᔪᑦ, ᐊᓯᔾᔨᐸᓪᓕᐊᔪᒥᒃ ᐊᕙᑎᒥᒃ, ᐊᒻᒪᓗ ᑕᐃᑲᓂᒥᐊᖅ ᓇᓐᓄᒍᓐᓇᐃᓕᓯᒪᔪᖃᓚᐅᖅᓯᒪᓂᖓ ᑭᖑᕐᖓᒍᓪᓗ ᐃᓄᐃᓴᑦᓕᕆᐊᖅᑕᐅᓚᐅᖅᓯᒪᑦᓱᑎᒃ ᑲᑎᑦᓱᑎᒃ ᓇᓐᓄᑦᑕᐅᒍᓐᓇᖅᑐᑦ. ᐅᖃᖃᑎᒌᓐᓂᖅᑕᓕᒃ ᐊᐱᖅᑯᑎᑕᖃᖅᓱᓂᓗ ᓂᕙᖓᑖᑦ ᑐᓂᐅᖅᑲᖅᑲᑦᑕᐅᕙᓐᓂᖓᓐᓂᒃ ᐃᑭᓴᐅᑉ ᐃᒪᖓᓂ ᐊᒻᒪᓗ ᐃᑦᑐᐊᖅᑑᒻᒥ ᓄᓇᓕᓐᓄᑦ ᓇᓐᓄᓂᒐᓯᐊᖅᐸᑦᑐᓄᑦ ᑖᒃᑯᓇᙵᓖᖅᑐᓂᒃ. ᓇᓄᓕᕆᔩᑦ ᐅᖃᖅᑐᑦ ᑲᑎᒪᔨᓄᑦ ᑕᒪᓐᓇ ᕿᑎᕐᒥᐅᓂ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᓄᑦ ᐃᓱᒪᑦᓴᖅᓯᐅᕈᑕᐅᒋᐊᖃᓇᐊᖓ ᓂᕙᖓᑖᓂᒃ ᑐᓂᐅᖅᑲᐃᖅᑲᑦᑕᕐᓂᖅ ᑲᑎᒪᐅᖅᑐᓄᑦ ᐊᑖᓃᑦᑐᓄᑦ ᕿᒥᕐᕈᔭᐅᔪᑦ.

3.0 ᓇᐃᓪᓕᑎᖅᓯᒪᔪᑦ ᓄᓇᓕᓐᓃᙵᓖᖅᑐᑎᒍᑦ

ᑎᑭᐅᑎᔭᐅᒍᒪᔪᑦ ᑐᑭᓯᓂᐊᕐᓂᕐᒥᒃ ᑲᑎᒪᓂᕐᒥᒃ ᑐᑭᓯᓇᖅᑎᑕᐅᓯᐊᔪᔪᑦ ᐊᖑᓇᓱᑦᑎᑦ ᒥᑭᒋᐊᕐᓂᐊᖅᑏᓪᓗ ᑲᑎᒪᔨᖏᓐᓄᑦ ᓯᕗᕐᖓᓂ, ᐱᒋᐊᓕᖅᑎᓪᓗᒋᓪᓗ, ᐊᑐᓂᑦ ᑲᑎᒪᓂᐅᔪᑦ. ᐊᒥᓱᐊᓗᓐᓂᒃ ᐊᔾᔨᒌᓚᓐᓂᒃ ᐊᐱᖅᑯᑎᑕᖃᔪᔪᑦ, ᐃᓱᒫᓗᑎᓂᒃ ᐃᒫᖃᐃᖅᑕᐅᔪᓂᓪᓗ ᐊᖑᓇᓱᑦᑎᑦ ᒥᑭᒋᐊᕐᓂᐊᖅᑏᓪᓗ ᑲᑎᒪᔨᖏᓐᓄᑦ ᓄᓇᓕᓐᓂ ᑐᑭᓯᓂᐊᖅᕕᐅᔪᓂ. ᐊᑕᖅᒋᖅᑐᑦ, ᓇᓗᓇᐃᖅᓯᔭᓯᒪᓯᐊᖅᑐᑦ ᐅᓂᒃᑳᑦ ᐊᐱᖅᑯᑎᓃᖅᓚᔪᑦ ᐅᖃᐅᓯᕆᓴᐅᔪᓪᓗ ᐊᑐᓂᑦ ᓄᓇᓕᓐᓂᒃ ᑕᑯᔭᕐᓴᐅᔪᑦ ᐃᓱᐊᓃᑦᑐᒥ 2.

3.1 ᐃᖃᓗᒃᑑᒃᓯᐊᕐᒥ ᑐᑭᓯᓂᐊᕐᓂᕐᒨᖓᔪᑦ ᓇᐃᓪᓕᑎᖅᓯᒪᔪᑦ

ᐅᓪᓗᖓ: ᐅᑦᑑᕙ 19, 2020
ᓯᕿᕐᙳᔭᖅ: 18:15 – 22:20

ᑭᒡᒐᖅᑐᐃᔩᑦ:

- ᒐᕙᒪᒃᑯᖏᓐᓂ ᓄᓇᕗᑦ – ᒥᓂᔅᑕᐅᕕᖓᑦ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ, ᓇᓄᓕᕆᔩᒃ L. ᑎᒃ ᐊᒻᒪᓗ ᔨ. ᐅᐊᕐ
- ᒐᕙᒪᒃᑯᖏᓐᓂ ᓄᓇᕗᑦ – ᒥᓂᔅᑕᐅᕕᖓᑦ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ, ᓄᓇᒥᐅᑕᓕᕆᔩᒃ L. ᐊᖑHᐃᐊᑦᑐᖅ ᓴ. ᐊᖑᓚᐅᒃ S.
- ᒐᕙᒪᒃᑯᖏᓐᓂ ᓄᓇᕗᑦ – ᒥᓂᔅᑕᐅᕕᖓᑦ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ, ᐊᕕᑦᑐᖅᓯᒪᔪᓂ ᐊᖓᔪᖅᑳᖅ ᑭ. ᒪᖢᐊᓐ
- ᑭᕙᓪᓕᕐᒥ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔩᑦ ᐃᑦᓯᕚᐅᑕᖓᑦ: ᕕ. ᑭᓚᓐᖓᕐᑯᒃ
- ᐃᖃᓗᒃᑑᑦᓯᐊᕐᒥ ᐊᖑᓇᓱᑦᑎᑦ ᒥᑭᒋᐊᕐᓂᐊᖅᑏᓪᓗ ᑲᑎᒪᔨᖏᑦ

ᐅᖃᐅᓯᑦᓴᐃᑦ ᐊᐱᖅᑯᑏᑦᑐ:

ᑲᑎᒪᔩᑦ ᑐᑭᓯᑎᑕᐅᕆᐊᒃᑲᓐᓂᕈᒪᔪᔪᑦ ᓄᑖᕐᒥᒃ ᓇᓐᓄᓴᓱᐊᕐᓂᐅᑉ ᐊᐅᓚᓂᖓᓂᒃ ᑐᙵᕕᐅᑦᓯᑎᒃ ᓄᓇᕗᒻᒥ ᓇᓄᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᓯᖃᑎᒌᓐᓂᕐᒧᑦ ᐸᕐᓇᐅᑏᑦ, ᐊᒻᒪᓗ ᑐᓴᖅᑎᑕᐅᕆᐊᒃᑲᓐᓂᕈᒪᑦᓯᑎᒃ ᓇᓐᓄᑦᑕᐅᒍᓐᓇᖅᑐᓃᙶᔪᓂᒃ ᐊᒻᒪᓗ ᐱᔭᐅᒻᒪᐃᑦᑐᓃᙶᔪᓂᒃ. ᐃᓘᓐᓈᒍᑦ, ᑲᑎᒪᔩᑦ ᐊᖏᖅᑲᑎᖃᖅᑐᑦ ᓇᓄᖃᕐᓂᖅᓴᐅᓕᖅᑐᖅ ᐊᕙᑏᑦ ᐊᕐᕌᒍᐃᑦ ᐊᓂᒍᖅᓯᒪᓕᖅᑎᑦᑐᑎᑦ, ᓇᓄᐃᑦᑐ ᖃᓄᐃᙱᑦᓯᐊᓇᐊᖏᑦ. ᐃᓯᒫᑐᑕᐅᔪᑦ ᑐᓂᐅᖅᑲᖅᑕᐅᓂᓇᕙᑦᑕᖏᑦ ᓂᕕᖕᓚᑖᑦ ᓇᓐᓄᒧᑎᑦᓴᐃᑦ ᐊᔾᔨᒌᑎᑦᓯᒍᑕᐅᙱᑎᐊᖏᑦ ᐃᑭᓴᐅᑉ ᐃᒪᖓᓂ ᐊᒻᒪᓗ ᐃᑦᑐᐊᖅᑑᒻᒥ, ᐱᓗᐊᖅᑐᒥᒃ ᒫᓐᓇᐅᔪᖅ ᐃᑦᑐᐊᖅᑑᒻᒥ ᑕᑯᑦᓴᐅᑦᓚᓇᑦᑎᑦᓗᒋ ᐊᒥᓱᙳᑉᐸᓪᓕᖅᑐᑦ. ᐅᖃᖅᑐᖃᖅᑐᖅ ᓴᕙᒪᒃᑯᖏᓐᓂᒃ ᓄᓇᕘᑉ ᑭᒡᒐᖅᑐᐃᔩᑦ ᑕᒪᑦᓯᒥᙵ ᐅᖃᐅᓯᖃᖁᔭᐅᑦᑐᑎᒃ ᕿᑎᕐᒥᐅᑦ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ. ᑲᑎᒪᔩᑦ ᖁᔭᓐᓇᒦᖅᑐᑦ ᖁᔭᓕᑦᑐᑎᑦᑐ ᓴᕙᒪᒃᑯᖏᓐᓂᒃ ᓄᓇᕗᑦ ᑎᑭᑕᐅᓯᒪᕆᐊᒥᒃ ᑐᓴᖅᑎᑦᓯᕆᐊᖅᑐᖅᓯᑎᒃ ᖃᓄᐃᓕᖓᓂᐅᔪᓂᒃ ᐅᖃᖃᑎᖃᓇᐊᖅᑐᖅᓯᑎᑦᑐ.

3.2 ᐅᖅᓱᖅᑑᒥ ᑐᑭᓯᓂᐊᕐᓂᕐᒨᖓᔪᖅ ᓇᐃᓪᓕᑎᖅᓯᒪᔪᖅ

ᐅᓪᓗᖅ: ᐅᑦᑑᕙ 20, 2020
ᓯᕿᙳᔭᖅ: 18:50 – 21:15

ᑭᒡᒐᖅᑐᐃᔩᑦ:

- ᓴᕙᒪᒃᑯᖏᓐᓂ ᓄᓇᕗᑦ – ᒥᓂᔅᑕᐅᕕᖓᑦ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᓇᓄᓕᕆᔩᒃ ᒪ. ᑎᒃ ᐊᒻᒪᓗ ᔨ. ᐅᐊᕐ
- ᓴᕙᒪᒃᑯᖏᓐᓂ ᓄᓇᕗᑦ – ᒥᓂᔅᑕᐅᕕᖓᑦ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᓄᓇᒥᐅᑕᓕᕆᔨ ᔨ. ᓯᑭᓕᖕ
- ᓴᕙᒪᒃᑯᖏᓐᓂ ᓄᓇᕗᑦ – ᒥᓂᔅᑕᐅᕕᖓᑦ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᐊᕕᑦᑐᖅᓯᒪᔪᓂ ᐊᖓᔪᖅᑳᖅ ᑭ. ᒪᓗᐊᓐ
- ᐅᖅᓱᖅᑑᒥ ᐊᖑᓇᓱᑦᑏᑦ ᒥᑭᕆᐊᕐᓂᐊᖅᑏᑦᑐ ᑲᑎᒪᔨᖏᑦ

ᐅᖃᐅᓯᑦᓴᐃᑦ ᐊᐱᖅᑯᑎᑦᓴᐃᑦᑐ:

ᐅᓂᒃᑳᖑᓚᐅᖅᑎᑦᑐᒍ ᐃᑦᑐᐊᖅᑑᑦ, ᑲᑎᒪᔩᑦ ᐅᖃᖅᑎᕆᒍᑎᖃᖅᑐᑦ ᐊᑑᑎᖃᑦᑕᖅᓯᒪᔭᒥᓐᓂᒃ ᐊᕐᕌᒍᓂ ᐊᓂᒍᖅᑐᓂ ᖃᓄᕐᓗ ᓈᒻᒪᓈᖅᓯᒪᒻᒪᖔᑕ ᓴᕙᒪᒃᑯᑦ ᓄᓇᕗᒻᒥ ᖃᐅᔨᓴᕐᓂᕆᓯᒪᔭᖏᓐᓄᑦ. ᐃᓘᓐᓈᒍᑦ, ᑲᑎᒪᔩᑦ ᐊᖏᖅᑲᑎᖃᖅᑐᑦ ᓴᕙᒪᒃᑯᑦ ᓄᓇᕗᒻᒥ ᖃᐅᔨᓴᔭᖏᓐᓂᒃ. ᑐᑭᓯᓇᖅᓯᑲᓐᓂᖅᓯᓇᓗ ᐅᖃᐅᓯᐅᔪᓂᒃ ᑲᑎᒪᔩᓐ ᐅᖅᓱᖅᑑᕐᒥ ᐊᖑᓇᓱᑦᑏᑦ ᐊᖑᓇᓯᑐᐊᙱᕆᐊᖏᑦ ᐃᑭᓴᐅᑉ ᐃᒪᖓᓂ. ᐃᓯᒫᑐᑎᑕᑦᑐᖅᑕᑦ ᓂᕕᖕᓚᑦᓯᐅᔪᓂᑦ ᐃᑭᓴᐅᑉ ᐃᒪᖓᓂ ᐃᑦᑐᐊᖅᑑᒥᑦᑐ, ᐱᓗᐊᖅᑐᒥᒃ ᒫᓐᓇ ᐃᑦᑐᐊᖅᑑᒻᒥ ᓇᓄᖃᕐᓂᖅᓴᐅᓕᖅᑐᖅ. ᐅᖃᖅᑐᖃᖅᑐᖅ ᓴᕙᒪᒃᑯᖏᓐᓂᒃ ᓄᓇᕗᑦ ᑭᒡᒐᖅᑐᐃᔩᑦ ᑕᒪᑦᓯᒥᙵ ᐅᖃᐅᓯᖃᖁᔭᐅᑦᑐᑎᒃ ᕿᑎᕐᒥᐅᑦ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ. ᐃᓯᒫᓗᑕᐅᒥᔪᑦ ᑕᓗᕐᔪᐊᕐᒥᐅᑦ ᐊᑐᓚᖑᒍᕆᐊᖏᑦ ᐃᑦᑐᐊᖅᑑᓪᓗᒥᔪᓂᒃ ᓂᕕᖕᓚᑦᓯᕐᓂᒃ ᐸᕝᕕᓴᑦᑐᓂᒃ ᓇᓄᓕᕆᓂᕐᒥ ᓇᓄᖃᕐᓂᐅᓇᖅᑲᑎᑦᑐᓂ. ᑲᑎᒪᔩᑦ ᖁᔭᓐᓇᒦᖅᑐᑦ ᓴᕙᒪᒃᑯᖏᓐᓂᒃ ᓄᓇᕗᑦ ᑎᑭᑕᐅᓯᒪᓪᒪᕆᒃ ᑐᓴᖅᑎᑦᓯᕆᐊᖅᑐᖅᓯᑎᒃ ᖃᓄᐃᓕᖓᓂᐅᔪᓂᒃ. ᑐᑭᓯᓇᖅᓯᑲᓐᓂᖅᓯᓇᓗ ᐅᖃᐅᓯᕆᔭᐅᔪᖅ, ᐊᒻᒪᓗ, ᐃᓄᐃᑦ ᐊᑦᑐᐊᔪᑦ ᐊᐅᓚᓂᐅᔪᒧᑦ, ᐊᑦᑐᐊᓂᖅᑲᓂᑦᑐ ᓴᕙᒪᒃᑯᓂᑦ ᓄᓇᕗᑦ.

3.3 ᑕᓗᕐᔪᐊᕐᒥ ᑐᑭᓯᓂᐊᕐᓂᕐᒨᖓᔪᖅ ᓇᐃᓪᓕᑎᖅᓯᒪᔪᖅ

ᐅᓪᓗᖅ: ᐅᑦᑑᕙ 21, 2020
ᓯᕿᙳᔭᖅ: 17:45 – 20:15

ᑭᒡᒐᖅᑐᐃᔩᑦ:

- ᒐᕙᒪᒃᑯᖏᓐᓂ ᓄᓇᕗᑦ – ᒥᓂᔅᑕᐅᖅᖃᒡᒎᑦ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ, ᓇᓄᓕᕆᔩᒃ ᒫ. ᑎᒃ ᐊᒻᒪᓗ ᔩ. ᐅᐊᕐ
- ᒐᕙᒪᒃᑯᖏᓐᓂ ᓄᓇᕗᑦ – ᒥᓂᔅᑕᐅᖅᖃᒡᒎᑦ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ, ᓄᓇᒥᐅᑕᓕᕆᔩ ᑎ. ᐊᓇᕕᓗᒃ
- ᒐᕙᒪᒃᑯᖏᓐᓂ ᓄᓇᕗᑦ – ᒥᓂᔅᑕᐅᖅᖃᒡᒎᑦ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ, ᐊᕕᑦᑐᖅᓯᒪᔪᓂ ᐊᖓᔪᖅᑳᖅ ᑭ. ᒪᕗᐊᓐ
- ᑕᓗᕐᔪᐊᕐᒥ ᐊᖑᓇᓱᑦᑏᑦ ᒥᑭᒥᐊᕐᓂᐊᖅᑏᓪᓗ ᑲᑎᒪᔨ

ᐅᖃᐅᓯᑦᓴᐃᑦ ᐊᐱᖅᑯᑏᓪᓗ:

ᐅᓂᒃᑳᖑᓚᐅᖅᑎᓪᓗᒍ ᐃᑦᑐᐊᖅᑑᑦ ᒥᑦᓵᓄᑦ, ᑲᑎᒪᔩᑦ ᐅᖃᖃᑎᒌᒍᑎᖃᖅᑐᑦ ᐊᑑᑎᖃᑦᑕᖅᓯᒪᔭᒥᓂᒃ ᐊᕐᕌᒍᓂ ᐊᓂᒍᖅᑐᓂ ᖃᓄᕐᓗ ᓈᒻᒪᓈᖅᓯᒪᓂᖏᓐᓂᒃ ᒐᕙᒪᒃᑯᑦ ᓄᓇᕗᒻᒥ ᖃᐅᔨᓴᓂᕐᒥᒃ ᖃᐅᔨᓴᖏᓐᓄᑦ. ᐃᓅᓈᒍᑦ, ᑲᑎᒪᔩᑦ ᐊᖏᖃᑎᖃᖅᑐᑦ ᒐᕙᒪᒃᑯᑦ ᓄᓇᕗᒻᒥ ᖃᐅᔨᓴᖏᓐᓂᒃ. ᑐᑭᓯᓇᖅᓯᑲᓐᓂᕝᕕᐊᖅ ᐅᖃᐅᓯᖏᑦᑎᒍᑦ ᑲᑎᒪᔩᑦ ᑕᓗᕐᔪᐊᕐᒥᐅᑦ ᐊᖑᓇᓱᓗᐊᙱᑦᑐᑦ ᐃᑦᑐᐊᖅᑑᒻᒥ, ᐃᓚᖏᓪᓗ ᐅᖃᐅᓰᑦ ᐊᐳᖅᑑᔭᕋᓗᐊᕐᒥᑦᓯᑎᒃ ᑕᕝᕗᖓᖓᔪᓄᑦ, ᐃᒻᒪᖃᓗ ᓇᓐᓄᒐᓱᐊᕈᒪᔪᑦ ᐃᑦᑐᐊᖅᑑᒻᒥ ᑕᓗᕐᔪᐊᕐᒥᐅᑦ ᐃᓚᖓᒍᑦ. ᐃᓚᖏᑦ ᐅᖃᐅᓯᐅᔪᑦ ᑐᓂᐅᖅᑲᖅᑕᐅᓂᕆᕙᑦᑕᖏᓐᓄᑦ ᓂᕕᖓᑖᑦ ᐃᑭᕋᓴᐅᑉ ᐃᒪᖓᓂ ᐃᑦᑐᐊᖅᑑᒥᓗ ᐊᔾᔮᙱᑦᑐᒥᒃ ᑐᓂᐅᖅᑲᖅᑕᐅᕙᓐᓂᖏᓐᓂᒃ, ᐱᓗᐊᖅᑐᒥᒃ ᒫᓇ ᐃᑦᑐᐊᖅᑑᒻᒥ ᓇᓄᖅᑲᖅᐹᓪᓕᖅᓯᒪᑎᓪᓗᒍ. ᒐᕙᒪᒃᑯᓐᓂ ᑭᒡᒐᖅᑐᐃᔩᑦ ᑕᒪᑦᓱᒥᖓ ᑐᓴᖅᑎᑦᓯᕐᑯᔭᐅᔪᑦ ᕿᑎᕐᒥᐅᓂ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᓂᒃ.

4.0 ᐃᓅᓐᓈᒍᑦ ᑐᑭᓯᓂᐊᕐᓂᕐᒨᖓᔪᖅ ᓇᐃᓪᓕᑎᖅᓯᒪᔪᖅ

ᑐᑭᓯᓂᐊᕐᓂᐅᔪᑦ ᐃᓅᓇᖏᓐᓂᒃ ᓄᓇᓕᓐᓂᒃ ᓇᓐᓄᐸᑦᑐᓂᒃ ᐃᑦᑐᐊᖅᑑᓪᓂᒥᒃ ᐊᑑᑎᔪᑦ ᑲᑎᒪᓂᖅᑲᖅᓱᑎᒃ, ᒪᑐᐃᖓᔪᒥᒃ ᐅᖃᕈᓐᓇᕐᓂᖅᑲᖅᓱᑎᒃ ᐃᓚᐅᑎᑦᑐᓕᒫᓪᓗ ᓂᓪᓕᕈᓐᓇᕐᕕᖅᑲᖅᓱᑎᒃ, ᐊᐱᖅᓱᕐᓗᑎᒃ, ᓂᓪᓕᐊᓗᑎᓪᓗ. ᑲᑎᒪᕐᑲᑕᐅᔪᑦ ᒪᓂᒪᑎᑦᓯᓯᒪᔪᑦ ᐃᓗᓕᖏᓐᓂᒃ ᑐᑭᓯᓂᕐᒥᓪᓗ ᑐᑭᓯᓂᐊᖅᑎᓂᒃ ᐱᓯᒪᔪᓂᒃ. ᐃᓅᓈᒍᑦ ᐅᖃᐅᓯᔪᑦ ᓄᓇᓕᓐᓄᑦ ᐃᑦᑐᐊᖅᑑᒧᙵᔪᑦ ᐅᑯᐊᖑᔪᑦ:

1) ᐊᖏᖃᑎᖃᕐᓂᖅ ᑐᑭᓯᐊᖅᑎᓄᑦ ᖃᐅᔨᓴᐅᔪᓂᒃ ᓇᓄᐃᑦ ᐊᒥᓱᙳᖅᐸᓪᓕᖅᓯᒪᓕᕆᐊᖏᑦ ᑭᖑᓪᓕᖅᐸᒥ ᖃᐅᔨᓴᖅᑕᐅᔪᒻᒪᑕᓂᑦ 1998-2000, ᐊᒻᒪᓗ

2) ᐃᑦᑐᐊᖅᑑᒻᒥ ᓂᕕᖓᑖᓂᒃ ᑐᓂᐅᖅᑲᐃᖅᑲᑦᑕᕐᓂᖅ ᐃᓱᒫᓲᑎᓪᓗᐊᑕᐅᔪᖅ.

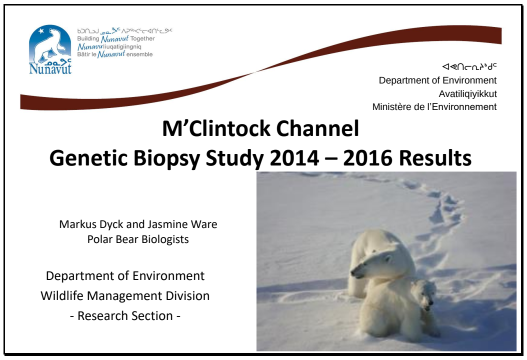
ᐱᒻᒪᕆᐅᓗᐊᙱᓂᖅᓴᐃᑦ ᐅᖃᐅᓯᐅᔪᑦ, ᐅᖃᐅᓯᐅᓯᒪᔪᓂᒃ ᑭᒡᒐᖅᑐᖅᑐᑦ ᐃᓚᖑᓐᓂᒃ ᓄᓇᓕᓐᓂᒃ ᐃᓅᓇᖏᓐᓂᐅᖏᑦᑑᒐᓗᐊᖅ, ᐱᖃᓯᐅᔾᔨᔪᑦ ᑐᑭᓴᖅᑎᑕᐅᕆᐊᒃᑲᓐᓂᕐᑯᔨᓂᕐᒥᒃ ᓄᑖᕐᒥᒃ 1:1 ᓇᓐᓄᒐᓱᐊᓂᕐᒥᒃ ᐊᐅᓚᑦᓯᓂᖅ ᐱᔭᐅᒻᒪᐃᑦᑐᓂᓪᓗ ᐊᑐᕐᓂᖅ ᐊᐱᖅᑯᑏᓪᓗ ᓱᒻᒪᑦ DNA ᖃᐅᔨᓴᖅᑕᐅᒍᑕᐅᔪᖅ ᐊᑯᓂᐅᓂᖅᓴᐅᖅᑲᑦᑕᕐᒪᙺᖅ ᑕᐃᑦᓱᒪᓂ ᓈᓴᐃᔾᔪᓯᐅᖅᑲᑦᑕᖅᓯᒪᔪᒥᒃ ᓇᓗᓇᐃᒃᑯᓯᖅᑐᐃᑦᓱᑎᒃ.

ᒐᕙᒪᒃᑯᑦ ᓄᓇᕗᒻᒥ ᑐᑦᓯᕋᖅᓯᒪᔪᑦ ᐊᒥᓱᙳᑎᐊᕆᒍᒪᓪᓗᑎᒃ ᓇᓐᓄᑦᑕᐅᒍᓐᓇᖅᑐᓂᒃ ᐃᑦᑐᐊᖅᑑᒻᒥᒃ 16–ᕈᕐᓗᑎᒃ ᐃᒪᐃᓕᖓᓗᑎᒃ 1:1 ᐊᖑᑕᐅᓂᖏᑦ–ᐊᕐᓇᐅᓂᖏᑦ ᑐᙵᕕᐅᓗᑎᒃ ᑐᑭᓯᓂᐊᖅᑎᓄᑦ ᖃᐅᔨᔭᐅᔪᑦ ᐊᒥᓱᙳᑉᐹᓪᓕᖅᓯᒪᔪᓂ ᓇᓄᕐᓂ. ᖃᑦᓯᐅᓂᖏᑦ ᓇᓐᓄᑦᑕᐅᒍᓐᓇᖅᑐᑦ ᖁᑭᕙᑉᐹᓪᓕᔪᑦ 12–ᓄᑦ 2014/2015 ᑐᙵᕕᖅᑲᖅᓱᑎᒃ ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖅᑲᖏᑦᑎᒍᑦ ᐅᔾᔨᕆᔭᐅᔪᓂᒃ ᐊᒥᓱᙳᑉᐹᓪᓕᖅᓯᒪᑭᐊᖏᑦ ᓇᓄᐃᑦ ᐊᒻᒪᓗ ᑐᑭᓯᓂᐊᕈᑕᐅᓯᒪᔪᑦ ᓈᒻᒪᓈᖅᓯᒪᑦᓱᑎᒃ ᑖᒃᑯᓇᖓ ᑲᑎᖅᓱᖅᓯᒪᔪᓄᑦ. ᑲᔪᓯᔪᒥᒃ ᐃᓄᐃᑦ ᖃᐅᔨᒪᔾᔪᑐᖅᑲᖏᓐᓂᒃ ᖃᐅᔨᓴᖅᑕᐅᔪᖅᑲᖏᓐᓇᖅᑐᖅ ᐃᑦᑐᐊᖅᑑᒻᒧᑦ ᒪᓂᒪᑎᑦᓯᒍᑕᐅᑐᐃᓐᓇᓂᐊᖅᑲᖅᓯᓂ ᐃᓗᓕᖅᑐᓂᖅᓴᓂᒃ ᓂᕆᐅᓐᓂᐅᔪᓂᒃ ᐊᖑᓇᓱᑦᑏᑦ ᐊᑐᖅᑎᐅᕙᑦᑐᓪᓗ ᑕᑯᓈᕐᓂᖏᓐᓄᑦ ᓇᓄᐃᑦ ᓇᒦᓐᓂᖏᓐᓄᑦ ᐊᒥᓲᓂᖏᓐᓄᓪᓗ. ᑕᑯᓈᖅᓱᒍ ᓄᓇᓖᑦ ᐊᖏᖃᑎᖃᕐᓂᖓᑦ ᖃᐅᔨᓴᐅᔪᓂᒥᒃ, ᐊᑭᓱᖅᑐᕐᓂᓪᓕᕆᑦᑕᖃᔾᔮᖏᑦᑐᖅ ᑐᑦᓯᕋᐅᑎᒥᒃ.

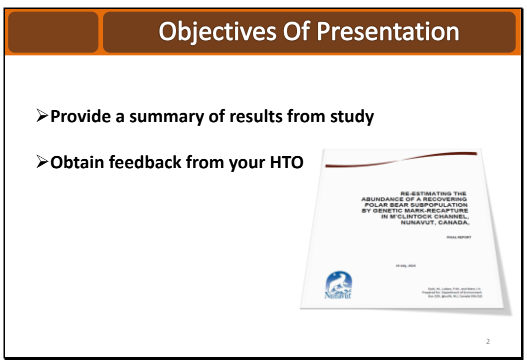
ᑭᓯᐊᓂᓕ, ᓄᓇᓖᑦ ᓇᓗᓇᐃᖅᓯᒋᐊᔪᔪᑦ 16 ᓂᕕᖓᒑᑦ ᐊᒡᒍᖅᑕᐅᒍᓐᓇᙱᑦᑎᐊᖏᑦ ᓄᓇᓕᓐᓄᑦ ᐱᖓᓱᓄᑦ ᐊᔾᔨᒌᑎᑕᐅᓗᑎᒃ ᒫᓐᓇ ᓇᓐᓄᐸᑦᑐᑦ ᐃᑦᑐᐊᖅᑑᒻᒥᒃ. ᐃᓚᖓᑦ ᐅᖃᐅᓯᓪᓗᐊᑕᐅᔪᔪᖅ ᓂᕕᖓᒑᑦ ᑐᓂᐅᖅᑲᖅᑲᐅᓂᕆᕙᑦᑕᖏᑦ ᕿᒥᕐᕈᔭᐅᒃᑲᓐᓂᕆᐊᖃᕆᐊᖏᑦ ᐊᔾᔨᒌᑎᑕᐅᖁᓪᓗᒋᑦ ᓄᓇᓖᑦ ᓇᓐᓄᓯᓱᐊᖅᐸᑦᑐᑦ ᐃᑦᑐᐊᖅᑑᒻᒥᒃ. ᑕᒪᓐᓇ ᐅᖃᐅᓯᐅᓪᓚᕆᔪᔪᖅ ᐃᓘᓐᓇᖏᓐᓄᑦ ᓄᓇᓕᓐᓄᑦ ᓇᓐᓄᓯᓱᐊᖅᐸᑦᑐᓄᑦ ᑕᒪᒃᑭᓐᓂᒃ ᐃᑭᖠᐅᑉ ᐃᒪᖓᓂᒃ ᐃᑦᑐᐊᖅᑑᒻᒥᓪᓗ ᓇᓄᖃᖁᐅᔪᓂᒃ, ᖃᓄᐃᓕᐅᕈᑕᐅᓂᐅᓯᒪᑦᓯᓂᓗ ᐃᑭᖠᐅᓴᐅᑉ ᐃᒪᖓᓂᒃ ᓇᓐᓄᓯᓱᐊᕐᓂᖅ. ᐃᓚᖏᑦ ᓄᓇᓖᑦ ᓴᒃᑯᐃᒍᓐᓇᕐᓂᖠᖅᑐᑦ ᐃᑭᖠᐅᑉ ᐃᒪᖓᓂᒃ ᓇᓐᓄᓯᓱᐊᓂᕐᒥᒃ ᓇᓐᓄᓯᓱᐊᖕᒫᕈᒪᑦᓯᑎᒃ ᐃᑦᑐᐊᖅᑑᒻᒥᒃ, ᐊᓯᖏᓪᓗ ᓄᓇᓖᑦ ᐃᓯᒪᖃᕐᒥᑦᓯᑎᒃ ᐃᑭᖠᐅᑉ ᐃᒪᖓᓃᑦᑐᑦ ᐱᒻᒪᕆᐅᓂᖅᓴᐅᒋᐊᖏᑦ. ᑖᒃᑯᐊ ᐃᓯᒫᓘᑕᐅᔪᑦ ᓂᕕᖓᒑᑦ ᑐᓂᐅᖅᑲᖅᑕᐅᓂᕆᕙᑦᑕᖏᓐᓅᖓᔪᑦ, ᕿᒥᕐᕈᒍᑕᐅᒋᐊᓖᑦ ᐊᐅᓚᔅᓯᒋᐊᕈᑕᐅᓗᑎᓪᓗ ᐊᕕᑦᑐᖅᓯᒪᔪᓂ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔾᔪᕆᓐᓄᑦ, ᐅᖃᐅᓯᓪᓗᐊᑕᐅᓯᒪᔪᑦ ᐃᑦᑐᐊᖅᑑᒻᒥᒃ ᓇᓐᓄᓯᓱᐊᖅᐸᑦᑐᓄᑦ ᓄᓇᓕᓐᓄᑦ. ᖓᕙᒪᒃᑯᖕᒋᓐᓂᒃ ᓄᓇᕗᑦ ᑭᒡᒐᖅᑐᐃᔾᔫᑦ ᐅᖃᐅᓯᖃᖅᓯᒪᔪᑦ ᑲᒪᒋᒋᐊᓕᖕᒋᓐᓂᒃ ᑎᒍᒥᐊᖅᑕᖕᒋᓐᓂᓪᓗ ᐊᑦᑐᐊᓂᖃᖅᑐᑦ ᑎᒥᐅᔪᑦ ᓂᕕᖓᑖᓕᕆᕙᑦᑐᑦ ᑐᓂᐅᖅᑲᕆᐊᓕᓐᓂᒃ ᓇᓗᓇᐃᔭᖅᓯᒪᑦᓯᓂ ᐊᐅᓚᓂᖓ ᐊᖅᑯᑕᐅᑦᓯᑎᒃ ᐊᕕᑦᑐᖅᓯᒪᔪᓂ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔩᑦ. ᖓᕙᒪᒃᑯᖏᑦ ᓄᓇᕗᑦ ᒪᓂᒪᑎᕐᓯᓯᒪᔪᑦ ᐊᑐᐃᓐᓇᐅᑎᕐᓯᒍᓐᓇᕐᓂᕐᒧᑦ ᖃᐅᔾᒪᓕᑦᕐᓂᒃ ᑐᑭᓯᒋᐊᒃᑲᓐᓂᕐᕕᑦᓴᐅᑦᓯᑎᓪᓘᓐᓃᑦ ᑐᓴᕈᒪᔪᑐᐃᓐᓇᕐᓄᑦ ᓄᓇᓕᓐᓄᑦ.

Appendix 1: Complete Consultation Presentation of the M'Clintock Channel Polar Bear Study Results 2014-2016

Slide 1



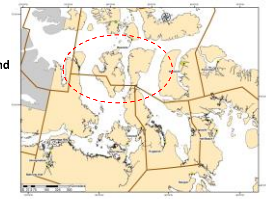
Slide 2



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 uneven and incomplete sampling
- MC estimate decreased from 900 to 700 based on local knowledge in mid-90s
- Population boundaries in 1995 and 2001

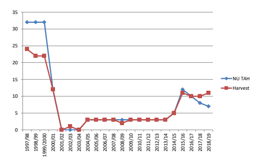


3

Slide 4

Background – Harvest

- Concerns over low bear densities in MC lead to new mark-recapture study 1998-2000; GB also included in the work.
- Estimate for MC was 284
- Average harvest of 34 bears/year from 1979-1999 for MC
- MC harvest unsustainable:
  a) hunting moratorium 2001-2003
  b) TAH of 3 until 2015/16
- MC population likely growing
- TAH of 12 since 2016



4

Slide 5

Background – Where does that bring us?

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

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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

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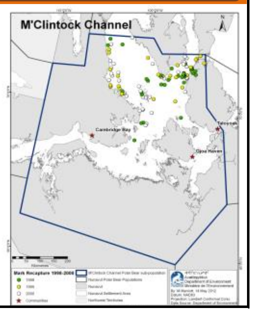
Slide 7

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



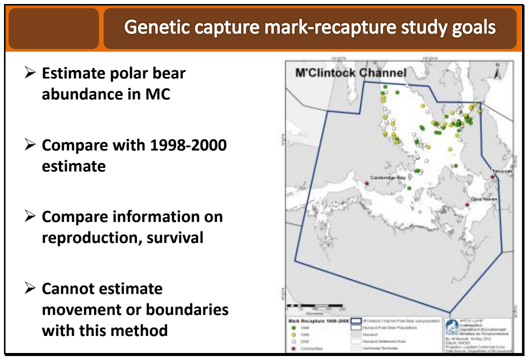
Slide 8

Study method chosen

- Co-management partners and GN selected less invasive choice:

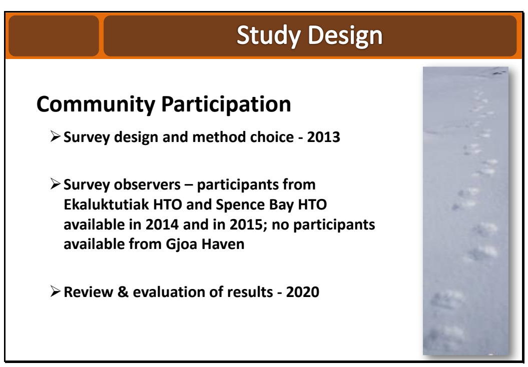
Genetic mark-recapture (biopsy sampling, no physical handling)

Slide 9



Slide 10

Slide 11



Slide 12

Study Design – Data collection

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

Willy Nakashook, from Cambridge Bay, searches for bears in MC 2015.

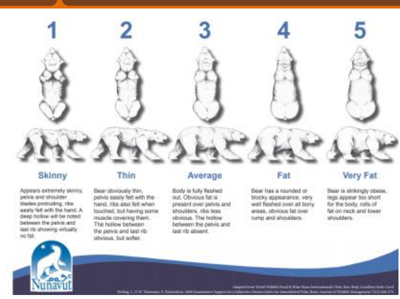
Slide 13

Study Design – Data collection

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

Slide 14

Study Design – Data collection



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Slide 15

Study Design – Data collection

- 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 mark-recaptures and dead recoveries for analysis:
  - Genetic mark-recapture (biopsy) information 2014-2016
  - 1998-2000 capture mark-recapture information
  - Harvest recoveries (e.g., when an ear tag/lip tattoo is recovered by a hunter) 1998-2016

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Slide 17

Analysis Goals

- Use all information to determine:

1. Trends in abundance from 2000-2016
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 searched MC area

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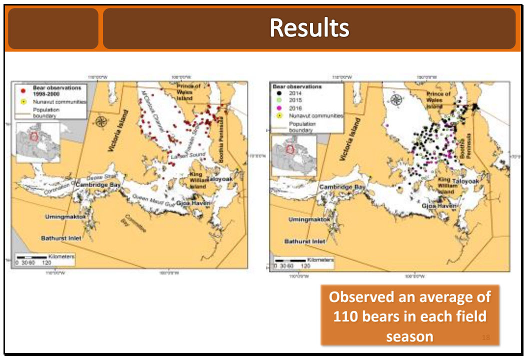
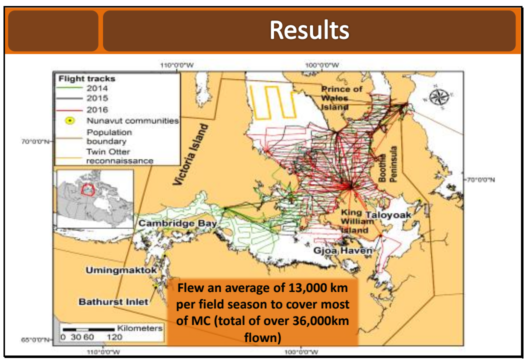
Slide 18



Slide 19



Slide 20

Results – mark-recapture samples

- 953 samples genetically analysed (319 biopsy, 532 harvest, 102 old capture)
- Live re-sampled 6 bears from old study, and 33 from new study
- Dead-recoveries through harvest:
  - 15 recovered inside MC
  - 7 recovered outside MC but not in GB
- 7 bears marked in M'Clintock study 2014-2016 sampled in GB 2015-2017

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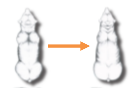
Slide 21

Results – body condition

- All bears except adult males were in better condition (fatter) in 2014-2016 compared to 1998-2000



- <u>No change</u> in condition for adult males

- Why? Your thoughts?

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Slide 22

Results – Reproduction

- What does "reproduction" mean? What do scientists look at?

- Litter size

data from:	<u>1998-2000</u> and	<u>2014-2016</u>
Cubs of the year:	12 family groups	27 family groups
COY litter size:	1.58 COYS in each litter	1.70 COYS in each litter
Yearlings:	11 family groups	18 family groups
Yearling litter size:	1.71	1.61

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Slide 23

Results – Reproduction cont.

- Number of offspring per adult female

<u>1998-2000</u>	<u>2014-2016</u>
COYs:	
0.38 COYs/adult female	0.43 COYs/adult female
Yearlings:	
0.39 yearlings/adult female	0.28 yearlings/adult female

  - Sample size very small to suggest changes over time – only for information

- Number of yearlings per adult female is important because it shows how many cubs-of-the-year survive to be yearlings
  - it is a good measure of reproduction

- Appears MC subpopulation has healthy reproduction

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Slide 24

Results – Survival

- We had limited samples – MC is a small population, few recoveries through harvest, big time gap with no data – and could not explore all possible survival models

- Independent bears > 2 years
- Apparent survival constant at 0.88
- It is a lower estimate, and does not reflect true survival
  (We do not know what happens to bears once they leave MC: they can be dead = are not re-sampled; they also can be alive and are not re-sampled)

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Slide 25

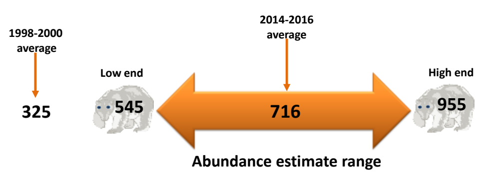
Results – Population growth rate

- Population growth rate indicates males and females increased in abundance since 2000 (recovered from low numbers)
  (growth rate is simply the difference between what is added through births minus the deaths and takes into account how animals survive)
- Male growth rate was stronger than female growth rate which allowed them to recover from overharvest

Slide 26

Results – Abundance

- Assessment of number of bears in MC



- Increased over time

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Slide 27

Results – Interpretation

- MC 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 28

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? Which animals?
    - 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 29

Further Questions

- Do you agree that the number of bears increased over time?
- What did you observe in the bears' body condition over time?
- Are there enough bears to harvest? Are there too few? Too many?
- Is there anything special that you observed and wanted to share with us?
- Where do you agree/disagree with our findings?

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Slide 30

Suggested Harvest Recommendation

- MC 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, and uncertainty.
- Recommend increase in TAH from 12 to 16 bears/year (8 male bears and 8 female bears).

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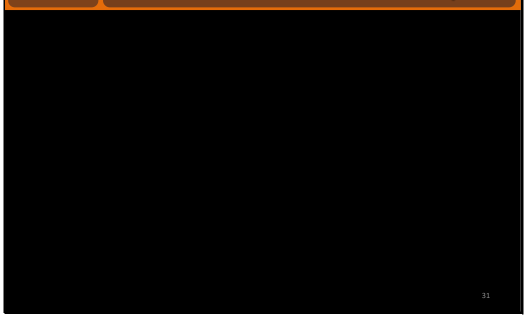
Slide 31

Further Questions? - Thank you



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Appendix 2: Complete Consultation Summary of the M'Clintock Channel Community Consultations

Nunavut Community Consultations on the results from the 2014-2016 M'Clintock Channel Polar Bear Study

October 19-21, 2020

HTOs Consulted:
Cambridge Bay
Gjoa Haven
Taloyoak

Summary of Consultations:

A: Cambridge Bay

October 19, 2020

Start: 18:15 **End:** 22:20

Participants:

Beverly Magsagak - Manager
Bobby Greenley – Chairperson
George Angohiatok – Vice Chair
Peter Evalik – Secretary/Treasurer
Ipeelie Ootoova – Director
Clarence Kaiyogana – director
Mercy Panegyuk – director
Alice Maghagak – director
M. Dyck – GN-DOE
J. Ware – GN-DOE
K. Methuen – GN-DOE
M. Angohiatok – GN-DOE
S. Angulauk – GN DOE
Bobby Klengenberg – KRWB chair

Harvest table and credit discussion:

- The meeting began with introduction of participants.
- GN representatives then discussed harvest table and Up to 1:1 Harvest Management system handout. During meeting/consultation planning, HTO expressed interest to obtain more information on those topics. – Jasmine
- HTO board asked questions about credits and the table. Board was well informed about how the credit exchange worked within the subpopulation.
- Markus explained fractional credits are from 2:1 system

Main presentation:

Background on MC slides:

- GN representatives went over MC history and background to allow HTO representatives to become familiar about past research and management items

- GN representative passed around the biopsy dart to demonstrate how the biopsy method works, pros and cons and limitations of that method.

- **Question: Bobby G:** would you dart both mom and cub if you came across them?

- **Answer Markus** – we'll answer this in the methods very shortly (GN explained that depending on offspring age both mother and offspring would be sampled – no young small bears->COYs in spring, but older offspring-> yearlings).

Community participation slides:

- discussed study design during 2013 consultations, talk with hunters in town – where do bears go, when should we go search. Observers from Cambridge Bay participated in field work.

Study design: reviewed slides; no questions

- **Question Bobby G:** – were there any bears that were marked in 1998-2000 that were marked again in 2014-2016?

- **Answer Markus/Jasmine** – yes

- George: In the mid 1960's, was the first time I went in M'Clintock channel, there was no quota system and there were very very few bears. No signs either. Took a lot to get bears. As the years went on, started noticing more and more bear--Lots of bearded seals around. Big bears are around the bearded seals and feed on them. In the last few years, I've seen many healthy bears, sow and cubs. This year was the very first time in March I saw open water---never seen that in my whole life. Birds were there too. Lots and lots of sign of bear. Pre-2000 started seeing more bear sign. Ten to twenty bearded seals around a single hole, big male bear can get those pretty easy when the seals try to go into a seal hole.

- Bobby K: end of October, near Kent Peninsula, south of Cambridge Bay, polar bears were spotted, which is very rare.

- Beverly – there was one in gravel pit area in June and then another one just a week ago.

- Bobby K – using the multi year ice to come in and near, large floes

Flight path slide:

- Markus explained that weather prevented coverage of MC channel proper. Maybe local knowledge could fill this information in. Maybe with Pam (the contractor for the on-going IQ study on MC and Gulf of Boothia) the IQ study can help answer that question of whether there are a lot of bears in that area in the spring. The flight with Twin Otter was early April, but don't know what's going on in early June.

- Bobby G: they didn't want to have collars which I agree with and when I first got on, they didn't have an ear tag.

- **Question Bobby G**: - Is there anything long term, short term effects of immobilization on the bear?

- **Answer Markus** – There are advances in the drugs—there are reversals now. Immobilize the animal but you can introduce agents that reverse the effects and so the bears recover way faster – within minutes.

- Bobby – so there is nothing left long term effects?

- Markus – Health Canada has looked at how fast the drugs are metabolized and found it's completely safe after 45 days---even before, but they are being conservative. Other studies, by USFish and Wildlife Service did studies examining movement rates, survival rates, reproduction – there were no negative impacts they could find on survival or reproduction. Movement rates were back to 95% of normal after 2 days and 100% after 5 days.

- Jasmine – reversals bind to the drugs and pull them off the receptors so the liver/kidney can process. Bear is awake very fast. Physically, no long term effects, but we have heard concerns about psychological trauma and can't really say about that being a long-term effect? We can't really say. Drugging over and over and over would probably have long term effects---like us if we drank and drank and drank alcohol. Even for the 2-minute darting the bear is not enjoying that event, but the idea is that in order to collect the data, these are the trade offs and what we (as co-managers) are all willing to accept is a personal, ethical question. We find that bears return quickly to where they were sampled and take that to mean that the experience wasn't so bad psychologically that they stay away from where they want to be –their preferred habitat/hunting ground.

- Markus – there are also new release mechanisms for collars so that bears do not have to be handled so often, and release is pre-programmed.

- George – The collars likely don't really affect hunting as much for bigger bears as they do for smaller bears ---trouble to break the ice with their heads

- **Question Peter** – could we not use the Google Earth satellite images and count bears that way?

- **Answer Markus** – very good points and questions: GN has partnered with universities and people are trying to examine just that. Using summer and spring satellite images, there are at times difficulties when there are white rocks – can't tell the difference; a computer program, or algorithm has to be developed, that takes time and patience.

- Jasmine – and this is where big donors comes in---that technology is a good potential, but need money to pay people to work on it and develop it. My understanding is that this is the current obstacle because it takes time and effort to work on developing it and program it properly.

Body condition slides – thoughts on why body condition improved?

- Bobby – did you guys look at weather and see if there were differences in warmth and seals—more seals out basking?

- Markus – We kinda did that with the model where we incorporated sea ice because there is a lot less multi-year ice in MC now….what I've seen was lots of rubble ice and the packed to old ice is gone. What we were thinking and what we proposed in the report, is that the changes in sea ice, not being packed, more leads, more open water was good for seals and therefore temporarily good for bears.

- George: another thing is that when the sea ice freezes and freezes flat, this is not good habitat for bearded seals ---go to rough ice to find the bears cause that's where seals make their lairs.

Reproduction --- explained the slides; no questions

Survival --- explained the slides; no questions

Population growth – explained slides; comment by George about the skinny bear picture from Baffin Bay by some people that made the rounds around the world.

- Markus – That brings up a good point and is maybe a good time to point out part of my job is to gather data and provide information that allows me, Nunavut, and Canada to stand up to those organizations to are showing misinformation about bears. We try to get the word out that bears in Nunavut generally are doing well, and that there are more bears now than there have been since the 1960s.

Abundance – explained slides; also the surrounding uncertainty of the estimate

- **Question Peter** – Where do we want this population to go? Do we let it keep increasing? How do we know? What does an ever-increasing population do to other parts of the ecosystem?

- **Answer Jasmine** – this is the real question and one that community and HTO have to decide.

- **Answer Markus** – had discussions with DFO to try and get some seal surveys so that some of those impacts on other parts of the ecosystem can be answered or at least some data provided. Want to see recent estimates of polar bear abundance coordinated with new seal studies.

- Peter – like ECCC saying polar bears are declining due to climate change ---but polar bears are increasing and increasing even though sea ice is declining—even what you show.

- Markus – These reports for MC and GB are used for SARA and new population assessments; and not all NU populations are doing poorly, but some are not doing well. I should point out that in the recent years ECCC has been supporting Nunavut with the new management plan, and the harvest system.

- **Question Bobby G** – after the tour, when does this end up at NWMB table?

- **Answer Markus** – we will probably put our recommendation to the NWMB for March because deadlines for December are likely already passed by the time we get through the consultations

- **Question Beverly** – have you looked at other species for the bear? Like the invasive species such as beaver, pelican, etc and how they might be affecting bears?

- **Answer Markus** – There are some projects going on like poop and intestine collections and collaborations with other universities that are designed to see how diet is changing with bears. The NWMB has priority meetings every few years---should be coming up next year – HTO or RWO should bring up these questions as priorities because that is how funding might get allocated.

- George – you were saying how difficult it was to count the bears due to weather. When my daughter got at a John Hackett Island (correct location name?) on a pressure ridge –never seen so many bears in one spot. Counted 13 bears--May 2nd. A good percentage were sows with cubs. All moving east on the ridge.

- **Question Peter** – have you thought using a ground survey –in the area that was hard to survey?

- **Answer Markus** – We are starting Lancaster Sound next spring hopefully, what I'm going to do is fly into M'Clintock Channel during the same time for a reconn. I wanna know what is going on in the area and if bears are moving, we are going to sample bears that are moving in and out. there is some uncertainty

- **Answer Jasmine** -- specifically to your point about ground surveys…the issue is that for the survey to work, every bear in the area has to have an equal chance (theoretically) of being sampled. This detection probability is different between an aircraft and ground-based. Unfortunately, the math doesn't know how different those two types of methods are and so we can't combine them without introducing more bias into the model…which increases uncertainty about the estimates even further.

- Markus – a ground survey in some of these areas are also very difficult because you cannot travel easily by snowmachine; get stuck, break equipment and that limits the usefulness of ground survey.

- Monica – the area you talk about there is open water now and maybe there are animals moving in like killer whales ---they chase the seals away. That will change things for the polar bears.

- Markus – Local knowledge like this should drive the IQ research questions. That's what we have to consider in the abundance estimate---think about that ecosystem might change for the bears and how that might affect them—what happens in 5 to 10 years?

- **Question Bobby G**:– these studies were done in 2014-2016; how come these are just now being presented?

- **Answer Markus** – Thanks for this question and it needs to be asked. These biopsy studies that rely on DNA take much longer because the DNA takes 9-10 months to get back and then, for MC, the computer models were difficult with such small samples. Followed by ransomware and Covid. It's been a long road and we appreciate your patience.

- **Question Clarence**– What's your plan if you get MC bears in LS?

- **Answer Markus**—depends on how many we get. If we get many samples, we're gonna try to analyze the complex together MC/GB/LS ---this might give us more information about their movements and that might help improve survival estimate. We did leave it open for collars for the communities in Lancaster Sound. Whenever there is interest by communities if you want to investigate the LS/MC/GB, we can always investigate movement through collars.

- Bobby Klengenberg – thanks for HTOs work and biologists' work. Saw hundreds of polar bear tracks. Maybe HTO could use locals to get information of observations –feed to HTO and biologists. Signs of tracks and information to help feed the understanding of the whole picture; maybe take also photographs as record.

- **Question Ipeelie** – do you have any idea of what proportion of bears are in water versus land? Is there a way to compare the samples between ice and land bears? There are some bears that rarely leave the water, they are found all year in water.

- **Answer Markus** – We try to cover the entire study area, but when there is open water, there are safety concerns so we can't fly over tons of open water. We will dart in water, and can do it, but there is no way to know how long that bear has been in the water, and pilots do not want to fly lots over open water.

- Ipeelie – Reason I was asking is that bears that are in the water eat differently than bears that spend most of their time on land. Wondering if you ever thought of biopsy sampling those versus the land bears? Some bears might end bowhead whales.

- Markus – we use the fat from biopsy samples to see what they're eating but there isn't really a way to know which samples would be from bears that spend a lot of time in the water versus those that spend most time on land.

- **Question Peter** – going back to LS study, you said your biopsy might get MC bears --- if you find that there a lot of MC in LS…would that help increase the TAH?

- **Answer Markus** – I would not be comfortable saying that that would increase the TAH, but if there is more new information, then that could put more information to NWMB and let them decide. But, ultimately, we don't know and we don't know what we'll find.

- **Question Peter** – how do we know there are not lots of bears that were in LS that you missed?

- **Answer Markus/Jasmine** – Ultimately, we don't know that's the plus/minus we have on the abundance estimate here. It is unlikely that hundreds were missed because that is like an entire population. However, there is likely some movement between MC and LS, but we don't know how much.

- Jasmine --- we recommend to not get too hung up on the abundance number, but more focus on what the community is comfortable with ---you know what it's like on the land and what this amount feels like---this range that we've presented.

Does that feel like too many? Just right? Want more? This is big question --- we have an estimate that is useable, though it does have uncertainty.

- **Question Beverly** – we are seeing more grizzlies coming up to island. No idea what that is going to mean in the future. And there are hybrids -what do you even classify those animals as? Grizzly or polar bears?

- **Answer Markus** – we aren't sure because the hybrids are not in the Wildlife Act – they didn't think of these back then when it was written. Lol…what we see right now is evolution on how polar bears came about…but it all also depends on how we view the hybrids and their importance.

Discuss TAH – Markus – the reason we recommend an increase from 12-16 is we are cautious, and the recommendation is based on maintaining the population roughly on where it is right now, but also considering uncertainty. We saw what happened in the past, and we all do not want to go back where this population is overharvested, and a moratorium has to be put in place.

- **Question Clarence** – is it possible to have the IQ study included so that this TAH goes up? If Pam's data is super great, could this TAH come up then?

- **Answer Markus** – at this time, this recommendation is just based on the scientific survey and we can't speak to IQ study since Pam hasn't finished. All information, science and IQ, will go to the NWMB – they will consider all information for decision making.

- **Question Beverly** – have you talked to Wily Nakashook?

- **Answer Markus** – I wanted to but haven't been able to get him.

- **Question Beverly** --- are you coming back for consultations after you've finished this tour and heard from all the communities?

- **Answer Markus** – We were not planning on that, but we're willing to have video conference and answer questions

- Jasmine – we will circulate the notes to make sure that we captured the comments and concerns raised today. Will include all the communities' notes.

- Peter – I would really recommend if we accept this, then we should make it even for every community so each community has the same number of tags otherwise there will be conflict.

- Markus – there are options to work together through the KRWB with other communities that harvest from MC and see if the redistribution of tags can be changed. It is also worth thinking about what is the goal with a management objective – are there too many bears? What is tolerable as a number of bears around? There is uncertainty around the number of bears. If the TAH is increased by a few bears there is a risk we all must be willing to accept that the response of the population might be different from what we expect, and we want to avoid a potential reduction and depletion, like what happened in the 1990s.

- Jasmine – we can only base our recommendation on the survey. That doesn't mean that there can't be a joint submission among HTOS and the GN, but for this meeting right now, the recommendation is based on the science. There are a lot of good points relative to the fairness to communities regarding allocation, what the community wants to do relative to the management of this unit. It is ultimately what the community wants.

- Kevin – Grizzly bear TAH submission to KRWB could be done similarly for polar bears.

- Monica – they want the tags too – the other communities so it will be a hard fight. They want them as much as we do.

- Beverly -- Send the link for the harvest tables *email link sent 10/30/2020*

Meeting ended with parties being appreciative of the visit and the opportunity to discuss these topics and interesting questions.

B: 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.

MC Study Results: Body condition

- Willy: From experience, males during the spring mating season, the males have empty bellies, just snow in there. They are so focused on females.

- Males are also mating that is likely why male body condition did not improve between studies

MC Study Results: Reproduction, Survival, Abundance; no questions

MC Harvest Recommendation: the increase is our GN recommendation from the scientific study. It doesn't mean that it has to be the TAH. It depends what the goal for this population is—what do the communities want? Raising harvest higher carries more risk. This level represents what we think from a scientific study what would maintain this population.

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 it's 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 any more.

- Willy: we don’t see much ice any more.

- 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?

- 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 and watch bears there - 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.

- 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?

- 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 seen?

- **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 Willy**: 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 Willy**: 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.

- Willy: 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

C: Taloyoak

October 21, 2020

Start: 17:45

End: 20:15

<u>Participants:</u>

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

MC study results:

Body condition results: question to board – do you see the improvements in body condition between now and 20 years ago?

- Joe: well, we don't go to MC too much, but what we see are good. Up in Cunningham Bay, we see lots of bear there and they all seem to be in good shape. Did see a subadult that was frozen, dead, and had no fat on it. During darting, do you take a picture of every bear you see/dart? If not, you should. Take a picture of every bear you see and dart – from the top and side. That way you can easily see what kind of shape they're in.

- David A: two years ago, from Gjoa Haven, there were about 5 or 6 males around one female

- Joe: Cape Sydney---where they congregate when they are mating

- Markus: I found most of the breeding pairs in Larsen Sound and tip of King William Island—hanging out in the rough ice around the islands.

TAH recommendation/discussion:

- the GN recommendation is based on how certain we are with the estimate, it takes into account the uncertainty with the survival and abundance and it takes into account to maintain the population at our current estimate of ~700. This doesn't mean that the community has to decide to maintain the population at 700—there may be different management objectives. We've shared the same information with the other communities. The communities have to decide what the management objective will be for the population.

- One thing to keep in mind, every time that the harvest TAH gets higher, there is increased risk for population to down. Depending on what the management objective is, this may be a good thing or not. The objectives must be discussed among the communities. Also have to consider what effects the sea ice changes and environmental changes might have on the bears and their abundance. Any bear that the TAH is being increased is also increasing the risk for the population to decline in numbers. The communities should discuss really how they want to manage this population for the future for Nunavummiut thinking about harvest, and all the other factors such as ecosystem, sea ice, seals, contamination.

- You can bring your requests to the RWOs or you can contact us to help with these requests/questions. We are here to provide information and even after we are gone from here in person, we are still available to chat/help how we can.

- Joe/others: noted that there have been some observations of mothers with 3 cubs, even during the moratorium

- Markus: we didn't see any in MC or GB with 3 cubs

- **Question David**: did you see other animals during your survey –wolf and wolverine?

- **Answer Markus**: we saw 2 grizzly bears, but no wolves or wolverines during that time we were flying.

- Peter Aqqaq: regarding the lower yearling litter size---maybe you see less yearlings because there is a greater chance of running into an adult male now that there are more males in the population.

- Markus: good point. I've found 1 male coy over the years killed over the years. I thought if I saw more then it would be a big impact.

- **Question Joe**: So with MC, are we increasing the TAH?

- **Answer Markus**: the government is recommending an increase from 12 to 16

- **Question Joe**: we have 12 right now?—between Taloyoak, Gjoa Haven, Cambridge Bay? So only an increase of 4 –that's not very much.

- **Answer Markus**: yes, that is what the government is recommending.

- Kevin: to be consistent with other communities, you can make a submission at any time to the KRWB about allocation. That is the responsible body for allocating tags and the NWMB makes decisions on setting the TAHs.

- **Question Joe**: and if we get 16, how long would that be for—like how many years?

- **Answer Markus**: Speaking as a biologist, not only as the GN, you guys should chat with the other communities and decide on the management objective for the population. Decide what you want to do with this population. Is 700 just right? Want more? Fewer? These questions help decide what kind of harvest level you would want. So I can't say for how long the TAH would be set.

- **Question Joe**: what was the TAH before the moratorium?

- **Answer Markus**: it was 32 and it was too high---led to the situation where the population went down to 284-300 bears.

- Jasmine: we provide the scientific estimate based on the survey data but the hunters and communities know what that means practically on the land—what does this ‘number’ we provide mean to hunters using the land? That is the question – do hunters/communities feel comfortable at this level of bears, is that something you would like to maintain.

- Markus: the GN will only have real issues if it conflicts with The Agreement in which it is the government’s mandate to ensure sustainable harvests into the future.

- David: about the distribution of locations of sampling –found that during hunting there are differences in where seals are---seal distribution changing.

- Joe: global warming may be causing more open water and seals in the newer times—why the distribution of bears are changing. Shipping traffic increased.

- **Question Peter Aqqaq**: the GN has a fisheries and sealings department -- Do you compile the seal data with your polar bear data? Would that be a great idea to compile?

- **Answer Markus**: I’ve been wondering about that the last 10 years or so to see what they have. I do not know what they have --- they count the hides they buy and sell, but not sure if that would be able to tell how many seals there are just by counting the pelts that are sold.

- Joe: there was a cruise ship that ran aground a few years ago that could have an effect on the seal population. We didn’t get a report about that---whether there was fuel or other things that leaked.

- **Question Jayko** : Do you do studies in the summer time?

- **Answer Markus**: It depends on the population….when there are areas with both ice and water it is hard to know if bears on land or on the ice and pilots don’t like to fly over open water so those aren’t good study designs…for example MC or GB. In other areas, where it goes completely ice free and almost all the bears are on the shore, we can do the summer time.

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

RE-ESTIMATING THE ABUNDANCE OF A RECOVERING POLAR BEAR SUBPOPULATION BY GENETIC MARK-RECAPTURE IN M'CLINTOCK CHANNEL, NUNAVUT, CANADA,

FINAL REPORT

29 July, 2020

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1. A) EXECUTIVE SUMMARY – ENGLISH

Polar bears (*Ursus maritimus*) are managed across Nunavut, Canada, under a harvest and monitoring system that seeks to ensure harvest is sustainable and identified management objectives are achieved. 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 and provide 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 M'Clintock Channel (MC) conducted 2014 – 2016. Current samples were collected using less-invasive genetic biopsy darting without immobilizing or physically handling bears. Our analyses included data from the 2014 – 2016 biopsy mark-recapture study, live-capture data collected under a mark-recapture study 1998 – 2000, and limited harvest recovery data over the entire period 1998 – 2016.

Results of a closed capture-recapture model, implemented in a Bayesian framework and fitted to data for independent animals (i.e., >2 years), suggest a mean abundance estimate of 716 (95% Credible Interval [CRI] = 545 – 955) for the period 2014 – 2016, indicating that the MC polar bear subpopulation increased from the mean abundance in 1998 – 2000 (325 [95% CRI = 220 – 484] in this study; 284 [SE: ± 59.3] in Taylor et al. [2006]). Both the male and female segment of the subpopulation increased between study periods (1998 – 2000 and 2014 – 2016), likely because of a combination of reduced harvest pressure and improved habitat quality. We used a closed population model because data were too sparse for models with more parameters. Estimates of abundance should be interpreted with caution because they reflect the "superpopulation" (e.g., it includes all bears that use the MC management area, some of which spend time in other subpopulations as well) and likely include positive bias due to violation of model assumptions in addition to the negative bias caused by variation in the capture probability. The overall mean litter sizes for the period 2014 – 2016 were 1.70 (SE = 0.09) and 1.61 (SE = 0.11) for cubs-of-the-year and yearlings, respectively. The calculated mean number of yearlings per adult female declined from 0.39 (SE =

0.10) to 0.28 (SE = 0.06) between both study periods, but MC remains a productive polar bear subpopulation despite that decline and observed sea-ice changes. However, given the sparse reproductive data, we are not able to make any substantive inferences. Polar bear body condition (i.e., relative fatness), assessed in the spring, generally increased between the periods 1998 – 2000 and 2014 – 2016. Estimated apparent survival for bears aged 2 and older was 0.88 (SE = 0.02), although this is likely biased downward due to temporary or permanent movement of individual bears with respect to the study area and limited data availability concerning immigration and emigration. This is corroborated by the increase in abundance estimates across periods indicating the survival rate had to be greater than 0.88 to achieve such substantial growth. When we calculated adult survival using the change in abundance estimates between 1998 – 2000 and 2014 – 2016, our estimated rate of 0.93 suggests that the population growth is positive, with a growth rate of 2%. Overall, our findings align with local knowledge that the MC subpopulation recovered from over-harvest that occurred 1979 – 1999 (average harvest 34 bears/yr). Ecologically, we hypothesize that the observed improvements in body condition and strong population growth over time may be related to spatial and temporal reductions in sea-ice type and quantity providing transient benefits to the MC subpopulation due to lighter ice conditions (i.e., a reduction in thick, multiyear ice) and increased biological productivity. However, climate change is the primary long-term threat to polar bears and the threshold beyond which the MC subpopulation could be negatively affected by continued ice loss, like some other polar bear subpopulations, is currently unknown.

Estimating demographic parameters for the MC subpopulation proved to be challenging because small sample sizes, low probability of recapturing the same bear, and lack of movement information constrained analyses in this study such that the estimates of abundance and survival are almost certainly biased. Our estimates represent only the second time the MC subpopulation has been inventoried under a replicable, structured study design and thus offer many opportunities to learn from these experiences in analysis and data collection methodology. For other wildlife populations or ecosystems that share similarities with MC, we recommend collecting additional reproductive data and genetic samples at approximately the midpoint between the current study and the next comprehensive subpopulation assessment (in Nunavut's case, that would be 5 – 7 years post-field work completion) or increasing study length (e.g. 4 – 5 years), to increase confidence in the survival rates, possible emigration, and reproduction. Further, movement data (satellite telemetry) are recommended. In the absence of satellite telemetry data on polar bear movements, we recommend conducting a meta-analysis to investigate exchange between MC and nearby subpopulations (i.e., Lancaster Sound, and Gulf of Boothia).

1. **B)** ᐊᐅᓚᕐᑎᓂᕐᒧᑦ ᓇᐃᓈᕐᓯᒪᔪᑦ –

ᓇᓄᐃᑦ (*Ursus maritimus*) ᐊᐅᓚᑕᐅᒪᑕ ᓄᓇᕗᓕᒫᒥ, ᑲᓇᑕᒥ, ᐊᖑᓇᓱᐊᖅᑕᐅᓂᖏᓐᓂ ᐊᒻᒪᓗ ᖃᐅᔨᒪᓇᓱᐊᖅᑕᐅᓂᖏᓐᓂ ᐱᓕᕆᔾᔪᑎᒃᑯᑦ ᐋᖅᑭᒃᓯᓯᒪᓇᓱᐊᕈᑎᒋᔭᐅᓪᓗᓂ ᐊᖑᓇᓱᐊᖅᑕᐅᔪᑦ ᐋᖅᑭᒃᓯᒪᑎᑕᐅᑦᑎᐊᕈᓐᓇᕐᑯᓗᒋᑦ ᐊᒻᒪᓗ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓗᑎᒃ ᐊᐅᓚᑕᐅᓂᖏᓐᓄᑦ ᐱᓕᕆᐊᖑᔪᒪᔪᑦ ᐊᑐᖅᑕᐅᔪᓇᕐᑯᓗᒋᑦ. ᐊᓂᒍᓚᐅᖅᑐᓂ ᕐᑯᓕᐅᙱᓚᐅᖅᑐᓂ ᐊᕐᕿᒍᓂ, ᓯᓚᐅᑉ ᐊᓯᔾᔨᖅᐸᓪᓕᐊᓂᖓ ᐅᑭᐅᖅᑕᖅᑐᓕᒫᕐᒥ ᐊᓱᕈᒃᑎᑦᑎᓯᒪᖕᒪᑦ ᓇᓄᐃᑦ ᓇᔪᖅᐸᒃᑕᖏᓐᓂᑦ ᐊᔾᔨᐅᖏᑦᑐᒥᒃ ᐊᒃᓱᐋᓗᕐᓂᕐᑲᕐᓗᑎᒃ. ᐱᓯᒪᔭᐅᖏᓐᓇᕐᑯᓪᓗᒍ ᐊᑐᖅᑕᐅᑦᑎᐊᕈᓐᓇᕐᓂᖏᑦ ᓇᓄᐃᑦ ᐊᒥᓲᓂᕐᑲᕐᕕᒋᔭᖏᑦ ᐃᓚᒋᔭᐅᓗᑎᒃ ᐅᒪᔫᕐᑲᑎᒋᒡᕕᐅᔪᓄᑦ ᐊᒻᒪᓗ ᓄᖑᑉᐸᓪᓕᐊᓗᐊᕐᑯᓇᒋᑦ ᐱᔭᐅᕐᑲᑦᑕᕈᓐᓇᕐᓂᖏᑦ ᐃᓄᖕᓄᑦ, ᖃᐅᔾᔭᓇᓱᐊᕐᓂᕐᒧᑦ ᖃᐅᔾᔭᓇᓱᐊᕐᓂᑦ ᐊᒻᒪᓗ ᖃᐅᔨᒪᒋᐊᖅᓯᓂᒧᑦ ᖃᐅᔾᔭᓇᓱᐊᕈᑕᐅᔪᑦ ᐱᓕᕆᐊᖑᓱᖑᒪᑕ ᖃᐅᔨᓴᖅᓯᔾᔪᑕᐅᓗᑎᒃ ᐊᒥᓲᓂᒃᑲᓂᖏᑕ ᖃᓄᐃᓕᖓᓕᕐᓂᖏᓐᓂᑦ ᐊᒻᒪᓗ ᐊᑐᖅᑕᐅᑦᑎᐊᓕᕋᓗᐊᕐᒪᖔᑕᓗ ᐊᐅᓚᕐᑎᓂᕐᒧᑦ ᐱᓕᕿᐊᖑᔪᒪᔪᑦ ᓇᒪᓈᖅᑕᐅᓗᑎᒃ. ᑖᕝᕗᐅᑯᐊ ᐅᓂᒃᑳᓕᐊᕗᑦ ᓴᕿᓯᒪᔪᑦ ᐊᒥᓲᓂᖏᑕ ᖃᐅᔾᔭᓇᓱᐊᖅᑕᐅᓂᖏᑦ ᓇᓄᐃᑦ ᓇᔪᖅᓯᔪᑦ ᐃᑦᑐᐊᖅᑑᑦ (MC) ᐱᓕᕆᐊᖑᓚᐅᖅᑐᑦ 2014-2016–ᒥ. ᒫᓐᓇᓕᓴᐃᑦ ᖃᐅᔨᓴᖅᓯᔾᔪᑎᒃᓴᑦ ᐱᔭᐅᕐᑲᑦᑕᓚᐅᖅᐳᑦ ᐊᑐᕐᓗᑎᒃ ᕿᒫᑎᑦᑎᓗᐊᕞᓗᖏᓐᓂᖅᓴᐅᓪᓗᑎᒃ ᐆᒪᔫᓂᖏᑕ ᖃᓄᐃᑦᑑᓂᖏᓐᓂᑦ ᑲᐱᔾᔪᑎᕐᑲᕐᓗᑎᒃ ᐊᐅᓚᔪᓐᓇᐃᓕᑎᑕᐅᖏᓪᓗᑎᒃ ᐊᕝᕙᓗᓂᑦ ᐊᒃᑐᐊᔭᐅᓗᑎᒃ ᐱᓕᕆᐊᖑᖏᓪᓗᑎᒃ ᓇᓄᐃᑦ. ᖃᐅᔨᓴᖅᓯᓂᕗᑦ ᐃᓚᕐᑲᒃᐳᑦ ᖃᐅᔨᒪᔾᔪᑎᒃᓴᓂᒃ ᑕᐅᕙᖓᑦ 2014 – 2016–ᒥᑦ ᖃᓄᐃᑦᑑᓂᖏᓐᓂᑦ ᓇᓗᓇᐃᖅᓯᖓᒪᑕ–ᐱᔭᐅᒃᑲᓐᓂᕐᓂᕐᓂᖏᓐᓂᑦ ᖃᐅᔾᔭᓇᓱᐊᕈᑎᑦ, ᐆᒪᑎᓪᓗᒋᑦ–ᐱᔭᐅᔪᑦ ᖃᐅᔨᒪᔪᑎᒃᓴᑦ ᓄᐊᑕᐅᔪᑦ ᐅᑯᓇᓃᓪᓗᑎᒃ ᓇᓗᓇᐃᖅᓯᖓᒪᑕ–ᐱᔭᐅᒃᑲᓐᓂᕐᓂᕐᓂᖏᓐᓂᑦ ᖃᐅᔾᔭᓇᓱᐊᕈᑎᑦ 1998-2000, ᐊᒻᒪᓗ ᑭᒡᓕᓕᓯᒪᔪᑦ ᓈᓄᒃᑕᐅᓯᒪᔪᓂ ᑕᓱᖅᓯᔾᔪᑎ ᖃᐅᔨᒪᔪᑎᒃᓴᓂᒃ ᐊᑐᕐᓂᓕᒫᖓᓂ 1998-2016.

ᓴᖅᑭᓐᓂᖏᑦ ᒪᑐᔭᐅᓯᒪᓕᖅᑐᑦ ᐱᔭᐅᓚᐅᖅᑐ–ᐱᔭᐅᒃᑲᓐᓂᖅᑐᓄᓪᓗ ᐱᓕᕆᔾᔪᑕᐅᔪᖅ, ᐊᑐᓕᖅᑎᑕᐅᓚᐅᖅᓯᒪᖓᒪᑕ ᖃᐅᔨᒪᔾᔪᑎᒃᓴᓕᐅᑦᑎᐊᕈᑎᑦ ᓴᓇᓯᒪᔾᔪᑎᖏᓐᓂ ᐊᒻᒪᓗ ᓈᒻᒪᒃᑎᖅᑕᐅᓪᓗᑎᒃ ᖃᐅᔨᒪᔾᔪᑎᒃᓴᓄ ᐃᒻᒥᑯᖅᑐᓄᑦ ᐆᒪᔪᓄᑦ (ᑐᑭᓕᐅᑎᓗᒍ, >2 ᐊᕐᕿᒍᑦ), ᐃᒫᖑᑐᐃᓐᓇᕆᐊᕐᑲᓂᕋᐃᓪᓗᓂ ᐊᒥᒐᖏᓐᓂᕆᓚᐅᖅᑕᖏᓐᓂᑦ ᒥᒃᓴᐅᓴᒃᑕᐅᓂᕐᑲᕐᓗᑎᒃ 716–ᖑᓂᖏᓐᓂᑦ (95% ᐳᓴᓐᑎᑦ ᓱᓕᑐᐃᓐᓇᕆᐊᕐᑲᕐᓗᓂ ᓇᓪᓕᐊᖑᓕᖕᒑᕋᓱᐊᕐᓂᖓᓂ [CRI] = 545 – 955) ᐊᑐᕐᓂᖓᓂ 2014-2016, ᐅᕐᑲᐅᓯᕐᑲᕐᓗᓂ ᑕᐃᒃᑯᐊ ᐃᑦᑐᐊᖅᑑᑦ (MC) ᓇᓄᖏᑕ ᐊᒥᓲᓂᒃᑲᓐᓂᖏᑦ ᐊᒥᓱᕈᕆᐊᒃᑲᓐᓂᓚᐅᕐᒪᑕ ᑕᒫᙵᑦ ᐊᒥᒐᖏᓐᓂᕆᓚᐅᖅᑕᖏᓐᓂᑦ

ᑕᐅᕙᓂ 1998-2000–ᒥ (325 [95% ᐳᓴᓐᑎᑦ ᓱᓕᑐᐃᓐᓇᕆᐊᖅᑲᕐᓗᓂ ᓇᓪᓕᐊᒡᒍᓕᖕᒑᕋᓱᐊᕐᓂᖓᓂ [CRI] = 220-484] ᑖᒃᑯᓇᓂ ᖃᐅᔨᓇᓱᐊᕈᑎᓂ; 284 [SE: ± 59.3] ᑕᐃᒫᕐ ᐃᑦ ᐊᐅᓪ [2006]). ᑕᒪᒃᑭᒃ ᐊᒡᒍᑎᑦ ᐊᕐᓇᓪᓗᐃᓪᓗ ᖃᐅᔨᓴᖅᑕᐅᔪᑦ ᐊᒥᖂᓂᒃᑲᓐᓂᖕᒋᓐᓂᑦ ᐊᒥᓱᕈᒃᑲᓐᓂᓚᐅᕐᒪᑕ ᐊᑯᓐᓂᖕᒋᓐᓂ ᖃᐅᔨᓴᖅᑕᐅᑎᓪᓗᒋᑦ (1998-2000 ᐊᒻᒪᓗ 2014-2016), ᑕᐃᒪᐃᓕᔾᔪᑎᖃᒃᑐᒃᓴᐅᔪᖅ ᐊᑕᐅᑦᑎᒃᑰᕐᓗᒋᒃ ᖃᑦᓲᓐᓇᕈᓇᐊᖅᑕᐅᓚᐅᕐᓂᖕᒋᓐᓂᑦ ᓇᓐᓄᒃᑕᐅᕙᒃᑐᑦ ᒪᓕᒃᑕᐅᕐᑯᔭᐅᓪᓗᓂ ᐊᒻᒪᓗ ᐱᐅᓂᖅᓴᐅᓕᕐᓂᖓᓄᑦ ᓇᔪᖅᑕᐅᕙᒃᑐᑦ ᐱᐅᓂᖓ. ᐊᑐᓚᐅᕋᑦᑕ ᒪᑐᓯᒪᓪᓗᒋᑦ ᐊᒥᖂᓂᖕᒋᓐᓄᑦ ᐱᓕᓇᒧᑎ ᐱᔾᔪᑎᒋᓪᓗᒍ ᖃᐅᔨᒪᔾᔪᑎᒃᓴᑦ ᓇᓗᓈᕿᓗᐊᓚᐅᕐᒪᑕ ᐱᓕᓇᔾᔪᑎᒃᓴᑦ ᖃᓄᐃᓕᒃᑲᓐᓂᖅᑲᑦᑕᕐᓂᖕᒋᓄᑦ. ᒥᒃᓴᐅᓴᒃᓯᔾᔪᑎᑦ ᐊᒥᖓᒋᓐᓂᖕᒋᓄᑦ ᑐᑭᓕᐅᖅᑕᐅᔭᓇᐊᖅᑲᕐᒪᑕ ᐅᔾᔨᖅᑐᖅᑕᐅᑦᑎᐊᕐᓗᑎᒃ ᐱᔾᔪᒋᓪᓗᒍ ᓴᕿᔾᔮᖅᑎᑦᑎᒻᒪᑕ "ᐊᒥᓱᕐᔪᐊᕉᓗᓂᖕᒋᓐᓂᑦ" (ᑐᑭᓕᐅᑎᓗᒍ, ᐱᖃᓱᐅᔾᔨᖕᒪᑕ ᐃᓅᓐᓇᖕᒋᓐᓂᑦ ᓇᓄᓕᒫᓂᑦ ᐊᑐᖅᑐᓂᒃ ᐃᑦᑐᐊᖅᑑᑦ (MC) ᐊᐅᓚᑕᐅᔪᒥ ᓇᔪᖅᑕᐅᕙᒃᑐᒥ, ᐃᓚᖕᒋᓪᓗ ᑕᐃᒃᑯᐊ ᐃᓚᒋᔭᐅᑲᐃᓐᓇᓱᒡᒋᓪᓗᑎᒃ ᐊᓱᖕᒋᓐᓄᑦ ᐊᒥᖂᓂᒃᑲᓐᓂᐅᔪᓄᑦ) ᐊᒻᒪᓗ ᐱᖃᓱᐅᔾᔨᑐᐃᓐᓇᕆᐊᖅᑲᕐᓗᓂ ᓇᓚᐅᑦᑎᓗᑎᒃ ᐃᓚᐃᓐᓈᕐᓂᕐᒥᑦ ᑕᐃᒪᐃᔾᔪᑎᖃᕐᓗᓂ ᒪᓕᒃᑕᐅᑦᑎᐊᖕᒋᓐᓂᖓᓂᑦ ᐱᓕᓇᔾᔪᑎ ᒥᒃᓴᐅᓴᒃᓯᔾᔪᑎ ᐃᓚᒃᑲᓐᓂᖕᒋᓐᓂᑦ ᐱᐅᓈᖕᒋᓪᓗᓂ ᐃᓚᐃᓐᓈᕐᓂᖅ ᑕᐃᒪᐃᑎᑕᐅᓗᓂ ᐊᔾᔩᖕᒋᓐᓂᖕᒋᓐᓄᑦ ᐱᔭᐅᓂᖕᒋᑕ ᑕᐃᓖᒍᑐᐃᓐᓇᕆᐊᖃᕈᑎᖕᒋᑕ. ᐃᓅᓐᓇᖕᒋᓐᓄᑦ ᐃᕐᓂᐊᒡᒍᔪᑦ ᐊᑎᖅᑕᐃᑦ ᐊᒥᖂᓂᖕᒋᑦ ᐊᑐᖅᑎᓪᓗᒍ 2014-2016 ᐃᒫᑎᒋᐅᓚᐅᖅᐳᑦ 1.70 (SE = 0.09) ᐊᒻᒪᓗ 1.61 (SE = 0.11) ᐊᑎᖅᑕᕐᓄᑦ–ᐊᕐᕋᒍᒥ ᐊᒻᒪᓗ ᐊᕐᕋᒎᔭᐅᔪᓄᑦ, ᐃᒃᐱᒋᑦᑎᐊᕋᓱᐊᕐᓗᒋᑦ. ᓈᓴᐅᓯᓇᐊᒡᒍᔪᑦ ᐊᒥᖂᓂᖕᒋᑕ ᖃᑦᓯᐅᓂᖕᒋᓄᑦ ᐊᕐᕋᒎᔭᐃᑦ ᐊᑐᓂ ᐃᓐᓇᕐᓄᑦ ᐊᕐᓇᓪᓗᓐᓄᑦ ᐅᓄᕈᓐᓃᓇᐊᓚᐅᕐᒪᑕ ᐃᒪᓐᓇᓂᑦ 0.39 (SE = 0.10) ᑎᑭᓪᓗᒋᑦ 0.28 (SE = 0.06) ᑕᒪᒃᑭᖕᒋᓐᓂ ᖃᐅᔨᓇᓱᐊᖅᑕᐅᔪᓂ ᐱᓕᕆᐊᒡᒍᓂᖕᒋᓐᓂ, ᑭᓱᐊᓂ ᐃᑦᑐᐊᖅᑑᑦ (MC) ᐊᓱᕈᒃᑎᑦᑎᖕᒋᒻᒪᑦ ᕿᑐᙵᐅᕈᓐᓇᕐᓂᖕᒋᓂᑦ ᐊᒥᖂᓂᒃᑲᓐᓂᖕᒋᑕ ᑕᒪᓐᓇᐅᓚᓗᐊᖅᑎᓪᓗᒍ ᖃᑦᓲᓐᓇᕈᒃᑲᓐᓂᕐᓂᖕᒋᑦ ᐊᒻᒪᓗ ᖃᐅᔨᒪᒋᐊᖅᑕᐅᓂᖓ ᐃᒪᕙᐅᑉ–ᓯᑯᖓᑕ ᐊᓱᕈᕐᓂᖓ. ᑕᐃᒪᐃᒃᑲᓗᐊᖅᑎᓪᓗᒍ, ᑕᒪᓐᓇᐅᑎᓪᓗᒍ ᓇᓗᓈᕿᓗᐊᕐᓂᖓ ᕿᑐᙵᐅᕐᓂᖕᒋᓐᓄᑦ ᖃᐅᔨᒪᔾᔪᑎᒃᓴᖅ, ᐊᔪᕋᑦᑕ ᑐᑭᖃᑦᑎᐊᖅᑐᓂᒃ ᖃᐅᔨᒪᔾᔪᑎᓕᐅᕆᐊᒃᓴᖅ. ᓇᓄᐃᑦ ᑎᒥᖕᒋᑕ ᖃᓄᐃᓐᓂᖕᒋᑦ (ᑐᑭᓕᐅᑎᓗᒍ, ᖁᓂᓂᓪᓗᐊᑕᖓ), ᖃᐅᔨᓴᖅᑕᐅᔪᑦ ᐅᐱᕐᖕᒑᒃᑯᑦ, ᐊᒃᓲᓂᖅᓴᐅᕙᓚᐅᖅᑐᑦ ᐊᑯᓐᓂᖕᒋᓐᓂ ᐊᑐᖅᑎᓪᓗᒍ 1998-2000 ᐊᒻᒪᓗ 2014–2016. ᒥᒃᓴᐅᓴᒃᓯᔾᔪᑎᑦ ᐆᒪᓂᓇᓱᖕᒋᓐᓂ ᓇᓄᐃᑦ ᐅᑭᐅᖅᑲᓕᕐᓗᑎᒃ 2–ᓂᒃ ᐊᒻᒪᓗ ᐃᓐᓇᐅᓂᖅᓴᐅᓕᕐᓗᑎᒃ ᐃᒫᒡᒍᓚᐅᖅᐳᖅ 0.88 (SE = 0.02), ᑕᒪᐃᒃᑲᓗᐊᖅᑎᓪᓗᒍ ᑕᐃᓐᓇᐃᑦᑐᒃᓴᐅᔪᖅ ᐃᓚᐃᓐᓈᖅᑐᖅ ᐊᒃᐸᓇᐊᓂᖕᒋᓄᑦ ᑕᐃᒪᐃᑲᐃᓐᓇᑐᐃᓐᓇᕋᓗᐊᖅᑎᓪᓗᒋᑦ ᐅᖁᕙᓗᓂᑦ ᐅᑎᔾᔫᔭᓐᓃᖅᑎᓪᓗᒋᑦ ᐃᓛᒃᑯᖓᔪᑦ ᓇᓄᐃᑦ ᖃᐅᔨᓇᓱᐊᖅᑕᐅᑯᑦᒋᔭᖕᒋᓐᓂ ᐊᒻᒪᓗ ᑮᓕᓕᓯᒪᓂᖕᒋᓄᑦ ᖃᐅᔨᒪᔾᔪᑎᒃᓴᑦ

ᐊᑐᓐᓇᐅᔪᑦ ᓇᓕᐊᖕᓄᐊᖅᑕᑦᑕᕐᓂᖕᒋᓐᓄᑦ ᐊᒻᒪᓗ ᓇᔪᒐᓪᓗᐊᑕᕆᓰᖕᒋᓐᓂ. ᓇᓚᐅᑦᑎᓂᕋᐃᔾᔪᑕᐅᖕᒪᑦ ᐊᒥᓲᓂᖅᓴᐅᓕᕐᓂᖕᒋᓄᑦ ᐊᒥᒐᖕᒋᓐᓂᖕᒋᑕ ᒥᒃᓴᐅᓴᒃᑕᐅᓂᖕᒋᓐᓄᑦ ᐊᑐᕐᓂᓕᒫᖕᒐᓂ ᐅᖃᐅᑕᐅᔪᖅ ᐆᒪᑯᑖᖃᑦᑕᕐᓂᖕᒋᑕ ᖃᓄᑎᒋᐅᓂᖕᒋᑦ ᐋᓲᓂᖅᓴᐅᔭᕆᐊᖃᒻᒪᑦ 0.88–ᒥᑦ ᑎᑭᐅᑎᔪᓐᓇᕋᔭᖅᐸᑦ ᑕᐃᒫᑎᒋᐊᓘᒃ ᐊᒥᓱᕈᓂᖕᒋᓄᑦ. ᓈᓴᐅᓯᕆᔾᔪᑎᖃᓕᕚᖕᒐᑦᑕ ᐃᓐᓇᐃᑦ ᐆᒪᑯᑖᖃᑦᑕᕐᓂᖕᒋᓐᓂ ᐊᑐᕐᓗᑕ ᐊᓯᕈᕐᓂᖕᒋᓐᓂᑦ ᐊᒥᒐᖕᒋᓐᓂᖕᒋᑕ ᒥᒃᓴᐅᓴᒃᑕᐅᔪᑎᖕᒋᓐᓂᑦ ᐊᑯᓐᓂᖕᒋᓐᓂ 1998-2000 ᐊᒻᒪᓗ 2014-2016, ᒥᒃᓴᐅᓴᒃᓯᔾᔪᑎᑦᑕ ᐊᒥᓲᓂᕋᐃᔾᔪᑎᖃᕐᒪᑕ 0.93 ᐃᒫᖑᓂᕋᐃᖕᒪᑕ ᐊᒥᓲᓂᖕᒋᑕ ᐊᒥᓱᕈᕐᓂᖕᒋᑦ ᐱᐅᓈᕐᓂᕋᒃᑕᐅᓪᓗᑎᒃ, ᐊᒥᓱᕈᕐᓂᖃᕐᓗᑎᒃ ᐱᕚᓪᓕᐊᓂᓕᖕᒥᑦ 2% ᐳᓴᓐᑎᓂᒃ. ᐃᓘᓐᓇᓕᒫᖕᒋᑦ, ᖃᐅᔨᔭᑦᑕ ᐊᔾᔨᖃᓪᓗᐊᓕᖅᓯᒪᖕᒪᑕ ᓄᓇᓕᖕᓂ ᖃᐅᔨᒪᓂᕆᔭᐅᔪᓄᑦ ᑕᒪᒃᑯᐊ ᐃᑦᑐᐊᖅᑑᑦ (MC) ᐊᒥᓲᓂᒃᑲᓐᓂᖕᒋᑦ ᖃᓄᐃᑦᑐᓐᓃᓚᐅᕐᒪᑕ ᓇᓐᓄᒃᑕᐅᓗᐊᖅᑕᑦᑕᓚᐅᖅᑎᓪᓗᒋᑦ ᐊᑐᓚᐅᖅᑐᓂ 1979-1999-ᒥ (ᐃᒪᓐᓇᑎᒋᐅᒐᔫᓪᓗᑎᒃ ᓇᓐᓄᒃᑕᐅᕙᒃᑐᑦ 34 ᓇᓄᐃᑦ/ᐊᕐᕌᒍᒥ). ᓄᓇᒥᐅᑕᓕᕆᓗᓂ, ᑲᖏᓱᒃᑲᑦᑕ ᖃᐅᔨᔭᐅᓯᒪᔪᑦ ᐱᐅᓯᒃᑲᓐᓂᕈᑎᑦ ᑎᒥᖕᒋᑕ ᖃᓄᐃᓐᓂᖕᒋᓐᓂ ᐊᒻᒪᓗ ᐊᒃᓯᐊᓗᒃ ᐊᒥᓱᕈᕐᓂᖕᒋᑕ ᐱᕈᑦᑎᐊᕐᓂᖕᒋᑦ ᐊᑐᖅᑎᓪᓗᒋᑦ ᐱᕕᒃᓴᖃᕐᓂᑦ ᑐᕌᖕᒐᑐᐃᓐᓇᕆᐊᖃᒻᒪᑕ ᐃᓂᖃᕐᓂᖕᒋᓄᑦ ᐊᒻᒪᓗ ᐱᕕᖃᓗᐊᕈᓐᓃᕐᓂᖕᒋᓄᑦ ᐃᒪᕕᐅᑉ–ᓯᑯᖕᒐᓂ ᑕᐃᒫᖑᒃᐸᑦ ᐊᒻᒪᓗ ᐊᒥᓲᓂᖕᒋᑦ ᕿᓚᒥᐋᓗᕐᓗᑎᒃ ᐱᕖᓪᓕᕈᑎᒃᓴᐅᓂᖕᒋᑦ ᐃᑦᑐᐊᖅᑑᑦ (MC) ᐊᒥᓲᓂᒃᑲᓐᓂᖕᒋᓄᑦ ᑕᐃᒪᐃᑎᑕᐅᓗᓂ ᓵᓐᓂᖅᓴᐅᓕᕐᓂᖕᒐᓄᑦ ᓯᑰᑉ ᖃᓄᐃᓕᖕᒐᓂᖕᒐᑕ (ᑐᑭᓕᐅᑎᓗᒍ, ᓵᕝᓕᒃᑲᓐᓂᕐᓂᖕᒐᓄᑦ ᐃᔾᔪᓂᖕᒐᑕ, ᓯᑯᑐᖅᑲᓗᒃ) ᐊᒻᒪᓗ ᐊᒃᓰᓂᖅᓵᓕᕐᓂᖕᒐ ᐅᒪᔪᑦ ᕿᑐᙵᒋᐅᕈᓐᓇᕐᓂᖕᒋᑦ. ᑕᐃᒪᐃᒃᑲᓗᐊᖅᑎᓪᓗᒍ, ᓯᓚᐅᑉ ᐊᓯᔾᔨᖅᐸᓪᓕᐊᓂᖕᒐ ᐱᓪᓗᐊᑕᐅᖕᒪᑦ ᐊᑯᓂ–ᑕᐅᕝᕙᖕᒐᑐᖅᑲᒃ ᓯᕝᕋᓇᖅᑎᑦᑎᔪᖅ ᓇᓄᕐᓄᑦ ᐊᒻᒪᓗ ᐱᒋᐊᕐᕕᒋᑐᐃᓐᓇᕆᐊᖃᓕᕐᓗᓂᐅᒃ ᐅᖕᒐᑕᓄᑦ ᐃᑦᑐᐊᖅᑑᑦ (MC) ᐊᒥᓲᓂᒃᑲᓐᓂᖕᒋᑦ ᐱᐅᓈᖕᒋᑐᒃᑯᑦ ᐊᒃᑐᖅᑕᐅᓂᖅᑐᐃᓐᓇᕆᐊᖃᓕᕐᒪᑕ ᓯᑯᖃᕈᓐᓃᖅᐸᓪᓕᐊᑐᐃᓐᓇᖅᐸᑦ, ᑕᐃᒪᓐᓇᑦᑕᐅᖅ ᐊᓯᖕᒋᑎᑐᑦ ᓇᓄᐃᑦ ᐊᒥᓲᓂᒃᑲᓐᓂᖕᒋᑕ, ᒫᓐᓇ ᖃᐅᔨᒪᔭᐅᖕᒋᒪᑕ. ᒥᒃᓴᐅᓴᒃᓯᓂᖅ ᐅᓄᖅᓯᕙᓪᓕᐊᓂᓕᕆᓂᖅ ᖃᓄᐃᓕᕙᓪᓕᐊᖅᑕᑦᑕᕐᓂᖕᒋᓐᓄᑦ ᐃᑦᑐᐊᖅᑑᒥ ᐊᒥᓲᓂᒃᑲᓐᓂᖕᒋᑕ ᓇᓗᓇᐃᖅᓯᓚᐅᕐᒪᑕ ᐱᓕᕆᐊᕆᓇᓱᐊ]ᒡᒐᕆᐊᖅᑲᕐᓂᖕᒋᓐᓂᑦ ᐱᔾᔪᑎᒋᓪᓗᒍ ᒥᑭᔪᐋᓗᓂᖕᒋᓄᑦ ᖃᐅᔨᓴᒐᒃᓴᐃᑦ ᐊᖕᒋᓂᖕᒋᑦ, ᐱᔭᐅᒃᑲᓐᓂᖕᒋᑐᐃᓐᓇᕆᐊᖃᕐᓂᖕᒋᓄᑦ ᐱᒃᑲᓐᓂᖅᑕᐅᒐᔭᕐᓂᖕᒋᑦ ᑖᓐᓇᑦᑕᐃᓐᓇᐅᑉ ᓇᓄᑉ, ᐊᒻᒪᓗ ᐱᑕᖃᖕᒋᓐᓂᖕᒐᓄᑦ ᓇᓕᐊᖕᓄᐊᕐᓂᖕᒋᑕ ᑐᓴᐅᒪᔾᔪᑎᒃᓴᐃᑦ ᓄᖃᒃᑎᑦᑎᓱᖑᒪᑕ ᖃᐅᔨᓇᓯᐊᕐᓂᕐᒥᑦ ᑕᑦᓯᒪᓂ ᖃᐅᔨᓇᓯᐊᕐᓂᕐᒥ ᓰᕐᓗ ᑕᒪᒃᑯᐊ ᒥᒃᓴᐅᓴᒃᓯᔾᔪᑎᑦ ᐊᒥᒐᖕᒋᓐᓂᖕᒋᓐᓂᑦ ᐊᒻᒪᓗ ᐆᒪᑯᑖᖃᑦᑕᕐᓂᖕᒋᓐᓂᑦ ᐃᒫᐸᓗᓪᓚᕆᐅᖕᒪᑕ ᓇᓗᓇᖕᒋᑦᑎᐊᕐᓗᑎᒃ ᐃᓚᐃᓐᓈᕐᓂᖕᒋᑦ. ᒥᒃᓴᐅᓴᒃᓯᓂᕆᔭᕗᑦ ᑭᒡᒐᖅᑐᐃᖕᒪᑕ ᐊᐃᑉᐹᓂᑐᐊᖅ ᐱᕕᖃᕐᓂᕐᒥ ᐃᑦᑐᐊᖅᑑᒥ ᐊᒥᓲᓂᒃᑲᓐᓂᕆᔭᐅᔪᑦ ᓈᓴᖅᑕᐅᓚᐅᕐᒪᑕ ᐊᑐᖅᑕᐅᓕᖅᑭᒍᓐᓇᕐᑯᓪᓗᒋᑦ,

ᐋᖅᑭᒃᓱᖅᑕᐅᓯᒪᔪᑎᒃ ᖃᐅᔨᓇᓱᐊᕐᓂᐅᑉ ᓴᓇᓯᒪᓂᖓ ᐊᒻᒪᓗ ᑕᐃᒪᐃᓂᖓᓄᑦ ᐊᒥᓱᓂᒃ ᐱᓕᕆᕖᒃᓴᐅᓕᖅᑎᑦᑎᓪᓗᓂ ᐃᓕᓐᕖᒃᓴᐅᓂᖓᓂᑦ ᑕᒪᒃᑯᓂᖓ ᐱᓕᕆᐊᖑᓯᒪᔭᓂᑦ ᖃᐅᔨᓇᓱᐊᖅᑕᐅᓯᒪᔭᓂᑦ ᐊᒻᒪᓗ ᖃᐅᔨᒪᔭᑎᒃᓴᐃᑦ ᓄᐊᑕᓯᒪᓂᖏᓄᑦ ᐱᓕᕆᔾᔭᓯᐅᓲᓂᑦ. ᐊᓯᖏᓐᓄᑦ ᐆᒪᔦᑦ ᐊᒥᓲᓂᖏᓄᑦ ᐅᑦᑎᓗᓂᑦ ᐆᒪᔫᖃᑎᒋᓐᕖᐅᔭᓂ ᐱᖃᖃᑎᖃᒃᑐᓂᒃ ᐊᔾᔨᓪᓗᐊᐸᓗᖏᓐᓂᑦ ᐃᑦᑐᐊᖅᑑᑦ (MC), ᐊᑐᖅᑕᐅᖁᔾᔨᒍᑦ ᓄᐊᑦᑎᖁᔾᓪᓗᑕ ᐃᓚᒃᑲᓐᓂᖏᓐᓂᑦ ᕿᑐᙵᐅᕈᓐᓇᕐᓂᖏᓐᓄᑦ ᖃᐅᔨᒪᔾᔭᑎᒃᓴᓂᒃ ᐊᒻᒪᓗ ᐆᒪᔫᓂᖏᑕ ᖃᐅᔾᔨᖅᑕᐅᔾᔭᑎᒃᓴᖏᓐᓂᑦ ᑎᑭᐅᒪᐸᓪᓗᑎᒃ ᕿᑎᓪᓗᐊᐸᓗᐊᓄᑦ ᐊᑯᓐᓂᖏᓐᓂ ᒫᓐᓇᕋᑕᖅ ᖃᐅᔾᔮᖅᑕᐅᓚᐅᖅᑐᓂ ᐊᒻᒪᓗ ᑭᖑᓪᓕᕐᒥ ᑕᒪᐃᓐᓂᑦ ᐊᒥᓲᓂᒃᑲᓐᓂᓇᔭᐅᔭᓂᑦ ᖃᐅᔾᔮᖅᓯᔭᕐᑲᓕᕐᓂᖅᐸᑦ (ᓄᓇᕗᒻᒥ ᐱᓕᕆᐊᖑᔭᓂ, ᐃᒫᖑᒐᔭᖅᐳᑦ 5-7 ᐊᕐᕌᒍᓂ ᓱᕗᓂᖓᒍ–ᑕᖅᑳᓂ ᐃᖃᓇᐃᔭᖑᒐᔭᑐᓂ ᐱᔮᓘᒃᓯᔭᖃᕋᓱᐊᕐᓂᖓᓂ) ᐅᕙᓪᓗᓂᑦ ᐊᑯᓂᐅᓂᖅᓴᐅᓕᖅᑎᑕᐅᒥᐊᕐᓗᓂ ᖃᐅᔨᓇᓱᐊᕿᐅᓱᑦ ᐊᑯᓂᐅᓂᓇᓱᖓ (ᑐᑭᓕᐅᑎᓗᒍ 4-5 ᐊᕐᕋᒍᓄᑦ), ᐊᒃᓲᓂᖅᓴᐅᓕᖅᑎᒥᐊᕐᓗᒋᑦ ᖁᓚᕐᓇᖏᑦᑎᐊᕐᓂᖏᑦ ᐆᒪᑯᑖᖅᑲᑦᑕᕐᓂᖏᑕ ᖃᓄᑎᒋᐅᓂᖏᑦ, ᐊᓯᐊᓄᐊᑐᐃᓇᓇᐊᖅᑲᕐᓂᖏᑕ, ᐊᒻᒪᓗ ᕿᑐᖕᐅᖃᑦᑕᕐᓂᖏᑕ. ᓲᓕᒃᑲᓐᓂᖅ, ᓇᓕᐊᙵᓄᐊᕐᓂᖏᑕ ᖃᐅᔨᒪᔾᔭᑎᒃᓴᖏᑦ (ᖃᖓᑦᑕᖅᑎᑕᐅᓯᒪᔾᒃᑯᑦ ᑎᑎᖅᓯᕙᓪᓕᐊᔭᑎᑦ) ᐊᑐᖅᑕᐅᖁᔭᐅᕗᑦ. ᐱᑕᖃᒃᑎᓐᓇᒍ ᖃᖓᑦᑕᖅᑎᑕᐅᓯᒪᔾᒃᑯᑦ ᑎᑎᖅᓯᕙᓪᓕᐊᔭᑎᑦ ᖃᐅᔨᒪᔾᔭᑎᒃᓴᓂᒃ ᓇᓄᐃᑦ ᓇᓕᐊᙵᓄᐊᕐᓂᖏᓐᓂᑦ, ᐊᑐᖅᑕᐅᖁᔾᔨᒍᑦ ᐱᓕᕆᐊᖑᖁᓪᓗᒋᑦ ᖃᐅᔨᒪᔾᔭᑎᒃᓴᓕᐅᕐᓂᖅ ᖃᐅᔨᓇᓱᐊᖅᑕᐅᖁᓗᒍ ᑕᐅᖅᓯᕐᓃᑦ ᐅᑯᓇᓂ ᐃᑦᑐᐊᖅᑑᑦ (MC) ᐊᒻᒪᓗ ᖃᓂᒋᔮᓂᑦᑐᑦ ᐊᒥᓲᓂᒃᑲᓂᖏᑦ (ᑐᑭᓕᐅᑎᓗᒍ, ᐸᓂᖅᑐᑉ ᑲᖏᖅᓘᐊᓂ, ᐊᒻᒪᓗ ᐃᑭᕋᓴᐅᑉ ᐃᒪᖓᓂ).

1. C) KAVAMALIQINIRNUT NAINAAQHIMAJUQ –

Nanuit (*Ursus maritimus*) munariyauyut tamainni Nunavunmi, Kaanatami, angunahuarniqmut munariniqmulu qiniqtut naunairiami angunahuarniq munariyauyuq ilitariyauyuqlu munariniqmut piyangit. Taimaa 10nik ukiunik, hilaup aadlangurninnga tamainni Ukiuqtaqtumi aadlanguqtitait nanuit nayugangit aadlatqiiktumik nampanik. Pihimagiami nakuuyumik nanuit amihunik ilagiyanganik avatinganik tuniyuqlu inuujjutikhangit Inungnut, nalunaqtunik naunaiyainiq munarininnganiklu piyait naunaiyariami amihunik qanurittaakhaanik taimaalu munarininngit piliqtait. Hamani uqaqtavut qanurittaakhaanik amihuuninnginnik naunaiyainiq nanuqnut nayugangit Ittuaqtuuq (MC) havaktait 2014-2016. Nutaat uuktuutingit katitiqtauyut aturhutik mikitqiamik-pittailiniq ihariagiyainnik niqinginnik piiyaqtauniq kapuqtauyut nutqaqtihimaittumik akhuraalukluuniit pilugit nanuit. Ihivriurutivut ilaliutihimayuq nampangit uumannga 2014-2016 niqinginnik piiqtauniq naunaiqtait piffaarhugit nanuit naunaiyainiq, tuqutihimaittumik piplugit nampangit katitiqtait uumani naunaiyainiq piffaarhugit naunaiyainiq 1998-2000, kikliqaqtumiklu angunahuarniq piffaarninnga nampangit tamainni uumani 1998-2016.

Qanurittaakhaanik umikhimayumik piyait piffaaqtait uuktuutigiplugu, iliuraqtuq uuminnga Nampanik ihivriuqniq tunngavinga ihuarhaqtauyuqlu nampangit inmikkuuqtunut huradjat (ukunatitut, >2 ukiunik), piyuq piqarninnganik itqurnarutauyuq uuminnga 716 (95pusantmik Itquumayuq Nutqarninnga [CRI] = 545 – 955) uumunnga 2014-2016, naunaiqtait tamna MC nanuit amihuuninngit angikliyuumiqtuq uumannga amihuuninnganik uumani 1998-2000 (325 [95pusantmik CRI = 220 – 484] uumani naunaiyaininngani; 284 [SE: ± 59.3] uumani Taylor aadlallu. [2006]). Tamarmik anguhalluk arnallatlu ilagiyanga uuminnga amihuuninngit angikliyuumiqtuq naunaiyaqtillugit (1998-2000 uumanilu 2014-2016), aadlatqiiktumik ikikliyuumiqtuq angunahuarniqmut akhuurniq ihuaqhaqhimayuqlu nayugangit qanurittaakhaanik. Atuqtugut qaffit inuuyut angikliyuumiqtut tuqutut uuktuutigiplugu taimaa nampangit piqalluanginmat uuktuutikhamut amihunik kikliqarninnga. Itqurnarninnga amihuuninnganik pipkaijjutauyukhaq qayagilugit taimaa naunaiqmata “amigaininnga” (ukunatitut, ilaliutikmata tamaita nanuit atuqtait MC munarininnga, ilangit nayuqpaktut aadlani amihuuninngit ukuatlu) ilaliutiniaruknaqhiuq nakuuyumik ihuittumik piyuq ulapiqutiyuq uuktuutimut maliktakhangit unalu nakuungittumik ihuittumik pipkaijjutauyuq aadlatqiininnganik pigaangamitkik. Tamainnit nanunnuangit aktikkulaangit uumunnga 2014-2016 ittuq 1.70 (SE = 0.09) unalu 1.61 (SE = 0.11) nanunnuangit-ukiungani unalu atauhiqmik ukiulik, inmikkut. Naunaiyarhimayuq qaffiuyut atauhiqmik ukiulik atauhiqmut arnallakmut mikhiyuq uumannga 0.39 (SE = 0.10) uumunnga 0.28 (SE = 0.06) tamarmiknit naunaiyaininnganik, kihimi MC nakuuyumik piyuq nanuit amihuuninngit humaangittuq mikhiyuq qun’ngiaqtauyuqlu tariup hikunga aadlangurniq. Kihimi, tuttumik nanunnuaqarninnganik nampangit, piliulimaittugut ihariagiyauyumik ihumagininngit. Nanuit timingit qanurittaakhaanik (ukunatitut, puvalaniq), naunaiyarhimayuq upin’ngakhami, angikliyuumiqtuq uumani 1998-2000 uumanilu 2014-2016. Itqurnarutauyut naunaittuq inuujjutingit nanuqnut ukiulgit 2mik avatqumayuqluunit 0.88 (SE = 0.02), taimaa pilimaittuq ihuittuq mikhiyuq tadjakaffukmut ingilrainnaqtullu nanuit naunaiyaininnganut kikliqaqtumiklu nampangit piqarninnga piyuq tikittunik nuutiqtirninngalu. Una naunaiqtauyuq angikliyuumiutinganik amihuuninnganit itqurnarninnga tamainni naunaiyaiyuq inuujjutingit nampangit angitqiyauyukhaq uumannga 0.88 pigiami angiyumik angikliyuumirniq. Taimaa naunaiyarmatku angayukhiuyut inuujjutingit aturhugu aadlangurninnga amihuuninnganik itqurnarninnga uumani 1998-2000 uumanilu 2014-2016, itqurnarutauyut nampavut uuminnga 0.93 pitquyait amihuuninnga angikliyuumiutinga nakuuyuq, piqarhuni angikliyuuminnga nampanga 2pusantmik. Tamainnit, naunaiqtavut aadjikutariyaa nunallaani ilihimaniq tamna MC amihuuninngit piffaaqtait amihumik angunahuarniq piyuq uumani 1979-1999 (angunahuarninnga 34 nanuqnik/atauhiqmi ukiumik). Avatininnganut, ihumagiyaqqut qun’ngiaqtauniq ihuarhiyut timinginnik akhuraaluklu amihuuninnga angikliyumiqtuq taimaa piyuq inikhanganik qangarnitamik ikikliyuumiqtuq tariup hikunga qanurittaakhaanik qanuraaluklu tuniyuq tadjakaffuk ikayuutauyuq uumunnga MC amihuuninngit pikmat uumannga tualihimayuq hikunga (ukunatitut, ikikliyuumiqtuq hilikninnga, amihunik ukiut hikunga) unalu angikliyuumiqtuq inuujjutinganik qanurittaakhaanik. Kihimi, hilaup aadlangurninnga hivulliutinga akuniraalukmik qayangnarutauyuq nanuqnut aullaqtirininnga uumannga MC amihuuninngit nakuungittumik ayurhautipkaiyuq hikuirninnganit, taimaatut ilangit aadlat nanuit amihuuninngit, tadja naluyait.

Itqurnarutiyuq piyuq amihuuninnganik kiklikhangit uumunnga MC amihuuninngit naunaiqtuq akhuurutauyuq taimaa mikkait uuktuutingit aktikkulaangit, piqalluanginmat piniaruknaqhiyuq piffaarumitkut tamna piyaraluangit nanuq, piqalluanginmallu ingilrarninnga naunaitkutingit pitquyauyuq naunaiyainiq uumani naunaiyaqtamiknik taimaa itqurnarninnga amihuuninnganik inuujjutingalu taimaa ihuittuq. Itqurnarutikput piyaa tuglianganik MC amihuuninngit naunaiqtauyuq uumani aadjikutaliurhimayuq, ihuarhaqhimayuq naunaiyaininnga piliurninnga talvuuna tuniyuq amihunik pivikhaqautikhaq ayuiriami tahapkunanit atuqtamiknik naunaiyaininngani nampanganiklu katitiqtut piplugu. Aadlanut huradjat amihuuninngit avatingaluuniit atuqtait aadjikutariikninnga uumunnga MC, katitiquyavut aadlanik nanuliurniqmut nampangit unalu auminganik uuktuqtut qitqani uumannga nutaamit naunaiyainiq aippaangalu iluittuq amihuuninngit naunaiyainiq (Nunavutimi, inniaqtuq 5-7 ukiunik maniqqamungaqtinnagu havaanga iniqtaukpat) angikliyuumirluguluuniit naunaiyaininnga qanuraaluktut piyakhaq (ukunatitut 4-5 ukiunik), angikliyuumiriami ilihimaninnga inuuyunik nampanginnik, unaluuniit ahinunngauyut, nanuliurniqlu. Unalu, ingilraninnga nampangit (saatalaitkut nipiliurniq tunigiamilu taiguqtanginnik) pitquyauyuq. Piqangitkumi saatalaitkut nipiliurniq tunigiamilu taiguqtanginnik nampangit nanuit ingilraninnginnik, pitquyavut pigumik ihivriurninnga nampanganik ihivriuriami himmautingit uumannga MC qanittullu amihuuninngit (ukunatitut, Aqqusiriaq, uumanilu Kangirłurulukmilu).

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, species' biology (Gibbs 2008), and available resources. 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 increases the probability of meeting management objectives and reduces the severity of potential negative outcomes (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 at the top of the Arctic food chain and depend 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 in the future (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). There is not currently empirical evidence for declines in global abundance due to sea-ice loss (Regehr et al. 2016). However, accurate assessment of such 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, 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 on-going research and monitoring efforts on polar bears to date, reliable and updated abundance and demographic information about all subpopulations is still lacking (Obbard et al. 2010, Vongraven et al. 2012, Durner et al. 2018). Polar bear research is expensive and logistically challenging, especially for management jurisdictions that oversee more than one subpopulation. 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 and management 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 and priorities (Hamilton and Derocher 2018) along with available resources. Here we present findings from a 2014 – 2016 monitoring study to re-estimate abundance of the M'Clintock Channel (MC) polar bear subpopulation.

M'Clintock Channel is entirely managed by Nunavut, Canada (Figure 1) and an initial physical mark-recapture study was carried out from 1973 – 1978 (Furnell and Schweinsburg 1984) for both MC and the adjacent Gulf of Boothia (GB) subpopulation together as a single demographic unit. The total abundance estimate for both areas was 1081 bears. The estimate was known to be biased by non-representative sampling and was subsequently increased to 900 for GB and 900 for MC based on back-calculations to determine abundance levels that would be necessary to sustain the existing subsistence harvest levels (Aars et al. 2006, Taylor et al. 2006) along with local indigenous knowledge.

In the mid-1990s, the MC estimate was revised downwards to 700 based on hunter reports of reduced densities of polar bears (Aars et al. 2006, Taylor et al. 2006). M'Clintock Channel and GB 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), and Inuit knowledge about how local conditions may influence the movements of polar bears (Keith et al. 2005). Genetic analyses based on microsatellite data also suggested some level of differentiation between the MC and GB subpopulations, although the magnitude of population structuring was higher among females than males (Campagna et al. 2013). Past harvests in MC of 34 bears/year from 1979 – 1999 were considered unsustainable (Taylor et al. 2006), resulting in a harvest moratorium from 2001/2002 – 2003/2004 and a reduced harvest of 3 bears annually until 2015. Prior to the current study, the most recent estimate of abundance for the MC subpopulation was 284 bears (SE: ± 59.3) from a physical mark-recapture study conducted 1998 – 2000 (Taylor et al. 2006). In recent decades the subpopulation has been managed to achieve recovery, and local knowledge indicates that more bears have been seen in the 2000s by Gjoa Haven and Taloyoak hunters during their travels across the sea ice (Dyck personal communications with hunters during consultation meetings 2013). This perceived increase in abundance resulted in an increase in the annual harvest from 3 to 12 bears at a 2:1 male to female harvest sex ratio, beginning with the 2015/2016 harvest season.

Nunavut's polar bear co-management system is based on memoranda of understanding (MOU)[1] developed between each community's Hunters and Trappers Association and the government. These MOUs lay out harvest, management and research aspects for each polar bear subpopulation. Under the existing MOU that was co-signed by all parties in 2005, the Government of Nunavut (GN) committed to a new population study for MC. The new study had the objective to estimate the current subpopulation size and composition, and to compare those results to the former study so that this information would be available to responsible management authorities for decision-making. In addition, we sought to obtain data that would provide estimates on survival and reproductive parameters in order to allow population viability analyses. Lastly, by implementing a research method that was minimally invasive but supported by local communities and stakeholders, we sought to evaluate whether genetic mark-recapture can be a useful alternative in population monitoring (Vongraven and Peacock

[1] The MOUs were replaced by the Nunavut Polar Bear Co-Management Plan in September 2019

2011, Vongraven et al. 2012). To address these objectives, we conducted a genetic mark-recapture study from 2014 – 2016.

3. STUDY AREA

The current management boundary for the MC subpopulation (Figure 1) is mainly based on telemetry data for adult female bears that were fitted with radio-collars in adjacent subpopulations, and tag returns from harvested bears (Schweinsburg et al. 1982, Bethke et al. 1996, Taylor et al. 2001). This boundary has also been supported by recent genetic analyses (Campagna et al. 2013, Malenfant et al. 2016) although its validity has been questioned by Inuit (Keith et al. 2005). The MC study area (about 495 000 km^2 including land mass, or 140 000 km^2 of sea-ice; Barber and Iacozza 2004, Hamilton and Derocher 2018) is bound by Victoria Island to the west, Prince of Wales Island to the north, Boothia Peninsula to the east, and the Nunavut mainland to the south (Figure 1). These land barriers are believed to restrict bear movement in and out of the study area. A detailed description of the physiography, currents, and sea ice of the region can be found in Schweinsburg et al. (1981).

Over the past 20 – 30 years, there has been a change in sea-ice quantity and composition. Multi-year sea ice has declined and been replaced by annual ice (Schweinsburg et al. 1981, Rothrock et al. 1999, Comiso 2002, Barber and Iacozza 2004, Keith et al. 2005, Howell et al. 2008, 2009, Sou and Flato 2009, Perovich et al. 2018, Richter-Menge et al. 2018, Environment and Climate Change Canada 2019). This has resulted in a smoother sea-ice platform interspersed with long pressure ridges, with rougher multi-year ice generally limited to localized areas (i.e., M'Clintock Channel proper; Dyck pers. observations). For most of the year, the sea is completely ice covered except for a few small polynyas that attract seals, polar bears, and other species (Hannah et al. 2009, Stirling 1997). From approximately mid-June to July, wide cracks form and extend for miles, providing haul-out habitat for ringed (*Pusa hispida*) and bearded seals (*Erignathus barbatus*) and thus, good foraging habitat for polar bears. From August to early October, much of the sea ice disappears in the southern and eastern portion of the study area, allowing shipping traffic along the Northwest Passage route (Stewart et al. 2007, Howell et al. 2008, 2009, 2013a, Analyse and Strategi 2011). Currently, some multi-year ice remains in M'Clintock Channel proper year-round – ice that originates and is pushed south from the Queen Elizabeth Islands and M'Clure Strait (Howell et al. 2008, 2013b). How important the contemporary remaining summer multi-year ice in M'Clintock Channel proper is to MC polar bears is currently unknown.

4. METHODS

Sampling – field collections

Our study design followed that of the previous physical mark-recapture study conducted in MC between 1998 – 2000 (Taylor et al. 2006; Figure 2); however, it did not involve the immobilization and physical handling of bears. Inuit co-management partners in Nunavut expressed their 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 presumed low densities of bears (Hamilton and Derocher 2018) and the vast study area, genetic mark-recapture was chosen as the method 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)). 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 (see section “Genetic analysis”). 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 to the polar bear harvest lab so that age, gender and various other variables can be used in any ecological or demographic assessment (Nunavut Wildlife Act, SNu 2003).

We initially intended to begin field work in early April, but poor spring weather forced us to wait until late April to early May each year between 2014 and 2016. Field work usually was completed by mid-June. Approximately 80% of the entire MC study area was searched every year though poor weather and unsafe flying conditions prevented us from searching the entire study area during each field season, and we were not able to sample M'Clintock Channel proper in any year. In mid-April 2016, we used a Twin Otter for a reconnaissance flight over M'Clintock Channel proper to assess bear presence and sign. This allowed us to infer whether this portion of the study area potentially contained animals that were unlikely to be exposed to sampling effort unless they moved into areas that were searched by field crews.

Searches for bears were conducted at approximately 100 – 120 m above sea level, and at average speeds between 120 – 150 km per hour. Search areas were initially discussed with hunters and local Hunters' and Trappers' Associations during pre-study consultation meetings to gain insight about sea-ice conditions and bear distribution. Also taking past capture locations (Taylor et al. 2006) into account, we searched the sea ice, adjacent coastal areas, and small islands of Coronation Gulf, Dease Strait, Victoria Strait, Franklin Strait, James Ross Strait, Larsen Sound, Rae Strait, and Queen Maud Gulf during 2014 and 2015 (Figure 1). We decided to forego the Coronation Gulf and Queen Maud Gulf areas in 2016 because we observed very low bear activity and presence during our survey flights, and local knowledgeable hunters also indicated and confirmed that bears are rarely seen in those areas.

In order 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 were spaced further apart (i.e., 11 – 16 km), or closer to each other (i.e., 7 – 10 km), respectively. In that fashion, we were able to cover large sections of the study area efficiently (Figure 3). We decided to fly our survey transects from east to west and vice versa whenever possible (e.g., perpendicular to suspected density gradients based on past capture and 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 from the rump area at an approximate distance (or altitude) of 3 – 7 m using a biopsy dart (5CC Polar Bear Biopsy DNA Dart, Pneu-Dart Inc., Williamsport, PA). All bears except cubs-of-the-year (C0) were sampled. Cubs-of-the-year in early spring are still small and easily confused (Atkinson and Ramsay 1995, Robbins et al. 2012), so we decided not to dart C0s 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 are retrieved without physically handling a bear (see Appendix A for images). The effectiveness of these darts for sampling polar bears has been previously demonstrated (Pagano et al. 2014, SWG 2016, Dyck et al. 2020). The darts are quick and easy to use and require less pursuit time of bears than during 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 sampling 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.

We recorded the date, time, location of each observed bear (or group of bears), body condition based on aerial inspection using a subjective standard fat index (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 (C0, yearling (C1), 2-year old, subadult, adult) and field sex both with a confidence qualifier (a = high confidence; b = low confidence). Field age class and sex where assessed remotely from the helicopter at altitudes between 3 – 7 m by the same observer. When we encountered mothers and their dependent offspring we distinguished C0s, C1s, and 2-year old bears based on their size and physical features (e.g., blood or fecal/urine stains, scars) or their behavior 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 determine sex and age class (SWG 2016, Laidre et al. 2020).

When field age class and sex 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 (confidence classifier “b”) then we also noted what this bear could be as alternative – in this case “maybe a young subadult male”. We used genetic results to confirm the field-recorded sex and age classes. 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 impede detection (e.g., sea-ice type: flat, intermediate, rough multi-year ice).

Our work combined data collected during the genetic biopsy sampling sessions from 2014 – 2016, considered the *late period,* and data from the previous capture-mark-recapture study conducted 1998 – 2000, or the *early period*.

Sampling – recovering previously marked bears through harvest

To detect the recovery of previously 'marked' 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), we asked hunters to return any ear tags or lip tattoos from their harvested bears. To detect recoveries for bears in which a tattoo may be too faded to see or bears that had been marked through biopsy sampling (which leaves no physical marking), small muscle tissue samples were collected from all bears harvested in MC and surrounding subpopulations such as GB, Lancaster Sound (LS) and Viscount Melville Sound (VM) throughout the duration of the study (May 2014 – June 2016). These samples were stored in 2 ml cryovials (ThermoScientific, Nalgene long-term storage cryogenic tubes) at - 20˚C until sample preparation and analyses.

Sampling - recaptured bears from past population study

Because the initial subpopulation inventory for MC (1998-2000) was conducted using physical capture-mark-recapture methods in which a physical tag or tattoo was used for identification, we had no genetic database for these bears. In order to identify recaptures of bears during our 2014-2016 study that were originally marked during the 1998-2000 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 (≤ 34 years of age) in 2014 for genetic analyses. Samples (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. A lentil-size piece of skin (~1 – 1.5 mm thick) or tissue was cut from either the biopsy sample, the ear plug, or the muscle tissue with a new scalpel blade (# 20) and 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 and 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).

First, 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 on every sample, 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 all of these matches. Once the genotyping and error-checking was complete, we defined an individual for each unique eight-locus genotype.

Abundance

We estimated abundance using a closed-population mark-recapture model (Otis et al. 1978) in a Bayesian framework (Kéry and Schaub 2011) for independent animals (>2 years old) encountered during 2 primary sampling periods which occurred during the spring field seasons for the years 1998 – 2000 (early sampling period) and 2014 – 2016 (late sampling period). We used annual time-steps referenced to the springtime field seasons, resulting in three capture occasions within the early and late period (1998, 1999, 2000 and 2014, 2015, 2016, respectively). The model allowed for capture probability to vary by sex but was held constant across capture occasions within each primary sampling period. We fit separate models for the early and late periods. Abundance estimates for the two sampling periods were derived separately without any shared parameters. Furthermore, we split each abundance estimate by sex to obtain separate estimates of detection and abundance by sex. We make no assumptions about the change in population between the periods, nor do we assume equal capture probability. We fit a total of four separate closed-population models, one for each sex and time period.

The model assumed that the MC subpopulation was a geographically and demographically closed population within each three-year period of data collection. Therefore, the model assumes there is no movement in or out of the study area and no birth or death. Polar bear survival is generally higher for adults (Amstrup and Durner 1995), which should reduce bias associated with violation of the demographic closure assumption. However, lower survival rates for younger polar bears (Regehr et al. 2010) and recruitment of juvenile animals into the study population could be expected to cause positive bias in estimates of abundance (Pollock et al. 1990). Furthermore, potential violations of the geographic closure assumption due movement of animals in and out of the study area mean that the estimate of abundance does not represent the number of animals within the study area at any given time, but rather represent the total number of bears available for capture across the three-year period (i.e., the "superpopulation"; Kendall et al. 1997). We estimated abundance using closed models, despite potential biases, because the data were sparse and insufficient to parameterize an open population model. Moreover, because the survey area changed annually with changing weather and effort, common estimators such as the Horvitz-Thompson for *N* from each year's sampling were not appropriate because the estimator's results would conflate changing survey area with population size in unknown ways. We chose to estimate abundance using data from the 2 primary sampling periods rather than from all data from 1998 – 2016 because the 13-year gap between the 1998 – 2000 and the 2014 – 2016 surveys will overstate permanent emigration causing survival (φ) to go down and capture probability (*p)* to go up. Therefore, the estimate of *p* will be too high underestimating population size. While not ideal, using the closed models provides the best estimate with the available data.

To fit the closed-population capture-recapture models, we performed Markov chain Monte Carlo (MCMC) analysis using JAGS (Plummer 2003) through the R package *R2jags*. Each model was run for 20,000 iterations with the initial 2,000 discarded for burn-in. We used diffuse normal prior distributions on a logit link for all parameters. We checked for model convergence using $\hat{R}$ statistics and by examining MCMC chain plots (Gelman et al. 2013).

Survival

We estimated annual, apparent survival for independent bears >2 years old using all encounters from 1998 – 2016 by grouping our data into the 2 capture-mark-recapture sampling periods (1998 – 2000 and 2014 – 2016) and using available dead-recoveries from 1998 – 2016. Data were sparse with respect to live-recaptures and dead-recoveries and there was a 13-year gap (i.e., 2001 – 2013) in sampling between the capture-mark recapture studies. The gap period was characterized by a very low harvest rate resulting in minimal dead-recovery opportunities (e.g., 3 bears per year as harvest). Additionally, *p* is essentially equal to zero because the closed population model does not allow any recaptures during the gap period between sampling efforts. Because we did not have radiotelemetry data, and very few or no data on recoveries of previously marked animals, we could not estimate fidelity (*F;* the probability that an animal does not permanently emigrate from the sampling area and remains available for live observation in the future*)* to our study area. Therefore, estimates are not true survival but rather apparent survival, which is the probability of a bear remaining alive and available for capture, given it was alive at the previous sampling time. Bears that permanently leave the study area and remain alive, but are unavailable for recapture cannot be separated from mortality when estimating apparent survival. Therefore, apparent survival will likely be lower than true survival due to emigration.

We used a Cormack-Jolly-Seber (CJS) model (Cormack 1964, Jolly 1965, Seber 1965) and considered apparent survival (ϕ) varying by sex (i.e., male or female) or remaining constant, and capture probability (p) varying by sex, study period (i.e., early versus late period), or remaining constant. The commonly used Burnham model was not applicable for estimating MC survival rates because the harvest rate changed, yet there are insufficient data to estimate multiple recovery probabilities. Therefore, the survival from the Burnham model would be unreliable and would reduce to a CJS model in the absence of additional data. We fit six models representing all combinations of ϕ and p in Program Mark (White and Burnham 1999) through the *Rmark* (Laake 2013) package in R. We used AIC to rank models with the lowest AIC value suggesting the strongest support (Burnham and Anderson 2002). All models differed by a single, nested parameter, therefore we evaluated whether that parameter resulted in a model improvement based on ΔAIC and parameter estimates.

Reproduction

We calculated reproductive indices for MC polar bears using data for the early and late study periods by using reproductive metrics that have been identified as important for monitoring (Vongraven et al. 2012). The annual observations of dependent young during the sampling periods were few and variable which limited our ability to estimate many reproductive indices. We calculated the mean number of C0 and C1 per adult female (AF) by year and study period (± SE) using the observed sampling data. Adult females were a) bears identified genetically as females, and b) bears classified in the field with the age class “adult” with high confidence. We also calculated mean C0 and C1 litter size by study period, although the data were too sparse to evaluate patterns in litter size as function of biological, environmental and temporal factors.

Population growth

We estimated population growth rate in two ways to understand differences between observed changes in abundance and demographic rates. First, we estimated the empirical growth rate as the ratio of the late period abundance over the early period abundance for males and females. We then computed an average annual growth rate (λ) by taking the 17^{th} root of the growth rate to account for the length of time between the two study periods. We estimated separate growth rates for males and females because the abundance estimates differed by sex. Second, we computed an asymptotic growth rate from a 4-stage matrix model based on the demographic rates estimated in this study (Mills 2012). For rates that were not available from our study, we used values from Taylor et al. (2006). The population matrix was defined as:

$$L = \begin{bmatrix} 0.00 & 0.00 & 0.00 & 0.17 \\ 0.62 & 0.00 & 0.00 & 0.00 \\ 0.00 & 0.88 & 0.00 & 0.00 \\ 0.00 & 0.00 & 0.88 & 0.88 \end{bmatrix},$$

where C0 survival probability = 0.62 (Taylor et al. 2006), 2+ year old survival probability = 0.88 (present study), and recruitment = 0.39 C0 per AF (present study). The value of 0.17 in the upper right of the matrix is the product of AF survival (0.88), recruitment (0.39), and sex ratio at birth (0.5). We solved for asymptotic growth rate by calculating the dominant eigenvalue of the matrix (*L*) assuming a stable stage distribution.

Body condition

We compiled body condition score (BCS) data for the early and late study periods. 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 (early period; 1998 – 2000) or aerial observation during biopsy sampling (late period; 2014 – 2016) from April to June. Sex, age, and reproductive classes were assigned during physical handing during the early period and ages were determined based on previous capture history, known birth year, or from tooth analysis (Calvert and Ramsay 1998). During the late sampling period, classification was done during biopsy sampling while flying approximately 3 – 7 m above the ground with sex verified by subsequent genetic analysis (SWG 2016, Laidre et al. 2020). Observers who participated in classifying age class and sex during biopsy sampling had either participated in both study 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) in order to follow recommended monitoring schemes (Stirling et al. 2008, Vongraven et al. 2012) and facilitate comparison between previous 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) and we excluded within-year observations of the same individual.

We modeled BCS using ordinal logistic regression and included *period* as an indicator of sampling period (early = 1998 – 2000 or late = 2014 – 2016). Reproductive status, age, and sex were combined into one 4-level categorical variable, *reproclass* (ADM = adult male, ADFI = independent adult female, ADFWO = adult female with offspring, and SUB = subadults of both genders) and Julian date of sampling (*jul_cap_day)* was included as a continuous covariate to reflect the amount of time a bear had on their preferred sea-ice hunting platform before being sampled in year *t*. The sampling seasons (April-June) 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 days between sea-ice retreat and advance ($icetm1_{t-1}$) 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 have effects on BCS (Rode et al. 2012, SWG 2016, Laidre et al. 2020). Finally, given our interest in evaluating whether different reproductive classes and age classes 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 3-way interaction for *reproclass, jul_cap_day,* and *period.* Once the global model was selected, we performed a backwards and forwards model comparison (stepAIC; Package *MASS* with AICc criteria functionality added) to obtain the most supported model which included main effects for *epoch*, *reproclass, jul_cap_day, icetm*, and interactions for *epoch* and *icetm* and *epoch* and *reproclass* (Table 1). On the final model, we performed ordinal regression-specific goodness of fit test (Pulkstenis-Robinson test; $p > 0.1$; Fagerland and Hosmer 2017). Covariates were considered significant at $p < 0.05$ and predicted probabilities were calculated for significant covariates.

We hypothesized that BCS would be correlated with ice conditions based on previous studies suggesting decreased body condition with increased ice-free days and lower sea-ice concentrations (Rode et al. 2012, Laidre et al. 2020). Thus, we calculated the number of days between the summer sea-ice retreat and fall sea-ice advance in *sampling year t - 1* (Environment and Climate Change Canada 2018). Sea-ice retreat and advance in MC were defined as the point in which the sea-ice concentration for a given year fell below, or exceeded, respectively, the halfway point between the averaged 1979 – 2016 March sea-ice concentration (representative of annual sea-ice maximum) and the average September sea-ice concentration (annual minimum). For MC, that transition threshold sea-ice concentration was 59%.

Seal observations

There is little recent information about seal abundance across the Canadian Arctic. We therefore recorded all seal locations encountered along our flight paths while searching for polar bears. These data were collected only during the 2014 field operations due to logistical challenges and can potentially provide baseline information on relative abundance for help in assessing ecosystem productivity.

5. RESULTS

General overview

During research operations 2014 – 2016, we spent between 72.5 and 97.5 hours flying each season in search of polar bears across the sea ice, with an average distance flown per year of 12,300 km (Table 2, Figure 3). The highest bear encounter rate occurred during 2014. Each field season was conducted generally between May and early to mid-June. Due to poor weather conditions a large portion of M'Clintock Channel proper could not be surveyed (Figure 3) and a reconnaissance flight via plane into the Channel in 2016 found few signs of bears (e.g., only one bear was observed).

The MC study area is vast and bears occur at low densities (Hamilton and Derocher 2018). In addition, polar bears were not distributed evenly across the study area (Figure 4). Most bears across all study periods were encountered from Franklin Strait southward to Victoria Strait and Jenny Lind Island. The sea ice in Queen Maud Gulf, Dease Strait and Coronation Gulf did not exhibit many signs of polar bears, at least not during the time of the survey (i.e., April to early June). The low coverage of M'Clintock Channel proper by Twin Otter did not suggest high bear density, however, it remains uncertain if sea ice is used by bears with higher intensity north of Gateshead Island during early spring at times when we were not present.

Due to logistical constraints we were only able to record seal observations during 2014. During that field season, work continued into June when ambient temperatures were sufficiently high for seals to haul out on the sea ice and bask in the sun. On our search flights we observed 2,236 seals distributed across the area where most bears were encountered (Figure 5).

Samples examined

For the entire study period 1998 – 2016 we analyzed a total of 953 (319 biopsy, 102 physical capture, and 532 harvest) tissue samples for genetic identification. We identified 244 individual bears through the biopsy sampling activities 2014 – 2016. All 102 tissue samples from physical captures during the early study period (1998 – 2000) were successfully analyzed and of the 532 harvest samples, 99% produced reliable genetic results. Overall, the success rate of extracting DNA material from all study samples (research and harvest) was 97.8%.

Dead recoveries of marked bears through the harvest resulted in 22 bears being identified, 7 of these were recovered in subpopulations outside MC (4 in LS, 1 in Northern Beaufort Sea, 1 in Foxe Basin, and 1 in Viscount Melville Sound). Sixty-eight percent of all recoveries occurred in MC, and no recoveries were made in GB. We live-recaptured 6 bears marked in 1998 – 2000 and 33 bears 2015-2016. As a note of interest, 7 bears that were originally marked via biopsy in MC 2014 – 2016 were live re-captured in Gulf of Boothia during the GB population study conducted 2015 – 2017 (Dyck et al. 2020).

Population demographic information

Abundance – Estimated total (males and females combined) abundance was 325 (95% Credible Interval (CRI) = 220 – 484) for the period 1998 – 2000, and 716 (95% CRI = 545 – 955) for the period 2014 – 2016 (Figure 6). The CRIs around the total abundance do not overlap across the two study periods providing substantial evidence for an increase. Estimated recapture probability was 0.13 in both periods with higher precision in the later period (95% CRI = 0.03 – 0.19 (early), 95% CRI = 0.10 – 0.18 (late)).

We estimated sex-specific abundance to obtain additional insight into population dynamics. Between the two study periods, the female segment of the MC subpopulation increased from 219 (95% CRI = 124 – 405) to 327 bears (95% CRI = 230 – 487, Figure

7). The males showed a larger increase from 134 (95% CRI = 74 – 256) to 360 bears (95% CRI = 244 – 550, Figure 6).

Survival – We estimated apparent survival for independent bears aged 2 and older from 1998-2016. The best-supported model included constant survival and detection probabilities across time and sex (Table 3). All other models showed no support given that the AIC values increased when a single parameter was added. Apparent survival from the top model was 0.88 (SE = 0.02) and detection probability was 0.17 (SE = 0.02). Cub-of-the-year survival was not possible to estimate because they were not sampled due to their small physical size (see Methods above).

Reproduction and Recruitment – During the 1998 – 2000 mark-recapture sampling efforts, 23 family groups (5 with single C0, 7 with 2 C0, 3 with single C1, 8 with 2 C1) were sampled, representing a total of 38 (19 C0 and 19 C1) dependent offspring. Through the genetic biopsy sampling study 2014 – 2016, we sampled 27 family groups with 46 C0 (8 with single C0, 19 with 2 C0), and 18 family groups with 29 C1 (7 with single C1, and 11 with twins; Table 4). For the 1998 – 2000 period, C0 and C1 mean litter sizes were 1.58 (SE = 0.14) and 1.71 (SE = 0.14), respectively. Calculated mean C0 and C1 litter sizes for 2014 – 2016 were 1.70 (SE = 0.09) and 1.61 (SE = 0.11), respectively. We calculated the number of C0 and C1 per AF across the two study periods (Table 4). The mean C0 and C1 per AF from 1998 – 2000 was 0.38 (SE = 0.02) and 0.39 (SE = 0.10), respectively. The mean C0 and C1 per AF for 2014 – 2016 was 0.43 (SE = 0.10) and 0.28 (SE = 0.06), respectively. The overall mean C0 recruitment was 0.39 (SE = 0.11).

Population Growth – Based on the estimated increases for the female and male proportions of the subpopulation between the two time periods, the average annual growth rate (λ) was 1.02 for females and 1.05 for males. We built a 4-stage matrix population model to describe the polar bear subpopulation with C0, C1, subadult, and adult as life stages. We included vital rates estimated above. For parameters not included in this analysis, we used estimates from Taylor et al. (2006). Specifically, adult survival and C0 per AF were estimated in this analysis and therefore those estimates were used. Cub-of-the-year survival was taken from Taylor et al. (2006) because we were not able to estimate this value reliably using this study's methodology. Using our calculated recruitment value of 0.39 for C0 per AF, a survival rate of bears older than 2 of 0.88, and C0 survival of 0.62 the matrix model results suggest a declining subpopulation ($\lambda = 0.97$). This represents a discrepancy between observed demographic rates and calculated abundance. Our estimate of apparent survival is biased low compared to true survival due to unknown emigration. Furthermore, unmodeled heterogeneity in recapture probability is a well-known source of bias in estimates of survival from CJS-type models (Devineau et al. 2006). To explore this, we calculated what level of adult survival would be needed to achieve the estimate of female $\lambda = 1.02$ based on changes in abundance across study periods. The new adult survival probability of 0.93 provides a population growth of $\lambda = 1.02$ (Figure 8). That survival value is consistent with survival in the absence of harvest from Taylor et al. (2006). Flat population growth ($\lambda = 1.0$) occurs when survival is 0.91.

Body condition

We analyzed a total of 380 BCSs from the two study periods (Table 5). The most supported model included *period*, *reproclass*, *jul_cap_day*, and $icetm_{t-1}$ and interactions *period:reproclass* and *period:*$icetm_{t-1}$ (Table 1). Body condition of bears improved for all reproductive classes from the early period to the late ($P_{\textit{Poor early adult females and subadults}}$ = 0.50 vs $P_{\textit{Poor late adult females and subadults}}$ = 0.14), except for adult males (X^2 = 10.81, *P* = 0.01; $P_{\textit{Poor}\text{ early ADM}}$ = 0.15 vs $P_{\text{Poor late ADM}}$ = 0.17; Figure 9). Later sampling in the year was associated with better body condition (X^2 = 9.38, *P* < 0.01; Figure 10). As the number of days between sea-ice retreat and advance increased (*icetm)*, the predicted probability of a bear being in poorer condition increased but this was more pronounced in the early period (X^2 = 3.86, *P* < 0.05; $P_{\text{Poor early icetm136}}$ = 0.58 vs $P_{\text{Poor late icetm136}}$ = 0.19).

6. DISCUSSION

General

This study reports population abundance, survival, population growth, reproductive indices and body condition using the data from surveys conducted in the MC polar bear subpopulation between 2014 – 2016 and 1998 – 2000 along with dead-recoveries of harvested bears from 1998 – 2016. After more than 15 years of a reduced harvest and a moratorium that were implemented because of overharvest (Taylor et al. 2006), the subpopulation has recovered to the determined mid-1990s level (Aars et al. 2006; Taylor et al. 2006). Without the support and participation of community co-management partners from Taloyoak, Cambridge Bay and Gjoa Haven, this subpopulation would not have recovered over the past 15 years, hence this report and results should be welcomed as good news.

The recovery of this subpopulation may have been aided not only by concerted conservation actions by communities and management authorities, but also, counterintuitively, by climate-induced sea ice changes occurring in this region. While some polar bear subpopulations are showing negative impacts from climate change, (Regehr et al. 2007, Regehr et al. 2010, Lunn et al. 2016, Obbard et al. 2016, 2018), the short-term narrative may be different in terms of MC. Historically, the study area, and in particular M’Clintock Channel proper, had an abundance of multi-year sea-ice that remained mostly throughout the year (Schweinsburg et al. 1981, Barber and Iacozza 2004; Howell et al. 2008, 2009; Environment and Climate Change Canada 2018, 2019; Sou and Flato 2009). However, recent evidence suggests that the open-water extent in the western Arctic (including the study area) has been increasing between 1968 and 2005 (Stewart et al. 2007) and sea-ice cover during the summer has declined (Stern and Laidre 2016, Rothrock et al. 1999, Comiso 2002). In addition, some heavy multi-year sea-ice has been already replaced by annual ice (Barber and Iacozza 2004, Environment and Climate Change Canada 2018, 2019, Marz 2010, Perovich et al. 2018, Richter-Menge et al. 2018) and an even greater shift is expected (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 and 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 very detrimental to the persistence of polar bears, in the short term, it may have beneficial effects since many of the observed sea-ice changes have been associated with greater Arctic marine productivity (Derocher et al. 2004, Häder et al. 2014, Frey et al. 2018). This increased productivity and dynamic ice may have played a role in the observed improvement in body condition of bears in MC between the late 90s and the recent study period (Derocher et al. 2004).

Currently, it is uncertain when continued reductions in sea-ice availability may cross a threshold such that limited time to hunt seals on the ice begins to have a negative effect on the MC subpopulation which have been documented for more southerly polar bear subpopulations (Bromaghin et al. 2015, Lunn et al. 2016). Over the long term, progressive loss of Arctic sea ice is a primary threat to the species (Atwood et al. 2016, Regehr et al. 2016).

Abundance

Polar bear abundance has increased across the two study periods with the male segment of the subpopulation increasing more rapidly than females. This may reflect recovery of the male segment after depletion due to general harvest overexploitation, which, when coupled with a sex-selective harvest (2 males for each female in Nunavut) could have been further exacerbated (Taylor et al. 2005, McLoughlin et al. 2005, Taylor et al. 2008a). Male abundance was almost half of female abundance in the early period but grew to be equal to or slightly larger than female abundance during the late time period. Increases in male abundance over females reflect a higher growth rate for males during the study period, potentially from reductions in harvest pressure and/or immigration of males into MC from other subpopulation units.

We estimated abundance of MC polar bears using closed-population mark-recapture models. Yet, our sampling occurred across 3-year periods suggesting that the assumptions of demographic and geographic closure are almost certainly violated. The limited numbers of bears detected and the sparse recaptures within a year precluded fitting models that can potentially reduce bias in parameter estimates, such as the ‘robust design’ or ‘spatially-explicit’ capture-recapture models. Moreover, ‘open’ population models that include an abundance estimate (e.g. forms of the Jolly-Seber model) require more years of data with more recaptures than our data allowed. Thus, despite evidence from the few harvest-recovered marked bears that the subpopulation is not, in fact, ‘closed’ to emigration, our limitations with available data prevented these more highly-parameterized models from being fitted. These more complex models better reflect biological and ecological systems. However, they are ‘data-hungry’ (Bromaghin et al. 2015, Lunn et al. 2016, Regehr et al. 2018) meaning if less data are available due to low densities or other constraints, then these approaches, such as multistate capture-recapture models and integrated population models, are generally not options to estimate abundance, despite the potential advantages of these models in estimating demographic parameters of interest and reducing bias.

The basis for capture-mark-recapture studies rely on the marks that are initially put out into the population during the study’s first field season and the subsequent recovery of those marks (recaptures) through harvest recovery or re-sampling (Caughley et al. 1977, Amstrup et al. 2010). This approach has worked relatively well for larger, denser subpopulations that allow for relatively large sample sizes (Regehr et al. 2007, Peacock et al. 2013). However, when populations are small, occur at low densities, have low harvest levels, and/or are located in remote regions that are difficult to access, recapturing or recovering marked individuals from the population is difficult (e.g. M’Clintock Channel). This process is made more complicated when it is unknown if the subpopulation is open or closed (Kendall 1999), which can only be determined through radiotelemetry to examine long-term movement patterns of individual bears.

The consequences of assumptions violations in closed-population models are well known (Otis et al. 1978) and affect both the actual abundance and what that abundance geographically represents. A lack of demographic closure results in underestimated detection probability (for example, bears that die are no longer available for detection). The underestimated detection probability leads to an overestimated abundance for any given year. Despite these caveats, for this study, the total number of bears in the study area available for detection across the three years appeared to have been unbiased (i.e., a similar number of bears frequented the study area while the study was conducted) and our estimated abundance for MC using a closed population model for the early period with 325 bears was similar to Taylor et al. (2006; 284 bears). A lack of geographic closure blurs the boundaries of the study area. If bears move in and out of the sampled area, then the estimated abundance refers to an area larger than the area sampled (e.g., estimating the "superpopulation"). A superpopulation is defined as all the animals with a chance (non-negligible probability) of occurring within the MC management boundary, regardless of where the animals were located at any given sampling occasion (Schwarz and Arnason 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 estimate temporary emigration directly from the sampling area (Cooch and White 2019) because our sample sizes were not sufficiently large to do so, and there are no recent radiotelemetry 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 MC is occurring.

Lastly, the fact that we were not able to survey the entire study area – namely the portions of M'Clintock Channel proper – contributes to the uncertainty surrounding our abundance estimate. Although we did not detect many signs of bear activity while conducting our reconnaissance flight, it is unknown how many bears (e.g., bears that may temporarily move into this area from the neighboring LS subpopulation, or resident

MC bears) may utilize this section of the study area throughout the timing of our surveys since we were able to conduct only one limited survey flight due to poor weather conditions. Because we have no information on how many bears could have been in this area, we are unable to determine whether or not our abundance estimate would be affected negatively or positively.

Taken together with the effects of demographic and geographic closure violation, the estimate of abundance is almost certainly larger than the actual number of animals within the MC 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.

Survival

We estimated apparent survival of polar bears from 1998 – 2016. The resulting survival probability (0.88) is lower than biological survival estimated from other studies (Taylor et al. 2006). This is likely due to a combination of factors such as emigration away from the study area, which will cause apparent survival to be lower than biological survival (Lebreton et al. 1992). Further, capture-recapture data were collected intensively for 3 years in 2 distinct study periods separated by 13 years. Therefore, few observations of bears exist between 2001 and 2013. The missing sampling years greatly reduce the power to estimate survival or estimate variation in survival across time, sex, or age classes.

Survival is known to differ among sex and age classes; however, none of the models including differences in survival by sex were supported by the data (Table 3). In addition we were not able to test for differences in survival by age class. It is very likely that by pooling age classes and sexes the overall mean natural survival rate was also biased low (SWG 2016). Furthermore, unmodeled heterogeneity in recapture probabilities can introduce substantial negative bias into estimates of survival (Regehr et al. 2009). Unfortunately, with live capture-recapture data, limited harvest data, and no contemporary information on animal movements (e.g., from satellite radiocollars), there are few options to estimate biological survival. Our data were too sparse for joint live/dead models and capture probability was too low for known fate models. These challenges were also recognized by Taylor et al. (2006).

Reproduction

Our field observations of C0 and C1 litter sizes revealed inter-annual variation with mean values similar to other subpopulations within the Canadian Arctic Archipelago (Table 4; Durner et al. 2009; dated estimates – Lancaster Sound and Norwegian Bay: Taylor et al. (2008b); Gulf of Boothia: Dyck et al. (2020); Kane Basin: SWG (2016)), although our sample sizes were small. We estimated reproduction based on counts of C0 and C1 observed with adult females. Reproduction rates were very similar across our study periods and were within the ranges estimated by Taylor et al. (2006).

It is difficult to draw definite conclusions about whether all reproductive parameters differ between the two studied periods because of limited data. Estimating the number of C1 per AF is considered a key reproductive parameter (Vongraven et al. 2012, Regehr et al. 2015) because it integrates cub production and cub survival.
The C1 per AF of the recent period of 0.28 was lower than during the earlier period (0.39 in this study). Whether this decline is real or represents an artifact of sample size is unknown. Nevertheless, our observed number of C1 per AF appears to be sufficient to maintain a viable subpopulation, provided that survival is within the normal range for healthy subpopulations (Regehr et al. 2015). Continued monitoring of MC to obtain

improved estimates of survival and reproductive rates is prudent to determine whether this subpopulation remains healthy.

Population Growth

We estimated population growth rate both empirically based on changes in abundance and using a matrix population model to compare observed changes in abundance to theoretical population growth rates arising from the vital rates. For the purpose of estimating an asymptotic population growth rate based on the vital rates, we used a simplified matrix projection model that does not accurately represent the multiyear reproductive cycle of polar bears (Regehr et al. 2017). Although such a simplified model would not be suitable for stochastic projections (Taylor et al. 1987), we believe it was sufficient for a general assessment of consistency between empirical and matrix-based estimates of population growth rate. The changes in abundance suggest that growth was approximately 2% per year for females and 5% per year for males for the period 1998 – 2016. Conversely, the estimated vital rates suggested a population growth rate of -3% per year (i.e., that a subpopulation with these vital rates would decline by 3% per year). Therefore, the demographic rates and abundance estimates are not internally consistent. The most likely explanation is negative bias in estimates of true survival for adult females. We estimated apparent survival rather than biological survival. In addition, we pooled independent bears (subadults and adults) in order to obtain survival rates during this study. Adult polar bear survival rates are higher than subadults (Regehr et al. 2007, 2010), and pooling them would bias the result negatively. Finally, there was likely unmodeled heterogeneity in recapture probabilities that introduced additional negative bias into survival estimates (Regehr et al. 2009). If we replace estimated survival from Taylor et al. (2006), the model shows growth similar to our observed female population growth.

The discrepancies in abundance and survival provide insight into the utility of each data type. Abundance data appear to be providing stronger inference into population dynamics of this polar bear population. The survival information contains too much bias relative to biological survival to be meaningful for polar bear management. If capture-recapture data were collected over a longer time period, then survival may become a more useful parameter. Other data-based and simulation studies for polar bears have documented that, although mean percent relative bias can be higher for estimates of abundance than survival, the resulting challenges to demographic inference are actually larger for bias in adult female survival because it is a primary driver of population growth for long-lived species like polar bears (Eberhardt 1990).

One question that remains is the amount of potential bias in estimates of abundance and survival for the two study periods. The abundance estimates use data across 3-year periods, therefore some bears included in the estimate died before the end of the period. Our estimated apparent survival rate (0.88) would suggest a declining subpopulation, however, to achieve abundance estimates derived for this study, survival rates would need to be 0.92, which is reasonable for polar bears. Therefore, the total mortality during a 3-year abundance estimate is expected to be about $0.15 = (1 – 0.92^2)$. An increase in abundance is also supported by other lines of evidence. First, the MC subpopulation was managed for recovery and had a restricted harvest for 15 years that was designed to nurture population increase (Taylor et al. 2006) and likely led to a recovery of the depleted male proportion. Second, body condition of bears improved between the two studies, which could be an indication that the habitat improved as multi-year ice decreased over the past 15 years resulting in increased productivity, enhancing seal habitat which may be reflected in a larger carrying capacity.

Similar to estimates of abundance and survival, 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, radiotelemetry data have been critical to resolving these issues (Regehr et al. 2018). For regions where radiotelemetry 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).

Body condition

Polar bears observed during the recent study period were in better body condition compared to the late 1990s with the exception of adult males, which is not unexpected given that during April – June, males are often intent on searching for mates and breeding rather than only feeding (Stirling et al. 2016). Further, rapid changes in sea-ice characteristics in the last 15 years from multi-year to more annual ice, which is less thick and prone to experiencing leads and cracks, may facilitate increased opportunities for hunting during the annual seal pupping period that occurs in mid-April. These conditions potentially account for our finding that body condition improves later in the year (Stirling and Archibald 1977, Pilfold et al. 2014, Reimer et al. 2019).

It is less likely that sampling method is responsible for changes in the observed BCS between time periods. Raw BCS scores were binned into 3 general categories to account for any potential small biases in observer classifications (Laidre et al. 2020). Furthermore, there have been varied results in other studies in which earlier time period BCS classification was done by physical handling and compared to later time period BCS classifications based on aerial observations, suggesting that there is not an inherent bias in aerial observation versus physical handling body condition classification (Kane Basin: no change in BCS, Baffin Bay: decrease in BCS, Gulf of Boothia: increase in BCS; SWG 2016, Dyck et al. 2020, Laidre et al. 2020). Many of the same observers and biologists that participated in the early physical capture and handling studies also participated in the aerial observation studies which supports reliability and consistency between study methods for BCS. The general application of our index during physical handling has been shown to be a reliable indicator in the assessment of body condition (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.

The replacement of multi-year with annual ice in our study area may have also provided improved seal habitat and contributed to an increase in the polar bear prey base. To our knowledge, there are no quantitative data about seal abundance from our study area available; however, during our investigations and observations, it became apparent that ringed and bearded seals appear relatively abundant and demonstrated a preference for annual sea ice (GN, unpublished data reports). These longer-term changes in habitat may be in part responsible for the fact that we found BCS of bears sampled in the late period to be relatively unaffected by the number of days between sea-ice retreat and advance, which wasn't the case in the early period, suggesting that over time, the ecosystem has become more productive. It is important to note that our study periods encompass a relatively short period of time, with 3 years in the early period and 3 years for the late period. Inter-annual variation could significantly affect BCS for such a limited temporal window. Thus, we caution over-interpretation beyond general trends for BCS. It is likely that the potential enhanced productivity brought on by changes in sea-ice dynamics may be a short-lived advantage to polar bears if access to their prey is reduced by a declining sea-ice hunting platform, though the time scale of these events remains unknown.

7. MANAGEMENT IMPLICATIONS

The need for continued monitoring

In the past 20 years, polar bear population studies in Nunavut were generally conducted over a 3-year period, which is a relatively short time considering polar bear life spans. In many studies, survival rates tend to be biased low because of limited study length, low recapture probabilities, unmodeled heterogeneity in recapture probability due in part by prohibitive weather to cover the entire study area, and movements of animals with respect to the sampling area (Taylor et al. 2008b, Regehr et al. 2009, SWG 2016, Dyck et al. 2020). In the case of MC, several of these factors are true, including unknown emigration rates, low density of bears (fewer bears receive marks), and potential heterogeneity in recapture probability resulting in a likely low-biased survival rate.

What we have learned from this process of studying and analyzing MC data is that continued monitoring, in the form of increasing study length or adding an intermittent marking session, would reduce the type of bias we encountered in estimating population parameters like survival and abundance (Peacock et al. 2012).

Further, the MC subpopulation area has experienced drastic sea-ice changes since the 1990s with multi-year sea-ice diminishing and being replaced by annual ice (Stern and Laidre 2016, Environment Canada 2018, 2019). It is currently unknown what importance the little remaining multi-year ice plays for MC polar bears, especially during the summer months (e.g., as feeding platform or summer retreat areas).

The need for improved data

Concomitant to adding intermittent marks or increasing study length, is the need to obtain an understanding of the movement into, and out of, the MC subpopulation boundaries, especially in light of continuing sea-ice changes. The results of this study were affected by the lack of available data to inform even the simplest population models, leading to abundance, survival, and population growth estimates that are known to be biased. Emigration rates are vital to accurately estimating survival.

The delineation of this subpopulation is inferred based on movement of collared bears in adjacent subpopulations from the 1990s, prior to the large-scale ice changes in the region (Taylor et al. 2001). Tag recoveries of captured and harvested bears, and some genetic analyses, indicate that MC likely is a distinct unit, but that has been disputed by local hunters and community members (Taylor et al., 2001; Bethke et al. 1996; Schweinsburg et al. 1982; Campagna et al. 2013; Malenfant et al. 2016; Keith et al. 2005, Dyck and Bohling, in prep.) and the current study provided evidence that bears tagged in the MC region were harvested in adjacent subpopulations (see Results Section – samples examined). With continued reduction in multi-year sea-ice, and sea-ice in general predicted to decline, (Sou and Flato 2009; Hamilton et al. 2014), understanding the behavior of bears and their ecology in MC is critical to maintaining a healthy population (Vongraven et al. 2012). Very little about the movement patterns and habitat use of MC polar bears is known under the current environmental conditions since there has not been a satellite telemetry study to monitor movements and habitat use. At the direction of community co-partners representing Inuit societal values and concerns over physically handling wildlife, the GN Department of Environment, did not carry out any collaring for telemetry data in MC, despite efforts to garner support. In the future, the GN will have to make decisions on how to continue monitoring polar bears in this subpopulation in order to provide adequate information to decision makers.

Harvest management and considerations

The MC subpopulation represents a unique polar bear management unit in that bears are sparsely distributed (low density) over a large geographic area. This requires adaptive harvest management and considerations. The MC polar bear subpopulation saw a harvest of approximately 32 ± 10 bears (range: 12 – 55) between 1970 and 2001 (roughly 19.5 males and 12.0 females; GN, unpublished data) which was not sustainable over the long-term (Taylor et al. 2006) and led to a moratorium and harvest reduction. Harvest levels in the past were based on vague abundance data with high uncertainty and expert opinion (Aars et al. 2006, Taylor et al. 2006). Our study suggests that MC abundance increased since 2000, although with significant caveats and high uncertainty (e.g., biased survival rates and biased abundance; unknown emigration). Future research and monitoring should seek to understand the role emigration plays in this subpopulation so that estimates of survival can be re-assessed.

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

- The mean abundance estimate of 716 bears (95% CRI = 545 – 955) for the period 2014 – 2016 is for independent bears 2 years and older and includes substantial caveats and uncertainty, including the knowledge that this estimate is positively biased. Furthermore, this estimate applies to a group of bears that use the MC region but may also use other management units (e.g., superpopulation; see Discussion Section).

- Data for this subpopulation are sparse and a quantitative harvest risk assessment using subpopulation-specific estimates of vital rates (Regehr et al. 2018) is not possible with the available data.

- A conservative approach to harvest will reduce the probability of subpopulation declines, especially in light of uncertainty in the available information and the documented changes in the sea ice regime.
    - Attempts to reduce subpopulation abundance without effective monitoring and a coupled research-management system increase the probability of negative biological effects on the subpopulation (e.g., reduction to a small size).

- Although recovery of this subpopulation from previous overexploitation appears successful, it came at a high cost to communities during the recovery period from reduced hunting opportunities and knowledge transfer to new hunters of polar bear hunting practices. To prevent this from recurring, we recommend focusing on the considerations above and additional recommendations below to achieve long-term sustainability and subsistence use of this subpopulation.

Additional specific recommendations for MC

1. Seek support from co-management partners to implement a radiotelemetry study to collect movement data in MC to obtain emigration estimates, resolve boundary issues, collect missing demographic data, and evaluate changes in habitat use and denning in light of the ongoing 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) Increase monitoring activities by sampling bears (i.e., introduce more marks into the MC subpopulation) 5 – 7 years post-completion of the field portion of the last study (e.g., in 2023 or 2024) for a 1 year injection of marks until the next comprehensive population study will be conducted (~10 – 15 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 MC, and if there are significant changes in reproduction consider whether the timing of the next comprehensive subpopulation assessment should be changed;

3. 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;

4. Consider any TAH recommendation above the current TAH allocation with caution and as an interim harvest level until a) the meta-analysis is performed and/or b) the boundary issue has been resolved which can assist in resolving the caveats of whether MC is a closed or open subpopulation, and to what degree emigration (either temporary or permanent) is affecting vital rates.

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10. FIGURES AND TABLES

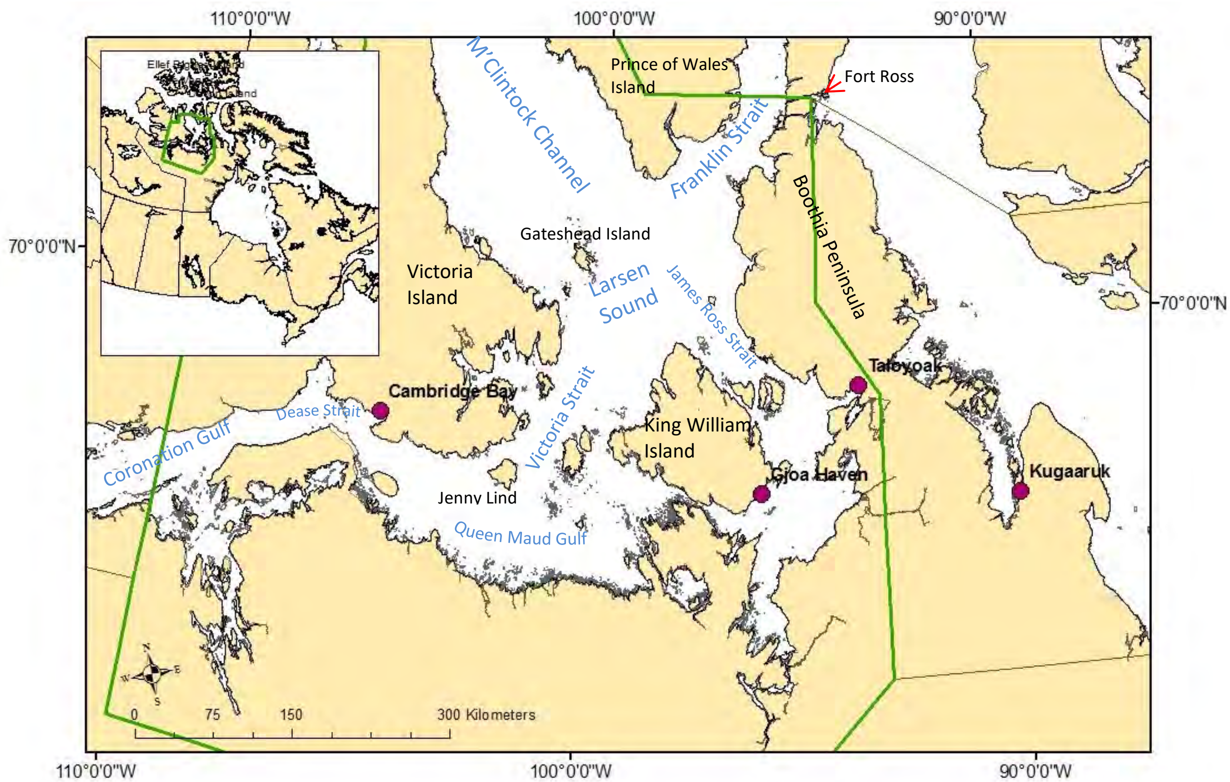

Figure 1. Overview and location of the M'Clintock Channel polar bear subpopulation with major geographical features and water bodies.

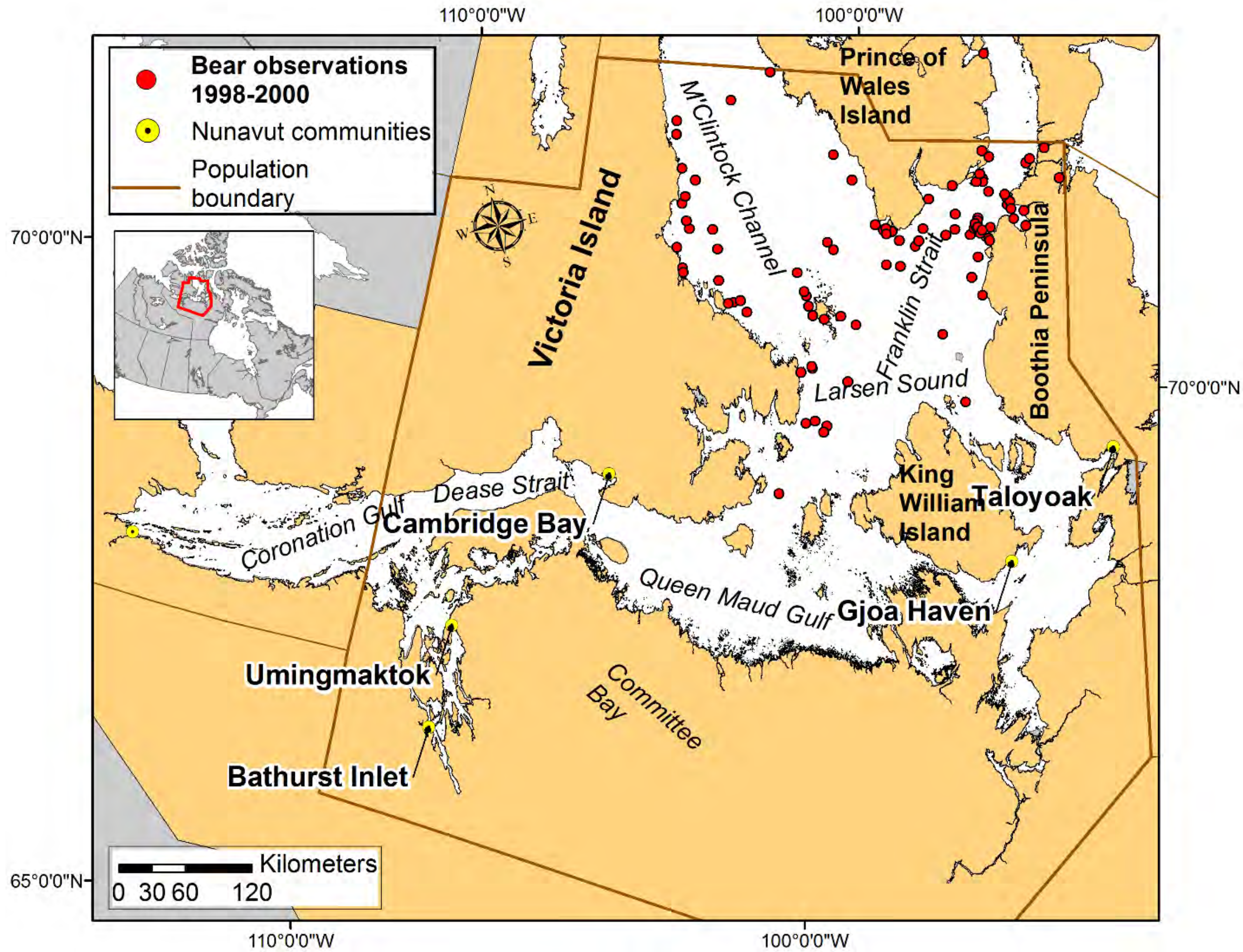

Figure 2. Capture and re-capture locations for the 1998 – 2000 M'Clintock Channel polar bear study.

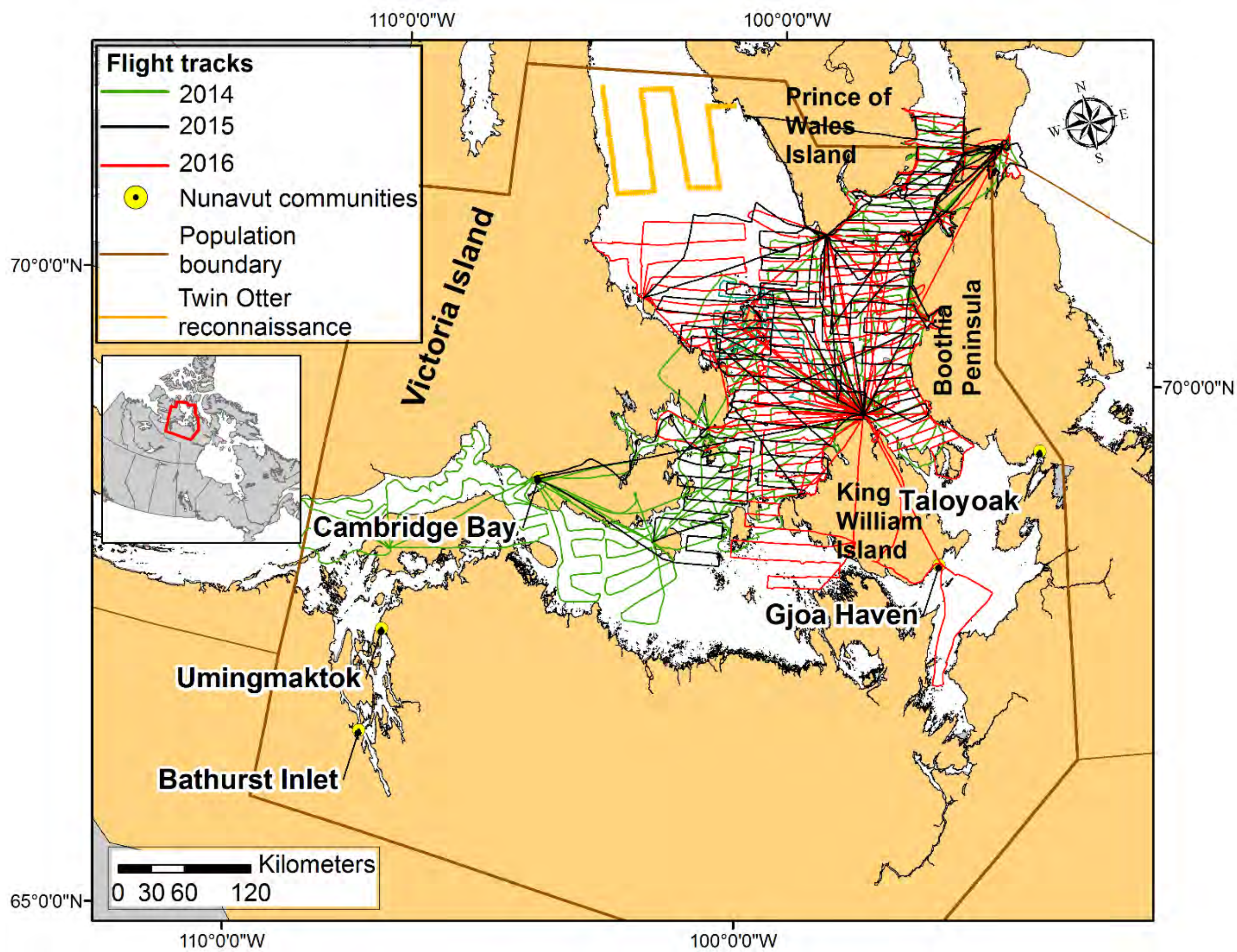

Figure 3. *Helicopter paths flown in search for polar bears in M'Clintock Channel, Nunavut, Canada, during April/May-June 2014 – 2016. The golden path represents the Twin Otter reconnaissance flight during April 2016.*

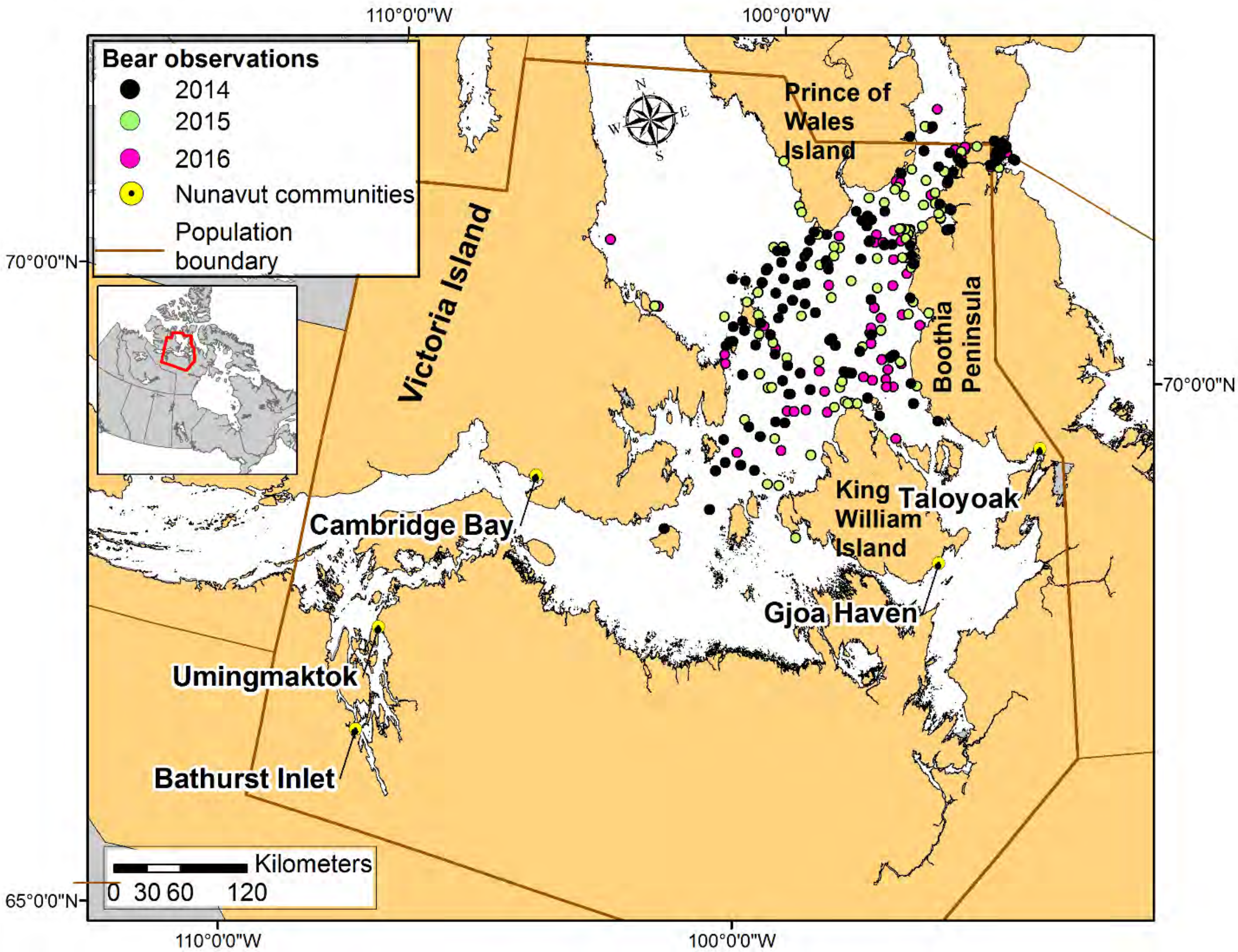

Figure 4. Locations of polar bear encounters in the M'Clintock Channel polar bear subpopulation during April – June of 2014 – 2016.

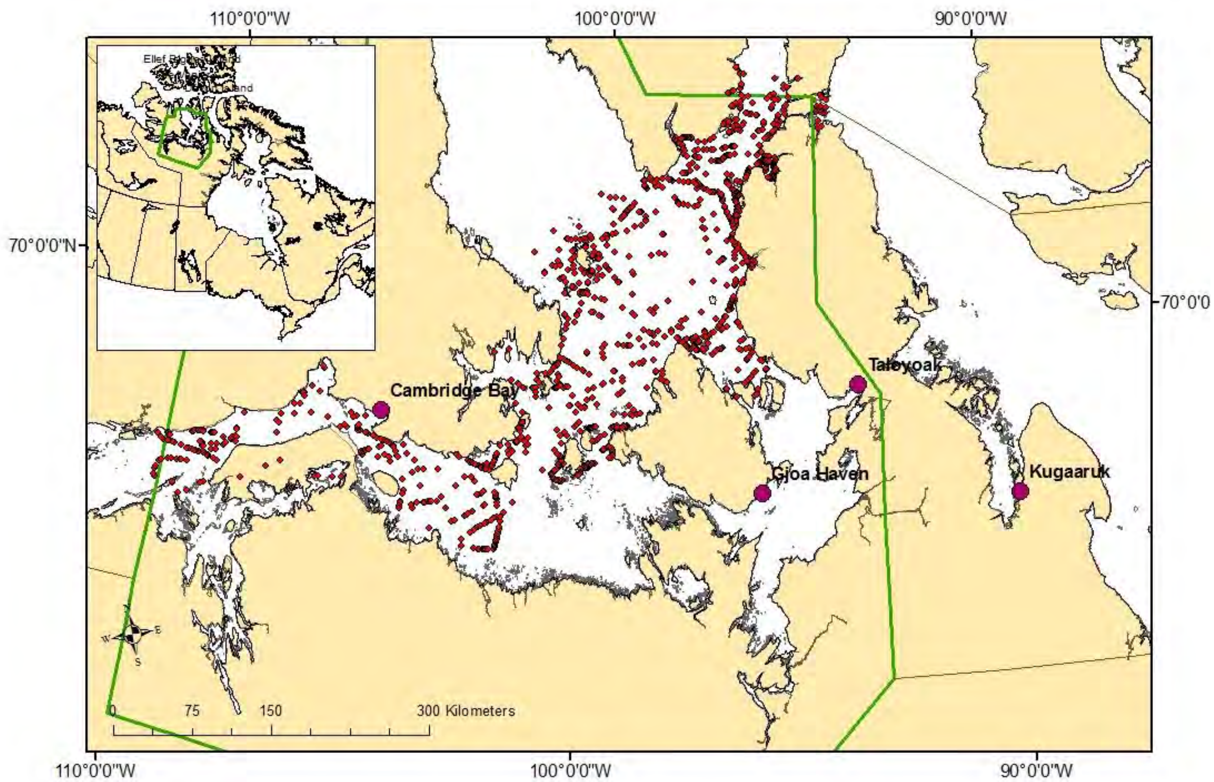

Figure 5. Seal observations for May – June 2014 in M'Clintock Channel (n = 2,236) recorded during search for polar bears.

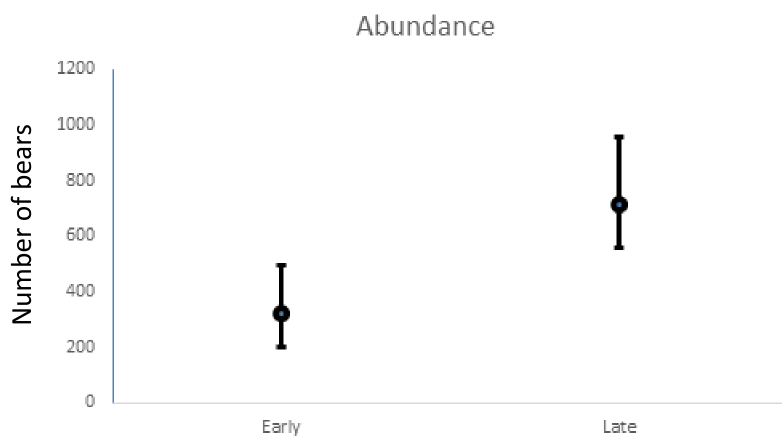

Figure 6. Estimated polar bear abundance in M'Clintock Channel during the early (1998 – 2000) and late (2014 – 2016) study periods.

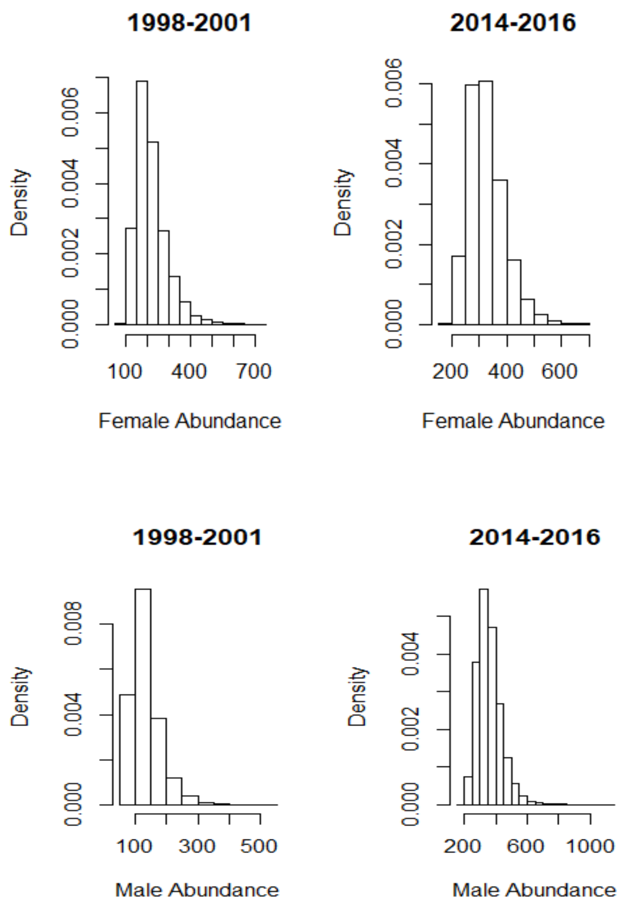

Figure 7. Posterior distributions for abundance estimates of female (top) and male (bottom) M'Clintock Channel polar bears.

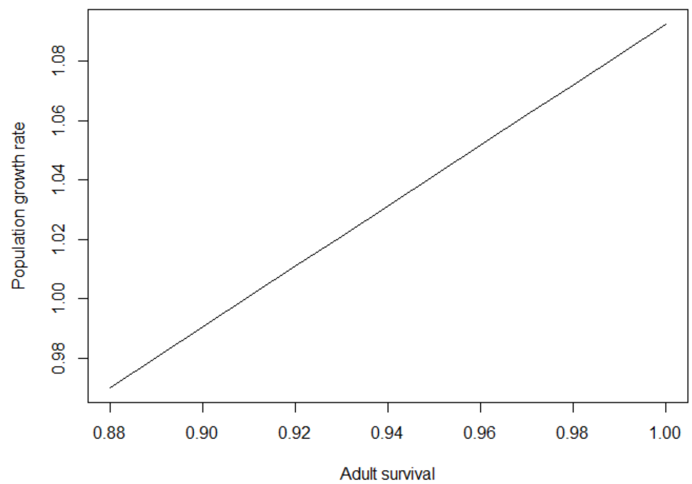

Figure 8. Population growth rate (λ) as a function of adult female survival. The observed growth rate is achieved when survival is approximately 0.92.

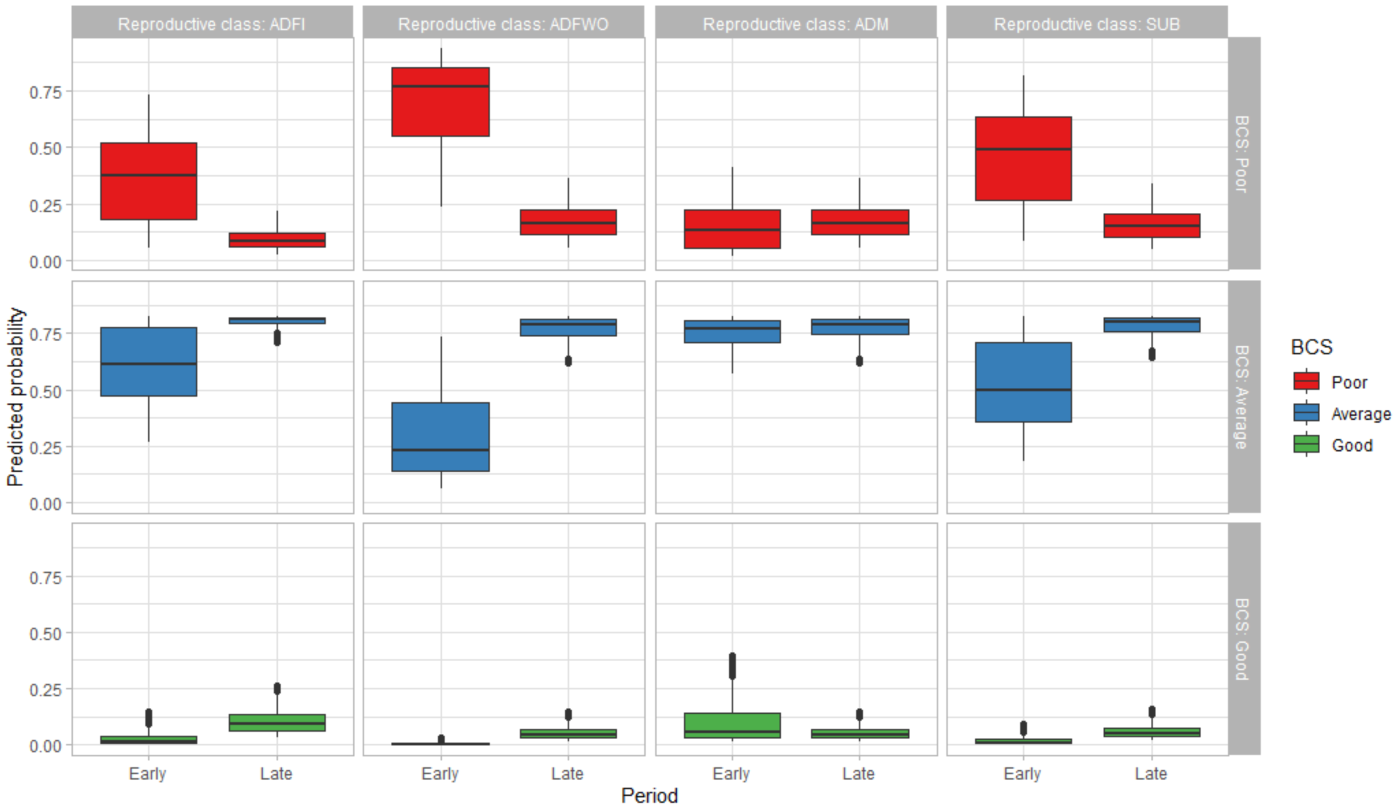

Figure 9. Predicted probabilities of bears being classified in Poor, Average, or Good condition in the early (1998 – 2000) and late (2014 – 2016) sampling periods. ADFI = adult, independent female, ADFWO = adult female with offspring, ADM= adult male, SUB = subadults of both sexes

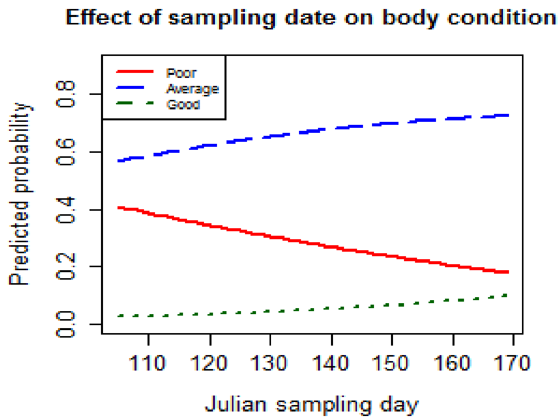

Figure 10. *Predicted probabilities of a bear being in Poor, Average, or Good body condition when sampled at different dates.*

Table 1. Parameter estimates for best fit ordinal logistic regression model for body condition analysis of the M'Clintock Channel polar bear subpopulation

Parameter	Estimate	SE	*p*
periodEarly	1.27	1.54	0.41
reproclassADFWO	-0.74	0.47	0.12
reproclassADM	-0.73	0.40	0.07
reproclassSUB	-0.62	0.50	0.21
jul_cap_day	0.02	0.01	<0.01
$icetm_{t-1}$	-0.01	0.01	0.11
periodearly: $icetm_{t-1}$	-0.03	0.01	0.05
periodearly:reproclassADFWO	-0.97	0.82	0.24
periodearly:reproclassADM	2.07	0.96	0.03
periodearly:reproclassSUB	0.14	0.77	0.86

Table 2. Overview of field statistics of the M'Clintock Channel polar bear study 2014 – 2016.

Field Year	Search time (hrs)	Number of bears/hr	Bears encountered[a]	Flown distance (km)	Duration
2014	97.5	1.90	155	12,600	4 May – 18 June
2015	72.5	1.68	122	10,100	5 May – 8 June
2016	94.0	1.00	95	14,200	19 April – 7 June

[a] The number of bears encountered does not represent the number of unique individuals (e.g., some bears have been resampled within same sampling period)

Table 3. Model selection results for Cormack-Jolly-Seber models of polar bear capture-recapture data from 1998 – 2016 used to estimate apparent survival of independent bears > 2 years. K is the number of parameters in the model.

Model	*K*	AICc	ΔAICc	Weight	Deviance
Phi(constant) p(constant)	2	425.53	0.00	0.28	26.46
Phi(sex)p(constant)	3	426.22	0.69	0.19	420.15
Phi(constant)p(period)	3	426.40	0.87	0.18	25.30
Phi(sex)p(period)	4	427.02	1.49	0.13	418.90
Phi(sex)p(sex)	4	427.25	1.72	0.12	419.13
Phi(constant)p(sex)	3	427.46	1.94	0.10	421.39

Table 4. Mean numbers for cubs-of-the-year (C0) and yearlings (C1) per adult female and litter size for the M'Clintock Channel polar bear subpopulation, 1998 – 2000 and 2014 – 2016.

	Offspring per adult female		Litter size*			
Year	C0	C1	C0	n	C1	n
1998	0.40	0.25	2.00	4	1.67	3
1999	0.40	0.33	1.20	5	1.67	3
2000	0.33	0.60	1.67	3	1.80	5
2014	0.41	0.15	2.00	8	1.50	4
2015	0.61	0.35	1.50	14	1.71	7
2016	0.26	0.32	1.80	5	1.57	7

*Litter sizes of zero (whole litter loss) are not listed; all litters depend on at least one offspring being present.

Table 5. Body condition scores (BCS) for polar bears (n = 380) in the M'Clintock Channel subpopulation 1998 – 2000 and 2014 – 2016. 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			2014 – 2016		
	Poor	Average	Good	Poor	Average	Good
Adult female without offspring	6	12	1	4	52	8
Adult female with offspring	22	8	1	4	44	1
Adult male	2	9	1	18	78	11
Subadult	24	31	2	2	38	1

Appendix A Study activities

Ice habitat images from the field work, in addition to some images of the genetic biopsy darting activities are presented in this appendix to demonstrate the harsh environment, field activities and the non-invasiveness of the technique.

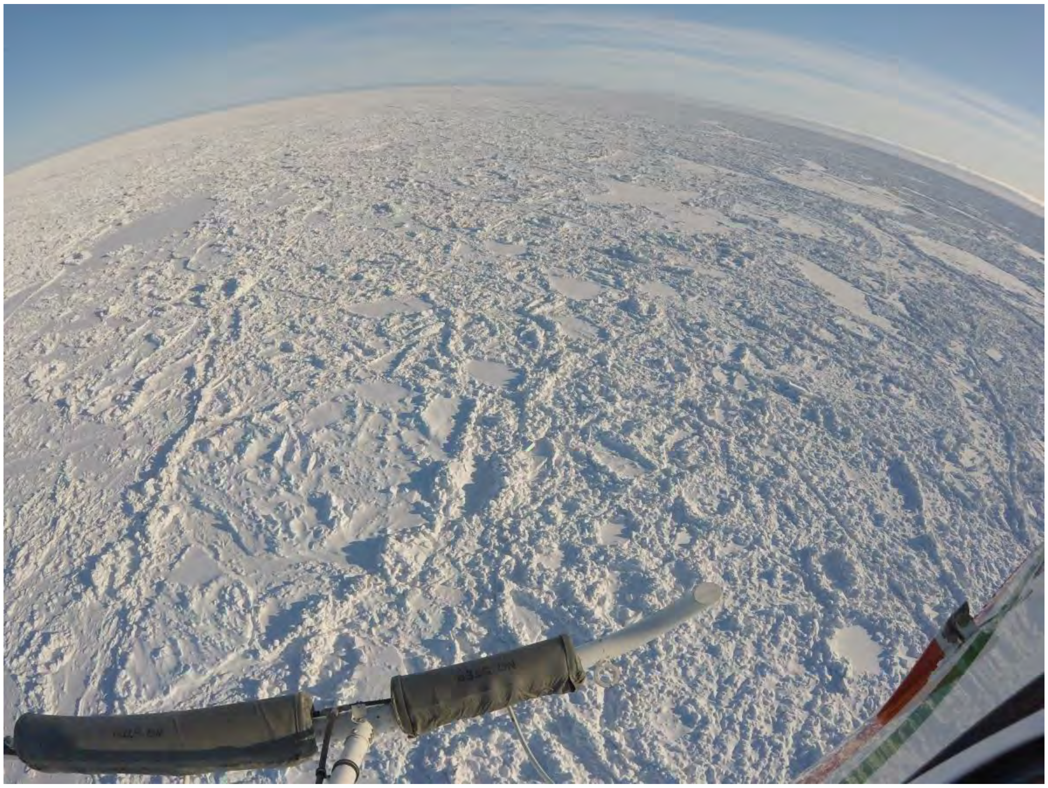

Plate A1. Image from the helicopter directly facing the sea ice. Rough ice, pressure ridges, and ice pans are visible (M. Dyck, Government of Nunavut).

Plate A2. A polar bear being genetically sampled from the air. The **orange color at the left rump area is the flagging tape from** the mid-air dart as it hits the bear and falls to the ground (M. Dyck, Government of Nunavut).

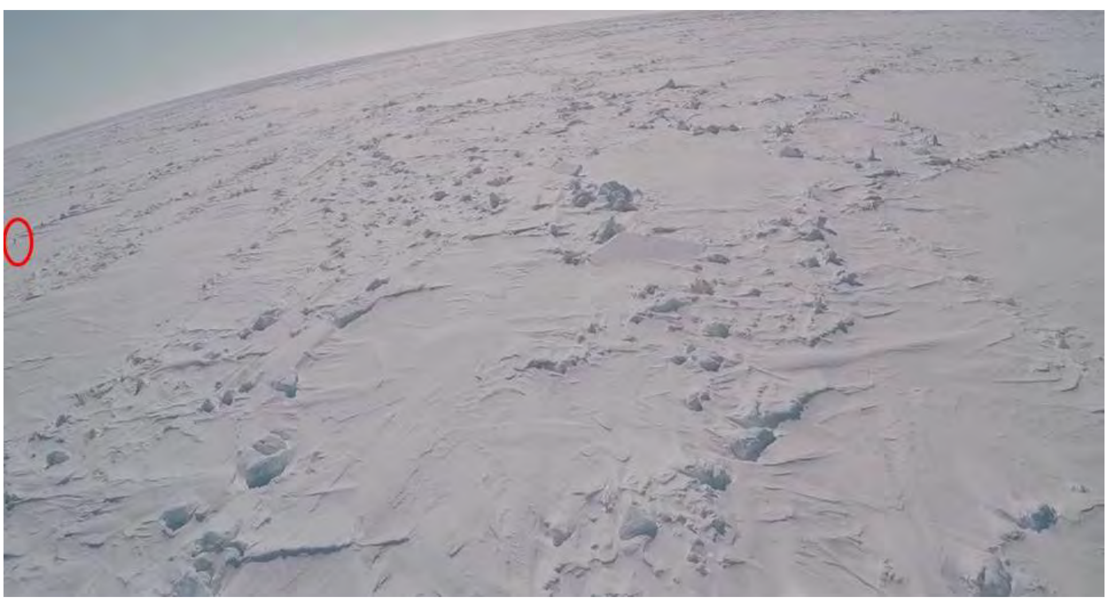

Plate A3. View of the sea ice with pressure ridges and a wind-blown and snow-encrusted surface. A polar bear is visible in the red circle (M. Dyck, Government of Nunavut).

Plate A4. *Discoloured multi-year ice pushed together to form high pressure ridges and rubble ice fields (M. Dyck, Government of Nunavut).*

Plate A5. *Five adult male polar bears along a crack in the sea-ice. These bears were observed feeding together on a bearded seal carcass in May 2014. The sixth bear is not pictured (M. Dyck, Government of Nunavut).*

Plate A6. Genetic biopsy sampling is very minimally invasive. A male polar bear is pictured lying down after being darted, with the dart in the background (M. Dyck, Government of Nunavut).

Plate A7. View of flatter sea-ice areas with a polar bear circled on the flat portion of the sea ice (M. Dyck, Government of Nunavut).

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ᓄᓇᕗᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ

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ᑐᓴᐅᒪᔪᑎᒃᓴᑦ: ᐃᓱᒪᓕᐅᕈᑎᑦ: X

ᐋᖅᑭᒃᑕᐅᓴᕆᐊᓕᒃ: ᑲᑎᓲᑎᒃ ᐱᔭᐅᔪᓐᓇᖅᑐᓄᑦ ᐃᓱᒪᓕᐅᕈᑎᒋᔭᐅᔪᑦ ᐅᒧᖓ ᐃᑦᓯᐊᖅᑐᖅᕕᒃᒥᑦ (Gulf of Boothia) ᓇᓄᕐᓄᑦ

ᐅᖃᐅᓯᖃᒃᓯᒪᓂᖏᑦ:

- ᐅᓇ ᐃᑦᓯᐊᖅᑐᖅᕕᒃᒥᑦ (GB) ᓇᓄᐃᑦ ᑕᐅᕗᙵᐅᕙᒃᑐᑦ ᐊᐅᓚᑕᐅᔪᑦ ᓄᓇᕗᒥᑦ (ᐊᔾᔨᙳᐊᖅ 1). ᑭᖑᓪᓕᖅᐹᖅ ᖃᐅᔨᓴᖅᑕᐅᔾᔪᑎ ᐅᓄᕐᓂᖏᓐᓄᑦ ᐱᓕᕆᐊᖑᓚᐅᕐᓯᒪᔪᖅ 1998-2000 ᐊᑯᓐᓂᖓᓂᒃ, ᐊᒻᒪᓗ ᖃᐅᔾᔨᒍᑎᐅᓪᓗᓂ ᒫᓂ 1592-ᓂᑦ ᓇᓄᕐᑲᕐᓂᖓᓂᒃ. ᐅᕙᓂ ᐃᑦᓯᐊᖅᑐᖅᕕᒃᒥᑦ (GB) ᓇᓄᐃᑦ ᐅᓄᕐᓂᖏᑦ ᓱᕐᑯᓯᕐᓯᒪᓗᐊᓚᐅᕐᓯᒪᙱᑦᑐᑦ 2000-ᒥᑦ ᐅᕝᕙᓘᓐᓃᑦ ᐅᓄᕐᓯᕙᓪᓚᐊᒐᓱᒋᔭᐅᓪᓗᑎᒃ.
- ᓄᓇᓕᐅᔪᑦ ᐅᑯᓇᓂ ᐃᒡᓗᓕᒃ, ᓴᓂᕋᔭᒃ, ᑕᓗᕐᔪᐊᖅ, ᐅᖅᓱᖅᑑᖅ, ᐊᒻᒪ ᑰᒐᕈᒃᒥᐅᑕ ᓇᓐᓄᒐᓯᖅᑲᑦᑕᖅᑐᑦ ᐃᑦᓯᐊᖅᑐᖅᕕᒃᒥᑦ. ᒫᓐᓇ ᑲᑎᓲᑎᒃ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ (TAH) ᐃᑦᓯᐊᖅᑐᖅᕕᒃᒧᑦ 74 ᓇᓄᐃᑦ ᐊᕐᕌᒍᒥᑦ. ᓇᓄᐃᑦ ᐱᔭᐅᔪᓐᓇᕐᑐᑦ ᐅᑯᐊ ᐊᑯᓐᓂᖓᓂᒃ 2004/2005 ᐊᒻᒪ 2018/2019 63-ᓂ ᓇᓐᓄᒍᓐᓇᓚᐅᕐᓯᒪᔪᑦ ᐊᕐᕌᒍᒥᑦ (ᐊᔾᔨᙳᐊᖅ 2). ᐅᓄᙱᓐᓂᕐᓴᐅᔾᔪᑎᑦ ᑲᑎᓲᑎᒃ ᐱᔭᐅᔪᓐᓇᕐᑐᑦ ᐋᖅᑭᒃᑕᐅᓯᒪᔪᒃᓴᐅᔪᖅ ᓄᓇᓕᖕᓂ ᐊᐅᓚᑦᑎᓂᒃᑯᑦ, ᑖᓐᓇᓕ ᓄᖅᑲᖅᑎᑕᐅᖃᑦᑕᓚᐅᕐᑐᖅ ᐊᕐᓇᕐᓗᐃᑦ ᐱᔭᐅᔪᓐᓇᕐᓂᖏᑦ ᐅᕙᓂ 2:1 ᐊᖑᓯᓪᓗᖓ ᒪᕐᒌᖕᓂ ᐊᕐᓇᕐᓗᖕᓂ ᐊᑕᐅᓯᕐᒥ ᐱᔪᓐᓇᖅᓗᑎᒃ ᐊᒻᒪ ᑕᐃᒪᐃᑎᑕᐅᓂᑰᓪᓗᓂ ᐊᕐᓇᕐᓗᖓ ᐱᓗᐊᑲᑕᓪᓛᔭᕆᐊᒃᓴᖏᓐᓂᒃ ᐊᒻᒪ ᐱᔭᐅᔪᓐᓇᕐᑐᓂᒃ ᐅᓄᕈᓐᓃᖅᐹᓪᓕᕈᑎᐅᓗᓂ, ᐊᒻᒪᓗ ᓯᑯ ᐱᐅᙱᓐᓂᖓᓄᑦ ᐊᖑᓇᓱᖓᙱᓐᓂᖅᓴᐅᕙᒃᐳᑎᒃ ᐃᑦᓯᐊᖅᑐᖅᕕᒃᒥᑦ ᐊᖑᓇᓯᒋᐊᖅᐸᒃᑐᓄᑦ.
- ᐅᓄᕐᓂᕆᔭᐅᔪᑦ ᑲᑎᑕᐅᓯᒪᔪᑦ ᓄᑕᐅᙱᓗᐊᓚᐅᕐᒪᑕ, ᐊᒻᒪᓗ ᓄᑖᓂᒃ ᖃᐅᔨᓴᕆᐊᖃᓚᐅᕐᓗᑎᒃ ᖃᔅᓯᐅᓂᖏᓐᓄᑦ ᑕᒪᐅᙵᖅᐸᒃᑐᑦ ᓇᓄᐃᑦ. ᓄᓇᓕᖕᓂ ᐅᖃᓪᓕᖃᑎᖃᓚᐅᕐᓯᒪᑎᓪᓗᒋᑦ 2012 ᐊᒻᒪ 2013-ᒥᑦ, ᓄᑖᒥ ᐊᕐᕋᒍᓂ ᐱᖓᓱᓂ ᖃᐅᔨᓴᕐᓂᕐᒥᒃ 2015-ᒥᑦ ᐱᒋᐊᓕᓚᐅᕐᓯᒪᔪᑦ. ᐊᑐᖅᑕᐅᓚᐅᕐᑐᕐᓕ ᖃᐅᔨᓴᕐᓂᕐᒧᑦ ᐸᒡᕕᓵᕆᓐᓇᙱᓐᓂᕐᓴᒥᑦ ᖃᓄᐃᑑᓂᖏᓐᓂᒃ (DNA) ᖃᐅᔨᓴᖅᑕᐅᔭᒃᓴᓕᕆᓪᓗᑎᒃ. ᐅᓇ ᓄᑖᖅ ᖃᐅᔨᓴᕐᓂᖅ ᐱᓕᕆᐊᖑᓚᐅᕐᑐᖅ 2015-ᒧ 2017-ᒧ ᐊᑯᓐᓂᖓᓂ.
- ᓄᓇᕗᒥᑦ ᒐᕙᒪᒃᑯᑦ, ᐊᕙᑎᓕᕆᔨᒃᑯᑦ (DOE) ᓯᕗᓂᐊᒍᑦ ᐸᕐᓇᒃᓯᒪᓚᐅᕐᓯᒪᔪᑦ ᓄᓇᓕᖕᓂ ᐱᓕᕆᓂᐅᓗᓂ ᑲᑎᕐᓯᐃᕙᓪᓕᐊᓂᒃᑯᑦ ᓄᓇᓕᖕᓂ ᖃᐅᔨᒪᔭᐅᔪᑐᖅᑲᕐᓂᒃ ᐅᑯᓇᙵ ᐃᑦᓯᐊᖅᑐᖅᕕᒃᐅᑉ ᖃᓂᒋᔭᖓᓂ ᓄᓇᓕᖕᓂᑦ ᐊᒻᒪ ᐊᖑᓇᓱᒃᑎᓂᒃ. ᑭᓯᐊᓂᓕ, ᐅᓇ ᓄᕙᒡᔪᐊᕐᓇᖅ-19 ᐋᓐᓂᐊᕕᒡᔪᐊᕐᓇᖅ ᐊᔪᕈᑎᒋᔭᐅᓚᐅᕐᑐᖅ ᓄᓇᓕᖕᓂ ᐅᐸᒃᑕᒡᓗᓂ ᐊᐱᕐᓱᒃᑕᕆᐊᒃᓴᖅ 2020-ᒥᑦ. ᑕᐃᒪᐃᓐᓂᖓᓄᑦ, ᖃᐅᔨᓴᕐᓂᖅ ᐱᓕᕆᐊᖑᔭᕆᐊᕐᑲᓪᓚᐅᕐᑐᖅ ᐃᓄᖅᑲᙱᑦᑐᓂᒃ ᐊᒻᒪᓗ ᑲᔪᓯᓪᓗᓂ ᔭᓄᐊᕆ 2021-ᒥᑦ.

ᒫᓐᓇᐅᔪᖅ ᖃᓄᐃᓕᖓᓕᕐᓂᖓ:

- ᕿᖑᓪᓕᖅᐹᑦ ᐅᓂᒃᑳᑦ ᐊᒻᒪ ᖃᐅᔨᒍᑎᐅᔪᑦ 2015-2017 ᖃᐅᔨᓴᕐᓂᕐᒥᒃ ᐱᐊᓂᒃᑕᐅᓚᐅᕐᓯᒪᔪᖅ ᐊᒻᒪᓗ ᑐᓂᐅᖃᖅᑕᐅᓪᓗᑎᒃ ᑕᒪᑐᒧᖓ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐱᓕᕆᖃᑕᐅᔪᓂᒃ 2020 ᐊᐅᔭᖓᓂ. ᐅᓇ ᐅᓄᕐᓂᖏᓐᓄᑦ ᐃᓱᒪᒋᔭᐅᔪᖅ ᒫᓃᓐᓂᖏᓐᓂᒃ 1525 ᓇᓄᐃᑦ ᖃᐅᔨᓴᖅᑐᓕᕆᓂᒃᑯᑦ ᐊᓯᑎᓗᐊᙱᑕᖓ ᐅᓄᖕᓂᖏᓐᓄᑦ ᐃᓱᒪᒋᔭᐅᓚᐅᕐᓯᒪᔪᒥᒃ ᐃᒪᓐᓇ 1592 (1998-2000).
- ᐅᑯᐊ ᓄᑖᑦ ᖃᐅᔨᔭᐅᒍᑏᑦ ᑕᒫᓃᑦᑐᑦ ᓇᓄᐃᑦ ᓈᒻᒪᖕᓂᖏᓐᓂᒃ ᐊᒻᒪᓗ ᐅᓄᕐᓱᒃᑲᓐᓂᕈᓐᓇᕐᓂᐊᖅᐳᑎᒃ. ᒪᑯᓄᖓ ᐊᑎᕐᑕᓖᓄᑦ ᐊᖏᑎᒋᓂᖏᑦᑎᒍᑦ ᐅᑯᓇᓂ 2015-2017 ᒫᓂᓚᐅᕐᑐᑦ 1.61 (95% ᐱᑕᕐᑲᑦᑎᐊᕐᓂᖏᑦᑎᒍᑦ [CI] = 1.51 – 1.70) ᐊᒻᒪ 1.53 (95% CI = 1.41 – 1.64), ᖃᐅᔨᓴᖅᑕᐅᓪᓗᑎᒃ ᓱᕗᓂᐊᒍᑦ ᖃᐅᔨᒋᐊᕈᑎᕐᑲᕋᑎ ᐅᑯᐊ ᐊᓱᐊᒍᑦ 1998-2000.
- ᑎᒥᖏᓐᓄᑦ ᑕᐅᑦᑐᕆᔭᐅᔪᑦ ᓇᓄᕐᓂ ᐅᐱᙳᒃᑯᑦ ᐊᖏᒡᓕᕚᓪᓕᕐᓯᒪᔪᑦ ᐅᑯᐊ ᐊᑯᓐᓂᖓᓂᒃ 1998-2000 ᐊᒻᒪᓗ 2015-2017, ᑕᒪᓐᓇᓗ ᓱᑯᑉ ᖃᓄᐃᓕᖓᓂᖓ ᐊᓯᙳᖅᐹᓪᓕᐊᓂᖓᓄᑦ (ᓱᕐᓗ ᒥᒃᓴᕚᓪᓕᕐᓂᖏᓐᓂᒃ ᓱᑯᑦᕐᑲᐃᕐ) ᖃᐅᔨᓭᕝᕙᐅᔪᒥᑦ. ᐊᓯᔾᔨᕈᑎᐅᔪᑦ ᓱᑯᑦᑲᕐᓂᒃ ᐱᑕᕐᑲᕈᓐᓃᕐᓂᕐᓴᐅᔪᓄᑦ ᐊᒻᒪᓗ ᐊᕐᕿᒍᒧᑦ ᓱᑯᑕᕐᑲᕐᓂᕐᓴᐅᓂᖓᓄᑦ ᓇᓄᕐᓂ ᓂᕆᔭᒃᓴᕆᓐᓂᒃ ᐱᔪᓐᓇᕐᓂᕐᓴᐅᒍᑎᐅᓇᓱᒋᔭᐅᔪᖅ.
- ᐱᔾᔪᑎᒋᓪᓗᒍ ᓇᒧᙵᐅᕙᓪᓕᐊᓂᖏᓐᓄᑦ ᑲᑎᑕᐅᕙᓪᓕᐊᔪᑦ ᐱᑕᕐᑲᙱᓗᐊᕐᓂᖏᓐᓂᒃ (ᓲᕐᓗ ᓂᐱᓕᐅᕐᓯᒪᓂᒃᑯᑦ/ᐅᖓᓱᕈᖕᓂᕐᒧ) ᑕᐃᒪᓕ ᐊᔪᕐᓇᖅᑐᕈᓘᖕᒪᑦ ᓇᓗᓇᐃᕆᐊᒃᓴᖅ ᖃᓯᐅᔭᕆᐊᒃᓴᖕᒋᓐᓂ ᑕᒪᐅᙱᖅᐸᓪᓕᐊᔪᑦ ᐊᒻᒪ ᑕᒫᓂᒍᓐᓃᕐᓴᒪᔪᑦ ᒫᓂ ᐃᑦᓱᐊᖅᑐᖅᕙᒃᐅᓪᓗ (GB) ᐊᒻᒪ ᐊᓱᐊᓃᑦᑐᑦ ᓇᓄᐃᑦ. ᐱᑕᕐᑲᕋᓗᐊᕐᑎᓪᓗᒍ ᑕᒪᐅᙱᖅᐸᒃᑐᑦ ᐃᓂᒋᕙᒃᑕᕆᑦ, ᓇᓄᐃᑦ ᐊᓱᐊᓂᒃ ᓄᓇᒦᑦᑐᑦ ᐅᑎᖅᑕᕋᐅᔭᕐᑲᑦᑕᖅᑐᒃᓴᐅᖕᒪᑕ ᐃᓂᒋᔭᐅᔪᑦ ᐊᑯᓐᓂᖏᑦᑎᒍᑦ ᖃᓄᐃᓕᖓᓕᕐᓂᖓᓄᑦ ᓯᓚᐅᑉ. ᐅᓄᕐᓂᖏᓐᓄᑦ ᐃᓱᒪᒋᔭᐅᔪᖅ ᓴᖅᑭᑎᑦᑎᓯᒪᔪᖅ “ᐅᓄᓛᒃᑯᑦ” (ᓲᕐᓗ, ᐃᓚᐅᑎᑦᑎᓯᒪᔪᖅ ᑕᒪᐃᓐᓂ ᓇᓄᕐᓂᒃ ᐃᑦᓱᐊᖅᑐᖅᕕᒃᒥᑦ ᐊᐅᓚᑦᑎᕕᐅᔪᒥᑦ).
- ᐅᓇ ᑲᑎᔪᑎᒃ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ (TAH) 74 ᐅᓄᕐᓂᐅᔪᖅ ᐋᖅᑭᐊᖅᑕᐅᓯᒪᙱᑦᑐᖅ ᑕᒪᐅᙱᖅᐸᒃᑐᓄᑦ ᓇᓄᕐᓄᑦ ᐊᕐᕌᒍᓕᕐᑐᓂᒃ ᕐᑯᓕᓂᒃ ᓇᓐᓄᑲᓱᖕᓇᐅᑎᓪᓗᒍ. ᓇᓄᐃᑦ ᐱᔭᐅᔪᓐᓇᖅᑲᑦᑕᕐᓯᒪᔪᑦ ᐊᕐᕌᒍᓕᕐᑐᓂᒃ ᑖᓪᓕᒪᓂᒃ ᒫᓂᓯᒪᔪᖅ 64-ᓂ ᓇᓐᓄᒍᓐᓇᖅᐳᑎᒃ (ᐊᔾᔨᙳᐊᖅ 2).

ᐊᐱᖅᓱᕐᓃᑦ:

- ᐅᐸᕐᑲᑎᒌᖕᓂᒃᑯᑦ ᓄᓇᓕᖕᓂ ᖃᐅᔨᓇᓱᒃᑕᑕᓚᐅᕐᑐᑦ ᒪᑯᓂᖓ ᕿᒻᒪᖅᑐᐃᔨᐅᔪᓂᒃ ᐃᑦᓱᐊᖅᑐᖅᕕᒃᒧᑦ ᐊᖑᓇᓱᒃᑐᓕᕆᔨᒃᑯᓐᓂᒃ (HTO) ᐅᒃᑑᐱᕆ 20-ᒧ 28-ᒧ ᐊᑯᓐᓂᖓᓂᒃ 2020.
- ᐊᖏᕐᑲᑎᒌᖕᓂᕐᑕᕐᑲᓚᐅᕐᑐᖅ ᐊᖑᓇᓱᒃᑐᓕᕆᔨᓄᑦ ᐅᑯᓂᖓ ᖃᐅᔨᔭᐅᓯᒪᔪᓄᑦ ᓄᓇᕗᒥᑦ ᒐᕙᒪᒃᑯᑦ ᐅᓂᒃᑳᖏᓐᓂᒃ, ᐃᓚᖏᓪᓕ ᐊᖑᓇᓱᒃᑐᓕᕆᔨᓄᑦ ᐃᓚᒋᔭᐅᔪᑦ ᐊᐱᕆᓚᐅᕐᓱᑎᒃ ᖃᓄᖅ ᐅᓄᒃᑲᓐᓂᕐᑐᓂᒃ ᓂᕙᙵᑕᖅᒌᕈᓐᓇᕐᒪᖓᑕ.
- ᑕᐃᒪᐃᓐᓂᐸᓗᒃ ᐊᖑᓇᓱᒃᑐᓕᕆᔨᐅᔪᑦ ᐃᓱᓖᑰᑎᕐᑲᓚᐅᕐᑐᑦ ᐊᖑᓇᓱᒃᑐᓕᕆᔨᒃᑯᑦ ᓂᕝᕙᙵᑕᖅᑖᖅᑎᕙᖕᓂᖏᓐᓂᒃ ᑕᒪᓐᓇᓗ ᕿᒥᕐᕈᐊᖅᑕᐅᒃᑲᓐᓂᕐᑯᔭᐅᓪᓗᓂ ᐊᔾᔨᒋᒃᑎᑦᑎᓂᖅ ᐊᒻᒪ ᓇᓕᒧᕆᒃᑎᑦᑎᓂᖅ ᐊᑐᖅᑕᐅᕙᓗᐊᕐᒪᖔᑦ ᓄᓇᓕᖕᓂ ᐊᖑᓇᓱᑦᑎᐊᖅᐸᒃᑐᓂᑦ ᐃᑦᓱᐊᖅᑐᖅᕕᒃᒥᑦ ᓇᓄᕐᓂ.
- ᐃᖅᑲᓇᐃᔭᖅᑎᑦᑎᔨᐅᔪᑦ ᐅᑯᓇᙱᑦ ᓄᓇᕗᑦ ᑐᙵᕕᒃ (NTI), ᓄᓇᕗᕐᒥ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ (NWMB), ᕿᑎᕐᒥᐅᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ (KRWB), ᐊᒻᒪᓗ ᕿᑭᖅᑖᓗᒃᒥᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ (QWB) ᐊᑐᐃᓐᓇᐅᓚᐅᕐᒥᔪᑦ ᑲᑎᒪᔪᓂ ᐅᐸᒃᑕᒃᐳᑎᒃ (ᑕᑯᒧᒍ ᓇᒧᓇᐃᔭᕐᓯᒪᔪᑦ ᐅᕙᓂ ᐃᑦᓱᐊᖅᑐᖅᕕᒃᒥᑦ ᖃᐅᔨᓇᓱᖕᓂᕐᒧᑦ ᐅᓂᒃᑳᓂᒃ ᐅᑯᓇᙱᑦ ᓄᓇᕗᒥᑦ ᒐᕙᒪᒃᑯᑦ ᐊᕙᑎᓕᕆᔨᖏᓐᓂᒃ).
- ᑭᕙᓪᓕᕐᒥᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ (KWB) ᐅᐸᒍᑎᔪᓐᓇᓚᐅᙱᑦᑐᑦ.

ᐊᑐᓕᕐᑯᔭᐅᔪᑦ:

1. ᐊᕙᑎᓕᕆᔨᒃᑯᑦ (DOE) ᐃᓱᒪᓕᐅᕆᔪᑦ **ᐊᓯᙱᖅᑎᑕᐅᙱᓪᓗᓂ ᒫᓇ ᑲᑎᙵᑎᒃ ᐱᔾᐅᔪᓐᓇᕐᑐᑦ ᐅᓄᕐᓂᖏᑦ (TAH) 74 ᓇᓄᐃᑦ ᐃᒻᒪᓇ 1:1 ᐊᑕᐅᓯᖅ ᐊᖑᓴᓪᓗᖅ ᐱᔾᐅᔪᖅ ᓇᓕᒧᓪᓗᒍ ᐊᑕᐅᓯᕐᒥ ᐊᕐᓇᕐᓗᖕᒥ ᐱᔪᓐᓇᕐᓂᕐᒧᑦ.**

<u>ᐱᔾᔪᑎᖏᑦ:</u>

a. ᐃᓱᒪᓕᐊᕆᔭᐅᔪᖅ ᑲᑎᙵᑎᒃ ᐱᔾᐅᔪᓐᓇᖅᑐᑦ (TAH) ᐃᓱᒪᒋᔭᖅᑲᕐᓂᒃᑯᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐱᓕᕆᐊᓄᑦ ᑕᒪᒃᑯᐊ ᓇᓄᐃᑦ ᐅᓄᕐᓂᖏ ᓈᒻᒪᒐᓱᒃᓗᒋᑦ. ᖃᐅᔨᓴᕈᑎᕕᓃᑦ ᓴᖅᑭᑦᑎᓯᒪᔪᑦ ᐅᓄᕐᓂᕆᔭᐅᔪᑦ ᓱᕈᓯᓗᐊᕐᓯᒪᙱᓐᓂᖏᓐᓂᒃ ᐅᓇ ᐊᑐᖅᑕᐅᓪᓗᓂ 74-ᓂ ᓇᓐᓄᒍᓐᓇᕐᓂᖅ ᐅᖏᓇ ᑲᑎᙵᑎᒃ ᐱᔾᐅᔪᓐᓇᖅᑐᑎᒍᑦ (TAH).

b. ᐃᓱᒪᓕᐊᕆᔭᐅᔪᖅ ᐃᓱᒪᒋᔭᖅᑲᕈᑎᐅᖕᒥᔪᖅ ᐊᓯᙱᖅᐸᓪᓕᐊᓂᖓ ᓄᓇᐅᑉ ᖃᓄᐃᑉᐸᓪᓕᐊᒍᑎᓄᑦ, ᐊᒻᒪᓗ ᐅᑯᐊ ᐃᑦᓱᐊᖅᑐᖅᕕᒃᒥᑦ ᓇᓄᐃᑦ ᐃᓚᒋᔭᐅᒻᒪᕆᒃᑲᑎᒃ. ᓄᓇᐅᑉ ᖃᓄᐃᑉᐸᓪᓕᐊᓂᖓ ᐊᓯᔾᔨᖅᐸᓪᓕᐊᕆᓐᓇᐅᔭᕐᒪᑦ ᓯᓚᐅᑉ ᐊᓯᙱᖅᐸᓪᓕᐊᓂᖓᓄᑦ ᐊᒻᒪᓗ ᐊᑯᓂᕈᓗᒃ ᐊᒃᑐᐃᒍᑎᐅᔪᓐᓇᖅᑐᓄᑦ, ᑕᒪᒃᑯᐊ ᐊᓯᙱᖅᐸᓪᓕᐊᒍᑎ ᑭᓯᒧᑦ ᓇᓗᓇᖅᑐᒥᒃ.

c. ᐋᖅᑭᒃᓱᐃᓂᖅ ᐃᑦᓱᐊᖅᑐᖅᕕᒃᒥ ᓈᓄᒃᑕᐅᔪᓐᓇᖅᑐᑦ ᒫᓇ ᖁᕝᕙᕆᐊᖅᑕᐅᒃᐸᑕ ᐅᓗᕆᐊᓇᕆᔭᐅᖕᒪ ᐅᓄᕈᓐᓃᓗᐊᕐᔭᕐᓂᖏᓐᓂᒃ, ᒫᓂᑐᐃᓐᓇᐅᙱᑦᑐᖅ ᐃᑦᓱᐊᖅᑐᖅᕕᒃᒥᑦ ᑭᓯᐊᓂᓕ ᖃᓂᒋᔭᖓᓂ ᓇᓄᕐᓂ ᒪᑯᓄᖓ ᐊᓱᐊᓄᐊᖅᐸᓪᓕᐊᓂᕐᒧ/ᑕᒪᐅᙵᖅᐸᓪᓕᐊᔪᑦ ᐅᓄᕐᓂᖏᓐᓄᑦ.

d. ᐅᓇ ᑲᑎᙵᑎᒃ ᐱᔾᐅᔪᓐᓇᖅᑐᑦ (TAH) 74 ᐅᓄᕐᓂᐅᔪᖅ ᐋᖅᑭᑎᐊᖅᑕᐅᓯᒪᙱᑦᑐᖅ ᑕᒪᐅᙵᖅᐸᒃᑐᓄᑦ ᓇᓄᕐᓄᑦ ᐊᕐᕌᒍᓕᕐᑐᓂᒃ ᖁᓕᓂᒃ ᓈᓄᒐᓱᒐᐅᑎᓪᓗᒍ. ᐊᕐᕌᒍᓕᕐᑐᓂᒃ ᑖᓕᒪᓂᒃ ᓈᓄᒃᑕᐅᔪᓐᓇᖅᑐᑦ ᒫᓃᓯᒪᔪᖅ 64-ᓂ ᓈᓄᒍᓐᓇᖅᑲᑎᒃ.

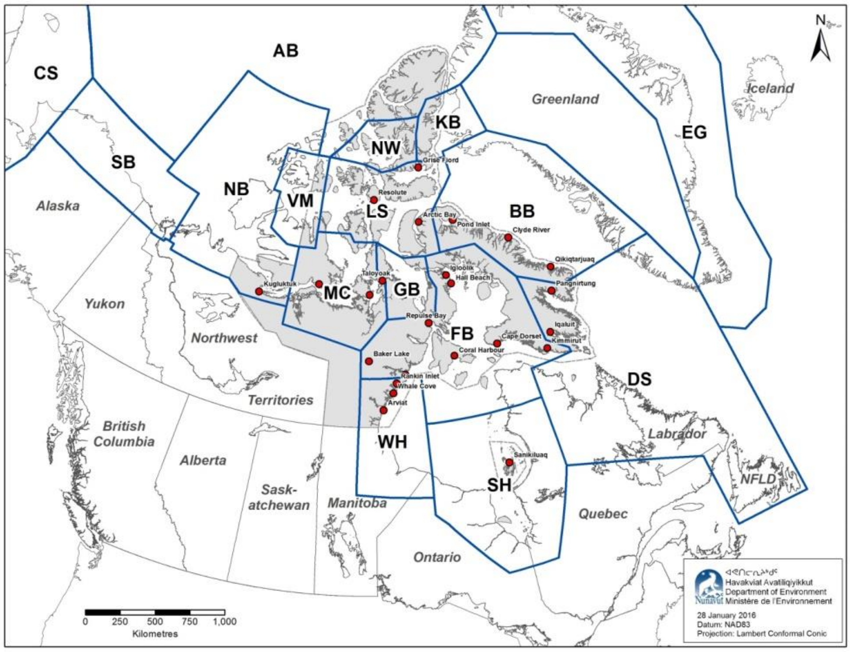
2. ᐊᕙᑎᓕᕆᔨᒃᑯᑦ (DOE) ᐃᓱᒪᓕᐅᕆᓚᐅᕐᑐᑦ ᑕᒪᒃᑯᐊ ᐱᓕᕆᐊᖃᖅᑐᓕᒫᑦ ᐊᕕᒃᑐᕐᓯᒪᓂᒃᑯᑦ ᐆᒪᔪᓕᕆᔩᔪᐊᒃᑯᑦ ᑲᑐᔾᔨᖃᑎᒌᖕᒋᑦ ᐅᖃᓪᓚᖃᑎᖃᕐᓗᑎᒃ ᐃᑦᓱᐊᖅᑐᖅᕕᒃᒥᑦ ᓈᓄᒃᑕᐅᔪᓐᓇᖅᑐᓄᑦ ᓂᕕᙵᑕᒃᓴᐃᑦ ᐊᕕᒃᑐᖅᑕᐅᓂᖓᓂᒃ ᓄᓇᓕᖕᓂ ᐊᒃᑐᖅᑕᐅᓯᒪᔪᓂᒃ, ᐃᓚᖃᕐᓗᓂ ᓈᓄᒃᑕᐅᔪᓐᓇᖅᑐᑦ ᒫᓂ ᖃᑭᐅᔭᕐᒥᑦ (M'Clintock Channel [MC]) ᓇᓄᐃᑦ.

<u>ᐱᔾᔪᑎᖏᑦ:</u>

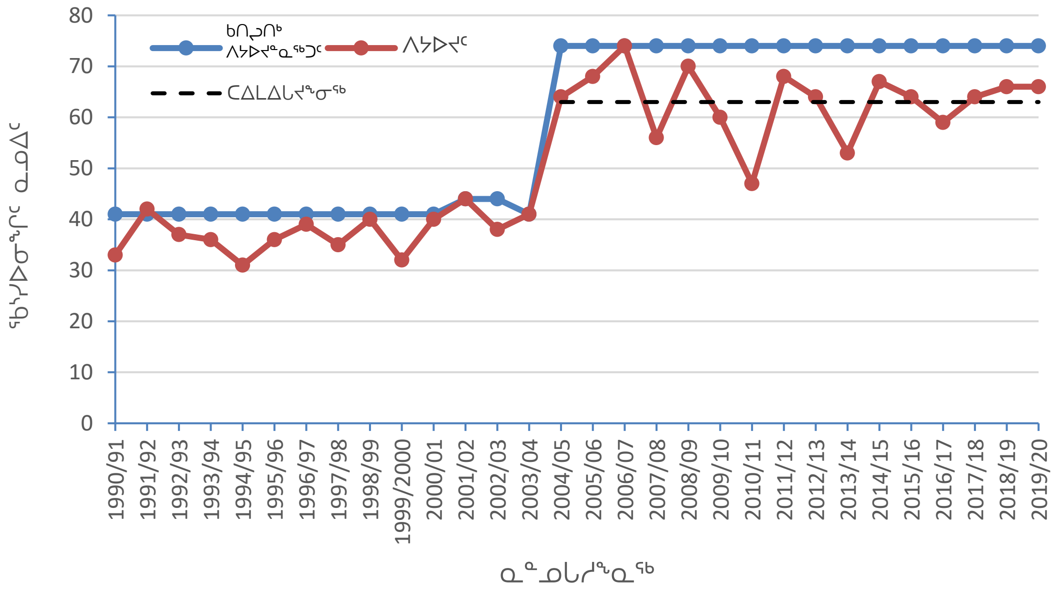
a. ᐅᖃᖃᑎᖃᕐᓂᒃᑯᑦ ᑲᑎᒪᑎᓪᓗᒋᑦ (ᐅᒃᑑᐱᕆ 19-21,2020) ᐊᔾᔨᐸᓗᖏᓐᓂᒃ ᐃᓱᒫᓘᑎᖃᓚᐅᕐᑐᑦ ᐊᑐᓂ ᓄᓇᓕᐅᔪᑦ ᐆᒥᖓ ᒫᓇ ᓂᕕᙵᑕᖅᑖᖅᑎᑦᑎᕝᕕᓂᕐᒥ ᐃᑦᓱᐊᖅᑐᖅᕕᐅᑉ ᖃᓂᒋᔭᖓᓐᓂᑐᓄᑦ ᓄᓇᓕᖕᓄ ᐋᖅᑭᒃᓯᖅᑕᐅᒃᑳᓂᕆᐊᖅᑲᕐᓂᖓᓂᒃ ᐊᒻᒪᓗ ᐱᔾᐅᔪᓐᓇᖅᑐᓕᕆᓂᖅ.

b. ᐅᓇ ᑲᑎᙵᑎᒃ ᐱᔾᐅᔪᓐᓇᖅᑐᑦ (TAH) 74 ᐅᓄᕐᓂᐅᔪᖅ ᐋᖅᑭᑎᐊᖅᑕᐅᓯᒪᙱᑦᑐᖅ ᑕᒪᐅᙵᖅᐸᒃᑐᓄᑦ ᓇᓄᕐᓄᑦ ᐊᕐᕌᒍᓕᕐᑐᓂᒃ ᖁᓕᓂᒃ ᓈᓄᒐᓱᒐᐅᑎᓪᓗᒍ. ᐊᕐᕌᒍᓕᕐᑐᓂᒃ ᑖᓕᒪᓂᒃ ᓈᓄᒃᑕᐅᔪᓐᓇᖅᑐᑦ ᒫᓃᓯᒪᔪᖅ 64-ᓂ ᓈᓄᒍᓐᓇᖅᑲᑎᒃ.

ᐃᓚᓕᐅᔾᔪᑎᒪᔪᖅ 1



ᐊᔾᔨᖑᐊᖅ 1. ᕿᒥᕿᐊᕐᓂᖅ ᓄᓇᕗᒥᑦ ᓇᓄᐃᑦ ᐅᓄᕐᓂᖓᑎᓐᓂᒃ (GB = ᐃᑦᓯᐊᖅᑐᖅᕕᒃ, MC = ᖃᑦᑎᐅᔭᖅ).



ᐊᔾᔨᓐᖑᐊᖅ 2. ᖃᒥᕐᖏᐊᕐᓂᖅ ᐃᑦᓱᐊᖅᑐᖅᑲᒃ ᓇᓄᖕᒋᑦ ᑲᑎᖓᑎᒃ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ (TAH), ᐱᓪᓚᕆᐅᓂᒃᑯᑦ ᐊᒻᒪ ᐱᔭᐅᖃᑦᑕᕐᓂᖕᒋᑦᑎᒍ ᑕᐃᒪᖖᒐᓂᑦ 1990-ᒥᑦ.

ᑲᑐᑎᓗᒍ ᓄᓇᕗᑦ ᐱᕈᖅᐸᓪᓕᐊᑎᓪᓚᕗᑦ
Building Nunavut Together
Nunavuliuqatigiingniq
Bâtir le Nunavut ensemble

ᐊᕙᑎᓕᕆᔨᒃᑯᑦ
Department of Environment
Avatiliqiyikkut
Ministère de l’Environnement

ᐃᑭᕋᓯᐅᑉ ᐃᒪᖓᓂ ᓇᓄᐃᑦ ᖃᐅᔨᓴᖅᑕᐅᓚᐅᖅᑎᑦᑐᒋᑦ ᖃᐅᔨᓵᒥᓃᑦ ᓴᖅᑭᖅᓯᒪᔪᑦ

ᑐᓴᕋᐊᕐᕕᖃᖅᑐᑦ ᐊᒃᑑᕝᕙ 20-28, 2020

ᑐᓴᕋᐊᕐᕕᖃᓚᐅᖅᑎᑦᑐᒋᑦ ᓇᐃᓈᖅᓯᒪᔪᑦ ᐅᓂᒃᑳᓕᐊᓇᔭᐅᓯᒪᓂᖏᑦ

ᓇᓄᕐᓂᑦ ᖃᐅᔨᓴᖅᑏᑦ
ᐊᕙᑎᓕᕆᔨᒃᑯᑦ
ᓄᓇᕗᑦ ᒐᕙᒪᖏᑦ
ᐃᒡᓗᓕᒃ, ᓄᓇᕗᑦ

ᐅᓂᒃᑳᑉ ᓇᐃᓈᖅᓯᒪᓂᖏᑦ

ᓄᓇᕗᑦ ᒐᕙᒪᖓᑦ, ᐊᕙᑎᓕᕆᔨᒃᑯᓐᓂ ᑭᒡᒐᖅᑐᐃᔩᑦ, ᐊᒻᒪᓗᑦᑕᐅᖅ ᐱᖃᑎᒋᔭᐅᓪᓗᑎᑦ ᑭᒡᒐᖅᑐᐃᔪᑦ ᕿᑎᖏᐅᑦ ᐆᒪᔪᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ, ᓄᓇᕗᑦ ᑐᙵᕕᒃ ᑎᒥᖓ, ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔩᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ, ᐱᖃᑕᐅᔪᓐᓇᕋᐃᒻᒪᑕ, ᑐᓴᕆᐊᕐᕕᖃᖅᐸᓚᐅᖅᐳᑦ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᖕᓂ ᐊᒃᑐᕝᕙ 20-28, 2020-ᐅᑎᓪᓗᒍ. ᐱᔪᑎᒋᓚᐅᖅᑖ ᑐᓴᕆᐊᕐᕕᖃᖅᑎᓪᓗᒋᑦ ᐊᐅᓚᑦᑎᔨᐅᖃᑎᒌᑦᑐᓄ ᓇᓗᓇᐃᔭᐃᖅᑯᓪᓗᒋᑦ ᒫᓐᓇᓕᓴᐅᓙᖑᔪᓂᑦ ᖃᓪᓗᓇᕐᔫᖕᒐᑦ ᖃᐅᔨᓴᐅᓯᖏᑎᒍᑦ ᖃᐅᔫᓯᒥᓃᑦ ᓴᖅᑭᖅᓯᒪᓂᖏᑦ ᑕᐃᑲᓂ ᐃᑭᕋᓴᐅᑉ ᐃᒪᖓᓂ ᓇᓄᐃᑦ ᑕᐃᑲᓃᑦᑐᑦ ᐊᒥᓲᓂᖏᑦ, ᐊᒻᒪᓗᑦᑕᐅᖅ ᐅᖃᐅᓯᒃᓴᓇᔭᐅᔪᓂ ᓄᐊᑦᑎᓪᓗᑎᑦ ᓴᖅᑭᖅᓯᒪᔪᑦ ᐅᓂᒃᑲᐅᑕᐅᓯᒪᔪᓂᑦ ᐊᒻᒪᓗ ᓄᐊᑦᑎᒃᑲᓂᖅᑐᑎᑦ ᐱᖅᑯᓯᑐᖃᖅᑎᒍᑦ ᖃᐅᔨᒪᔭᐅᔪᓂᑦ. ᑕᐃᒃᑯᐊᑐᐊᖅ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᑦ ᓄᓇᓕᐅᔪᓂᑦ ᐊᖑᓇᓯᓲᑦ ᐃᑭᕋᓴᐅᑉ ᐃᒪᖓᓂ ᑐᓴᕆᐊᕕᐅᓚᐅᖅᐳᑦ. ᐅᖃᐅᓯᒃᓴᓇᔭᐅᔪᑦ ᐊᒻᒪᓗ ᐱᖅᑯᓯᑐᖃᖅᑎᒍᑦ ᖃᐅᔨᒪᔭᐅᔪᑦ ᓄᐊᑕᒥᓃᑦ ᑕᐃᑲᙵᑦ ᑐᓴᕆᐊᕕᖃᖅᑎᓪᓗᒋᑦ ᐃᓱᒪᒃᓴᖅᓯᐅᕈᑕᐅᒐᔭᖅᐳᑦ ᐋᖅᑮᑎᓪᓗᒋᑦ ᑲᑎᓕᒫᖅᑐᒋᑦ ᐊᖑᔭᐅᔪᓐᓇᖅᑐᑦ ᐊᒥᓲᓂᖏᖕᓂ ᐊᑐᖁᔭᐅᕙᔭᖅᑐᓂᑦ ᐃᑭᕋᓴᐅᑉ ᐃᒪᖓᓂ ᓇᓄᐃᑦ ᐊᒥᓲᓂᑦ ᑐᓂᔭᐅᕙᔭᖅᑐᑎᓪᓗ ᑕᒪᒃᑯᐊ ᐊᑐᓕᖅᑯᔭᐅᔪᑦ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔩᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᖕᓄᑦ ᐃᓱᒪᓕᐅᕈᑕᐅᕙᔭᕐᒪᑕ. ᑖᓇ ᐅᓂᒃᑳᖅ ᓇᐃᓈᓱᐊᖅᓯᒪᒍᖅ ᐅᖃᐅᓯᒃᓴᓇᔭᐅᓚᐅᖅᑐᓂᑦ ᑐᓴᕆᐊᕕᖃᖅᑎᓪᓗᑕ ᐃᓚᐅᖃᑕᐅᓚᐅᖅᑐᓂᑦ.

ᑐᑭᓯᑎᑦᑎᒋᐊᙳᑌᑎᖏᑦ ᐱᒋᐊᕈᑏᑦ

ᑖᒃᑯᐊ ᐅᓂᒃᑳᑦ ᑭᒡᒐᖅᑐᐃᕗᑦ ᐊᑦᑎᓕᕆᔾᒃᑯᑦ ᐱᓇᓱᐊᑦᑎᐊᕈᓐᓇᕐᓂᓕᒫᖏᖕᓂ ᒪᓕᑦᑐᑎᑦ ᐱᑦᑎᐊᖅᓯᒪᔪᒃᑯᑦ ᑕᑯᑎᑦᑎᓇᓱᐊᖅᓯᒪᓂᖏᖕᓂᑦ ᑕᒪᐃᓐᓂ ᑐᑭᓯᒋᐊᕈᑎᓂᑦ ᑲᑐᔾᔭᐅᓚᐅᖅᓯᒪᔪᑦ ᑐᓴᕆᐊᕐᕕᒃᑲᕐᓂᕐᒧᑦ ᑲᑎᒪᕐᑲᑎᕐᑲᖅᑎᓪᓗᑕ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᕐᑲᑎᑏᖏᖕᓂᑦ ᐅᑯᓇᓂ ᓄᓇᓕᐅᔪᓂᑦ ᐅᖅᓱᖅᑑᖅ, ᐃᒡᓗᓕᒃ, ᑰᒡᕋᔪᒃ, ᓇᐅᔾᔾᑦ, ᓴᓂᕋᔾᔭᒃ, ᐊᒻᒪᓗ ᑕᓗᕐᔪᐊᖅ. ᑕᐅᑦᑐᖏᑦ ᐅᕐᑲᐅᑕᐅᓯᒪᔪᑦ ᑖᒡᕙᓂ ᐊᔾᔨᓴᐃᓐᓇᕆᙱᓚᐃᑦ ᐊᑦᑎᓕᕆᔾᒃᑯᑦ ᑕᐅᑦᑐᒋᔾᔭᖏᑕ, ᐅᕝᕙᓘᓐᓃᑦ ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᑦ ᑕᐅᑦᑐᒋᔾᔭᖏᖕᓂ ᐊᔾᔨᕐᑲᒃᓴᐃᓐᓇᙱᓚᑦ.

ᐃᓗᓕᖅᑎᑦ

1.0 ᐅᓂᒃᑳᑉ ᐱᔾᔪᑎᖏᑦ ᐊᒻᒪᓗ ᐋᖅᑭᓱᖅᓯᒪᓂᖏᑦ

ᑖᓐᓇ ᐅᓂᒃᑳᖅ ᐋᖅᑭᓱᖅᑕᐅᓯᒪᕗᖅ ᐊᕙᑦᑐᐃᖅᑯᑦᑐᒍ ᓇᐃᓈᖅᓯᖅᑯᑦᑐᒍᑐ ᑕᐅᒃᑯᓂᖓ ᐅᖃᐅᓯᒃᓴᙳᕕᐅᓯᒪᔪᓂᑦ, ᐊᐱᖅᑯᑎᒥᓂᖅᓂᑦ, ᐃᓱᒪᑑᑎᒥᓂᖅᓂᑦ ᐊᒻᒪᓗ ᖃᓄᐃᓕᐅᖅᑯᕗᐅᓯᒪᓂᙳᖏᖓᓂᑦ ᐅᑯᓄᖓ ᐅᖃᐅᑕᐅᓯᒪᔪᓄᑦ ᐆᒪᔪᖅᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔭᖅᑎᒌᖏᑕ ᖃᓄᐃᓕᐅᕆᑎᖃᙵᐊᖅᑐᑎᑦ ᓴᖅᑭᖅᓯᒪᔪᓂᑦ ᑕᐃᑲᙱᑦ 2015-2017–ᖑᑎᓪᓗᒍ ᐃᑭᕋᓴᒃ ᐃᒪᖓ ᖃᓪᓗᓇᕐᔫᖕᒐᑦ ᖃᐅᔨᓴᐅᓯᖏᑦ ᒪᓕᑦᑐᒋᑦ ᖃᐅᔫᓭᒥᓃᑦ. ᓯᕗᓂᐊᒍᑦ ᖃᐅᔨᓴᕈᑕᐅᖅᑎᓐᓇᒋᑦ ᓱᓕ ᑐᓴᙵᕐᕕᒋᔭᒥᓂᐅᕗᑦ ᐅᑯᐊ ᓄᓇᑖᑦ 2013–ᖑᑎᓪᓗᒍ.

ᐅᑯᐊ ᓄᓇᑖᑦ ᑐᓴᙵᕐᕕᐅᕈᑕᐅᖅᓯᒪᕗᑦ ᐅᕙᙱᑦ ᐊᒃᑑᕚ 20-28, 2020:

- ᐅᖅᓯᖅᑑᖅ, ᐊᒃᑑᕚ 20, 2020
- ᑕᓗᕐᔪᐊᖅ, ᐊᒃᑑᕚ 21, 2020
- ᑯᒑᕐᔪᒃ, ᐊᒃᑑᕚ 22, 2020
- ᓇᐅᔾᔫᑦ, ᐊᒃᑑᕚ 26, 2020
- ᓴᓂᕋᔭᒃ, ᐊᒃᑑᕚ 27, 2020
- ᐃᒡᓗᓕᒃ, ᐊᒃᑑᕚ 28, 2020

ᑲᑎᒪᓂᖅᑲᖅᑎᓪᓗᒋᑦ ᐊᕙᑎᓕᕆᔾᔭᒃᑯᑦ ᐅᖃᐅᔾᔨᕈᑕᐅᖅᐳᑦ ᖃᓄᖅ ᓄᓇᕗᑦ ᒐᕙᒪᖏᑕ ᑲᑎᓖᒫᖅᑐᒋᑦ ᐊᖑᔭᐅᔪᓐᓇᖅᑐᑦ ᐊᒥᓲᓂᖏᖕᓂ ᐊᑐᓕᖅᑯᔨᒐᔭᕐᒪᖖᒋᑕ ᑖᔅᓱᒧᖓ ᐃᑭᕋᓴᒃ ᐃᒪᖓᓃᑦᑐᑦ ᓇᓄᕐᓂᑦ. ᑭᒡᒐᖅᑐᐃᔨᐅᔪᑦ ᐅᑯᓇᙱᑦ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔩᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ, ᓄᓇᕗᑦ ᑐᙱᕙᒃ ᑎᒥᖓ, ᕿᑎᖅᒥᐅᓂ ᐆᒪᔪᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ, ᑭᕙᓪᓕᕐᒥ ᐆᒪᔪᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ, ᐊᒻᒪᓗ ᕿᑭᖅᑖᓗᒻᒥ ᐆᒪᔪᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᖃᐃᖅᑯᔭᐅᕈᑕᐅᖅᐳᑦ ᑲᑎᒪᖅᑯᔭᐅᓪᓗᑎᑦ ᐊᒻᒪᓗ ᐃᓚᐅᖃᑕᐅᕈᑕᐅᖅᑐᑎᑦ ᑭᒡᒐᖅᑐᐃᔨᑦ ᐃᓄᒃᑎᒍᑦ ᑲᑎᒪᖃᑕᐅᔪᓐᓇᕋᐃᒻᒪᑕ.

2.0 ᐱᔾᔪᑎᖏᑦ ᑐᓴᙵᕐᕕᖃᕐᓂᕐᒧᑦ

ᐱᔾᔪᑎᖃᕈᑕᐅᖅᐳᑦ ᑐᓴᙵᕐᕕᖃᖅᑐᑎᑦ ᐅᖃᐅᓯᙳᔭᐅᓗᑎᑦ ᓄᑖᖑᑌᖑᔪᑦ ᖃᓪᓗᓇᕐᔫᖕᒐᑦ ᖃᐅᔨᓴᐅᓯᖏᑦ ᒪᓕᑦᑕᐅᓪᓗᑎᑦ ᑐᑭᓯᒋᐊᕈᑕᒥᓂᐅᔪᑦ ᐱᔾᔪᑎᓖᑦ ᐃᑭᕋᓴᒃ ᐃᒪᖓ ᓇᓄᐃᑦ ᐊᕙᑦᑐᖅᓯᒪᔪᒥ ᐊᒥᓲᓂᖏᑦ ᐅᖃᐅᑕᐅᓯᒪᓪᓗᑎᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖏᑕ ᖃᓪᓗᓇᕐᔫᖕᒐᑦ ᖃᐅᔨᓴᐅᓯᖏᑦ ᒪᓕᑦᑐᒋᑦ ᖃᐅᔫᓴᑦ ᐅᓂᒃᑳᓕᐊᖅᑎᒃᓴᐅᓯᒪᔪᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖏᑕ ᓇᓄᓕᖅᑎᒃᓴᖅᑯᑎᖏᖕᓄᑦ. ᐊᒻᒪᓗᒃᑲᓐᓂᖅ, ᓄᓇᕗᑦ ᒐᕙᒪᖏᑦ ᑐᓂᓯᓚᐅᖅᑎᕗᑦ ᑲᑎᓖᒫᖅᑐᒋᑦ ᐊᖑᔭᐅᔪᓐᓇᖅᑐᑦ ᐊᒥᓲᓂᖏᑦ ᐊᑐᓕᖅᑯᔭᐅᔪᑦ ᑐᓴᙵᕐᕕᖃᖅᑎᓪᓗᒋᑦ, ᑭᓯᐊᓂᓗ ᐅᖃᐅᓯᖅᑲᓚᐅᖅᑐᑎᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐱᓇᓱᐊᒐᖏᑦ ᐋᖅᑭᓱᖅᑕᐅᔪᓐᓇᖅᒪᑕ ᒪᓕᑦᑐᒋᑦ ᓄᓇᓕᐅᔪᑦ ᑭᙶᒪᒋᔭᖏᑦ ᐊᒻᒪᓗ ᐱᓇᓱᐊᒐᖏᑦ ᐊᐅᓚᑦᑎᖃᑎᒌᖅᑯᑦᑐᒋᑦ ᑕᒪᒃᑯᓂᖓ ᓇᓄᐃᑦ ᐊᒥᓲᓂᖏᖕᓂᑦ ᐊᕙᑦᑐᖅᓯᒪᔫᑉᑦᑐᑦ.

2.1 ᐋᖅᑭᓱᖅᓯᒪᓂᖏᑦ ᑲᑎᒪᓂᐅᔪᑦ

ᑲᑎᒪᓂᖃᖃᑦᑕᓚᐅᖅᐳᑦ ᐅᓐᓄᒃᑯᑦ (ᐆᑦᑑᑎᒋᓪᓗᒍ ᐱᒋᐊᖅᑐᑎᑦ ᐊᑯᖓᖏᖕᓂ ᓯᕿᙱᔭᖅ 17:00–ᒨᖅᑎᓪᓗᒍ ᐊᒻᒪᓗ 18:30–ᒥ) ᐊᑯᓂᐅᓂᖃᖅᐸᓚᐅᖅᐳᓪᓗ ᑲᑎᒪᓂᖏᑦ ᐃᒪᓐᓇᑎᒋ 2.5 ᑎᑭᑦᑐᒍ 4 ᐃᑲᕐᕋᑦ ᑐᙵᕕᒋᓪᓗᒋᑦ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᑦ ᑲᑎᒪᓂᕈᒪᓂᖏᑦ ᖃᓄᑎᒋ. ᑲᑎᒪᓂᖅ ᐊᐅᓚᑕᐅᕙᓚᐅᖅᐳᖅ ᐊᒻᒪᓗ ᓱᕗᒃᑲᖅᑕᖅᑎᖃᐅᖅᑐᑎᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖓᑕ ᓇᓄᓯᓇᔩᖏᒃ ᒪ. ᑎᒃ ᐊᒻᒪᓗ ᔨ. ᕗᐃᐅᕐ. ᓇᓄᓯᓇᔩᒃ ᐅᓂᒃᑲᐅᓯᖃᖅᐸᓚᐅᖅᐹᒃ ᐅᐊᑦᑎᐊᕈ ᐊᐅᓚᑕᐅᓂᕆᖃᑦᑕᓚᐅᖅᓯᒪᔪᖅᑕ ᐋᖅᑭᓱᖅᓯᒪᓚᐅᖅᓯᒪᔪᖏᖕᓂᑦ, ᐊᒻᒪᓗ ᐅᖃᐅᓯᖃᑦᑎᐊᖅᑐᑎᑦ ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᖕᓂᑦ ᓴᖅᑭᖅᓯᒪᔪᑦ 2015-2017 ᓇᓄᐃᑦ ᖃᐅᔨᓴᖅᑕᐅᓚᐅᖅᓯᒪᓂᕆᔭᖏᑦᑕ ᐃᑭᕋᓴᑉ ᐃᒪᖓᓂ (ᐅᐃᒍᖓ 1). ᑲᑎᒪᖃᑕᐅᔪᓪᓗ ᐊᐱᖅᓱᖁᔭᐅᕙᓚᐅᖅᐳᑦ, ᐃᓱᒫᓘᑎᒥᖕᓂᒃ ᐅᖃᐅᓯᕐᓗᑎᑦ, ᐅᕝᕙᓘᓐᓃᑦ ᐊᑐᓕᖅᑯᔨᖅᑯᔭᐅᕙᑦᑐᑎᑦ ᑲᑎᒪᓂᖃᖅᑎᓪᓗᒋᑦ. ᐅᖃᐅᑕᐅᓚᐅᓇᕗᖅ ᓱᓕ ᑲᔪᓯᓂᖃᐃᓐᓇᕐᒪᑦ ᐃᑭᕋᓴᑉ ᐃᒪᖓ ᐱᖅᑯᓯᑐᖃᖅᑎᒍᑦ ᖃᐅᔨᒪᓂᖏᑦ ᒪᓕᑦᑐᒋᑦ ᖃᐅᔨᓴᕐᓂᕐᒥᒃ ᓴᖅᑭᖅᑐᑦ ᖃᐅᔨᓵᕐᒥᒃ ᓂᕆᐅᒋᔭᐅᒐᔭᕐᒪᑕ ᐱᔭᕇᖅᑕᐅᓗᑎᑦ ᐃᓱᓕᑦᑎᑉᐸᑦ 20202, ᒪᓕᑦᑐᒍ ᓄᕙᒡᔪᐊᕐᓇᖅ-19 ᖃᓄᐃᓐᓂᕆᓕᖅᑕᖓ.

ᐅᓂᒃᑳᓚᐅᖅᑎᓪᓗᒋᑦ, ᐊᐱᖅᑯᑎᒃᓴᖃᖅᑐᑦ ᐊᐱᖅᓱᖅᐸᓚᐅᖅᐳᑦ/ᐅᖃᐅᓯᖃᖅᑐᑎᑦ ᐊᐱᖅᑯᑎᒃᓴᖅᑕᖃᕈᓐᓂᕋᓯᐊᕐᓂᖓᓂᒃ. ᐃᓱᓕᑦᑎᒐᐃᒻᒪᑕ ᑲᑎᒪᓃᑦ, ᓄᓇᕗᑦ ᒐᕙᒪᖓ ᐅᖃᖃᑦᑕᓚᐅᖅᐳᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖓᑦᑕ ᖃᓄᐃᓕᖓᖁᔭᖏᑦ ᐱᔾᔪᑎᒋᓪᓗᒋᑦ ᑲᑎᓪᓚᖅᑐᒋᑦ ᐊᖑᔭᐅᔭᕐᓇᖅᑐᑦ ᐊᒥᓲᓂᖏᑦ ᑕᐃᑲᓂ ᐃᑭᕋᓴᑉ ᐃᒪᖓᓂ. ᐊᒻᒪᓗᒃᑲᓐᓂᖅ, ᐅᖃᐅᑕᐅᓚᐅᕆᕗᖅ ᓄᓇᕗᑦ ᒐᕙᒪᖓᑕ ᖃᓄᐃᓕᐅᕐᓂᖃᕐᓂᐊᕐᒪᑕ ᐊᔾᔨᒃᓴᐃᓐᓇᔾᔫᒥᓪᓗᑕ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐱᓇᓱᐊᒐᓂᔭᐅᔪᑦ ᑎᑭᑕᐅᓇᓱᐊᕈᑎᖏᑦ ᓄᓇᓕᐅᔪᓄᑦ ᐊᒻᒪᓗ ᓄᓇᓕᒻᒥᐅᑕᐅᔪᑦ ᑲᔪᖏᖅᓴᖅᑕᐅᕙᓚᐅᖅᐳᑦ ᐃᖅᑲᓇᐃᔭᖅᑎᖃᖃᑦᑕᖅᑯᔭᐅᓪᓗᑎᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᓂ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᓐᓂ ᐊᒻᒪᓗ/ᐅᕝᕙᓘᓐᓃᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖏᓐᓂ ᐋᖅᑭᒃᓯᐃᕐᑯᓪᓗᒋᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐱᓇᓱᐊᒐᓇᔭᐅᓂᐊᖅᑐᑦ ᑖᒃᑯᓄᖓ ᐃᑭᕋᓴᑉ ᐃᒪᖓᓂ ᓇᐃᑦ ᐊᒥᓲᓂᖏᑦ. ᓇᓄᓯᓇᔩᒃ ᓇᓗᓇᐃᔭᐃᓚᐅᖅᑐᒃ ᐃᓱᒪᒃᓴᖅᓯᐅᕈᑕᐅᓂᖏᑦ ᑲᑎᓯᒫᖅᑐᑦ ᐊᖑᔭᐅᔭᕐᓇᖅᑐᑦ ᐊᒥᓲᓂᖏᑦ ᐊᔾᔨᒌᙱᑦᑎᓪᓗᒋᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖓᑕ ᐊᑐᓕᖁᔭᖏᓐᓂ ᐱᖃᑦᑐᐃᔾᔪᑎᔭᖅ ᓇᓗᓇᐃᖅᓯᓂᖏᑦ ᓴᖅᑭᖅᑐᑦ ᖃᐅᔨᓵᕐᒥᒃ, ᐊᑯᑎ ᐊᓯᔾᔨᖅᓯᓂᖓ, ᐊᒻᒪᓗ ᓄᓇᓕᐅᔪᑦ ᑮᓇᐅᔭᖏᑦ. ᐅᖃᐅᓯᖃᖅᐸᓚᐅᖅᐳᑦ ᐊᒻᒪᓗ ᐊᐱᖅᑯᑎᒋᑦᑐᓪᓗᑎᑦ ᓇᓗᓇᐃᒃᑯᓯᖅᓯᖅᑕᐅᓂᐊᖅᓂᖏᑦ ᓱᑯᑎᐊᓂ ᐃᑭᕋᓴᑉ ᐃᒪᖓᓂ ᐊᒻᒪᓗ ᖃᑎᖅᒥᐅᑦ ᐃᒪᖓᓂᑦ ᓄᓇᓕᐅᔪᑦ ᑕᐅᕙᙵᑦ ᓇᓄᓯᐊᓯᑦ ᑕᒃᑲᐅᓐᓂᑦ ᐊᕕᑦᑐᖅᓯᒪᔫᓂᒃ ᓇᓄᐃᑦ ᐊᒥᓲᓂᖏᓐᓂᑦ. ᓇᓄᓯᓇᔩᒃ ᐅᖃᐅᔾᔨᓚᐅᖅᐹᒃ ᑲᑎᒪᖅᑕᐅᔪᓂᑦ ᑕᒪᓇ ᐱᔾᔪᑕᐅᒪᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᓂᑦ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᖕᓄᑦ ᑲᒪᒋᔭᐅᔭᕆᐊᖃᕐᒪᑦ ᓂᕕᖓᑖᕐᓱᐃᓂᕆᔭᖏᖕᓄᑦ ᓇᓄᐃᑦ ᐊᒥᓲᓂᖏᑦ ᓴᙱᓂᖅᓴᕕᖓᓂᕐᓂᑦᑎᓪᓗᒋᑦ.

3.0 ᓇᐃᓈᖅᓯᒪᓂᖏᑦ ᓄᓇᓕᑎᒍᑦ

ᐱᓇᓱᐊᒐᖏᑦ ᑕᒪᒃᑯᐊ ᑐᓴᕐᓇᐊᕐᕕᒃᓯᓂᖑᑦ ᑲᑎᒪᓂᐅᔪᑦ ᓱᖅᑯᐃᓇᖅᑎᑕᐅᓚᐅᖅᐳᑦ ᐅᖃᐅᑕᐅᓪᓗᑎᑦ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᑦᑕ ᐃᓚᒋᔭᐅᔪᕐᑯᑎᖏᖕᓄᑦ ᓯᕗᓂᐊᒍᑦ ᐊᒻᒪᓗ ᐱᒋᐊᖅᑎᓪᓗᒋᑦ ᑲᑎᒪᓃᑦ ᐊᑐᓂ. ᐊᒥᓱᓂᑦ ᐊᔾᔨᒌᙱᑦᑐᒍᓂᑦ ᐊᐱᖅᑯᑎᒃᓴᖅᑕᖅᐸᓚᐅᖅᐳᖅ, ᐃᓱᒫᓘᑎᓂᑦ ᐊᒻᒪᓗ ᖃᓄᓕᐅᖅᓯᒪᔾᔪᑎᓂᑦ ᑖᒃᑯᓄᖓ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᑦ ᑲᑎᒪᔨᖏᖕᓄᑦ ᓄᓇᓕᐅᔪᓂᑦ ᑐᓴᕐᓇᐊᕕᐅᔪᓄᑦ. ᑕᒪᐃᓐᓂ, ᓇᓗᓇᐃᔭᕐᑎᐊᖅᓯᒪᔪᖅ ᐅᓂᒃᑳᖅ ᐊᐱᖅᑯᑕᐅᕙᓪᓕᐊᖅᑐᓂᑦ ᐊᒻᒪᓗ ᐅᖃᐅᓯᒃᓴᓕᐅᕙᓪᓕᐊᖅᑐᓂᑦ ᐊᑐᓂ ᓄᓇᓕᐅᔪᓂᑦ ᓇᓂᔭᐅᔪᓇᖅᐳᑦ ᐅᐃᒍᖓ 2-ᒥ.

3.1 ᐅᖅᓱᖅᑑᖅ ᑐᓴᕐᓇᐊᕐᕕᒃᓚᐅᖅᑎᓪᓗᑕ ᓇᐃᓈᖅᓯᒪᓂᖏᑦ

ᐅᓪᓗᖅ: ᐊᒃᑑᕝ 20, 2020

ᓯᕿᙱᔭᖅ: 18:50 – 21:15

ᑲᑎᒪᖃᑕᐅᔪᑦ:

- ᓄᓇᕗᑦ ᒐᕙᒪᖓ–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᓇᓄᓯᓇᔩᒃ ᒪ. ᑎᒃ, ᔭ. ᕗᐃᐅᕐ

- ᓄᓇᕗᑦ ᒐᕙᒪᖕᒋᑦ–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᐆᒪᔪᕐᓂᐊᕐᑎ ᔫ. ᔅᑭᓕᖅ
- ᓄᓇᕗᑦ ᒐᕙᒪᖕᒋᑦ–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᐊᕕᑦᑐᖅᓯᒪᔪᒥ ᐊᐅᓚᑦᑎᔨ, ᑭ. ᒥᑐᐊᓐ
- ᐅᖅᓱᖅᑑᖅ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᖃᑎᒌᖕᒋᑕ ᑲᑎᒪᔨᖕᒋᑦ

ᐅᖃᐅᓯᒃᓴᑦ ᐊᒻᒪᓗ ᐊᐱᖅᑯᑎᒃᓴᑦ:

ᐅᓂᒃᑳᐅᓯᖃᓚᐅᖅᑎᓪᓗᒋᒃ ᐃᑭᖅᓴᑉ ᐃᒪᖓᓃᑦᑐᑦ ᓇᓄᐃᑦ ᒥᒃᓵᓄᑦ, ᑲᑎᒪᔨᐅᔪᑦ ᐅᖃᐅᓯᖃᓚᐅᖅᐳᑦ ᐊᑐᖅᑲᑦᑕᖅᓯᒪᔭᖕᒋᑦ ᐊᕐᕌᒎᓕᖅᑐᓂᑦ ᓇᓕᒧᓐᓂᖅᑲᖅᑐᒥᓂᐅᓪᓗᑎᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖓᑕ ᖃᐅᔨᓵᓇᓯᒪᔭᖕᒋᑦᑕ ᖃᐅᔨᔭᒥᓂᐅᔪᓂᑦ. ᑕᒪᐃᓐᓂᓕ, ᑲᑎᒪᔨᐅᔪᑦ ᐊᖏᕈᑎᖃᖅᓯᒪᕗᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖓᑕ ᖃᐅᔨᓯᒪᔭᖕᒋᖕᓂᑦ ᖃᐅᔨᓴᓚᐅᖅᑎᓪᓗᒋᑦ. ᓱᖅᑯᐃᓇᕐᓂᖅᓴᐅᓕᓚᐅᕆᕗᖅ ᐅᖃᐅᓯᒃᓴᖕᒋᖕᓂᑦ ᑲᑎᒪᔨᐅᔪᑦ ᐅᓪᓗᒥ, ᐊᖑᓯᓗᐊᕐᕌᓗᒃᐸᙱᓪᓚᑕ ᐃᑭᖅᓴᑉ ᐃᒪᖓᓂ ᐅᖅᓱᖅᑑᕐᒥᐅᑦ ᐊᖑᓇᓱᑦᑎᖕᒋᖕᓄᑦ ᓱᑯ ᐊᓯᔾᔨᓗᐊᖅᑐᐊᓘᖅᑲᑦᑕᕐᒪᑦ. ᐃᓚᖕᒋᑦ ᐅᖃᐅᑕᐅᓚᐅᕆᕗᑦ ᓂᕕᖕᒐᑖᓕᖅᓯᐃᖃᑦᑕᓂᕐᒥᒃ ᐃᑭᖅᓴᑉ ᐃᒪᖓᓂᑦ ᐊᒻᒪᓗ ᕿᑎᕐᒥᐅᑦ ᐃᒪᖓᓂᓪᓗ ᓱᑯᑦᑎᐊᓅᖕᒐᑎᑕᐅᓂᖕᒋᑦ ᓇᓕᒧᒌᖕᒋᓗᐊᖅᑐᐊᓘᖅᑲᑦᑕᕐᒪᑕ, ᐱᓗᐊᖅᑐᒥᒃ ᒫᓐᓇᐅᔪᖅ ᕿᑎᕐᒥᐅᑦ ᐃᒪᖓᓂ ᓇᓄᐃᑦ ᐊᒥᓲᓂᖅᓴᓪᒪᓇᐊᓘᓕᖅᑎᑦᑐᒋᑦ. ᓄᓇᕗᑦ ᒐᕙᒪᖕᒋᓂ ᑭᒡᒐᖅᑐᐃᔨᐅᔪᑦ ᑖᓯᒥᖕᒋᑦ ᐱᔾᔪᑎᒥᒃ ᐅᖃᐅᓯᒃᑯᑐᐊᓚᐅᖅᐳᑦ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᖃᑎᒌᖕᒋᖕᓂᑦ ᑖᒃᑯᓄᖓ ᕿᑎᕐᒥᐅᓂ ᐆᒪᔪᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖕᒋᖕᓄᑦ. ᑲᑎᒫᑦ ᑯᔭᓐᓇᒦᓚᐅᖅᐳᑦ ᑯᔭᓕᓪᓗᑎᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖕᒋᑦ ᓂᐅᕐᕈᓚᐅᕐᒪᑦ ᓄᓇᓕᖕᓄᑦ ᐅᓂᒃᑳᐅᓯᖃᕐᓂᐊᖅᑐᖅᑐᑎᑦ ᖃᐅᔨᓴᕐᒥᓂᑦ ᖃᐅᔨᓴᒥᓂᐅᔪᓂᑦ ᐊᒻᒪᓗ ᐅᖃᖅᑎᖃᕐᓂᐊᖅᑐᖅᑐᑎᑦ. ᓱᒃᑯᐃᓇᖅᓯᑎᑦᑎᒋᐊᓚᐅᖅᐳᖅ ᖃᓄᖅ ᓇᓄᕐᓂᑦ ᐅᔾᔨᖅᓱᕐᑎᐊᕐᓂᕐᒥᒃ ᐊᒻᒪᓗ ᐊᑐᓂ ᐃᓄᐃᑦ ᐱᓕᕆᐊᕐᒧᑦ ᑲᒪᒋᔭᖅᓯᑦ ᑐᕌᖓᓂᖅᑲᐅᕐᒥᓪᓚᑕ ᓄᓇᕗᑦ ᒐᕙᒪᖓᑕ ᐱᓕᕆᐊᖓᓄᑦ.

3.2 ᑕᓗᕐᔪᐊᕐᒥ ᑐᓴᕆᐊᕐᕕᖃᓚᐅᖅᑎᓪᓗᑕ ᓇᐃᓈᖅᓯᒪᓂᖕᒋᑦ

ᐅᓪᓗᖅ: ᐊᒃᑑᕙ 21, 2020
ᓯᕿᙵᒍᔭᖅ: 17:45 – 20:15

ᑲᑎᒪᖅᑕᐅᔪᑦ:
- **ᓄᓇᕗᑦ ᒐᕙᒪᖕᒋᑦ**–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᓇᓄᓕᕆᔩᒃ L. ᑎᒃ, ᔭ. ᕗᐃᐅᕐ
- **ᓄᓇᕗᑦ ᒐᕙᒪᖕᒋᑦ**–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᐆᒪᔪᕐᓂᐊᖅᑎ C. ᐊᕐᓇᕕᓗᒃ
- **ᓄᓇᕗᑦ ᒐᕙᒪᖕᒋᑦ**–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᐊᕕᑦᑐᖅᓯᒪᔪᒥ ᐊᐅᓚᑦᑎᔨ,K. ᒥᑐᐃᐊᓐ.
- ᑕᓗᕐᔪᐊᖅ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᖃᑎᒌᖕᒋᑦ ᑲᑎᒪᔨᖕᒋᑦ

ᐅᖃᐅᓯᒃᓴᑦ ᐊᒻᒪᓗ ᐊᐱᖅᑯᑎᒃᓴᑦ:

ᐅᓂᒃᑳᐅᓯᖃᓚᐅᖅᑎᓪᓗᒋᒃ ᐃᑭᖅᓴᑉ ᐃᒪᖓᓃᑦᑐᑦ ᓇᓄᐃᑦ ᒥᒃᓵᓄᑦ, ᑲᑎᒪᔨᐅᔪᑦ ᐅᖃᐅᓯᖃᓚᐅᖅᐳᑦ ᐊᑐᖅᑲᑦᑕᖅᓯᒪᔭᖕᒋᑦ ᐊᕐᕌᒎᓕᖅᑐᓂᑦ ᓇᓕᒧᓐᓂᖅᑲᖅᑐᒥᓂᐅᓪᓗᑎᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖓᑕ ᖃᐅᔨᓵᓇᓯᒪᔭᖕᒋᑦᑕ ᖃᐅᔨᔭᒥᓂᐅᔪᓂᑦ. ᑕᒪᐃᓐᓂᓕ, ᑲᑎᒪᔨᐅᔪᑦ ᐊᖏᕈᑎᖃᖅᓯᒪᕗᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖓᑕ ᖃᐅᔨᓯᒪᔭᖕᒋᖕᓂᑦ ᖃᐅᔨᓴᓚᐅᖅᑎᓪᓗᒋᑦ. ᐃᓚᖕᒋᑦ ᐅᖃᐅᑕᐅᓚᐅᕆᕗᑦ ᓂᕕᖕᒐᑖᓕᖅᓯᐃᖃᑦᑕᓂᕐᒥᒃ ᐃᑭᖅᓴᑉ ᐃᒪᖓᓂᑦ ᐊᒻᒪᓗ ᕿᑎᕐᒥᐅᑦ ᐃᒪᖓᓂᓪᓗ ᓱᑯᑦᑎᐊᓅᖕᒐᑎᑕᐅᓂᖕᒋᑦ ᓇᓕᒧᒌᖕᒋᓗᐊᖅᑐᐊᓘᖅᑲᑦᑕᕐᒪᑕ, ᐱᓗᐊᖅᑐᒥᒃ ᒫᓐᓇᐅᔪᖅ ᕿᑎᕐᒥᐅᑦ ᐃᒪᖓᓂ ᓇᓄᐃᑦ ᐊᒥᓲᓂᖅᓴᓪᒪᓇᐊᓘᓕᖅᑎᑦᑐᒋᑦ. ᓄᓇᕗᑦ ᒐᕙᒪᖕᒋᓂ ᑭᒡᒐᖅᑐᐃᔨᐅᔪᑦ ᑖᓯᒥᖕᒋᑦ ᐱᔾᔪᑎᒥᒃ ᐅᖃᐅᓯᒃᑯᑐᐊᓚᐅᖅᐳᑦ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᖃᑎᒌᖕᒋᑦ ᑖᒃᑯᓄᖓ ᕿᑎᕐᒥᐅᓂ ᐆᒪᔪᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖕᒋᖕᓄᑦ.

3.3 ᑯᒑᕐᔪᖕᒥ ᑐᓴᕆᐊᕐᕕᖃᓚᐅᖅᑎᓪᓗᑕ ᓇᐃᓈᖅᓯᒪᓂᖕᒋᑦ

ᐅᓪᓗᖅ: ᐊᒃᑑᕙ 22, 2020
ᓯᕿᙵᒍᔭᖅ: 18:50 – 21:20

ᑲᑎᒪᕐᑲᑕᐅᔪᑦ:
- ᓄᓇᕗᑦ ᒐᕙᒪᖓᑦ–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᓇᓄᓕᕆᔩᒃ ᒪ. ᑎᒃ, ᔭ. ᕗᐃᐅᕐ
- ᑰᒑᕐᔪᒃ/ ᑯᖅᑕᐃᕈᕐᔪᐊᖅ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᕐᑲᑎᒌᖏᑦ ᑲᑎᒪᔨᖏᑦ
- ᕿᑎᕐᒥᐅᓂ ᐆᒪᔪᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑕ ᑭᒡᒐᖅᑐᐃᔨᖓ ᐃᐊᒪ ᖃᖅᑯᑕᖅ.

ᐅᕐᑲᐅᓯᒃᓴᑦ ᐊᒻᒪᓗ ᐊᐱᖅᑯᑎᒃᓴᑦ:

ᐅᓂᒃᑲᐅᓯᕐᑲᓚᐅᖅᑎᓪᓗᒋᒃ ᐃᑭᕋᓴᑉ ᐃᒪᖓᓃᑦᑐᑦ ᓇᓄᐃᑦ ᒥᒃᓵᓄᑦ, ᑲᑎᒪᔨᐅᔪᑦ ᐅᕐᑲᐅᓯᕐᑲᓚᐅᖅᐳᑦ ᐊᑐᕐᑲᑦᑕᖅᓯᒪᔭᖏᑦ ᐊᕐᕌᒨᓕᖅᑐᓂᑦ ᓇᓕᒧᓂᕐᑲᖅᑐᒥᓂᐅᓪᓗᑎᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖏᑕ ᖃᐅᔨᓵᕆᓯᒪᔭᖏᑦᑕ ᖃᐅᔨᔭᒥᓂᐅᔪᓂᑦ. ᑕᒪᐃᓐᓂᓕ, ᑲᑎᒪᔨᐅᔪᑦ ᐊᖏᕈᑎᕐᑲᖅᓯᒪᕗᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖏᑕ ᖃᐅᔨᓯᒪᔭᖏᖕᓂᑦ ᖃᐅᔨᓴᓚᐅᖅᑎᓪᓗᒋᑦ. ᐊᑯᓂᐅᓂᖅᓴᖅ ᐅᕐᑲᕐᑲᑎᒌᓕᓚᐅᕆᕗᑦ ᑲᒪᑦᔭᐅᓂᖏᑦ ᐊᒻᒪᓗ ᕐᑯᖓᓯᕐᒥᐅᑕᓕᖅᓱᖅᑕᐅᕙᓐᓂᖏᑦ ᓇᓄᐃᑦ, ᐊᒻᒪᓗ ᑕᒪᓐᓇ ᐊᑐᖅᑕᐅᒍᓐᓇᕋᔭᕐᒪᖔᕐᒥᒃ ᓯᕗᓂᒃᓴᒥ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᕐᑲᑎᒌᖏᑕ ᐊᐱᖅᑯᑎᖏᑦ ᑭᐅᔭᐅᕐᑯᓪᓗᒋᑦ ᐱᓗᐊᖅᑐᒥᒃ ᐅᓯᒃᖅᑕᕐᓂᕐᔫᖓᑎᓪᓗᒋᑦ ᐊᒻᒪᓗ ᓴᓇᔪᓕᕆᔪᕐᑲᕐᑲᑦᑕᖅᑎᓪᓗᒍ ᐊᑦᑐᐃᓂᕐᑲᕋᔭᕐᓂᖏᑦ ᖃᐅᔨᔭᐅᒐᔭᕐᒪᑕ.

3.4 ᓇᐅᔾᔮᓂ ᑐᓴᕆᐊᕐᕕᕐᑲᓚᐅᖅᑎᓪᓗᑕ ᓇᐃᓈᖅᓯᒪᓂᖏᑦ

ᐅᓪᓗᖅ: ᐊᒃᑑᕙ 26, 2020
ᓯᕿᖑᔭᖅ: 18:10 – 21:50

ᑲᑎᒪᕐᑲᑕᐅᔪᑦ:
- ᓄᓇᕗᑦ ᒐᕙᒪᖓᑦ–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᓇᓄᓕᕆᔩᒃ ᒪ. ᑎᒃ, ᔭ. ᕗᐃᐅᕐ
- ᓄᓇᕗᑦ ᒐᕙᒪᖓᑦ–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᐆᒪᔪᕐᓂᐊᖅᑎ ᐸ. ᐸᐸᕐᔪ
- ᓄᓇᕗᑦ ᒐᕙᒪᖓᑦ–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᐊᕕᑦᑐᖅᓯᒪᔪᒥ ᐊᐅᓚᑦᑎᔨᐅᑲᐃᓐᓇᖅᑐᖅ ᔨ. ᓃᓕ
- ᓇᐅᔾᔮᑦ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᕐᑲᑎᒌᖏᑦ ᑲᑎᒪᔨᖏᑦ
- ᕿᑭᖅᑖᓗᒻᒥ ᐆᒪᔪᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᐃᒃᓯᕙᐅᑕᖅ ᔭ. ᕿᓪᓚᖅ
- ᓄᓇᕗᑦ ᑐᙵᕕᒃ ᑎᒥᖓ ᑐᑭᒧᐊᑦᑎᑦᑎᔨ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᐸ. ᐃᕐᖓᐅᑦ
- ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᑎ. ᓐᑎᓗ, ᓯ. ᒪᑉᓴᓖᖅ, ᑲᔨ ᐃᓐᒐᓚᓐ

ᐅᕐᑲᐅᓯᒃᓴᑦ ᐊᒻᒪᓗ ᐊᐱᖅᑯᑎᒃᓴᑦ:

ᐅᓂᒃᑲᐅᓯᕐᑲᓚᐅᖅᑎᓪᓗᒋᒃ ᐃᑭᕋᓴᑉ ᐃᒪᖓᓃᑦᑐᑦ ᓇᓄᐃᑦ ᒥᒃᓵᓄᑦ, ᑲᑎᒪᔨᐅᔪᑦ ᐅᕐᑲᐅᓯᕐᑲᓚᐅᖅᐳᑦ ᐊᑐᕐᑲᑦᑕᖅᓯᒪᔭᖏᑦ ᐊᕐᕌᒨᓕᖅᑐᓂᑦ ᓇᓕᒧᓂᕐᑲᖅᑐᒥᓂᐅᓪᓗᑎᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖏᑕ ᖃᐅᔨᓵᕆᓯᒪᔭᖏᑦᑕ ᖃᐅᔨᔭᒥᓂᐅᔪᓂᑦ. ᑕᒪᐃᓐᓂᓕ, ᑲᑎᒪᔨᐅᔪᑦ ᐊᖏᕈᑎᕐᑲᖅᓯᒪᕗᑦ ᓄᓇᕗᑦ ᒐᕙᒪᖏᑕ ᖃᐅᔨᓯᒪᔭᖏᖕᓂᑦ ᖃᐅᔨᓴᓚᐅᖅᑎᓪᓗᒋᑦ. ᐊᑯᓂᐅᓂᖅᓴᖅ ᐅᕐᑲᕐᑲᑎᒌᓕᓚᐅᕆᕗᑦ ᖃᓄᖅ ᐅᓪᓗᒥᐅᔪᖅ ᓇᓐᓄᒐᓯᒍᓐᓇᖅᑐᑦ ᖃᑦᑎᓂᑦ ᓇᓕᐊᑦ ᓄᓇᓕᑦ ᐃᓕᔭᐅᓃᖑᒻᒪᖔᕐᒥᒃ ᐊᒻᒪᓗ ᐃᓚᖏᑦ ᓄᓇᓖᑦ ᕿᒥᕐᕈᔭᐅᕐᑯᔨᕗᑦ ᑕᒫᓯᒥᖓ ᐃᓕᐅᖅᑲᐃᓂᐅᕙᑦᑐᒥᒃ ᓇᓐᓄᒍᓐᓇᐅᑎᓂᑦ. ᐅᕐᑲᐅᑕᐅᓚᐅᕆᕗᖅ ᖃᓄᓕᐅᖅᑐᕐᑲᓰᖑᒻᒪᖔᖅ ᑕᒪᒃᑯᐊ ᓇᓐᓄᒐᓯᐊᕈᓐᓇᖅᑎᑕᐅᓰᑦ ᐃᓕᐅᖅᑲᖅᑕᐅᓰᖑᓂᖏᑦ ᐊᓯᔩᖅᑕᐅᓗᑎᑦ ᑖᒃᑯᓄᖓ ᐊᕕᑦᑐᖅᓯᒪᔪᓂᑦ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᕐᑲᑎᒌᖏᖕᓄᑦ.

3.5 ᓴᓂᕋᔭᖕᒥ ᑐᓴᕆᐊᕐᕕᕐᑲᓚᐅᖅᑎᓪᓗᑕ ᓇᐃᓈᖅᓯᒪᓂᖏᑦ

ᐅᓪᓗᖅ: ᐊᒃᑑᕙ 27, 2020
ᓯᕿᖑᔭᖅ: 19:15 – 21:15

ᑲᑎᒪᕐᑲᑕᐅᔪᑦ:
- ᓄᓇᕗᑦ ᒐᕙᒪᖓᑦ–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᓇᓄᓕᕆᔩᒃ ᒪ. ᑎᒃ, ᔭ. ᕗᐃᐅᕐ

- ᓄᓇᕗᑦ ᒐᕙᒪᖏᑦ–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᐆᒪᔪᕐᓂᐊᖅᑎ ᕓ. ᒍᑦᓭᓐ
- ᓄᓇᕗᑦ ᒐᕙᒪᖏᑦ–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᐊᕕᑦᑐᖅᓯᒪᔪᒥ ᐊᐅᓚᑦᑎᔨᐅᑲᐃᓐᓇᖅᑐᖅ ᕙ. ᓃᓕ
- ᓴᓂᕋᔭᒃ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᖃᑎᒌᖕᒋᑦ ᑲᑎᒪᔨᖏᑦ
- ᕿᑭᖅᑖᓗᒥ ᐆᒪᔪᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᐃᒃᓯᕙᐅᑕᖅ ᔭ. ᕿᓪᓚᖅ
- ᓄᓇᕗᑦ ᑐᖖᒐᕕᒃ ᑎᒥᖓ ᑐᑭᒧᐊᕐᑎᕐᑎᔨ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᐸ. ᐃᖅᒐᐅᑦ
- ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᑎ. ᓐᑎᓗ, ᓯ. ᒪᕐᓴᓖᖅ, ᑲᔨ ᐃᓐᒐᓚᓐ

ᐅᖃᐅᓯᒃᓴᑦ ᐊᒻᒪᓗ ᐊᐱᖅᑯᑎᒃᓴᑦ:

ᐅᓂᒃᑳᓚᐅᖅᑎᓪᓗᒋᒃ ᓇᓄᓕᕆᔨᒃ ᐃᑭᕋᔅ ᐃᒪᖓᓂ ᓇᓄᐃᑦ ᐊᒥᓲᓂᖏᑦᑕ, ᑲᑎᒪᔨᐅᔪᑦ ᐅᖃᐅᓯᖃᓚᐅᖅᐳᑦ ᐃᑭᕋᔅ ᐃᒪᖓᓂ ᐊᖑᓇᓱᖃᑦᑕᕐᓂᑯᒥᓂᖏᑦ ᐊᒻᒪᓗ ᐊᕐᕌᒎᓕᖅᑐᓂᑦ ᖃᐅᔨᓴᕐᓚᖅᑕᖏᖕᓂᓗ ᓇᓗᓐᓂᖃᐸᓗᒃᓯᒪᓪᓗᑎᓪᓗ ᑕᒪᒃᑯᐊ ᓄᓇᕗᑦ ᒐᕙᒪᖏᑕ ᖃᐅᔨᓵᕆᓯᒪᔪᖏᑕ ᖃᐅᔨᔭᒥᓂᐅᔪᓄᑦ. ᐃᓚᖏᑦ ᐅᖃᐅᓯᒃᓴᖃᓚᐅᖅᐳᑦ ᖃᑦᑎᓐᓇᑯᓗᐃᑦ ᓇᓄᐃᑦ ᓇᓐᓄᑦᑕᐅᓲᖑᓪᓚᑕᒎᖅ ᐃᑭᕋᔅ ᐃᒪᖓᓂ ᓴᓂᕋᔭᖏᐅᑕᓄᑦ.

3.6 ᐃᒃᓗᓕᖕᒥ ᑐᓴᕆᐊᕐᕕᖃᓚᐅᖅᑎᓪᓗᑕ ᓇᐃᓈᖅᓯᒪᓂᖏᑦ

ᐅᓪᓗᖅ: ᐊᒃᑑᕙ 28, 2020
ᓯᕿᓐᖑᔭᖅ: 18:40 – 21:42

ᑲᑎᒪᖃᑕᐅᔪᑦ:

- ᓄᓇᕗᑦ ᒐᕙᒪᖏᑦ–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᓇᓄᓕᕆᔨ ᒪ. ᑎᒃ, ᔭ. ᕗᐃᐅᕐ
- ᓄᓇᕗᑦ ᒐᕙᒪᖏᑦ–ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᐊᕕᑦᑐᖅᓯᒪᔪᒥ ᐊᐅᓚᑦᑎᔨᐅᑲᐃᓐᓇᖅᑐᖅ ᕙ. ᓃᓕ
- ᐃᒃᓗᓕᒃ ᐆᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑲᑐᔾᔨᖃᑎᒌᖕᒋᑦ ᑲᑎᒪᔨᖏᑦ
- ᕿᑭᖅᑖᓗᒥ ᐆᒪᔪᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᐃᒃᓯᕙᐅᑕᖅ ᔭ. ᕿᓪᓚᖅ
- ᓄᓇᕗᑦ ᑐᖖᒐᕕᒃ ᑎᒥᖓ ᑐᑭᒧᐊᕐᑎᕐᑎᔨ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᐸ. ᐃᖅᒐᐅᑦ
- ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᑐᑭᒧᐊᕐᑎᕐᑎᔨ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑎ. ᓐᑎᓗ, ᐆᒪᔪᓕᕆᔨ ᑲᔨ ᐃᓐᒐᓚᓐ

ᐅᖃᐅᓯᒃᓴᑦ ᐊᒻᒪᓗ ᐊᐱᖅᑯᑎᒃᓴᑦ:

ᐅᓂᒃᑲᐅᓯᖃᓚᐅᖅᑎᓪᓗᒋᑦ ᐃᑭᕋᔅ ᐃᒪᖓᓂ ᓇᓄᐃᑦ ᒥᒃᓴᓄᑦ, ᑲᑎᒪᔨᐅᔪᑦ ᐅᖃᐅᓯᖃᓚᐅᖅᐳᑦ ᓯᑯᑉ ᐊᓯᔾᔨᕐᓂᖓᒍᓂᒃ, ᐅᓯᑲᖅᑕᕐᓂᕐᒥᒃ, ᐊᒻᒪᓗ ᐊᒥᓲᓂᖅᓴᐃᑦ ᓇᓄᐃᑦ ᑕᑯᔭᐅᕙᓪᓕᕐᒪᑕ – ᖃᐅᔨᓯᒪᔭᖏᑦ ᓴᓂᕋᔭᑉ ᐃᒪᖓᓃᓐᓂᖅᓴᐅᕙᑦᑐᑎᑦ. ᐅᖃᐅᓯᖃᓚᐅᕐᒥᔪᑦ ᐊᑎᖅᑖᖅᑕᐅᖃᑦᑕᕐᓂᐅᔪᓂᑦ ᐊᒻᒪᓗ ᐊᑎᖅᑖᕈᓐᓇᐅᑎᓂᕐ, ᐊᒻᒪᓗ ᖃᓄᖅ ᐱᔪᓐᓇᕋᔭᕐᒪᖔᑦ ᐊᒥᓲᓂᖅᓴᓂᑦ ᐊᖑᔭᐅᔪᓐᓇᖅᑐᑦ ᓴᓂᕋᔭᑉ ᑕᕆᐅᖓᓂ. ᑕᒪᐃᓐᓂ, ᐃᓚᒌᔭᐅᔪᑦ ᐊᖏᕈᑎᖃᓚᐅᖅᐳᑦ ᖃᐅᔮᔅ ᓴᖅᑭᖅᓯᒪᔪᑦ ᖃᐅᔨᔭᒥᓂᐅᔪᓂᑦ.

4.0 ᑕᒪᐃᓐᓂ ᓄᓇᓕᐅᔪᓂᑦ ᑐᓴᕆᐊᕕᖃᓚᐅᖅᑎᓪᓗᑕ ᓇᐃᓈᖅᓯᒪᓂᖏᑦ

ᑐᓴᕆᐊᕕᖃᖅᑎᓪᓗᑕ ᑕᒪᐃᓐᓂ ᓄᓇᓕᐅᔪᓂᑦ ᓇᓐᓄᒐᓯᐊᓲᑦ ᐃᑭᕋᔅ ᐃᒪᖓᓂ ᓇᓪᓕᑭᑕᖅᑐᑎᑦ ᐅᖃᐅᓯᖃᖅᑎᑕᐅᕙᓚᐅᖅᐳᑦ, ᖃᓄᑐᐃᓐᓇᖅ ᐅᖃᓪᓗᒍᒪᔪᕐᒥᖕᓂᑦ ᐅᖃᐅᓯᖃᕈᓐᓇᖅᑐᑎᑦ ᑕᒪᐃᓐᓂ ᑲᑎᒪᖃᑕᐅᔪᑦ ᐅᖃᐅᓯᖃᕈᓐᓇᖅᐸᓚᐅᖅᐳᑦ, ᐊᐱᖅᓯᕈᓐᓇᖅᑎᑕᐅᓪᓗᑎᑦ, ᐊᒻᒪᓗ ᐅᖃᓪᓚᓪᓗᑎᑦ. ᑲᑎᒪᖃᑕᐅᔪᑦ ᑐᑭᓯᐊᖅᑎᑕᐅᕙᓚᐅᖅᐳᑦ ᖃᓄᐃᑦᑐᓂᑦ ᐅᖃᐅᓯᖃᕐᓂᐊᕐᒪᖔᖅᑕ ᐊᒻᒪᓗ ᑐᑭᓯᐅᒪᓪᓗᑎᑦ ᖃᐅᔨᒪᔪᓂᓪ ᓴᖅᑭᖅᓯᒪᔭᕆᕐᓂᑦ. ᐱᒪᕆᐅᓂᖅᓴᑦ ᐅᖃᐅᑕᐅᕙᓚᐅᖅᑐᑦ ᓄᓇᓕᐅᔪᓂᑦ ᑐᑦᓯᕐᒐᐅᔪᑦ ᐃᑭᕋᔅ ᐃᒪᖓᓂ ᐅᑯᐊᖑᓪᓗᑎᑦ:

1) ᐊᖏᖃᑎᖃᖅᑐᑎᑦ ᖃᐅᔨᓵᕆᓂᕐᓂᑦ ᓇᓄᐃᑦ ᐊᒥᓲᓂᖏᑦ ᐊᓯᔾᔨᒍᐊᖅᓯᒪᙱᓪᓚᑕ–ᐊᓯᔾᔨᒍᐊᕌᒍᒃᓯᒪᙱᑦᑐᑦ ᒪᓕᑦᑐᒋᑦ ᓄᓇᒥ ᑕᑯᔭᐅᖃᑦᑕᕐᓂᑯᒥᓂᖏᑦ–ᑕᐃᒪᙵᓂᑦ ᑭᖑᓪᓕᖅᐹᒥᒃ ᖃᓪᓗᓇᕐᔨᕐᖓᑦ ᖃᐅᔨᓴᐅᓯᖏᑦ ᒪᓕᑦᑐᒋᑦ ᖃᐅᔨᓵᕆᓃᑦ 1998-2000–ᖑᑎᓪᓗᒍ, ᐊᒻᒪᓗ

2) ᐃᑭᕋᓯᑉ ᐃᒪᖓᓂ ᓇᓐᓄᑦᑕᐅᒐᓱᐊᕈᓐᓇᖅᑐᑦ ᐃᓕᐅᖅᑲᖅᑕᐅᓂᖏᑦ ᐃᓱᒫᓘᑕᐅᒻᒪᕆᖕᒪᑦ.

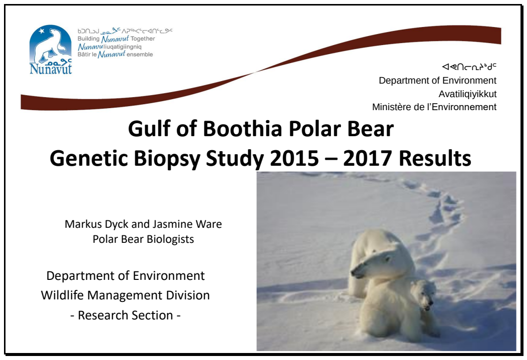
ᐱᒻᒪᕆᐅᙱᓐᓂᖅᓴᓪᓗ ᐅᖃᐅᑕᐅᕙᓚᐅᖅᑐᑦ, ᐅᖃᐅᑕᒥᓂᐅᓪᓗᑎᑦ ᓄᓇᓕᐅᔪᓄᑦ ᐃᓚᖏᖕᓄᑦ ᑭᓯᐊᓂᓕ ᑕᒪᐃᓐᓅᙱᑦᑐᖅ, ᐅᖃᐅᓯᖃᓚᐅᖅᐸᑦ ᓅᐸᓪᓕᐊᓂᖏᑦᑕ ᑭᒡᓕᓯᓂᐊᖅᑕᐅᓯᒪᔪᑦ ᑐᑭᓯᐊᕈᑎᖏᑦ ᓇᓗᓇᐃᖅᓯᖁᓪᓗᒋᑦ ᐊᑦᑐᐃᓂᖅᑲᕈᓇᕐᓂᖏᑦ ᐱᕙᓪᓕᐊᔪᓕᕆᓂᐅᕙᑦᑐᑦ ᐊᒻᒪᓗ ᐅᓯᒃᖅᑕᕐᓂᐅᔪᑦ ᐊᒻᒪᓗ ᐊᑎᖅᑕᓛᓂᑦ ᓇᓐᓄᒐᓱᐊᕈᒪᖃᑦᑕᖅᑐᑦ.

ᓄᓇᕗᑦ ᒐᕙᒪᖏᑦ ᐊᓯᔾᔩᖅᑯᔾᔭᓚᐅᙱᑦᑕᖅ ᑲᑎᓕᒫᖅᑐᖏᑦ ᐊᖑᔭᐅᔪᓐᓇᖅᑐᑦ ᐊᒥᓲᓂᖏᖕᓂᑦ ᑕᐃᑯᖓ ᐃᑭᕋᓯᑉ ᐃᒪᖓᓄᑦ ᒪᓕᑦᑐᒋᑦ ᖃᐅᔨᓵᕆᓃᑦ ᓴᖅᑭᓐᓂᖏᑦ ᐊᓯᔾᔨᒍᐊᖅᓯᒪᙱᓐᓂᖏᖕᓄᑦ ᐊᒥᓲᓂᖏᑦ ᓇᓄᐃᑦ. ᑕᒪᐃᓐᓂ ᓄᓇᓕᐅᔪᑦ ᐊᖏᕈᑎᖃᖃᑦᑕᖅᓯᒪᓕᐅᕐᓂᖏᖕᓄᑦ ᖃᐅᔨᓵᕆᓃᑦ ᓴᖅᑭᖅᓯᒪᔭᖏᖕᓄᑦ, ᐊᑭᖃᖅᑐᓗᐊᕌᒍᒃᑐᖅᑲᓚᐅᙱᑦᑕᖅ ᑕᒪᔅᓱᒧᖑ ᑐᒃᓯᕋᐅᑎᒎᑦ. ᐃᓄᐃᑦ ᖃᐅᔨᒪᔪᖃᖏᑎᒍᑦ ᖃᐅᔨᓴᖅᑐᖃᐃᓐᓇᕐᒪᑦ ᐃᑭᕋᓯᑉ ᐃᒪᖓᓂ ᖃᐅᔨᕙᐃᒥᑎᑦᑎᒍᑕᐅᕙᓐᓇᒌᖅᑐᓂ ᐊᖑᓇᓱᒃᑏᑦ ᐊᒻᒪᓗ ᑕᒪᐅᙳᖅᐸᑦᑐᑦ ᖃᐅᔨᓯᒪᔭᖏᑦ ᒪᓕᑦᑕᐅᓗᑎᑦ ᓇᓄᐃᑦ ᓱᑯᑎᐊᓅᓱᖑᓂᖏᖕᓄᑦ ᐅᕝᕙᓘᓐᓃᑦ ᐊᒥᓲᓂᖏᖕᓄᑦ.

ᐃᓚᖓ ᐱᕐᔪᐊᖑᔪᖅ ᐅᖃᐅᑕᐅᓚᐅᖅᑐᖅ ᑐᓴᕆᐊᕐᕕᖃᖅᑎᓪᓗᑕ ᓇᓗᓇᐃᒃᑯᓯᖅᓯᐃᖃᑦᑕᕐᓂᑦᑕ ᐃᓕᐅᖅᑲᖅᑕᐅᓲᖑᓂᖏᑦ ᕿᒥᕐᕈᔭᐅᒃᑲᓐᓂᕆᐊᖃᕐᒪᑦ ᖃᐅᔨᒪᓇᑦᑎᐊᕐᑯᓪᓗᒍ ᓇᓕᒧᑦᑐᒃᑯᑦ ᑲᒪᒋᔭᖃᖅᓯᔪᖅᑕ ᐊᒻᒪᓗ ᐊᒥᓲᓂᖏᑦ ᐊᔾᔨᐹᔾᔩᒥᒐᔭᕐᒪᑕ ᓇᓐᓄᒍᓐᓇᖅᑐᑦ ᓄᓇᓕᐅᔪᑦ ᑕᐃᑲᙵᑦ ᐃᑭᕋᓯᑉ ᐃᒪᖓᓂ ᓇᓐᓄᖅᑲᖅᑕᐃᑦ. ᑕᒪᓇ ᐅᖃᐅᑕᐅᓗᐊᓚᐅᖅᐳᖅ ᓄᓇᓕᐅᔪᓄᑦ ᓇᓐᓄᕋᓲᓄᑦ ᑕᒪᒃᑮᓐᓂᒃ ᕿᑎᕐᒥᐅᑦ ᑕᕆᐅᖓᓂ ᐊᒻᒪᓗ ᐃᑭᕋᓯᑉ ᐃᒪᖓᓂ ᓇᓄᐃᑦ ᐊᒥᓲᓂᖏᖕᓂ. ᓄᓇᕗᑦ ᒐᕙᒪᖏᑦᑕ ᑭᒡᒐᖅᑐᐃᔩᖏᑦ ᐅᖃᐅᓯᖃᓚᐅᖅᐳᑦ ᐱᓕᕆᐊᕆᔭᐅᓲᓂᑦ ᐊᒻᒪᓗ ᑲᒪᒋᔭᖃᖃᑦᑕᕆᐊᖃᖅᓯᓂᖏᖕᓂᑦ ᑳᑯᐊ ᑎᒥᐅᔪᑦ ᐋᖅᑮᒃᓯᓪᓗᒋᑦ ᑕᒪᒃᑯᓂᖓ ᓂᕆᖓᑖᑦ ᐃᓕᐅᖅᑲᖅᑕᐅᔾᔪᑎᖏᑦ ᓇᓐᓄᕋᓱᐊᕈᓇᐅᑏᑦ ᓄᓇᓕᐅᔪᓂᑦ. ᓄᓇᕗᑦ ᒐᕙᒪᖏᑦ ᓇᓗᓇᐃᔭᐃᓚᐅᖅᐳᑦ ᐊᐅᓚᔾᔪᓯᖓᓂᑦ ᑳᑯᑎᒎᓈᕐᓗᑎᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᓂᑦ ᐆᒪᔪᓕᕆᔾᔪᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᑎᒍᑦ ᐊᒻᒪᓗ ᑐᑭᒧᐊᑦᑎᑦᑎᒍᓐᓇᕐᓂᖅᑐᑎᑦ ᐅᕙᓗᓐᓂᑦ ᑐᑭᓯᐊᖅᑎᑦᑎᒃᑲᓐᓂᕈᓐᓇᖅᑐᑎᑦ ᓇᓕᐊᓐᓄᑐᐃᓐᓇᖅ ᐱᓕᕆᐊᖃᕈᒪᔪᓄᑦ ᓄᓇᓕᐅᔪᒧᑦ.

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

Slide 1



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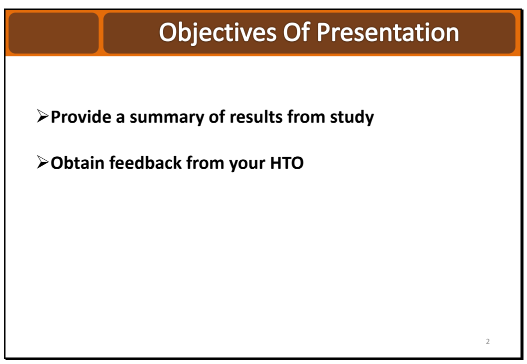


Slide 3

Background

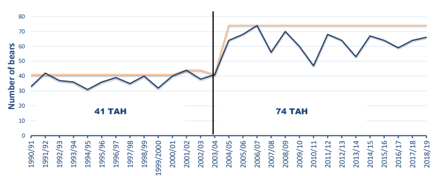
- First mark-recapture study between 1973-78
  - MC and GB treated as one unit, estimate of 1,081
- GB estimate increased to 900 in mid-90s based on local knowledge and biased sampling
- MC estimate decreased from 900 to 700 based on local knowledge in mid-90s
- Population boundaries in 1995 and 2001

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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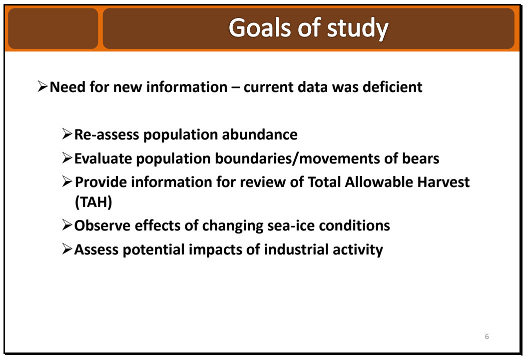
Slide 5

Background

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

5

Slide 6



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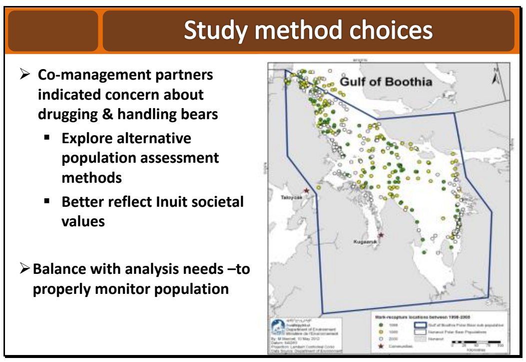

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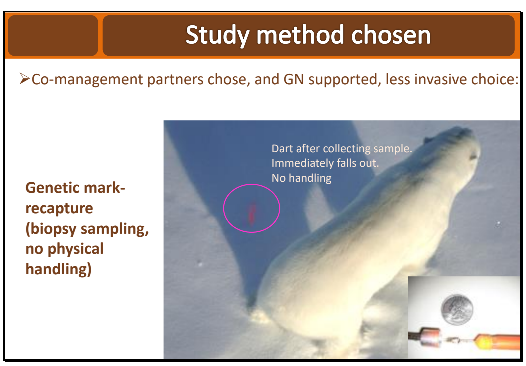

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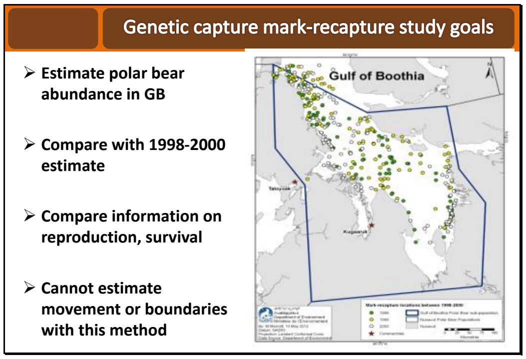

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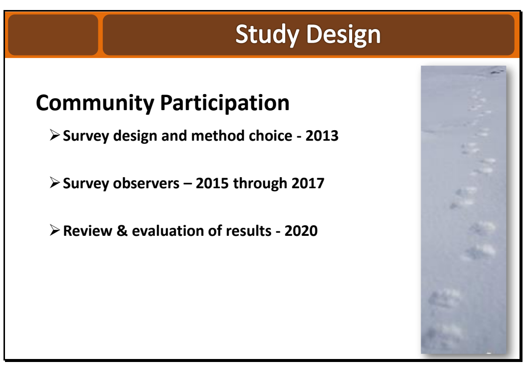
Slide 11



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

12

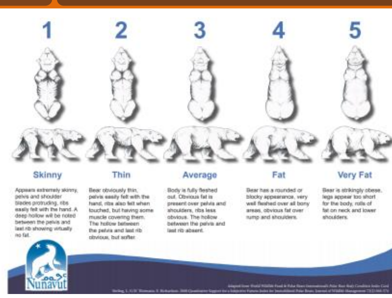
Slide 13

Study Design

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

Slide 14

Study Design



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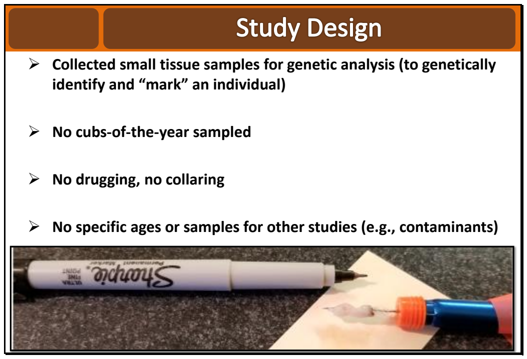
Slide 15



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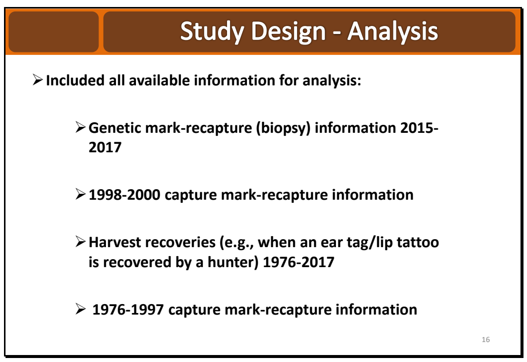

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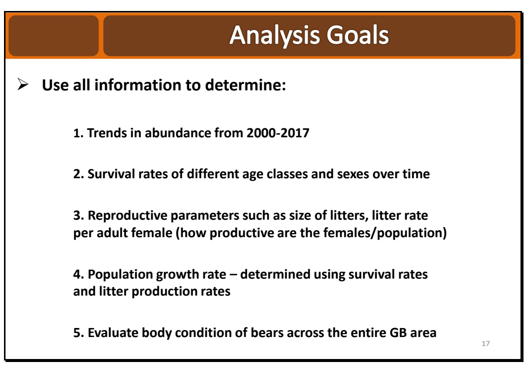

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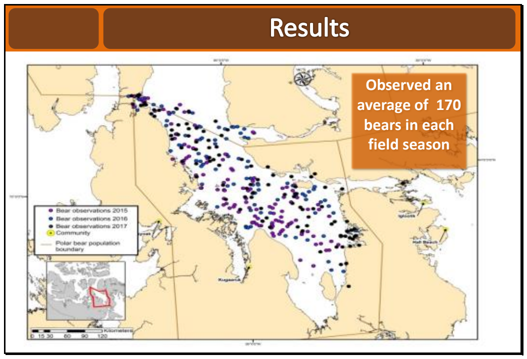

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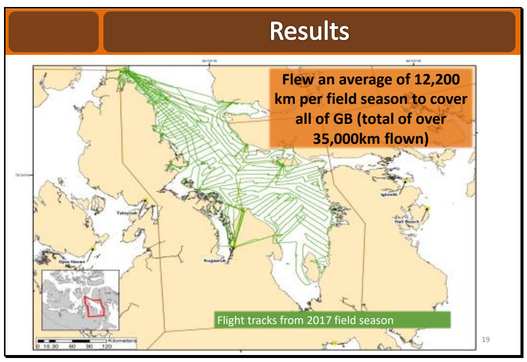

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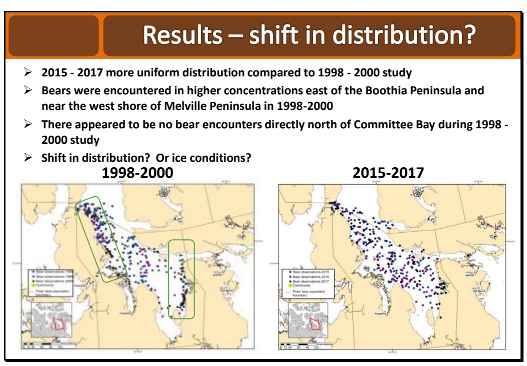
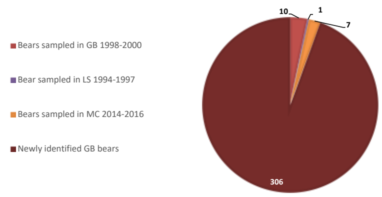


Slide 21

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
- 0.51 COYs/adult female
- 0.37 yearlings/adult female

2015-2017
- 0.43 COYs/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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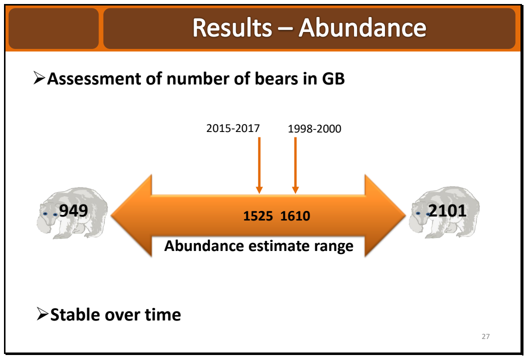
Slide 26

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



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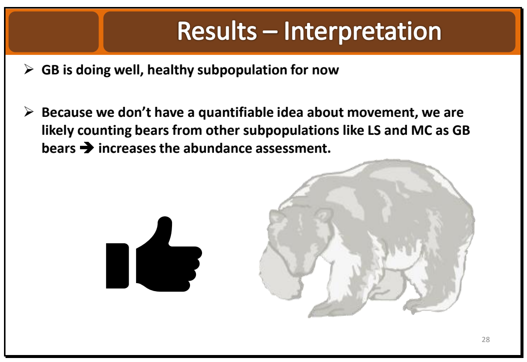

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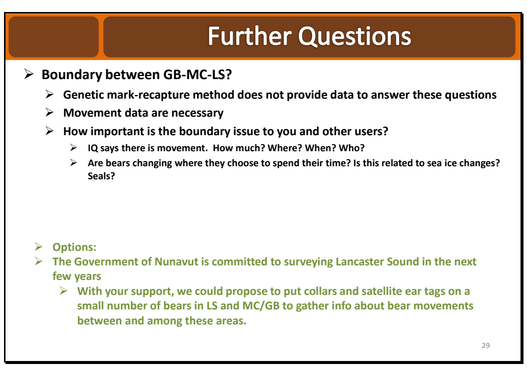

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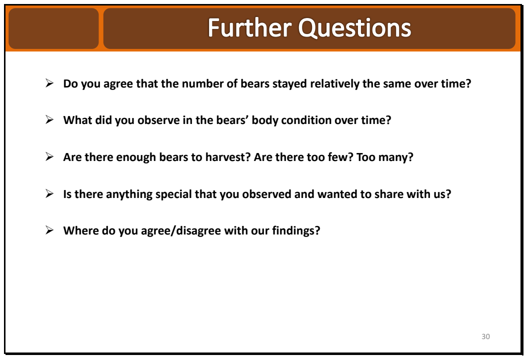

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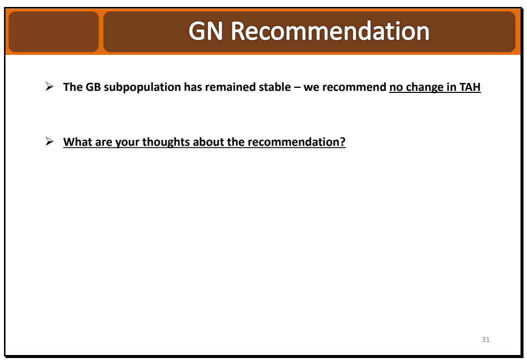

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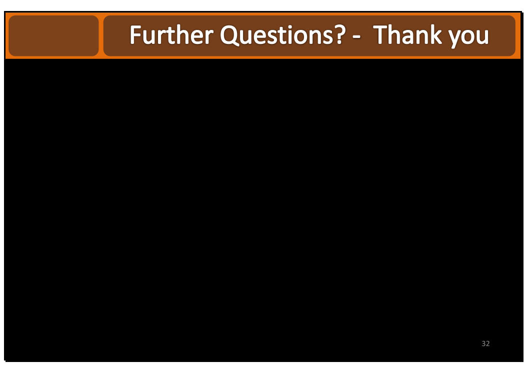

Appendix 2: Complete Consultation Summary of the Gulf of Boothia Community Consultations

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

Building Nunavut Together
Nunavu liuqatigiingniq
Bâtir le Nunavut ensemble

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Department of Environment
Avatiliqiyikkut
Ministère de l'Environnement

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 ᐅᓄᕐᓂᖓᓐᓄᑦ Gulf of Boothia−ᒥ ᓇᓄᕆᔭᐅᒃᑲᓐᓂᖅᑐᓄᑦ ᐊᑐᖅᑐᖃᕐᓗᓂ ᑎᒥᖏᑎᒍᑦ ᓇᓗᓇᐃᒃᑯᑎᖅᓯᓂᕐᒥᒃ−ᐱᒃᑲᓐᓂᖅᓯᓂᕐᒥᒃ

ᐊᐅᓚᑦᑎᔾᔨᓂᙳᖅᑐᑦ ᓇᐃᓈᖅᓯᒪᔪᖅ

ᓇᓄᐃᑦ (*Ursus maritimus*) ᐊᐅᓚᑦᑎᕙᐅᕙᒃᐳᑦ ᓄᓇᕗᓕᒫᒥ, ᑲᓇᑕᒥ, ᖃᐅᓯᕋᕿᓐᓇᕐᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᕙᒃᑐᑎᒍᑦ ᕿᓂᖅᑐᒃᑯᑦ ᓇᓗᙱᑦᑎᐊᕈᒪᓂᕐᒧᑦ ᑕᒪᓐᓇ ᐊᖑᓂᕆᔭᐅᕙᒃᑐᖅ ᑲᔪᓰᓐᓇᕈᓐᓇᕐᒪᖔᑦ. ᐊᕐᕌᒍᓴᖅᑐᓂ ᖁᓕᓂ, ᓯᓚᐅᑉ ᐊᓯᔾᔨᕐᓂᕆᔭᕐᕆᑦ ᐅᑭᐅᖅᑕᖅᑐᓕᒻᒪᒥ ᐊᓯᔾᔨᖅᑎᑎᑦᑎᓯᒪᕗᖅ ᓇᓄᐃᑦ ᐃᓂᕆᕙᒃᑕᕆᓐᓂᒃ, ᑕᒪᓐᓇᓗ ᓱᒃᑲᓕᔫᒪᕆᐅᓪᓗᓂ. ᐱᓯᒪᔪᒪᓗᓂ ᑲᔪᓯᐊᓐᓇᑦᑎᐊᖅᑐᒥᒃ ᓇᓄᕐᓄᑦ ᓇᓄᖃᑎᒋᒃᑲᓐᓂᖅᑐᓄᑦ ᐃᓚᒋᔭᐅᓪᓗᑎᒃ ᓄᓇᒧᑦ ᓇᓗᙱᑦᑎᐊᕈᒪᓂᐅᕗᖅ ᑲᔪᓰᓐᓇᖅᑐᒥᒃ ᒪᓂᒪᕙᙱᓂᖏᓐᓂᒃ ᐊᑐᖅᑕᐅᔪᓐᓇᖅᐸᓂ ᐃᓄᖕᓄᑦ, ᖃᐅᔨᓴᕐᓂᕐᒧᑦ ᓇᐅᑦᑎᖅᓱᖅᓯᓂᕐᒧᓪᓗ ᐱᓕᕆᐊᖑᕙᒃᐳᑦ ᖃᐅᔨᓴᖅᓯᔪᒪᓂᕐᒧᑦ ᓇᓅᖃᑎᒌᒃᑲᓐᓂᖅᑐᑦ ᖃᓄᐃᓕᖓᓂᖏᓐᓂᒃ ᐊᒻᒪᓗ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᑐᕌᕆᔭᐅᔪᑦ ᐋᕗᑎᓯᒪᔭᐅᒐᓗᐊᕐᒪᖔᑕ. ᐅᕙᓂ ᐅᓂᒃᑳᐅᓯᖃᖅᐳᒧᑦ ᖃᓄᐃᓕᖓᓂᖏᓐᓂᒃ ᖃᐅᓯᐅᓂᖏᓐᓄᑦ ᖃᐅᔨᓴᖅᓯᓂᕐᒥᒃ ᓇᓄᕐᓄᑦ ᓄᓇᓕᖕᓄᑦ Gulf of Boothia−ᒥ ᑲᔪᓯᓚᐅᖅᐳᖅ 2015-2017-ᒥ. ᒫᓐᓇ ᖃᓴᒃᓴᐃᑦ ᑲᑎᑕᐅᓚᐅᖅᐳᑦ ᐊᑐᖅᑐᖅᑲᖅᓗᓂ ᐸᒡᕙᓴᙱᓐᓂᖅᓴᒥᒃ ᑎᒥᖓᓂᑦ ᐲᖅᓯᐊᕐᔪᒃᓗᓂ ᓇᐅᒃᑲᖅᑕᐅᒪᒧᑦ ᐊᐅᓚᔪᓐᓇᐃᓕᑎᑦᑎᙱᕐᓗᑎᒃ ᑎᒥᖏᑎᒍᓪᓘᓐᖓᓂᑦ ᑲᓴᓗᒃᑕᐅᙱᓪᓗᑎᒃ. ᖃᐅᔨᓴᕐᓂᕆᔭᕗᑦ ᐃᓚᖃᓚᐅᖅᐳᖅ 2015-2017-ᒥ ᑎᒥᖓᓂᑦ ᖃᐅᔨᓴᖓᒃᓴᒥᒃ ᑎᑎᕋᖅᓯᒪᔪᓂᒃ, ᐆᒪᔪᒥᑦ−ᐲᖅᓯᓂᒥᒃ ᑎᑎᕋᖅᓯᒪᔪᓂᒃ ᑲᑎᑕᐅᔪᓂᒃ ᐋᖅᑭᒃᓱᖅᑕᐅᓯᒪᔪᒥ ᖃᐅᔨᓴᕐᓂᕐᒥ 1998-2000-ᒥ, ᐆᒪᔪᒥᒃ−ᐲᖅᓯᓂᕐᒥᒃ ᑎᑎᕋᖅᓯᒪᔪᓂᒃ ᑲᑎᑕᐅᓚᐅᖅᑐᓂᑦ ᐱᕙᒃᓴᖃᕐᓂᕐᒧᑦ 1976−1997−ᒥ, ᐊᖑᔪᖃᖅᐸᖕᓂᖓᓄᓪᓗ ᐅᑎᖅᑎᑦᑎᓂᕐᒧᑦ ᑎᑎᕋᖅᓯᒪᔪᓂᒃ ᐅᕝᕙᓕᒫᖅ 1976-2017-ᒧᑦ. ᖃᐅᔨᔭᐅᔪᑦ ᐆᒪᔪᒥᒃ−ᐱᓯᓂᕐᒧᑦ, ᑐᕐᑯᔪᓂᑦ−ᐱᕝᕙᖃᕐᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᓇᔭᖅᑐᓂᒃ ᐋᖅᑭᒃᓱᖅᑕᐅᓯᒪᔪᓂ MARK-ᒥ ᐃᒪᐃᑎᑦᑎᖅᑰᔨᕗᑦ, ᖃᐅᓯᐅᓂᖓᓐᓄᑦ ᖃᐅᓯᐅᓇᓱᒋᔭᐅᔪᒥ 1525−ᓂᒃ (ᑕᒻᒪᖅᑕᐅᒐᔪᒃᐸᒃᑐᖅ [SE] = 294) 2015 − 2017−ᒧᑦ ᐊᔾᔨᖃᑲᓴᓚᐅᖅᐳᖅ ᐅᓄᕐᓂᕆᔭᖓᓐᓄᑦ 1998 − 2000−ᒥ (1610 [SE = 266] ᑕᕝᕙᓂ ᖃᐅᔨᓴᕐᓂᕆᔭᐅᔪᒥ; 1592 [SE = 361]ᐅᕙᓂ, Taylor et al. [2009−ᒥ]).

ᓇᓄᕋᓛᖅᑖᕆᔭᐅᔪᑦ ᐊᕐᕌᒍᒧᑦ ᐊᕐᕌᓂᓕᓴᐃᓪᓗ ᐊᖏᑎᒋᓂᖏᑦ 2015 – 2017–ᒧᑦ 1.61–ᖑᓚᐅᖅᐳᑦ (95%–ᒥᒃ ᑕᕝᕙᒻᒪᕆᐅᓂᖏᓐᓂᒃ [CI] = 1.51 – 1.70) ᐊᒻᒪᓗ 1.53 (95% CI 1.41– 1.64), ᑭᖑᓕᕇᒡᑯᑎᒃ, ᐅᔾᔨᕐᓇᖅᑐᒥᒃ ᖃᓄᐃᓕᕙᓪᓕᐊᓂᑲᕋᓂ ᑕᑯᓪᓗᒍ 1998 – 2000. ᖃᔅᓯᐅᓂᕆᔭᖏᑦ ᐊᕐᕌᓂᓕᓴᐃᑦ ᐃᓐᓇᕐᒧᑦ ᐊᕐᓇᒧᑦ 2015 – 2017–ᒧᑦ 0.36–ᖑᓚᐅᖅᐳᖅ (95% CI = 0.26 – 0.47) ᑕᒪᓐᓇᓗ ᐃᒪᐃᑎᑦᑎᖅᑰᔪᓪᓗᓂ, ᑖᓐᓇ GB ᒫᓐᓇ ᕿᑐᕐᖕᒋᐅᕝᕕᐅᓪᓗᓂ ᓇᓄᕐᓂᑦ, ᓯᑯᖓ ᐊᓯᔾᔨᖅᓯᒪᓕᕋᓗᐊᖅᑎᓪᓗᒍ. ᑕᒪᓐᓇ ᐊᔨᖃᖅᐳᖅ ᖃᐅᔨᓴᑦᑎᓐᓂᑦ ᓇᓄᐃᑦ ᑎᒥᖏᑕ ᖃᓄᐃᓕᖓᓂᖏᑦ (ᓲᓗ, ᖁᐃᓂᓂᖏᑦ) ᐅᐱᕐᖔᒃᑯᑦ ᐊᖏᒃᓕᑭᐊᓚᐅᖅᓯᒪᕗᖅ ᐅᑯᓇᓂ, 1998-2000–ᒥ ᐊᒻᒪᓗ 2015-2017-ᒥ. ᖃᐅᔨᓚᐅᖅᐳᒍᑦ ᑭᓲᓂᖏᓐᓂᒃ ᖃᔅᓯᓂᒃᓗ ᐊᕐᕌᒍᖃᕐᓂᖏᓐᓂᒃ–ᐱᔾᔪᑎᖃᓪᓗᐊᑕᖅᑐᒥᒃ ᐊᔾᔨᒌᖏᓐᓂᕐᒥᒃ ᑲᑎᖦᖢᒋᑦ ᐆᒪᔪᓐᓇᕐᓂᕆᔭᖏᓐᓂ (ᓲᕐᓗ ᐃᒪᓐᓇ, ᐃᓚᒋᔭᐅᓗᓂ ᐊᖑᔭᐅᓯᒪᔪᑦ ᑐᕐᑯᑕᐅᔪᑦ) ᖁᑦᑎᖕᓂᖅᓴᒥᒃ ᖃᔅᓯᐅᓇᓱᒋᓐᓈᔪᖃᖅᖢᓂ ᐃᓐᓇᕐᓄᑦ ᐊᕐᓇᓄᑦ (0.95;95% CI=0.81-0.99) ᐃᓐᓇᕐᓂᑦ ᐊᖑᑎᓂᑦ (0.85;95% CI=0.74-0.92 ᐊᕐᕋᒍᓄᑦ 2005-2017. ᐊᒃᑐᐊᓂᖃᑐᐃᓐᓇᕆᐊᓕᖕᒥᒃ ᖃᓄᐃᓕᖓᓕᕐᓂᕐᒥᒃ ᖃᐅᔨᓴᐅᔭᖃᓚᐅᖅᐳᖅ ᐅᓄᖅᓯᕆᐊᕐᓂᐅᓪᓗᓂ ᖃᔅᓯᐅᓂᕆᔭᖏᓐᓄᑦ ᐊᕐᓇᐃᑦ 0.57–ᒥᑦ 1998–2000-ᒥ 0.61–ᒧᑦ 2015–2017–ᒥ. ᖃᔅᓯᐅᓂᖏᓐᓄᑦ ᐅᓄᖅᓯᕙᓪᓕᐊᓂᖏᑦ ᖃᔅᓯᐅᓇᓱᒋᔭᐅᓂᖏᑦ ᐊᑐᖅᑐᖅᑲᖅᖢᓂ matrix ᖃᓅᓂᐊᕋᓱᒋᓐᓈᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᓇᔭᖅᑐᒥᒃ ᖃᔅᓯᐅᓇᓱᒋᓐᓈᔪᖃᖢᓂ ᑲᑎᖦᖢᒋᑦ ᐆᒪᓂᕆᔭᖏᑦ 0.06-ᖑᓚᐅᖅᐳᖅ (95% CI = 0.06 - 0.12) 2005-2007–ᒧᑦ, ᐃᒪᐃᑎᑦᑎᖅᑰᔪᓪᓗᑎᒃ ᓴᙱᔪᒥᒃ ᐊᔪᙱᓐᓂᖃᑐᐃᓐᓇᕆᐊᖃᖅᖢᑎᒃ ᐱᕈᖅᐊᓪᓕᐊᓂᕐᒥᒃ. ᑭᓯᐊᓂᓗᑦᑕᐅᖅ, ᖃᔮᔭᕗᑦ ᖃᔅᓯᐅᓂᖓᑕ ᐅᓄᖅᑎᒋᓂᖏᑦ ᖃᓄᐃᓕᕙᓪᓕᐊᓂᖏᓪᓗ ᑐᑭᖃᖅᑎᑕᐅᓕᓪᓗᐊᖅᐳᑦ ᐅᔾᔨᖅᓱᑎᐊᖅᑐᖅᑲᓗᓂ ᐃᒪᐃᓐᓂᖓᓄᑦ, ᖃᔅᓯᐅᓇᓱᒋᓐᓈᓂᕗᑦ ᐅᓄᕐᓂᖓᑕ ᐊᒃᑐᐊᓂᖃᕐᒪᑦ "ᐅᓄᕐᔭᐊᕐᓂᖏᓐᓄᑦ" (ᓲᕐᓗ ᐃᒪᓐᓇ, ᑕᒪᓐᓇ ᐃᓚᖅᑲᖅᐳᖅ ᓇᓄᓕᒫᓂᒃ ᐊᑐᖅᐸᒃᑐᓂᒃ GB-ᒥᒃ ᐃᓂᒥᒃ ᐊᐅᓚᑦᑎᕝᕕᐅᔪᒥᒃ, ᐃᓚᖏᓪᓗ ᐊᓯᒥᓂᑦᑕᐅᖅ ᓇᓅᖅᑲᑎᒋᔭᓃᑉᐸᒃᖢᑎᒃᑕᐅᖅ) ᖃᔅᓯᐅᓇᒋᓐᓈᓂᖅᐳᓪᓗ ᖃᔅᓯᐅᓂᖏᑕ ᐅᓄᖅᓯᕙᓪᓕᐊᓂᕆᔭᖏᓐᓄᑦ ᐃᓚᕋᖕᒋᓚᖅ ᐊᓯᐊᓄᐊᕋᔭᕐᓂᕐᒥᒃ ᑕᐃᑲᓃᖏᓐᓇᓂᕐᓗᓂᓗ GB–ᒥᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐃᓂᒥᑦ. ᐊᑕᖏᓪᓗᓂ, ᖃᐅᔨᓴᕗᑦ ᑕᑯᑎᑦᑎᖅᑯᔨᕗᑦ ᓇᓂᐅᓂᖏᓐᓄᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ GB–ᒥ ᓇᓄᕆᔭᐅᒃᑲᓐᓂᖅᑐᑦ ᒫᓐᓇ ᖃᓄᐃᙱᑉᐳᑦ, ᐃᒪᐃᒃᑲᓗᐊᖅᑎᓪᓗᒍ, ᐃᒪᐃᓕᐅᖁᔭᓇᔭᖅᑎᓪᓗᑕ ᐊᑦᑎᖕᓂᖅᓴᓂᒃ ᖃᔅᓯᐅᓇᓱᒋᓐᓈᓗᑎᒃ ᑲᑎᖦᖢᒋᑦ ᐊᖑᔭᐅᓯᒪᙱᑦᑐᓄᓪᓗ ᐆᒪᔪᓐᓇᕐᓂᕆᔭᖏᓐᓄᑦ ᐊᖑᑎᖏᑕ ᓇᓄᐃᑦ ᓱᓕ

ᖃᐅᔨᓴᖅᑕᐅᒃᑲᓂᕆᐊᖃᖅᑎᑦᑎᕗᑦ. ᐃᒪᓐᓇᐅᓇᓱᒋᓐᓈᕗᒍᑦ, ᐃᓂᒥᓂ ᓇᓅᓐᓂᖕᒋᓐᓄᓪᓗ ᒥᑭᓪᓕᒋᐊᖅᑐᖅ ᑐᕋᕐᒥ ᐱᑎᑦᑎᑐᐃᓐᓇᕆᐊᖃᖅᓯᒪᕗᖅ ᓅᓐᓂᕐᒧᑦ ᐱᕚᓪᓕᕈᑕᐅᓯᒪᔪᓂᒃ GB–ᒥ ᓇᓄᕆᔭᐅᒃᑲᓐᓂᖅᑐᓄᑦ ᑕᐃᒪᐃᔾᔪᑎᖃᖅᑰᑎᒃ ᓄᓇᒥᐅᑕᐅᓂᕐᒧᑦ ᐅᓄᖅᓯᕙᓪᓕᐊᕙᖕᓂᕆᔭᖕᒋᓐᓄᑦ. ᓯᓚᐅᑉ ᐊᓯᔾᔨᖅᐸᓪᓕᐊᓂᖓ ᐱᓪᓗᐊᑕᕗᖅ ᐊᕗᖓᑲᓪᓚᒃ ᖁᐊᖅᓵᕐᓇᖅᑎᑦᑎᓪᓗᓂ ᓇᓄᕐᓄᑦ ᐊᑐᖅᑕᐅᓕᕐᔭᖅᑐᒧᓪᓗ ᑕᒪᒃᑯᐊ GB–ᒥ ᓇᓄᕆᔭᐅᒃᑲᓐᓂᖅᑐᑦ ᐱᐅᙱᑦᑐᒃᑯᑦ ᐊᒃᑐᖅᑕᐅᓇᔭᕐᓂᖕᒋᓐᓂᒃ ᑲᔪᓲᓐᓇᖅᑐᒃᑯᑦ ᑐᕋᖅ ᓄᖑᑉᐸᓪᓕᐊᓂᕿᔭᖕᒐᓄᑦ, ᓱᕐᓗ ᐊᓯᖕᒋᓐᓄᑦ ᓇᓅᖃᑎᒌᓄᑦ, ᒫᓇᒧᑦ ᑎᑭᕝᕙᒍ ᖃᐅᔨᒪᔭᐅᙱᓚᖅ. ᑕᒪᓐᓇ ᖃᐅᔨᓴᐃᓄᒋᐊᓐᓂᖕᒋᑦᓂᕆᔭᐅᔪᖅ ᑭᒻᒐᖅᑐᐃᕗᖅ ᐊᐃᑉᐸᖓᓂᒃ ᐋᖅᑭᒃᓱᖅᑕᐅᓯᒪᔪᓂ ᖃᔅᓯᐅᓂᖕᒋᓐᓄᑦ ᖃᐅᔨᓴᖅᓯᓂᖅ 22–ᓂ ᐊᕐᕌᒍᓂ GB-ᒥ ᓇᓄᕆᔭᐅᒃᑲᓐᓂᖅᑐᓄᑦ. ᑐᙵᕕᒋᓪᓗᒍ ᐱᓕᕆᖃᑦᑕᖅᓯᒪᓂᖅ ᐱᔭᐅᔪᖅ ᑖᔤᓇ ᖃᐅᔨᓇᓱᖕᓂᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᒃᑯᓪᓗ, ᑐᓂᓯᕗᒍᑦ ᖃᔅᓯᑲᓪᓚᖕᓂᒃ ᖃᓄᐃᓕᐅᕐᑯᔨᓂᕐᓂᒃ ᐃᓱᒪᒃᓴᖅᓯᐅᕈᑕᐅᓂᐊᖅᑐᓂᒃ ᐱᕋᕝᔭᖅᑐᕐᑲᓕᖅᐸᑦ ᓯᕗᓂᒃᓴᒥ ᓇᓄᕐᓂᒃ ᖃᔅᓯᐅᓂᖕᒋᓐᓄᑦ ᖃᐅᔨᓴᕐᓂᕆᔭᐅᔪᓂ. ᐃᒪᓐᓇᐃᓕᐅᕐᑯᔨᓇᔭᖅᐳᒍᑦ, ᑲᑎᖅᓱᐃᔪᕐᑲᕐᓗᓂ ᑎᑎᕋᖅᓯᒪᒃᑲᓐᓂᖅᑐᓂᒃ ᕿᑎᐸᓗᐊᓂ ᐱᕋᕝᔭᖅᑕᐅᓯᒪᔪᑦ ᖃᔅᓯᐅᒃᑲᓐᓂᕐᓂᖕᒋᓐᓄᑦ ᖃᐅᔨᓴᕐᓂᕐᓂ. ᑕᐃᒪᐃᓐᓂᖓᓄᓪᓗ, ᑕᒪᓐᓇ ᓇᓕᒧᒋᔭᕐᑲᖅᐳᖅ 5–7–ᐸᓗᖕᓂᒃ ᐊᕐᕌᒍᓂᒃ 2017–ᒥ ᐱᔭᕇᖅᑕᐅᓚᐅᖅᑐᒥ ᓯᓚᒥ ᐱᓕᕆᓂᕆᔭᐅᔪᒥ. ᐊᒻᒪᓗᒃᑲᓐᓂᖅᑕᐅᖅ, ᑕᒪᓐᓇ ᖃᓄᐃᓕᐅᓕᕐᑯᔨᓂᖅ ᓄᒃᑕᖅᐸᖕᓂᖕᒋᓐᓄᑦ ᑎᑎᕋᖅᓯᒪᔪᑦ ᓄᑖᖑᙱᑎᓪᓗᒍ, ᐊᑐᕐᑯᔭᐅᓯᒪᑦᑎᐊᖅᓯᒪᕗᖅ ᓇᓅᖃᑎᒌᒃᑲᓐᓂᖅᑐᓄᑦ ᖃᐅᔨᒪᔭᐅᔪᑎᒍᑦ ᐃᓂᒥ ᐊᒥᖅᑲᑲᑎᖃᖅᐸᖕᓂᖕᒋᓐᓂᒃ ᓇᓄᐃᑦ ᑕᒃᑯᓇᓂ ᐃᓂᓂ. ᐱᑕᖃᙱᓐᓂᖓᓄᑦ ᖃᖓᑦᑕᖅᑎᑕᐅᓯᒪᔪᑎᒍᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᓂᒃ ᓇᓄᐃᑦ ᓄᒃᑕᕐᓂᖃᕋᒃᑕᖕᒋᓐᓄᑦ, ᑲᔪᓯᑎᑦᑎᓂᖅ ᖃᐅᔨᓴᖅᓯᓂᕐᒥᒃ ᖃᐅᔨᓴᕈᒪᓂᕐᒧᑦ ᐊᒥᖅᑳᖅᑲᑎᒋᒃᐸᖕᓂᖕᒋᓐᓄᑦ ᑕᒪᓐᓇ ᖃᐅᔨᓴᕈᒪᓂᕐᒧᑦ ᐊᒥᖅᑳᖅᑲᑎᒋᒃᐸᖕᓂᕆᔭᖕᒋᓐᓄᑦ GB–ᒥ ᖃᓂᒋᔭᖓᓂᓗ ᓇᓄᕆᔭᐅᒃᑲᓐᓂᖅᑐᓄᑦ (ᓱᕐᓗ ᑕᓪᓗᕈᑎᐅᑉ ᐃᒪᖓ, GB, ᐊᒻᒪᓗ M'Clintock Channel) ᐃᑲᔪᑐᐃᓐᓇᕆᐊᖃᖅᐳᑦ ᒥᑭᓪᓕᒋᐊᖅᑎᑦᑎᓗᓂ ᐃᓚᖓᓂᒃ ᓇᓗᓇᕈᔪᒃᐸᒃᑐᒥᒃ ᐃᓛᒃᑰᖅᑐᓄᑦ ᓇᓄᕆᔭᐅᒃᑲᓐᓂᖅᑐᓄᑦ ᖃᔅᓯᐅᓇᓱᒋᓐᓈᓂᕐᓂᒃ ᑕᒪᒃᑯᓄᖓ ᐃᓂᓄᑦ. ᕿᖑᓪᓕᖅᐹᒥᒃ, ᐱᕕᒃᓴᖅ, ᐊᑐᖅᑕᐅᔪᓐᓇᖅᑐᑦ, ᐊᐅᓚᑦᓂᕐᒧᓪᓗ ᑐᕌᓴᐅᔪᑦ ᑕᐃᒪᐃᑦᑐᓐᓇᖅᑎᑦᑎᒃᐸᑕ, ᐃᒪᓐᓇᐅᕐᑯᔨᓇᔭᖅᐳᒍᑦ, ᑲᔪᓯᑎᑦᑎᔪᕐᕐᓗᓂ ᖃᔅᓯᐅᓂᖕᒋᓐᓄᑦ ᐊᖑᓗᓂ ᕐᑯᐊᖅᓵᕐᓇᑐᐃᓐᓇᕆᐊᓕᖕᒧᑦ ᖃᐅᔨᓴᖅᓯᓂᕐᒥᒃ ᑐᓴᐅᒪᑎᑦᑎᔪᒪᓂᕐᒧᑦ ᑲᔪᓲᓐᓇᕈᓐᓇᖅᑐᓄᑦ ᐊᖑᓂᕐᒧᑦ ᖃᔅᓯᑫᕈᓐᓇᕐᓂᕆᔭᐅᔪᓄᑦ.

1.C) EXECUTIVE SUMMARY INNUINAQTUN

Naunaiyaqni Amigaitpiaqni tapkuat Tariunga Boothia Nannut amigaitni Ilangi 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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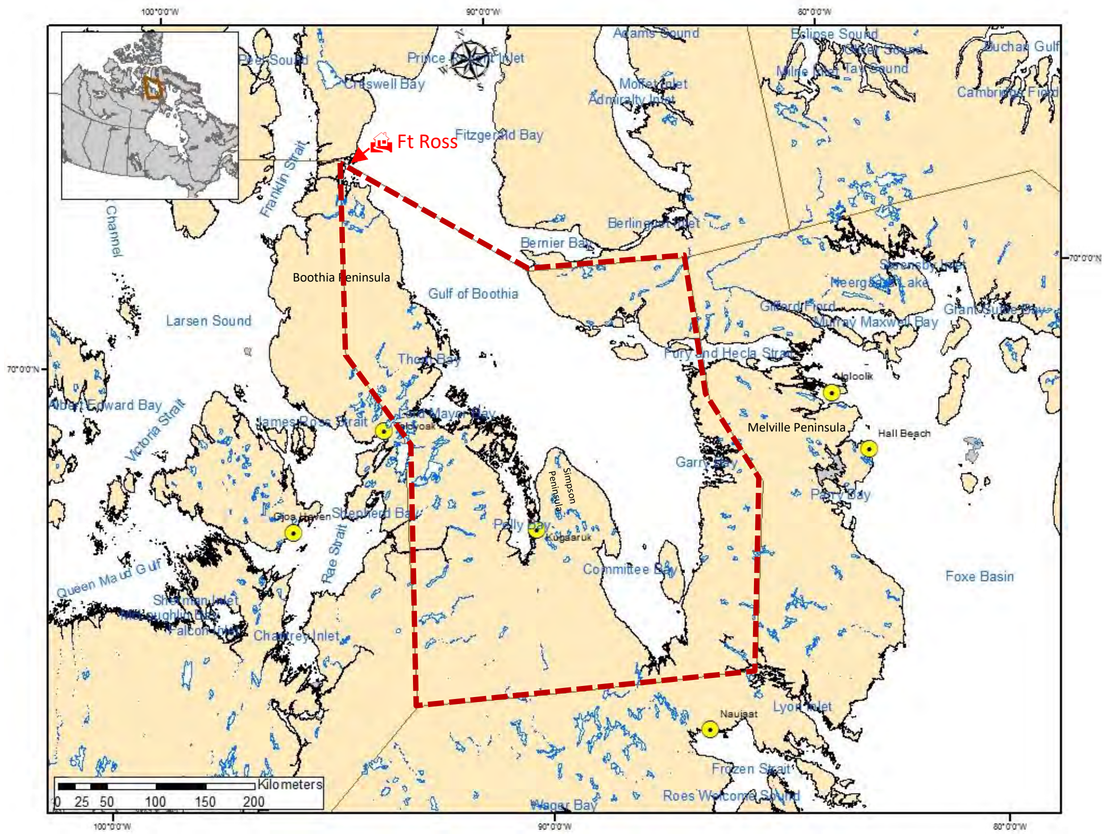
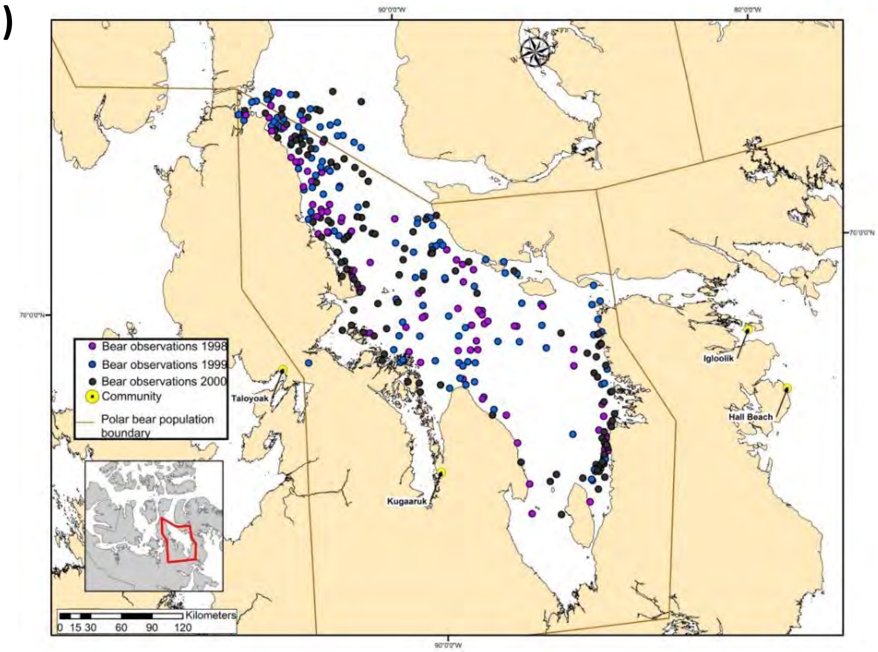


Figure 1. Basic overview and location of the Gulf of Boothia polar bear subpopulation delineated by red dashed line.

a)



b)

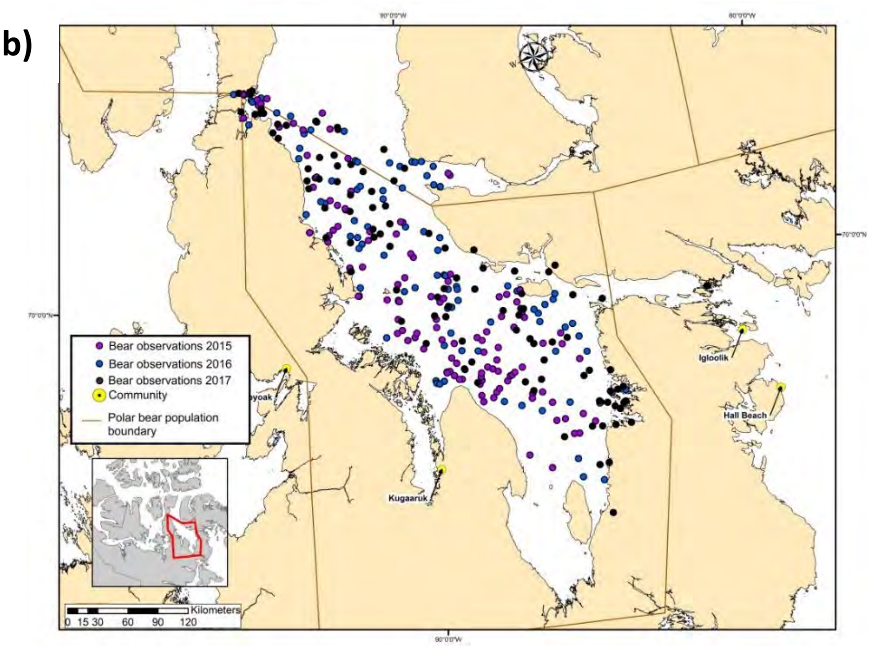


Figure 2. Locations of observed polar bears within the Gulf of Boothia study area during the 1998 - 2000 (a) and 2015 - 2017 (b) studies. Different colored dots indicate different years. Inset shows subpopulation boundary in red.

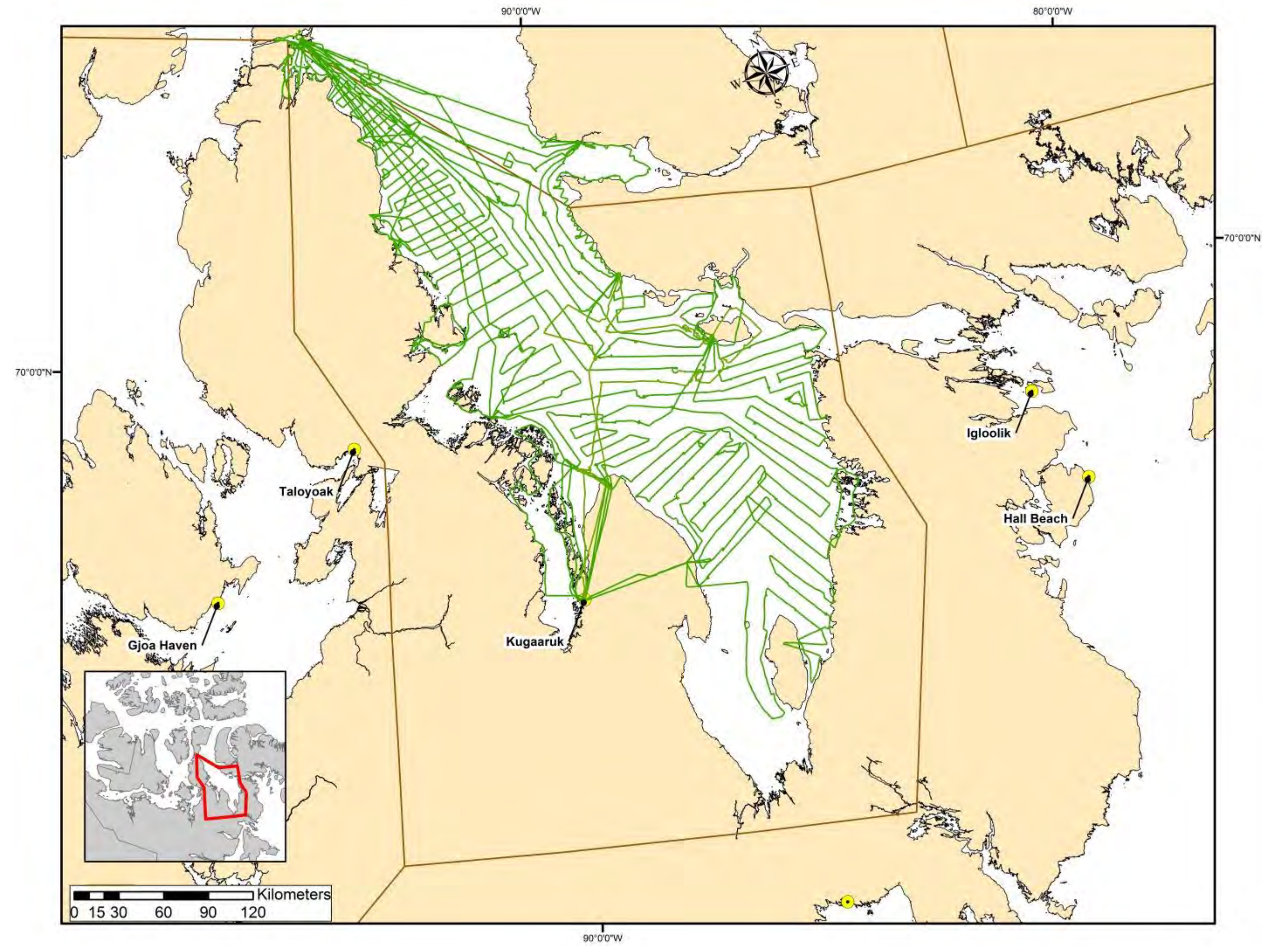


Figure 3. Flight tracks (green lines) of helicopter flown in search for polar bears in Gulf of Boothia, Nunavut, Canada, during April/May 2017. Inset shows subpopulation boundary in red.

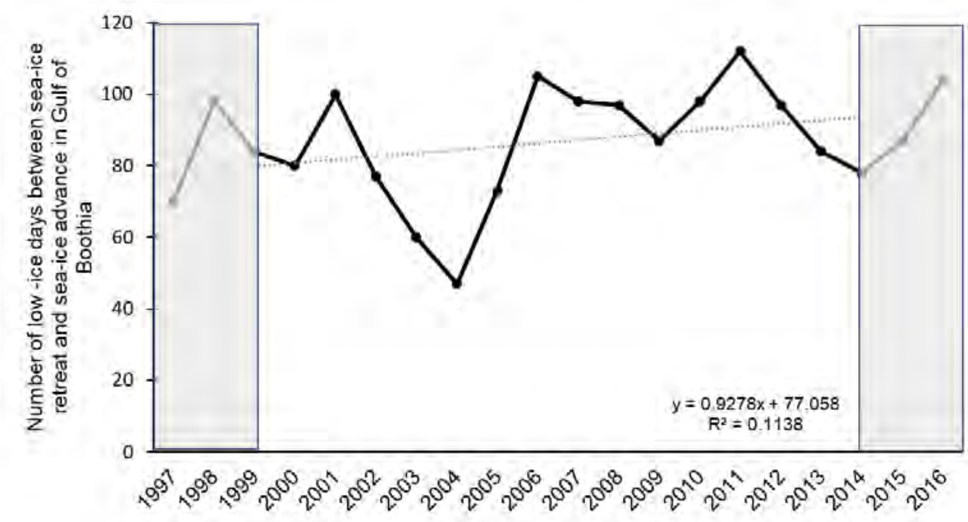


Figure 4. *Sea-ice metric of 'low-ice days' calculated as the number of days between the sea ice retreat and sea ice advance in calendar year* t *using the transition dates when ice concentration dropped below, and exceeded, respectively, the midway point of sea ice concentration between the March and 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.*

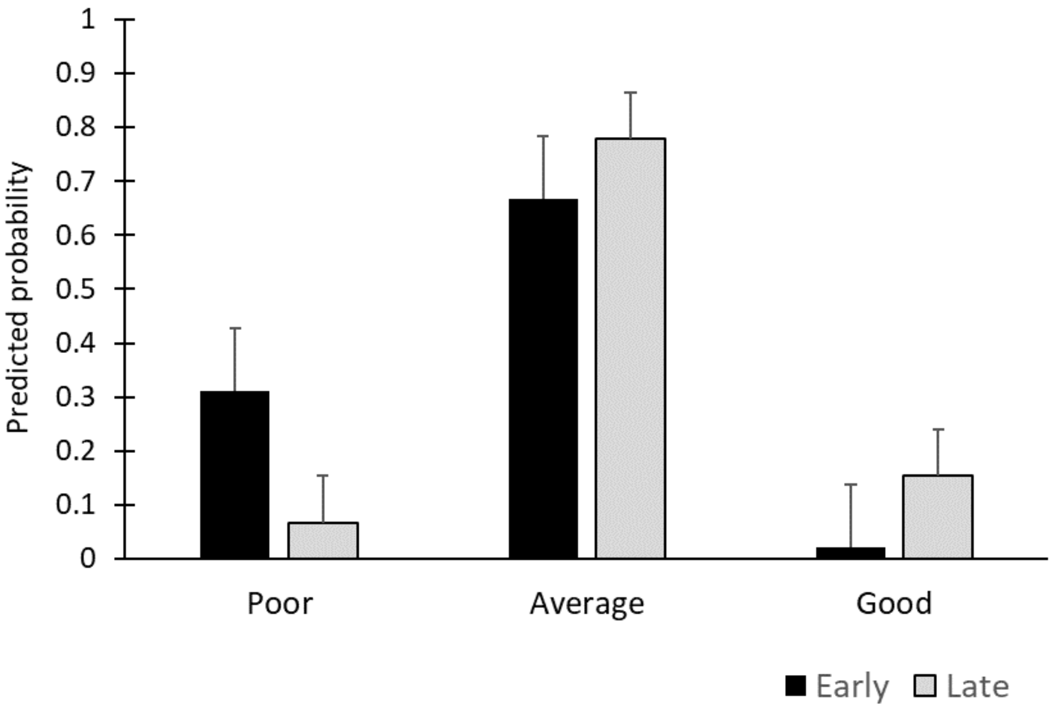


Figure 5. *Predicted probability based on best-fit model parameter estimates of a bear being classified as poor, average, or good body condition for each time period (Early = 1998 - 2000; Late = 2015 - 2017).*

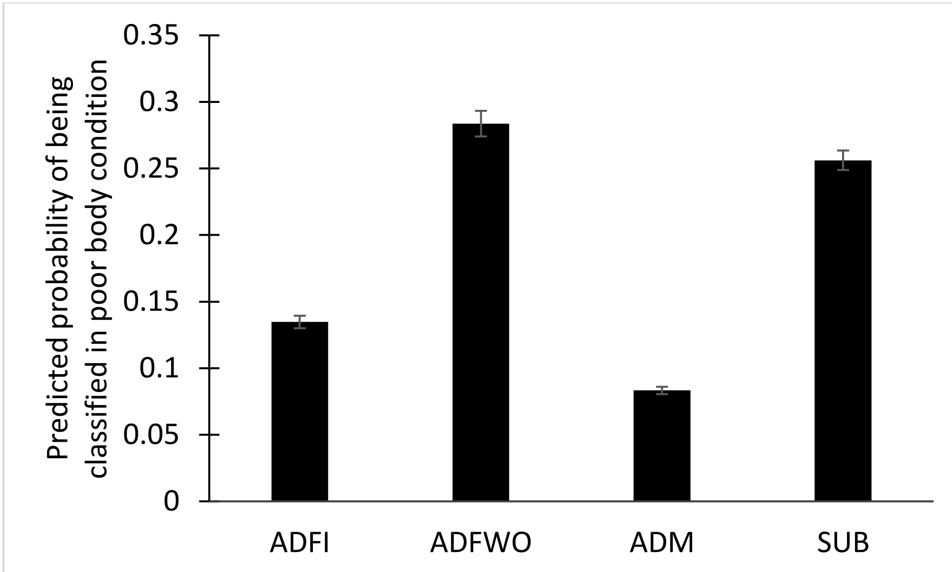


Figure 6. Predicted probability based on best-fit model parameter estimates of a bear being classified in poor body condition for each reproductive age class across both time periods. Adult females with offspring and subadults were more likely than other reproductive age classes to be classified in poor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

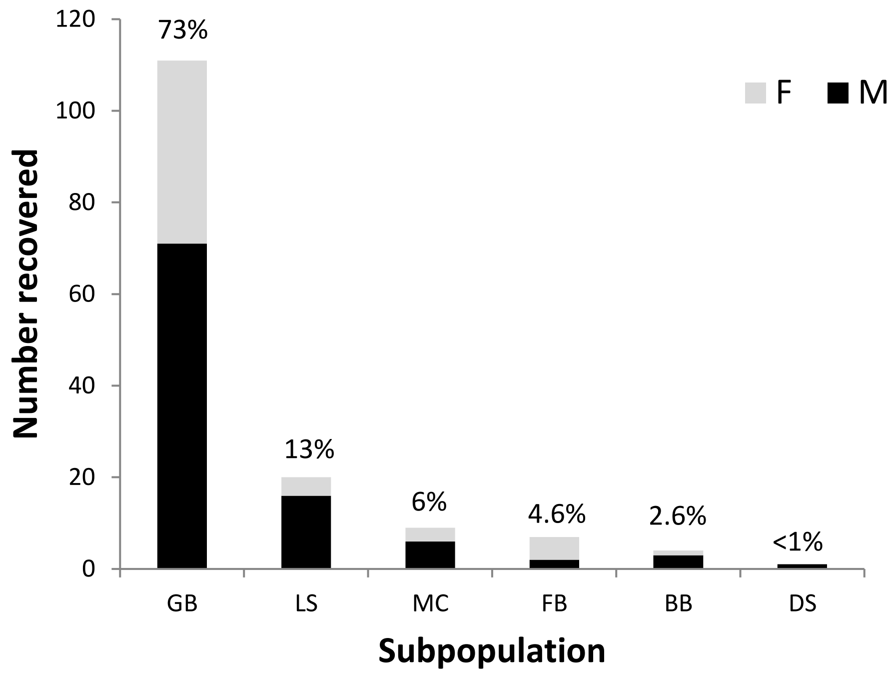


Figure 7. *Number of polar bear tags that were initially deployed within the Gulf of Boothia subpopulation boundary and subsequently recovered through the harvest between 1972 and 2017. Percentages indicate the proportion of total recoveries that occurred in a given subpopulation (GB=Gulf of Boothia; 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)

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Ministère du Développement économique et des Transports

Information Item for the Nunavut Wildlife Management Board

Iqaluit, Nunavut

February 8, 2021

On April 1, 2021, the Fisheries and Sealing Division moved from the Department of Environment to the Department of Economic Development and Transportation by Cabinet decision. This transition started with the addition of Zoya Martin as the Director for Fisheries and Sealing for an interim period of 3 years on November 4, 2019. Following this the Division has moved over, hired new staff, reviewed its mandate and operations on how to best integrate with Economic Development and Transportation. We wish to provide the Nunavut Wildlife Management Board with an update on our Division's priorities and goals for the next few years as well as an introduction of our staff.

As Fisheries and Sealing is the Government of Nunavut's lead on fisheries and sealing files, we share many files with your organization. We look forward to working closely and collaborative with your staff to advance Nunavut's and Nunavummiut's interests in both fisheries and sealing.

We thank you for taking the time to listen and we look forward to our continued working together!

Kindly,

Zoya Martin

Fisheries and Sealing, Director
Economic Development and Transportation
Government of Nunavut

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ᐃᖅᑲᓗᓯᓇᓂᖅ ᓄᖅᑎᓯᓇᓂᖅᓗ ᐱᓯᓇᕕᖓ,

ᐱᕙᓪᓕᐊᔪᓕᕆᔨᒃᑯᑦ ᐊᒻᒪᐃᖏᕋᔪᓕᕆᔨᒃᑯᑦ (EDT)

ᑎᑎᕋᖅᑐᖅ ᔧ ᒫᖅᑎᓐ, ᑐᑭᒧᐊᖅᑎᑦᑎᔨ

ᐃᖃᓗᓕᕆᓂᖅ ᓇᑦᑎᓕᕆᓂᖃᓗ ᐱᓕᕆᐊᓪᓗᐊᑕᕆᑦ ᐱᓯᓪᓕᐊᔪᓕᕆᔨᒃᑯᓐᓂᑦ ᐃᖏᕋᔪᓕᕆᔨᒃᑯᓂᑦ

- ᐃᖃᓗᓕᕆᓂᖅ ᓇᑦᑎᓕᕆᓂᖃᓗ ᓅᑦᑕᐅᓚᐅᖅᑐᑦ ᐊᓯᑎᓕᕆᔨᒃᑯᓐᓂᑦ (DOE) ᐱᓯᓪᓕᐊᔪᓕᕆᔨᒃᑯᑦ ᐃᖏᕋᔪᓕᕆᔨᒃᑯᓐᓄᑦ ᐃᐳᕈ 1, 2020, ᒥᓂᔅᑕᐅᑎᓄᑦ ᐃᓱᒪᓕᐅᖅᑕᐅᔪᖅ.
- ᑐᕌᒐᕆᑦ ᐊᑖᓂ ᐱᓯᓪᓕᐊᔪᓕᕆᔨᒃᑯᑦ ᐃᖏᕋᔪᓕᕆᔨᒃᑯᓪᓗ:

  "ᐃᑲᔪᖅᑐᐃᔪᑦ ᓂᕿᔅᓴᓄᑦ ᐊᒻᒪ ᕿᓇᐅᓯᓕᐅᕋᓱᐊᓂᖏᑦ ᐃᖃᓗᓕᕆᓂᐅᓂᖏᑦ ᐊᒻᒪ ᓇᑦᑎᓕᕆᓂᖅ ᓄᓇᕗᒻᒥ, ᒪᑭᒪᑎᑕᔅᓴᐅᑎᐊᖃᓗᑎ ᓂᕿᔅᓴᓂᒍᑕᐅᓯᑐᑦ ᐊᒻᒪ ᐃᑲᔫᑎᖃᓂᖅᓴᐅᓗᑎ ᓄᓇᕗᒻᒥᐅᓄᑦ ᐱᓕᕆᑲᑎᒋᑦᑎᐊᖃᓗᑎᑦ ᐃᓄᓐᓂᑦ, ᐊᐅᓚᑦᑎᖃᑎᒌᓐᓂᖏᑦ ᐱᓕᕆᖃᑎᕆᑦ ᐊᒻᒪ ᐊᓯᕆᑦ ᑎᒍᒥᐊᖅᑎᐅᖃᑕᐅᔪᑦ."

- ᐱᓕᕆᕕᒻᒧᑦ ᐱᓕᕆᓪᓗᐊᑕᖅᑕᕆᑦ:

  1) ᒪᑭᒪᑎᑕᔅᓴᐅᔪᒥ ᕿᓇᐅᓯᓕᕆᓂᖏᑦ ᐱᓯᓪᓕᐊᑎᑦᑎᓂᕐᒥᑦ, 2) ᐃᖅᑲᓇᐃᔭᖅᑎᑦᑎᓂᖅ ᓄᓇᕗᒻᒥᐅᓂᑦ ᐊᒻᒪ 3) ᐃᓕᓐᓂᐊᕐᓂᖅ ᓄᓇᕗᒻᒥᐅᓄᑦ

- ᐊᓪᓚᕕᕆᑦ – ᐃᖃᓗᐃᑦ (4 ᐃᖅᑲᓇᐃᔮᔅᓴᐃᑦ), ᐸᓐᓂᖅᑑᖅ (3 ᐃᖅᑲᓇᐃᔮᔅᓴᐃᑦ), ᑲᖏᕐᓂᖅ (1 ᐃᖅᑲᓇᐃᔮᔅᓴᖅ), ᐊᒻᒪ ᖁᓪᓗᖅᑑᖅ (1 ᐃᖅᑲᓇᐃᔮᔅᓴᖅ).
  - ᐃᖅᑲᓇᐃᔭᖅᑐᓂ ᐃᓄᓪᓗᒋᑦ ᐃᖅᑲᓇᐃᔮᔅᓴᓕᒫᑦ ᓇᓗᓇᐃᖅᓯᒪᓪᓚᕆᑦᑐᓄᑦ ᐃᖅᑲᓇᐃᔭᖅᑎᓂᑦ ᐱᓕᕆᓂᖃᖅᑎᑕᐅᔪᑦ ᐃᑲᔪᖃᓗᑎ ᐊᒻᒪ ᐱᐅᓯᑎᑦᑎᕆᐊᓂᕐᒥᑦ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᐅᔪᑦ ᐊᒻᒪ ᓇᑦᑎᓕᕆᓂᐅᔪᑦ.

ᐃᖃᓗᓕᕆᓂᖅ ᓇᑦᑎᓕᕆᓂᕐᓗ ᐱᓕᕆᐊᓪᓗᐊᑕᕐᒥᑦ ᐱᕙᓪᓕᐊᔪᓕᕆᔨᒃᑯᓐᓂᑦ ᐃᖏᕋᔪᓕᕆᔨᒃᑯᓂᑦ

<u>ᐱᓕᕆᕕᒻᒧᑦ ᑐᕌᒐᖏᑦ</u>:

- ᑲᔪᖏᖅᓴᕐᓗᒋᑦ ᐊᒻᒪ ᐃᑲᔪᕐᓗᒋᑦ ᓈᒻᒪᑦᑐᑦ, ᒪᒃᒪᑎᑕᖕᓴᐅᔪᑦ ᐃᖃᓗᓕᕆᓂᐅᔪᑦ, ᐃᒪᕐᒥ ᐊᒻᒪ ᓇᑦᑎᓕᕆᓂᕐᒥᑦ ᐱᓕᕆᖃᑎᖃᕐᓗᑎ ᑎᒍᒥᐊᖅᑎᐅᖃᑕᐅᔪᓂᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᓕᒫᓂᑦ ᓄᓇᕗᒻᒥ.
- ᑐᑭᓯᐅᒪᔭᐅᑦᑎᐊᑎᓪᓗᒋᑦ ᐱᖓᓱᓕᒫᑦ ᐊᒡᒍᖅᓯᒪᔪᑦ ᐃᓕᓐᓂᐊᑎᑦᑎᓂᒃᑯᑦ ᐊᒻᒪ ᐅᔾᔨᕈᓱᒃᑎᑦᑎᓂᒃᑯᑦ.
- ᐃᑲᔪᕐᓗᒋᑦ ᓄᓇᖅᐸᓯᒻᒥ ᐊᒻᒪ ᐃᒪᐃᓐᓇᕐᒥ ᐃᖃᓗᓕᕆᓂᕐᒥᑦ ᐱᕙᓪᓕᐊᑎᑦᑎᓂᐅᔪᓐᓇ ᒪᒃᒪᑎᑕᖕᓴᐅᔪᓂᑦ ᐊᒻᒪ ᐃᓄᓐᓄᑦ ᓈᒻᒪᓐᓂᖃᖅᑐᓂᑦ.
- ᐃᑲᔪᕐᓗᒋᑦ ᖃᐅᔨᓴᕐᐅᔪᑦ ᐃᑲᔪᖅᑐᐃᓂᖃᖅᑐᑦ ᒪᒃᒪᑎᑕᖕᓴᐅᓂᕆᓐᓄᑦ ᐊᒻᒪ ᑕᐃᒪᐃᑕᐅᓪᓗᓂ ᐃᑉᐱᒍᓱᓐᓂᖃᑦᑎᐊᖅᑐᓂ ᐊᒻᒪ ᐱᓕᕆᖃᑎᖃᕐᓂᒃᑯᑦ ᓄᓇᕗᒻᒥ ᓄᓇᓕᓐᓂᑦ.
- ᑭᒡᒐᑐᕐᓗᒍ ᓄᓇᕗᑦ ᓇᑦᑎᓕᕆᓂᕐᒧᑦ ᐊᒻᒪ ᐃᑲᓗᓕᕆᓂᕐᒧᑦ ᐱᔪᒪᔭᐅᔪᓂᑦ ᓄᓇᓕᒻᒥ, ᐊᕕᑦᑐᖅᓯᒪᔪᒥᑦ, ᑲᓇᑕᒥ ᐊᒻᒪ ᓯᓚᕐᔪᐊᒥᑦ.

ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ ᑐᕌᒐᖏᑦ

ᑲᔪᖏᖅᓴᕐᓗᒋᑦ ᐊᒻᒪ ᐃᑲᔪᕐᓗᒋᑦ ᓈᒻᒪᑦᑐᑦ, ᒪᑭᒪᑎᑕᖕᓴᐅᔪᑦ ᐃᖅᑲᓗᓕᕆᓂᐅᔪᑦ, ᐃᒪᕐᒥ ᐊᒻᒪ ᓇᕐᑎᓕᕆᓂᕐᒥᑦ ᐱᓕᕆᖃᑎᖃᕐᓗᑎ ᑎᒍᒥᐊᖅᑎᐅᖃᑕᐅᔪᓂᑦ ᐊᕙᑐᖅᓯᒪᔪᓕᒫᓂᑦ ᓄᓇᕗᒻᒥ.

- ᑎᒥᐅᑉ ᐃᓗᐊᓂ ᑮᓇᐅᔭᖃᖅᑎᑦᑎᔪᑦ ᐊᔾᔨᒌᖏᑦᑑᑕᓂᓂᖏᓐᓄᑦ, ᐱᕝᕙᓕᐊᑎᑦᑎᓂᕐᒧᑦ ᐊᒻᒪ ᓂᐅᕐᕈᑎᖃᓂᕐᒥᑦ ᓄᓇᕗᒻᒥ ᐱᓕᕆᕝᕕᒋᔭᐅᔪᓂᑦ
  (ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᕝᕙᓕᐊᑎᑦᑎᓂᕐᒧᑦ ᐊᒻᒪ ᐊᔾᔨᒌᖏᑦᑑᑕᐅᓂᖏᓐᓄᑦ ᐱᓕᕆᐊᖅ (FDDP), ᐃᖃᓗᓐᓄᑦ ᐅᓯᔭᐅᔾᔪᑎᖏᓐᓄᑦ ᐃᑲᔫᓯᐊᓄᑦ ᐱᓕᕆᐊᖅ (FFS))
- ᐃᖅᑲᓇᐃᔭᖅᑕᖅᑐᑦ ᓄᓇᓕᒻᒥ ᐃᑲᔪᕐᓗᒋᑦ ᓄᓇᓕᒻᒥ ᐃᖃᓗᓕᕆᓂᐅᔪᑦ – ᐃᓚᒋᔭᐅᓕᖅᑕᖅᑎᑦᑎᓂᖅ, ᐃᓕᓐᓂᐊᑎᑦᑎᓂᖅ, ᐃᓕᓐᓂᐊᕐᓂᖅ, ᑭᒡᒐᖅᑐᐃᓂᖅ
- ᑭᒡᒐᖅᑐᐃᕙᓗᑎ ᐊᒻᒪ ᐊᔭᐅᖅᑎᐅᓗᑎ ᓄᓇᕗᒻᒥ ᐃᖃᓗᒃᓕᕆᓂᕐᒧᑦ ᐊᒻᒪ ᓇᕐᑎᓕᕆᓂᕐᒧᑦ ᑲᓚᑕᒥ ᐊᒻᒪ ᓯᓚᕐᔪᐊᒥᑦ – FTPs, EU, GoC
- ᑐᑭᒧᐊᖅᑎᑦᑎᓗᑎ ᐱᓕᕆᔾᔪᓂᑦ ᑲᑎᑦᑎᕝᕗᓂᑦ ᑎᒍᒥᐊᖅᑎᐅᖃᑕᐅᔪᓂᑦ ᑐᓴᐅᒪᑎᑕᐅᑎᐊᕐᓂᖏᓐᓄᑦ ᐊᒻᒪ ᐱᕕᖕᓴᐅᔪᓐᓇᖅᑐᓂᑦ ᐱᓕᕆᖃᑎᒌᖕᓂᐅᔪᓂᑦ.

ᓇᓄᓇᐃᔭᖅᓯᒪᓂᖏᑦ ᑐᕌᒐᖏᑦ

ᑐᑭᓯᓇᖅᓯᑎᑦᑎᐊᖅᓗᒋᑦ ᑕᒪᐃᓐᓂᒃ ᐱᖓᓱᓂᒃ ᐱᓕᕆᕝᕕᐅᔪᓂᒃ ᐃᓕᓐᓂᐊᖅᑎᑦᑎᖃᑦᑕᕐᓂᒃᑯᑦ ᐊᒻᒪ ᐅᔾᔨᕈᓱᒃᑎᑦᑎᓂᒃᑯᓪᓗ

- ᐃᓕᓐᓂᐊᑎᑦᑎᓂᖅ ᐊᒻᒪ ᐅᔾᔨᕈᓱᒃᑎᑦᑎᓂᖅ ᓄᓇᕗᒻᒥᐅᓂᑦ ᓄᓇᒦᖕᒑᖅᑐᖏᓐᓂ, ᑲᒪᒋᔭᕆᐊᖃᖅᑕᖏᓐᓂᑦ ᐊᒻᒪ ᒪᑭᒪᑎᑕᔅᓴᐅᔪᓐᓇᖅᑐᑦ ᑮᓇᐅᔭᓕᕆᓂᐅᔪᓐᓇᖅᑐᓂᖅ.
- ᐃᓕᓐᓂᐊᑎᑦᑎᓂᖅ ᐊᒻᒪ ᐅᔾᔨᕈᓱᒃᑎᑦᑎᓂᖅ ᑲᓇᑕᒥ ᐊᒻᒪ ᓯᓚᕐᔪᐊᒥ ᑲᑐᔾᔨᖃᑎᒌᓂᑦ ᓄᓇᕗᒻᒥ ᓄᓇᒦᓐᖕᒑᖅᑐᓂᑦ ᐊᒻᒪ ᓄᓇᕗᒻᒥ ᑮᓇᐅᔭᓕᕆᓂᕐᒧᑦ ᐱᓯᓇᔭᐅᔪᑦ.
- ᑲᑎᒪᑎᑦᑎᓂᖅ ᐊᒻᒪ ᓈᓚᓐᓂᖅ ᓄᓇᕗᒻᒥᐅᓂᑦ ᐊᒻᒪ ᐊᓯᖏᓐᓂ ᑎᒧᒥᐊᖅᑎᐅᖃᑕᐅᔪᓂᑦ ᑖᒃᑯᐊ ᑐᑭᓯᑦᑎᐊᕋᓱᐊᕐᒪᖔᑦᑎᒍ ᐱᔾᔪᑕᐅᔪᑦ, ᐃᓱᒫᓘᑕᐅᔪᑦ ᐊᒻᒪ ᑲᔪᓯᑎᐊᖅᓯᒪᓂᖃᖅᑐᑦ.

ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ ᑐᕌᒐᖏᑦ

ᐃᑲᔪᕐᓗᒋᑦ ᓄᓇᖅᐸᓯᒻᒥ ᐊᒻᒪ ᐃᒪᐃᓐᓇᕐᒥ ᐃᖃᓗᓕᕆᓂᕐᒥᑦ ᐱᕙᓪᓕᐊᑎᑦᑎᓂᐅᔪᓐᓇ ᒪᑭᒪᑎᑦᓯᐅᔪᓂᑦ ᐊᒻᒪ ᐃᓄᓐᓄᑦ ᓈᒻᒪᓐᓂᖅᑐᓂᑦ.

- ᑮᓇᐅᔭᖃᖅᑎᑦᑎᓂᖅ ᐃᑲᔪᕐᓗᒋᑦ ᐱᕙᓪᓕᐊᑎᑦᑎᓂᐅᔪᑦ ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᑦ ᑐᓂᔭᐅᑐᐃᓐᓇᖅᑐᓄᑦ ᐊᒻᒪ ᑐᓂᔭᐅᔪᓄᑦ

  (ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᕙᓪᓕᐊᑎᑦᑎᓂᕐᒧᑦ ᐊᒻᒪ ᐊᔾᔨᒌᙱᑦᑑᑕᐅᓂᖏᓐᓄᑦ ᐱᓕᕆᐊᖅ (FDDP), ᐃᖃᓗᓐᓄᑦ ᐅᓯᔭᐅᔾᔪᑎᖏᓐᓄᑦ ᐃᑲᔫᓯᐊᓄᑦ ᐱᓕᕆᐊᖅ (FFS))
- ᐱᓕᕆᖃᑎᖃᕐᓗᑎ ᑎᒧᒥᐊᖅᑎᐅᖃᑕᐅᔪᓂᑦ ᐊᒻᒪ ᐊᑐᕐᓗᒋᑦ ᓯᓚᑖᓂᙵᖅᑐᑦ ᑮᓇᐅᔭᖃᖅᑎᑕᐅᓂᐅᔪᑦ ᐊᑐᖅᑕᐅᔪᓐᓇᖅᑐᓄᑦ
- ᑭᒡᒐᑐᕐᒧ ᓄᓇᕗᑦ ᒐᕙᒪᑐᖅᑳᖅᑯᓐᓄᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᓄᑦ ᐊᑐᐊᒐᐃᑦ ᓴᓇᔭᐅᑎᓪᓗᒋᑦ/ᕿᒥᕐᕈᔭᐅᑎᓪᓗᒋᑦ ᐊᑦᑐᐃᓂᖃᕈᓐᓇᖅᑐᑦ ᐃᖃᓗᓕᕆᓂᕐᒥᑦ ᐱᕙᓪᓕᐊᑎᑦᑎᓂᕐᒥᑦ
- ᐃᑲᔪᑐᕐᓗᒋᑦ ᓄᓇᕗᒻᒥᐅᑦ ᓈᒻᒪᑦᑐᓂᑦ ᐃᓕᐅᖅᑲᖅᑕᐅᓂᖏᓐᓄᑦ ᐊᑦᑐᓂᓕᓐᓄᑦ ᐃᒪᕐᓄᑦ ᑰᑕᓂᑦ
- ᐃᓕᓐᓂᐊᕐᓴᓂ ᕿᓂᖅᑲᑦᑕᕐᓗᑎ ᓄᓇᕗᒻᒥᐅᓄᑦ ᐊᒻᒪ ᕿᓂᕐᓗᑎ ᓇᓖᕌᕐᓴᒥ ᐊᙱᓪᓕᕐᐊᕐᓗᒍ ᐊᒻᒪ ᐱᕋᖅᑎᓪᓗᒍ ᐃᓕᓐᓂᐊᑎᑦᑎᓂᐅᔪᑦ
- ᐃᖅᑲᓇᐃᔭᕐᑲᑦᑎᐊᕐᓗᓂ ᐃᖃᓗᓕᕆᓂᖅᑲᖅᑐᓂᑦ ᐊᒻᒪ ᐊᓯᙵᓂ ᑎᒧᒥᐊᖅᑎᐅᖃᑕᐅᔪᓂᑦ ᐱᓕᕆᖃᑎᖃᕐᓗᑎ ᒪᑭᒪᑎᑦᓯᐅᔪᓂᑦ ᐱᕙᓪᓕᐊᑎᑦᑎᓂᕐᒥᑦ

ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ ᑐᕌᒐᖏᑦ

ᐃᑲᔪᕐᓗᒋᑦ ᖃᐅᔨᓴᕿᐅᔪᑦ ᐃᑲᔪᖅᑐᐃᓂᖃᖅᑐᑦ ᒪᑭᒪᑎᑦᓵᐅᓂᖏᓐᓄᑦ ᐊᒻᒪ ᑕᐃᒪᐃᑕᐅᓪᓗᓂ ᐃᑉᐱᒍᓱᓐᓂᖃᕐᑎᐊᖅᑐᓂ ᐊᒻᒪ ᐱᓕᕆᖃᑎᖃᕐᓂᒃᑯᑦ ᓄᓇᕗᒻᒥ ᓄᓇᓕᓐᓂᕐ.

- ᑎᒥᐅᑉ ᐃᐊᓂ ᑐᓂᔭᐅᑐᐃᓐᓇᖅᑐᓂᑦ ᐊᒻᒪ ᑐᓂᔭᐅᔪᓂᑦ ᑰᓇᐅᔭᖃᖅᑎᑦᑎᓗᑎ ᖃᐅᔨᓴᓂᕐᒧᑦ (FDDP, SFG, SG, FFS)
- ᐱᓕᕆᖃᑎᖃᕐᓗᑎ ᑰᓇᐅᔭᖃᖅᑎᑕᐅᓂᕐᒧᑦ ᑐᓯᕋᐅᑎᓕᐅᕈᑏᑦ ᖃᐅᔨᓴᖅᑎᓂᑦ ᐊᒻᒪ ᐊᓯᖏᓐᓂᑦ
- ᐊᐅᓚᑦᑎᓗᓂ ᐊᒻᒪ ᐃᓂᖃᖅᑎᑦᑎᓗᓂ ᓄᓕᐊᕙᒃᒥ (ᐊᑭᓕᒃ) ᖃᐅᔨᓴᓂᕐᒧᑦ ᐱᔾᔪᑎᖃᖅᑐᓄᑦ
- ᐃᓕᓐᓂᐊᕋᖅᓴᓂ ᕿᓂᖃᑦᑕᕐᓗᑎ ᓄᓇᕗᒻᒥᐅᓄᑦ ᐱᔾᔪᑎᖃᖅᑐᓂᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ

ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ ᑐᕌᖓᖏᑦ

ᑭᒡᒐᑐᕐᓗᒍ ᓄᓇᕗᑦ ᓇᑦᑎᓕᕆᓂᕐᒧᑦ ᐊᒻᒪ ᐃᑲᔪᓕᕆᓂᕐᒧᑦ ᐱᕙᒪᔭᐅᕙᓃᑦ ᓄᓇᓖᒥ, ᐊᕕᑦᑐᖅᓯᒪᕙᒥᕐ, ᑲᓇᑕᒥ ᐊᒻᒪ ᓯᓚᕐᕙᐊᒥᕐ.

- ᓄᓇᕘᒥ 'ᐃᓕᓴᕆᔭᐅᓯᒪᕙᖅ ᑎᒥᖓ' ᑕᕆᐅᑉ ᐊᓯᐊᓄ ᑲᑐᔾᔨᕐᑲᑎᒌᑦ ᐃᓄᐃᑦ/ᓄᓇᕐᑲᖅᑳᖅᓯᒪᕙᑦ ᐱᕙᓐᓇᖅᑎᑕᐅᓂᖏᑦ
- ᑭᒡᒐᖅᑐᐃᕙᑦ ᓇᑦᑎᕐᓂᑦ ᐊᒻᒪ ᓇᑦᑎᓕᕆᓂᐅᕙᓃᑦ
- ᑐᓂᔭᐅᑐᐃᓐᓇᖅᑐᑦ ᐊᒻᒪ ᑐᓂᔭᐅᕙᑦ ᐱᓕᕆᐊᓄᑦ, ᐊᓐᓄᓖᕆᔭᐅᕙᑦ ᓇᑦᑏᔭᐃᑦ ᓄᓇᕗᒥᐅᓄᑦ
  - (ᓇᑦᑎᕐᓄᑦ ᐊᒻᒪ ᕿᓯᖏᓐᓄᑦ ᑐᓂᔭᐅᑐᐃᓐᓇᖅᑐᑦ ᐊᒻᒪ ᑐᓂᔭᐅᕙᓄᑦ (SFG), ᓇᑦᑎᕐᓅᖓᕙᑦ ᑐᓂᔭᐅᑐᐃᓐᓇᖅᑐᑦ (SG))
- ᐱᓕᕆᕐᑲᑎᒃᑲᕐᓗᑎ ᐃᓄᓐᓂᑦ ᑲᑐᔾᔨᕐᑲᑎᒌᓂᑦ ᐊᒻᒪ ᐊᓯᖏᓐᓂ ᑎᒥᐅᕙᓂᑦ ᐃᓪᓚᓗᑎ ᖃᐅᔨᒪᔭᐅᖏᑦᑐᓂᑦ ᓄᓇᕗᒥᐅᓄᑦ ᐱᔾᕙᑎᕐᑲᖅᑐᓂᑦ ᓇᑦᑎᓕᕆᓂᕐᒧᑦ ᑮᓇᐅᔭᓕᕆᓂᕐᒥᑦ
  - ᐃᑲᕙᕐᓗᒋᑦ ᐊᕙᖏᓐᓂᐅᕙᓂᑦ ᐱᕝᓕᐊᑎᑕᐅᒃᑲᓂᕐᓂᖏᓐᓄᑦ, ᐱᖅᑯᓯᓄᑦ ᓴᖅᑭᖅᑎᑕᐅᒃᑲᓂᕐᓂᖏᑦ
  - ᑲᑎᒪᕐᑲᑎᒃᑲᕐᓂᖅ ᓄᓇᕗᒥᐅᓂᑦ – ᐃᓱᓂᑦ ᐃᓄᐃᑦ ᐱᕙᒪᕝᑦ ᓇᑦᑎᓕᕆᓂᕐᒧᑦ ᑮᓇᐅᔭᓕᕆᓂᕐᒥᑦ ᐊᒻᒪ ᓇᐅᒃᑯᑦ ᓄᓇᕗᑦ ᒐᕝᒪᒃᑯᑦ ᐃᑲᔫᓐᓇᖅᑲᑦ?

ᓯᕗᓪᓕᐅᔾᔭᐅᔭᕆᐊᓖᑦ ᒪᕿᒫᓄᑦ ᐊᕐᕌᒍᓂᐊᖅᑑᒫᓄᑦ

- ᐱᔭᕇᕐᓗᒍ ᐊᐅᓪᓛᖅᑕᐅᓂᖓ ᐱᓕᕆᕕᖓ EDT–ᑯᓐᓄ
  - ᑭᖑᓪᓕᖅᐹᒥ ᐋᖅᑭᑦᑕᐅᓗᑎ ᑮᓇᐅᔭᓕᕆᓂᕐᒧᑦ ᐊᐅᓪᓛᖅᑕᐅᓂᖏᑦ
  - ᕿᒥᕐᕈᑎᖃᑎᒋᓗᒋᑦ ᐊᒻᒪ ᐋᖅᑭᒋᐊᕐᓗᒋᑦ ᓇᓕᒧᓕᖅᑎᓪᓗᒋᑦ EDT–ᑯᓐᓄ
  - ᐃᖅᑲᓇᐃᔭᖅᑎᑦᑎᓂᖅ ᐃᓐᓄᑦᑕᐅᓯᒪᖏᑦᑐᓂᑦ ᐃᖅᑲᓇᐃᔮᔅᓴᐃᑦ, ᐃᓕᓐᓂᐊᑎᑦᑎᓂᖅ, ᐃᓚᒋᔭᐅᕐᑲᑕᐅᑎᑦᑎᓂᖅ ᐊᒻᒪ ᓇᓗᓇᐃᖅᑕᐅᓂᖏᑦ ᐃᖅᑲᓇᐃᔭᖅᑖᖅᑲᐅᖑᔪᑦ
- ᐱᒋᐊᖅᑎᓪᓗᒍ ᑲᑎᒪᕐᑲᑎᕐᑲᕐᓂᐅᔪᑦ ᓇᑦᑎᓕᕆᓂᕐᒧᑦ ᑮᓇᐅᔭᓕᕆᓂᕐᒥᑦ ᓄᓇᕗᒻᒥ ᐊᒻᒪ ᐃᑲᓗᓕᕆᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ
- ᐊᔭᐅᖅᑐᐃᓗᑎ ᐊᒻᒪ ᐃᖅᑲᓇᐃᔭᕐᓗᑎ ᖁᕝᕙᕆᐊᕐᓗᒋᑦ ᓄᓇᕗᒻᒧᑦ ᐊᑦᑐᐊᓂᓖᑦ ᐃᒪᐃᑦ ᐃᓕᐅᖅᑲᖅᑕᐅᓂᖏᓐᓄᑦ
- ᑮᓇᐅᔭᓕᕆᓂᕐᒥᑦ ᖃᐅᔾᔅᐃᓂᕐᑲᕐᓗᑎ ᓄᓇᕗᒻᒧᑦ ᐃᑲᓗᓕᕆᓂᐅᔪᓂᑦ ᐊᒻᒪ ᓇᑦᑎᓕᕆᓂᕐᒧᑦ ᑮᓇᐅᔭᓕᕆᓂᐅᔪᓂᑦ
- ᕿᒥᕐᕈᓂᖅ ᐃᓕᓐᓂᐊᕐᓂᓕᒫᖑᔪᓂᑦ ᓄᓇᕗᒻᒥ ᑮᓇᐅᔭᓕᕆᓂᐅᔪᓂᓪ– ᕿᓂᕐᓗᑎ ᖃᐅᔾᒪᔭᐅᖏᑦᑐᓂᑦ ᐊᒻᒪ ᐱᐅᓯᑎᒋᐊᕐᑲᔅᐅᔪᓐᓇᖅᑐᓂᑦ
- ᐃᑲᔪᕐᓗᑎ ᐃᒪᕐᒥ ᓴᐳᒻᒥᔭᐅᔪᓂᑦ ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᑦ ᕿᒥᕐᕈᔭᖓ

ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ

- ᐃᖃᓗᓕᕆᓂᖅ ᐊᒻᒪ ᓇᑦᑎᓕᕆᓂᖅ ᑕᒃᑲᓇᕐᓂᖅᑲᖅᑐᑦ ᐃᓗᐊᓂ ᐱᓕᕆᐊᖑᓕᕆᔾᔪᑦ ᐃᖏᕋᖑᓕᕆᔾᔪᑦ ᐊᒻᒪ ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᑦ ᐊᔭᐅᖅᑐᐃᔾᔪᓗᑎ ᓄᓇᕗᒻᒥᐅᓄᑦ ᑎᑎᕋᖅᓯᒪᔪᓕᒫᓂᑦ ᐊᑦᑐᐊᓂᓕᖕᓂᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐊᒻᒪ ᓇᑦᑎᓕᕆᓂᕐᒧᑦ (ᑕᒪᒃᑭᖕᓂ ᓂᕿᔅᓴᓄᑦ ᐊᒻᒪ ᑮᓇᐅᔭᓕᐅᕐᓱᖕᓂᕐᒧᑦ), ᒪᑐᐃᖓᐃᓐᓇᖅᑐᑎ ᑐᓴᐅᒪᔾᔪᑎᓕᕆᓂᕐᒥᑦ ᐊᒻᒪ ᐱᓕᕆᑲᑎᒋᓂᕐᒥᑦ ᐃᓗᐊᓂ ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᑦ, ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᒌᓂᑦ, ᐊᓯᖏᓐᓂᑦ ᒐᕙᒪᓂᑦ ᐊᒻᒪ ᐊᓯᖏᓐᓂᑦ ᑲᑐᔾᔨᖃᑎᒌᓂᑦ ᐃᑲᔪᕐᓂᐊᖅᑐᓄᑦ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᑦ ᐊᒻᒪ ᓇᑦᑎᓕᕆᓂᕐᒥᑦ.

ᐃᑉᐱᒍᓱᑦᑐᒍᑦ ᐱᓕᕆᕝᕕᑦᑕ ᑐᕌᖓ, ᑕᒃᑲᓇᖅᑕᖓ ᐊᒻᒪ ᑲᒪᒋᔭᕆᐊᖃᖅᑕᖏᑦ ᐃᓚᒋᓂᖃᕐᕿᐊᖅᑐᑦ ᐱᓕᕆᐊᖑᓕᕆᔾᔪᑎᓐᓄᑦ ᐊᒻᒪ ᐃᖏᕋᖑᓕᕆᔾᔪᑦ ᐊᒻᒪ ᖃᓂᖁᔭᐅᖑᒍᑦ ᓇᐅᒃᑯᑦ ᐃᖅᑲᓇᐃᔭᖃᑎᒋᓐᓂᕗᑦ ᓴᓐᖓᑦᑎᒋᐊᕐᓗᒍ ᐊᒻᒪ ᐃᑲᔪᕐᓗᒋᑦ ᐃᖅᑲᓇᐃᔮᖑᓯᒪᔪᑦ ᐱᓕᕆᐊᖑᓕᕆᔾᔪᑦ ᐊᒻᒪ ᐃᖏᕋᖑᓕᕆᔾᔪᓄᑦᓗ ᐊᒻᒪ ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᑦ ᓄᓇᕗᒻᒥᐅᓄᑦ.

ᖃᐅᔨᒋᐊᕐᑦᕕᖕᒋᑦ

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(ADDENDUM) SUBMISSION TO THE

NUNAVUT WILDLIFE MANAGEMENT BOARD AND NUNAVIK MARINE REGION WILDLIFE BOARD

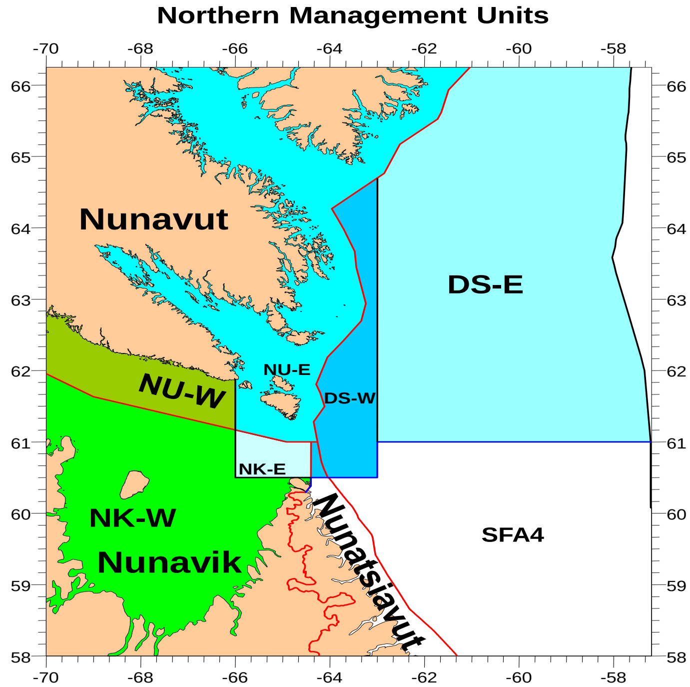
FOR

Information: **Decision: X** **Recommendation: X**

Issue: Total Allowable Catch levels for Northern (*Pandalus borealis*) and Striped (*Pandalus montagui*) Shrimp for the 2021-22 season in the Western and Eastern Assessment Zones

Map:

Blue areas – Eastern Assessment Zone
Green areas – Western Assessment Zone



Northern shrimp (*Pandalus borealis*)

Striped shrimp (*Pandalus montagui*)

Background

Fisheries and Oceans Canada (DFO) submitted a briefing note to the Nunavut Wildlife Management Board (NWMB) and the Nunavik Marine Region Wildlife Board (NMRWB) (the Boards) in February 2021 as a placeholder for their joint decisions and recommendations on 2021-22 Total Allowable Catch (TAC) and harvest levels for two species of shrimp in the Western Assessment Zone (WAZ) and Eastern Assessment Zone (EAZ).

Science results from the 2020 DFO-Northern Shrimp Research Foundation multi species survey that would inform decision making were not available at the time of submission. Results of the Canadian Science Advisory Secretariat (CSAS) zonal peer review from the week of February 22, 2021, are now available and are being submitted through this addendum (Appendix 1; Appendix 2).

This addendum presents the Boards with the information needed to provide advice to the Minister of Fisheries and Oceans Canada for the 2021-22 fishery in the WAZ and EAZ. Recognizing that fishing may begin in these areas as early as May 2021, advice is requested as soon as possible.

A meeting of the Northern Shrimp Advisory Committee will occur on March 9, 2021. A summary of these consultations as they relate to the EAZ will be provided to the Boards by March 17, 2021.

WESTERN ASSESMENT ZONE (WAZ)

Fishery Profile

The fishery for *P. borealis* and *P. montagui* in the WAZ operates April 1 – March 31. Harvesting activity typically commences in May/June, subject to ice conditions.

The WAZ is divided into two management units, Nunavut West (NU-W) and Nunavik West (NK-W) (see map). These management units are located entirely within the Nunavut Settlement Area (NSA) and Nunavik Marine Region (NMR), respectively. The NWMB and NMRWB make decisions on management measures within their respective land claims areas and may make recommendations for adjacent management units. Notably, decisions have been given priority over recommendations in the event they are not aligned.

P. borealis and *P. montagui* allocations in the NU-W management unit have been allocated to Nunavut fishing interests. Similarly, allocations in the NK-W management unit have been allocated to Nunavik fishing interests. Although no formal sharing arrangement exists, harvest level decisions in NU-W and NK-W have historically resulted in equal distribution of the overall TAC for each species. In a practice initially recommended by the Boards and accepted by the Minister in 2013 (Appendix 3), these allocations have been permitted for harvest in either management unit regardless of land claim boundaries. DFO has requested that the Boards re-affirm this permission for reciprocal access between NU/NK-W.

A quota and catch history profile for the fishery in the WAZ is provided at Appendix 4.

Precautionary Approach Framework

Work is underway on the development of a draft Precautionary Approach (PA) framework for *P. borealis* and *P. montagui* in the WAZ. Status of this work has been outlined in greater detail to the Boards under separate cover.

Through a Canadian Science Advisory Secretariat (CSAS) peer-review process in May 2020, DFO Science established a Limit Reference Points (LRP) for each stock at 40% of the geometric mean of the Spawning Stock Biomass (SSB) index for the available time series, an increase from 30%. DFO Science also proposed an Upper Stock Reference (USR) point for each stock at 80% of the geometric mean of the SSB index. Through a series of working group sessions from November 2020 to February 2021, the Northern Precautionary Approach Working Group (NPAWG) has since considered a potential USR at 70% of the geometric mean of the SSB index for each stock[1].

[1] LRPs are considered established and are not subject to Board decisions or recommendations. USRs require Board decisions and recommendations (as appropriate) prior to being established. Use of the USR is for illustrative purposes for consideration in 2021-22 TAC decisions.

Relative to the established LRP and USR considered by the NPAWG, both *P. borealis* and *P. montagui* stocks would be situated in the Healthy Zone of a draft PA Framework.

Harvest Decision Rules (HDRs) that could prescribe harvest rates and other management procedures in each the Healthy, Cautious and Critical Zones are currently under development by the NPAWG. HDRs in the context of a PA Framework are not yet available.

Science Advice

Seven data points are now available in a new time series for the WAZ that began in 2014. *P. borealis* and *P. montagui* stocks have shown signs of high volatility, with no clear indication of mechanisms driving year-to-year fluctuations in biomass. Currently, DFO Science cannot detect trends for either stock at this time.

For ***P. borealis***, the 2020 survey indicates a Fishable Biomass (FB) increase of 61.1% from the 2019 survey, following a slight decline the year prior (-3.4%). The Spawning Stock Biomass (SSB) increased by 48.2% from the previous year's survey (Appendix 1; Appendix 2).

For ***P. montagui***, the 2020 survey indicates a FB decrease of 20.8% from the 2019 survey, following a decline the year prior (-19.5%). The SSB declined by 7.8% from the previous year's survey (Appendix 1; Appendix 2).

2021-22 Management Considerations

Although a PA Framework has not been fully established, both stocks would be situated in the Healthy Zone relative to the established LRPs and USRs considered by the NPAWG.

For ***P. borealis***, a rollover of the current TAC in 2021-22 would result in an ER of 9.6%. Maintaining the 15.5% ER in 2021-22 would result in a TAC of 5,089t (an increase of 1,926t or approximately 61%). Scenarios are illustrated below.

Scenario	TAC	ER	% change in TAC from previous year
Rollover TAC	3,163t	9.6%	0%
Maintain ER	5,089t	15.5%	61%
15% TAC increase	3,637t	11.1%	15%

For ***P. montagui***, a rollover the current TAC in 2021-22 would result in an ER of 23.5% (notably, outside the range of past ERs observed for this stock). Maintaining the 18.6% ER in 2021-22 would result in a TAC of 9,469t (a decrease of 2,506t or approximately 21%). Scenarios are illustrated below.

Scenario	TAC	ER	% change in TAC from previous year
Rollover TAC	11,975t	23.5%	0%
Maintain ER	9,469t	18.6%	-21%
15% TAC decrease	10,179t	20%	-15%

Recommendation: No HDRs currently exist for stocks in the WAZ. HDRs may be proposed in future, pending outcomes of NPAWG discussions.

The Department maintains its view from 2020-21 that the Boards could continue to establish an overall TAC (combined for NU-W and NK-W) with ER that falls within the range where the stock has shown an ability to recover; 7.3% - 19.8% for *P. borealis;* 8.0% - 19.3% for *P. montagui*.

Summary of Request

Western Assessment Zone:

1. Decisions on harvest levels for *P. borealis* and *P. montagui* in the NU-W (within the NSA) and NK-W (within the NMR) management units, respectively.

2. Recommendations on the overall TAC for *P. borealis* and *P. montagui* in the WAZ.

Management Measures:

1. Recommendation to continue the practice whereby *P. borealis* and *P. montagui* allocations in NU-W and NK-W may be harvested in either management unit, regardless of land claim boundaries.

Table 2. Summary of requested decisions and recommendations, WAZ.

Area (Management Unit)	***P. borealis***	***P. montagui***
NSA (NU W)	Harvest level decision NWMB *(Recommendation NMRWB)*	Harvest level decision NWMB *(Recommendation NMRWB)*
NMR (NK W)	Harvest level decision NMRWB *(Recommendation NWMB)*	Harvest level decision NMRWB *(Recommendation NWMB)*
TOTAL (WAZ)	*TAC recommendation (combined total of decisions) NWMB and NMRWB*	*TAC recommendation (combined total of decisions) NWMB and NMRWB*

EASTERN ASSESMENT ZONE (EAZ)

Fishery Profile

The fishery for *P. borealis* and *P. montagui* in the EAZ operates April 1 – March 31. Harvesting activity typically commences in May/June, subject to ice conditions.

The EAZ is divided into four management units, Nunavut East (NU-E), Nunavik East (NK-E), Davis Strait West (DSW) and Davis Strait East (DSE) (see map). These management units are located partially within and adjacent to the NSA and NMR, respectively. The NWMB and NMRWB make decisions on management measures within their respective land claims areas and may make recommendations for the adjacent Davis Strait management units. Notably, decisions have been given priority over recommendations in the event they are not aligned.

P. borealis and *P. montagui* allocations in the NU-E management unit have been allocated to Nunavut fishing interests. Similarly, allocations in the NK-E management unit have been allocated to Nunavik fishing interests. No formal sharing arrangement exists to prescribe distribution of allocations between NU-E and NK-E. In a practice initially recommended by the Boards and accepted by the Minister in 2013 (Appendix 3), these allocations have been permitted for harvest in either management unit regardless of land claim boundaries. DFO has requested that the Boards re-affirm this permission for reciprocal access between NU/NK-E.

Allocations in the Davis Strait management units have been allocated to Nunavut and Nunavik fishing interests, as well as to the offshore fleet. *P. montagui* is a bycatch species in Davis Strait. A quota and catch history profile for the fishery in the EAZ is provided at Appendix 4.

Precautionary Approach Framework

A PA Framework currently exists for *P. borealis* and *P. montagui* in the EAZ and work is underway to update this framework. In May 2020, DFO Science analysed the available longer data series and updated the LRP for each stock to 40% of the geometric mean of the SSB index for the available time series, an increase from 30%. DFO Science also proposed an updated USR for each stocks at 80% of the geometric mean of the SSB index. The NPAWG has since considered an updated USR at 70 of the geometric mean of the SSB index for each stock[2].

[2] LRPs are considered established and are not subject to Board decisions or recommendations. USRs require Board decisions and recommendations (as appropriate) prior to being established. Use of the USR is for illustrative purposes for consideration in 2021-22 TAC decisions.

Relative to the updated LRP and USR considered by the NPAWG, both *P. borealis* and *P. montagui* stocks would be situated in the Healthy Zone of an updated PA Framework.

HDRs are currently available to inform 2021-22 TAC decisions within the existing PA Framework for EAZ stocks. However, these HDRs are currently being reviewed and potential updates being developed by the NPAWG.

Science Advice

Twelve data points are now available in the time series for the EAZ. *P. borealis* and *P. montagui* stocks have shown signs of high volatility, with no clear indication of mechanisms driving year-to-year fluctuations in biomass. DFO Science cannot detect trends for either stock at this time.

For ***P. borealis***, the 2020 survey indicates a FB decrease of -9.4% from the 2019 survey, following a significant increase the year prior (102.9%). The SSB increased by 5.9% from the previous year's survey (Appendix 1; Appendix 2).

For ***P. montagui***, the 2020 survey indicates a significant FB increase of 121.1% from the 2019 survey, following a decline the year prior (-59.3%). The SSB increased by 227% from the previous year's survey (Appendix 1; Appendix 2). The FB of *P. montagui* has fluctuated precipitously every year since 2012, and the status of this resource is uncertain.

2021-22 Management Considerations

Both *P. borealis* and *P. montagui* stocks would be situated in the Healthy Zone relative to established LRPs and USRs considered by the NPAWG. Existing HDRs for stocks in the Healthy Zone prescribe ERs well above the base target ER of 15%, and changes in the TAC should generally not exceed 15% of the previous TAC.

For ***P. borealis***, it was observed that the 2020-21 TAC for *P. borealis* (10,653t) was the result of applying a 15% exploitation rate to a two-year average of the most recent fishable biomass indices. A rollover of the current TAC in 2021-22 would result in an ER of 12.4%. Maintaining the 11.2% ER in 2021-22 would result in a TAC of 9,656t (a decrease of 997t or approximately 9%). A 15% ER would result in a TAC of 12,932t (+21.4%). Scenarios are illustrated below.

Scenario	TAC	ER	% change in TAC from previous year
Rollover TAC	10,653t	12.4%	0%
Maintain ER	9,656t	11.2%	-9%
15% TAC increase	12,250t	14.2%	15%

The TAC for ***P. montagui*** has been 840t since 2014. A rollover the current TAC in 2021-22 would result in an ER of 4.5%. Maintaining the 9.9% ER in 2021-22 would result in a TAC of 1,861t (an increase of 1,021t or approximately 121%). Scenarios are illustrated below.

Scenario	TAC	ER	% change in TAC from previous year
Rollover TAC	840	4.5%	0%
Maintain ER	1,861t	9.9%	121%
15% TAC increase	966t	5.1%	15%

Recommendation:

For ***P. borealis***, an option could be to increase the TAC by 15% for 2021-22 (ER 14.2%). Where the stock remains in the Healthy Zone, the resulting exploitation rate is reasonable. This option considers that significant fluctuations in biomass indices have been observed for this stock. Significant changes in year-to-year TAC may require reductions in future.

For ***P. montagui***, an option could be to rollover the TAC at 840t for 2021-22. This option considers that significant fluctuations in biomass continue to be observed for this stock, and that the TAC has been maintained at 840t since 2014.

These recommendations do not take into account possible suggested revisions to EAZ HDRs, pending outcomes of NPAWG discussions.

<u>Summary of Request</u>

Eastern Assessment Zone:

1. Decisions on harvest levels for *P. borealis* and *P. montagui* in the NU E (within the NSA) and NK E (within the NMR) management units, respectively.

2. Recommendations on the distribution of the TAC for *P. borealis* between the Davis Strait management units (DS W and DS E). Recommendations on *P. borealis* allocations in Davis Strait management units.

3. Recommendations on the overall TAC for *P. borealis* and *P. montagui* in the EAZ, respectively.

Management Measures:

1. Recommendation to continue the practice whereby *P. borealis* and *P. montagui* allocations in NU E and NK E may be harvested in either management unit, regardless of land claim boundaries.

Table 3. Summary of requested decisions and recommendations, EAZ.

Area (Management Unit)	***P. borealis***	***P. montagui***
NSA (NU E)	Harvest level decision NWMB *(Recommendation NMRWB)*	Harvest level decision NWMB *(Recommendation NMRWB)*
NMR (NK E)	Harvest level decision NMRWB *(Recommendation NWMB)*	Harvest level decision NMRWB *(Recommendation NWMB)*
DS E	TAC distribution and allocation recommendation NWMB & NMRWB	TAC recommendation NWMB & NMRWB
DS W	TAC distribution and allocation recommendation NWMB & NMRWB	
TOTAL (EAZ)	*TAC Recommendation NWMB & NMRWB*	*TAC Recommendation NWMB & NMRWB*

Prepared by: Courtney D'Aoust, Fisheries Resource Management, Fisheries and Oceans Canada

Date: March 5, 2021

SUMMARY: Assessment of Northern Shrimp, *Pandalus borealis*, and Striped Shrimp, *Pandalus montagui*, in the Eastern and Western Assessment Zones, February 2021

SUMMARY

- The assessment includes the 2019 and 2020 survey and fishery data.
- It is recognized that the population of *Pandalus montagui* spans the area of EAZ, WAZ and SFA 4. Currently it is not known what the rates of exchange (export/import) are between these zones, therefore, understanding resource dynamics as a whole requires integrating information from all assessment areas.
- It is recognized that *P. borealis* are distributed broadly over the Northwest Atlantic Ocean, including the EAZ and WAZ, and that these areas are connected through larval dispersal, but rates of exchange of adults are less understood. These linkages need to be considered to interpret dynamics within and among assessment areas.
- In the EAZ the stocks are currently assessed with updated LRPs relevant to a PA Framework. Updated USRs are currently being considered.
- In the WAZ the stocks are currently assessed with the LRPs (established *de novo* in 2020). USRs are currently being considered.

Eastern Assessment Zone – *Pandalus borealis*

- Total catch varied without trend around 6,000 t from 1997 through 2020/21. Catch statistics in 2020/21 are preliminary.
- The fishable biomass index was above the long term mean (63,486 t) and was 86,211 t in 2020.
- The female spawning stock biomass (SSB) was above the long term mean (39,659 t) and was 60,531 t in 2020.
- The reported exploitation rate index for 2020/21 was 5.9% with 48% of the TAC taken. Based on the 2020/21 TAC of 10,653 t, the potential exploitation rate index was 12.5%.
- *Pandalus borealis* stock in the EAZ is currently well above the established LRP. Although there is currently no established USR, the stock is considered in a healthy state.

Eastern Assessment Zone – *Pandalus montagui*

- Total catch in 2020/21 was 267 t, 32% of the 840 t TAC. Catch statistics in 2020/21 are preliminary.
- The fishable biomass index is subject to considerable interannual variability potentially associated with resource distribution. Since 2017, it has generally been above the long term mean (14,076 t) and was 18,803 t in 2020. Fluctuations in fishable biomass may also differ across adjacent assessment areas within the same year for this stock.
- The female spawning stock biomass (SSB) index was above the long term mean (9,675 t) and was 14,437 t in 2020.
-

- The reported exploitation rate index for 2020/21 was 1.3% with 32% of the TAC taken. Based on the 2020/21 TAC of 840 t, the potential exploitation rate index was 4.5%.
- *Pandalus montagui* stock in the EAZ is currently well above the established LRP. Although there is currently no established USR and the stock biomass index is subject to considerable interannual variability, the stock is considered in a healthy state.

Western Assessment Zone – *Pandalus borealis*

- Total catch in 2020/21 was 625 t, which is 20% of the 3,163 t TAC. Catch statistics in 2020/21 are preliminary.
- The fishable biomass index in 2020 remained above the long term mean (19,219 t) and was 32,835 t.
- The female SSB index in 2020 remained above the long term mean (10,830 t) and was 17,555 t.
- The reported exploitation rate index for 2020/21 was 1.9% with 20% of the TAC taken. Based on the 2020/21 TAC of 3,163 t, the potential exploitation rate index was 9.6%.
- *Pandalus borealis* stock in the WAZ is currently well above the established LRP. Although there is currently no established USR, the stock is considered in a healthy state.

Western Assessment Zone – *Pandalus montagui*

- Total catch in 2020/21 was 3,917 t, which is 33% of the 11,975 t TAC. Catch statistics in 2020/21 are preliminary.
- Movement across management areas is suspected to contribute to inter-annual variability in the fishable biomass index. It was below the long term mean (56,609 t) and was 50,911 t in 2020.
- The SSB index was below the long term mean (31,640 t) and was 26,811 t in 2020.
- The reported exploitation rate index for 2020/21 was 7.7% with 33% of the TAC taken. Based on the 2020/21 TAC of 11,975 t, the potential exploitation rate index was 23.5%.
- Although there is currently no established USR for Pandalus montagui stock in the WAZ, the stock is above the established LRP relevant to a PA Framework.

APPENDIX 2

Table 1. Stock status indicators for *P. borealis* and *P. montagui* in the WAZ (2019-2021).

WAZ *P. borealis*			
	2021-22	**2020-21**	**2019-20**
Total Allowable Catch (TAC) (t)	*TBD*	3,163	3,163
% Change TAC	*TBD*	0.0%	52.1%
Fishable Biomass (FB)*	32,835	20,378	21,088
Spawning Stock Biomass (SSB)*	17,555	11,845	12,884
Potential Exploitation Rate	*TBD*	15.5%	15.0%
% Change FB	61.1%	-3.4%	101.1%
% Change SSB	48.2%	-8.1%	147.0%

WAZ *P. montagui*			
	2021-22	**2020-21**	**2019-20**
Total Allowable Catch (t)	*TBD*	11,975	11,975
% Change TAC	*TBD*	0.0%	95.1%
FB*	50,911	64,268	79,835
SSB*	26,811	29,079	47,834
Potential Exploitation Rate	*TBD*	18.6%	15.0%
% Change FB*	-20.8%	-19.5%	77.7%
% Change SSB*	-7.8%	-39.2%	57.8%

**Biomass indices reflect the prior year's survey (e.g. 2021-22 indices are reflective of the Fall 2020 survey).*

Table 2. Stock status indicators for *P. borealis* and *P. montagui* in the EAZ (2019-2021).

EAZ *P. borealis*			
	2021-22	**2020-21**	**2019-20**
Total Allowable Catch (TAC) (t)	*TBD*	10,653	8,610
% Change TAC	*TBD*	23.7%	9.8%
Fishable Biomass (FB)*	86,211	95,138	46,900
Spawning Stock Biomass (SSB)*	60,531	57,143	32,842
Potential Exploitation Rate	*TBD*	11.2%	18.4%
% Change FB	-9.4%	102.9%	19.6%
% Change SSB	5.9%	74.0%	32.4%

EAZ *P. montagui*			
	2021-22	**2020-21**	**2019-20**
Total Allowable Catch (t)	*TBD*	840	840
% Change TAC	*TBD*	0.0%	0.0%
FB*	18,803	8,503	20,895
SSB*	14,437	4,415	13,806
Potential Exploitation Rate	*TBD*	9.9%	4.0%
% Change FB*	121.1%	-59.3%	-16.3%
% Change SSB*	227.0%	-68.0%	-16.5%

**Biomass indices reflect the prior year's survey (e.g. 2021-22 indices are reflective of the Fall 2020 survey).*

Minister of
Fisheries and Oceans

Ministre des
Pêches et des Océans

Ottawa, Canada K1A 0E6

JUL 0 5 2013

Mr. Manasie Audlakiak
Acting Chairperson
Nunavut Wildlife Management Board
P.O. Box 1379
Iqaluit, Nunavut
X0A 0H0

Dear Mr. Audlakiak:

Thank you for your letters of May 9 and 14, 2013 regarding the Nunavut Wildlife Management Board's decisions and recommendations on shrimp management in the Nunavut Settlement Area for *Pandalus borealis* and *Pandalus montagui.*

First I would like to commend both the Nunavut Wildlife Management Board (NWMB) and the Nunavik Marine Region Wildlife Board (NMRWB) for the collaboration and cooperation in determining final harvest level decisions for the management units within the respective settlement areas and non –quota limitation decisions for the sustainable management of the shared shrimp resource. The efforts of the NWMB and NMRWB in working towards establishing a sound management structure for the sustainable management of the shared shrimp resource in the north has been appreciated.

I note that the joint decision letter of May 14, 2013 contains both final and initial Board decisions pursuant to the land claims agreements. I also note that the NWMB has provided separately on May 9, 2013 a related decision on the management regime in the Western Assessment Zone and on May 7, 2013 its recommendations on the sub-allocation of Nunavut's share of these shrimp resources. I have addressed each of the decisions and recommendations separately herein for simplicity.

Harvest levels

I accept the modified harvest levels in the Nunavut Settlement Area for *P. montagui* (2500t) and *P.borealis* (750t) shrimp for the Nunavut West management unit which represents a 50% share of the established Total Allowable Catch for each shrimp species in the Western Assessment Zone for a three year term (2013 to 2015 inclusive).

I also accept the modified harvest levels in the Nunavut Settlement Area for *P. montagui* (805t) and *P.borealis* (200t) shrimp for Nunavut East management unit which represents a 70% share of the established quota for *P. montagui* and 80% share of the established by-catch quota for *P.borealis* for the Nunavut /Nunavik East management units for a three year term (2013 to 2015 inclusive).

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Management Regime

I agree with the joint NWMB and NMRWB recommendation that, for the purpose of commercial shrimp fishing, respective shares in the Nunavut/Nunavik West and East management units are permitted to be fished in either land claims settlement area for a three year term (2013 to 2015 inclusive).

I accept the NWMB's non-quota limitation decision set out in its May 9, 2013 letter to have both P. *montagui* and *P. borealis* shrimp species managed as directed fisheries in the Western Assessment Zone for a three year term (2013 to 2015 inclusive).

With respect to the joint non-quota limitation decision for the conservation of the *P. montagui* shrimp species in the Nunavut/Nunavik East management units, I note that the NWMB has indicated that it is prepared to rescind this decision if the Department advises that this additional conservation measure is unnecessary for the conservation of the shrimp resource in the Resolution Island area. You will recall that the conservation concerns for the *P. montagui* shrimp stock in the area resulted from the old management system which allowed quotas to be fished across management units all of which could be fished near Resolution Island. The new management measures put in place along with the reduction of the Total Allowable Catch for *P. montagui* to 2250t addressed the conservation concerns to my satisfaction. However I am prepared to accept this non-quota limitation decision for the three year term if the NWMB and NMRWB deemed it necessary.

I have asked my officials to provide the NWMB and NMRWB with background information to assist the Boards in evaluating the need for this non-quota limitation.

Sub-Allocation

I appreciate the detailed information on how the NWMB determined its sub-allocation recommendations of Nunavut's share of the shrimp resources in the Nunavut East and West management units. I have given considerable deliberation to the NWMB's recommendations, along with other relevant considerations, and have decided to allocate Nunavut's share of the shrimp resources to Baffin Fisheries Coalition for the 2013 season as recommended in your letter of May 7, 2013.

I look forward to continued collaboration with the Board in the management of this important resource.

Sincerely,

Keith Ashfield

Minister of
Fisheries and Oceans

Ministre des
Pêches et des Océans

Ottawa, Canada K1A 0E6

JUL 0 5 2013

Mr. Robbie Tookalak
Acting Chairperson
Nunavik Marine Region Wildlife Board
P.O. Box 433
Inukjuak, Quebec
J1O 1M0

Dear Mr. Tookalak:

Thank you for your letter of May 14, 2013 regarding the Nunavik Marine Region Wildlife Board's decisions and recommendations on shrimp management in the Nunavik Marine Region for *Pandalus borealis* and *Pandalus montagui* and the additional considerations provided in your letter of May 21, 2013.

First I would like to commend both the Nunavik Marine Region Wildlife Board (NMRWB) and the Nunavut Wildlife Management Board (NWMB) for the collaboration and cooperation in determining final harvest level decisions for the management units within the respective settlement areas and non-quota limitation decisions for the sustainable management of the shared shrimp resource. The efforts of the NMRWB and NWMB in working towards establishing a sound management structure for the sustainable management of the shared shrimp resource in the north has been appreciated.

I note that the joint decision letter of May 14, 2013 contains both final and initial Board decisions pursuant to the land claims agreements. I also note that the NMRWB's letter of May 21, 2013 identifies a Board decision on the management regime in the Western Assessment Zone. I have addressed each of the decisions and recommendations separately herein for simplicity.

<u>*Harvest levels*</u>

I understand from your letter of May 21, 2013, that the NMRWB will determine the basic needs level and allocation of the surplus at a later date. I look forward to hearing the Board's decisions on these items subsequently.

In the meantime, I accept the Total Allowable Take levels in the Nunavik Marine Region for *P. montagui* (2500t) and *P.borealis* (750t) shrimp for the Nunavik West management unit which represents a 50% share of the established Total Allowable Catch for each shrimp species in the Western Assessment Zone for a three year term (2013 to 2015 inclusive).

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I also accept the Total Allowable Take levels in the Nunavik Marine Region for *P. montagui* (345t) and *P.borealis* (50t) shrimp for Nunavik East management unit which represents a 30% share of the established quota for *P. montagui* and 20% share of the established by-catch quota for *P.borealis* for the Nunavik /Nunavut East management units for a three year term (2013 to 2015 inclusive).

Management Regime

I agree with the joint NMRWB and NWMB recommendation that, for the purpose of commercial shrimp fishing, respective shares in the Nunavut/Nunavik West and East management units are permitted to be fished in either land claims settlement area for a three year term (2013 to 2015 inclusive).

I accept the NMRWB's non-quota limitation decision set out in your May 21, 2013 letter to have both P. *montagui* and *P. borealis* shrimp species managed as directed fisheries in the Western Assessment Zone for a three year term (2013 to 2015 inclusive).

With respect to the joint non-quota limitation decision for the conservation of the *P. montagui* shrimp species in the Nunavik/Nunavut East management units, you will recall that the conservation concerns for the *P. montagui* shrimp stock in the area resulted from the old management system which allowed quotas to be fished across management units all of which could be fished near Resolution Island. The new management measures put in place along with the reduction of the Total Allowable Catch for *P. montagui* to 2250t addressed the conservation concerns to my satisfaction. However I am prepared to accept this non-quota limitation decision for the three year term if the NMRWB and NWMB deemed it necessary.

I have asked my officials to provide the NMRWB and NWMB with background information to assist the Boards in evaluating the need for this non-quota limitation.

I look forward to continued collaboration with the Board in the management of this important resource.

Sincerely,

Keith Ashfield

APPENDIX 4

		2016/17		2017/18		2018/19		2019/20		2020/21	
Species	**Management unit_Fleet/Interest**	**Quota**	**Catches**	**Quota**	**Catches**	**Quota**	**Catches**	**Quota**	**Catches**	**Quota**	**Catches *preliminary**
P. borealis	DSW_Offshore	4,813	4,852	4,813	5,009	4,013	4,576	4,737	4,511	5,250	4,917
	DSE_Offshore	1,604	848	1,604	530	802	352	802	4	1,000	0
	DSE_Nunavut	1,604	118	1,604	884	1,604	215	1,604	0	1,604	28
	DSW_Nunavut	1,084	722	1,084	928	1,084	1,055	1,084	976	1,778	1,147
	DSW_Nunavik	120	0	120	0	120	0	120	0	197	0
	NU-E_Nunavut	210	96.249	210	67	174	45	210	4	659	389
	NK- E_Nunavik	53	31.101	53	66	43	94	53	13	165	167
	TOTAL	***9,488***	***6,667***	***9,488***	***7,483***	***7,840***	***6,337***	***8,610***	***5,508***	***10,653***	***6,648***
P. montagui	NU-E_Nunavut	301	128.562	301	92	301	0	301	76	301	48
	NK-E_Nunavik	129	115.109	129	140	129	3	129	0	129	178
	DS E/W_Offshore (bycatch)	410	243	410	71	410	141	410	150	410	131
	TOTAL	***840***	***486***	***840***	***304***	***840***	***143***	***840***	***225***	***840***	***348***
P. borealis	NU-W_Nunavut	1,040	612	1,040	466	1,040	485	1,582	1,236	1,582	811
	NK-W_Nunavik	1,040	418	1,040	452	1,040	822	1,582	375	1,582	555
	TOTAL	***2,080***	***1,029***	***2,080***	***918***	***2,080***	***1,307***	***3,163***	***1,612***	***3,163***	***1,366***
P. montagui	NU-W_Nunavut	3,069	2,415	3,069	2,505	3,069	1,879	5,988	4,131	5,988	3,064
	NK-W_Nunavik	3,069	3,245	3,069	3,104	3,069	3,638	5,988	3,983	5,988	3,504
	TOTAL	***6,138***	***5,660***	***6,138***	***5,609***	***6,138***	***5,517***	***11,975***	***8,114***	***11,975***	***6,567***

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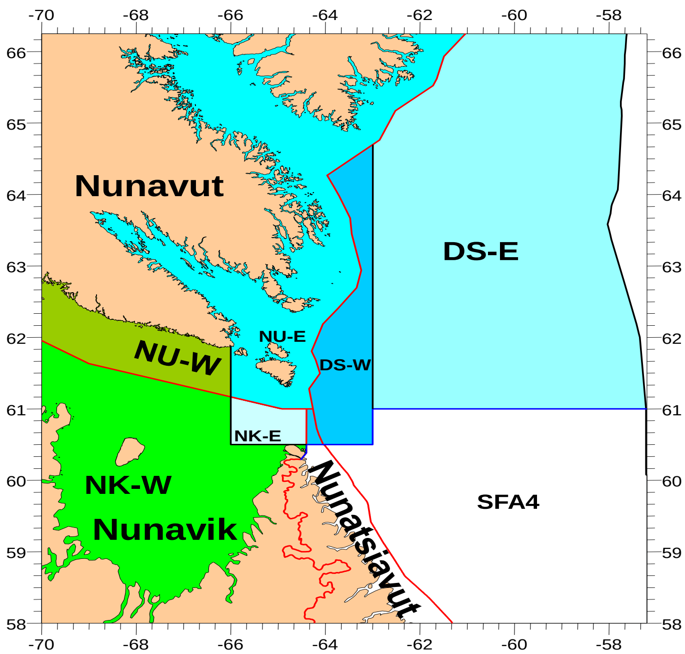
<u>ᐅᑯᓇᖓ</u>

ᑐᓴᐅᒪᔾᔪᑎ: **ᐃᓱᒪᓕᐅᕈᑎ: X** **ᐃᒪᓐᓇᖅᑑᑎᑦ: X**

ᐱᓇᐃᓗᑕᖅ: **ᑲᑎᓪᓗᒃᑖᕐᓗᒥᑦ ᐊᖑᓂᒃᑕᐅᔭᓐᓇᖅᑐᑦ ᖁᕝᕙᓯᓕᓈᖑᔪᑦ ᒪᑯᓄᖓ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ (ᐹᓐᑕᓚᔅ ᐳᐊᕆᐋᓕᖕ) ᐊᒻᒪᓗ ᑕᖅᓴᓖᑦ (ᐹᓐᑕᓚᔅ ᒫᓐᑕᒍᐃ) ᑭᖑᒃᐸᖕᓄᑦ ᐊᕐᕌᒍᒧᑦ 2021-2022 ᑭᖑᒃᐸᒐᓱᖕᓇᒧᑦ ᑕᐅᕗᓂ ᐱᓇᖕᓇᖕᒐᓂᑦ ᐊᒻᒪᓗ ᑲᓇᖕᓇᖕᒐᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ**

<u>ᓄᓇᖕᒍᐊᖅ:</u>
ᑐᖑᔭᖅᑐᑦ ᐃᓃᑦ – ᑲᓇᖕᓇᖕᒐᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ
ᐆᔭᐅᔭᖅ ᐃᓃᑦ – ᐱᓇᖕᓇᖕᒐᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᑦ ᐃᓃᑦ

ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑲᒪᓂᕐᒧᑦ ᓇᐃᓴᖅᓯᔾᔪᑏᑦ



ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᒃᐸᐃᑦ (ᐹᓐᑕᓚᔅ ᐳᐊᕆᐋᓕᖕ)

ᑕᖅᓴᓖᑦ ᑭᖑᒃᐸᐃᑦ (ᐹᓐᑕᓚᔅ ᒫᓐᑕᒍᐃ)

ᖃᓄᐃᓕᖓᓂᖓ

ᒪᕐᕉᒃ ᑭᖑᒃᐸᐃᑦ ᐊᔾᔨᒌᙱᑦᑐᑦ (*ᐹᓐᑕᓚᒃ ᐳᐊᕆᐋᓕᒃ* ᐊᒻᒪ *ᐹᓐᑕᓚᒃ ᒫᓐᑕᒍᐃ*) ᐱᑕᖃᕐᑦ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᒃᐸᖕᓱᒋᖕᓂᕐᒥᑦ ᐱᓕᕆᐊᖑᕙᒃᓱᓂ ᕿᑭᖅᑖᓘᑉ ᐃᑭᖕᓂᑦ ᐊᒻᒪ ᑲᓇᙱᖕᓂᑦ ᓄᓇᕕᐅᑉ ᕿᑭᖅᑖᓘᓪᓗ ᐃᑭᖕᓂᑦ. ᑲᑎᒍᒃᑖᖅᓱᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᐊᑐᓂ ᐊᔾᔨᒌᙱᑦᑐᓄᑦ ᐋᖅᑭᒃᑕᐅᓯᒪᔪᑦ ᑖᒃᑯᓄᖓ ᒪᕐᕉᖕᓄᑦ ᐊᔾᔨᒌᙱᑦᑐᓄᑦ ᐱᑕᖃᕐᓂᖏᓐᓄᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᓂᑦ ᐃᓂᓂᑦ, ᑖᒃᑯᐊ ᐱᓇᖕᓇᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᑦ ᐃᓃᑦ (WAZ) ᐊᒻᒪ ᑲᓇᖕᓇᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ (EAZ) (ᑕᑯᓗᒍ ᓄᓇᙳᐊᖅ). ᑲᑎᒍᒃᑖᖅᓱᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓇᖅᑐᑦ (TAC) ᐅᖓᑎᒃᑳᐊᒍᑦ ᐊᕙᒃᑐᖅᑕᐅᖃᑦᑕᖅᑐᑦ ᑲᒪᓂᕐᒧᑦ ᓇᐃᓭᖅᓯᔾᔪᑏᑦ ᐅᓗᐊᓂᑦ ᐊᑕᒪᒃᑯᐊ ᐊᕙᒃᑐᖅᓯᒪᔪᓂᑦ ᐃᓂᓂᑦ.

ᐃᖃᓗᓕᕆᓃᑦ ᑕᒪᒃᑯᓇᓂ ᐃᓂᓂᑦ ᐃᖏᕐᕋᖃᑦᑕᖅᑐᑦ ᐊᐃᕆᓕ 1 – ᒫᔾᔭ 31. ᓂᕿᒃᓴᖅᓯᐅᕐᓃᑦ ᐱᓕᕆᓃᑦ ᐱᓕᕆᐊᖑᓯᕆᐊᒐᔪᒃᑐᑦ ᒪᐃᒥᑦ ᔫᓂᒧᑦ, ᒪᓕᒃᓱᑎᒃ ᓯᑯ ᖃᓄᐃᓕᖓᓂᖓᓄᑦ.

ᐃᖃᓗᓕᕆᓂᖅ ᐊᑐᖅᑕᐅᔫᖅ ᐃᓗᐊᓂᑦ ᐊᒻᒪ ᖃᓂᒋᔭᖏᓐᓂᑦ ᓄᓇᕗᒻᒥᑦ ᓄᓇᑖᕈᑏᑦ ᐃᓂᖏᓐᓂᑦ (NSA) ᐊᒻᒪ ᓄᓇᕕᒃ ᑕᕆᐅᑉ ᐊᕙᒃᑐᖅᓯᒪᓂᖏᓐᓄᑦ (NMR), ᐃᑯᒪᓕᐅᕈᑏᑦ ᐊᒻᒪ ᐃᒪᓈᖅᑑᑏᑦ ᑕᒪᒃᑯᓄᖓ ᑲᑎᒍᒃᑖᖅᓱᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓇᖅᑐᑦ (TAC) ᐊᒻᒪ ᐊᖑᓂᒃᑕᐅᕙᒃᑐᑦ ᖁᕝᕙᓯᓕᕇᖓᓂᖏᑦ ᐊᑐᓂ ᐊᔾᔨᒌᙱᑦᑐᑦ ᑐᒃᓯᕋᖅᑕᐅᕙᒃᑐᑦ ᐊᕐᕌᒍᑕᒫᑦ ᑖᒃᑯᓇᖓᑦ ᓄᓇᕗᒥᑦ ᐆᒪᔪᓕᕆᔩᑦᔪᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓂᑦ (NWMB) ᐊᒪᓗ ᓄᓇᕕᒃ ᑕᕆᐅᑉ ᐊᕙᒃᑐᖅᓯᒪᓂᖏᓐᓄᑦ ᐆᒥᒪᔪᓕᕆᔩᑦᔪᐊᒃᑯᖏᑦ ᑲᑎᒪᔨᖏᑦ (NMRWB) (ᑲᑎᒫᔩᑦ).

ᑕᒪᓇ ᓇᐃᓈᖅᓯᒪᔪᖅ ᖃᐅᔨᒃᑲᐃᔾᔪᑎ ᑐᕌᒐᖅᑐᖅ ᐃᓂᕆᔭᐅᓗᓂ ᐊᑦᑕᑕᖅᑎᑕᐅᓯᒪᔪᑦ ᐊᑐᐃᓐᓇᐅᑎᑦᑎᕐᑯᓪᓗᒍ ᐱᑕᖃᕆᐊᓕᙶᓂᒃ ᑭᓪᓕᓯᓂᐊᕐᓂᕐᒧᑦ ᑐᓴᐅᒪᔾᔪᑎᓂᒃ ᐊᒻᒪ ᐅᖃᐅᓯᕆᐊᕈᑎᓂᒃ ᐃᑲᔪᖅᓱᐃᔪᓂᒃ ᑲᑎᒪᔩᑦ ᐃᓱᒪᓕᐅᕈᑎᖏᖕᓂᒃ, ᕿᓚᒻᒥᐅᔫᒃᑯᑦ ᐊᑐᐃᓐᓇᖑᑐᐊᖅᐸᑕ. ᑲᑎᒪᓂᖅᑕᖃᔫᖅᑐᖅᒪ ᐅᑭᐅᖅᑕᖅᑐᒥ ᑭᖑᒃᐸᓕᕆᓂᕐᒧᑦ ᐅᖃᐅᔾᔨᕆᐊᕐᑏᑦ ᑲᑎᒪᔩᐊᔫᖏᓐᓄᑦ ᒫᔾᔭ 9, 2021-ᒥᑦ ᐱᔪᒥᒍᓱᒃᑐ ᐅᖃᓚᔾᔭᐅᑎᖃᕐᓗᑎᒃ ᑲᑎᒍᒃᑖᖅᓱᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓇᖅᑐᑦ (TAC) ᐊᑐᖅᑕᐅᖒᕈᓇᖅᑐᓂᒃ ᑖᒃᑯᖕᓄᖓ ᐊᔾᔨᒌᙱᑦᑐᓄᑦ ᑕᐃᑲᓂ ᑲᓇᖕᓇᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ (EAZ) (ᐱᓇᖕᓇᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᑦ ᐃᓃᑦ [WAZ] ᐅᖃᐅᓯᐅᓯᒪᙱᑦᑐᖅ).

ᑭᒡᓕᓯᓂᐊᖅᓯᒪᔪᑦ ᐅᖃᐅᔾᔨᕆᐊᕈᑏᑦ

ᐃᖃᓗᓕᕇᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕇᑦ ᑲᓇᑕ (DFO) ᑭᒡᓕᓯᓂᐊᖅᑐᓕᕇᙶᑦ ᐱᓕᕆᖃᑦᑕᖅᑐᑦ ᑕᒪᕐᒥᒃᑖᓄᑦ ᖃᔩᐅᓴᕈᑎᓂᒃ ᑖᒃᑯᓄᖓ *ᐹᓐᑕᓚᒃ ᐳᐊᕆᐋᓕᒃ* ᐊᒻᒪ *ᐹᓐᑕᓚᒃ ᒫᓐᑕᒍᐃ* ᐊᕐᕌᒍᐃᑦ ᒪᕐᕉᒃ ᐊᓂᒍᕌᖓᑕ ᓄᑖᙳᓇᐊᖅᑎᑕᐅᕙᒃᓱᑎᒃ ᐊᑐᖅᑐᒥᑦ ᐊᕐᕌᒍᒥᑦ. ᐊᑕᖏᓗᒃᑖᖅᓯᒪᔪᒥᒃ ᖃᐅᔨᓴᕐᓂᖅ ᐊᑐᖅᓱᑎᒃ 2020 ᖃᐅᔨᓴᕈᑏᒃ ᑎᑎᖅᑲᖁᑎᖏᓐᓂᒃ ᐅᓪᓗᓕᖅᑕᐅᓯᒪᔪᑦ ᓄᙳᐊᓂᑦ ᕕᕝᕗᐊᕆ 2021. ᐱᔾᔪᑕᐅᓪᓗᓂ ᖃᖓᒃᑰᓂᖓ, ᐃᖅᑲᓇᐃᔭᖃᑎᒌᓄᑦ–ᕿᒥᕐᕈᔭᐅᔭᕆᐊᓖᑦ ᑭᒡᓕᓯᓂᐊᕐᓂᕐᒧᑦ ᐅᖃᐅᔾᔨᕆᐊᕈᑎᑦ ᐊᑐᐃᓐᓇᐅᔾᔭᙱᑦᑐᑦ ᒫᓇᐅᔪᖅ ᑐᓂᓯᑎᓪᓗᒋᑦ ᐊᒻᒪ ᑐᓂᔭᐅᓂᐊᖅᑐᑦ ᑲᑎᒪᔨᓄᑦ ᒫᔾᔨᒥᑦ ᑐᓴᕋᓱᐊᕐᓂᒃᓴᖏᓐᓂᑦ ᖃᐅᔨᓴᕈᑏᑦ ᐱᐊᓂᒃᑕᐅᓯᒪᓕᖅᐸᑕ.

ᓇᐃᓈᖅᓯᒪᔪᑦ ᑐᒃᓯᕋᐅᑏᑦ

ᐊᑦᑕᑕᖅᑎᑕᐅᓯᒪᔪᑦ ᑕᕝᕙᖓ ᓇᐃᓈᖅᓯᒪᔪᖅ ᖃᐅᔨᒃᑲᐃᔾᔪᑎ ᑐᓂᔭᐅᓂᐊᖅᑐᑦ ᖃᐅᔪᓂᑦ ᐱᓇᓯᐊᕈᓯᕐᓂᑦ ᐊᑐᐃᓐᓇᐅᑎᑦᑎᕐᑯᓪᓗᒋᑦ ᐱᑕᖃᕆᐊᓕᙶᓂᒃ ᑭᒡᓕᓯᓂᐊᖅᓂᕐᒧᑦ ᑐᓴᐅᒪᔾᔪᑎᓂᒃ ᐃᑲᔪᖅᓯᕐᑯᓪᓗᒋᑦ ᑲᑎᒫᔩᑦ ᐃᓱᒪᓕᐅᕈᑎᖏᓐᓄᑦ. ᐃᓕᓴᖅᓯᓂᖅ ᑕᒪᓇ ᐃᖃᓗᓕᕆᓂᖅ ᐱᕆᐊᑐᐃᓐᓇᕆᐊᖃᕐᒪᑦ ᐱᓇᖕᓇᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᑦ ᐃᓃᑦ (WAZ) ᐊᒻᒪ ᑲᓇᖕᓇᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ (EAZ) ᖃᓂᑰᒃᑯᑦ ᒪᐃᒥᑦ, ᐅᖃᐅᔾᔨᕆᐊᕈᑎᑦ ᑕᒪᒃᑯᓄᖓ ᑐᒃᓯᕋᖅᑕᐅᓯᒪᔪᑦ ᕿᓚᒻᒥᐅᔫᒃᑯᑦ:

ᐱᓇᖕᓇᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᑦ ᐃᓃᑦ (WAZ):

1. ᐃᓱᒪᓕᐅᕈᑏᑦ ᓂᕿᒃᓴᖅᓯᐅᕐᓂᕐᒧᑦ ᖁᕝᕙᓯᓕᓈᑦ ᑖᒪᒃᑯᓄᖓ ᐹᓐᑕᓚᕐ ᐳᐊᕆᐋᓕᕐ ᐊᒻᒪᓗ ᐹᓐᑕᓚᕐ ᒫᓐᑕᒍᐃ ᓄᓇᕘᒥᑦ ᐱᓇᓐᓇᕐᕕᓂᑦ (ᐃᓗᐊᓂᑦᓄᓇᕘᒥᑦ ᓄᓇᑖᕈᑏᑦ ᐃᓂᖏᓐᓂᑦ [NSA]) ᐊᒻᒪᓗ NK ᐱᓇᓐᓇᕐᕕᓂᑦ (ᐃᓗᐊᓂᑦᓄᓇᕕᒃ ᑕᕆᐅᑉ ᐊᕕᒃᑐᖅᓯᒪᓂᖏᓐᓄᑦ [NMR]) ᑲᒪᓂᕐᒧᑦ ᓇᐃᓴᖅᓯᔾᔪᑏᑦ, ᐃᒃᐱᒋᔭᐅᓪᓗᑎᒃ.

2. ᐃᒪᓐᓈᖅᑑᑏᑦ ᑕᒃᑯᓄᖓ ᐊᑕᖏᖅᓱᒋᑦ ᑲᑎᓗᒃᑖᖅᓱᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᑕᒪᒃᑯᓄᖓ ᐹᓐᑕᓚᕐ ᐳᐊᕆᐋᓕᕐ ᐊᒻᒪᓗ ᐹᓐᑕᓚᕐ ᒫᓐᑕᒍᐃ ᑕᐅᕙᓂ ᐱᓇᓐᓇᕐᕕᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᑦ ᐃᓃᑦ (WAZ).

ᓴᖅᑭᔮᖅᑎᑕᖅ 1. ᓇᐃᒡᓕᑎᖅᓯᒪᔪᑦ ᑐᒃᓯᕋᖅᑕᐅᓯᒪᔪᑦ ᐃᓱᒪᓕᐅᕆᓂᕐᒧᑦ ᐊᒻᒪᓗ ᐃᒪᓐᓈᖅᑑᑎᓄᑦ, ᐱᓇᓐᓇᕐᕕᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᑦ ᐃᓃᑦ (WAZ)

ᓂᐃ (ᑲᒪᓂᕐᒧᑦ ᓇᐃᓴᖅᓯᔾᔪᑏᑦ)	***ᐹᓐᑕᓚᕐ ᐳᐊᕆᐋᓕᕐ***	***ᐹᓐᑕᓚᕐ ᒫᓐᑕᒍᐃ***
ᓄᓇᕘᒥᑦ ᓄᓇᑖᕈᑏᑦ ᐃᓂᖏᓐᓂᑦ (NSA) (ᓄᓇᕗᑦ ᐱᓇᓐᓇᕐᕕᓂᑦ[NU W])	ᓂᕿᒃᓴᖅᓯᐅᕐᓂᕐᒧᑦ ᖁᕝᕙᓯᓕᓈᓄᑦ ᐃᓱᒪᓕᐅᕈᑎ NWMB	ᓂᕿᒃᓴᖅᓯᐅᕐᓂᕐᒧᑦ ᖁᕝᕙᓯᓕᓈᓄᑦ ᐃᓱᒪᓕᐅᕈᑎ NWMB
ᓄᓇᕕᒃ ᑕᕆᐅᑉ ᐊᕕᒃᑐᖅᓯᒪᓂᖏᓐᓄᑦ (NMR) (ᓄᓇᕕᒃ ᐱᓇᓐᓇᕐᕕᓂᑦ)	ᓂᕿᒃᓴᖅᓯᐅᕐᓂᕐᒧᑦ ᖁᕝᕙᓯᓕᓈᓄᑦ ᐃᓱᒪᓕᐅᕈᑎ NMRWB	ᓂᕿᒃᓴᖅᓯᐅᕐᓂᕐᒧᑦ ᖁᕝᕙᓯᓕᓈᓄᑦ ᐃᓱᒪᓕᐅᕈᑎ NMRWB
ᑲᑎᓗᒃᑖᖅᓱᒋᑦ (ᐱᓇᓐᓇᕐᕕᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᑦ ᐃᓃᑦ [WAZ])	*ᑲᑎᓗᒃᑖᖅᓱᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᐃᒻᒪᓐᓈᖅᑑᑏᑦ (ᐊᑕᖏᖅᓱᒋᑦ ᑲᑎᓗᒃᑖᖅᓱᒋᑦ ᐃᓱᒪᓕᐅᕈᑏᑦ) NWMB ᐊᒻᒪᓗ NMRWB*	*ᑲᑎᓗᒃᑖᖅᓱᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᐃᒻᒪᓐᓈᖅᑑᑏᑦ (ᐊᑕᖏᖅᓱᒋᑦ ᑲᑎᓗᒃᑖᖅᓱᒋᑦ ᐃᓱᒪᓕᐅᕈᑏᑦ) NWMB ᐊᒻᒪᓗ NMRWB*

ᑲᓇᓐᓇᕐᕕᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ (EAZ):

1. ᐃᓱᒪᓕᐅᕈᑕᐅᔪᑦ ᑕᒪᑐᒧᖓ ᓂᕿᒃᓴᖅᓯᐅᕐᓂᕐᒧᑦ ᖁᕝᕙᓯᓕᓈᓄᑦ ᑕᒪᒃᑯᓄᖓ ᐹᓐᑕᓚᕐ ᐳᐊᕆᐋᓕᕐ ᐊᒻᒪᓗ ᐹᓐᑕᓚᕐ ᒫᓐᑕᒍᐃ ᐊᕐᕌᒍᐃᑦ ᑕᐃᑲᓂ ᓄᓇᕘᒻᒥᑦ ᑲᓇᓐᓇᕐᕕᓂᑦ (ᐃᓗᐊᓂᑦᓄᓇᕘᒻᒥᑦ ᓄᓇᑖᕈᑏᑦ ᐃᓂᖏᓐᓂᑦ [NSA]) ᐊᒻᒪᓗ ᓄᓇᕕᖕᒥᑦ ᐱᓇᓐᓇᕐᕕᓂᑦ (ᐃᓗᐊᓂᑦᓄᓇᕕᒃ ᑕᕆᐅᑉ ᐊᕕᒃᑐᖅᓯᒪᓂᖏᓐᓄᑦ [NMR]) ᑲᒪᓂᕐᒧᑦ ᓇᐃᓴᖅᓯᔾᔪᑏᑦ, ᐃᒃᐱᒋᔭᐅᓪᓗᑎᒃ.

2. ᐃᒻᒪᓐᓈᖅᑑᑏᑦ ᑕᒪᒃᑯᓄᖓ ᑐᓐᓂᖅᓴᖅᑕᐅᓂᖏᓐᓄᑦ ᐊᒻᒪᓗ ᐊᕕᒃᑐᖅᑕᐅᓂᖏᓐᓄᑦ ᑖᒃᑯᐊ ᑲᑎᓗᒃᑖᖅᓱᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᑕᒪᒃᑯᓄᖓ ᐹᓐᑕᓚᕐ ᒫᓐᑕᒍᐃ ᐅᓗᐊᓂᑦ ᖃᑭᖅᑖᔅ ᐃᑭᖕᒐᓄᑦ ᑲᒪᓂᕐᒧᑦ ᓇᐃᓴᖅᓯᔾᔪᑏᑦ (ᖃᑭᖅᑖᔅ ᐃᑭᖕᒐᓄᑦ ᐱᓇᓐᓇᕐᕕᓂᑦ [DS W], ᖃᑭᖅᑖᔅ ᐃᑭᖕᒐᓂᑦ ᑲᓇᓐᓇᕐᕕᓂᑦ [DS E]).

3. ᐃᒪᓐᓈᖅᑑᑏᑦ ᐊᑕᖏᕈᒃᑖᖅᓱᒋᑦ ᑲᑎᓗᒃᑖᖅᓱᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᑕᒪᒃᑯᓄᖓ ᐹᓐᑕᓚᕐ ᐳᐊᕆᐋᓕᕐ ᐊᒻᒪᓗ ᐹᓐᑕᓚᕐ ᒫᓐᑕᒍᐃ ᐊᕐᕌᒍᐃᑦ ᑕᐃᑲᓂ ᑲᓇᓐᓇᕐᕕᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ (EAZ), ᐃᒃᐱᒋᔭᐅᓪᓗᑎᒃ.

ᓴᖅᑭᔮᖅᑎᑕᖅ 2. ᓇᐃᒡᓕᑎᖅᓯᒪᔪᑦ ᑐᒃᓯᕋᖅᑕᐅᓯᒪᔪᑦ ᐃᓱᒪᓕᐅᕆᓂᕐᒧᑦ ᐊᒻᒪᓗ ᐃᒪᓐᓈᖅᑑᑎᓄᑦ, ᑲᓇᓐᓇᕐᕕᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ (EAZ)

ᓂᐃ (ᑲᒪᓂᕐᒧᑦ ᓇᐃᓴᖅᓯᔾᔪᑏᑦ)	***ᐹᓐᑕᓚᕐ ᐳᐊᕆᐋᓕᕐ***	***ᐹᓐᑕᓚᕐ ᒫᓐᑕᒍᐃ***

ᓄᓇᕗᒥᑦ ᓄᓇᑖᕈᑏᑦ ᐃᓂᖏᓐᓂᑦ (NSA) (ᓄᓇᕗᑦ ᑲᓇᖕᓇᖓᓂᑦ [NU E])	ᓂᕿᑦᓴᖕᓯᐅᕐᓂᕐᒧᑦ ᕿᑦᕿᓯᓕᕇᓄᑦ ᐃᓱᒪᓕᐅᕈᑎ NWMB	ᓂᕿᑦᓴᖕᓯᐅᕐᓂᕐᒧᑦ ᕿᑦᕿᓯᓕᕇᓄᑦ ᐃᓱᒪᓕᐅᕈᑎ NWMB
ᓄᓇᕕᒃ ᑕᕆᐅᑉ ᐊᕕᒃᑐᖅᓯᒪᓂᖏᓐᓄᑦ (NMR) (ᓄᓇᕕᒃ ᑲᓇᖕᓇᖓᓂᑦ)	ᓂᕿᑦᓴᖕᓯᐅᕐᓂᕐᒧᑦ ᕿᑦᕿᓯᓕᕇᓄᑦ ᐃᓱᒪᓕᐅᕈᑎ NMRWB	ᓂᕿᑦᓴᖕᓯᐅᕐᓂᕐᒧᑦ ᕿᑦᕿᓯᓕᕇᓄᑦ ᐃᓱᒪᓕᐅᕈᑎ NMRWB
ᕿᑭᖅᑖᓗᑉ ᐃᑭᖓᓄᑦ ᑲᓇᖕᓇᖓᓂᑦ (DS E)	ᑲᑎᒍᒃᑖᖅᖢᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᐊᕕᒃᑐᖅᑕᐅᓂᖏᓐᓄᑦ ᐊᒻᒪᓗ ᑐᓐᓂᖅᓴᖅᑕᐅᓂᖏᓐᓄᑦ ᐃᒪᓐᓈᖅᑑᑏᑦ NWMB	
ᕿᑭᖅᑖᓗᑉ ᐃᑭᖓᓄᑦ ᐱᓇᖕᓇᖓᓂᑦ (DS W)	ᑲᑎᒍᒃᑖᖅᖢᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᐊᕕᒃᑐᖅᑕᐅᓂᖏᓐᓄᑦ ᐊᒻᒪᓗ ᑐᓐᓂᖅᓴᖅᑕᐅᓂᖏᓐᓄᑦ ᐃᒪᓐᓈᖅᑑᑏᑦ NWMB ᐊᒻᒪᓗ NMRWB	
ᑲᑎᒍᒃᑖᖅᖢᒋᑦ (ᑲᓇᖕᓇᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ [EAZ])	ᑲᑎᒍᒃᑖᖅᖢᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᐃᒪᓐᓈᖅᑑᑏᑦ NWMB ᐊᒻᒪᓗ NMRWB	ᑲᑎᒍᒃᑖᖅᖢᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᐃᒪᓐᓈᖅᑑᑏᑦ NWMB ᐊᒻᒪᓗ NMRWB

ᑲᒪᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᒐᔪᒃᑐᑦ:

1. ᐃᒪᓐᓈᖅᑑᑏᑦ ᑲᔪᓯᓂᐊᖅᑐᑦ ᐊᑐᖅᑕᐅᓕᒻᒫᒃᓴᓂᖕ ᐃᒪᐃᒃᑯᑎᒃ ᐹᓐᑕᓚᑦ ᐳᐊᕆᐋᓕᑦ ᐊᒻᒪᓗ ᐹᓐᑕᓚᑦ ᒫᓐᑕᒍᐃ ᐊᕕᒃᑐᖅᑕᐅᓂᖏᑦ ᑕᐃᑲᓂ ᓄᓇᕘᒥᑦ ᐱᓇᖕᓇᖓᓂᑦ (NU W) ᐊᒻᒪᓗ ᓄᓇᕕᖕᒥᑦ ᐱᓇᖕᓇᖓᓂᑦ (NK W) ᓂᕿᑦᓴᖕᓯᐅᕈᑕᐅᓗᑎᒃ ᓇᓕᐊᖕᓂᑐᐃᓐᓇᖅ ᑲᒪᓂᕐᒧᑦ ᓇᐃᓴᖕᓯᖬᑏᑦ, ᐃᒪᐃᒃᑲᓗᐊᖅᑎᓪᓗᒍ ᓄᓇᑖᕈᑎᖃᕐᓂᕐᒧᑦ ᑮᓕᑕᖃᕋᓗᐊᖅᑎᓪᓗᒍ.

   ᐃᒪᓐᓈᖅᑑᑏᑦ ᑲᔪᓯᓂᐊᖅᑐᑦ ᐊᑐᖅᑕᐅᓕᒻᒫᒃᓴᓂᖕ ᐃᒪᐃᒃᑯᑎᒃ ᐹᓐᑕᓚᑦ ᐳᐊᕆᐋᓕᑦ ᐊᒻᒪᓗ ᐹᓐᑕᓚᑦ ᒫᓐᑕᒍᐃ ᐊᕕᒃᑐᖅᑕᐅᓂᖏᑦ ᑕᐃᑲᓂ ᓄᓇᕘᒥᑦ ᑲᓇᖕᓇᖓᓂᑦ ᐊᒻᒪᓗ ᓄᓇᕕᖕᒥᑦ ᑲᓇᖕᓇᖓᓂᑦ ᓂᕿᑦᓴᖕᓯᐅᕈᑕᐅᓗᑎᒃ ᓇᓕᐊᖕᓂᑐᐃᓐᓇᖅ ᑲᒪᓂᕐᒧᑦ ᓇᐃᓴᖕᓯᖬᑏᑦ, ᐃᒪᐃᒃᑲᓗᐊᖅᑎᓪᓗᒍ ᓄᓇᑖᕈᑎᖃᕐᓂᕐᒧᑦ ᑮᓕᑕᖃᕋᓗᐊᖅᑎᓪᓗᒍ.

ᐱᕙᖏᑕᖅᑕᖓ ᐆᒪ: ᑯᐊᑦᓂ ᑕᐅᓯᑦ, ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᓄᓇᒥᖑᖅᑐᓂᑦ ᑲᒪᔩᑦ, ᐃᖃᓗᓕᕆᔩᑦ ᐊᒻᒪᓗ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᑲᓇᑕ

ᐅᓪᓗᖅ: ᕖᕝᕗᐊᕆ 4, 2021

SUMMARY: Assessment of Northern Shrimp, *Pandalus borealis*, and Striped Shrimp, *Pandalus montagui*, in the Eastern and Western Assessment Zones and Western Assessment Zones, February 2021

SUMMARY

- The assessment includes the 2019 and 2020 survey and fishery data.
- It is recognized that the population of *Pandalus montagui* spans the area of EAZ, WAZ and SFA 4. Currently it is not known what the rates of exchange (export/import) are between these zones, therefore, understanding resource dynamics as a whole requires integrating information from all assessment areas.
- It is recognized that *P. borealis* are distributed broadly over the Northwest Atlantic Ocean, including the EAZ and WAZ, and that these areas are connected through larval dispersal, but rates of exchange of adults are less understood. These linkages need to be considered to interpret dynamics within and among assessment areas.
- In the EAZ the stocks are currently assessed with updated LRPs relevant to a PA Framework. Updated USRs are currently being considered.
- In the WAZ the stocks are currently assessed with the LRPs (established *de novo* in 2020). USRs are currently being considered.

Eastern Assessment Zone – *Pandalus borealis*

- Total catch varied without trend around 6,000 t from 1997 through 2020/21. Catch statistics in 2020/21 are preliminary.
- The fishable biomass index was above the long term mean (63,486 t) and was 86,211 t in 2020.
- The female spawning stock biomass (SSB) was above the long term mean (39,659 t) and was 60,531 t in 2020.
- The reported exploitation rate index for 2020/21 was 5.9% with 48% of the TAC taken. Based on the 2020/21 TAC of 10,653 t, the potential exploitation rate index was 12.5%.
- *Pandalus borealis* stock in the EAZ is currently well above the established LRP. Although there is currently no established USR, the stock is considered in a healthy state.

Eastern Assessment Zone – *Pandalus montagui*

- Total catch in 2020/21 was 267 t, 32% of the 840 t TAC. Catch statistics in 2020/21 are preliminary.
- The fishable biomass index is subject to considerable interannual variability potentially associated with resource distribution. Since 2017, it has generally been above the long term mean (14,076 t) and was 18,803 t in 2020. Fluctuations in fishable biomass may also differ across adjacent assessment areas within the same year for this stock.
- The female spawning stock biomass (SSB) index was above the long term mean (9,675 t) and was 14,437 t in 2020.
-
- The reported exploitation rate index for 2020/21 was 1.3% with 32% of the TAC taken. Based on the 2020/21 TAC of 840 t, the potential exploitation rate index was 4.5%.
- *Pandalus montagui* stock in the EAZ is currently well above the established LRP. Although there is currently no established USR and the stock biomass index is subject to considerable interannual variability, the stock is considered in a healthy state.

Western Assessment Zone – *Pandalus borealis*

- Total catch in 2020/21 was 625 t, which is 20% of the 3,163 t TAC. Catch statistics in 2020/21 are preliminary.
- The fishable biomass index in 2020 remained above the long term mean (19,219 t) and was 32,835 t.
- The female SSB index in 2020 remained above the long term mean (10,830 t) and was 17,555 t.
- The reported exploitation rate index for 2020/21 was 1.9% with 20% of the TAC taken. Based on the 2020/21 TAC of 3,163 t, the potential exploitation rate index was 9.6%.
- *Pandalus borealis* stock in the WAZ is currently well above the established LRP. Although there is currently no established USR, the stock is considered in a healthy state.

Western Assessment Zone – *Pandalus montagui*

- Total catch in 2020/21 was 3,917 t, which is 33% of the 11,975 t TAC. Catch statistics in 2020/21 are preliminary.
- Movement across management areas is suspected to contribute to inter-annual variability in the fishable biomass index. It was below the long term mean (56,609 t) and was 50,911 t in 2020.
- The SSB index was below the long term mean (31,640 t) and was 26,811 t in 2020.
- The reported exploitation rate index for 2020/21 was 7.7% with 33% of the TAC taken. Based on the 2020/21 TAC of 11,975 t, the potential exploitation rate index was 23.5%.
- Although there is currently no established USR for Pandalus montagui stock in the WAZ, the stock is above the established LRP relevant to a PA Framework.

RÉSUMÉ : Évaluation des stocks de crevette nordique, *Pandalus borealis*, et de crevette ésope, *Pandalus montagui*, dans les zones d'évaluation est et ouest et dans les zones d'évaluation ouest, février 2021.

RÉSUMÉ

- L'évaluation comprend les données des relevés et les données sur la pêche de 2019 et 2020.
- Il est reconnu que la population de *Pandalus montagui* s'étend sur les zones d'évaluation est (ZEE) et ouest (ZEO) ainsi que sur la ZPC 4. Actuellement, on ne sait pas quels sont les taux de change (exportations/importations) entre ces zones. Par conséquent, pour comprendre la dynamique des ressources dans son ensemble, il faut intégrer l'information provenant de tous les domaines d'évaluation.
- Il est reconnu que le *P. borealis* est largement réparti sur l'océan Atlantique Nord-Ouest, y compris la ZEE et la ZEO, et que ces zones sont reliées entre elles par la dispersion des larves, mais les taux d'échange des adultes sont moins bien compris. Il faut tenir compte de ces liens pour interpréter la dynamique au sein des zones d'évaluation et entre elles.
- Dans la ZEE, les stocks sont actuellement évalués à l'aide des points de référence limites (PRL) mis à jour en fonction d'un cadre d'AP. Des points de référence supérieurs (PRS) sont actuellement à l'étude.
- Dans la ZEO, les stocks sont actuellement évalués à l'aide des PRL (établis de novo en 2020). Les PRS sont actuellement à l'étude.

Zone d'évaluation est – *Pandalus borealis*

- Les prises totales ont varié sans tendance autour de 6 000 t de 1997 à 2020-2021. Les statistiques sur les prises en 2020-2021 sont préliminaires.
- L'indice de biomasse exploitable était supérieur à la moyenne à long terme (63 486 t) et était de 86 211 t en 2020.
- La biomasse du stock reproducteur (BSR) femelle était supérieure à la moyenne à long terme (39 659 t) et était de 60 531 t en 2020.
- L'indice du taux d'exploitation déclaré pour l'année 2020-2021 était de 5,9 %, 48 % du TAC étant pris. D'après le TAC de 10 653 t en 2020-2021, l'indice du taux d'exploitation potentiel était de 12,5 %.
- Le stock de *Pandalus borealis* dans la ZEE est actuellement bien supérieur au PRL établi. Bien qu'il n'existe actuellement aucun PRS établi, le stock est considéré dans un état sain.

Zone d'évaluation est – *Pandalus montagui*

- Le total de prise en 2020-2021 était de 267 t, soit 32 % du TAC de 840 t. Les statistiques sur les captures en 2020-2021 sont préliminaires.
- L'indice de biomasse exploitable est soumis à une variabilité interannuelle considérable potentiellement associée à la distribution des ressources. Depuis 2017, il est généralement supérieur à la moyenne à long terme (14 076 t) et était de 18 803 t en 2020. Les fluctuations de la biomasse exploitable peuvent également varier entre les zones d'évaluation adjacentes au cours de la même année pour ce stock.
- L'indice de la biomasse du stock reproducteur (BSR) femelle était supérieur à la moyenne à long terme (9 675 t) et était de 14 437 t en 2020.
- L'indice du taux d'exploitation déclaré pour l'année 2020-2021 était de 1,3 %, 32 % du TAC étant pris. D'après le TAC de 840 t en 2020-2021, l'indice du taux d'exploitation potentiel était de 4,5 %.
- Le stock de *Pandalus montagui* dans la ZEE est actuellement bien supérieur au PRL établi. Bien qu'il n'existe actuellement aucun PRS établi et que l'indice de biomasse des stocks soit soumis à une variabilité interannuelle considérable, le stock est considéré comme étant en bonne santé.

Zone d'évaluation ouest – *Pandalus borealis*

- Le total des captures en 2020-2021 était de 625 t, soit 20 % du TAC de 3 163 t. Les statistiques sur les captures en 2020-2021 sont préliminaires.
- L'indice de biomasse exploitable en 2020 est demeuré supérieur à la moyenne à long terme (19 219 t) et s'élevait à 32 835 t.
- L'indice BSR femelle en 2020 est demeuré supérieur à la moyenne à long terme (10 830 t) et s'est établir à 17 555 t.
- L'indice du taux d'exploitation déclaré pour l'année 2020-2021 était de 1,9 %, 20 % du TAC étant pris. D'après le TAC de 3 163 t en 2020-2021, l'indice du taux d'exploitation potentiel était de 9,6 %.
- Le stock de *Pandalus borealis* dans la ZEO est actuellement bien supérieur au PRL établi. Bien qu'il n'y ait pas de PRS établi actuellement, le stock est considéré comme étant en bonne santé.

Zone d'évaluation ouest – *Pandalus montagui*

- Le total des captures en 2020-2021 était de 3 917 t, soit 33 % du TAC de 11 975 t. Les statistiques sur les captures en 2020-2021 sont préliminaires.

- On soupçonne que les déplacements entre les zones de gestion contribuent à la variabilité interannuelle de l’indice de biomasse exploitable. Il était inférieur à la moyenne à long terme (56 609 t) et s’élevait à 50 911 t en 2020.
- L’indice du taux d’exploitation déclaré pour l’année 2020-2021 était de 7,7 %, 33 % du TAC étant pris. D’après le TAC de 11 975 t en 2020-2021, l’indice du taux d’exploitation potentiel était de 23,5 %.
  Bien qu'il n'y ait actuellement aucune PRS établie pour le stock de *Pandalus montagui* dans le ZEO, le stock est au-dessus du PRL établi pertinent pour un cadre d'AP.

SUMMARY

- Resource status of Northern Shrimp in SFAs 5 and 6 was assessed based on Fisheries and Oceans Canada (DFO) fall multi-species trawl survey data (1996–2020). Resource status for Northern and Striped Shrimp in SFA 4 were assessed based on Northern Shrimp Research Foundation (NSRF)-DFO summer trawl survey data (2005–2020).
- Trawl survey data for SFAs 4–6 provided information on shrimp distribution, length frequencies and biomass. Trends in fisheries performance were inferred from total allowable catch (TAC), commercial catch to date, fisher catch per unit effort (CPUE) and fishing patterns.
- It is recognized that *Pandalus borealis* are distributed broadly over the Northwest Atlantic Ocean, including SFA 4-6, and that these areas are connected through larval dispersal, but rates of exchange of adults are less understood. These linkages need to be considered to interpret dynamics within and among assessment areas.
- It is recognized that the population of *Pandalus montagui* spans the area of EAZ, WAZ and SFA 4. Currently it is not known what the rates of exchange (export/import) are between these zones, therefore, understanding resource dynamics as a whole requires integrating information from all assessment areas.

Environment bullets

- Bottom and sea surface temperatures (SSTs) are important drivers for the development of shrimp eggs and larvae, respectively. In SFAs 4-6, these variables have shown similar trends over the last 40 years, with a cold phase in the mid-1980s and 1990s, and a warm period in the late 1990s and early-2010s, but their trends have diverged since 2015. While colder bottom waters prevailed between 2014 and 2017, warmer bottom temperatures led to above average extent of bottom thermal habitat (2–4°C) between 2018 and 2020. In 2020, SSTs were above normal for the first time since 2013.
- Chlorophyll concentrations and zooplankton biomass were below normal in the early and mid-2010s, increasing to values above the long term (1999-2020) average since 2016-2017. Additionally, there have been changes in zooplankton community structure over the past decade with fewer large and more smaller copepods although the abundance of large, energy-rich calanoid copepods has increased to above-normal levels in some areas since 2017. Additionally, changes in zooplankton seasonality (weaker spring and stronger summer and fall zooplankton signals) may change the quality and timing of food availability for upper trophic levels.

Ecosystem Bullets

- Ecosystem conditions in the Newfoundland Shelf and Northern Grand Bank (Northwest Atlantic Fisheries Organization [NAFO] Divs. 2J3KL; SFA 7, 6, and southern part of SFA 5) remain indicative of overall limited productivity of the fish community. While total biomass levels remain much lower than prior to the collapse in the early-1990s, it showed some recovery up to the early-mid 2010s, when some declines were observed. Current total biomass remains below the early-2010s level, but with some positive signals in 2020. Since the mid-2000s this fish community has shifted back to a finfish-dominated structure, but has shown small increases in shellfish dominance since 2018.

- The available information for the Labrador Shelf (NAFO Div. 2H, northern part of SFA 5) shows declines in total biomass of the fish community from the levels observed in the early-2010s, but the 2020 survey suggests a potential reversal of this trend. The structure of the fish community is also changing, showing reductions in the dominance of shellfish. This suggests that this ecosystem could be shifting to a finfish-dominated community, as observed in NAFO Divs. 2J3KL (SFA 7, 6, and southern part of SFA 5).
- Consumption analyses indicated that predation is a major driver of the stock. In 2020, the shrimp predation mortality rate in NAFO Divs. 2J3KL (SFA 7, 6, and southern part of SFA 5), which had reached its highest levels on record in 2018-2019, declined to levels comparable to the mid-2000s.
- The build-up of shrimp until the mid-2000s occurred during a period of favorable environmental conditions and reduced predation. Shrimp per-capita net production has declined since the mid-2000s, but the trend has shown some signals of reversal in 2019-2020. Shrimp per-capita net production is expected to remain around current values, or show modest improvement in the next 1-3 years.
- Predation, fishing pressure, and warm climate conditions remain negatively correlated with subsequent shrimp per-capita net production in NAFO Divs. 2J3KL (SFA 7, 6, and southern part of SFA 5). Fishing in NAFO Div. 2GH (SFA 4 and northern part of SFA 5) also shows a negative correlation with shrimp per-capita net production in NAFO Divs. 2J3KL, suggesting that shrimp productivity can be impacted by fishing in upstream areas.
- Under current ecosystem conditions (i.e. low shrimp biomass, but potentially declining predation pressure), fishing at the current exploitation rate is unlikely to be a dominant driver for shrimp in NAFO Divs. 2J3KL (SFA 7, 6, and southern part of SFA 5). Fishing pressure could now be more influential on stock trajectories than it may have been when the stock was large. Similar analyses on the relative impacts of predation and fishing for the Labrador Shelf (NAFO Div. 2H, northern part of SFA 5) suggest that fishing could be a more important driver than predation in this area.

SFA 6 *Pandalus borealis*

- TAC was increased from 8,730 t in 2018/19 to 8,960 t in 2019/20 and reduced, by 8%, to 8,290 t in 2020/21.
- The annual commercial CPUE declined considerably between 2015/16 and 2017/18 to the lowest levels in two decades and has remained low since.
- Over 1996 to 2020 the fishable biomass index averaged 370,000 t. It was 118,000 t in 2020, an increase from 2019, but still near the lowest levels in the survey time series.
- Over 1996 to 2020 the female spawning stock biomass (SSB) index averaged 232,000 t. It was 74,800 t in 2020, an increase from 2019, but still near the lowest levels in the survey time series.
- The exploitation rate index ranged between 5.5% and 21.5% from 1997 to 2020/21 and was 5.6% in 2020/21. If the TAC is fully taken in 2020/21 then the exploitation rate index will be 10%.
- The female SSB index is currently in the Critical Zone of the DFO Precautionary Approach (PA) Framework with a 35% probability of being in the cautious zone.

- The rebuilding plan states a maximum exploitation rate of 10% while the female SSB index is in the Critical Zone. If the 2020/21 TAC of 8,290 t is maintained and taken in 2021/22, the exploitation rate index would be 7%.

SFA 5 *Pandalus borealis*

- TAC was reduced from 25,630 t in 2018/19 to 22,100 t in 2019/20 and further reduced, by 35%, to 14,450 t in 2020/21.
- Standardized large-vessel CPUE had varied without trend at relatively high levels for more than a decade before falling below the long-term mean beginning in 2017/18. Commercial catch rates may have been partly influenced by ice coverage.
- The number of stations sampled by the DFO multi-species survey in 2020 was reduced due to several factors. Retrospective time-series simulations suggest that the biomass estimates may slightly underestimate the stock status in SFA 5 in 2020.
- Over 1996 to 2020 the fishable biomass index averaged 127,000 t. It was 80,400 t in 2020, an increase from 2019, but still near the lowest levels in the survey time series.
- Over 1996 to 2020 the female SSB index averaged 63,000 t. It was 51,300 t in 2020, an increase from 2019, but still near the lowest levels in the survey time series.
- The exploitation rate index varied without trend with a median value of 15% from 1997–2020/21 and was 16.4% in 2020/21. If the TAC is fully taken in 2020/21 then the exploitation rate index will be 22.4%.
- Female SSB index is in the Healthy Zone within the DFO PA Framework with 19% probability of being in the cautious zone. If the 14,500 t TAC is maintained and taken in 2021/22, then the exploitation rate index will be 18%.

SFA 4 *Pandalus borealis*

- TAC was reduced from 15,725 t in 2018/19 to 10,845 t in 2019/20 and further reduced by 20%, to 8,658 t, in 2020/21.
- Large-vessel standardized CPUE varied without trend near the long-term mean (1989–2019/20).
- Over 2005 to 2020 the fishable biomass index averaged 97,200 t. It was 58,900 t in 2020, a 9% increase from 2019 and the third lowest level in the time series.
- Over 2005 to 2020 the female SSB index averaged 60,900 t. It was 43,100 t in 2020, a 9% increase from 2019 and amongst the lowest levels in the time series.
- The exploitation rate index ranged between 7% and 37.3% from 2005/06 to 2019/20 and was 12.8% in 2020/21. If the TAC had been taken, the exploitation rate index would have been 14.7%.
- Female SSB index in 2020 was in the Cautious Zone within the DFO PA Framework, for the third consecutive year, with a 6% probability of having been in the Critical Zone and a 36% probability of having been in the Healthy Zone.

SFA 4 *Pandalus montagui*

- The by-catch limit of 4,033 t has not been taken in the past eight years, with the commercial catch ranging between 1,113 t and 3,035 t.

- Over 2005 to 2020 the fishable biomass index averaged 28,800 t. It was 25,500 t in 2020, a 25% decrease from 2019.
- Over 2005 to 2020 the female biomass index averaged 22,100 t. It was 18,700 t in 2020, a 43% decrease from 2019.
- The exploitation rate index was 9.7% in 2020/21. If the by-catch limit had been taken, the exploitation rate index would have been 15.8% in 2020/21.
- There was no limit reference point (LRP) established for this resource during this meeting. Subsequently, there is no DFO PA Framework for this resource.

RÉSUMÉ : Évaluation de la crevette nordique (*Pandalus borealis*) dans les zones de pêche à la crevette 4 à 6 et de la crevette ésope (*Pandalus montagui*) dans la zone de pêche à la crevette 4, février 2021

Résumé

- L'état des ressources de crevette nordique dans les ZPC 5 et 6 a été évalué à partir des données de relevés plurispécifiques au chalut de Pêches et Océans Canada (MPO) effectués l'automne (1996-2020). L'état des ressources de crevette nordique et de crevette ésope dans la ZPC 4 a été évalué à partir des données de relevés au chalut effectués l'été par la Northern Shrimp Research Foundation (NSRF) et le MPO (2005-2020).
- Les données des relevés au chalut des ZPC 4 à 6 ont fourni des renseignements sur la répartition des crevettes, les fréquences de longueur et la biomasse. Les tendances du rendement des pêches ont été déduites à partir des totaux autorisés des captures (TAC), du nombre de prises commerciales jusqu'à présent, des captures par unité d'effort (CPUE) et des habitudes de pêche.
- Il est reconnu que le *Pandalus borealis* est largement répandu dans l'océan Atlantique Nord-Ouest, y compris dans les ZPC 4 à 6, et que ces zones sont reliées par la dispersion des larves, mais les taux d'échange des adultes sont moins bien compris. Il faut tenir compte de ces liens pour interpréter la dynamique à l'intérieur des domaines d'évaluation et entre ceux-ci.
- Il est reconnu que la population de *Pandalus montagui* s'étend sur les zones d'évaluation est (ZEE) et ouest (ZEO) ainsi que sur la ZPC 4. Actuellement, on ne sait pas quels sont les taux de change (exportations/importations) entre ces zones. Par conséquent, pour comprendre la dynamique des ressources dans son ensemble, il faut intégrer l'information provenant de tous les domaines d'évaluation.

Puces sur l'environnement

- Les températures du fond et de la surface de la mer (SST) jouent un rôle important dans le développement des œufs et des larves de crevette, respectivement. Dans les ZPC 4 à 6, ces variables ont affiché des tendances similaires au cours des 40 dernières années, avec une période froide au milieu des années 1980 et 1990 et une période chaude à la fin des années 1990 et au début des années 2010, mais leurs tendances divergent depuis 2015. Alors que les eaux de fond plus froides ont prévalu entre 2014 et 2017, les températures de fond plus chaudes ont mené à une étendue supérieure à la moyenne de l'habitat thermique de fond (2 à 4 °C) entre 2018 et 2020. En 2020, les SST étaient supérieures à la normale pour la première fois depuis 2013.
- La concentration de chlorophylle et la biomasse de zooplancton étaient inférieures à la normale au milieu des années 2010, puis ont augmenté pour atteindre des valeurs supérieures à la moyenne à long terme (1999-2020) depuis 2016-2017. De plus, il y a eu des changements dans la structure des communautés de zooplancton au cours de la dernière décennie avec moins de copépodes de grande taille et plus de petits copépodes, bien que l'abondance de copépodes calanoïdes de grande taille et riches en énergie ait augmenté pour atteindre des niveaux supérieurs à la normale dans certaines régions depuis 2017. De plus, les changements de la saisonnalité du zooplancton (signaux du zooplancton

plus faibles au printemps et plus forts en été et à l’automne) peuvent modifier la qualité et le moment de la disponibilité des aliments pour les niveaux trophiques supérieurs.

Puces sur l’écosystème

- L’état de l’écosystème sur le plateau de Terre-Neuve et dans le secteur nord de Grand Banc (Division de l’Organisation des pêches de l’Atlantique nord-ouest [OPANO] 2J3KL; ZPC 6 et 7 et partie sud de la ZPC 5) reste révélateur de la productivité globale limitée de la communauté de poissons. Bien que les niveaux de biomasse totale demeurent bien inférieurs à ceux d’avant l’effondrement au début des années 1990, ils ont montré une certaine reprise jusqu’au début et au milieu des années 2010, où l’on a observé certains déclins. La biomasse totale actuelle demeure en deçà du niveau du début des années 2010, mais avec quelques signaux positifs en 2020. Depuis le milieu des années 2000, cette communauté de poissons est revenue à une structure dominée par les poissons, mais elle a connu de petites augmentations de la dominance des mollusques et crustacés depuis 2018.
- L’information disponible concernant le plateau du Labrador (division de l’OPANO 2H, partie nord de la ZPC 5) montre un déclin de la biomasse totale par rapport aux niveaux observés au début des années 2010, mais le relevé de 2020 suggère un renversement possible de cette tendance. La structure de la communauté piscicole est également en train de changer, ce qui indique une réduction de la prédominance des mollusques et des crustacés. Ces observations suggèrent que cet écosystème pourrait se transformer en une communauté dominée par les poissons à nageoires, comme cela s’est produit dans les divisions 2J3KL de l’OPANO (ZPC 6 et 7 et partie sud de la ZPC 5).
- Les analyses de la consommation ont indiqué que la prédation est un facteur important du stock. En 2020, le taux de mortalité par prédation de la crevette dans les divisions de 2J3KL de l’OPANO (ZPC 6 et 7 et partie sud de la ZPC 5), qui avait atteint ses niveaux les plus élevés jamais enregistrés en 2018-2019, est retombé à des niveaux comparables à ceux du milieu des années 2000.
- L’accumulation des crevettes jusqu’au milieu des années 2000 s’est produite pendant une période de conditions environnementales favorables et de prédation réduite. La production nette de crevettes par habitant a décliné depuis le milieu des années 2000, mais la tendance a montré certains signes de renversement en 2019-2020. La production nette de crevettes par habitant devrait se maintenir autour des valeurs actuelles ou s’améliorer légèrement au cours des trois prochaines années.
- La prédation, la pression de la pêche et les conditions climatiques chaudes demeurent négativement corrélées à la production nette de crevettes par habitant subséquente dans les divisions 2J3KL de l’OPANO (ZPC 6 et 7 et partie sud de la ZPC 5). La pêche dans les divisions 2GH de l’OPANO (ZPC 4 et partie nord de la ZPC 5) présente également une corrélation négative avec la production nette de crevettes par habitant dans les divisions 2J3KL de l’OPANO, ce qui laisse supposer que la productivité de la crevette peut être affectée par la pêche dans les zones en amont.
- Dans les conditions actuelles de l’écosystème (c.-à-d. une faible biomasse de crevettes, mais une pression de prédation potentiellement en baisse), il est peu probable que la pêche au taux d’exploitation actuel soit un facteur dominant pour la crevette dans les divisions 2J3KL de l’OPANO (ZPC 6 et 7 et partie sud de la ZPC 5). La pression exercée par la pêche pourrait maintenant avoir une influence plus grande sur la trajectoire des stocks qu’elle ne l’a été lorsque le stock était important. Des analyses semblables sur les répercussions relatives de la prédation et de la pêche sur le plateau du Labrador (division

2H de l’OPANO, partie nord de la ZPC 5) suggèrent que la pêche pourrait être un facteur plus important que la prédation dans cette zone.

Crevette nordique (Pandalus borealis) dans la ZPC 6

- De 2018-2019 à 2019-2020, le TAC a été augmenté, passant de 8 730 t à 8 960 t, mais a été diminué de 8 % pour s’établir à 8 290 t en 2020-2021.
- Les CPUE commerciales annuelles ont diminué de manière considérable de 2015-2016 à 2017-2018 pour atteindre leurs plus bas niveaux en deux décennies et sont demeurées faibles depuis.
- De 1996 à 2020, l’indice moyen de la biomasse exploitable se situait à 370 000 t. En 2020, il était de 118 000 t, ce qui représente une augmentation par rapport à 2019, mais tout de même près des niveaux les plus bas de la série chronologique des relevés.
- De 1996 à 2020, l’indice de la biomasse du stock reproducteur (BSR) femelle a atteint 232 000 t. Il était de 74 800 t en 2020, une augmentation par rapport à 2019, mais ce niveau reste toujours près des niveaux les plus bas de la série chronologique des relevés.
- De 1997 à 2020-2021, l’indice du taux d’exploitation a varié de 5,5 % à 21,5 %, et était de 5,6 % en 2020-2021. Si le TAC est atteint en 2020-2021, l’indice du taux d’exploitation sera de 10 %.
- L’indice de la BSR femelle se trouve actuellement dans la zone critique du cadre de l’approche de précaution (AP) du MPO avec 35 % de probabilité de se situer dans la zone de prudence.
- Le plan de reconstruction prévoit un taux d’exploitation maximal de 10 % lorsque l’indice de la BSR femelle se situe dans la zone critique. Si le TAC de 2020-2021 de 8 960 t est maintenu et pris en 2020-2021, l’indice du taux d’exploitation sera de 7 %.

Crevette nordique (Pandalus borealis) dans la ZPC 5

- Le TAC a été réduit en 2018-2019 pour passer de 25 630 t à 22 100 t en 2019-2020, et a encore été réduit de 35 % à 14 450 t en 2020-2021.
- Les CPUE normalisées des grands navires ont varié sans afficher de tendance à des niveaux relativement élevés pendant plus d’une dizaine d’années avant de tomber sous la moyenne à long terme à partir de 2017-2018. Les taux de prises commerciales peuvent avoir été influencés en partie par la couverture de glace.
- Le nombre de stations échantillonnées par les relevés plurispécifiques du MPO en 2020 a été réduit en raison de plusieurs facteurs. Des simulations rétrospectives des séries chronologiques donnent à penser que les estimations de la biomasse pourraient sous-estimer légèrement l’état des stocks dans la ZPC 5 en 2020.
- De 1996 à 2020, l’indice moyen de la biomasse exploitable se situait à 127 000 t. Il était de 80 400 t en 2020, une augmentation par rapport à 2019, mais toujours près des niveaux les plus bas de la série chronologique des relevés.
- De 1996 à 2020, l’indice de la biomasse du stock reproducteur femelle se situait à 63 000 t en moyenne. Il était de 51 300 t en 2020, une augmentation par rapport à 2019, mais toujours près des niveaux les plus bas de la série chronologique des relevés.

- De 1997 à 2020-2021, l’indice du taux d’exploitation a fluctué sans afficher de tendance, avec une valeur médiane de 15 %. Si le TAC est atteint en 2020-2021, l’indice du taux d’exploitation sera de 22,4 %.
- L’indice de la biomasse du stock reproducteur femelle se situe actuellement dans la zone saine dans le cadre de l’approche de précaution du Plan de gestion intégrée des pêches (PGIP) du MPO avec 19 % de probabilité de se situer dans la zone de prudence. Si le TAC de 14 500 t est maintenu et atteint en 2021-2022, l’indice du taux d’exploitation sera de 18 %.

Crevette nordique (Pandalus borealis) dans la ZPC 4

- Le TAC a été réduit de 15 725 t en 2018-2019 à 10 845 t en 2019-2020 et a encore été réduit de 20 %, à 8 658 t, en 2020-2021.
- Les CPUE normalisées des gros navires ont fluctué près de la moyenne à long terme sans afficher de tendance (1989 à 2019-2020).
- De 2005 à 2020, l’indice moyen de la biomasse exploitable se situait à 97 200. Il était de 58 900 t en 2020, en 2018, ce qui représente une augmentation de 9 % par rapport à 2019 et le situe au troisième niveau le plus bas de la série chronologique.
- De 2005 à 2020, l’indice de la BSR femelle se situait à 60 900 t en moyenne. Il était de 43 100 t en 2020, soit une augmentation de 9 % par rapport à 2019 et l’un des niveaux les plus bas de la série chronologique.
- L’indice du taux d’exploitation a varié de 7 % à 37,3 % de 2005-2006 à 2019-2020, et se situait à 12,8 % en 2020-2021. Si le TAC avait été atteint en 2018-2019, l’indice du taux d’exploitation aurait été de 14,7 %.
- En 2020, l’indice de la BSR femelle se situait dans la zone de prudence du cadre de l’AP du MPO avec une probabilité de 6 % d’avoir été dans la zone critique et une probabilité de 36 % d’avoir été dans la zone saine.

Crevette ésope (Pandalus montagui) dans la ZPC 4

- La limite des prises accessoires de 4 033 t n’a pas été atteinte au cours des huit dernières années, les prises commerciales se situant entre 1 113 t et 3 035 t.
- De 2005 à 2020, l’indice moyen de la biomasse exploitable se situait à 28 800 t. Il était de 25 500 t en 2020, soit une diminution de 25 % par rapport à 2019.
- De 2005 à 2020, l’indice de la biomasse du stock femelle se situait à 22 100 t. En 2020, il atteint 18 700 t, ce qui représente une diminution de 43 % par rapport à 2019.
- L’indice du taux d’exploitation était de 9,7 % en 2020-2021. Si la limite des prises accessoires avait été atteinte, l’indice du taux d’exploitation aurait été de 15,8 % en 2020-2021.
- Aucun point de référence limite (PRL) n’a été établi pour cette ressource au cours de cette réunion. Il n’existe pas de cadre d’AP du MPO pour cette ressource.

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ᖃᓄᐃᓕᖓᓂᖓ

ᐃᖃᓗᓕᕆᓂᖅ ᑕᒪᑐᒧᖓ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᒃᐸᓄᑦ (ᐹᓐᑕᓚᔅ ᐳᐊᕆᐋᓕᔅ) ᐱᑕᖃᖅᑐᖅ ᑭᖑᒃᐸᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᖕᓂᑦ ᐃᓂᐅᔪᓂᑦ ᑭᖑᒃᐸᖕᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᖕᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0, ᐃᓂᖃᖅᓱᓂ ᕿᑭᖅᑖᓗᑉ ᐃᒪᕙᖓᓂᑦ. ᑭᖑᒃᐸᖕᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᖕᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0 ᐊᒃᑐᐊᑲᐅᑎᒋᔪᑦ ᐅᕗᖓ ᐊᒻᒪᓗ ᐃᓚᖓᓃᑦᑐᖅ ᓄᓇᕗᒥᑦ ᓄᓇᑖᕈᑏᑦ ᐃᓂᖏᓐᓂᑦ (NSA) (ᑕᑯᓗᒍ ᓄᓇᙳᐊᖅ).

ᐃᖃᓗᒐᓱᒡᕕᐅᕙᒃᑐᑦ ᐊᒃᑐᐊᔪᑦ ᑖᕝᕗᖓ ᓄᓇᕗᒥᑦ ᓄᓇᑖᕈᑏᑦ ᐃᓂᖏᓐᓂᑦ (NSA), ᐃᒪᓐᓇᖅᑑᑎ ᑕᒪᒃᑯᓇᙵ ᑲᑎᓗᒃᑖᖅᓱᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᑕᒪᒃᑯᓇᙵ ᐹᓐᑕᓚᔅ ᐳᐊᕆᐋᓕᔅ ᑕᐃᑲᓂ ᑭᖑᒃᐸᖕᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᖕᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0 ᑐᒃᓯᕋᖅᑕᐅᔪᖅ ᑖᒃᑯᓇᙵᑦ ᓄᓇᕗᒥᑦ ᐆᒪᔪᓕᕆᔨᖏᑦᑯᑦ ᑲᑎᒪᔨᖏᓐᓂᑦ (NWMB).

ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐋᖅᑭᒃᓱᖅᑕᐅᓯᒪᔪᑦ

ᐃᖃᓗᒐᓱᖕᓂᖅ ᑕᐃᑲᓂ ᑭᖑᒃᐸᖕᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᖕᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0 ᐊᐅᓚᖅᑕᖅᑐᖅ ᒪᓕᒃᓱᑎᒃ ᐅᓪᓗᖅᓯᐅᑏᑦ ᐊᕐᕌᒍᖏᓐᓂᒃ (ᔮᓄᐊᕆ 1 – ᑎᓯᐱᕆ 31). ᓂᑭᒃᓴᖅᓯᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ, ᐱᑕᖃᕈᓂ, ᐱᓕᕆᐊᖑᓇᔭᖅᑐᖅ ᕿᓚᒻᒥᐅᓂᖅᐸᖑᓇᔭᖅᑐᖅ ᔩᓂᒥᑦ ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᓯᑯ ᖃᓄᐃᓕᖓᓂᖓᓄᑦ.

ᑲᑎᓗᒃᑖᖅᓱᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᑕᐃᑲᓂ ᑭᖑᒃᐸᖕᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᖕᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0 ᐃᒪᓐᓇᑎᓰᖃᑦᑕᖅᓯᒪᔪᑦ 500 ᐃᒃᑕᓇᖕᓂᖓ ᑕᐃᑲᙵᓂᑦ 1996 ᐃᓚᐅᓇᓂ ᐊᕐᕌᒍᓚᐅᖅᑐᖅ 2020, ᐃᒪᐃᓐᓂᖓᓄᑦ ᒫᓐᓇᕋᑖᖅ ᑲᑎᓗᒃᑖᖅᓱᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᐋᖅᑭᒃᑕᐅᓯᒪᓚᐅᕐᒪᑕ 250 ᐃᒃᑕᓇᖕᓂᖓ ᐊᒻᒪᓗ

ᑭᖑᓪᓕᖅᐹᖅᓯᐅᑎᒥᒃ ᑲᑎᓪᓗᒃᑖᖅᓗᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᐃᓱᒪᓕᐅᕈᑕᐅᓚᙱᒻᒪᑦ. ᐊᖑᓂᒃᑕᐅᔪᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᙱᑦᑐᑦ ᑕᐃᑲᙵᓂᑦ ᐃᒋᐊᖅᓯᒪᓂᖓᓂᑦ ᑕᒪᑐᒎᖓ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ.

ᖄᖏᖅᑐᓂᑦ, ᑲᑎᓪᓗᒃᑖᖅᓗᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᐊᕙᒃᑐᖅᑕᐅᖃᑦᑕᖅᑐᑦ ᒪᓕᒃᓗᑎᒃ ᐱᒡᒍᓴᐅᑎᓂᒃᑰᖅᓗᑎᒃ ᐃᒪᕙᖏᒥᑦ ᐅᒥᐊᕐᔪᐊᓄᑦ. ᓄᓇᕗᒻᒥᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᔪᒥᒍᓱᒃᑐᑦ ᑕᑯᔪᓐᓇᖅᓯᓯᒪᔪᑦ ᑕᒪᑐᒥᖓ ᐱᒡᒍᓴᐅᑎᓂᕐᒧᑦ ᑰᑕᓂᒃ ᐊᑐᖅᓗᑎᒃ ᕿᑭᖅᑖᓗᒃ ᑯᐊᐳᓇᓴᖏᑦᑕ ᐃᒪᕙᖕᒧᑦ ᓚᐃᓴᓐᓯᖏᓐᓂᑦ, ᐊᑐᓗᑎᒃ 50% ᓇᖏᓂᖁᑎᒋᔭᐅᓂᖓᓄᑦ ᐅᓈᖅ ᐃᒪᕙᖕᒧᑦ ᓚᐃᓴᓐᓯᖓᓄᑦ. ᐊᑕᖏᖅᓗᒋᑦ ᐃᖃᓗᖓᓱᖕᓃᑦ ᐱᓕᕆᕝᕙᐅᕖᒃᑐᑦ ᓯᓚᑖᓂᑦ ᓄᓇᕘᒥᑦ ᓄᓇᑖᕈᑏᑦ ᐃᓂᖏᓐᓂᑦ (NSA) ᒫᓐᓇ ᖃᓄᐃᓕᖓᓃᑦ ᓚᐃᓴᓐᓯᓄᑦ ᐊᔪᖅᑎᑦᑎᖓᒪᑕ ᐃᒪᕙᖕᒥᑦ ᓚᐃᓇᓐᓯᓄᑦ ᑎᒍᒥᐊᖅᑎᓂᒃ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐃᓗᐊᓂᑦ ᑭᓪᓕᐊᑕ ᓄᓇᕗᒻᒥᑦ ᓄᓇᑖᕈᑏᑦ ᐃᓂᖏᓐᓂᑦ (NSA).

ᑭᓪᓕᓯᓂᐊᖅᑕᐅᓯᒪᔪᑦ ᑐᓴᐅᒪᔾᔪᑏᑦ

ᐃᖃᓗᓕᕆᔾᔪᑕᐅᖓᔪᑐᓄᑦ ᖃᐅᔨᓴᕈᑎᓄᑦ ᖃᐅᔨᕐᓃᑦ ᑕᒪᒃᑯᓄᖓ *ᐹᑕᓚᕐ ᐳᐊᕆ ᐋᓕᕐ* ᐱᓕᕆᐊᖑᓯᒪᙱᑦᑐᑦ ᑕᐃᑲᓂ ᑭᖑᒃᐸᖓᓂᒃ ᐃᖃᓗᓯᒪᕝᕙᖓᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0 ᐱᑕᖃᓗᐊᓚᐅᖅᓯᒪᙱᓐᓂᖓᓄᑦ ᐃᖃᓗᓯᒃᑐᓂᒃ ᑕᐃᑲᓂ ᑲᒪᒋᔭᐅᔪᓂᑦ ᐃᓂᓂᑦ. ᑭᖑᒃᐸᖓᓂᒃ ᐃᖃᓗᓯᒪᕝᕙᖓᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0 ᖃᐅᔨᓴᖅᑕᐅᓚᐅᖅᓯᒪᔪᑦ ᑕᐃᑲᓂ 2010-ᒥᑦ ᑐᙵᕕᖃᖅᓗᑎᒃ ᖃᐅᔨᓴᕈᑎᕕᓂᕐᓂᒃ ᐱᓕᕆᐊᖑᓂᑯᓂᒃ ᑕᐃᑲᓂ 2006-ᒥᑦ ᐊᒻᒪᓗ 2008-ᒥᑦ ᑲᓇᑕᒥᑦ ᑭᓪᓕᓯᓂᐊᖅᑐᓕᕆᓂᕐᒧᑦ ᐅᖃᐅᓯᕐᒋᐊᕈᑏᑦ ᐅᓂᒃᑳᖏᑦ 2010/024) (ᓇᐃᓈᖅᓯᒪᔪᑦ ᑕᐃᑲᓂ ᐊᑦᑕᑕᖅᑎᓯᒪᔪᖅ 2).

ᑕᒪᒃᑯᐊ ᖃᐅᔨᓴᕈᑏᑦ ᓇᓗᓇᐃᖅᓯᓯᒪᔪᑦ ᐱᑕᖃᕐᕕᐅᔪᑦ ᓇᓗᓇᐃᖅᓯᔪᑦ ᐊᒃᐸᓱᒃᑑᓂᖏᓐᓂᒃ. ᐃᖃᓗᒃᓴᐃᑦ ᐱᑕᖃᕐᕕᐅᔪᑦ ᓇᓗᓇᐃᔭᐅᑎᖏᑦ ᐃᒪᓐᓇᑎᕆᓚᐅᖅᑐᑦ 750 ᐃᒃᑕᕆᖕᓂᖏᑦ (2006) ᐊᒻᒪᓗ 1,100 ᐃᒃᑕᕆᖕᓂᖏᑦ (2008) ᐊᕐᓇᐃᑦ ᐃᕐᓂᐅᕈᓐᓇᖅᑐᑦ ᑭᖑᒃᐊᓄᑦ ᐱᑕᖅᓂᖏᓐᓄᑦ ᓇᓗᓇᐃᔭᐅᑎᖏᑦ ᐃᒪᓐᓇᑎᒋᐅᓂᖏᓐᓄᑦ 580 ᐃᒃᑕᕆᖕᓂᖏᑦ (2006) ᐊᒻᒪᓗ 800 ᐃᒃᑕᕆᖕᓂᖏᑦ (2008). ᐱᒡᒍᓴᐅᑎᓂᕐᒧᑦ ᑲᑎᓪᓗᒃᑖᖅᓗᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᑕᕝᕚᙵᑦ 500 ᐃᒃᑕᕆᖕᓂᖏᑦ, ᐊᑕᖏᕐᓗᒋᑦ ᐱᔭᐅᒍᑎᒃ, ᓴᖅᕿᓇᔭᖅᑐᖅ ᐊᖑᓇᓱᓗᐊᕐᓂᕐᒥᒃ ᓱᒃᑲᓕᓂᖃᕐᓗᓂ ᓇᓗᓇᐃᔭᐅᑎᑎᒍᑦ 40%-ᒥᑦ (2008) 70%-ᒧᑦ (2006) ᑐᙵᕕᒋᔭᐅᓗᑎᒃ ᑕᑯᔭᐅᓯᒪᔪᑦ ᐱᑕᖅᓂᖏᓐᓄᑦ ᑕᐃᔅᓯᒪᓂ.

ᐱᔾᔪᑎᖃᖅᓗᑎᒃ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᓂᒃ ᑲᑎᖅᓱᖅᓯᒪᔪᓂᒃ ᐱᔭᐅᓯᒪᔪᑦ ᑕᐃᑲᙶᑦ ᒪᕐᕉᖕᓂᒃ ᖃᐅᔨᓴᕈᑏᖕᓂᒃ, ᐱᑕᖃᕐᓂᐅᔪᑦ ᖃᓄᐃᓕᖓᖃᑦᑕᕐᓂᖏᑦ ᓇᓗᓇᐃᖅᑕᐅᔪᓐᓇᙱᑦᑐᑦ ᐊᒻᒪᓗ ᒫᓐᓇ ᐱᑕᖃᕐᓂᐅᔪᑦ ᖁᕝᕙᓯᓕᓃᖕᓂᖏᑦ ᐊᒻᒪᓗ ᐃᖅᑲᓇᐃᔭᓕᖅᑎᑦᑎᓇᓱᐊᕐᓂᕐᒧᑦ ᖃᓄᐃᓕᖓᓂᐅᔪᑦ ᓱᓕ ᓇᓗᓇᖅᑐᑦ. ᓴᓇᕗᑦ ᐱᔪᒥᒍᓱᓚᔾᖅᐸᑕ ᐃᖃᓗᓕᕆᓂᕐᒥᒃ ᑕᐃᑲᓂ ᐃᓂᒥᑦ ᓯᕗᓂᒃᓴᑎᓐᓂᑦ, ᑐᒃᓯᕋᐅᑏᑦ ᑭᓪᓕᓯᓂᐊᕐᓂᕐᒧᑦ ᐅᖃᐅᔾᔨᕆᐊᕈᑎᑦ ᐃᓱᒪᒃᓴᖅᓯᐅᕈᑕᐅᓂᐊᖅᑐᑦ ᑕᐃᔅᓱᒨᓇᐅᓕᕈᓂ. ᐹᕐᓇᐅᑎᑕᖃᙱᑦᑐᖅ ᓯᕗᓂᒃᓴᒥᑦ ᖃᐅᔨᓴᐃᓂᕐᒧᑦ ᒫᓐᓇᐅᔪᖅ.

ᑐᓴᕋᓱᐊᕐᓃᑦ

ᑕᐃᑲᙵᓂᑦ ᑎᓯᐱᕆ 18, 2020 ᓄᓇᕗᒥᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓂᑦ (NWMB) ᐃᒪᓈᖅᑑᑎᖅᑕᖅᓯᒪᔪᑦ ᑖᒃᑯᐊ ᐊᑕᖏᕐᓗᒋᑦ ᐊᕙᒃᑐᖅᑕᐅᓂᖏᓐᓄᑦ ᑎᒍᒥᐊᖅᑏᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᐊᑐᖅᓗᓂᔾᔪᒃ ᓄᓇᕗᒥᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᒃᑯᑦ ᑲᑎᒪᔨᖏᑦᑕ (NWMB) *ᐊᕙᒃᑐᖅᑕᐅᓂᖏᓐᓄᑦ ᐊᑐᐊᒐᖏᓐᓂᒃ ᓂᐅᕈᑎᒃᓴᓄᑦ ᑕᕆᐅᒥᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ* ᑕᑯᔪᓐᓇᖅᑐᑦ ᑖᑯᓇᓂ ᐱᒡᒍᓴᐅᔾᔪᐊᕐᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᓂᕐᒥᒃ ᑕᐃᑲᓂ ᑭᖑᒃᐸᖓᓂᒃ ᐃᖃᓗᓯᒪᕝᕙᖓᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0. ᐊᕙᒃᑐᖅᑕᐅᓂᖏᓐᓄᑦ ᑎᒍᒥᐊᖅᑏᑦ ᐊᑐᖅᓗᑎᒃ ᓄᓇᕗᒥᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓂᑦ (NWMB) ᐊᕙᒃᑐᖅᑕᐅᓂᖏᓐᓄᑦ ᐊᑐᐊᒐᕐᓂᒃ ᓇᓗᓇᐃᖅᑕᐅᔭᕆᐊᓖᑦ ᓱᓕ ᑕᒪᑐᒎᖓ ᐊᕐᕌᒍᒧᑦ 2021 ᐃᖃᓗᒐᓱᖕᓇᐅᓂᐊᖅᑐᒧᑦ.

ᑎᓯᐱᕆ 2020-ᒥᑦ, ᐃᖃᓗᓕᕆᔩᑦ ᐊᒻᒪᓗ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᑲᓇᑕᒥᒃᑯᑦ (DFO) ᕿᓂᓚᐅᖅᑐᑦ ᑕᐅᑐᖅᑰᑕᐅᔪᓂᒃ ᐊᒃᑐᐊᔪᓂᑦ ᐊᕙᒃᑐᖅᓯᒪᔪᓂᑦ ᐃᓚᐅᕐᓗᑎᒃ ᓄᓇᕘᑦ ᑐᙵᕕᒃᑯᑦ ᑎᒥᖁᑎᖏᓐᓂᒃ, ᓄᓇᕗᒥᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᖅᑲᓇᐃᔭᕐᕕᐅᔪᓂᑦ, ᒐᕙᒪᖏᓐᓂᑦ ᓄᓇᕗᑉ ᐊᒻᒪᓗ ᓄᓇᕗᒥᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓂᑦ (NWMB) ᑕᒪᑐᒎᖓ ᑲᑎᓪᓗᒃᑖᖅᓗᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᑕᐃᑲᓂ ᑭᖑᒃᐸᖓᓂᒃ ᐃᖃᓗᓯᒪᕝᕙᖓᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0 ᐊᕐᕌᒍᖓᓄᑦ 2021 ᐃᖃᓗᓕᕆᓇᒥ. ᑲᓇᑕᒥᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ ᑭᖑᒃᐸᖕᓂᑦ ᐱᑕᖅᑎᑦᑎᔩᑦ, ᑭᒡᒐᖅᑐᐃᓗᑎᒃ 10 ᑖᒃᑯᓇᓂ 17

ᐃᒪᕙᕐᒥᑦ ᓚᐃᓴᓐᓯᓂᒃ ᑎᒍᒥᐊᕐᑎᓂᒃ ᖃᖓᑲᓪᓚᕐᓂᑦ ᐅᐸᒃᑕᐅᕝᒃᑐᑐᖃᕐᓂᓴᓂᒃ ᑕᒪᑐᒧᖓ ᐃᓂᒧᑦ, ᐃᑲᔪᖅᓱᐃᔪᑦ ᑲᔪᓯᐊᖅᑕᐅᓗᓂ 500 ᐃᒃᑕᕐᓂᓕᕐᒧᑦ ᑲᑎᓗᒃᑖᕐᕗᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC).

ᐃᒪᓐᓈᖅᑑᑏᑦ

ᐃᒪᓐᓈᑑᑕᐅᔪᖅ ᑖᒃᑯᐊ ᑲᑎᓗᒃᑖᕐᕗᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᐋᖅᑭᒃᓯᑕᐅᓯᒪᔪᑦ ᑕᒪᑐᒧᖓ ᑭᖑᒃᐸᕐᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᕐᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0 ᐋᖅᑭᒃᓯᑕᐅᓯᒪᓗᑎᒃ 500 ᐃᒃᑕᕐᓂᖓ ᑕᒪᑐᒪᓂ ᐊᕐᕌᒍᒥᑦ 2021.

ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᖃᙱᑎᓪᓗᒍ ᐊᕕᒃᑐᖅᑕᐅᓂᕐᒋᓐᓄᑦ ᑎᒍᒥᐊᖅᑎᓂᒃ ᐊᑐᕐᓗᑎᒃ ᓄᓇᕗᒥᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᒃᑯᑦ ᑲᑎᒪᔨᕐᒋᓐᓂᑦ (NWMB) ᐊᕕᒃᑐᖅᑕᐅᓂᕐᒋᓐᓄᑦ ᐊᑐᐊᒐᕐᒋᓐᓂᒃ ᑕᒪᑐᒧᖓ 2021, ᓴᓇᕝᕕᐅᔪᖅ ᐃᓱᒪᒃᓴᖅᓯᐅᕈᑎᖃᕈᓐᓇᙱᒻᒪᑦ ᑲᑎᒪᔩᑦ ᑎᓯᐱᕆ 18, 2020, ᐃᒪᓐᓈᖅᑑᑎᒋᕐᑯᔭᕐᒋᓐᓄᑦ. ᐃᒪᓐᓈᖅᑑᑎᐅᕐᑯᔭᐅᔪᖅ ᑖᒃᑯᐊ 500 ᐃᒃᑕᕐᓂᓖᑦ ᑰᑕᐃᑦ ᐊᕕᒃᑐᖅᑕᐅᓂᕐᒋᓐᓄᑦ ᐱᒡᒍᓴᐅᔾᔪᐊᕐᓂᖅᑎᒍᑦ ᐃᒪᓐᓇᕐᒥ ᐅᒥᐊᕐᔪᐊᓄᑦ.

ᓇᐃᓈᖅᓯᒪᔪᑦ ᑐᒃᓯᕋᐅᑏᑦ

ᐃᒪᐃᓪᓚᑦᑖᕐᑯᓪᓗᒋᑦ ᑲᑎᒪᔩᑦ ᐅᖃᐅᓯᕆᐊᕈᑎᖏᑦ ᐃᓱᒪᒃᓴᖅᓯᐅᕈᑕᐅᓪᓚᕆᓪᓗᑎᒃ ᐃᓚᒋᔭᐅᕗᑎᒃ 2021 ᑲᒪᓂᕐᒧᑦ ᐃᓱᒪᓕᐅᕈᑎᓄᑦ ᑕᐃᑯᖓ ᑭᖑᒃᐸᕐᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᕐᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0 ᐃᖃᓗᓕᕆᓂᕐᒧᑦ, ᑲᑎᒪᔩᑦ ᐃᒪᓐᓈᖅᑑᑎᖃᖅᑐᑦ ᐅᑯᓂᖓ ᑲᒪᒋᔭᐅᔭᕆᐊᓕᕐᓂᒃ ᑐᒃᓯᕋᖅᑕᐅᔪᓂᒃ ᐱᔭᐅᓯᒪᓗᑎᒃ ᖄᕐᒥᖅᑳᖅᑎᓐᓇᒍ ᒪᐃ 1, 2021:

1. ᐃᒪᓐᓈᖅᑑᑏᑦ ᑕᒪᑐᒧᖓ ᑲᑎᓗᒃᑖᕐᕗᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᑕᒪᑐᒧᖓ ᑭᖑᒃᐸᕐᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᕐᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0.
2. ᐃᒪᓐᓈᖅᑑᑏᑦ ᑕᒪᑐᒧᖓ ᐊᕕᒃᑐᖅᑕᐅᓂᕐᒋᓐᓄᑦ ᑖᒃᑯᐊ ᑲᑎᓗᒃᑖᕐᕗᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᐱᒡᒍᓴᐅᑎᓂᒃᑯᑦ.

ᐱᕙᖏᑕᖅᑕᕐᓗ ᐆᒪ: ᑯᐊᑦᓂ ᑕᐅᔅᑦ, ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᓄᓇᒥᕐᓘᖅᑐᓂᑦ ᑲᒪᕐᓃᑦ, ᐃᖃᓗᓕᕆᔩᑦ ᐊᒻᒪᓗ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᑲᓇᑕ

ᐅᓪᓗᖅ: ᕖᕝᕗᐊᕆ 4, 2021

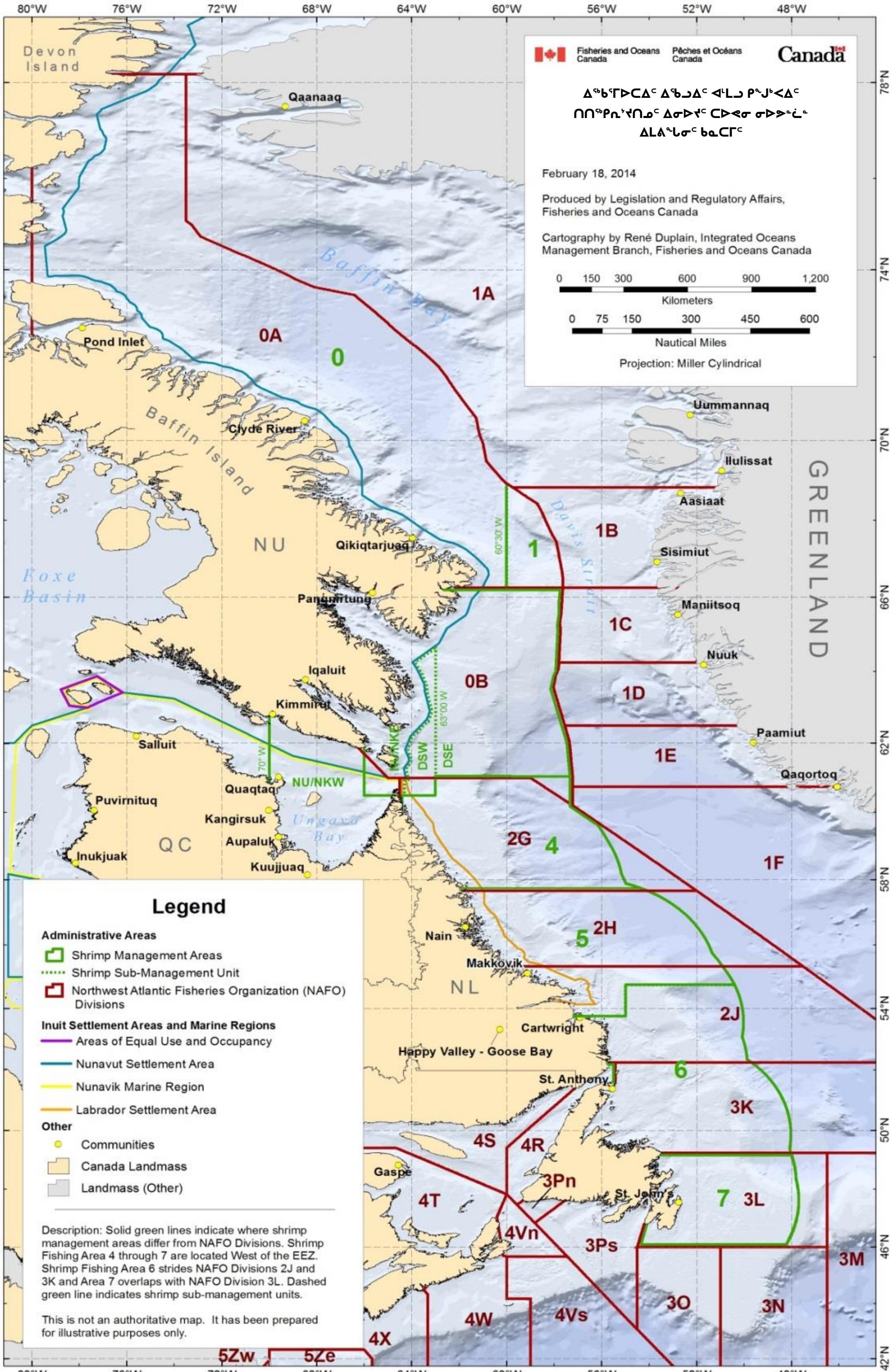
ᐊᑦᑕᑕᖅᑎᓯᒪᔪᑦ

ᐊᑦᑕᑕᖅᑎᓯᒪᔪᖅ 1 – ᓄᓇᙳᐊᖅ ᐃᖅᑲᕐᒥᐅᑕᐃᑦ ᐃᖃᓗᐃᑦ ᐊᒻᒪᓗ ᑭᖑᒃᐸᐃᑦ ᑎᑎᖅᑭᕆᔾᔪᑎᓄᑦ ᐃᓂᐅᔪᑦ ᑕᐅᕙᓂ ᓂᐅᕗᓐᓖᓐ ᐃᒪᕙᖓᓂᑦ ᑲᓇᑕᒥᑦ (ᐃᓚᐅᓪᓗᑎᒃ ᑭᖑᒃᐸᕐᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᕐᓂᑦ ᐃᓂᐅᔪᓂᑦ 0)

ᐊᑦᑕᑕᖅᑎᓯᒪᔪᖅ 2 – ᓇᐃᓈᖅᓯᒪᔪᑦ: ᖃᐅᔨᓴᖅᑕᐅᓂᕐᒋᑦ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᒃᐸᐃᑦ (*ᐹᓐᑕᓪ ᐳᐊᕆᐋᓕ*) ᑖᒃᑯᓇᓂ ᑭᖑᒃᐸᕐᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᕐᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0, 2,3 ᐊᒻᒪᓗ ᑕᖅᓴᓖᑦ ᑭᖑᒃᐸᐃᑦ (*ᐹᓐᑕᓪ ᒫᓐᑕᒍᐃ*) ᑖᒃᑯᓇᓂ ᑭᖑᒃᐸᕐᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᕐᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 2, 3, ᐊᒻᒪᓗ 4 ᐱᓇᓐᓇᖓᓂᑦ 63° W (ᑭᒡᓕᓯᓂᐊᖅᓯᒪᔪᑦ ᐅᖃᐅᓯᕆᐊᕈᑏᑦ ᐅᓂᒃᑳᕐᒋᑦ 2010/024).

ᐊᑦᑕᑕᖅᑎᓯᒪᔪᖅ 3 – ᐊᑕᕐᒋᖅᑲᕐᒋᖅ ᓴᖅᑭᑕᖅ: ᖃᐅᔨᓴᖅᑕᐅᓂᕐᒋᑦ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᒃᐸᐃᑦ (*ᐹᓐᑕᓪ ᐳᐊᕆᐋᓕ*) ᑖᒃᑯᓇᓂ ᑭᖑᒃᐸᕐᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᕐᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0, 2,3 ᐊᒻᒪᓗ ᑕᖅᓴᓖᑦ ᑭᖑᒃᐸᐃᑦ (*ᐹᓐᑕᓪ ᒫᓐᑕᒍᐃ*)

ᑖᒃᑯᓇᓂ ᑭᖑᒃᐸᖕᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᖕᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 2, 3, ᐊᒻᒪᓗ 4 ᐱᓇᖕᓇᖕᒐᓂᑦ 63° W (ᑭᒡᓕᓯᓂᐊᙵᓯᒪᔪᑦ ᐅᖃᐅᓯᕐᒥᐊᕈᑏᑦ ᐅᓂᒃᑳᖕᒋᑦ 2010/024).


Fisheries and Oceans Canada
Pêches et Océans Canada
Canada
ᐃᖅᑲᕐᒥᐅᑕᐃᑦ ᐃᖃᓗᐃᑦ ᐊᒻᒪᓗ ᑭᖕᒍᒃᐸᐃᑦ
ᑎᑎᖅᑭᕆᔅᔪᑎᓄᑦ ᐃᓂᐅᔪᑦ ᑕᐅᕙᓂ ᓂᐅᕗᕐᓛᖕ
ᐃᒪᕚᖕᒐᓂᑦ 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
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
Devon Island
Qaanaaq
Baffin Bay
1A
0A
0
Pond Inlet
Baffin Island
Clyde River
Uummannaq
Ilulissat
Aasiaat
GREENLAND
Davis Strait
1B
Sisimiut
NU
Qikiqtarjuaq
60°30' W
1
Foxe Basin
Pangnirtung
Maniitsoq
1C
Nuuk
Iqaluit
0B
1D
Kimmirut
63°00' W
Paamiut
Salluit
70° W
NU/NKE
DSW
DSE
1E
Qaqortoq
NU/NKW
Quaqtaq
Puvirnituq
Kangirsuk
Ungava Bay
Aupaluk
QC
2G
4
Inukjuak
Kuujjuaq
1F
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.
Nain
2H
5
Makkovik
NL
2J
Cartwright
Happy Valley - Goose Bay
St. Anthony
6
3K
4S
4R
Gaspe
3Pn
St. John's
7
3L
4T
4Vn
3Ps
3M
3O
3N
4W
4Vs
4X
5Zw
5Ze

ᑭᒡᓕᓯᓂᐊᖅᓯᒪᔪᑦ ᐅᖃᐅᓯᕆᐊᕈᑎᑦ ᐅᓂᒃᑳᖏᑦ 2010/024

ᓇᐃᓈᖅᓯᒪᔪᖅ: ᖃᐅᔨᓴᖅᑕᐅᓂᖏᑦ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᒃᐸᐃᑦ (*ᐹᓪᓚᕐ ᐳᐊᕆᐋᓕᕐ*) ᑖᒃᑯᓇᓂ ᑭᖑᒃᐸᖕᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᖕᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0, 2, 3 ᐊᒻᒪᓗ ᑕᖅᓴᓃᑦ ᑭᖑᒃᐸᐃᑦ (*ᐹᓪᓚᕐ ᒫᓪᓚᑐᐃ*) ᑕᐃᑲᓂ ᑭᖑᒃᐸᖕᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᖕᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 2, 3, ᐊᒻᒪᓗ 4 ᐱᓇᖕᓇᖔᓂᑦ 63° W

ᑭᖑᒃᐸᖕᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᖕᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 0 – *ᐹᓪᓚᕐ ᐳᐊᕆᐋᓕᕐ*

ᐃᖃᓗᓕᕆᓂᖅ

- ᐃᖃᓗᓕᕆᓂᖅᑕᖃᓚᐅᙱᑦᑐᖅ ᒫᓐᓇᕈᓗᒃ ᐊᕿᒍᓂᑦ.

ᐱᑕᖃᕐᕕᐅᔪᑦ

- ᓄᓇᒥᖕᒑᖅᑐᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ ᑐᙵᕕᖃᖅᑐᑦ ᒪᕐᕉᖕᓂᒃ ᖃᐅᔨᓴᕈᑕᐅᓯᒪᔪᓂᒃ ᑕᐃᑲᓂ 2006 ᐊᒻᒪᓗ 2008.
- ᐃᖃᓗᒃᕕᐅᔪᓐᓇᖅᑐᑦ ᐱᑕᖃᕐᕕᐅᔪᑦ ᓇᓗᓇᐃᔭᐅᑎᖏᑦ 750 ᐃᒃᑕᕆᖕᓂᖏᑦ (2006) ᐊᒻᒪᓗ 1,100 ᐃᒃᑕᕆᖕᓂᖏᑦ (2008)
- ᐊᕐᓇᐃᑦ ᐃᕐᓂᐅᕈᓐᓇᖅᑐᑦ ᐃᖃᓗᐃᑦ ᐱᑕᖃᕐᕕᐅᔪᑦ ᓇᓗᓇᐃᔭᐅᑎᖏᑦ ᐃᒪᓐᓇᐅᓚᐅᖅᑐᑦ 580 ᐃᒃᑕᕆᖕᓂᖏᑦ (2006) ᐊᒻᒪᓗ 800 ᐃᒃᑕᕆᖕᓂᖏᑦ (2008).

ᐃᖅᑲᓇᐃᔭᖅᑎᓯᐅᕐᓂᕐᒧᑦ

- ᐃᖅᑲᓇᐃᔭᓕᖅᑎᑦᑎᓂᖅ ᖃᐅᔨᒪᓇᙱᑦᑐᖅ.

ᑐᕐᖁᑦᑕᕐᓂᖏᑦ

- ᐱᒡᒍᓴᐅᑎᓂᒃᑯᑦ ᑲᑎᓗᒃᑖᖅᑯᑎᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᑕᒪᑐᒧᖓ 500 ᐃᒃᑕᕆᖕᓂᖓ ᓴᖅᑮᑐᐃᓐᓇᕆᐊᓕᒃ ᐱᓗᐊᖅᑕᐅᓗᑎᒃ ᓱᒃᑲᓕᖏᖓ ᓇᓗᓇᐃᔭᖅᑕᐅᓂᖏᓐᓄᑦ ᐃᒪᓐᓇᑎᒋ 40-70% ᑐᙵᕕᖃᕐᓗᑎᒃ ᑕᑯᔭᐅᔪᕕᓂᕐᓂᒃ ᐱᑕᖃᕐᕕᐅᔪᓂᒃ. ᐊᒃᐸᓯᖕᓂᖅᓴᒥᒃ ᑲᑎᓗᒃᑖᖅᑯᑎᑦ ᐊᖑᓂᒃᑕᐅᔪᓐᓇᖅᑐᑦ (TAC) ᐃᒪᓐᓈᖅᑑᑕᐅᔪᖅ.

ᒫᓐᓇ ᓴᖅᑭᔾᔨᕐᓂᖏᑦ ᐊᒻᒪᓗ ᓯᕗᓂᒃᓴᒥᑦ ᐱᓇᔪᒃᑕᐅᔪᓐᓇᖅᑐᑦ

- ᓯᕗᒥᒃᓴᒥᑦ ᐱᓇᔪᒃᑕᐅᔪᓐᓇᖅᑐᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᒥᑭᑦᑑᔪᑦ.
- ᐸᕐᓇᐅᑎᑕᖃᙱᑦᑐᑦ ᓯᕗᓂᒃᓴᒥᑦ ᖃᐅᔨᓴᖅᑕᐅᔾᔪᑎᒃᓴᖓᓄᑦ ᑕᒪᑐᒧᖓ ᐃᓂᒧᑦ.

ᑐᓂᔾᐅᖃᑕᐅᔪᑦ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔩᑦᔪᐊᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ ᒫᑦᓯ 10, 2021

ᓖᔅᓱᒍᖓ

ᑐᑭᓯᒋᐊᕈᑎ:
ᐃᓱᒪᓕᐅᖅᑕᐅᔪᖅ: X
ᐃᓱᒫᓘᑎᒋᔭᖅ: ᐊᖏᖅᑕᐅᓂᖓ 2021 ᐃᓚᓕᐅᕐᔭᐅᓯᒪᔪᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ (IFMP)
ᐃᖃᓗᑦᑑᑦᑎᐊᒧ ᐃᖃᓗᐃᑦ (*Salvelinus aplinus*), ᑮᓇᐅᔭᓕᐅᕆᓲᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᓂᖅ, ᓄᓇᕗᑦ.
ᓄᓇᓖᑦ: ᑮᓇᐅᔭᓕᐅᕆᓲᖕᓂᕐᒧᑦ ᐃᖃᓗᓕᒐᓱᖕᓂᕐᒧᑦ ᓇᒦᖕᓂᖏᑦ ᐃᖃᓗᑦᑑᑦᑎᐊᖅ ᑮᓇᐅᔭᓕᐅᕆᓲᖕᓂᕐᒧᑦ
ᐃᖃᓗᓕᕆᓂᕐᒧᑦ, ᐱᖃᓱᐅᕐᔭᐅᓯᒪᔪᑦ ᐃᓚᓕᐅᕐᔭᐅᓯᒪᔪᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ.

ᖃᓄᐃᓕᖓᓯᒪᓂᖓ:

2014 ᐃᓚᓕᐅᕐᔭᐅᓯᒪᔪᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ (IFMP) ᐃᖃᓗᑦᑑᑦᑎᐊᖅ ᑮᓇᐅᔭᓕᐅᕆᓲᖕᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐅᓪᓗᒥᒨᖓᓕᖅᑎᑕᐅᓯᒪᔪᑦ ᐊᒻᒪ ᐋᖅᑭᐊᖅᑕᐅᓪᓗᑎ 2021–ᒧᑦ. ᐃᓚᓕᐅᕐᔭᐅᓯᒪᔪᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ ᐱᑕᖃᖅᑎᑦᑎᔪᑦ ᓇᓗᓇᐃᖅᓯᒪᔪᓂᑦ ᐊᒻᒪ ᑕᕝᕙᖓᖓᓪᓚᕆᖅᑦᑐᓂᑦ ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᓐᓄᑦ ᐃᖃᓗᓐᓂᑦ ᐃᖃᓗᓕᕆᓂᕐᒥᑦ ᖃᓄᐃᓘᖃᑦᑕᕐᓂᖏᓐᓄᑦ, ᐱᖃᓱᐅᑎᓪᓗᑎ ᐱᒃᑯᓯᑐᖃᖏᑦ, ᓇᒦᓐᓂᖏᑦ, ᐃᖃᓗᒐᓱᐊᕈᑏᑦ, ᐃᓚᐅᖃᑕᐅᔪᑦ, ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐃᓱᒫᓘᑕᐅᔪᑦ, ᐃᓱᒪᓕᐅᓂᕐᒧᑦ ᐱᕙᓪᓕᐊᓂᖏᑦ ᐊᒻᒪ ᖃᐅᔨᓴᖅᑕᐅᓂᖏᑦ ᐃᖃᓗᐃᑦ (*Salvelinus aplinus*). ᐃᓚᓕᐅᕐᔭᐅᓯᒪᔪᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ ᓇᓗᓇᐃᔭᐃᔪᑦ ᒫᓐᓇᐅᔪᒥᑦ ᐊᖏᖅᑕᐅᓯᒪᔪᓂᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᑦ ᐊᑐᖅᑕᐅᔪᓂᑦ, ᒫᓐᓇᐅᔪᒥᑦ ᐊᐅᓚᓂᕆᔭᖏᑦ, ᓚᐃᓴᓐᓯᒧᑦ ᖃᓄᐃᓐᓂᕆᒋᐊᓕᖏᑦ ᐊᒻᒪ

ᒪᓕᑦᑕᐅᔭᕆᐊᓖᑦ.

ᐱᒻᒪᕆᐅᔪᖅ ᓇᓗᓇᐃᕐᓗᒍ ᐃᓚᓕᐅᔾᔭᐅᓯᒪᔪᑦ ᐃᖅᑲᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ ᐃᓗᓕᖅᑫᓗᐊᖅᑎᓪᓗᒋᑦ ᐃᓚᖏᓐᓂ ᑐᑭᓯᒋᐊᕈᑎᓂᑦ, ᐱᖃᓯᐅᔾᔨᖏᑦᑐᑦ ᐊᓯᔾᔨᖅᑐᓂᑦ ᑐᔾᓯᕋᐅᒻᒥᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᑎᒥᐅᔪᒧᑦ ᐊᑦᑐᐃᓂᖃᕋᔭᖅᑐᓂᑦ ᐃᓕᐅᖃᖅᑕᐅᔪᓄᑦ ᑎᒍᒥᐊᖅᑎᒧᑦ, ᓂᕿ�countingᓂᒐᓱᐊᖅᑎᒧᑦ ᐅᕝᕙᓘᓐᓃᑦ ᑎᒍᒥᐊᖅᑎᐅᖃᑕᐅᔪᑦ ᐃᖅᑲᓕᕆᓂᕐᒥᑦ.

ᓇᓗᓇᐃᕐᓗᒍ, ᓄᑖᖅ ᐃᓚᒋᐊᕈᑎᖓ ᐅᓪᓗᒥᒨᖓᐅᔪᒧᑦ 2021 ᐃᓚᓕᐅᔾᔭᐅᓯᒪᔪᑦ ᐃᖅᑲᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ ᓄᑖᑦ ᐱᓕᕆᔭᐅᔪᑦ ᐊᒻᒪ ᒪᓕᑦᑕᐅᔭᕆᐊᓖᑦ ᐱᖃᓯᐅᑎᓪᓗᑎ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑯᑦ ᑲᓇᑕᒥ ᐃᖅᑲᓗᒐᓱᐊᕈᑏᑦ ᔭᒐᐃᔭᐅᓯᒪᔪᓂᑦ ᐱᓕᕆᐊᖏᑦ ᐊᒻᒪ ᒥᐊᓕᒐᒃᑯᑦ ᐃᒪᕐᒥᐅᑕᓂᑦ ᐆᒪᔪᓂᑦ ᓴᐳᒻᒥᑦᑎᓂᕐᒧᑦ ᐱᕐᑯᔭᖅ ᒪᓕᑦᑕᐅᔭᕆᐊᓖᑦ, ᑐᓴᖅᑎᑦᑎᒍᑕᐅᓯᒪᔪᑦ ᑎᒍᒥᐊᖅᑎᐅᖃᑕᐅᔪᓄᑦ. ᒪᓕᓐᓂᐊᕐᓗᒋᑦ ᓄᑖᑦ ᐱᓕᕆᔭᐅᔪᑦ ᐊᒻᒪ ᒪᓕᑦᑕᐅᔭᕆᐊᓖᑦ, ᑮᓇᐅᔭᓕᐅᕋᓲᓂᕐᒧᑦ ᓚᐃᓴᓐᓯ ᖃᓄᐃᓐᓂᕆᓯᐊᓕᖏᑦ ᐊᒻᒪ ᐱᑕᖃᕆᐊᖃᖅᑎᑕᐅᔪᑦ ᐅᓂᒃᑳᓕᐅᓂᕐᒧᑦ ᐅᓪᓗᒥᒨᖓᓕᖅᑎᑕᐅᓯᒪᔪᑦ ᐅᕙᓂ ᐃᓚᓕᐅᔾᔭᐅᓯᒪᔪᑦ ᐃᖅᑲᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ ᐊᒻᒪ ᐊᑐᓕᖅᑎᑕᐅᓂᐊᖅᑐᑦ 2021. ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ ᐊᓯᔾᔨᖅᑐᓕᒫᓂᑦ 2021 ᐃᓚᓕᐅᔾᔭᐅᓯᒪᔪᑦ ᐃᖅᑲᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ ᐱᖃᓯᐅᔾᔭᐅᓯᒪᔪᑦ ᐊᒡᒍᖅᓯᒪᓂᖓ ᑲᑎᖓᖓᔪᓂᑦ 2.

ᑐᓴᐅᒪᑎᑦᑎᖃᑦᑕᐃᓐᓇᕐᓂᖅ:

ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑯᑦ ᑲᓇᑕᒥ ᐅᑭᐅᑕᖅᑐᒧᑦ ᑲᑎᒪᖃᑎᖃᖅᓯᒪᔪᑦ ᑎᒍᒧᐊᖅᑎᐅᖃᑕᐅᔪᓂᑦ ᐃᖃᓗᑦᑐᑦᑎᐊᖅ ᑮᓇᐅᔭᓕᐅᕋᓲᓂᕐᒧᑦ ᐃᖃᓘᓂᑦ ᐃᖃᓗᓕᕆᓂᖅ ᕿᒥᕐᕈᓗᑎ ᐊᒻᒪ ᐅᖃᐅᓯᕐᖃᕐᓗᑎ ᐅᓪᓗᒥᒨᖓᓕᖅᑎᑕᐅᓯᒪᔪᓂᑦ ᐃᓚᓕᐅᔾᔭᐅᓯᒪᔪᑦ ᐃᖅᑲᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ ᑲᒪᓂᐅᓚᐅᖅᑐᓂᑦ ᓯᕗᓂᐊᒍᑦ ᐊᒻᒪ ᑭᖑᓂᐊᒍᑦ ᑲᑎᒪᓂᐅᔪᓂᑦ ᐊᒻᒪ ᐃᓄᓐᓂᑦ ᐱᖃᑕᐅᑎᑦᑎᓂᐅᔪᓂᑦ ᐃᖅᑲᓗᑦᑑᑦᑎᐊᒥ, ᓄᓇᕗᑦ. ᑭᖑᓪᓕᖅᐹᒥ ᑎᑎᕋᕆᐊᓐᖓᖅᑕᐅᓯᒪᔪᑦ ᑐᓂᐅᖅᑲᖅᑕᐅᓚᐅᖅᑐᑦ ᐊᐅᓚᑦᑎᒃᑎᒌᓐᓂᕐᒧᑦ ᐱᓕᕆᒃᑎᖏᓐᓄᑦ ᐊᒻᒪ ᑎᒍᒥᐊᖅᑎᐅᖃᑕᐅᔪᓄᑦ ᐅᖃᐅᓯᖕᓄᑦ ᐅᓇᐅᑎᓪᓗᒍ ᔮᓄᐊᕆ 14, 2021. ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ ᑲᑎᒪᑎᑦᑎᓂᕐᒧᑦ ᐊᒻᒪ ᑎᒍᒥᐊᖅᑎᐅᖃᑕᐅᔪᑦ ᓇᓂᔭᐅᔫᓇᖅᑐᑦ ᐊᒡᒍᖅᓯᒪᓂᖓ ᑲᑎᖓᖓᔪᓂᑦ 3.

ᐅᓪᓗᒥᒨᖓᓕᖅᑎᑕᐅᓯᒪᔪᑦ 2021 ᐃᓚᓕᐅᔾᔭᐅᓯᒪᔪᑦ ᐃᖅᑲᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ:

- ᓇᓗᓇᐃᔭᐃᔪᑦ ᒫᓇᐅᔪᒥᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᑦ ᑎᒥᐅᔪᖅ ᑕᕝᕙᓂ ᐃᖅᑲᓕᕆᓂᕐᒥᑦ, ᐊᑐᖅᑕᐅᓯᒪᔪᖅ ᒪᑭᒪᑎᑕᐅᓴᐅᔪᓂᑦ ᐊᐅᓚᑕᐅᓪᓗᓂ ᐃᖅᑲᓕᕆᓂᐅᔪᖅ ᐊᒥᓱᓂᑦ ᐊᕐᕌᒍᓂᑦ;
- ᐅᓪᓗᒥᒨᖃᓕᖅᑎᑦᑎᔪᖅ ᖃᐅᔨᓴᖅᑎᓄᑦ ᐊᒻᒪ ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᖏᓐᓂ ᐃᖅᑲᓐᓂᑦ ᐃᖅᑲᑦᑲᐅᓯᒪᔪᑦ ᐊᒻᒪ ᑕᐅᖅᓰᒍᑕᓪᓗᑎ 2014–ᒥᓂᑦ ᐃᓚᓕᐅᔾᔭᐅᓯᒪᔪᑦ ᐃᖅᑲᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ ᐊᑐᓕᖅᑎᑕᐅᔫᓇᓂᑦ;
- ᖃᓄᐃᓕᓂᖃᖅᑎᑎᖏᑦᑐᖅ ᖃᓄᐃᑦᑐᑐᐃᓐᓇᕐᓄᑦ ᒫᓇᐅᔪᒥᑦ ᐊᖏᖅᑕᐅᓯᒪᔪᓄᑦ ᐱᕙᓪᓕᐊᓂᖓ/ᐊᑐᖅᑕᐅᓂᖓ ᐃᖅᑲᓕᕆᓂᕐᒥᑦ;
- ᑐᔾᓯᖏᑦᑐᑦ ᐅᕝᕙᓘᓐᓃᑦ ᓇᓗᓇᐃᖅᓯᓗᑎᓄᑖᓂᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᔪᓂᑦ; ᐊᒻᒪ
- ᐊᑕᖏᖅᑐᓂᑦ ᑐᓴᖅᑎᑦᑎᓂᕐᒧᑦ ᐱᕙᓪᓕᐊᓯᒪᓂᖅᖃᖅᑐᖅ ᐊᑦᑐᖅᑕᐅᔪᓕᒫᓄᑦ ᑎᒍᒥᐊᖅᑎᓄᑦ ᐊᒻᒪ ᐊᑐᖅᑲᑦᑕᖅᑐᓂᑦ.

ᐊᑐᓕᕐᑯᔭᐅᔪᖅ ᑖᒃ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᐊᖏᖅᓯᓗᑎ ᐅᓪᓗᒥᒨᖓᔪᑦ 2021 ᐃᓚᓕᐅᔾᔭᐅᓯᒪᔪᑦ ᐃᖅᑲᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ ᑭᖑᕚᓗᑎ 2014 ᐃᓚᓕᐅᔾᔭᐅᓯᒪᔪᑦ ᐃᖅᑲᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᒻᒥ ᐊᖏᖅᑕᐅᓚᐅᖅᓯᒪᔪᖅ ᑲᑎᒪᔨᓄᑦ.

ᑖᒃᑯᓄᖓ ᐸᕐᓇᑕᐅᓯᒪᔪᖅ:

ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ, ᐅᑭᐅᑕᖅᑐᒧᑦ.

ᐅᓪᓗᖓ:

ᕕᕈᐊᕆ 4, 2021

ᐱᖃᓯᐅᑎᓯᒪᔪᑦ (4):

> ᐊᒻᒍᑐᖅᓯᒪᓂᖓ ᑲᑎᖕᖓᔪᓂᑦ 1: ᐃᓚᓕᐅᕝᕓᐅᓯᒪᔪᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ (ᑐᑭᓯᓇᖅᓯᑎᑕᐅᓯᒪᔪᑦ/ᖃᓪᓗᓈᑎᑐᑦ)
>
> ᐊᒻᒍᑐᖅᓯᒪᓂᖓ ᑲᑎᖕᖓᔪᓂᑦ 2: ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ ᐊᓯᐣᔨᖅᑐᑦ (ᑐᑭᓯᓇᖅᓯᑎᑕᐅᓯᒪᔪᑦ/ᖃᓪᓗᓈᑎᑐᑦ)
>
> ᐊᒻᒍᑐᖅᓯᒪᓂᖓ ᑲᑎᖕᖓᔪᓂᑦ 3: ᑲᑎᒪᑎᑦᑎᓂᕐᒧᑦ ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ (ᑐᑭᓯᓇᖅᓯᑎᑕᐅᓯᒪᔪᑦ/ᖃᓪᓗᓈᑎᑐᑦ)
>
> ᐊᒻᒍᑐᖅᓯᒪᓂᖓ ᑲᑎᖕᖓᔪᓂᑦ 4: ᑕᑕᑦᑐᖅ 2021 ᐃᓚᓕᐅᕝᕓᐅᓯᒪᔪᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑦ (IFMP) (ᖃᓪᓗᓈᑎᑐᑦ/Inuinnaqtun)

ᐃᖅᑲᓗᒃᑑᑦᑎᐊᒥᑦ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐱᓕᕆᔾᔭᑦ ᖃᐅᔾᔭᓇᓱᒃᑐᑦ ᒪᑐᒧᖓ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᓚ

ᐊᕐᕌᒍ	ᑎᒍᒥᐊᕐᑎ(ᑦ)	ᐱᓕᕆᓂᐅᔪᑦ
2017	ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒥ ᐊᖑᓇᓱᒃᑐᓕᕆᔾᔪᑎᑦ, ᐃᓐᓇᑐᖃᐃᑦ, ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦ, ᐃᖃᓗᓯᒃᑎᑦ ᑮᓇᐅᔭᓕᐅᕋᓱᒃᓱᑎᒃ, ᐃᖃᓗᓕᕆᔾᔪᑎᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔾᔪᑎᑦ ᑲᓇᑕᒥ	ᐱᓕᕆᓐᓇᖅ ᐊᓂᒍᖅᑎᓪᓗᒍ ᕿᒥᕐᕈᐊᕐᓂᖅ ᐊᒻᒪᓗ ᐅᑯᐊ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐱᓕᕆᔾᔪᑦ ᑲᑎᒪᓂᖓ – ᐅᐸᑦᑲᑎᒌᖕᓂᒃᑯᑦ ᑲᑎᒪᔾᔪᑎᐅᔪᑦ/ᑐᓴᖅᑎᑦᑎᓂᖅ, ᖃᐅᔨᑎᑦᑎᓂᖅ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᑦ (IFMP) ᓄᑖᙳᕆᐊᖅᑕᐅᓯᒪᓂᖕᒋᑦ ᐊᒋᖅᑐᑦ (ᐊᕐᕌᒍᓂ ᑕᓪᓕᒪᓄᑦ ᖃᓄᐃᓕᐅᕈᓯᕐᓄᑦ)
2018	ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒥ ᐊᖑᓇᓱᒃᑐᓕᕆᔾᔪᑎᑦ, ᐃᓐᓇᑐᖃᐃᑦ, ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦ, ᐃᖃᓗᓯᒃᑎᑦ ᑮᓇᐅᔭᓕᐅᕋᓱᒃᓱᑎᒃ, ᐃᖃᓗᓕᕆᔾᔪᑎᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔾᔪᑎᑦ ᑲᓇᑕᒥ	ᐱᓕᕆᓂᐅᑉ ᓯᕗᓂᐊᒍᑦ ᕿᒥᕐᕈᐊᕐᓂᖅ ᐊᒻᒪᓗ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐱᓕᕆᖅᑎᒌᑦ ᑲᑎᒪᓂᖓ – ᐅᐸᑦᑲᑎᒌᖕᓂᒃᑯᑦ ᑲᑎᒪᔾᔪᑎᐅᔪᑦ/ᑐᓴᖅᑎᑦᑎᓂᖅ, ᐅᖃᐅᓯᖃᑲᙵᓂᖅ ᐃᓱᒪᒋᔭᐅᔪᓂᒃ ᓄᑖᙳᕆᐊᕐᓯᒪᔪᓂᒃ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓄᑦ (IFMP)
2018	ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒥ ᐊᖑᓇᓱᒃᑐᓕᕆᔾᔪᑎᑦ, ᐃᓐᓇᑐᖃᐃᑦ, ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦ, ᐃᖃᓗᓯᒃᑎᑦ ᑮᓇᐅᔭᓕᐅᕋᓱᒃᓱᑎᒃ, ᐃᖃᓗᓕᕆᔾᔪᑎᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔾᔪᑎᑦ ᑲᓇᑕᒥ	ᐱᓕᕆᓐᓇᖅ ᐊᓂᒍᖅᑎᓪᓗᒍ ᕿᒥᕐᕈᐊᕐᓂᖅ ᐊᒻᒪᓗ ᐅᑯᐊ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐱᓕᕆᖅᑎᒌᑦ ᑲᑎᒪᓂᖓ – ᐅᐸᑦᑲᑎᒌᖕᓂᒃᑯᑦ ᑲᑎᒪᔾᔪᑎᐅᔪᑦ/ᑐᓴᖅᑎᑦᑎᓂᖅ, ᕿᒥᕐᕈᐊᕐᓂᖅ ᐊᒻᒪ ᐅᖃᐅᓯᖃᖃᑕᓐᓂᖅ ᒦᓐᓇ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐊᒻᒪ ᐅᖃᐅᓯᖃᖅᖢᑎᒃ ᓄᑖᙳᕆᐊᕐᓂᐅᓂᐊᕐᑐᓂᒃ.
2018	ᑭᒃᑯᓕᒫᓂᒃ ᐃᓚᐅᑎᑦᑎᓂᖅ ᓄᓇᓖᖕᓃᑦᑐᓂᒃ	ᓄᓇᓖᑦ ᐱᙳᐊᕐᕕᐊᓂ ᖃᓄᐃᓕᐅᕐᑎᑦᑎᓂᖅ 2018-ᒥᑦ ᓄᑖᙳᕆᐊᖅᑎᑦᑎᓂᕐᒥᒃ ᐃᖃᓗᒐᓱᖕᓇᐅᑎᓪᓗᒍ ᐊᒻᒪᓗ ᐅᖃᐅᓯᖃᕐᓗᑎᒃ ᓄᑖᙳᕆᐊᖅᑎᑦᑎᒋᐊᖃᕐᓂᕐᒥᒃ ᐆᒥᖓ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP).
2019	ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒥ ᐊᖑᓇᓱᒃᑐᓕᕆᔾᔪᑎᑦ, ᐃᓐᓇᑐᖃᐃᑦ, ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦ, ᐃᖃᓗᓯᒃᑎᑦ ᑮᓇᐅᔭᓕᐅᕋᓱᒃᓱᑎᒃ, ᐃᖃᓗᓕᕆᔾᔪᑎᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔾᔪᑎᑦ ᑲᓇᑕᒥ	ᐱᓕᕆᓂᐅᑉ ᓯᕗᓂᐊᒍᑦ ᕿᒥᕐᕈᐊᕐᓂᖅ ᐊᒻᒪᓗ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐱᓕᕆᖅᑎᒌᑦ ᑲᑎᒪᓂᖕᒋᑦ ᐅᐸᑦᑲᑎᒌᖕᓂᒃᑯᑦ ᑲᑎᒪᔪᑎᐅᔪᑦ/ᑐᓴᖅᑎᑦᑎᓂᖅ, ᐅᖃᐅᓯᖃᕐᓂᖅ ᐃᓱᒪᒋᔭᐅᔪᓂᒃ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᓄᑖᙳᕆᐊᖅᑎᑦᑎᓂᐊᕐᓂᕐᒧᑦ – ᔪᓂ 2019
2020	ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒥ ᐊᖑᓇᓱᒃᑐᓕᕆᔾᔪᑎᑦ, ᐃᓐᓇᑐᖃᐃᑦ, ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦ, ᐃᖃᓗᓯᒃᑎᑦ ᑮᓇᐅᔭᓕᐅᕋᓱᒃᓱᑎᒃ, ᐃᖃᓗᓕᕆᔾᔪᑎᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔾᔪᑎᑦ ᑲᓇᑕᒥ	ᐃᖃᓗᒐᓱᖕᓇᖅ ᐱᐊᓂᒃᑎᓪᓗᒍ – ᐅᐸᑦᑲᑎᒌᖕᓂᒃᑯᑦ ᑲᑎᒪᓂᖅ/ᑐᓴᖅᑎᑦᑎᓂᖅ. ᑐᓴᖅᑎᑦᑎᓂᖅ ᑐᒃᓯᕋᐅᑎᒥᒃ ᐋᖅᑭᒃᓱᖅᑕᐅᕙᓪᓕᐊᔪᒥᒃ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᔭᓄᐊᕆ 2020
2020	ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒥ ᐊᖑᓇᓱᒃᑐᓕᕆᔾᔪᑎᑦ, ᐃᓐᓇᑐᖃᐃᑦ, ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦ, ᐃᖃᓗᓯᒃᑎᑦ ᑮᓇᐅᔭᓕᐅᕋᓱᒃᓱᑎᒃ, ᐃᖃᓗᓕᕆᔾᔪᑎᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔾᔪᑎᑦ ᑲᓇᑕᒥ	2019-ᒥᑦ ᐃᖃᓗᒐᓱᖕᓇᖅ ᐱᐊᓂᒃᑎᓪᓗᒍ ᑲᑎᒪᓂᖅ – ᕿᒥᕐᕈᐊᕐᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᑎᓂᒃ, ᕿᒥᕐᕈᐊᕐᓂᖅ ᐊᒻᒪ ᐅᖃᐅᓯᖃᕐᓂᖅ ᓄᑖᙳᕆᐊᕈᑎᒃᓴᓂᒃ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᒦᔨ 2020
2020	ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒥ ᐊᖑᓇᓱᒃᑐᓕᕆᔾᔪᑎᑦ, ᐃᓐᓇᑐᖃᐃᑦ, ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦ, ᐃᖃᓗᓯᒃᑎᑦ ᑮᓇᐅᔭᓕᐅᕋᓱᒃᓱᑎᒃ, ᐃᖃᓗᓕᕆᔾᔪᑎᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔾᔪᑎᑦ ᑲᓇᑕᒥ	ᔫᓂ 2020 – ᑲᑎᒪᓂᖅ ᐅᖃᐅᓯᖃᖅᖢᑎᒃ ᑭᙳᓪᓕᖅᐹᓂᒃ ᐋᖅᑭᒃᓯᖅᑕᐅᔪᓂᒃ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᓄᑖᙳᕆᐊᖅᑕᐅᔪᓄᑦ ᓄᖅᑲᖅᑎᑕᐅᔪᖅ ᓄᐃᕝᔪᐊᕐᓇᕐᒧᑦ ᐊᐅᓪᓚᑲᑕᖕᓂᖅ ᓄᖅᑲᖓᓂᖓᓄᑦ – ᔫᓂ 2020
2020	ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒥ ᐊᖑᓇᓱᒃᑐᓕᕆᔾᔪᑎᑦ, ᐃᓐᓇᑐᖃᐃᑦ, ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦ, ᐃᖃᓗᓯᒃᑎᑦ ᑮᓇᐅᔭᓕᐅᕋᓱᒃᓱᑎᒃ, ᐃᖃᓗᓕᕆᔾᔪᑎᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔾᔪᑎᑦ ᑲᓇᑕᒥ	ᑭᒃᑯᓕᒫᓂᒃ ᐃᓚᐅᑎᑦᑎᓂᖅ ᓄᖅᑲᖅᑎᑕᐅᔪᖅ ᓄᐃᕝᔪᐊᕐᓇᖅ-19 ᐱᔾᔪᑎᐅᓪᓗᓂ, ᐃᖃᓗᓕᕆᔾᔪᑎᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔾᔪᑎᑦ ᑲᓇᑕᒥ ᐃᖃᓗᒃᑑᑦᑎᐊᓂᒃ ᐊᐅᓪᓚᕐᑯᔭᐅᒪᐅᕐᑐᑦ ᐊᐅᓪᓚᓪᓗᐊᙱᑎᓪᓗᒋᑦ – ᑎᓯᐱᕆ 2020
2021	ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒥ ᐊᖑᓇᓱᒃᑐᓕᕆᔾᔪᑎᑦ, ᐃᓐᓇᑐᖃᐃᑦ, ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦ	ᑭᙳᓪᓕᕐᐹᒥ ᕿᒥᕐᕈᐊᕐᓂᖅ ᐅᑯᓂᖓ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᓄᑖᙳᕆᐊᖅᑕᐅᓂᖕᒋᓐᓂ ᖃᕋᓴᐅᔭᒃᑯᑦ ᐅᑯᓄᖓ ᑲᑎᑎᓇᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐱᓕᕆᖅᑎᒌᓄᑦ – ᐅᐸᑦᑲᑎᒌᙱᑦᑐᑦ ᓄᐃᕝᔪᐊᕐᓇᕐᒧᑦ ᐊᐅᓪᓚᑲᑕᖕᓂᖅ ᐋᖅᑭᒃᑕᐅᓯᒪᓂᖓᓄᑦ – ᑎᓯᐱᕆ 2020

ᑖᖑᑎᓇᐊᕐᓯᒪᔪᓂᒃ

2020-ᒥᑦ ᐃᖃᓗᒃᑑᑎᐊᕐᒥᑦ ᐃᖃᓗᓐᓄᑦ ᑲᑎᑎᕆᓯᒪᔪ ᐃᖃᓗᐃᓯᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᑦ (IFMP) ᓄᑖᙳᑎᕆᐊᖅᑕᐅᓯᒪᓂᖕᒋᓐᓄᑦ ᐊᓯᔾᔨᑎᑦ

ᑕᒪᕐᒥᒃ ᓄᑖᙳᑎᕆᐊᖅᑕᐅᓂᐅᔪᑦ ᐊᒻᒪ ᐊᓯᙳᑎᕆᐊᖅᑕᐅᔪᑦ ᓇᓗᓇᐃᕐᓯᒪᔪᑦ ᖁᕐᓱᖅᑐᒥ ᐅᑯᓇᓂ ᑲᑎᑎᕆᓯᒪᔪ ᐃᖃᓗᐃᓯᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP)

ᐃᓚᖓ	ᐋᖅᑭᑦᐊᖅᑕᐅᓯᒪᔪᑦ ᑎᑎᖃᑦ/ᓇᐃᓈᕐᓯᒪᔪᖅ ᐊᓯᔾᔨᑎᑦ	ᓇᓗᓇᐃᕐᓯᓂᖅ ᐊᓯᔾᔨᑎᓂᒃ
1 ᑕᒪᐃᓐᓂ ᕿᒥᕐᕈᓂᖅ	ᐃᓚᖓ ᐃᓚᒋᐊᖅᑕᐅᓯᒪᔪᖅ ᓇᓗᓇᐃᕐᓱᑎᐅᓪᓗᓂ ᐅᑯᓇᓂ ᑲᑎᑎᕆᓯᒪᔪ ᐃᖃᓗᐃᓯᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP)	ᑐᓴᐅᒪᔾᔪᑎ ᐃᓚᒋᐊᕈᑎᑦ ᐱᐊᓂᒃᑕᐅᓯᒪᓇᓱᖕᓂᕐᒧᑦ.
1.1 ᐃᖃᓗᒃᑑᑎᐊᕐᒥᑦ ᐃᖃᓗᓐᓂ ᑮᓇᐅᔾᔭᓕᐅᕐᓱᖕᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᔾᔪᑎᑦ ᑲᑎᑎᕆᓯᒪᔪ ᐃᖃᓗᐃᓯᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎ (IFMP)	ᐃᓚᖓ ᐃᓚᒋᐊᖅᑕᐅᓯᒪᔪᖅ ᓇᓗᓇᐃᕐᓱᑎᐅᓪᓗᓂ ᖃᓄᐃᓕᐅᕈᓯᕗᓂᖓᓂᒃ ᐊᒻᒪ ᖃᓄᐃᓕᐅᖅᐸᓪᓕᐊᒍᓯᕐᓂᒃ ᓴᖅᑭᑦᑎᕙᓪᓕᐊᑎᓪᓗᒋᑦ ᐆᒥᖓ ᑲᑎᑎᕆᓯᒪᔪ ᐃᖃᓗᐃᓯᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐃᖃᓗᒃᑑᑎᐊᕐᒥᑦ ᐊᒻᒪᓗ ᐱᔾᔪᑎᐅᔪᑦ ᓄᑖᙳᑎᕆᐊᖅᑎᑕᐅᓂᖓᓂᒃ.	ᑐᓴᐅᒪᔾᔪᑎ ᐃᓚᒋᐊᕈᑎᑦ ᐱᐊᓂᒃᑕᐅᓯᒪᓇᓱᖕᓂᕐᒧᑦ.
1.2 ᖃᓄᐃᓕᐅᕈᓯᕗᓂᖅ	ᐃᓚᒋᐊᕈᑎᐅᔪᖅ ᖃᐅᔨᒋᐊᕈᑎ ᐃᖃᓗᓯᒃᑕᐅᔪᕗᓂᕐᓂᒃ ᐸᓚᒃᒥᑦ (ᐸᓚᒃ ᑯᒃ). ᑖᓐᓇ ᑯᒃ ᑭᓇᐅᔭᓕᐅᕐᓂᕐᒧᑦ ᐃᖃᓗᓯᒻᒪᕗᓕᐅᕐᓯᒪᙱᑦᑐᖅ 2010-ᒥᑦ 2017-ᒧᑦ ᓇᓗᓇᕐᓂᖕᒪᓄᑦ ᑮᓇᐅᔾᔭᓕᐅᕈᑎᐅᔪᓐᓇᕐᓂᐊᖑᐊᓂᖅᓴᖕᒪᒃ. ᐃᖃᓗᒃᑑᑎᐊᕐᒥᑦ ᐊᖑᓇᓱᒃᑐᓕᕆᔩᑦ ᐊᒻᒪ ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑦ ᐃᑲᔪᖅᑕᐅᓯᒪᓪᓗᑎᒃ ᐃᖃᓗᓕᕆᔩᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᑲᓇᑕᒥ (DFO) ᐱᔪᒪᓪᓚᕐᒪᑕ ᐱᓱᕝᕙᓇᕐᑐᑦ ᐅᓄᕐᓯᒋᐊᖅᑕᐅᖁᔭᐅᓪᓗᑎᒃ. ᓄᓇᕗᑦᒥ ᐆᒪᔪᓕᕆᔨᖁᔭᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᐃᖃᓗᒃᑕᐅᕗᓇᖅᑐᖅ ᒪᓕᒃᑎᒍᓐᓂᖓᓕᐅᕐᓂᖕᒪᒃ ᐊᒻᒪ ᐊᑐᖅᓗᓂ	ᑐᓴᐅᒪᔾᔪᑎ ᐃᓚᒋᐊᕈᑎᑦ ᐱᐊᓂᒃᑕᐅᓯᒪᓇᓱᖕᓂᕐᒧᑦ.
1.3 ᖃᓄᐃᑦᑐᖕᒋᑦ ᐃᖃᓗᓕᕆᓂᖅ ᐊᒻᒪ ᐃᓚᐅᕙᒃᑐᑦ	ᑐᓴᖅᓴᒃᑲᓃᑦ ᐅᑯᓂᖓ ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑦᑯᓐᓂᒃ, ᓄᓇᓕᖕᓂ ᐊᐅᓪᓚᖃᑎᖃᖅᐸᒃᑐᓂᒃ ᐊᒻᒪᓗ ᐱᙳᐊᕐᓂᒃᑯᑦ ᐃᖃᓗᓯᒃᓂᕐᒥᒃ.	ᑐᓴᐅᒪᔾᔪᑎ ᐃᓚᒋᐊᕈᑎᑦ ᐱᐊᓂᒃᑕᐅᓯᒪᓇᓱᖕᓂᕐᒧᑦ.
1.5 ᐃᖃᓗᓕᕆᓂᐅᑉ ᐱᖅᑯᓯᖕᒋᑦ	ᑐᓴᖅᓴᒃᑲᓃᑦ ᐅᑯᓂᖓ ᑎᓂᙵᓂᒃᑯᑦ ᐊᑐᖅᑕᐅᖃᑦᑕᕐᓂᖅ	ᑐᓴᐅᒪᔭᐅᔭᕆᓕᑦ ᐃᓚᔭᐅᓚᐅᕐᑐᑦ ᑎᑎᕋᐅᓯᖃᖃᓂᖅᓱᑎᒃ ᐊᑐᖃᑦᑕᕐᓂᕐᒥᒃ ᑎᓂᙵᓂᒃᑯᑦ ᐃᖃᓗᓯᖃᑦᑕᕐᓂᕐᒥᒃ.
1.6.3 ᐊᑐᐊᒐᖅ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐃᖃᓗᐃᑦ ᐊᓯᖕᒋᓐᓂᒃ ᐱᔭᐅᔪᓂᒃ	ᐱᐊᓂᒃᓯᓂᖅ ᑎᑎᕋᕝᕆᓴᓂᒃ ᓚᐃᓴᓯᖃᑦᑕᕐᓂᕐᒧᑦ ᒪᓕᒋᐊᖃᕐᓯᒪᔪᖅ ᖃᐅᔨᓴᖅᑲᐅᑎᓕᐊᕐᓂᕐᒧᑦ ᐃᖃᓗᐃᑦ ᐊᓯᖕᒋᓐᓂᒃ ᐱᔭᐅᔪᓂᒃ. ᐊᑐᖃᑦᑕᕐᓂᖅ ᑎᓂᙵᓂᒃᑯᑦ ᐃᖃᓗᓯᖕᓂᖅ ᒪᑯᓐᓇ ᐃᖃᓗᐃᑦ ᐊᓯᖕᒋᓐᓂᒃ ᑐᑯᕋᐃᓐᓇᙱᓐᓇᓂᖅᓴᔪᖅ. ᐃᖃᓗᐃᑦ ᐊᓯᖕᒋᓐᓄᑦ ᐊᑐᐊᒐᑦ ᐊᑐᕐᓂᖅᑎᑕᐅᓯᒪᔪᑦ ᐆᒧᖓ ᐃᖃᓗᓕᕆᔩᑦ ᓇᓗᓇᐃᒃᑯᑎᐅᕗᖅ ᐃᓱᒫᓗᑎᖃᓗᐊᙱᓐᓂᖓᓂᒃ ᐃᖃᓗᐃᑦ ᐊᓯᖕᒋᓐᓂᒃ ᓂᕐᔪᑎᓂᒃ ᐱᓇᔭᕐᓂᐊᖅᓴᖕᒋᓐᓂᒃ.	ᓄᑖᙳᑎᕆᐊᕐᓯᒪᔪᑦ ᑐᓴᖅᓴᑦ ᐱᐊᓂᑦᑎᐊᕐᓗᐊᕐᓂᐊᖅᓴᕐᒥᒃ
1.6.4 ᓴᖅᑭᔭᙱᑦᑐᓂᒃ (Ghost Gear) ᐃᖃᓗᓯᐅᑎᓕᕆᓂᖅ	ᑐᓴᖅᓴᒃᑲᓃᑦ ᐃᖃᓗᓕᕆᔩᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᑲᓇᑕᒥ (DFO ᓴᖅᑭᔭᙱᑦᑐᓂᒃ ᐃᖃᓗᓯᐅᑎᓕᕆᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᑎᖕᒋᓐᓂᒃ ᐊᒻᒪ ᐊᑐᖅᑎᑕᐅᓂᖕᒋᑦ ᐃᖃᓗᒃᑑᑎᐊᕐᒥᑦ ᑮᓇᐅᔾᔭᓕᐅᕐᓱᖕᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ.	ᐃᓚᒋᐊᕈᑎᔪᖅ ᓇᓗᓇᐃᕐᓯᒍᑎᒥ ᒫᓇ ᓴᖅᑭᔭᙱᑦᑐᓂᒃ ᐃᖃᓗᓯᐅᑎᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᖃᓄᐃᓕᐅᕈᑎᓄᑦ
2.2 ᐆᒪᔪᖃᑎᖏᑦ ᑲᑎᖃᑎᖏᖃᑦᑕᕐᓂᖕᒋᑦ	ᑐᓴᖅᓴᒃᑲᓃᖅ ᐅᑯᐊ ᐃᖃᓗᓕᕆᔩᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᑲᓇᑕᒥ (DFO ᐊᑐᒃᑲᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᓂᕐᒥ ᖃᓄᐃᓕᐅᕈᑎᖕᒋᓐᓂᒃ (SFF) ᑖᓐᓇᓗ ᑐᕌᖓᓕᖅᑐᓂ ᐃᑲᔪᕐᓯᖕᓂᕐᒥ ᐃᖃᓗᓐᓂ ᐊᓯᐅᑎᑦᑎᑦᑕᐃᓕᓂᕐᒧᑦ ᐊᒻᒪ ᐊᑐᒃᑲᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᒥᒃ ᐃᒪᕐᒥᐅᑕᓂᒃ ᑲᓇᑕᒦᑦᑐᖅ. ᐅᓇ ᐊᑐᒃᑲᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᓂᕐᒥ ᖃᓄᐃᓕᐅᕈᑎᖕᒋᓐᓂᒃ (SFF) ᑐᑭᒧᐊᕈᑎᐅᔪᖅ ᑲᑎᓯᒪᐅᕐᑐᓂᒃ ᐃᖃᓗᓕᕆᓂᕐᒥᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᓯᐅᕐᓂᕐᒧᑦ ᐊᒻᒪ ᐃᓱᒪᒋᔭᖃᕐᓂᕐᒥᒃ ᐃᒪᕐᒥᐅᑦ ᐃᓅᓯᖓᓂᒃ ᐊᒻᒪ ᐊᓯᖕᒋᓐᓂᒃ ᐆᒪᔫᑦ ᑕᒫᓂᖃᑕᐅᕙᒃᑐᒃ. ᐃᑲᔪᖅᑐᐃᓂᖅ ᐊᑐᓕᕐᓂᕐᒥᒃ ᐆᒪᔪᓂᒃ ᑐᙵᕕᓕᒃᑯᑦ ᖃᓄᐃᓕᐅᕈᑎᖃᓐᓂᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᓴᐳᔾᔨᒪᓂᕐᒧᑦᒧᖓᔪᓂᒃ ᐆᒪᔪᓂᒃ ᐊᔾᔨᐅᙱᑦᑐᓂᒃ ᐊᒻᒪᓗ ᐃᖃᓗᓯᐅᕝᕕᐅᔪᑦ	ᑐᓴᖃᑦ ᓄᑖᙳᑎᕆᐊᖅᑕᐅᔪᑦ ᓴᖅᑭᑎᑦᑎᒃᑲᓐᓂᕈᓐᓇᖃᑦ ᐆᒥᖓ ᓄᑖᒥᒃ ᐊᑐᒃᑲᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᓂᕐᒥ ᖃᓄᐃᓕᐅᕈᑎᖕᒋᓐᓂᒃ (SFF).
2.3 ᐃᓕᑦᑎᒍᑎᑦ ᖃᐅᔨᒪᓂᖅ ᐊᒻᒪ ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖏᑦ (IQ)	ᓇᓗᓇᐃᔭᕐᓯᒪᔪᑦ ᐱᓕᕆᖃᑎᖃᕐᓂᖕᒋᑦ ᐅᑯᐊ ᐃᖃᓗᒃᑑᑎᐊᕐᒥᑦ ᐊᖑᓇᓱᒃᑐᓕᕆᔩᑦ ᑎᑎᕋᖅᐸᓪᓕᐊᓂᐊᕐᓗᑎᒃ ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖏᓐᓂᒃ ᐅᑭᐅᑦᑕᖅᑐᒥᒃ ᐃᖃᓗᒃᑑᑎᐊᒥᒃᓴᓐᓂᑐᒃ. ᐅᓇ ᐃᓕᖅᑐᖅ ᐊᔪᕈᓐᓃᓴᖅᑎᑦᑎᓂᕐᒥᒃ ᓄᓇᓕᖕᓂ ᐃᓅᓯᑐᓂᒃ ᐊᐱᖅᓱᖃᑦᑕᕐᓂᐊᖅᑐᓂᒃ ᑎᑎᕋᖅᐸᓪᓕᐊᑎᓪᓗᒋᑦ ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖏᓐᓂᒃ 9-ᓂ ᓄᓇᓕᖕᓂᒃ. ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖏᑦ ᑎᑎᕋᖅᑕᐅᓚᐅᕐᓯᒪᔪᑦ ᐃᑲᔫᑎᐅᓚᐅᕐᑐᑦ ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖏᓐᓂᒃ ᑎᑎᕋᖅᓄᑦ ᑲᑎᕐᓯᐊᕙᖕᒧᑦ ᐊᐅᓚᑕᐅᓪᓗᓂ ᐃᖃᓗᒃᑑᑎᐊᕐᒥᑦ ᐊᖑᓇᓱᒃᑐᓕᕆᔨᓄᑦ ᐊᒻᒪᓗ ᑖᓇ ᐱᓕᕆᓂᖅ ᐱᐊᓂᒃᑕᐅᓚᐅᕐᓯᒪᓪᓗᓂ ᒪᑯᐊ ᐃᓐᓇᑐᖃᑦ-ᐃᓅᓱᒃᑐᓗ ᑲᑎᖃᑎᖏᖃᑦᑕᕐᓗᑎᒃ ᐱᓇᓱᐊᕈᓯᒥ ᐋᓯᓱ 2016-ᒥᑦ. ᐸᕐᓇᐅᑎᑦᖃᖅᑐᖅ ᐋᖅᑭᓱᐃᒍᑎᓂᐊᖅᑐᒥᑦ ᐊᒻᒪ ᑐᙵᓱᒃᑎᑦᑎᔾᔨᓂᐊᕐᓗᓂ ᑕᒪᐃᓐᓇ	ᓄᑖᙳᑎᕆᐊᖅᑕᐅᓯᒪᔪᑦ ᑐᓴᖃᑦ ᐃᓚᐅᑎᑕᐅᓗᑎᒃ ᓄᑖᑦ ᐱᓕᕆᐊᖃᑦ.
2.6 ᖃᐅᔨᓴᕐᓂᖅ	ᓄᑖᙳᑎᕆᐊᖅᑎᑦᑎᓂᑦᑕᖃᑎᐊᖃᓪᓚᑦ ᐃᖃᓗᐃᑦ ᐅᓄᕐᓂᖕᒋᓐᓄᑦ ᖃᐅᔨᓴᕈᑎᓂᒃ ᐊᒻᒪᓗ ᖃᐅᔨᓴᕆᐊᖃᖕᒪᑦ ᐊᑐᒃᑲᓂᕈᓐᓇᖅᑐᒃ ᐃᖃᓗᓯᒃᑕᐅᕗᓇᖅᑐᖅ ᐅᓄᕐᓂᖕᒋᓐᓂᒃ ᐊᑐᓂ ᐃᖃᓗᓯᐅᕝᕕᐅᔪᓂᒃ ᐊᒻᒪᓗ ᐱᐅᓯᕚᓪᓕᖅᑎᑦᑎᓗᑎᒃ ᑐᑭᓯᒪᓕᑎᑦᑎᓂᕐᒥᒃ ᐃᖃᓗᐃᑦ ᖃᓄᐃᒍᓯᖏᓐᓂᒃ ᑕᒫᓃᑦᑐᑦ. ᑲᔪᓯᕚᓪᓕᐊᓂᖅ ᐊᕐᕋᒍᒥ ᐃᖃᓗᓕᕆᓂᕐᒥᒃ ᐊᑐᓕᕆᒃᑐᒥ ᐱᓕᕆᐊᕕᖕᒥᑦ ᖃᐅᔨᓴᖅᑕᐅᔪᖃᓕᕆᓂᖅ ᖃᓄᐃᑑᖕᒋᓐᓄᑦ ᑲᑎᑕᐅᕙᓪᓕᐊᔪᓂᒃ ᐊᒻᒪ ᐱᓕᕆᐊᖑᑎᑕᐅᓗᓂ ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑦᑯᓐᓂᒃ ᐱᒻᒪᕆᐊᓗᐃᓐᓇᖅᑐᓂᒃ ᐊᒻᒪᓗ ᐱᓕᕆᐊᖑᑎᑕᐅᓚᐅᕐᓂᖓᓄᑦ ᑕᐃᒪᙵᑦ 1970-ᖑᓂᖅ.. ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒻᒥᒃᑯᖅᑐᑎᒃ ᖃᐅᔨᓴᕐᓂᐅᔪᑦ ᐱᐊᓂᒃᑕᐅᖃᑦᑕᕆᐊᓖᑦ ᐊᕐᕌᒍᑕᒫ ᑲᑎᕐᓯᐊᕙᓪᓕᐊᓗᑎᒃ ᐆᒪᔪᕈᓐᓇᖅᑐᓂᒃ ᐃᑲᔪᕈᑎᐅᓂᐊᕐᑐᓂᒃ ᒫᓇ ᑲᑎᑕᐅᓯᒪᔪᓂᒃ ᑎᑎᕋᖅᑕᐅᕙᓪᓕᐊᕙᒃᑐᓂᒃ ᐱᓕᕆᐊᕝᕕᒥᑦ ᖃᐅᔨᓴᖅᑕᐅᔪᖅᓴᓕᕆᓂᒃᑯᑦ. ᐃᖃᓗᓕᕆᔩᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᑲᓇᑕᒥ (DFO ᐱᓕᕆᖃᑎᖃᖅᑐᖅ ᐅᑯᓂᖓ ᑕᕆᐅᕐᒥᑕᓂᒃ ᓇᒧᙳᐅᕙᓪᓕᐊᓂᕐᓂᒃ ᐱᓕᕆᔨᔪᓂᒃ (Ocean Tracking Network [OTN]), ᓚᕙᑦ ᔫᓂᕗᓯᑎᒥᑦ ᐊᒻᒪᓗ ᔫᓂᕗᓯᑎᒥᑦ ᕗᐃᓐᓯᒥᑦ ᐊᑐᕐᓂᖕᒋᓐᓂᒃ ᓂᐱᖃᕈᑎᓂᒃ ᖃᐅᔨᓇᒍᑎᓂᒃ ᑕᒪᒃᑯᐊ ᐃᖃᓗᐃᑦ ᓇᒧᙳᐅᕙᓪᓕᐊᖃᑦᑕᕐᓂᖕᒋᓐᓂᒃ ᐊᒻᒪᓗ ᑕᓇᐅᖃᙱᑦᑐᑦᑐᑦ ᐃᓂᕆᕙᒃᑕᖕᒋᓐᓂᒃ ᑖᓂ. ᖃᐅᔨᓴᖅᑲᓐᓂᕈᑦ ᒫᓇ ᖃᐅᔨᓇᓱᒃᑐᓂᒃ ᐊᔾᔨᒌᙱᓐᓂᑦᑕᖃᑦᑕᕐᓂᖕᒪᒃ ᒥᒃᑑᓪᓗᐊᒥ ᐃᖃᓗᓐᓂᑦ ᑖᓃᑉᐸᒃᑐᓂᒃ ᐊᒻᒪᓗ ᑕᓕᐅᙱᑦᑕᖃᑦᑐᓄᑦ ᐋᓪᓚᖏᓕᐅᕈᑎᐅᔭᕐᑐ ᑰᑦᑎᕐᖓᒥᒃ. ᐊᓯᖕᒋᓐᓂᒃ ᐱᓕᕆᐊᑎᒍᑦ ᐱᓕᕆᐊᖃᓪᓕᕆᓚᐅᕐᒥᔪᑦ ᓂᒡᓕᓱᓐᓂᐅᑉ ᐊᑯᐃᓂᕆᕚᓪᓕ ᐊᒻᒪᓗ ᐆᓪᓗᑎᖕᒋᑦᑕ ᐃᖕᒋᕐᓴᓂᕆᕚᓪᓕᖕᒋᓐᓂᒃ ᓚᐃᖅ ᑕᓯᕐᓄᙱᓪᓗᔪᑦ ᐃᖃᓗᐃᑦ ᕿᑎᕐᒥᐅᓂᑦᑐᓂᒃ. ᑎᑎᕋᐅᓯᐅᓯᒪᖕᒋᑦᑐᓂᒃᓯᓕ ᐆᒪᔪᐃᑦ ᖃᓄᐃᑉᐸᓪᓕᐊᒍᓯᖕᒋᓐᓄᑦ ᖃᐅᔨᓴᕈᑎᓂᒃ ᐱᓕᕆᐊᖃᑉᐸᓪᓕᐊᔪᑦ ᐊᑑᑎᖃᕐᓴᖅᑐᓂᒃ ᑕᕆᐅᕐᒥᑕᓄᑦ ᓂᖅᑭᑦᔭᖕᒋᓐᓄᑦ ᐃᓕᑦᔭᐅᓂᖕᒋᓐᓂᒃ ᑕᓕᓂᒃ, ᐃᓕᖅᖅᓗᓂ ᐃᖃᓗᐃᑦ ᖃᓄᐃᓕᖓᓂᖕᒋᓐᓂᒃ ᑕᕆᐅᕐᒥᑦᑎᓪᓗᒋᑦ, ᐊᒻᒪ ᖃᐅᔨᓴᕐᓗᑎᒃ ᐃᖃᓗᐃᑦ ᐊᓯᖕᒋᑦ ᐱᔭᐅᕙᑦᑐᑦ ᑕᓕᓂ ᐊᒻᒪ ᐃᖃᓗᓐᓂ ᖁᐱᕐᕈᔭᑦᑐᑦ ᑲᒪᒋᔭᐅᔪᓐᓇᕐᓗᑎᒃ.	ᓄᑖᙳᑎᕆᐊᖅᑕᐅᓯᒪᔪᖅ ᒫᓇᒧᑦ ᖃᐅᔨᓴᕐᓂᕐᒧᑦ.
3.2 ᑮᓇᐅᔭᓕᕆᓂᕐᒧᑦ ᐱᒻᒪᕆᐅᔪᑦ	ᐃᓚᖓ ᓄᑖᙳᑎᕆᐊᖅᑕᐅᔪᖅ ᒫᓇᓕᓴᓂ ᑐᓴᖃᑦᓴᐅᔪᓂᒃ ᒪᓕᒃᓯᒪᑎᙳᑎᒃ ᑮᓇᐅᔭᐅᕐᓂᒃᑯᑦ ᐃᖃᓗᓕᕆᓂᐅᑉ ᐱᕙᓪᓕᐊᓂᕆᔭᕐᓗᒍ ᐊᕐᕌᒍᓂ ᑕᓪᓕᒪᓂᒃ (5), ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᓇᓗᓇᐃᒃᑯᑎᓄᑦ, ᐊᐅᓚᑕᐅᓂᖓ ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑦᑯᑦ ᐊᒻᒪ ᑮᓇᐅᔭᓕᐅᕈᑎᐅᔪᓐᓇᕐᑐᓂᒃ ᓂᐅᕕᐊᖅᓴᖃᑦᑕᕐᓂᒃᑯᑦ	ᑐᓴᐅᒪᔾᔪᑎ ᐃᓚᒋᐊᕈᑎᑦ ᐱᐊᓂᒃᑕᐅᓯᒪᓇᓱᖕᓂᕐᒧᑦ.
4.2 ᐊᕙᑦᑕᐅᔪᑦ ᐅᖃᐅᓯᐊᖅᑐᑕᐅᖃᑦᑕᕐᓂᖕᒋᑦ	ᐊᓯᒃᑲᓂᖕᒋᑦ ᑐᓴᐅᒪᔭᐅᔭᕆᐊᖃᑦᑐᑦ ᑲᑐᑎᓂᒃᑯᑦ ᑲᓕᔮᐅᓂᕐᒧᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᓂᖅ ᐃᓚᐅᑎᑕᐅᓪᓗᑎᒃ ᐃᖃᓗᒃᑑᑎᐊᖅ ᐊᖑᓇᓱᒃᑐᓕᕆᔩᑦ, ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑦ. ᐊᒻᒪᓗ ᐃᖃᓗᓕᕆᔩᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᑲᓇᑕᒥ (DFO ᐃᑲᔫᑎᒋᔭᐅᓯᒪᓪᓗᑎᒃ ᐅᑯᑎᖑᐊᖅ ᓄᓇᕗᑦᒥ ᑕᒪᐃᓐᓄᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᑎᒍᑦ 2011-2017-ᒧᑦ. ᑕᒪᕐᒥᒃ ᒫᓇ ᐃᖃᓗᓯᒻᒪᕗᔪᑦ ᖃᐅᔨᓴᖅᑕᐅᕙᓪᓕᐊᔪᑦ ᑲᑎᓗᑎᒃ ᐱᔭᐅᕙᓪᓕᐊᔪᓂᒃ, ᑮᓇᐅᔭᓕᐅᕐᓂᕐᒧᑦ ᐃᖃᓗᒃᑕᐅᔪᓂᒃ, ᐃᖃᓗᐃᑦ ᐊᓯᖕᒋᓐᓂᒃ ᐱᔭᐅᔪᑦ ᐊᒻᒪ ᐃᒋᑕᐅᔾᔭᐅᓇᓱᑦ ᐊᒻᒪ ᓂᕆᔭᐅᔪᖅᓴᐅᓂᐊᕐᑐᓂᒃ ᑕᒪᒃᑯᐊ ᐱᔭᐅᔪᓕᓯᒪᓂᖕᒋᓐᓄᑦ ᖃᕆᓴᕐᑎᐊᖅ	ᑐᓴᖃᓴᐃᑦ ᐃᓚᔭᐅᔪᑦ ᐃᓚᐅᑎᑦᑎᓗᑎᒃ ᐃᓚᒋᐊᕈᑎᔪᖅ ᑲᑐᑎᓂᒃ ᑲᓕᔮᐅᓂᕐᒥᒃ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᓂᕐᒧᑦ ᐱᓕᕆᐊᖃᑦ
5. ᐊᑐᖅᑕᐅᔪᓕᐅᑦ	ᓇᓗᓇᐃᒃᑯᑎ 2 ᓄᑖᙳᑎᕆᐊᖅᑕᐅᔪᖅ ᒪᓕᒋᓯᒪᓪᓗᓂ ᓄᑖᓂᒃ ᐱᔭᐅᓇᓱᒃᑐᓂᒃ ᓇᓗᓇᐃᕐᑕᐅᔪᓂᒃ.	ᐱᔾᔪᑎᒋᔭᐅᔪᑦ ᓱᖁᐃᓇᑦᑎᐊᕐᓗᓂ ᐊᒻᒪ ᓄᑖᙳᑎᕆᐊᕐᓯᒪᓗᑎᒃ.
6. ᐊᑐᐃᓐᓇᖃᕐᓂᖅ ᐊᒻᒪ ᐱᔭᐅᔪᓐᓇᖅᑐᓕᕆᓂᖅ	ᑐᓴᐅᒪᔭᐅᔭᕆᐊᓕᒃ ᐃᓚᔭᐅᔪᖅ ᐱᔾᔪᑎᓕᒃ ᐃᓚᒋᐊᖅᑕᐅᓂᖕᒪᒃ ᐸᓪᓕᕆᑦ (Lauchlin ᑯᒃ) ᐃᖃᓗᓯᐅᑎᓄᑦ ᑐᕌᖓᓂᖓᓄᑦ 2018-ᒥᑦ ᐊᒻᒪᓗ ᐊᑐᖃᑦᑕᕐᓂᖅ ᐅᓄᕐᓂᖓᓂᒃ ᐱᖃᑕᐅᓪᓚᕆᑦᑐᖅᑐᓂᖅ ᐸᓪᓕᕆᑦ ᐊᒻᒪ ᐊᓯᖕᒋᓐᓂᒃ ᐃᖃᓗᓯᒻᒪᕗᐊᓪᓗᑎᒃ ᐃᖃᓗᒃᑕᐅᔭᕆᐊᖃᕐᑐᓂᒃ ᐋᓪᓚᐋᕐᓯᒪᓇᓱᒃᑐᓂ ᐊᑐᒃᑲᓂᕈᓐᓇᖅᑎᑦᑎᓂᕐᒧᑦ ᐊᒻᒪᓗ ᐅᖓᑖᓄᐊᖅᑎᑦᑎᑦᑕᐃᓕᓂᕐᒥᒃ ᐃᖃᓗᓕᕆᓂᖅᐸᓯᑦ ᐱᓕᕆᔭᐅᔪᖅ. ᓇᓗᓇᐃᒃᑯᑎ 3 ᓄᑖᙳᑎᕆᐊᖅᑎᓯᒪᔪᖅ ᒪᓕᒃᓯᒪᓕᑦᓱᓂ ᒫᓇ ᐃᖃᓗᒃᑕᐅᔪᓐᓇᖅᑐᓄᑦ ᐊᑐᖅᑕᐅᕙᒃᑐᖅ.	ᐃᓚᖓ ᓄᑖᙳᑎᕆᐊᕐᓯᒪᔪᖅ ᓇᓗᓇᐃᔭᕈᑎᐅᓪᓗᓂ ᐊᑐᒃᑲᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᒥᒃ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐱᔭᐅᔪᓐᓇᖅᑐᖅ ᐊᒻᒪ ᐃᖃᓗᐃᓯᖕᓂᕐᒥᒃ ᐃᖃᓗᓕᕆᓂᖅᐸᓯᑦ. ᐃᓚᖕᒋᑦ ᑐᓴᖃᓴᐃᑦ ᐂᕐᑕᐅᓯᒪᔪᑦ ᐃᓚᐅᓯᒪᓂᖕᒋᓐᓄᑦ ᐃᓚᒍᑕᖅ 1-ᒥᑦ. (ᐊᑖᓂ)
7.4 ᐃᓕᒋᐊᕈᑎᓄᑦ ᓚᐃᓴᓐᓯᐅᑉ ᒪᓕᒋᐊᖃᕈᑎᖕᒋᑦ	ᐃᓚᖓ ᐃᓚᒋᐊᖅᑕᐅᔪᖅ ᐃᓚᓕᐅᔾᔭᐅᓯᒪᔪᖅ ᑮᓇᐅᔭᓕᐅᕐᓱᖕᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᐅᓯᕚᓪᓕᖅᑎᑦᑎᓂᖅᓴᖕᓂᕐᒥᒃ ᐃᖃᓗᓯᐅᑎᑦᑎᓂ ᑐᑭᓯᐅᒪᑎᑦᑎᓂᕐᒥᒃ, ᑲᑎᕐᓯᐊᕙᓪᓕᐊᓂᕐᒥᒃ, ᐊᒻᒪ ᐱᐅᓯᕚᓪᓕᖅᓯᒪᔪᒥᒃ ᐊᑐᒃᑲᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᑕᒃᑭᓯᒪᔪᓂᒃ.	ᐃᑲᔪᑐᐃᓗᓂ ᐱᐅᓯᕚᓪᓕᕐᓯᒪᔪᒥᒃ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᓂᕐᒥᒃ ᐊᒻᒪ ᐅᓂᒃᑳᕈᑎᑦᐸᓂᕐᒥᒃ ᐃᖃᓗᒃᑕᐅᔪᓐᓇᖅᑐᓂᒃ, ᐃᖃᓗᐃᑦ ᐊᓯᖕᒋᓐᓂᒃ, ᑎᖕᒥᐊᓂᒃ ᐊᒻᒪ ᑕᕆᐅᕐᒥᐅᑕᓂᒃ ᓂᕆᔭᐅᔪᓂᒃ ᑕᑯᑦᑕᐅᓂᐅᔪᓂᒃ ᐊᒻᒪ ᐊᓯᐅᔨᔭᐅᓂᑯᓂᒃ ᐃᖃᓗᓯᐅᑎᓂᒃ.
8.2 ᐱᐅᓂᖅᐹᖅ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᓯᖅ – ᐅᔾᔨᕐᓱᕐᓂᒃᑯᑦ ᐱᓕᕆᐊᖃᕐᓂᖅ	ᐸᓪᓕᖅ (Lauchlan ᑯᒃ) ᑮᓇᐅᔭᓕᐅᕐᓱᖕᓂᕐᒧᑦ ᐃᖃᓗᓯᒻᒪᕗᓕᐅᕐᓯᒪᙱᑦᑐᖅ 2010-ᒥᑦ 2017-ᒧᑦ ᐱᔾᔪᑎᓕᓐᓂ ᑮᓇᐅᔭᓕᐅᕈᑎᑎᑦᑎᐊᕈᑎᖃᖅᑐᓂᖅ. 2018-ᒥᑦ ᐸᓪᓕᖅ ᐃᖃᓗᓯᒻᒪᕗᑦᓂᓕᐅᕐᓯᒪᔪᖅ ᐅᓄᖅᑐᓂᖅᓴᐅᑎᓕᐅᕐᓗᓂ ᐱᔭᐅᔪᓐᓇᖅᑐᖅ ᐃᑲᔪᕐᓯᒪᓪᓗᓂ ᐱᐅᓯᕚᓪᓕᖅᑎᑦᑎᓂᕐᒧᑦ ᖃᔮᐅᓂᖅᑐᓂᖅ ᖃᐅᔨᓴᕐᓂᕐᒥᒃ ᐊᒻᒪ ᑮᓇᐅᔭᓕᐅᕐᓂᕐᒧᑦ ᐊᑑᑎᐅᓕᓴᕐᓂᖅᓴᖅ.	ᐃᓚᖓ ᐃᓚᓴᐅᓯᒪᔪᖅ ᐃᓚᒋᐊᕐᓯᒪᔾᔪᑎᐅᓗᓂ ᑐᓴᐅᒪᔭᐅᔭᕆᐊᓕᒃ ᒫᓇ ᖃᓄᐃᑉᐸᓪᓕᐊᓂᖅ ᐊᑐᖅᑕᐅᕗᖅ ᖃᔮᓂ ᐃᖃᓗᓄᓐᓇᕐᒧᑦ ᐸᓪᓕᖅ ᑯᒥᑦ ᐊᑐᕐᓗᓂ ᐅᔾᔨᕐᓱᕐᑎᐊᕐᓂᖏᑦ ᐱᓕᕆᐊᖃᕐᓂᕐᒥᒃ.
8.3 ᐱᐅᓂᖅᐹᖅ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᓯᖅ – ᑎᓐᓂᕐᒥᒃ ᐊᑐᖃᑦᑕᕐᓂᖅ	ᐃᖃᓗᓯᖕᓂᖅ ᑎᓐᓂᕐᒥ ᐃᓕᑦᑎᒍᑎᖃᕈᖅ ᐃᓄᐃᑦ ᐃᖃᓗᓯᒃᑎᓪᓗᒋᑦ ᑯᕕᐊᐃᑦ ᖃᓂᖕᒋᓐᓂᒃ. ᐃᖃᓗᒃᑑᑎᐊᒥ ᑮᓇᐅᔭᓕᐅᕐᓱᖕᓂᕐᒧᑦ ᐃᖃᓗᓯᖕᓂᖅ ᐃᓂᖃᖅᑎᑎᕗᖅ ᑎᓐᓂᕐᒥᐅᑦ ᐃᖃᓗᓯᒃᑲᓴᖅ. ᑎᓐᓂᕐᒥᐅᑦ ᐃᖃᓗᓯᖕᓂᖅ ᓂᕈᐊᕆᔭᐅᓂᖅᓴᖅ ᑕᒪᒃᑯᓂᖓ ᐃᖃᓗᓐᓂ ᐊᔪᕈᓐᓃᖅᓴᖅᑐᓂᖅ, ᓂᕈᐊᕐᓇᕐᓂᖅᓴᐅᓗᓂ ᐊᒻᒪ ᐱᔭᐅᔪᓐᓇᕐᓂᖅ ᐃᖃᓗᒃᑕᐅᕙᑦᑐᓐᓇᕐᓂᖅᓴᐅᓗᓂ.	ᐃᓚᖓ ᐃᓚᓴᐅᓯᒪᔪᖅ ᐃᓚᒋᐊᕐᓯᒪᔾᔪᑎᐅᓗᓂ ᑐᓴᐅᒪᔭᐅᔭᕆᐊᓕᒃ ᐃᓕᑦᑎᒍᑎᑦ ᐊᑐᖅᑕᐅᕗᖅ ᑎᓐᓂᕐᒥᒃ ᐃᖃᓗᓯᖕᓂᖅ ᐃᓚᖏᓐᓂᒃ
ᐃᓚᒍᑕᖅ B ᑮᓇᐅᔭᓕᐅᕐᓱᖕᓂᕐᒧᑦ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᐊᒻᒪ ᐃᖃᓗᒃᑕᐅᕙᓪᓕᐊᔪᓄᑦ ᐅᓂᒃᑳᑦ	ᓇᓗᓇᐃᒃᑯᑎ ᓄᑖᙳᑎᕆᐊᖅᑕᐅᔪᖅ ᒫᓇᓕᓴᓄᑦ ᑲᑎᑕᐅᓯᒪᔪᓄᑦ	ᖃᐅᔨᓴᕈᑎᓄ ᖃᐅᔨᒍᑏᑦ ᑭᒃᑯᕕᒃᑕᐅᖕᒋᓪᓗᑎᒃ
ᐃᓚᒍᑕᖅ D – ᑮᓇᐅᔭᓕᐅᕐᓂᕐᒧᑦ ᖃᐅᔨᒍᑎᑦ	ᑐᓴᐅᒪᒐᖃᑦ ᐃᓚᔭᐅᔪᑦ ᒫᓇ ᐃᖃᓗᓕᕆᓂᕐᒧᑦᔫᓯᕐᒧᑦ	ᖃᐅᔨᓴᕈᑎᓄ ᖃᐅᔨᒍᑏᑦ ᑭᒃᑯᕕᒃᑕᐅᖕᒋᓪᓗᑎᒃ
ᐃᓚᒍᑕᖅ E – ᐃᒪᓂᑦ ᐅᓗᕆᐊᓇᙱᑦᑐᕐᓂᖅ	ᓄᑖᙳᑎᕆᐊᕐᓯᒪᔪᖅ ᐅᖃᖅᑳᐅᔭᕆᐊᓇᖅᑐᑦ ᐃᖏᕐᕋᔪᑎᓕᕆᔩᑦ ᑲᓇᑕᒥ ᑎᑎᕋᖅᑳᓂᒃ ᐅᒥᐊᒃᑯᑦ ᖃᓄᐃᑦᑕᐅᓕᒪᓂᕐᒧᑦ	ᓄᑖᙳᑎᕆᐊᕐᓯᒪᔪᖅ ᐅᖃᖅᑳᐅᔭᕆᐊᓇᖅᑐᑦ.

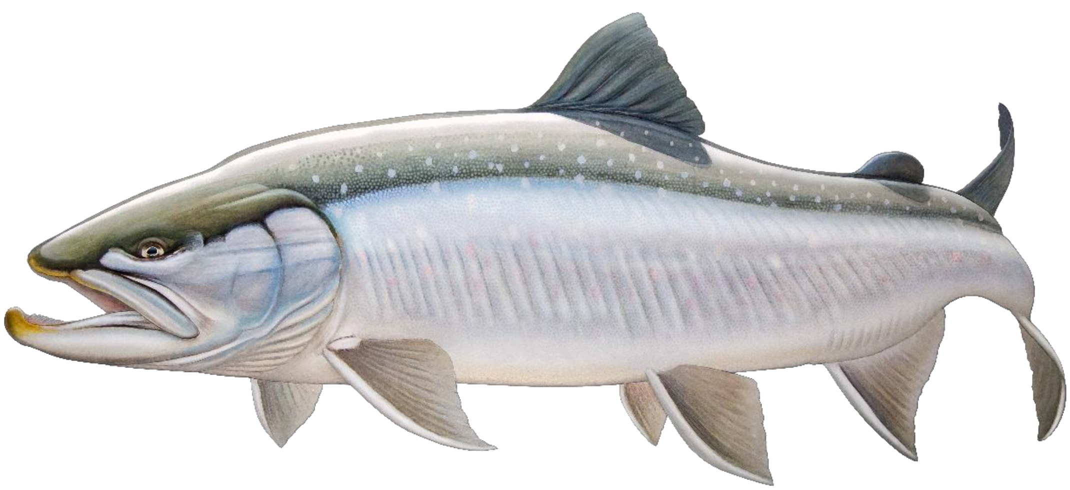
Fisheries and Oceans Canada | Pêches et Océans Canada
Fisheries Management | Gestion des pêches

ᐃᓚᓕᐅᑎᔭᐅᓗᑎᒃ ᐃᖃᓗᒐᓱᐊᕐᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᒍᑎᓄᑦ
ᐅᑭᐅᕐᑕᖅᑐᑉ ᓄᓇᖓᓂ
ᓇᐃᓈᕈᑎᒃ

ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒥᑦ ᐃᖃᓗᖕᓄᑦ, *Salvelinus alpinus*, ᐃᖃᓗᒐᓱᒃᑎᑦ ᑮᓇᐅᔭᓕᐅᕋᓱᒃᓱᑎᒃ, ᓄᓇᕗᑦ

ᐊᑑᑎᓕᒃ 2021

ᐃᖃᓗᐃᑦ
(Salvelinus alpinus)



Canada

ᓯᕗᒧᑦ

ᐱᔾᔪᑎᒋᔭᐅᔪᕐᓂ ᐆᒧᖓ ᓄᑖᙳᕆᐊᕐᓯᒪᔪᒧᑦ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᓇᐃᓈᕐᓯᒪᔪᓂᒃ ᑐᓴᖅᑎᑦᑎᓂᕐᒧᑦ ᖃᐅᔾᔭᐅᔾᔪᑎᓂᒃ ᑐᓴᖅᑕᐅᔾᔪᑎᓄᑦ ᐅᕙᓃᑦᑐᓂᒃ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐃᖃᓗᒃᑑᑦᑎᐊᒥ ᐃᖃᓗᖕᓂᒃ ᑮᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ. ᐅᑯᐊ ᑎᑎᖃᒃ ᐊᑐᕐᑕᐅᖕᒥᔪᑦ ᑐᓴᐅᒪᔭᐅᔭᕆᐊᓕᖕᓂ ᐃᖃᓗᒐᓱᓂᕐᒧᑦ ᐱᓕᕆᐊᖃᖅᑐᑦ ᒥᒃᓵᓄᑦ ᐊᒻᒪ ᐊᐅᓚᑦᑎᓂᖏᓐᓂᒃ ᐅᑯᓄᖓ ᐃᖃᓗᓕᕆᔨᒃᑯᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ (DFO) ᐃᖅᑲᓇᐃᔭᖅᑎᓄᑦ, ᓄᓇᕗᒥᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ (NWMB), ᐊᙳᓇᓱᒃᑐᓕᕆᔨᒃᑯᑦ (HTO), ᐊᕕᒃᑐᕐᓯᒪᓂᒃᑯᑦ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ (RWO), ᑮᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᐃᖃᓗᒐᓱᒃᑎᑦ, ᓄᓇᓖᑦ ᐊᒻᒪ ᐊᓯᖏᑦ ᑎᒍᒥᐊᕐᑎᑦ. ᐅᑯᐊ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎ (IFMP) ᒪᑯᓂᖓ ᑎᒍᒥᐊᕐᑎᓂᒃ ᑐᓴᐅᒪᓂᖅᓴᓂᒃ ᑐᓴᖅᑎᑦᑎᕙᓪᓗᑎᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐃᓱᒪᓕᐅᕆᓂᕐᒧᑦ, ᐊᒻᒪᓗ ᓴᖅᑭᑦᑎᕙᓪᓗᑎᒃ ᑐᑭᓯᑎᑦᑎᓂᕐᒥᒃ "ᒪᓕᒋᐊᓕᖕᓂᒃ" ᐃᖃᓗᓕᕆᓂᖅ ᐊᑐᖅᑕᐃᓐᓇᕈᓐᓇᖁᓪᓗᒍ ᐃᖃᓗᓕᕆᓂᒃᑯᑦ.

ᐅᓇ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎ (IFMP) ᒪᓕᒃᑎᒍᑦ ᐋᖅᑭᒃᓯᒪᙱᓪᒪᑦ ᑕᐃᒪᓕ ᒪᓕᒃᑎᒍᑦ ᑲᒪᒋᔭᐅᒍᑎᒃᓴᖅᒋᑦᑐᖅ. ᐅᓇ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎ (IFMP) ᐋᖅᑭᐊᖅᑕᐅᔪᓐᓇᖅᑐᖅ ᖃᖓᑐᐃᓐᓇᒃᑯᑦ ᐊᒻᒪᓗ ᐊᒃᑐᐃᒍᑎᖃᕐᒋᕗᑎᒃ ᒥᓂᒃᑕᐅᑉ ᐱᔪᓐᓇᐅᑎᖏᓐᓂᒃ ᐋᖅᑭᒃᑕᐅᓯᒪᔪᓂᒃ *ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᒪᓕᒐᖅᒥᑦ*. ᒥᓂᔅ, ᐊᓯᐅᑎᑦᑎᑦᑕᐃᓕᓂᕐᒧᑦ, ᐅᕝᕙᓘᓐᓃᑦ ᐱᒻᒪᕆᖕᓄᑦ ᐱᔾᔪᑎᓄᑦ, ᐋᖅᑭᐊᖅᑎᑦᑎᔪᓐᓇᕐᑐᖅ ᐃᓗᓕᕆᔭᐅᔪᓂᒃ ᐆᓚ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎ (IFMP) ᒪᓕᒡᓗᓂ ᐱᔪᓐᓇᐅᑎᖃᕐᓂᖓ ᐅᐸᓈᖓᔪᓂᒃ *ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᒪᓕᒐᖅᒥᑦ*.

ᐃᖃᓗᓕᕆᔨᒃᑯᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ (DFO) ᑲᒪᒋᔭᖃᕐᑎᓪᓗᒍ ᐊᑐᓕᕐᑎᑦᑎᓂᕐᒥᒃ ᐊᑐᕆᐊᖃᖅᑐᓂᑦ ᐅᐸᓇ ᓄᓇᕗᒥᑦ ᓄᓇᑖᕈᑎᓄᑦ ᐊᖏᕈᑎᓂᒃ, ᐅᑯᐊ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎ (IFMP) ᐊᑐᓕᖅᑎᑕᐅᓇᔭᕐᑐᖅ ᒪᓕᒃᓯᒪᓂᒃᑯᑦ ᐊᑐᖅᑕᐅᔭᕆᐊᓕᖕᓂ. ᐅᑯᐊ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎ (IFMP) ᒪᓕᖕᓂᙱᑉᐸᑦ ᐊᑐᖅᑕᐅᔭᕆᐊᓕᖕᓄᑦ ᓄᓇᕗᒥᑦ ᓄᓇᑖᕈᑎᓄᑦ ᐊᖏᕈᑎᓂᒃ, ᐅᑯᐅ ᓄᓇᕗᒥᑦ ᓄᓇᑖᕈᑎᓄᑦ ᐊᖏᕈᑎᑦ ᒪᓕᒃᑕᐅᓂᖅᓴᐅᓇᔭᕐᑐᑦ ᓈᒻᒪᙱᓕᐅᕈᑎᓄᑦ.

ᒌᐳᑕᐊᓐ ᓂᕐᓗᖓᔪᖅ, ᐊᕕᒃᑐᕐᓯᒪᓂᒃᑯᑦ ᑐᑭᒧᐊᖅᑎᑦᑎᔨᒃ, ᐅᑭᐅᕐᑕᖅᑑᑉ ᓄᓇᖓᓂ
ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ

ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᒃᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᓇᐃᑦᑐᒃᑯᑦ ᐅᓂᒃᑳᑦ

ᐊᔾᔨᖑᐊᕐ, ᓇᓗᓇᐃᒃᑯᑎᑦ ᐊᒻᒪ ᐃᓚᒋᐊᕈᑏᑦ ᓇᓗᓇᐃᒃᑯᑎᒋᔭᐅᔪᑦ ᐊᑖᒍᑦ ᐃᒪᐅᑎᑕᐅᔪᑦ ᑕᒪᒃᑭᕐᓯᒪᔪᒥᒃ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᒃᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP).

1. ᕿᒥᕐᕈᐊᕐᓂᖅ ᐃᖃᓗᓕᕆᓂᕐᒥᒃ

ᐃᖃᓗᖕᓂ ᑰᓇᐅᔭᓕᐅᕋᓱᒃᓂᕐᒧᑦ ᐃᖃᓗᒐᓱᒃᓂᖅ ᐅᖃᐅᓯᐅᔪᑦ ᐅᕙᓂ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᒃᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᑐᕋᖕᒐᓗᐊᕐᑐᑦ ᐅᕙᓂ ᑭᓕᓂᖅᒥᑦ (Victoria Island), ᐃᖃᓗᒃᑑᑎᐊᑉ ᖃᓂᒋᔭᖕᒐᓃᑦᑐᒥ. ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒥᐅᑕᑦ ᓄᓇᖓ ᑭᓕᓂᐅᑉ ᓂᒋᕐᐸᓯᐊᑕ ᓯᕝᔭᖕᒐᓃᑦᑐᖅ ᐅᕙᓂ ᑲᓇᑕᒥ ᐅᑭᐅᕐᑕᖅᑐᖕᒐᑕ ᕿᑭᖅᑕᒐᓚᖕᖏᓐᓂᒃ. ᐃᖃᓗᒃᑑᑦᑎᐊᖅ ᐊᖏᓛᖑᔪᖅ ᓄᓇᓕᖕᓂ ᕿᑎᕐᒥᐅᓂᒃ (ᐊᔾᔨᖑᐊᖅ 1). ᑰᓇᐅᔭᓕᐅᕋᓱᒃᓂᕐᒧᑦ ᐃᖃᓗᒐᓱᒃᑲᑦᑕᕐᑐᑦ ᐃᖃᓗᒃ ᖃᓂᖕᒐᓂᒃ, ᐸᓕᕐᔪᐊᒃ (Surrey), Hᓗᒃᕚᒃ (Thirty Mile), ᐹᓕᒃ (Lauchlan) ᐊᒻᒪ ᔭᐃᑯ (Jayco) ᑰᖕᓂ (**Error! Reference source not found.**) ᒪᑯᓂᖓ ᑎᓯᕙᓪᓕᐊᔪᓂᒃ (ᐅᐱᖅᑲᒃᑯᑦ) ᐊᒻᒪ ᑕᓯᓕᐅᓕᕀᖕᒐᑕ (ᐅᑭᐅᒃᓵᒃᑯᑦ). ᖃᓄᐃᓕᐅᕐᐸᓪᓕᐊᒍᑎᕚᓃᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᒥ ᐃᖃᓗᒐᓱᖕᓂᕐᒥ ᐱᕙᓪᓕᐊᓂᒃᑯᑦ ᓇᓗᓇᐃᕐᑕᐅᓯᒪᑦᑎᐊᖅᑐᑦ ᐅᕙᓂ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᒃᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP). ᖃᖓᑦᑎᐊᕌᖅ ᑰᓇᐅᔭᓕᐅᕋᓱᒃᓂᒃᑯᑦ ᐃᖃᓗᒃᑕᐅᓂᑯᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᐃᓚᒍᑕᖅ B ᐅᕙᓂ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᒃᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP).

ᑰᓇᐅᔭᓕᐅᕋᓱᒃᓂᒃᑯᑦ ᐃᖃᓗᒐᓱᒃᓂᖅ, ᐅᕚᖓᓗ ᑐᕌᓚᕆᔭᐅᓗᐊᖅᑯᓂ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᒃᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓄᑦ (IFMP), ᐊᐅᓚᑕᐅᓪᓗᓂ ᓄᓇᓕᖕᓂ ᐃᓄᖕᓂ ᐃᖃᓗᒐᓱᒃᑎᓂ ᐱᓕᕆᖃᑎᖃᕐᓂᒃᑯᑦ ᐊᐅᓚᑕᐅᓂᖕᒐᓂᒃ ᕿᑎᕐᒥᐅᑦ ᓂᕿᖏᑦ ᓕᒥᑎᑦᑯᓂᒃ, ᐃᖃᓗᖕᓂ ᐱᓕᕆᐊᖅᑲᖅᐸᓪᓕᐊᕙᒃᑐᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᓂᒃ. ==ᕿᑎᕐᒥᐅᑦ ᓂᕿᖏᑦ ᓕᒥᑦ ᒡᓚᓇ ᐃᖅᑲᓇᐃᔭᖅᑎᑦᑎᔪᑦ 28 ᓄᓇᖃᖅᑐᓂᒃ ᐊᒻᒪ ᓄᓇᕗᒥᐅᓂᒃ, ᐃᓚᖃᖅᑯᓂ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ, ᐃᖃᓗᓕᕆᓇᒥᑦ ᐱᓕᕆᐊᖑᕙᒃᑐᓂᒃ ᐊᒻᒪᓗ ᑰᓇᐅᔭᓕᐅᕋᓱᒃᓂᕐᒧᑦ ᐃᖃᓗᒐᓱᒃᑎᓂᒃ.== ᐃᖃᓗᐃᑦ ᒪᑦᑎᑦᑕᐅᑎᓄᑦ ᐱᔭᐅᕙᒃᑐ ᐅᕙᓘᓐᓃᑦ ᑰᐸ ᖃᓂᐊᓂᒃ ᑕᕆᐅᕐᒧᙱᐅᕙᓪᓕᐊᑎᓪᓗᒋᑦ ᔪᓚᐃᒥᑦ, ᓄᓇᓕᖕᓂᓪᓕ ᐅᐱᖅᑳᒃᑯᑦ ᐃᖃᓗᒐᓱᒃᓂᖅ (ᐹᓕᒃ ᐊᒻᒪ ᐹᓕᕐᔪᐊᒃ ᑰᖕᓂ), ᐅᕙᓘᓐᓃᑦ ᒪᑦᑎᑦᑕᐅᑎᓄᑦ ᐅᕙᓘᓐᓃᑦ ᑎᓄᔾᔭᐅᓯᒪᔪᓂᒃ ᑕᕆᐅᖅᒦᑦᑐᓕᐊᕋᓯᒃᑎᓪᓗᒋ ᐋᒐᓯᐅᑉ ᕿᑎᐊᓂ ᑎᑭᕗᒍ ᓯᑎᐱᕆᐅᑉ ᕿᑎᖓᓄᑦ, ᓄᓇᓕᖕᓂ ᐅᑭᐅᒃᓵᒃᑯᑦ ᐃᖃᓗᒐᓱᖕᓇᕆᔭᐅᔪᖅ (Hᓗᒃᕚᒃ, ᐃᑲᓗᒃ ᐊᒻᒪ ᔭᐃᑯ ᑰᖕᓂ). ᓯᓚ ᐱᐅᑲᑦᑕᑎᓪᓗᒍ (ᐃᒃᑳᓂᕐᑕᖃᕐᒪᑦ ᑐᐊᓂᐅᓪᓗᓂ ᑰᖕᒥ), ᐅᔭᕋᖕᓂ ᑎᓄᔾᔭᐅᔫᒃᓯᓄᑦ ᐃᖃᓗᖕᓂ ᐊᑐᖃᑦᑕᕐᓂᖅᓴᐅᔪᑦ. ᐃᖃᓗᐃᑦ ᐱᓕᕆᐊᖑᕙᒃᑐᑦ ᐱᔭᐅᕝᕕᖕᒋᓐᓂᒃ (ᒪᑯᐊ ᐊᕿᐊᕈᖕᒋᑦ ᐊᒻᒪ ᒪᓯᖕᒋᑦ ᐋᕐᑕᐅᓪᓗᑎᒃ) ᐊᒻᒪ ᐃᕈᖅᑐᖅᑕᐅᓪᓗᑎᒃ ᑑᖅᑕᐅᓚᐅᙱᓐᓂᖕᒋᓐᓂᒃ ᓂᓚᓕᖕᓄᑦ ᐅᐊᔅᕚᖕᓄᑦ ᐊᖏᔪᓄᑦ.

ᖃᖓᑕᓲᑦ ᐃᒪᕐᒧᑦ ᒥᑦᑐᓇᕐᑐᑦ ᐱᓕᕆᑎᑕᐅᕙᒃᑐᑦ ᕿᑎᕐᒥᐅᑦ ᓂᕿᖏᑦ ᓕᒥᑎᑦᑯᓂᒃ ᑕᒪᒃᑯᐊ ᐃᖃᓗᐃᑦ ᐱᔭᐅᕝᕕᖕᒋᓐᓂᒃ ᐅᓯᓕᕐᓯᖅᑕᐅᓪᓗᑎᒃ ᐃᖃᓗᒃᑑᑦᑎᐊᓄᑦ ᐊᓪᓚᖅᑎᑕᐅᓪᓗᑎᒃ, ᑕᕙᓂᓕ ᑐᓚᒃᑕᕝᕕᒥᑦ ᐅᓯᒋᖅᑕᐅᓪᓗᑎᒃ ᐊᒻᒪ ᐃᖃᓗᓕᕆᕝᕕᖑᑦ ᐊᐢᔭᖅᑕᐅᓪᓗᑎᒃ ᐱᓕᕆᐊᖑᒃᑲᐅᑎᒋᓂᐊᕐᒪᑕ. ᐃᖃᓗᐃᑦ ᐱᓕᕆᔭᐅᕝᕕᒃᓴᖏᓄᐊᖅᐸᑕ, ᐊᑐᓂ ᐅᐊᓴᕝᕚᑦ ᐅᖁᒪᐃᓂᕐᓯᐅᖅᑕᐅᕙᒃᑐᑦ ᐊᒻᒪᓗ ᓇᓗᓇᐃᖅᑕᐅᕙᒃᑯᑎᒃ ᖃᓄᐃᑦᑐᓂ ᐃᓗᓕᖃᕐᒪᖔᑕ ᐊᒻᒪ ᖃᔅᓯᐅᖕᒪᖔᑕ ᑎᑎᕋᖅᑕᐅᕙᓪᓕᐊᓪᓗᑎᒃ.

ᐃᖃᓗᓕᕆᓂᖅ ᒐᕙᒪᓕᕆᓂᒃᑰᖕᒐᓂᖕᒐ

ᐃᖃᓗᒃᑑᑦᑎᐊᓂᒃ ᐃᖃᓗᒐᓱᒃᓂᖅ ᓂᐅᕐᕈᑎᒃᓴᓂᒃ ᐊᐅᓚᑕᐅᖅᑕᐅᔪᖅ ᐅᑯᓇᖕᒐᑦ ᓄᓇᕗᒥᑦ ᐆᒪᔪᓕᕆᔩᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ (NWMB), ᐃᖃᓗᒃᑑᑎᐊᒥ ᐊᖑᓇᓱᒃᑐᓕᕆᔨᓄᑦ (EHTO), ᐊᒻᒪᓗ ᐃᖃᓗᓕᕆᔨᒃᑯᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ (DFO), ᒪᓕᒃᖢᑎᒃ ᐆᒥᖓ ==ᓄᓇᕗᒧᑦ ᐊᖏᕈᑎᓂᒃ (NA),== ᐅᑯᓂᖓᓗ *ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᒪᓕᒐᖅᒥᑦ* ᐊᒻᒪ *ᐱᖁᔭᖏᓐᓂᒃ*. ᐃᖃᓗᒃᑑᑦᑎᐊᓂ ᐃᖃᓗᒐᓱᒃᓂᖅ ᑰᓇᐅᔭᓕᐅᕋᓱᒃᓂᕐᒧᑦ ᒪᓕᑦᑐᖅ ᐱᖁᔭᓂ ᐅᕙᓂ *ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᒪᓕᒐᖅᒥᑦ* (R.S., 1985, ᓇᒡᒍᖅ F-14) ᐊᒻᒪ ᐱᖁᔭᓂᒃ ᐋᖅᑭᒃᑕᐅᓯᒪᔪᓂᒃ ᑖᔅᓱᒧᖓ, ᐃᓚᖃᖅᑯᓂ *ᐃᖃᓗᓕᕆᓂᕐᒧᑦ (ᑕᒪᐃᑎᒍᑦ) ᐱᖁᔭᓂᒃ* ᐊᒻᒪᓗ *ᓄᓇᕙᐊᕐᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᖁᔭᓂᒃ*. ᐊᔾᔨᒌᙱᓐᓂᖅᑕᖃᓗᐊᕐᐸᑦ ᑖᒃᑯᐊ ᐱᖁᔭᖏᓐᓂᒃ ᐊᒻᒪᓗ ᓄᓇᕗᒥᑦ ᓄᓇᑖᕐᓂᕐᒧᑦ ᐊᖏᕈᑎᓂᒃ, ᐊᖏᕈᑎ ᒪᓕᒃᑕᐅᓂᖅᐅᓇᔭᕐᑐᖅ ᓈᒻᒪᒋᓕᐅᕈᑎᓄᑦ.

ᐃᖃᓗᓕᕆᔩᒃᑯᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ (DFO) ᐊᑐᓕᓚᐅᕐᒪᑕ ᐊᑐᒃᑳᓂᕈᓐᓇᑐᓕᕆᓂᒃᑯᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᑎᒃᓴᓂᒃ (SFF) ᑕᒪᐃᓐᓄᓕᒫᖅ ᑲᓇᑕᒥ ᐃᖃᓗᓕᕆᔩᓄᑦ ᑕᒪᓐᓇ ᐊᑯᓂᕈᓗᒃ ᐊᑐᑲᓐᓂᕈᓐᓇᖁᑦᓗᒍ, ᑮᓇᐅᔭᓕᐅᕈᑎᐅᓂᕐᒧᑦ, ᐊᒻᒪᓗ ᐱᐅᓯᕙᓪᓕᕐᓯᒪᔪᑦ ᑲᓇᑕᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᒐᕙᒪᓕᕆᓂᐅᔪᑦ ᒪᓕᒃᑕᐅᓗᑎᒃ. ==ᐃᖃᓗᒃᑑᑦᑎᐊᓂᒃ ᐃᖃᓗᓕᕆᓂᖅ ᓂᐅᕕᐊᒃᓴᓂᒃ ᐃᓚᓕᐅᔾᔭᐅᓚᐅᕐᑐᖅ ᐅᑯᐊ ᔫᓇᐃᑕᑦ ᓯᑕᐃᑦᓴ== ==<u>ᒥᐊᓕᒐᒃᑯᑦ ᑕᓇᐅᕐᕿᐅᑕᓄᑦ ᐊᒻᒪ ᓯᓚᓖᑦᑐᓄᑦ ᐊᐅᓚᑦᓂᕐᒧᑦ (National Oceanic and Atmospheric Administration</u> [NOAA]) ᓇᓗᓇᐃᔭᕐᓯᒪᔭᖏᑦ ᓄᓇᖃᖏᑦᑐᑦ ᐃᖃᓗᓕᕆᓕᕆᔩᒃᑯᓐᓂᒃ (LOFF) ᒪᓕᖓᓂᒃᑯᑦ ᓄᓇᕐᔪᐊᒥᑦ ᐱᕐᑯᔭᓂᒃ ᐊᑐᓕᕐᑎᑦᑎᓯᒪᔪᓂᒃ ᐃᒪᕐᒥᐅᑕᓂᒃ ᓴᐳᔾᔨᓯᒪᓂᕐᒧᑦ ᒪᓕᒐᕐᒥᑦ ᐊᒻᒪ ᐊᐅᓚᖅᑎᑦᑎᕙᖓᓂᕐᒥᒃ.==

ᐅᓇ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐋᖅᑭᒃᑕᐅᓯᒪᔪᑦ ᑕᐃᒪᙵᓕᒫᖅ ᑎᑎᖃᕐᑯᑎᐅᓂᐊᕐᓗᓂ, ᐃᒪᓐᓇ ᑎᑎᕋᕐᓯᒪᖕᒪᑦ ᐊᑐᕈᓐᓇᕐᑐᓂᒃ ᐊᑯᓂᐊᓗᒃ ᐊᒻᒪ ᐃᓱᖃᖅᑎᑕᐅᓯᒪᙱᑦᑐᓂᒃ. ᕿᒥᕐᕈᐊᖃᑦᑕᕐᓂᒃᑯᑦ (ᑕᑯᓗᒍ ᐃᓚᖓ 9 ᐅᑯᓇᓂ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐅᑯᓄᖓ ᑲᑎᑎᕆᓯᒪᔪ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐱᓕᕆᖃᑎᒌᓄᑦ ᐊᒻᒪ ᑎᒍᒥᐊᕐᑎᓄᑦ, ᓄᑖᙳᕆᐊᖅᑎᑦᑎᓂᖅ ᐊᒻᒪ ᐋᖅᑭᐊᖅᑎᑦᑎᒍᑏᑦ ᑐᓂᔭᐅᓂᐊᕐᑐᑦ ᓄᓇᕗᒥᑦ ᐆᒪᔪᓕᕆᔩᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔩᖏᓐᓄᑦ ᐊᒻᒪ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐊᒻᒪ ᑕᓇᐅᕐᕿᐅᑕᓄᑦ ᒥᓂᔅᑕᒧᑦ ᐊᖏᖅᑕᐅᓂᐊᕐᒪᑕ, ᑕᐃᒪᐃᑦᑕᕆᐊᖃᕐᐸᑕ.

2. ᖃᐅᔨᓴᖅᑐᓕᕆᓂᖅ, ᐃᓕᖅᑯᓯᑎᒍᑦ ᓄᓇᒦᑦᑐᑦ ᖃᓄᐃᑉᐸᓪᓕᐊᓂᖏᑦ ᖃᐅᔨᒪᓂᖅ ᐊᒻᒪ ᐅᓄᕐᓂᖏᓐᓂᒃ ᖃᐅᔨᓴᕐᓂᖅ

ᐱᑕᖃᕐᓂᖏᑦᑎᒍᑦ ᖃᐅᔨᓴᖅᑐᓕᕆᓂᖅ

ᐃᖃᓗᒃ, *Salvelinus alpinus* (L.) ᓇᓅᕈᓘᔭᕐᐸᒃᑐᑦ ᑲᓇᑕᐅᑉ ᐅᑭᐅᕐᑕᖅᑐᖓᓂᒃ ᒫᓂᓗ ᕿᑭᖅᑕᒐᓚᖕᓂᒃ (Arctic Archipelago (ᒪᒃᕕᐅᕐ ᐊᒻᒪ ᓕᓐᓯ, 1970; ᓯᑳᑦ ᐊᒻᒪ ᑯᕌᔅᒪᓐ, 1973), ᐊᒻᒪ ᐱᑕᖅᑲᖅᐸᒃᓲᑎᒃ ᑕᒪᐃᓐᓂᑦ ᑕᓯᕐᒥᐅᑕᓂᒃ ᐊᒻᒪ ᑕᕆᐅᕐᒪᐊᖃᑦᑕᖅᑐᓂᒃ (ᑕᕆᐅᓕᐊᕐᐸᒃᑐᑦ) (ᔮᓐᓴ, 1980; ᔮᓐᓴ ᐊᒻᒪ ᔮᓐᓴ, 2001; ᓘᕗᐊᓐ ᐃᐊᑦ ᐋᓪ., 2009). ᓂᕆᑲᑕᒃᐸᒃᑐᑦ ᓯᙱᔭᐅᑉ ᖃᓂᒋᔭᖕᒋᓐ, ᐃᒃᑳᓂᕐ ᑰᖕᓄᑦ ᖃᓂᑦᑐᓂᒃ ᐅᓪᓗᓂ 30-45, ᑭᓯᐊᓂᑦᑕᐅᖅ ᐅᓪᓗᓂ 6-ᓂᒃ ᑕᒦᓃᑦᑐᓂᒃ ᑎᑎᕋᐅᓯᐅᓯᒪᖕᒥᔪᑦ (ᑐᑎᐅᓪ, 1986; ᒐᐃᓯᒪᓐ 1994; ᒨᐊ, ᐃᐊᑦ ᐋᓪ, 2016).). ᓂᕆᖃᑦᑕᕐᑐᑦ ᐃᒪᐅᑉ ᖄᖕᒐᓃᓐᓂᖕᓴᓂᒃ ᑭᓯᐊᓂᓕ ᖃᐅᔨᓯᒪᔪᑦ ᐃᖅᑲᖕᒐᓄᑦ 30 ᒦᑕᓂ ᐃᑎᓂᓕᕐᒧᐊᕐᓯᒪᔪᓂᒃ (Hᐃᐅᕆᔅ, ᐃᐊᑦ ᐋᓪ., 2020). ᑕᒪᒃᑯᐊ ᑰᖑᔪᐃᑦ ᖃᓂᖏᑦ ᐱᒻᒪᕆᐅᑎᓪᓗᒋᑦ ᐊᐅᔭᒃᑯᑦ ᓂᕆᕝᕕᐅᕙᒃᓗᑎᒃ ᑕᕆᐅᕐᒦᑎᓪᓗᒋᑦ (Hᐃᐅᕆᔅ, ᐃᐊᑦ ᐋᓪ, 2020), ᐃᒪᖏᑦ ᐅᖓᓯᒃᑐᒨᙵᐅᓯᒪᔪᑦ ᑎᑎᕋᐅᓯᐅᓯᒪᖕᒥᔪᑦ (ᓰᕐᓗ, ≥ 100-400 ᑭᓵᒥᑕ, ᒐᐃᓯᒪᓐ 1994; ᑎᐊᓪᓴ ᐊᒻᒪ ᑯᕆᑖᕗᓴ, 1987; ᒨᐊ, ᐃᖃᑦ ᐋᓪ, 2016). ᐃᖃᓗᒃᑑᑦᑎᐊᓂᒃ ᑮᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᐃᖃᓗᒐᓱᖕᓂᖅᓴᐅᕝᕒᑦ ᑰᒃᑰᕐᑐᓂᒃ, ᐅᐱᕆᖕᒐᑯᓪᓗᓐᓃᑦ, (ᔪᓚᐃᒥ) ᐃᖏᕐᕋᓕᕌᖕᒐᑕ ᓂᕆᔭᒃᓴᖅᓯᐅᖅᓲᑎᒃ ᐅᑭᐊᒃᓵᒃᑯᓘᓐᓃᑦ (ᐋᒐᓯᐅᑉ ᕿᑎᐊᓂᒃ ᐊᒻᒪ ᓯᑎᐱᕆ ᐱᒋᐊᓕᕐᓵᑎᓪᓗᒍ) ᑕᓯᕐᓄᙵᐅᓕᕐᑎᓪᓗᒋᑦ ᐅᑭᐅᕐᓯᐅᕐᕕᒃᓴᖕᒋᓐᓄᑦ.

ᒪᓂᓕᐅᕐᐸᒃᑐᑦ ᑕᕆᐅᖅᑲᖏᑦᑐᒥ ᐃᒫᓂᒃ ᐅᑭᐅᒃᓵᒃᑯᑦ, ᐃᓛᓐᓂ ᓯᑎᐱᕆ ᐱᐊᓂᓕᕐᑎᓪᓗᒍ ᐅᒃᑑᐱᕆᓘᓐᓃᑦ ᐱᒋᐊᓕᕌᖅᑎᓪᓗᒍ, ᑐᐊᐸᒐᓚᐃᑦ ᖄᖏᑦᑎᒍᑦ. ᐃᖃᓗᒃᑑᑦᑎᐊᑉ ᒥᒃᓴᓂ ᐱᓗᐊᕐᑐᒥ, ᒪᓂᓕᐅᕐᐸᒃᑐᑦ ᑕᓯᕐᓂᒃ, ᐱᔾᔪᑎᐅᓪᓗᓂ ᑯᖏᑦ ᖁᐊᑦᑎᐊᒻᒪᕆᖃᑦᑕᕐᓂᖕᒋᓐᓄᑦ ᐅᑭᐅᒃᑯᑦ. ᐱᑕᖅᑭᓗᐊᕐᑎᓪᓗᒋᑦ ᒪᓂᓕᐅᕐᑐᓂᒃ ᐅᑭᐊᒃᓴᒃᑯᑦ ᑕᓯᕐᓄᙵᐅᔪᓂ ᑕᐃᒪᓕ ᐃᓯᒪᓇᕐᑐᖅ ᑕᕆᐅᓕᐊᖃᑦᑕᙱᓐᓂᖕᒋᓐᓂᒃ ᐊᐅᔭᐊᓂᒃ ᒪᓂᓕᐅᓚᐅᕐᑎᓇᒥᑦ

ᐃᓕᖅᑯᓯᒃᑯᑦ ᖃᐅᔨᒪᓂᖅ ᐊᒻᒪ ᐃᓄᐃᑦ ᖃᐅᔨᒪᔾᔪᑎᖏᑦ

ᐃᖃᓗᒃᑑᑦᑎᐊᑉ ᒥᒃᓴᓂᒃ ᐃᖃᓗᒐᓱᒃᑕᕐᓯᒪᔪᑦ ᐊᑯᓂᒻᒪᕆᐊᓗᒃ. ᐃᖃᓗᒃᑑᑦᑎᐊᓂ ᐃᓄᐃᑦ ᖃᓄᐃᑉᐸᓪᓕᐊᒍᓯᖕᓂᒃ ᐊᒻᒪ ᐊᕙᑎᒋᔭᐅᔪᓂᒃ ᑕᒪᑐᒨᖓ ᖃᐅᔨᕚᓪᓕᐊᓯᒪᖕᒪᑦ ᓲᖃᐃᒻᒪ ᐆᒻᒪᔾᔪᑎᑦᑎᒐᒥᔾᔪᑎᒃ ᓂᕿᑦᔭᐅᓪᓗᓂ ᐊᒻᒪᓗ ᖃᐅᔨᒪᓪᓗᑎᒃ ᓇᓕᐊᓐᓂ ᐱᑕᖅᑲᓗᐊᕐᓯᒪᓂᖕᒋᓐᓂᒃ. ᐱᓗᐊᕐᑐᒥ, ᐃᖃᓗᒃ ᑰ ᑎᑎᕋᐅᓯᐅᓯᒪᑦᑎᐊᕐᑐᖅ ᖃᓄᐃᑉᐸᓪᓕᐊᒍᖏᓐᓂᒃ ᐃᓕᖅᑯᓯᒃᑯᑦ ᐆᒪᔪᖃᕐᑐᓂᒃ ᖃᐅᔨᒪᓂᕐᒧᑦ (TEK) ᐃᖃᓗᒃᑑᑦᑎᐊᒥᐅᑕᓄᑦ, ᐃᓄᐃᑦ ᑕᒫᓂ ᓄᓇᖃᕐᓯᒪᔪᑦ ᐊᑯᓂᒻᒪᕆᐊᓗᒃ ᐊᕐᕌᒍᐴᓴᒻᒪᕆᖕᓂᒃ.

ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᖏᑦ ᐊᒻᒪ ᐃᓄᐃᑦ ᖃᐅᔨᒪᔾᔪᑎᖏᑦ (IQ) ᐃᑲᔫᑎᐅᖁᑦᑐᖅᑎ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐃᖃᓗᒐᓱᖕᓂᕐᒥᒃ, ᐊᒻᒪᓗ ᐊᑐᖅᑕᐅᕙᒃᓗᓂ ᖃᐅᔨᓴᖅᑐᓕᕆᓂᒃᑯᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᓯᒪᓕᐅᕆᔾᔨᑎᒃᓴᓂᒃ ᐊᒻᒪᓗ ᐋᖅᑭᒃᓯᐃᕙᓪᓕᐊᓂᕐᒥᒃ ᖃᐅᔨᓴᖅᑐᓕᕆᓂᕐᒧᑦ ᐊᒻᒪ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᒃᓴᓂᒃ. ᐃᓕᖅᑯᓯᒃᑯᑦ ᐆᒪᔪᖃᕐᑐᓂᒃ ᖃᐅᔨᒪᓂᖅ (TEK)

ᐃᑲᔪᕐᓯᒪᔪᑦ ᑐᓴᐅᒪᔭᐅᔭᕆᐊᓕᖕᓂᒃ ᒫᓐᓇ ᐃᖃᓗᐃᑦ ᐅᓄᖅᑑᓕᕐᓂᖏᓐᓂᒃ ᐃᖃᓗᒃᑑᑎᐊᒥ ᑮᓇᐅᔭᓕᐅᕆᓲᖕᓂᕐᒧᑦ ᐃᖃᓗᒐᓱᒡᕕᖕᓂᒃ. ᐅᓇ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP), ᐃᓚᖃᖅᑯᓂ ᐊᐅᓚᑦᑎᒍᑎᒃᓴᓂᒃ ᐊᒻᒪᓗ ᐱᐅᓀᓂᒃ ᐱᓕᕆᔾᔪᓯᕐᓂᒃ ᐋᒃᑐᐊᔪᓂᒃ ᐃᖃᓗᒐᓲᑎᓂᒃ ᐊᑐᖃᑦᑕᕐᓂᕐᒥᒃ ᐊᒻᒪ ᒪᓐᓂᓕᐅᕐᐸᓪᓕᐊᔪᓂᒃ ᐃᖃᓗᙵ ᐅᑎᖅᑎᖃᑦᑕᕐᓂᕐᒥᒃ, ᑕᒪᒃᑯᐊᓗ ᐋᖅᑭᒃᑕᐅᓯᒪᓪᓗᑎᒃ ᐅᖃᖅᑎᖃᕐᓯᒪᓂᒃᑯᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᓕᕆᔾᔭᐅᔪᓂᒃ.

ᐅᓄᕐᓂᖏᓐᓂ ᖃᐅᔨᓴᐃᓂᐅᔪᓄᑦ

ᐱᐊᓂᒃᑕᐅᓯᒪᔪ ᐃᖃᓗᐃᑦ ᐅᓄᕐᓂᖏᓐᓄᑦ ᖃᐅᔨᓴᕆᑎᓂᒃ ᐅᑯᓂᖓ ᐃᖃᓗᒃᑑᑦᑎᐊᓂ ᐃᖃᓗᙵᓂᒃ ᐱᐊᓂᒃᑕᐅᓚᐅᕐᓯᒪᔪᖅ ᐅᑯᓈᙳᑦ ᑕᐃ ᐊᒻᒪ Hᐃᐅᓇᐢ (2013); ᐅᓇ ᖃᐅᔨᓴᕐᓂᖅ ᖃᐅᔨᒍᑎᐅᓚᐅᕐᑐᖅ ᑕᒪᕐᒥᒃ ᐃᖃᓗᐃᑦ ᖃᓄᐃᓐᓂᖏᑦᑎᒍᑦ, ᐅᓇ ᐃᓚᐅᙱᕈᓂ ᐃᓖᑦ ᑰᒃ, ᐃᓱᒪᒋᔭᐅᓚᐅᕐᑐᑦ ᐱᔭᐅᓗᐊᕋᔭᙱᓐᓂᖏᓐᓂᒃ ᐃᖃᓗᒃᑕᐅᔪᓐᓇᕐᑐᑦ ᑕᐅᑐᒃᑯᒋᑦ. ᒫᓐᓇᑦᑎᐋᓵᕐᓚ, ᖃᐅᔨᓴᕐᓂᐅᔪᖅ ᐆᒥᖓ Hᐊᓗᒃᕕᒃᒥᑦ (Thirty-Mile ᑰᒃ) ᐊᒻᒪ ᔭᐃᑯ ᑰᖕᒥ ᖃᐅᔨᒍᑎᐅᓚᐅᕐᑐᖅ ᑕᒪᕐᒥᒃ ᐃᖃᓗᒐᓱᒻᕕᐅᔫᒃ ᐃᖃᓗᖃᕐᓂᖏᑦ ᐃᓱᒪᒋᔭᐅᔪᑦ ᐃᓱᐊᓃᐸᓗᒋᐊᒃᓴᖏᓐᓂᒃ ᐅᓗᕆᐊᓇᙱᑦᑐᒦᓐᓇᔭᕐᓂᖏᓐᓂ ᑕᐃᒪᓐᓇ ᐃᖃᓗᒻᕕᐅᖃᑦᑕᐃᓐᓇᕈᑎᒃ ᐅᓄᕐᓂᕆᔭᐅᔪᓐᓇᖅᑐᑦ ᑕᐃᒪᓐᓇᑦᑕᐃᓐᓈᕐᓂᐊᕈᓂ.

ᐃᖃᓗᒃᑑᑦᑎᐊᓂ ᐃᖃᓗᒐᓱᖕᓂᐅᕙᒃᑐᖅ ᐃᖃᓗᙵ ᐃᓱᒪᒋᔭᐅᔪᖅ ᖃᐅᔨᓴᕆᑎᓂᒃ ᑲᑎᕐᓱᐃᒍᑎᐅᙳᕆᓗᐊᕐᓂᙶᓂᒃ ᑕᐃᒪᓐᓇᓗ ᐱᓕᕆᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᑎᖃᕐᓂᖕᓴᐅᔭᕆᐊᖃᖅᑯᑎᒃ ᐊᒻᒪᓗ ᓇᓗᓇᕈᑎᐅᓪᓗᓂ ᐅᓄᕐᓂᓪᓚᕆᕕᓂᖏᓐᓂᒃ. ᐊᕐᕌᒍ ᐃᓗᐊᒍᑦ ᖃᐅᔨᓴᕈᑎᒃᓴᐅᓂᐊᕐᑐᓂᒃ ᐋᖅᑭᒃᓱᐃᓯᒪᔪᑦ ᐃᖃᓗᓕᕆᔩᒃᑯᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ (DFO), ᐅᖃᓪᓚᖃᑎᖃᓚᐅᖅᑯᑎᒃ ᐊᑐᖃᑦᑕᖅᑐᓂᒃ ᐊᒻᒪᓗ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐱᓕᕆᐊᖃᖅᑐᓂᒃ ᑲᑐᔾᔮᖃᑎᒌᓂᒃ, ᐆᒧᖓ ᐃᖃᓗᒃᑑᑦᑎᐊᒥ ᐃᖃᓗᒐᓱᒃᑲᑦᑕᕐᓂᕐᒧᑦ ᑮᓇᐅᔭᓕᐅᕆᓲᖕᓂᒃᑯᑦ ᑕᒪᓐᓇ ᐱᓕᕆᐊᙳᓂᐊᕐᓗᓂ ᑲᑎᕐᓱᐃᓯᒪᑦᑎᐊᙱᓐᓂᖅ ᖃᐅᔨᓴᕆᑎᓂᒃ.

3. ᐃᓅᖃᑎᒌᙶᕐᒧᑦ, ᐃᓕᖅᑯᓯᕐᒧᑦ ᐊᒻᒪ ᑮᓇᐅᔭᓕᐅᕆᓲᖕᓂᕐᒧᑦ ᐱᒻᒪᕆᐅᓂᖓ ᐃᖃᓗᓕᕆᓂᖅ

ᐃᓅᖃᑎᒌᙶᖅ ᐊᒻᒪ ᐃᓕᖅᑯᓯᖅ

ᐃᖃᓗᐃᑦ ᐱᒻᒪᕆᐊᓘᖓᒪᑕ ᐃᓅᖃᑎᒌᙶᕐᒧᑦ, ᐃᓕᖅᑯᓯᕐᒥᑦ ᓇᓗᓇᐃᕐᓯᒪᓂᕐᒧᑦ ᐊᒻᒪ ᓂᕿᒋᔭᐅᓪᓚᕆᙱᓐᓂᖔᓂᑦ ᐃᓄᖕᓄᑦ ᑲᓇᑕᒥᐅᑕᓄᑦ. ᐃᖃᓗᒃᑑᑦᑎᐊᖅ ᐊᑎᖓ, ᐃᓄᐃᓐᓇᕐᑐᑦ ᑐᑭᓕᒃ “ᐃᖃᓗᒐᓱᒻᕕᑦᑎᐊᕙᒃ” ᐊᒻᒪᓗ ᐃᓕᖅᑯᓯᑐᖃᐅᓂᖓᓄᑦ ᐊᒃᑐᐃᒍᑎᖃᑦᑎᐊᖅᑯᓂ ᐃᓅᖃᑎᒌᙶᕐᒧᑦ ᐃᖃᓗᒃᑐᖃᑎᒌᖃᑦᑕᕐᓂᒃᑯ. ᐃᖃᓗᐃᑦ ᐱᒻᒪᕆᐅᖕᒥᔪᑦ ᑎᒥᒧᑦ ᐊᒻᒪ ᐃᓅᖃᑎᒌᙶᕐᒧᑦ ᓄᓇᓕᖕᓂᒃ – ᐃᓕᖅᑯᓯᕐᒥ ᐊᑐᖃᑦᑕᐃᓐᓇᖅᑯᑎᒃ ᐊᒻᒪ ᐃᓅᓯᖏᓐᓂᒃ, ᐃᓄᖕᓄ ᓂᕿᖃᕈᑎᐅᓪᓗᓂ ᐊᒻᒪᓗ ᓄᓇᓕᖕᓄᑦ ᒪᑭᒪᒍᑎᐅᓪᓗᓂ.

ᑮᓇᐅᔭᓕᐅᕆᓲᖕᓂᕐᒧᑦ ᐃᖃᓗᒐᓱᖕᓂ ᐃᑲᔪᕈᑎᐅᕗᖅ ᐱᒻᒪᕆᒋᔭᐅᔪᓂᒃ ᐃᓅᖃᑎᒌᙶᕐᒧ ᐊᒻᒪ ᐃᓕᖅᑯᓯᕐᒧᑦ ᐃᓚᒌᓄᑦ, ᑐᓂᓯᖃᑦᑕᕐᓂᒃᑯᑦ ᐊᒻᒪᓗ ᓄᓇᖃᖅᑐᑦ ᑕᐃᒪᓐᓇᑦᑕᐃᓐᓇᖅ ᐊᑐᖃᑦᑕᐃᓐᓇᐅᔭᖅᑯᑎᒃ. ᒫᓐᓇᓕ, ᕿᑎᕝᕆᐅᑦ ᓂᕿᖕᒋᑦ ᓕᒥᑎᑦᑯᑦ ᐃᖅᑲᓇᐃᔭᖅᑎᑦᑎᔪᑦ 28-ᓂᒃ ᓄᓇᖃᖅᑐᓂᒃ ᐊᒻᒪ ᓄᓇᕗᒥᐅᓂᒃ ᐃᖃᓗᓂ ᑮᓇᐅᔭᓕᐅᕆᑎᒃᑲᓲᖕᓂᒃᑯᑦ ᐊᕐᕋᒍᑕᓖᑦ. ᑮᓇᐅᔭᓕᐅᕆᓲᖕᓂᕐᒧᑦ ᐃᖃᓗᒐᓱᖕᓂᖅ ᓄᓇᓕᖓ ᐃᖅᑲᓇᐃᔮᖃᕆᑎᐅᔪᖅ, ᑕᐃᒪᓕ ᐃᖃᓗᒐᓱᒃᑏᑦ ᐃᖃᓗᒃᑑᑎᐊᓂ ᓄᓇᖃᐃᓐᓇᕐᓗᑎᒃ ᐊᒻᒪ ᐃᖅᑲᓇᐃᔭᕆᓐᓇᖅᑯᑎᒃ ᐊᒻᒪ ᐃᑲᔪᕆᑎᐅᓪᓗᓂ ᑮᓇᐅᔭᓕᐅᕆᑎᓂᒃ ᑲᔪᓯᑎᑦᑎᓂᕐᒥᒃ ᐊᔪᕆᓐᓂᕐᑕᐅᓯᒪᔪᓂᒃ ᖃᐅᔨᒪᑎᑦᑎᕙᓪᓕᐊᓂᒃᑯᑦ ᐃᓕᖅᑯᓯᕆᔭᐅᔪᑎᖃᓂᒃ.

ᑮᓇᐅᔭᓕᕆᓂᕐᒧᑦ ᐱᒻᒪᕆᐅᔪᑦ

ᑮᓇᐅᔭᓕᐅᕐᓂᒃᑯᑦ ᐅᑯᐊ ᐃᑲᔪᕐᓂᖏᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑮᓇᐅᔭᓕᐅᕆᓲᖕᓂᖓ ᐃᑲᔪᕈᑎᒻᒪᕆᐅᔪᖅ ᑕᒪᐃᓐᓄᑦ ᓄᓇᓕᖕᓄᑦ ᐊᒻᒪ ᓄᓇᕗᒧᑦ. 2015-ᒥᑦ ᑲᑎᙵᑎᒃ ᐃᖃᓗᒃᑕᐅᔪᑦ ᑮᓇᐅᔭᓕᐅᕆᓲᖕᓂᕐᒧᑦ ᓄᓇᕗᒥᑦ ᒫᓃᓐᓇᓱᒋᔭᐅᓚᐅᕐᑐᖅ 72,574 ᑭᓗᒍᕋᒻ ᐊᑭᖃᓪᓗᐊᖅᑯᑎᒃ ᒫᓂᒃ $1,800,000 (2016 ᓄᓇᕗᒥ ᒐᕙᒪᒃᑯᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᓕᕆᐊᕐᒋᑦᑎᒍᑦ). ᐃᖃᓗᒃᑑᑦᑎᐊᒥ ᐃᖃᓗᒃᑕᐅᔪᑦ ᒫᓃᓚᐅᕐᑐᑦ 37,765 ᑭᓗᒍᕋᒻ (52%) ᖃᑎᓯᒪᓪᓗᑎᒃ ᐃᖃᓗᒃᑕᐅᔪᓕᒫᑦ, ᐊᒻᒪ ᑖᒃᑯᐊ ᐊᑭᖃᓪᓗᐊᖅᑯᑎᒃ ᒫᓂ

$855,363.[1] ᖃᓂᓐᓂᖅᑯᓪᓕ, 2019-ᒥᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᓂᒃ ᐃᖃᓗᒐᓱᖕᓂᖅ ᑮᓇᐅᔭᓕᕋᓱᖕᓂᕐᒧᑦ ᑲᑎᖕᒋᑎᒃ ᐱᔭᕆᐊᖃᖅᑕᖓᓂᒃ 99%-ᖓᓂᒃ ᐃᖃᓗᓚᐅᕐᓯᒪᔪᑦ (48,493 ᑭᓗᒍᕌᒻ ᐱᔭᐅᔫᓐᓇᕐᑐᑦ), ᑲᑎᓕᒫᖅᖕᒋᑎᒃ 48,097 ᑭᓗᒍᕌᒻᓂᒃ.

Ocean Wise (ᑕᕆᐅᕐᒥ ᐃᓱᒪᑦᑎᐊᕐᓂᖅ) ᑕᕆᐅᒥᐅᑕᑦ ᓂᕿᑦ ᐱᓕᕆᐊᖃᖅᑐᑦ ᐊᓯᐅᑎᑦᑎᑦᑕᐃᓕᓂᕐᒥᒃ ᐃᑲᔪᖅᐸᒃᖕᒋᑎᒃ ᓂᕈᐊᕈᓐᓴᕐᓂᕐᒥᒃ ᐊᑐᒃᑳᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᑯᑦ ᑕᕆᐅᕐᒥᐅᑕᓂᒃ ᐱᑖᖅᑎᑦᑎᔾᐅᕚᒃᑐᓂᒃ ᐊᒻᒪ ᓂᕆᔭᖅᑐᕐᕝᖕᓂᒃ ᐋᓐᓂᐊᖃᖅᑕᐃᓕᓂᕐᒧᑦ ᐊᒻᒪ ᐊᑐᒃᑳᓂᕈᓐᓇᕐᑯᓂᕐᒧᑦ ᑲᓇᑕᒥ ᐃᖃᓗᓕᕆᓂᕐᒥᒃ. ᑎᓴᒪᑦ ᐱᓇᓱᒍᑎᐅᔪᑦ ᐃᓚᒋᔭᐅᓂᐊᕐᓗᓂ Ocean Wise (ᑕᕆᐅᕐᒥ ᐃᓱᒪᑦᑎᐊᓂᖅ) ᐅᑯᐊᖑᔪᑦ: (1) ᐃᖃᓗᒐᓱᑎᑦ ᐱᑕᖃᕐᓂᖓᓄᑦ ᐊᒻᒪ ᐱᓇᓱᐃᓐᓇᕈᓐᓇᕐᓂᖅ ᐃᖃᓗᒐᓱᖕᓂᐅᑉ ᒥᒃᓵᓄᑦ, (2) ᐊᐅᓚᑕᐅᑦᑎᐊᕐᒐᑎᒃ ᑕᒪᐅᖓ ᐸᕐᓇᐅᑎᑕᖃᑦᑎᐊᕐᒍᕐᒋ ᒪᓕᒃᓯᒪᔪᓂᒃ ᖃᐅᔨᓴᕈᑎᓂᒃ, (3) ᐱᔭᐅᓯᒪᒍᑎᒃ ᐃᒪᓐᓇ ᒪᑯᐊ ᐅᓄᕐᓂᕆᔭᐅᔪᑦ ᐃᖃᓗᒃᑕᐅᔫᓐᓇᕐᑐᑦ ᐱᔭᐅᓇᓱᙱᑦᑐᓂᒃ ᐊᒻᒪ ᓄᒡᑐᐃᓐᓇᕆᐊᓕᖕᓂ ᐃᖃᓗᖕᓂᑦ ᐊᒻᒪ (4) ᐃᖃᓗᒃᑕᐅᓯᒪᒍᑎᒃ ᓱᕋᐃᒍᑎᐅᓇᔾᙱᑦᑐᓂᒃ ᐃᒪᕐᒥᐅᑕᓄᑦ ᐃᓂᒋᔭᐅᕙᒃᑐᓂ ᐊᒻᒪ ᓈᒻᒪᙱᓕᐅᕆᑎᖃᕈᓐᓇᕐᑐᓂᒃ ᐊᔾᔨᒌᙱᑦᑕᙱᓐᓂᒃ ᐃᖃᓘᖃᑎᖏᓐᓂᒃ.

ᐃᖃᓗᐃᑦ ᓂᐅᕕᖅᑕᐅᓂᖅᓴᐅᓕᕐᑎᓪᓗᒋᑦ ᐊᒻᒪᓗ ᑮᓇᐅᔭᓕᐅᕈᑎᐅᒃᑲᓐᓂᕈᓐᓇᓕᕐᑎᓪᓗᒋᑦ, ᑕᒪᒃᑯᓂᖓ ᐱᓕᕆᐊᖃᕐᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥ ᐊᑭᓕᐅᑎᐅᕚᒃᑐᑦ ᕐᑯᕝᕚᖅᐸᓪᓕᐊᒋᕗᑦ. ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦ ᐃᑲᔫᑎᓂᒃ ᖃᖓᑦᑕᐅᑎᓄᑦ ᐊᑭᓕᐅᑎᒃᓴᓄᑦ ᐊᑐᖃᑦᑕᓇᐊᖃᕐᓯᒪᓪᓚᓇᒃᐳᑦ ᐅᑯᓇᙵᑦ ᓄᓇᕘᑦ ᐱᕙᓪᓕᐊᔪᓕᕆᓂᕐᒧᑦ ᑯᐊᐳᕇᓭᑰᓂᒃ ᒪᑯᓄᖓ ᐊᑐᖅᑕᐅᖃᑦᑕᐃᓐᓇᕆᐊᓕᒃᑯᑦ ᖃᖓᑦᑕᐅᑎᓄᑦ ᐊᑭᓕᐅᑎᓄᑦ ᒪᑯᓂᖓ ᐃᖃᓗᖕᓂ ᑎᑭᑎᑦᑎᕙᖕᓂᕐᒥ ᐃᖃᓗᒐᓲᕕᐅᔪᓂᒃ ᐱᓕᕆᕝᕕᖓᓄᑦ ᐊᒻᒪᓗ ᐊᓱᙱᓐᓄᑦ ᓂᐅᕐᕈᑎᖃᕐᓂᐊᖅᑐᓄᑦ ᓄᓇᓕᖕᓄᑦ ᐊᒻᒪ ᓄᓇᖕᔪᐊᒦᑦᑐᓄᑦ. ᐊᕐᕌᒍᓂ ᑖᓕᒪᓂᒃ ᐱᓕᕆᐊᖅᑎᓪᓗᒋᑦ 2014-ᒥᑦ 2018-ᒧᑦ, ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦᑯᑦ ᐊᑮᑐᖅᐸᓪᓕᐊᔪᓂᒃ ᖃᖓᑦᑕᐅᑎᓂᒃ ᐊᕐᕌᒍᑕᒦᑦ ᖃᐅᔮᓚᐅᕐᒥᔪᑦ, ᒫᙵᑦ 20%-ᖓᑕ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐊᑐᖃᑦᑕᓇᐊᖅᑕᖏᓐᓂᒃ 2014-ᒥᑦ ᒪᐅᖓ 27%-ᒧᑦ 2018-ᒥᑦ.

4. ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐊᑲᐅᙱᓕᐅᕈᑕᐅᔪᑦ

ᐊᐅᓚᑦᑎᓂᒃᑯᑦ ᓯᕗᓪᓕᐅᑎᔭᕆᐊᖃᖅᑐᑦ ᓯᓕ ᐱᑕᖃᖅᑐᑦ ᒪᑯᐊ ᓄᑖᙳᕆᐊᕐᓯᒪᔪᓂᒃ ᐃᖃᓗᒃᑕᖃᕐᓂᕐᒧᑦ ᐃᓱᒪᒋᔭᐅᔪᓂᒃ ᑕᒪᒃᑯᐊ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐃᓱᒪᓕᐅᕐᓂᕐᒧᑦ ᐃᑲᔪᕋᔭᕐᒪᑕ, ᑭᖑᕝᓯᒪᕙᙱᑦᑐᓂᒃ ᐅᓂᒃᑳᓕᐅᖃᑦᑕᕐᓂᖅ ᐊᒻᒪᓗ ᐊᓯᖏᓐᓂᒃ ᐃᖃᓗᖕᓂ ᐱᔭᐅᔪᓂᒃ ᐅᓂᒃᑲᐅᓯᖃᖃᑦᑕᕐᓂᖅ ᐊᒻᒪ ᑐᓴᐅᒪᑎᑦᑎᒐᓱᖕᓂᖅ ᐱᔭᐅᕙᓪᓕᐊᕙᒃᑐᓂᒃ ᐱᔭᐅᔭᕆᐊᓖᑦ ᒪᓕᒃᑕᐅᓇᓱᒡᓗᑎᒃ, ᐊᒻᒪᓗ ᑕᒪᒃᑯᐊ ᐊᑯᓂᐊᓗᒃ ᐱᔭᐅᔫᓐᓇᐃᓐᓇᕋᓱᒍᓐᓇᕐᓂᖕᒋᓐᓂᒃ ᐊᒻᒪ ᑮᓇᐅᔭᓕᐅᕈᑎᒋᔭᐅᔪᖅ ᐃᖃᓗᒐᓱᖕᓂᒃᑯᑦ.

ᐃᖃᓗᐃᑦ ᑲᑎᓯᒪᓪᓗᑎᒃ ᖃᔅᓯᐅᓇᓱᒋᔭᐅᓂᖕᒋᑦ

ᑲᑎᓯᒪᓗᑎᒃ ᓄᑖᙳᕈᓃᓂ ᑎᑎᕋᕐᓯᒪᔪᓂᒃ ᐅᓄᕐᓂᖕᒋᓐᓂᒃ ᐊᒻᒪ ᑲᑎᖕᖓᐅᕐᑐᑦ ᖃᐅᔨᓴᖅᑕᐅᒍᑎᖕᒋᑦ ᐱᔭᐅᔭᕆᐊᖃᖅᑐᑦ ᐃᖃᓗᒐᓱᒡᕕᐅᕚᒃᑐᓂᒃ ᑮᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ. ᐃᓕᖅᑯᓯᒃᑯᑦ ᖃᐅᔨᓴᖅᑐᓕᕆᓂᒃᑯᑦ ᐱᓕᕆᐊᖃᕋᓱᖕᓂᖅ ᒪᑯᓂᖓ ᑲᑎᓯᒪᔪᑦ ᖃᐅᔨᓴᕐᑕᐅᓂᖕᒋᑦ ᐊᒻᒪ ᐅᓄᕐᓂᕆᔭᐅᔪᓂᒃ ᖃᐅᔨᓴᕐᓂᖅ ᐋᖅᑭᒃᓱᐃᓂᐊᕐᓂᕐᒧᑦ ᖃᔅᓯᓂ ᐃᖃᓗᒍᓐᓇᕐᓂᕐᒥᒃ ᓈᒻᒪᙱᑐᐃᓐᓇᕆᐊᖃᖅᑐᑦ ᒪᐅᓇ ᐊᑭᖓᒍᑦ, ᐱᓕᕆᔪᒪᓇᕐᓂᖓᒍᑦ ᐊᒻᒪ ᐊᑐᕈᓐᓇᕐᓂᐊᕆᐊᒃᓴᖓᒍᑦ ᑕᒪᐃᓐᓂᒃ ᑰᒃᑯᑦ ᐃᖃᓗᒡᕕᐅᕚᒃᑐᓂᒃ. ᐃᓱᒪᒋᓪᓗᒍ ᐅᓇ ᐃᖃᓗᓕᕆᕝᕕᒃ ᖃᐅᔨᓴᕐᑕᐅᒍᑎᓂᒃ ᐱᑕᖃᙱᓗᐊᕐᓂᖓᓄᑦ, ᐃᑲᔫᑎᐅᓇᔭᕐᑐᑦ ᑲᑎᖕᖓᔪᑦ ᐅᓄᕐᓂᖕᒋᓐᓄᑦ ᖃᐅᔨᓴᕈᑎᓂᒃ, ᑕᒪᐃᓐᓂ ᐃᖃᓗᓕᕆᔮᒃᑯᑦ-ᐃᒻᒥᒃᑰᕐᑐᓪᓗ (ᑲᑎᑕᐅᕙᓪᓕᐊᔪᑦ ᐃᖃᓗᒐᒃᑎᓂᒃ ᑮᓇᐅᔭᓕᐅᕐᓂᕐᒧᑦ) ᐊᒻᒪ ᐃᖃᓗᓕᕆᔮᒃᑯᑐᐊᓂᒃ ᑎᑎᕋᖅᑕᐅᕙᓪᓕᐊᔪᓂᒃ (ᑲᑎᑕᐅᕙᓪᓕᐊᕙᒃᑐᑦ ᐃᓄᖕᓂᑦ ᓂᐅᕕᖅᑕᐅᕙᓪᓕᐊᔪᓂᒃ ᐃᖃᓗᓕᕆᔮᒃᑯᓐᓂᑦ) ᐱᔭᐅᔭᕆᐊᖃᕐᒪᑕ. ᐊᑯᓂᕈᓗᒃ ᖃᐅᔨᓴᖃᑦᑕᕐᓂᖅ, ᐋᖅᑭᒃᓯᒪᔪᖅ ᐊᕐᕋᒍᒥ ᐃᖃᓗᒃᑕᐅᔪᑦ ᐊᑕᐅᓯᕐᒥᙱᖅᑐᓂᒃ (CPUE) ᐱᔭᐅᕝᖓᓂᖕᒋᓐᓄᑦ ᐊᒻᒪ ᐊᓯᖕᒋᓐᓂᒃ ᐱᔭᐅᕚᒃᑐᑦ ᐅᓂᒃᑲᐅᓯᐅᕝᖓᓂᖕᒋᑦ ᐃᒋᑕᐅᔪᓪᓗ, ᐃᑲᔪᕈᑎᐅᓇᔭᕐᑐᑦ ᑐᑭᓯᕚᓪᓕᕐᓂᕐᒥᒃ ᐅᓄᕐᓂᖕᒋᓐᓂᒃ ᐊᒻᒪ ᖃᔅᓯᐅᓂᖕᒋᓐᓂᒃ ᐊᔾᔨᒌᙱᑦᑐᑦ, ᓈᒻᒪᑦᓴᕐᓗᑎᒃ ᐊᑐᒃᑳᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᒧᑦ ᐊᒻᒪ ᐆᒪᔪᓂᒃ ᑐᙵᕕᓕᖕᓂ ᐊᐅᓚᑦᑎᒍᑎᓂᒃ ᐃᖃᓗᖕᓂ ᐃᖃᓗᒃᑑᑦᑎᐊᓂᑦ.

ᐊᖑᑦᑕᐅᔪᑦ ᐅᖃᕆᐊᖅᑐᑕᐅᖃᑦᑕᕐᓂᖕᒋᑦ

ᑭᖑᕚᓯᙱᑦᑐᓂᒃ, ᑕᒻᒪᕐᓯᒪᙱᓪᓗᑎᒃ ᐅᓂᒃᑳᓕᐅᖃᑦᑕᓇᐊᖃᕐᑐᑦ ᑕᒪᐃᓐᓄᓕᒫᖅ ᐃᖃᓗᒃᑕᐅᖃᑦᑕᖅᑐᓄᑦ ᐊᒻᒪᓗ ᖃᓄᖅ ᐃᖃᓗᒃᑕᐅᓂᑰᒋᐊᒃᓴᖕᒋᓐᓂᒃ ᐅᑯᓇᙵᑦ ᐊᑐᓂ ᑮᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᔨᐅᔪᓂᒃ. ᑮᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᐃᖃᓗᒐᓱᖕᓂᖅ ᐃᖃᓗᒃᑕᐅᔭᕆᐊᖃᖅᑐᑦ ᐃᓗᐊᒍᑦ ᐃᖃᓗᖃᑦᑕᕆᐊᖃᕐᑐᑦ ᐊᒻᒪᓗ ᑭᖑᕚᓯᙱᑦᑐᓂᒃ ᐅᓂᒃᑳᓕᐅᕈᑏᑦ ᐃᑲᔪᕈᑎᐅᕚᒃᑐᑦ

1 ᑕᑯᒃ ᐃᓚᒍᑕᖅ D: ᑮᓇᐅᔭᓕᐅᕐᓂᒃᑯᑦ ᖃᐅᔨᓴᕈᑎᑦ ᓇᓗᓇᐃᔭᕈᑎᓂᒃ.

ᐊᐅᓚᑦᑎᔾᓂᒃ ᖃᐅᔨᓴᕐᓂᒃᑯᑦ ᐃᖃᓗᒃᑕᐅᕙᓪᓕᐊᔪᑦ ᐱᔭᐅᔪᓐᓇᖅᑐᓄᑦ ᓈᒻᒃᑲᓗᐊᕆᐊᒃᓴᖏᓐᓄᑦ. ᖃᖓᑦᑎᐊᓵᖅ ᖃᓄᐃᓕᐅᖅᑎᑦᑎᒍᑎᐅᔪᑦ ᖃᐅᑕᒫᑦ ᐅᓂᒃᑳᓕᐅᕈᑎᐅᖃᑦᑕᓚᐅᕐᑐᑦ ᑮᓇᐅᔭᓕᐅᕌᖕᓂᕐᒧᑦ ᐃᖃᓗᒃᑕᐅᕙᓪᓕᐊᔪᓂᒃ ᐃᖃᓗᓕᕆᕝᕕᖏᑦ. ᐊᒻᒪᒃᑲᓂᖅ, ᑲᒪᒋᔭᖃᕐᓂᖅ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᓂᕐᒧᑦ ᐱᓕᕆᐊᒥ ᐅᑯᓇᙵᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᒥ ᐊᖑᓇᓱᒃᑐᓕᕆᔾᒃᑯᓐᓂᒃ, ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦ ᐊᒻᒪᓗ ᐃᖃᓗᓕᕆᔾᒃᑯᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔾᒃᑯᑦ ᑲᓇᑕᒥ (DFO) ᐃᑲᔫᓯᐊᖅᑖᕈᑎᐅᓯᒪᕗᖅ ᐅᑯᑎᒎᓇᖅ ᓄᓇᕗᒥᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᑎᒍᑦ ᐱᓕᕆᐊᖑᓂᑯ 2011-2017-ᒧᑦ. ᑕᒪᕐᒥᒃ ᖀᓇᐅᔭᓕᐅᕋᓱᖕᓂᒃᑯᑦ ᐃᖃᓗᓕᕆᕝᕕᐅᔪᑦ ᒫᓐᓇ ᖃᐅᔨᓴᖅᑕᐅᕙᓪᓕᐊᔪᑦ ᒪᐅᓇ ᑲᑎᙵᑎᒃ ᐃᖃᓗᖅᑕᐅᓯᒪᔪᓂᒃ, ᐃᓚᖃᖅᙳᓂ ᖀᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᐃᖃᓗᒃᑕᐅᔪᑦ, ᐊᓯᖏᑦ ᐱᔭᐅᔪᑦ ᐊᒻᒪ ᐅᑎᖅᑎᑕᐅᓯᒪᔪᑦ, ᐊᒻᒪᓗ ᓂᕆᔭᒃᓴᐅᓂᐊᕐᑐᓂᒃ ᐃᖃᓗᒃᑐᓄᑦ ᐱᔭᐅᖃᑦᑕᕆᐊᖃᖅᑐᑦ ᐅᕝᕙ ᒫᓐᓇᓵᖑᒐᐅᕐᑐᖅ ᓄᓖᖑᕆᐊᖅᑕᐅᓯᒪᔪᑎᒍᑦ ᐃᖃᓗᕐᓱᒍᓐᓇᐅᑎᓂᒃ ᖀᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᐃᓗᐊᓃᑦᑐᓂᒃ ᒪᓕᒋᐊᓪᓚᖕᓂᒃ.

ᐃᖃᓗᓕᕆᓂᖅ ᖀᓇᐅᔭᓕᐅᕐᓂᕐᒧᑦ ᐃᑲᔪᕈᑎᐅᓂᖓ

ᖃᖓᑦᑕᐅᑏᑦ ᐊᑭᒃᑐᖅᐸᓪᓕᐊᓂᖏᓐᓄᑦ ᐊᒃᑐᐃᒍᑎᖃᕐᒪᑦ ᖀᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒥ ᐃᖃᓗᓕᕆᓂᒃᑯ ᐃᓚᖏᑦ ᐅᖓᓱᒃᑐᒦᓐᓂᖏᓐᓄᑦ ᐊᒻᒪᓗ ᐃᓯᒪᓕᐅᕆᓇᓱᕆᐊᒃᓴᖅ ᐊᔪᕐᓇᕈᔫᒃᑯᓂ ᓄᑖᒥ ᐃᖃᓗᓕᕆᕝᕕᒃᓴᒥᑦ ᐊᓯᖏᓐᓂᒃ ᐅᖓᓱᒃᑐᓂᒃ ᐃᖃᓗᓕᕆᕝᕕᖕᓂᒃ. ᐊᕕᒃᑐᕐᓯᒪᓂᒃᑯᑦ ᐊᒻᒪ ᑎᐅᕆᑑᕆᑎᒍᑦ ᐊᐅᓚᑦᑎᔾᐅᖃᑎᒌᒃᑐᑦ ᑲᑐ'ᔾᖃᑎᒌᑦ ᖀᓇᐅᔭᓕᐅᕈᑎᓕᐅᕈᓐᓇᕐᓂᕋᐃᔪᑦ ᑕᒪᒃᑯᐊ ᐃᖃᓗᐃᑦ ᓄᙳᑕᐅᑎᑦᑕᐃᓕᑎᓱᒋᑦ ᐊᒻᒪ ᐅᓄᕐᑏᓇᕋᓱᒃᓱᒋᑦ.

5. ᐊᑐᖅᑕᐅᔪᒪᔪᑦ

ᐊᑐᖅᑕᐅᔪᒪᔪᑦ ᐅᑯᓄᖓ ᐃᖃᓗᒃᑑᑦᑎᐊᒥᑦ ᐃᖃᓗᖕᓂ ᖀᓇᐅᔭᓕᐅᕐᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᕝᕕᒃ ᐱᒪᕆᐅᔪᑦ ᐱᓇᓱᐊᕐᓂᕐᒧᑦ ᐅᑯᓄᖓ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᓚᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP). ᐊᑯᓂᐳᓗᒃ ᐊᑐᖅᑕᐅᔪᒪᔪᑦ ᑐᑭᒧᐊᕈᑎᐅᕗᒃᑐᑦ ᐃᖃᓗᓕᕆᓂᕐᒥᒃ ᐊᒻᒪᓗ ᓇᓗᓇᐃᖅᑕᐅᔪᓐᓇᖅᑯᓂ ᐅᓄᕐᓂᖏᓐᓂᒃ ᓴᐳᑎᓯᒪᓂᕐᒥᒃ, ᐆᒪᔪᖃᕐᕕᖕᓂᒃ, ᑲᑐᑎᓂᒃᑯ ᑲᒪᒋᔭᖃᕐᓂᖅ, ᐊᒻᒪᓗ ᐃᓅᖃᑎᒌᖕᓂᕐᒧᑦ, ᐃᓚᖅᑯᓯᕐᒧᑦ ᐊᒻᒪ ᖀᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᐱᓇᐅᔭᓱᒃᑐᓂᒃ. ᐊᑐᓂ ᐊᑯᓂᐳᓗᒃ ᐊᑐᖅᑕᐅᔪᒪᔪᑦ ᐃᑲᔪᖅᑕᐅᓯᒪᔪᑦ ᐊᑕᐅᓯᕐᒧᑦ ᐅᖓᑖᓂᓪᓗᓐᓃ ᓇᐃᓈᕐᓯᒪᔪᓂᒃ ᐱ'ᔪᑎᒋᔭᐅᔪᓂᒃ ᒪᑯᒧᖓ ᒫᓐᓇ ᐊᐅᓚᑦᑎᓂᕐᒨᖓᔪᓂᒃ ᐃᖃᓗᓕᕆᓂᕐᒥᒃ. ᐱᔪᑎᒋᔭᐅᔪᑦ ᓇᓗᓇᐃᕐᑕᐅᓯᒪᔪᑦ ᓇᓗᓇᐃᒃᑯᑎ 1-ᒥᑦ ᐋᖅᑭᒃᑕᐅᓚᐅᕐᓯᒪᔪᑦ ᐅᑯᓇᙵᑦ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᓚᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐱᓕᕆᔾᔭᑦ ᐊᒻᒪ ᐊᓯᖏᓐᓄᑦ ᑎᒍᒥᐊᕐᑎᓄᑦ.

ᓇᓗᓇᐃᒃᑯᑎ 1. ᐊᑯᓂᐳᓗᒃ ᐊᑐᖅᑕᐅᔫᒃᓴᑦ ᐊᒻᒪ ᓇᐃᑦᑐᒃᑯᑦ ᐊᑐᖅᑕᐅᔪᒪᔪᑦ ᐱᓇᓱᐊᕙᐃᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᒥᑦ ᐃᖃᓗᖕᓂ ᖀᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᕝᕕᒃᒥᑦ.

ᐊᑯᓂᐳᓗᒃ ᐊᑐᖅᑕᐅᔪᒪᔪᑦ	**ᓇᐃᓈᕐᓯᒪᔫᒃᑯᑦ ᐊᑐᖅᑕᐅᔪᒪᔪᑦ**
ᐅᓄᕐᓂᖏᓐᓂ ᐸᐸᑦᑎᑦᑎᐊᕋᓱᐊᕐᓂᕐᓄᑦ	
ᐃᖃᓗᐃᑦ ᐅᓄᕐᓂᖏᑦ ᓴᐳᑎᓯᒪᓗᒋᑦ ᐊᑐᒃᑲᓂᐳᓇᖅᑐᓕᕆᓂᒃᑯᑦ ᐊᒻᒪ ᐋᑐᑎᖃᖅᑐᒃᑯᑦ ᐃᖃᓗᓕᕆᓂᕐᒥᒃ ᐊᐅᓚᑦᑎᓂᒃᑯᑦ	• ᓄᑖᙳᕆᐊᖅᑎᑦᑎᓂᖅ ᐅᓄᕐᓂᖏᓐᓄᑦ ᖃᐅᔨᓴᕐᓂᕐᒧᑦ ᖃᐅᔨᔭᐅᓯᒪᔪᑦ ᐊᒻᒪ ᖃᐅᔨᒪᑎᑦᑎᓗᑎᒃ ᐊᑐᒃᑲᓂᐳᓇᖅᑐᓕᕆᓂᒃᑯᑦ ᖃᔅᓯᓂᒃ ᐃᖃᓗᒃᓯᒪᓕᕐᒪᖔᑕ ᑕᒪᐃᓐᓂ ᐊᑐᓂ ᐃᖃᓗᓚᓱᕝᕙᐅᖃᑦᑕᖅᑐᓂᒃ • ᐱᐅᓯᕙᓪᓕᕐᑎᑦᑎᓗᑎᒃ ᐃᖃᓗᐃᑦ ᖃᓄᐃᓕᖓᓂᖏᓐᓂᒃ, ᐃᓂᒋᕙᒃᑕᖏᓐᓂᒃ ᐊᒻᒪ ᐅᓄᕐᓂᖏᓐᓄᑦ ᓈᒻᒪᙱᓕᐅᕈᑎᐅᕙᒃᑐᓂᒃ • ᐱᐅᓯᕙᓪᓕᖅᑎᑦᑎᓗᑎᒃ ᑭᖑᕙᖅᑕᐃᓕᒪᓂᒃᑯᑦ ᐊᒻᒪ ᑕᒻᒪᕐᓯᒪᙱᑦᑐᓂᒃ ᐃᖃᓗᒃᑕᐅᕙᓪᓕᐊᔪᓂᒃ ᐊᒻᒪ ᐃᖃᓗᒃᑕᐅᔪᑦ ᐊᑕᐅᓯᕐᒥᙶᖅᑐᓂᒃ (CPUE) ᐅᓂᒃᑳᓕᐅᖃᑦᑕᕐᓂᖅ ᖀᓇᐅᔭᓕᐅᕋᓱᖕᓂᒃᑯᑦ, ᐱᙳᐊᕐᓂᓕᕆᓂᒃᑯᑦ ᐊᒻᒪ ᓂᕿᒃᓴᓄᑦ ᐃᖃᓗᓕᕆᔾᒃᑯᑦ ᖃᐅᔨᓴᕐᐸᓪᓕᐊᕙᓗᑎᒃ ᑲᑎᙵᑎᒃ ᐃᖃᓗᒃᑕᐅᕙᓪᓕᐊᔪᓂᒃ ᐊᒻᒪ ᐊᓯᖏᓐᓂᒃ ᐱᔭᐅᔪᓂᒃ. • ᐊᓯᐅᑎᑦᑎᑦᑕᐃᓕᓂᕐᒥᒃ ᖃᐅᔨᒪᑎᑦᑎᓂᖅ ᐊᒻᒪ

ᐊᑯᓂᕈᓗᒃ ᐊᑐᖅᑕᐅᔪᒪᔪᑦ	ᓇᐃᓈᕐᓯᒪᔪᒃᑯᑦ ᐊᑐᖅᑕᐅᔪᒪᔪᑦ
	ᑲᒪᒋᔭᖃᑦᑎᐊᕐᓂᖅ ᐃᖃᓗᒐᓱᒍᓐᓂᒃᑯᑦ ᐃᖃᓗᖕᓂ. • ᐃᓱᒪᒋᓪᓗᒍ ᓇᓗᓇᕐᓂᖕᒋᓐᓂᒃ ᐃᖃᓗᐃᑦ ᐅᓄᕐᓂᖕᒋᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᑉ ᒥᒃᓴᓃᑦᑐᓂᒃ, ᑲᔪᓯᓗᑎᒃ ᐃᖃᓗᒐᓱᒍᓐᓂᕐᒥᒃ ᓄᖑᑎᑦᑎᑦᑕᐃᓕᓯᒪᒍᑎᑎᒍᑦ ᐊᑐᕐᓗᑎᒃ ᐅᔾᔨᕐᓱᕐᓂᒃᑯᑦ ᐱᓕᕆᕙᓪᓕᐊᓂᕐᒧᑦ ᐋᖅᑭᒃᑕᐅᓯᒪᓂᕐᒥᒃ.
ᐆᒪᔪᐃᑦ ᓇᔪᒐᖃᕖᕐᒋᑦ ᖃᓄᐃᙱᑦᑎᐊᕐᓂᖕᒋᓐᓂ	
ᐃᖃᓗᐃᑦ ᐊᓯᖕᒋᓐᓂᒃ ᐊᓯᐅᑎᑦᑎᑦᑕᐃᓕᓂᖅ ᐊᑑᑎᓪᓚᒃᑯᑦ ᐃᖃᓗᓕᕆᓂᕐᒥᒃ ᐊᐅᓚᑦᑎᓂᒃᑯᑦ.	• ᐱᐅᓯᕚᓪᓕᖅᑎᑦᑎᓗᑎᒃ ᑕᒻᒪᕐᑕᖅᓯᒪᖕᒋᓪᓗᑎᒃ ᐊᒻᒪ ᐱᐅᓂᒃᓯᕙᓪᓗᑎᒃ ᐅᓂᒃᑲᐅᓯᖃᕐᓂᕐᒥᒃ ᐃᖃᓗᐃᑦ ᐊᓯᖕᒋᓐᓂᒃ ᐱᔭᐅᔪᓂᒃ ᐱᐅᓯᕚᓪᓕᖅᑎᑦᑎᒐᓱᖕᓂᒥ ᐊᔾᔨᒌᙵᑦᑐᑦ ᑲᑎᕝᕙᕙᖕᓂᖕᒋᓐᓂᒃ ᐊᒻᒪ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ.
ᐱᓕᕆᖃᑎᒌᖕᓂᕐᒥ ᑲᒪᔨᐅᓂᕐᒧᑦ	
ᓴᕿᑉᐸᓖᓪᓕᖅᑎᓪᓗᒍ ᐱᓕᕆᖃᑎᒌᖕᓂᒃ, ᐃᓚᐅᖃᑕᐅᓂᕐᒧᑦ ᐃᓱᒪᓕᐅᕆᐟᔪᑏᑦ ᐊᒻᒪᓗ ᑕᒪᐃᓐᓂ ᑲᒪᒋᔭᖃᕆᐊᖃᕐᓂᖕᒋᓐᓂᒃ ᐅᑯᓄᙵ ᐊᑐᖅᑎᐅᕝᕕᒃᑐᓄᑦ, ᐊᐅᓚᑦᑎᖃᑕᐅᔪᓄᑦ ᑲᑐᔾᔨᖃᑎᒌᓄᑦ ᐊᒻᒪᓗ ᐊᓯᖕᒋᓄᑦ ᑎᒍᓯᐊᖅᑎᓄᑦ.	• ᐱᓕᕆᐊᖃᕐᕙᓪᓗᑎᒃ ᐃᖃᓗᒐᓱᖕᓇᐅᓚᐅᙱᓐᓂᖕᒐᓂᒃ ᑲᑎᒪᑎᑦᑎᕙᖕᓂᖕᒋᒃ ᐊᒻᒪᓗ ᐅᑯᐊ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᖕᒋᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐱᓕᕆᔨᐅᔪᑦ ᑲᑎᒪᓂᖕᒋᓐᓂᒃ ᐊᕐᕌᒍᙳᕌᖓᑦ. • ᑲᔪᓯᓗᑎᒃ ᓄᓇᖃᖅᑐᓂᒃ ᐃᓚᐅᑎᑦᑎᓂᖕᒋᒃ ᒪᐅᓇ ᐊᐅᓚᑦᑎᖃᑕᐅᓂᒃᑯᑦ ᖃᓄᐃᓕᐅᕈᑎᓂᒃ ᐊᔪᕐᓇᙱᑐᐊᕋᙵᑦ. • ᓴᕿᑉᐸᓖᓪᓕᖅᑎᓪᓗᒍ ᐃᖃᓗᓯᒃᑎᐅᔪᑦ ᑮᓇᐅᔮᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᑲᒪᒋᔭᒃᓴᖕᒋᑦ ᒪᑯᐊ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᓂᕐᒥᒃ ᐊᒻᒪ ᐅᓂᒃᑳᓕᐅᓚᐊᖃᕐᓂᕐᒥᒃ ᐅᑯᑎᒎᓈᙵᔪᓂᒃ ᓚᐃᓴᓐᓯᒧᑦ ᒪᓕᒋᐊᓕᖕᓂᒃ. • ᑮᓇᐅᔭᖃᖅᑎᑦᑐᑎ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᓂᕐᒧᑦ ᐱᓕᕆᐊᓄᑦ ᑮᓇᐅᔮᓕᐅᕋᓱᖕᓂᕐᒧᑦ, ᐱᙳᐊᑐᐃᓐᓇᕐᓂᕐᒧᑦ ᐊᒻᒪ ᓂᕿᒃᓴᓄᑦ ᐃᖃᓗᓕᕆᓂᒃ.
ᐃᓅᖃᑎᒌᖕᓂᖅ, ᐃᓕᖅᑯᓯᙵᓄᑦ ᐊᒻᒪᓗ ᑮᓇᐅᔮᓕᐅᕈᑎᒃᓴᙳᓄᑦ	
ᓴᖅᑭᑉᐹᓕᑎᓪᓗᒍ ᖃᓄᖅ ᑮᓇᐅᔮᓕᐅᕋᓱᖕᓂᖅ ᐊᑐᕈᓇᑦᑎᐊᕋᔭᕐᓂᖕᒪᓂᒃ ᐊᒻᒪᓗ ᐃᒥᒧᑦ ᐃᖃᓗᓯᖕᓂᖅ ᐅᑯᑎᒎᓇ ᐊᖏᓵᙳᔪᓇᖅᑐᒃᑯᑦ ᐃᓅᖃᑎᒌᖕᓂᒃᑯᑦ ᐊᒻᒪ ᑮᓇᐅᔮᓕᐅᕋᓱᖕᓂᒃᑯᑦ ᐃᑲᔫᑎᐅᔪᓇᖅᑐᓂᒃ ᑕᒪᒃᑯᐊ ᐃᖃᓗᐃᑦ ᐅᓗᕆᐊᓇᙱᑦᑐᒦᑎᓪᓗᒋᓪᓗ ᐊᒻᒪ ᖃᓄᐃᑎᑦᑕᐃᓕᒪᑎᓪᓗᒋᑦ ᐊᒻᒪ ᐅᓄᐃᓇᖅᑎᓇᓱᓪᓗᒋᑦ ᓱᕗᓂᒃᓴᑦᑎᓄᑦ.	• ᐃᑲᔪᖅᑐᐃᕙᓪᓗᑎᒃ ᖃᓄᐃᓕᐅᕈᑎᐅᓇᓱᒃᑐᓂᒃ ᐱᐅᓛᒃᑯᑦ ᓄᓇᓕᖕᓂ ᐱᓕᕆᕝᕕᖕᓂᒃ ᐊᒻᒪ ᐃᖅᑲᓇᐃᔭᖅᑎᑦᑎᓂᖕᒥᒃ. • ᐃᑲᔪᖅᑐᐃᕙᓪᓗᑎᒃ ᖃᓄᐃᓕᐅᕈᑎᒃᓴᓂᒃ ᐊᖏᓪᓕᒋᐊᖅᑎᑦᑎᓂᖕᒥᒃ ᑮᓇᐅᔮᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᖕᒥᒃ ᐅᖓᓯᒃᑐᓃᓐᓂᖕᓴᓂᒃ ᑰᒃᑯᑦ ᐃᖃᓗᓯᐅᕝᕕᐅᕙᒃᑐᓂᒃ ᐊᒻᒪ ᐊᓯᖕᒋᓐᓂᒃ ᐃᖃᓗᓯᐅᕝᕕᖕᓂᒃ. • ᑲᒪᒋᔭᖃᐃᓇᕐᓗᑎᒃ ᐊᒻᒪ ᐊᓯᐅᑎᑦᑎᑦᑕᐃᓕᒪᓗᑎᒃ ᓄᓇᓕᖕᓂᒃ ᐊᒻᒪ ᐃᓕᖅᑯᓯᒃᑯᑦ ᐃᖃᓗᓯᐅᒍᑎᐅᕝᕕᒃᑐᓂᒃ ᐊᒻᒪ ᐃᓂᒋᔭᐅᕝᕕᒃᑐᓂᒃ. • ᓴᖅᑭᑉᐹᓕᖅᑎᑦᑎᓗᑎᒃ ᐱᓕᕆᖃᑎᒌᖕᓂᖕᒋᒃ ᐊᐅᓚᑦᑎᔩᐅᖃᑎᒌᖕᓂᒃ ᑲᑐᔾᔨᖃᑎᒌᖕᒎᔪᓂᒃ ᐊᒃᑐᐊᔪᓂᒃ ᐱᕙᓪᓕᐊᔪᓕᕆᓂᖕᒧᑦ ᓄᓇᕗᓕᒫᒥᑦ.
ᒪᓕᑦᑎᐊᖅᓯᒪᓂᐅᔪᒥᒃ	
ᓴᖅᑭᑉᐹᓕᖅᑎᑦᑎᓗᑎᒃ ᒪᓕᒋᐊᖃᕐᓂᖕᒋᒃ ᒪᓕᒐᕐᓂᒃ,	• ᑮᓇᐅᔮᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᓚᐃᓴᓐᓯᓄᑦ ᐊᑐᓇᐊᖃᖅᑐᑦ.

ᐊᑯᓂᕈᓗᒃ ᐊᑐᖅᑕᐅᔪᒪᔪᑦ	ᓇᐃᓈᕐᓯᒪᔪᒃᑯᑦ ᐊᑐᖅᑕᐅᔪᒪᔪᑦ
ᐱᖁᔭᓂᒃ ᐊᒻᒪ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᑎᓂᒃ ᐱᓇᓱᐊᕈᑎᓂᒃ ᓴᐳᔾᔨᓯᒪᓂᕐᒧᑦ ᐊᒻᒪ ᐊᑐᒃᑳᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᒧᑦ.	ᓄᑖᙳᕆᐊᖅᑕᐅᕙᓪᓗᑎᒃ, ᓇᓗᓇᐃᒃᑯᑎᐅᓂᐊᕐᒪᑕ ᐊᑐᖅᑕᐅᔭᕆᐊᓕᖕᓂᒃ ᐊᒃᑐᐅᔪᓂᒃ ᐊᑐᒃᑳᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᑯᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐃᖃᓗᓕᕆᓂᕐᒥᒃ. ᓴᖏᑉᐹᓕᖅᑎᑦᑎᓗᑎᒃ ᒪᓕᒋᐊᖃᕐᓂᕐᒥᒃ ᐃᓕᓐᓂᐊᖅᑎᑦᑎᓂᒃᑯᑦ ᐊᒻᒪᓗ ᑲᒪᒋᔭᖃᕐᓂᕐᒥᒃ ᑲᑐᔾᔨᓂᒃᑯᑦ. ᐱᓕᕆᖃᑎᖃᕐᐸᓪᓗᑎᒃ ᓄᓇᓕᖕᓂᑦ ᐊᒻᒪ ᑎᐅᕆᎪᕆᓄᑦ ᐆᒪᔪᕐᓂᐊᖅᑎᓂᒃ. • ᓴᖏᑉᐹᓕᖅᑎᑦᑎᓗᑎᒃ ᒪᓕᒋᐊᖃᕐᓂᕐᒥᒃ ᒪᐅᓇ ᖃᐅᔨᓴᖅᐹᓕᐊᖃᑦᑕᕐᓂᒃᑯᑦ ᐊᒻᒪ ᖃᐅᔨᓴᕐᓂᕐᒧᑦ ᐱᓕᕆᓂᒃᑯᑦ, ᐊᒻᒪᓗ ᓄᓇᓕᖕᓂ ᖃᐅᔨᒪᔭᐅᑎᓐᓂᖕᓴᐅᓗᒋᑦ.

6. ᐊᑐᐃᓐᓇᖃᕐᓂᖅ ᐊᒻᒪ ᐱᔭᐅᔪᓐᓇᖅᑐᓕᕆᓂᖅ

ᑉᓇᐅᔭᓕᐅᕋᓱᙱᓂᕐᒧᑦ ᖃᔅᓯᐅᓇᔭᕐᓂᖏᑦ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᐋᖅᑭᒃᑕᐅᕙᒃᑐᑦ ᐊᑐᓂ ᐃᖃᓗᓕᓱᒻᕕᐅᔪᓂᒃ, ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᙵᒧᑦ ᐃᓚᖓ V ᐅᕙᓂ *ᓄᓇ ᕼᐊᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᖁᔭᓂᒃ*. ᑕᒪᕐᒥᒃ ᐃᒪᐃᑦ ᐃᖃᓗᖃᑦᑎᐊᕐᑐᑦ; ᐃᒪᓐᓇᖃᐃ, ᑕᒪᕐᒥᒃ ᐃᖃᓗᓕᓱᒃᑎᐅᔪᑦ ᓚᐃᓴᓐᓯᖃᕐᑐᑦ ᓂᐅᕕᐊᒃᓴᐅᓂᐊᕐᑐᓄᑦ ᐃᖃᓗᓕᓱᒻᕕᒋᔪᓐᓇᖅᑕᙱᓐᓂᒃ ᐱᑎᑕᐅᕙᙵᑕ ᑕᒪᒃᑯᐊᓗ ᑲᑎᕆᓗᑎᒃ ᐃᖃᓗᒃᑕᐅᔪᓐᓇᖅᑐᓄᑦ ᐃᓚᐅᑎᑕᐅᓪᓗᑎᒃ ᐱᔭᐅᕙᓪᓕᐊᔪᓂᒃ ᑕᕝᕙᙶᑦ ᐃᖃᓗᓕᓱᒻᕕᐅᔪᒥ. ᐱᑕᖃᙱᑦᑐᖅ ᐊᑕᐅᓯᑐᐊᕐ ᑐᓂᓯᓯᒪᓂᕐᒥᒃ ᐊᒃᑐᐊᔪᓂᒃ ᑉᓇᐅᔭᓕᐅᕋᓱᙱᓂᕐᒧᑦ ᐃᖃᓗᓕᓱᙱᓂᕐᒥ. ᑉᓇᐅᔭᓕᐅᕋᓱᙱᓂᕐᒧᑦ ᐃᖃᓗᓕᓱᙱᓂᖅ ᒪᑐᐃᖅᑕᐅᕙᒃᑐᖅ ᐊᕿᒍᑕᒫᑦ ᐅᕝᕙᓇ ᓇᓗᓇᐃᔭᕐᓯᒪᔪᒃᑯᑦ ᐊᑐᖁᔭᐅᔪᒥᑦ (Variation Order), ᐊᒻᒪᓗ ᒪᑐᔭᐅᕙᒃᑲᓂ ᒪᐅᓇ ᖃᐅᔨᑎᑦᑎᒍᑎ ᒪᑐᓂᕐᒧᑦ (Notice of Closure) ᐃᖃᓗᒃᑕᐅᔪᓐᓇᖅᑐᑦ ᑎᑭᑕᐅᔭᕿᙵᑦ. ᑉᓇᐅᔭᓕᐅᕐᓂᕐᒧᑦ ᐃᖃᓗᒍᓐᓇᐅᑏᑦ ᓚᐃᓴᓐᓰᑦ ᑐᓂᔭᐅᕙᒃᑐᑦ ᐃᖃᓗᓕᓱᒃᑎᓄᑦ ᐅᕝᕚᙵᔪᒥᒃ ᐃᓚᖓ 7 ᐅᕙᓂ *ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᒪᓕᒐᕐᒥᑦ*.

ᐃᓚᓯᒋᐊᓚᐅᖁᑎᓗᒋᑦ ᓀᒃᓚᓐ ᑰᖕᒥᑦ (ᐸᐃᕋᓐ ᐸᐃ) 2018-ᒥᑦ, ᐅᑯᐊ ᐱᔭᐅᔪᓐᓇᕐᓂᖏᑦ ᐅᓄᕈᓐᓃᖅᐸᓪᓕᓚᐅᕐᑐᑦ ᐅᕙᓂ ᐃᖃᓗᒃ ᐊᒻᒪ ᔭᐃᑯ ᑰᖕᓂᑦ ᐃᓱᒪᒋᔭᐅᓂᖓᓄᑦ ᐃᖃᓗᒃᑕᐅᔪᑦ ᐅᓄᕐᓂᐊᕋᓱᒋᔭᐅᓗᑎᒃ ᐅᕝᕙᓚᑦ ᐹᓪᓚᒃ ᑰᒃᒥᑦ (Lauchlan ᑰᒃ). ᐅᑯᐊ ᐃᓚᖏᓐᓂᒃ ᐅᓄᕈᓃᖅᑎᑦᑎᒍᑎᑦ ᐱᔭᐅᔪᓐᓇᕐᑐᑦ ᐊᔾᔨᒌᙱᑐᐃᓐᓇᑕᐋᑦ ᐊᕐᕌᒍᙳᕋᙵᑦ ᒪᓕᒡᓗᑎᒃ ᐃᖃᓗᓕᕆᕝᕕᐅᔪᑦ ᐱᓕᕆᐊᒃᓴᖃᕐᓂᖏᓐᓄᑦ ᑕᒪᐃᓐᓄᑦ ᐱᔭᐅᔪᓐᓇᕐᑐᓂᒃ ᐊᒻᒪᓗ ᐃᓂᒃᓴᖅᑕᖏᓗᓂᒃ ᐅᓄᒃᑳᓂᕐᑐᓂᒃ ᐃᖃᓗᙵᓄᑦ ᐃᓂᒋᔭᐅᓇᔭᕐᑐᓂᒃ. ᐅᓄᕈᓃᕐᐸᓪᓕᕐᓂᐅᔪᖅ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᐊᑐᖅᑕᐅᓗᐊᖅᐸᒃᑐᑦ ᐅᑭᐅᒃᓴᒃᑯᑦ ᐃᖃᓗᓕᓐᓇᐅᑎᓪᓗᒍ, ᐱᐅᓯᕚᓪᓕᕈᑎᐅᓪᓗᓂ ᓇᓚᒨᒃᑎᑦᑎᕙᓪᓕᕐᓂᕐᒥᒃ ᐅᐱᕐᖓᒃᑯᑦ-ᐅᑭᐊᒃᓴᒃᑯᑦ ᐃᖃᓗᒃᑕᐅᔪᓐᓇᖅᑐᓂᒃ, ᐊᒻᒪᓗ ᐊᑭᓕᒋᐊᖃᕐᓂᕐᒧᑦ ᓈᒻᒪᙱᓐᓂᖅᓴᐅᓗᓂ ᐃᖃᓗᓕᓱᒃᑎᐅᔪᑦ ᐊᒻᒪ ᖄᙳᑕᓲᑦ ᐃᒫᒃᑰᕈᓐᓇᖅᑐᑦ ᔭᐃᑯᒥ ᐊᐅᓚᖕᓴᓕᓂᖕᓴᐅᔪᓐᓇᕐᓗᑎᒃ, ᓯᑯᓗ ᓯᓚᓗ ᓈᒻᒪᙱᓗᐊᓕᓚᐅᙱᓐᓂᖏᓐᓂᒃ ᓯᑎᐱᕆᒥᑦ.

ᓇᓗᓇᐃᒃᑯᑎ 1 ᓴᖏᔫᖅᑎᑦᑎᔪᖅ ᒫᓐᓇ ᐃᖃᓗᒃᑕᐅᔪᓐᓇᖅᑐᓂᒃ ᑕᒪᐃᓐᓂ ᐅᒪᖏᓐᓂᖏᑦᑎᒍ ᑭᓗᒍᕌᒃᑯᑦ (ᓈᒻᒪᔮᙳᔪᖅ ᐱᓕᕆᐊᒧᑦ ᐊᒻᒪ ᐆᒃᑐᕋᐃᓂᕐᒧᑦ ᐅᓄᕐᓂᖏᓐᓂᒃ ᐱᔭᐅᔪᓐᓇᖅᑐᓂᒃ, ᐋᖅᑭᒃᑕᐅᓯᒪᓂᙵᒧᑦ ᐃᓚᖓ V) ᐊᒻᒪᓗ ᐊᕿᐊᕈᑲᙱᓗᑎᒃ ᐅᖁᒪᐃᓐᓂᖏᑦᑐᒧᑦ (ᐱᓕᕆᐊᒧᑦ ᐊᒻᒪ ᐆᒃᑐᕋᐃᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᔪᓂᒃ ᐃᖃᓗᒃᑕᐅᕙᓪᓕᐊᔪᓄᑦ ᑎᑎᕋᐅᓯᐅᕙᓪᓕᐊᓯᒪᔪᓂᒃ)

ᓇᓗᓇᐃᒃᑯᑎ 1. ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᒪᓕᒐᖅᑎᒎᑦ ᐅᓄᕐᓂᖏᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᕐ ᐃᖃᓗᙵ ᑉᓇᐅᔭᓕᐅᕋᓱᙱᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᔨᓄᑦ.

ᐃᓂᖓ	ᐱᔭᐅᔪᓐᓇᕐᑐᑦ ᒪᓕᒐᖅᑎᒎᑦ *(ᑭᓗᒍᕋᒃ, ᑕᒪᑭᕐᓗᒍ ᐅᖁᒪᐃᓐᓂᖓ)*	ᐋᖅᑭᒋᐊᕈᑎᑦ ᐱᔭᐅᔪᓐᓇᕐᑐᑦ ᒪᓕᒐᖅᑎᒎᑦ *(ᐸᐅᓐᑦ, ᐃᕐᖓᓈᕐᓯᒪᔪᑦ ᐅᖁᒪᐃᓐᓂᖓ)*
ᐃᖃᓗᒃᑐᒃ (ᐃᑲᓗᒃ) ᑰᒃ	20,000	36,744
Hᐊᓗᒃᕕᒃ (Thirty-Mile) ᑰᒃ	5,000	9,186

ᔭᐃᑯ (Jayco) ᑰᒃ	17,000	31,232
ᐸᓕᕐᔪᐊᒃ (Surrey) ᑰᒃ	9,100	16,718
ᐹᓕᒃ (Lauchlan) ᑰᒃ	9,100	16,718
ᑲᑎᓕᒫᖅᑐᒋᑦ	**60,200 ᑭᓗᒍᕌᒻ**	**110,598 ᐸᐅᓐᔅ**

7. ᑲᒪᓂᕐᒧᑦ ᖃᐅᔨᓴᕈᑏᑦ

ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᑎᒃᓵᑦ ᓇᓗᓇᐃᕈᑎᐅᔪᑦ ᐊᐅᓚᑦᑎᒍᑎᓂᒃ ᐅᕙᓂᖓᓐᓂᑦ ᒪᓕᒐᕐᓂ ᐊᑐᖅᑕᐅᓕᕐᑐᓂᒃ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ, ᐃᓚᖃᖅᑯᓂ ᐅᖃᕐᓂᖏᓐᓂᒃ ᓴᐳᑎᓯᒪᓂᖅ ᐊᒻᒪ ᐊᑐᒃᑳᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐊᑐᖅᑐᒃᓴᓂᒃ. ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᑎᒃᓵᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒥᒃ ᐃᖃᓗᓕᕆᓂᖅ ᑮᓇᐅᔭᓕᐅᕋᓱᒻᓂᕐᒧᑦ ᐃᓚᖃᖅᑐᑦ ᐊᐅᓚᑦᑎᒍᑎᓂᒃ ᐊᒃᑐᐊᔪᓂᒃ ᐱᔭᐅᔫᓇᖅᑐᓂᒃ, ᐱᒋᐊᕐᕕᒃᓴᓂᒃ ᐊᒻᒪ ᖃᐅᔨᑎᑦᑎᒍᑎᓂᒃ ᒪᑐᓂᕐᒧᑦ ᐃᖃᓗᓯᐅᕐᓂᕐᒥᒃ; ᓚᐃᓴᓐᓯᓕᕆᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᑎᐅᔭᕆᐊᓕᖕᓂᒃ, ᐃᓚᖃᖅᑯᓂ ᐅᓂᒃᑳᓕᐅᕆᐊᖃᕐᓂᕐᒥᒃ ᐃᖃᓗᐃᑦ ᐊᓯᖏᓐᓂᒃ ᐱᔭᐅᕙᓪᓕᐊᔪᓂᒃ, ᐃᒋᑕᐅᑐᐃᓐᓇᖅᑐᓂᒃ, ᑕᕆᐅᒥᐅᑕᓄᑦ ᐊᒃᑐᐃᒍᑎᓂᒃ ᐊᒻᒪᓗ ᓇᓂᔭᐅᔪᑦ/ᐊᓯᐅᔨᔭᐅᔪᑦ ᐱᕐᑯᑎᓕᕆᓂᕐᒧᑦ ᒪᐅᓇ ᐱᓕᕆᐊᖃᕐᓂᕐᒧᑦ ᑎᑎᕋᐅᓯᐅᕙᓪᓕᐅᔪᑎᒍᑦ. ᐅᑯᐊ ᖃᓄᐃᓕᐅᕈᑎᒃᓵᑦ ᒪᓕᒃᓯᒪᔪᑦ ᐆᒥᖓ *ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᒪᓕᒐᖅᒥᑦ* ᐊᒻᒪᓗ ᐱᕐᑲᔭᖏᓐᓂᒃ, ᓄᓇᕗᒧᑦ ᐊᖏᕈᑎᓂᒃ (NA), ᐃᖃᓗᓕᕆᔨᒃᑯᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ (DFO) ᐊᑐᐊᒐᖏᓐᓂᒃ, ᐊᒻᒪᓗ ᖃᓄᐃᓕᐅᕈᑎᒃᓴᓂᒃ ᐊᖏᖃᑎᒌᒍᑎᓂᒃ ᐅᑯᓇᙵᑦ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᓯᐅᕐᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᑦ (IFMP) ᐱᓕᕆᖃᑎᒌᓄᑦ, ᐃᖃᔪᖅᑐᐃᓂᒃᑯᑦ ᐊᑐᒃᑳᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᑯᑦ ᐃᖃᓗᓕᕆᓂᕐᒥ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ. ᐊᒻᒪᓗ ᐃᓚᒃᑳᙵᒍᑦ, ᖃᓄᐃᓕᐅᕈᑎᒃᓴᐃᑦ ᐃᑲᔪᖅᑕᐅᙱᔪᑦ ᐱᓕᕆᖃᑎᒌᖕᓂᒃᑯᑦ ᑲᒪᒋᔭᖃᕐᓂᕐᒧᑦ ᐋᖅᑭᒃᑕᐅᓯᒪᔪᓂᒃ ᐊᒻᒪᓗ ᐱᐅᓛᒃᑯᑦ ᐱᓕᕆᐅᖅᔪᕐᓂᒃ ᐊᑐᖅᑕᐅᔪᓂᒃ ᐃᖃᓗᒃᑑᑦᑎᐊᒥᑦ ᐃᖃᓗᙱᓂ ᓂᐅᕕᐊᒃᓴᖃᕐᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᔨᓄᑦ (ᑕᑯᓗᒍ ᐃᓚᖓ 8). ᐃᓚᒎᑕᖅ ᑕ ᐱᑕᖃᖅᑎᑦᑎᔪᖅ ᑕᒪᐃᓐᓂᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᑎᒃᓴᓂᒃ ᒫᓐᓇ ᐊᑐᖅᑕᐅᔪᓂᒃ.

ᑮᓇᐅᔭᓕᐅᕋᓱᒻᓂᕐᒧᑦ ᐃᖃᓗᓯᐅᕐᓂᕐᒥᒃ ᓚᐃᓴᓐᓰᑦ ᑐᓂᔭᐅᕙᒃᑐᑦ ᐊᕐᕌᒍᑕᒫᑦ ᒪᓕᒃᑯᑎᒃ ᐃᓚᖓ 7 ᐅᕙᓂ *ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᒪᓕᒐᖅᒥᑦ*. ᐃᖃᓗᓯᐅᒃᑏᑦ ᑮᓇᐅᔭᓕᐅᕐᓂᕐᒧᑦ ᑲᒪᒋᔭᖃᖅᑐᑦ ᐅᓂᒃᑳᓕᐅᖃᑦᑕᕐᓂᕐᒥᒃ ᐃᖃᓗᒃᑕᖏᓐᓂᒃ, ᒪᓕᒡᓗᑎᒃ ᐅᑯᓂᖓ *ᐃᖃᓗᓯᐅᕐᓂᖅ (ᑕᒪᐃᑎᒎᑦ) ᐱᕐᑯᔭᐃᑦ ᐊᒻᒪᓗ ᓄᓇᕗᑦ ᐃᖃᓗᓯᐅᕐᓂᕐᒧᑦ ᐱᕐᑯᔭᓂᒃ* ᐊᒻᒪᓗ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᖏᑦᑎᒍ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᑎᒃᓴᓂᒃ ᐅᕙᓂ ᐸᕐᓇᐅᑎᒥᑦ. ᐆᒥᖓ ᖃᓄᐃᓕᐅᕈᑎᒥ ᐃᑲᔪᖅᑐᐃᓂᕐᒧᑦ, ᑮᓇᐅᔭᓕᐅᕋᓱᒻᓂᕐᒧᑦ ᑎᑎᕋᕝᕕᒃᓵᑦ ᐊᑐᐃᓐᓇᐅᔪᑦ ᐅᑯᓇᙵᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᒥᑦ ᐊᖑᓇᓱᒃᑐᓕᕆᔨᒃᑯᓐᓂᒃ, ᓄᓇᕗᒥᑦ ᒐᕙᒪᒃᑯᑦ ᐅᒪᔪᕐᓂᐊᖅᑎᒃᑯᑦ ᑎᑎᕋᕝᕕᖓᓂᒃ, ᐅᕙᓂᖓᓐᓂᑦ ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦᑯᑦ ᐱᕐᑯᑎᒃᓴᕐᓂᕐᒧᑦ ᓚᐃᓴᓐᓯᒧᑦ ᒪᓕᒋᐊᓕᖕᒥᑦ ᑮᓇᐅᔭᓕᐅᕐᓂᕐᒧᑦ ᐃᖃᓗᓯᐅᒃᐸᒃᑐᓄᑦ ᐊᑐᓇᐊᖃᕐᒪᑕ ᑎᑎᕋᖅᐸᓪᓕᐊᕝᕕᒃᒥᑦ ᑎᑎᕋᐅᓯᖃᓇᐊᖃᕐᓂᖏᓐᓂᒃ ᐃᖃᓗᒃᑕᐅᕙᓪᓕᐊᔪᓂᒃ, ᐃᖃᓗᓯᐅᕐᓂᖏᑦᑕ ᒥᒃᓵᓄᑦ, ᐃᖃᓗᐃᑦ ᐃᒋᑕᐅᔭᓇᐊᖅᑐᕝᕕᓐᓂᑦ ᐱᔭᐅᓯᒪᔪᓪᓗᓐᓂᑦ ᓂᕆᔭᐅᓂᐊᕐᒪᑕ, ᐃᖃᓗᓯᒍᓐᓇᐅᑎ ᐊᑐᖅᑕᐅᔪᑦ ᐅᓂᒃᑲᐅᓯᐅᓂᖏᑦ, ᑕᕆᐅᕐᒥᐅᑕᑦ ᑎᖏᐊᑦ ᐊᒻᒪᓗ ᐊᓯᖏᓐᓂᒃ ᑕᕆᐅᕐᒥᐅᑕᓂᒃ ᐆᒪᔪᓂᒃ ᖃᓄᐃᒍᑎᐅᔪᑦ, ᐊᒻᒪᓗ ᐊᓯᓕᒫᖏᑦ ᐃᖃᓗᐃᑦ ᐱᔭᐅᔪᑦ ᐱᔭᐅᓇᓱᖕᓂᑦᑐᑦ ᐃᖃᓗᓯᐅᕐᓂᕐᒥᑦ. ᑎᑎᕋᕝᕕᒃᓵᑦ ᑐᓂᔭᐅᖃᑦᑕᖅᑐᑦ ᓄᓇᓕᖕᓂ ᐆᒪᔪᕐᓂᐊᖅᑎᒧᑦ ᐅᕙᓂᖓᓐᓂᑦ ᐃᖃᓗᓕᕆᕝᕕᒃᒧᑦ ᐊᒻᒪ ᐅᑎᖅᑎᑕᐅᕙᒃᑯᑎᒃ ᐃᖃᓗᓕᕆᔨᒃᑯᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ (DFO) ᐃᖃᓗᓯᐅᕐᓇᖅ ᐃᓱᓕᑦᑕᕌᖓᑦ. ᐃᑲᔪᕐᓂᐊᕐᓗᓂ ᐊᑐᖅᑕᐅᕙᓪᓕᐊᔪᓂᒃ ᐃᖃᓗᒃᑕᐅᕙᓪᓕᐊᓂᕐᒧᑦ ᐅᓂᒃᑳᓕᐅᖃᑦᑕᕐᓂᖅ ᐊᒻᒪ ᐅᖃᕐᓂᖏᑦ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᓂᕐᒥᒃ, ᖃᐅᑕᒪᐅ ᐅᓂᒃᑳᐅᓯᓂᒃ ᐃᖃᓗᒃᑕᐅᕙᓪᓕᐊᔪᓂᒃ ᐃᖃᓗᓯᐅᒃᕕᐅᔪᒥᑦ ᓇᓕᐊᓐᓂ ᐱᔭᐅᓯᒪᕙᒃᑐᑦ ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦᑯᓐᓂᒃ ᐊᒻᒪᓗ ᐅᓂᒃᑳᓕᐅᕈᑎᐅᕙᒃᑯᑎᒃ ᖃᐅᑕᒫᓐ ᐅᑯᓄᖓ ᐃᖃᓗᓕᕆᔨᒃᑯᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ (DFO).

8. ᐱᓕᕆᖃᑎᒌᖕᓂᕐᒥ ᑲᒪᔨᐅᓂᕐᒧᑦ

ᐅᑯᐊ ᑲᑎᑎᕆᓯᒪᔪᑦ ᐃᖃᓗᓯᐅᕐᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎ (IFMP) ᐆᒧᖓ ᐃᖃᓗᒃᑑᑦᑎᐊᒥᑦ ᐃᖃᓗᙱᓂ ᑮᓇᐅᔭᓕᐅᕐᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᕝᕕᒃᒥᑦ ᐱᒋᐊᖅᑕᐅᓚᐅᕐᓯᒪᔪᖅ ᐊᒻᒪ ᐋᖅᑭᒃᓱᖅᑕᐅᓪᓗᓂ ᐅᑯᓇᙵᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᒥᑦ ᐃᖃᓗᙱᓂ ᐱᓕᕆᐊᖅᑐᓂᒃ 2010-ᖑᑎᓪᓗᒍ. ᐃᓚᐅᔪᑦ ᐅᑯᓄᖓ ᐱᓕᕆᐊᖅᑐᓂᒃ ᐅᑯᓈᖅᑐᑦ ᑭᒡᒐᖅᑐᐃᔨᓂᒃ ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒥ ᐊᖑᓇᓱᒃᑐᓕᕆᔨᒃᑯᓐᓂᒃ (ᐃᒃᓯᕙᐅᑕᐅᖃᑕᐅᔪᖅ), ᕿᑎᕐᒥᐅᑦ ᓂᕿᑦ ᓕᒥᑎᑦ, ᐃᖃᓗᓯᐅᒃᐸᒃᑐᑦ ᑮᓇᐅᔭᓕᐅᕋᓱᒻᓂᕐᒧᑦ, ᓄᓇᓕᖕᓂᑦ ᐃᓐᓇᑐᖃᐃᑦ, ᐊᕙᑎᓕᕆᔨᒃᑯᑦ – ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐊᒻᒪ ᓇᑦᑎᕐᓄᑦ ᐱᓕᕆᔪᑦ, ᐊᒻᒪᓗ ᐃᖃᓗᓕᕆᔨᒃᑯᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ (DFO). ᐃᓅᓯᒃᑐᑦ ᓄᓇᓕᖕᓂ ᐃᓕᓐᓂᐊᕐᕕᐊᓗᖕᒥ ᐃᓚᐅᑎᑕᐅᕙᒃᑐᑦ ᐃᓚᒋᔭᐅᓗᑎᒃ ᑲᑎᒪᔨᐅᔪᓂᒃ ᐱᓕᕆᖃᑎᒌᓄᑦ. ᑎᑎᖃᑦ

ᐃᑲᔪᖅᑐᐃᓱᒪᔪᑦ ᓄᓇᕗᒥᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔩᖏᓐᓂᒃ ᐱᔭᐅᓚᐅᕐᓯᒪᔪᑦ ᐱᓕᕆᖃᑎᒌᓄᑦ 2011-ᖑᑎᓪᓗᒍ ᐃᑲᔪᖅᑐᐃᓂᕋᕐᓯᒪᓪᓗᑎᒃ ᐱᓇᓱᐊᕆᔭᐅᔪᒥᒃ ᐅᑯᐊ ᐱᓕᕆᖃᑎᒌᖑᔪᑦ ᐊᒻᒪᓗ ᐱᕙᓪᓕᐊᓂᕆᔭᐅᔪᖅ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᓂᒃ.

ᐱᐅᓂᕐᐹᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᕙᒃᑐᑦ, ᐱᒋᐊᖅᑎᑕᐅᓯᒪᔪᑦ ᐊᐅᓚᑦᑎᖃᑎᒌᓄᑦ ᑲᑐᔾᔨᖃᑎᒌᓂᒃ ᐅᑯᑎᒍᓇᖅ ᑲᑎᑎᕆᓯᒪᔪ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐱᓕᕆᖃᑎᒌᓄᑦ ᐊᒻᒪᓗ ᐃᓚᐅᑎᑕᐅᓪᓗᑎᒃ ᐅᕙᓂ ᑲᑎᑎᕆᓯᒪᔪ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP). ᐃᑲᔪᖅᑐᐃᓂᕐᒧᑦ ᐊᑯᓂᐊᓗᒃ ᐋᓐᓂᐊᖃᖅᑎᑦᑎᑦᑕᐃᓕᓂᕐᒥᒃ ᐃᖃᓗᓐᓂ ᐊᒻᒪᓗ ᐊᑐᒃᑳᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᒥᒃ ᐃᖃᓗᓕᕆᓂᕐᒥ, ᐱᒻᒪᕆᐊᓘᕗᖅ ᐱᑕᖃᕈᓐᓃᖅᐹᓪᓕᖅᑎᑦᑎᓂᕐᒥᒃ ᒪᓐᓂᓕᐅᕐᑎᓪᓗᒋᑦ ᐊᒃᑐᐃᒍᑎᐅᔪᓐᓇᕋᔭᕐᑐᓂᒃ. ᑕᒪᒃᑯᐊ ᒪᓐᓂᓕᐅᕐᐹᓪᓕᐊᔪᑦ ᐱᔭᐅᒍᑎᒃ ᒪᑦᑎᑕᐅᑎᓄᑦ ᐃᖃᓗᒐᓱᖕᓂᒃᑯᑦ, ᐊᒻᒪᓗ ᐆᒪᓗᑎᒃ, ᑕᐃᒪᓕ ᑕᒪᕐᒥᒃ ᒪᓐᓂᓕᐅᕐᐹᓪᓕᐊᔪᑦ ᐃᖃᓗᐃᑦ ᐅᑎᖅᑎᑕᐅᔭᕆᐊᖅᑳᖅᑐᑦ ᐱᔭᐅᕝᕕᒋᔭᕐᒋᓐᓂᒃ, ᑖᒃᑯᐊ ᖃᓄᐃᑕᐅᑦᑕᐃᓕᒪᓗᑎᓪᓗ ᐅᑎᕐᑎᑕᐅᕙᓪᓕᐊᑎᓪᓗᒋᑦ. ᑎᓕᙵᓂᕐᒥ ᐃᖃᓗᒐᓱᖕᓂᒥ, ᑕᒪᕐᒥᒃ ᒪᓐᓂᓕᐅᕐᐹᓪᓕᐊᔪᑦ ᐃᖃᓗᐃᑦ ᐅᑎᖅᑎᑕᐅᔭᕆᐊᖅᑳᖅᑐᑦ ᖃᓄᐃᑕᐅᑦᑕᐃᓕᒪᓗᑎᒃ. ᐱᐅᓂᕐᐹᒃᑯᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐱᓕᕆᔾᔪᑏᑦ ᒫᓇ ᐊᑐᖅᑕᐅᔪᑦ ᑮᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᓂᕐᒥᑦ. ᑎᓕᙵᓂᕐᒥ ᐃᖃᓗᒐᓱᖕᓂᖅ ᓂᕈᐊᕆᔭᐅᓂᕐᓴᐅᕙᒃᑐᖅ ᓂᕆᔭᒃᓴᐅᓂᐊᕐᑐᓂᒃ ᐊᒻᒪ ᑮᓇᐅᔭᓕᐅᕈᑎᒃᓴᓄᑦ ᐅᕙᓂ ᔭᐃᑯ ᑰᒃᒥᑦ. ᐊᑐᖃᑦᑕᕐᓂᖅ ᑎᓕᙵᓂᕐᒥ ᐃᖃᓗᒐᓱᖕᓂᖅ ᐃᖃᓗᖕᓄᑦ ᐋᒃᓱᕈᓐᓇᙱᓐᓂᕐᓴᐅᔪᖅ ᐊᒻᒪᓗ ᐃᖃᓗᒃᑕᐅᔫᒃᓴᓂᒃ ᐱᑲᐅᕐᑐᕐᓇᕐᓂᕐᓴᐅᓪᓗᓂ, ᐊᓯᙱᓐᓂᒃ ᐃᖃᓗᖕᓂ ᐱᓐᓇᙵᙱᓐᓂᕐᓴᐅᓪᓗᓂ ᐊᒻᒪ ᓂᕐᔪᑎᓄᑦ ᑲᒪᔭᐅᓐᓇᙵᙱᓐᓂᕐᓴᐅᓪᓗᓂ ᐊᒻᒪᓗ ᐃᖃᓗᒋᑎᓂᒃ ᐊᓯᐅᕆᓐᓇᙵᙱᓐᓂᕐᓴᐅᓪᓗᓂ.

ᐊᕐᕿᒍᓂ ᑕᓪᓕᒪᓂᒃ (5) ᕿᒥᕐᕈᓂᖅ ᐅᑯᓂᖓ ᑲᑎᑎᕆᓯᒪᔪ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP) ᐱᓕᕆᓂᐅᓚᐅᕐᓯᒪᔪᖅ 2019/2020-ᒥᑦ ᐊᒻᒪ ᐋᖅᑭᒍᑎᐅᓪᓗᓂ ᖃᓄᐃᓕᐅᕈᓯᕐᓂ ᐆᒥᖓ ᓄᑖᙳᕆᐊᕈᑎᒥ ᑲᑎᑎᕆᓯᒪᔪ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᓂᒃ (IFMP).

9. ᒪᓕᒋᐊᖃᕐᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ

ᐅᑯᐊ ᐃᖃᓗᓕᕆᔩᒃᑯᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ (DFO) ᓴᐳᔾᔨᓯᒪᓂᕐᒧᑦ ᐊᒻᒪ ᖃᓄᐃᑦᑎᑦᑕᐃᓕᓂᕐᒧᑦ ᐱᓕᕆᐊᒃᓴᖓ ᓴᖅᑭᑎᑦᑎᓯᒪᔪᖅ ᒪᓕᒋᐊᖃᕐᓂᕐᒥᒃ ᒪᓕᒡᕐᓂᒃ, ᐱᕐᑯᔭᓂᒃ ᐊᒻᒪᓗ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᑎᒃᓴᓂᒃ ᐊᑐᓕᖅᑎᑕᐅᔪᓂᒃ ᐊᓯᐅᑎᑦᑎᑦᑕᐅᓕᓂᕐᒧᑦ ᐊᒻᒪ ᐊᑐᒃᑳᓂᕈᓐᓇᖅᑐᓕᕆᓂᕐᒧᑦ ᑲᓇᑕᐅᑉ ᐃᒪᕐᒥᐅᑕᖏᓐᓂᒃ ᐊᑐᖅᑕᐅᕙᒃᑐᓂᒃ. ᐃᖃᓗᓕᕆᔩᒃᑯᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ (DFO) ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᓕᕆᔩᖏ ᑲᒪᒋᔭᖃᕐᑐᑦ ᒪᓕᒋᐊᖃᕐᓂᕐᒥᒃ ᐱᓕᕆᐊᖃᕐᓂᕐᒥᒃ ᐊᒃᑐᐊᔪᓂᒃ ᐃᖃᓗᒃᑑᑦᑎᐊᒥᑦ ᐃᖃᓗᖕᓂ ᑮᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ. ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᓕᕆᔩᐅᔪᑦ ᖃᐅᔨᓴᖃᑦᑕᕆᐊᖃᕐᑐᑦ, ᐊᒻᒪᓗ ᐃᑲᔪᖅᐅᓯᒪᓪᓗᑎᒃ ᐊᕕᒃᑐᕐᓯᒪᓂᒃᑯᑦ ᐃᖃᓗᓕᕆᔩᒃᑯᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ (DFO) ᐃᖅᑲᓇᐃᔭᖅᑎᓂᒃ ᐃᑲᔪᖅᐸᒡᓗᑎᒃ ᖃᐅᔨᓴᖅᐹᓪᓕᐊᓂᕐᒧᑦ ᐅᓂᒃᑲᐅᓯᐅᕐᐸᙳᓂᕐᒥᒃ, ᐃᓕᓐᓂᐊᕐᓂᕐᒥᒃ ᐊᒻᒪᓗ ᑲᑐᔾᔨᓂᒃᑯᑦ ᑲᒪᔨᐅᓂᕐᒥᒃ.

ᐃᖃᓗᓕᕆᔩᒃᑯᑦ ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ (DFO) ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᓕᕆᔩᖅ ᐃᓚᐅᕙᒃᑐᑦ ᐃᖃᓗᓕᕆᓂᕐᒥᒃ ᕿᒥᕐᕈᓂᕐᒧᑦ ᑲᑎᒪᔪᓂᒃ ᒪᑯᐊ ᒪᓕᒋᐊᖃᕐᓂᖅ ᐅᖃᐅᓯᐅᓂᐊᕋ̇ᖓᓚᑦ ᐊᒻᒪᓗ ᐃᓱᒪᓕᐅᕆᔾᔪᑎᓂᒃ ᖃᐅᔨᒪᑎᓪᓗᒋᑦ ᐋᖅᑭᕆᐊᕈᑎᒃᓴᓂᒃ. ᐊᒻᒪᓗ, ᑲᑎᒪᓂᐅᔪᑦ ᒪᑯᓂᖓ ᐱᐊᓂᒃᓯᒪᙵᓂᖓᓄᑯᓂᒃ ᐱᓕᕆᐊᒃᓴᐅᕙᒃᑐᓂᒃ ᐃᖃᓗᓕᕆᓇᐅᑎᓪᓗᒍ. ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᓕᕆᔩᐅᔪᑦ ᐅᖃᐅᓯᖃᑦᑕᖅᑐᑦ ᐃᖃᓗᓕᕆᔩᒃᑯᑦ ᐊᓯᐅᑎᑦᑎᑦᑕᐃᓕᓂᕐᒧᑦ ᐊᒻᒪ ᐱᓕᕆᖃᑎᖏᓐᓂᒃᑯᑦ ᑲᒪᔩᐅᓂᕐᒥᒃ ᐃᖃᓗᒃᑑᑦᑎᐊᓃᑎᓪᓗᒍ ᐊᒻᒪ ᐅᖃᖃᑎᖃᖅᑯᓂ ᓄᓇᓕᖕᓂ ᑕᒪᑐᒥᖓ ᐱᓕᕆᐊᖅᐸᒃᑐᓂᒃ, ᐃᖃᓗᒐᓱᒃᑎᓂᒃ ᐊᒻᒪ ᐃᖃᓗᓕᕆᕝᕕᖕᓂ.

10. ᑲᑎᑎᕆᓯᒪᔪ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᑦ (IFMP) ᖃᓄᐃᓕᐅᕈᓯᐊᓂᒃ ᕿᒥᕐᕈᓂᖅ

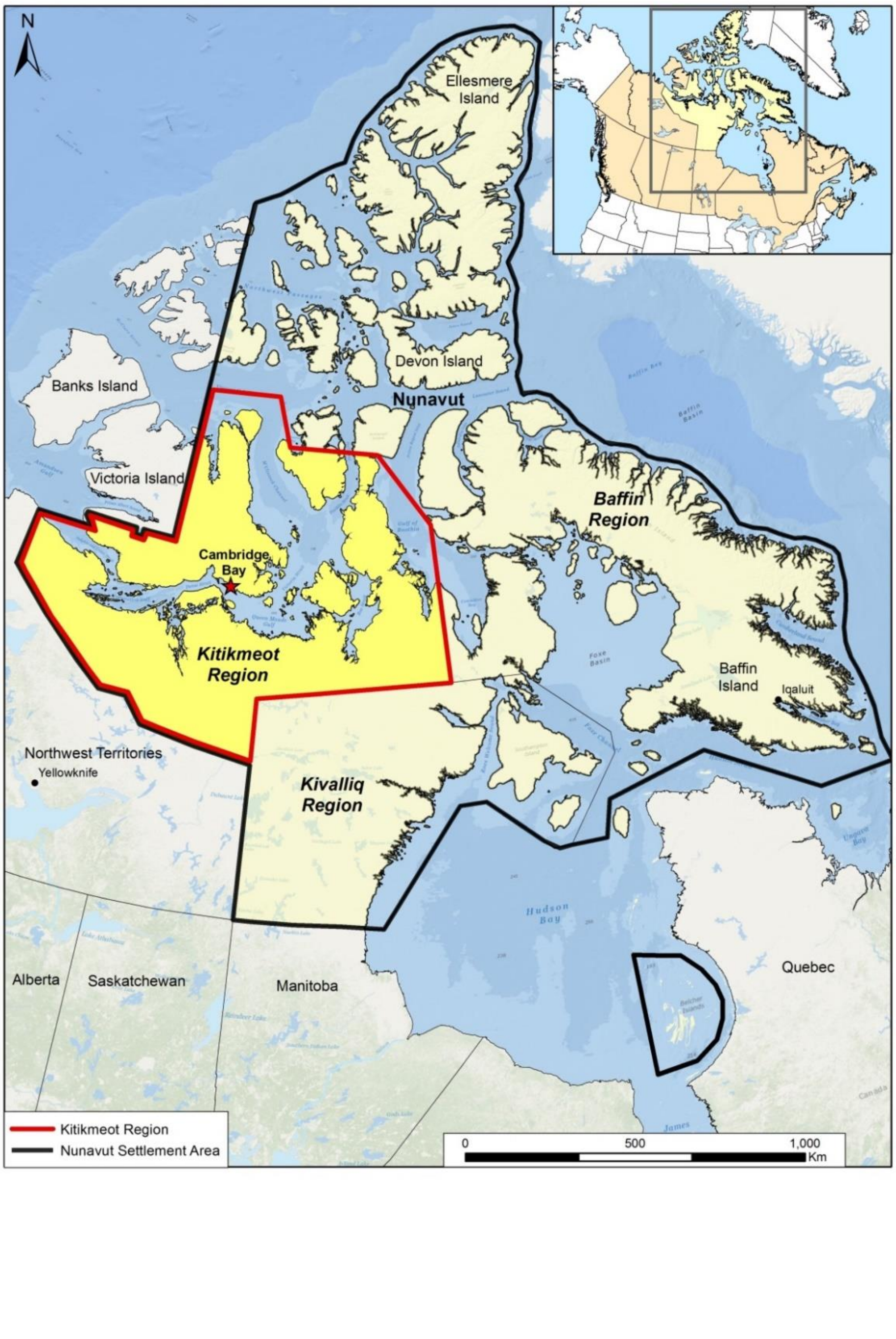
ᑲᑎᑎᕆᓯᒪᔪ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎ (IFMP) ᐋᖅᑭᒃᓱᖅᑕᐅᓚᐅᕐᓯᒪᔪᖅ ᐅᖃᖃᑎᒌᖃᑦᑕᕐᓂᒃᑯᑦ ᐅᑯᓂᖓ ᐊᑐᒃᑳᓂᕈᓐᓇᕐᑐᒃᑯᑦ ᐊᑐᖅᐸᒃᑐᓂᒃ, ᐊᐅᓚᑦᑎᔨᐅᖃᑕᐅᔪᓂᒃ ᑲᑐᔾᔨᖃᑎᒌᓂᒃ, ᐊᒻᒪᓗ ᑎᒍᒥᐊᕐᑎᓂᒃ.

ᑮᓇᐅᔭᓕᐅᕋᓱᖕᓂᒃᑯᑦ ᐃᖃᓗᒃᑕᐅᕙᓪᓕᐊᔪᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᑉ ᒥᒃᓴᓂᒃ ᑲᔪᓯᒍᑎᐅᓂᐊᕐᑐᑦ ᖃᐅᔨᓴᖅᑕᐅᕙᓪᓕᐊᕙᓪᓗᑎᒃ ᒪᐅᓇ ᑲᑐᑎᓂᒃᑯᑦ ᑲᒪᒋᔭᖃᕐᓂᒃᑯᑦ ᐅᑯᐊᓗ ᐊᑐᖃᑦᑕᖅᑐᓂᒃ, ᐊᒻᒪᓗ ᐊᕐᕿᒍᒥ ᐃᖃᓗᖃᖃᑦᑕᕐᓂᕐᒧᑦ ᖃᐅᔨᓴᕈᑎᓂᒃ ᑕᒪᒃᑯᐊᓗ ᖃᐅᔨᓴᖅᑐᕆᓂᒃᑯᑦ ᖃᐅᔨᒍᑎᐅᓇᔭᕐᒪᑕ. ᖃᐅᔨᓴᖅᐹᓪᓕᐊᓂᖅ ᐃᖃᓗᓕᕆᓂᕐᒥᒃ ᑲᔪᓯᑎᐊᕈᓐᓇᕐᑐᖅ ᐱᓕᕆᔾᔪᑎᖃᐅᕐᓗᓂ

ᐃᓚᖃᖅᑐᓂᒃ ᖃᐅᑕᒫᓐ ᐃᖃᓗᒃᑕᐅᕙᓪᓕᐊᔪᓂᒃ ᐅᓂᒃᑲᐅᓯᐅᖃᑦᑕᕐᓂᒃᑯᑦ, ᐱᔭᐅᔪᓇᐊᓕᖕᓂ ᖃᐅᔨᓴᖃᑦᑕᕐᓂᕐᒥᒃ, ᐃᖃᓗᓕᕆᔩᒃᑯᓐᓂ ᖃᐅᔨᓴᖅᑕᐅᔫᒃᓴᓕᕆᓂᖅ, ᑎᑎᕋᕐᕕᒃᓴᓂᒃ ᐊᒻᒪ ᖃᐅᔨᓴᖃᑦᑕᕐᓂᕐᒥᒃ.

ᐃᖃᓗᒐᓱᖕᓂᐅᑉ ᓱᕗᓂᐊᒍᑦ ᕿᒥᕐᕈᐊᖅᑕᐅᓯᒪᔪᑦ ᐱᓕᕆᐊᖑᖃᑦᑕᕐᓂᐊᕐᑐᑦ ᐅᑯᐊ ᐃᓚᐅᓗᑎᒃ ᑎᒍᒥᐊᕐᑎᐅᔪᑦ ᐊᒻᒪᓗ ᑲᑎᑎᕆᓯᒪᔪ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎ (IFMP) ᐱᓕᕆᖃᑎᒌᖕᓂᑦ. ᐱᓕᕆᕙᓪᓕᐊᓂᕐᒧᑦ ᖃᓄᐃᑉᐸᓪᓕᐊᓂᖅ ᓇᐃᓈᕐᓯᒪᔫᒃᑯᑦ ᐊᑐᖅᑕᐅᔫᒃᓴᓂᒃ ᐊᒻᒪ ᐊᑐᕐᓂᒃᑯᑦ ᐊᑐᓕᖅᑎᑦᑎᓂᕐᒥᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕈᑎᒃᓴᓂᒃ ᓇᓗᓇᐃᕐᑕᐅᓯᒪᔪᓂᒃ ᐅᕙᓂ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᓂᒃ ᕿᒥᕐᕈᐊᖅᑕᐅᓂᐊᕐᑐᖅ. ᐃᓱᒪᓕᐅᕆᖃᑦᑕᕐᓂᖅ ᐱᐅᓯᕚᓪᓕᖅᑎᑦᑎᓂᕐᒥ ᐊᐅᓚᑦᑎᓂᕐᒥ ᐆᒥᖓ ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒥᑦ ᐃᖃᓗᓂ ᑮᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᓂᖅ ᐋᖅᑭᒃᑕᐅᓂᐊᕐᓗᓂ ᐊᑯᓂᒍᒃ ᐱᓕᕆᐊᒃᓴᓄᑦ ᓇᓕᒨᒃᓯᐅᑎᓕᕈᓐᓇᕐᓗᓂ ᑲᒪᒋᔭᖃᐃᓐᓇᕐᓂᕐᒥᒃ ᐊᑐᒃᑳᓂᕈᓐᓇᖅᑐᓕᕆᓂᒃᑯ ᐃᖃᓗᓕᕆᓂᕐᒥ.

ᐊᑦᔨᖑᐊᖅ 1. ᓄᓇᖑᐊᖅ ᓄᓇᕗᑦ ᓄᓇᖏᓐᓂᒃ ᓴᖅᑭᔮᖅᓱᑎᒃ ᕿᑎᕐᒥᐅᑦ ᓄᓇᖓᑦ ᐊᒻᒪᓗ ᐃᖃᓗᒃᑑᑦᑎᐊᖅ.



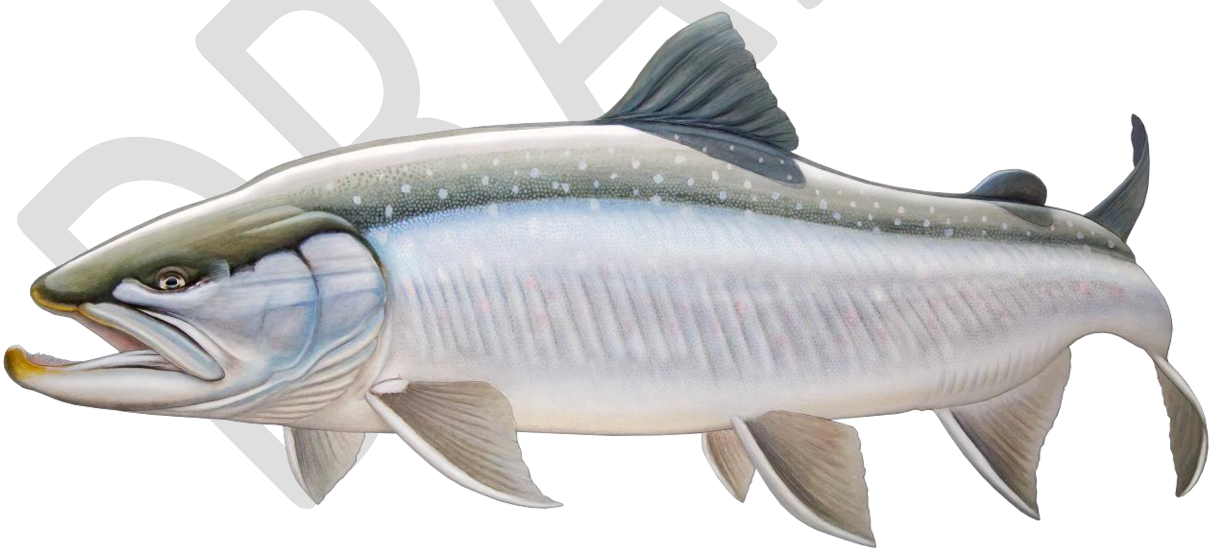
ᐊᕐᓇᙳᐊᖅ 2: ᐃᖃᓗᒃᑑᑦᑎᐊᑉ ᓄᓇᙳᐊᖓ ᓴᖅᑭᔮᖅᑎᑦᑎᓯᒪᔪᖅ ᒫᓐᓇ ᑮᓇᐅᔭᓕᐅᕋᓱᒃᓂᕐᒧᑦ ᐃᖃᓗᕆᓯᒻᕕᐅᖃᑦᑕᖅᑐᓂᒃ.

Ilagijaujut Iqalut Munarijaujunut Upalungaijautingit Ukiuqtaqtuq Nunangani

Iqaluktuuttiaq Iqalukpik, *Salvelinus alpinus*, Iqalukhiuqtunut Maniliurahuaqtut, Nunavut

Aturnaqtut 2021

Iqalukpik
(*Salvelinus alpinus*)



Hivunikhaq

Hivunikhangit haffumani Ilagijaujut Iqalungnut Munaqhijaujut Upalungaijautit (IFMP) nalunaiqtaugiami hivunikhautikhait kiuvikhangillu Iqaluktuuttiaq Iqalukpit (*Salvelinus alpinus)* maniliurahuaqtut iqalukhiurnit, uuminngalu munaqhiijaujut maliktakhait parnautikhainit tikinnahuarlugillu tahapkuat hivunikhautikhat. Una titiqqat kivgautigijakhaat ilaliutilugulu kangiqhijaujukhaq ajurnaittumik qaujimajangit iqalungnut, imaup kangiqhidjuhingit maniliurahuaqtunut anngutikhaliuqtut Iqalukpit unalu tukiliutingit aturaaqtakhait munaqhiijaujut Iqalungnit Tarjurmiutaillu Kanatami (DFO), maligautilik munaqtiuqatigiiktunut timiujut, ilagijaujut Iqaluktuuttiaq Anguniaqtit Timingat, uuminngalu avatikhanut atuqpagait aahiittauq ilauhimajunut.

Una IFMP maligautigut ilagijaunngittut ingilrutikhangit ilijaulaaqtut ajurnaittumik maligautaanit akihautigijaat. Una IFMP ihuaqhijaulaaqtut humilikiaq ajuqhautilimaittaat Minista’p maligautaat hakugingningit turaaqtauhimajuq iluani *Iqalungnut Maligaq*. Una Minista pilaaqhuni, qanurilingajauningit hapummivikhanut, huuplikiaq qanurilinganniqqat, ihuaqhihimalaaqtangit ilagijaujut haffumani IFMP malikhimajangit hakugingningit tunijauhimajut malikhugu uvunga *Iqalungnut Maligaq*.

Himiliqaak DFO munarijakhaat pillimmakharlugillu munarijaulluaqtakhaat malikhugit nuna nunataarviup angirutaat, una IFMP pilimmakhautauniaqtuq ilitquhiqarluni atuinnarluniuk munarijaujukhat. Huliniarumik hamna IFMP malikhimanngitkumiuk munarijaujukhat maligumiuk nuna nunataarviup angirutaat, ilagijaujut haffumani nuna nunataarviup angirutaat atuqhimaniaqtangit kigliutigijangit aturnanngitpat.

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Gabriel Nirlungnayuq, Aviktuqhimajumi Tukimuaqtittiji, Ukiuqtaqtuq Aviktuqhimajumi Iqalungnit Tarjungillu Kanata

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Ublua

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Daniel Shewchuk, Ikhivautalik, Nunavut Uumajuliqijit Katimajit

____

Ublua

Iluaniittut

Nalunaitkut

Naahautit

Iluliutingit

Nainaaqtauhimajut Titiqqangit

C&A	Qitirmiunmi unalu Ukiuqtaqtuq Aviktuqhimajuq, Iqalungnit Tarjurmiunillu Kanata
C&P	Munarijangit Hapummijangillu, Iqalungnit Tarjurmiunillu Kanata
CPUE	Qaffiuningit Aadjigiinngittut Iqalukhiurnigut
DFO	Iqalungnit Tarjurmiunillu Kanata
EHTO	Ekaluktutiak Anguniaqtit Timinganit
HTO	Anguniaqtit Timinganit
IFMP	Ilagijaujut Iqalukhiurniq Munaqhiijangit Upalungaijaut
IQ	Inuit Qaujimajatuqangit
KRWB	Kitikmeot Nunangani Uumajuliqijit Katimajit
NA	*Nunavut Angirutaat*
NSA	Nunavut Nunataarviup Iluani
NWMB	Nunavut Uumajuliqijiunit Katimajit
NWT	Nunatsiaq
RWO	Aviktuqhimajumi Uumajuliqiniq Timiujuq
TC	Agjaqtuiniq Kanata
TEK	Ilitquhiqiniq Avatiliqinirnut Qaujimajangit
PA	Hapummijaujukhaq Inikhaq

1 Nainaaqhimajuq

Hamna Ilagijaujut Iqalukhiurniq Munaqhiijakhanut Upalungaijaut (IFMP) atuqtauvakhutik amirinahuaqhugit hapummivikhangit aturaaqtakhangillu atuqtakhanut haffumani imarmiutaujut avatikhangit, ikajuqhugillu munaqtiunirnut aturaaqtakhat iqalukhiurnirnut, ilagijauvlugulu angmaumajut qaujiharniq unalu Nunaqaqaaqhimajut ilitquhiqiniq qaujimajangit unalu avvautigivluniuk Inuit Qaujimajatuqangit (IQ) iqalungnu uumajuit nanminiliurahuaqtut nalunaijainiq ihumaliurlutik nakuuqpiaqtumik malikhimajakhaat anguniaqtakhat munarilugillu. IFMPt pivalliahimajut unalu iniqhimajaujut ukunanngat hivitujumik havaktaunginnaqhutik inikhautikhaat ukunanngat munaqtiuqatigiiktunut parnautigijait, nunamiunillu avatingnut atuqtittijut unalu aahiit ilahuahimajunut.

Iqalungnut unalu Tarjurmiunit Kanata (DFO) ilagiinnaqtangit iqalungnut pijunnautingit tigumiaqtit, Nunaqaqaaqhimajut timiujut, ilagiiktut unalu nunaliit, avatingnut atuqtittijut unalu ilauhimajunut qanuq ihumaliurahuariangani qanuq nakuuqpiaqtumik munariniaqtangit iqalungnit pivallialutiglu IFMPt ikajuqhugit iqalungnit. Havaarijakhaat katimadjutigilugulu uvani IFMP ilitarijauhimajuq ilagijaulunilu hulijakhainit hivulliqpaangujut ablurvikhaanit upalungaijaijunit pivalliavlutiglu piliriakhat pivikhangit IFMP. Qaffiujut hulijakhait atuqtauvaktut ilagijauvlugillu iqalungnut pijunnautingit tigumiaqtit, Nunaqaqaaqhimajut timiujut, ilagijaujut nunaliillu, avatingnut atuqtittijut unalu ilauhimajunut, ilagijaat hammaujut: katimainnaqhutik IFMP WG katimajunut; ilagijaujut katimadjutigivlugillu; avvautigijangit nalunaijaijut; hailijakhaat qimilruriami kiuhimalugillu iniqhimaittut nutaannguqtiqattaqtut upalungaijaut; ukiungani iqalungnut ilitturvikhangit qimilrurningit.

Tamaat IFMPt kiugiaqaqtangit nutaannguqtiqattarlugit turaarvigilugit atuqtangit hulijakhainit akihautingillu, nutaamik nalunaitkutaq (uumajunit unalu iqalungnit-ilagijaujut), aallatqiingijullu akhuuqpiaqtangit iqalungnut avatingit.

1.1 Iqaluktuuttiaq Iqalukpit iqalukhiuqtunut maniliurahuaqtut IFMP

Una IFMP haffumani maniliurahuaqtunut angunahuaqhimajaujut Iqalukpit (*Salvelinus alpinus*) uvanngat Iqaluktuuttiaq nunangani Nunavunmi pilimmakhailihaaqtumik uvani 2014 mi, hivulliuvluni IFMP uumajuit Kanata iluani. Una Iqaluktuuttiaq maniliurahuaqtunut Iqalukpit IFMP pinahuaqhutik qimilruqtaugialik nutaanngiqtirialik 5 ukiunganit, uuminngaluuniit kiugiaqaqhuni, ukunanngat Iqaluktuuttiaq IFMP Havaqatigiiktut Ilagijaujut (WG).

Una IFMP WG katimaqatigiiktut aippaagunnguraangat qimilruivlugillu kinguani-hilaqutitigut ilitturningit haffumani iqalungnit unalu nakuuqpiarningit haffumani munaqtiunirnut upalungaijaut. Una IFMP WG katimaqatigiikhutik aippaagunnguraangat uvanngat IFMP uvani 2014. Ilagiikhugu, DFO aulapkaihimajut aippaagunnguraangat iqalukhiuqtinnagit unalu kinguani iqalukhiuqtunut ilagijaujut ukunanngat maniliurahuaqtut iqalukhiuqtit unalu aallat ilauhimajujut, uuminngalu aulapkaihimajut kitunuliqaak ilagijaujut niplautigivluniuk ilaliutigivluniuk nutaannguqtiqhimajut haffumani maniliurahuaqtunut iqalukhiuqtut unalu ilagijaujut qaujiharnirnut qaujihainingit hulijakhaillu, aippaagunnguraangat kigligutainnit. DFO unalu IFMP WG parnautigivagaat niplautigijait nalunaiqhiivakhugit akihautigijainnit hivulliutikhangillu turaarvigijaangani uvani iqalukhiurnirnut. Tamaat kiuhimajaujut tunijaujut qajagijaujut ihumaliuqtangit iniqtiqhimagiangani hamna nutaannguqtiqtauhimajut IFMP.

Una IFMP iniqpiaqhimajut uvani: **Tatqiqhiutigut, Ublua, Ukiunga.**

1.2 Pitquhituqangit

Iqalukpit, Salvelinus alpinus, nalvaaqtauvaktut tamainnut Kanatamiunit Ukiuqtaqtuq takunnaqhutik tamarmik tajurmiunngittut (tahirmiiliqpaktut uuminngaluuniit nunamiunirmut iqauk) unalu tarjurmiujut (tarjurmit majuraangat) ilitquhiit. Una tarjurmiuttat ilitquhingit nanijauvaktut kuukkanmi tattiillu uvani Kiilliniq Qikitarmi, haniani Nunalingni Iqaluktuuttiaq, ilitarijauvlunilu Iqaluktuuttiaq, tahamanngat anguniajuktangit niqikhainit, iqalukhiurumajunut unalu maniliurahuaqtunut iqalukhiuqtut.

Amihuujut maniliurahuaqtunut imarmiujut iqalukhiuqtunut Iqaluktuuttiaq nunangani iluani. Tahapkuat imarmiujut ilihimajauvlutik amihuit atiqaqtut, ilagijauvlutik nunamiunut Inuinnaqtun Qablunaatullu atilgit, uuminngattauq maligautaatigut atiqaqhutik atuqtauvaktut Nunatsiarmi (NWT) Iqalungnut Maliguarutit (Nalunaitkut 1 mi). Tamainnut uvanngat IFMP tamarmik nunamiunit Inuinnaqtun unalu Qablunaatitut atingit ilitarijaugamik nunamiunit atuqtunut.

Nalunaitkut 1. Maniliurahuaqtunut Imarmiunit Atiita Iqaluktuuttiaq Nunangani iluani.

Inuinnaqtun Nunamiujut Atiit	Qablunaatut Nunamiujut Atiit	Qablunaatut Maligautigut Atiit
Iqaluktuuq	Ekalluk (Wellington) River	Ekalluk River
Halugvik	Thirty-Mile River	Halovik River
Paalliryuak	Surrey River	Paliryuak River
Jayko	Jayco River	Jayco River, Albert Edward Bay
Paalliq	Lauchlan River	Lauchlan River (Byron Bay)

Nalunaitkut: Maligautigut Atiit turaarviujuq uvunga maniliurahuaqtunut imarmiujut atiit iluani Ilitturvik I haffumani Ilitturvikhaq V, *NWT Iqalukhiurniq Maliguarutit.*

Hivuani pitquhituqangit haffumani iqalukhiurnirnut tukiqaqhuni uvani Abrahamson (1964) unalu Barlishen & Webber (1973). Pilihaaliqhutik haffumani aullaqtilihaaqtumi maniliurahuaqtut iqalukhiurniq, ilittuqhimajungnaqhijuq tamaita kuukkat Iqaluktuuttiaq nunangani iluani iqalukhiuqpagaat niqikhaqhiuqhutik Inuinnainut (Friesen, 2002 unalu Ilulingni A nunaujaqaqtuq pitquhituqangit iqalukhiurviuvaktuq najugaat). Maniliurahuarniq iqalukhiuqtut najugaanit hivulliqpaaq aullaqtilihaaqhimajuq uvani 1960 mi, ukunanngat mahikkut kuvjiliqivaktut qanilruani Imatqiktumik Kuugaq (Day & Harris, 2013). Pivallaaqhimaittumik akhuuriami akihautinahuariami akhuurnirnut haffumani qanilruani iqalukhiurnirnut nuuhimaffaaqtut uvani 1962 mi ungahiktumik nunalingni hivuani Iqaluktuuq (Iqaluk) Kuugaa, hamna kuugaq imaiqtiqpaktuq Iqaluktuuq Kangiqhuani (Day & Harris, 2013).

Nanminirijaanit, kuugap-nalaumattiarninga atuqtauvakhuni uvani Iqaluktuuq (Iqaluk) Kuugaa havaarijaukhaaqtut uvanngat 1967 mut. Kinguani hamna "iningit" avguiningit aulapkaihimajuq haffumanngat Iqaluktuuq ihumagivluniuk tunivlugit iqalukhiuqtunut akhuuqtangit tamainnit ilagijaat kuukkat nunangani (haffuminngatut Paallirjuaq (Surrey), Halugvik (Thirty-Mile) unalu Paalik (Lauchlan) kuukkait). Kihiani, katakpalliajut iqalukhiurnirnut (ilittuqtauhimajuq ikivalliajuq tukiqaqhuni uqumaidjuhigut) uvani Iqaluktuuq (Iqaluk) Kuugaq, humiliqaak iqalukhiuqpagaat ungahingniagut Iqaluktuuttiarmut, akhuurluaqtangit aulapkainirnut haffumani "kuugaq-nalaumattiarningit" avguiningit tunihimajangit iqalukhiuqtunut tamainnut pivikhangit. Uvani 1970 mi, maniliurahuaqtut iqalukhiuqtut angiklijuummiqhuni uvani Jayko (Jayco) Kuugaq tununngani kivataani Iqaluktuuttiarmit unalu Kuunajuk unalu Kuugjuat kuugait, qanilruanit ahiarmit.

Uvanngat 2010 mit 2017 mut Paalliq (Lauchlan Kuugaq) maniliurahuarnirnut anguniarviunngittuugaluaqtut maniliurahuanngitkaluarmata ilagivluniuk pitquhituqarnit atiliuqhimajaujuq maniliurahuaqtut avguiningit unalu hivitujumik agjaqtuinirnut akituvallaaramik ungahikpallaaramilu iqalukhiuqtunut najugaanit Iqaluktuuttiarmit. Nutaannguqtumik pijumajainnit iluani iqalukhiuqtunut, una Iqaluktuuttiaq Anguniaqtiit Timinganit (EHTO) unalu Kitikmeot Niqiqarvinga Timingat, ikajuqtauvaktut ukunanngat DFO-tkunnit, tukhiutijaujut hivumuurutigijangit avguiningit angiklijuummiqtauvlutik uvanngat 5,000uqumaidjuhianit (uvanngat pitquhituqarnit hivumuurutigijangit 2,400uqumaidjutingit). Una Nunavut Uumajuliqijit Katimajit (NWMB) ihumaliuqhimajangit tadja atuqhimmaaqtangit maniliurahuaqtut avguiningit (atauttimuurutijangit ukunanngat *Nunatsiaq Iqalukhiuqtunut Maliguarutit)* haffumani 9,100 uqumaidjutingit maligautijaujut unalu aturnaqhunilu. Ihumaliuqhimajangit, una NWMB ilitarijaujut ikajuqtauvlutiglu hapummiraaqhutik-kigligutaat munarijaujut inikhautikhangit haffumani iqalukhiuqtunut ukunanngat EHTO unalu DFO aulapkaivlutik ikajuqtauvlutiglu ukunanngat Kitikmeot Niqiqarvik Timinganit munariraaqhutik aturaaqtakhat maniliurahuaqtunut iqalukpik iqalukhiuqtunut (Nunavut Uumajuliqijit Katimajit, 2017 mi). Aullaqtilihaaqhimajut uvani 2018 mi, Paalliq (Lauchlan Kuugaq) anguniarviuvlutik hivumuuqhugit avguiningit haffumani 5,000uqumaidjutingit, ilittuqtauhimajut ukunanngat iqalukhiuqtunut-munarijaujut unalu-nanminirijaujut munaqhiijangit, unalu anguniaraaqpakhutik uvani hivumuurutaujut avguiningit hamna amigaiqhiijut ihivriurnikhanut iniqpiaqhimalutik aturaaqtakhaillu anngutikhait aulapkaqhiilutik.

Iqalukhiuqhimaittut uvani Kuunajuk nutqaqhutik 1999 mi unalu Kuugjuaq 1991 mi amihuujut huligamik, ilagijaujuq agjaqtuinirnut akikhangit, nalunaiqhutik qakuqhivlutik niqaa, hilarluinnaqhunilu ukiakhami. Akihautit haffumani maniliurahuaqtut najugait ilaliutijangit inuuhirnut pitquhirijangillu malikhimajangit (haffuminngatut, hivunngani nirivagaat iqalungnit), angmaumagumik maniliurahuaqtut avguiningit, unalu nunap ilitquhiita ilagijaujut maniliurahuarnirnut atuqattaqtangit (haffuminngatut, ungahingnia nunalingnut, agjaqtuinirnut akikhangit), iqalut qanurinningit unalu niuviqtittinahuarniq (haffuminngatut, niqaa qakuqhivallaarninga) hilaup qanurilinganingillu.

Tadja maniliurahuarniq iqalukhiuqtut iqalukhiuqpaktut uvani Iqaluktuuq (Iqaluk), Paallirjuaq (Surrey), Halugvik (Thirty-Mile), Paalliq (Lauchlan) unalu Jayko (Jayco) kuugait (

Naahaut 2). Angunialihaaqtut unalu amigainningit ilitquhia haffumani iqalukhiuqtut ilaliutauhimajut uvanngat (Day & Harris, 2013) unalu angmaumajut ikiaqqivikkut uvani: http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ResDocs-DocRech/2013/2013_068-eng.html.

Hamna hivunikhautikhangit haffumani IFMP, tamaat ublumimut Iqalukpik maniliurahuaqtunut imarmiujut (Nalunaitkut 1) iluani Iqaluktuuttiaq nunangani kitiqhutik turaaqtauhimajut uvanngat "Iqalukttuuiaq Iqalukpik maniliurahuaqtunut iqalukhiuqtut". Munarijaujut hivunikhaat, tamaita maniliurahuaqtut imarmiittut ihumagijaujut avaliqanngittut munarijaujut ilangani ilagijaujut ukunanngat kuugaq-nalaumattiarningit avguiningit.

1.3 Aallatqiik Iqalungniq unalu Ilauqatauhimajut

Iqalukpik ihumagijaulluaqpagaat inikhaanut inungnit pitquhinga, niqinnariajujut unalu maniliurahuarnirnut angiklijuummiqpaktuq nunalingni – ikajulluaqpakhutik aturaaqtakhaat pitquhirnirnut unalu inuudjuhiit, ilaliutauvaktut himmautilimaitpiaqtut pitquhirnut niqingit, unalu maniliurahuarnirnut ikajuutikhangit ajurnanngitpiaqtut maniliurahuarniq hulijakhainillu iqalukhiurningit. Iqalukpit anguniarluaqpagaat nirijuktangit unalu maniliurahuaqhutik iqalukhiuqtunut ikittumik hulijaujut (tahiuqtaujut) iqalukhiuqtut iluani Iqaluktuuttiaq nunangani.

Una maniliurahuaqtut iqalukhiurniq, hivunigijaujuq haffumani IFMP, aulapkaqhimajut ukunanngat nunaqatigiingmiut Inuit iqalukhiuqtit ilagivlugillu aulattittinirnut ikajuqtangit Kitikmeot Foods Ltd., maniliurahuaqtut niqiliqiviujut Iqaluktuuttiarmi. Kitikmeot Foods Ltd. Nauhimajut uvani 1990 mi maningnit ikajuqtauhimajut uvanngat Nunavut Pivallianikhanut Timiujut, kivgaqtuijullu angiklivalliajut nunamiujut unalu hilarjuaqtigut iqalut niuviqtittijuktut malikhugu nunallaangit hanaugaa Ilumuuqpiaqtuq Iqalukpingujuq taidjutilik *Truly Wild Arctic Char™*. Una iqalukhiuqtut ilittuqhimajaujut aturaaqtakhait atauttimuuqhugit aallatqiingujut nanminirijangit maliktangit, tadja ilitarijauvlunilu ukunanngat Tarjurmi Ilittuqtit taidjutilik Ocean Wise aturaaqtaujut munarijauvlutik iqalukhiurnirnut. Najugautaa Iqaluktuuttiarmi, Qitirmiut Niqiqarvia Timigutaat, taidjutilik Kitikmeot Foods Ltd. Havaktiqaqhutik amihuujut 28 nit nunamiuqatigiktut unalu nunataarviujut, ilagijaujut munaqhiijangit, hilaqutitigut pivalliajut unalu maniliuraqhuaqtunut iqalukhiuqtit.

Una Iqaluktuuq (Ekalluk Kuugaa) unalu Paalliq (Lauchlan Kuugaa) najugaat ikajuqtauvaktut nunamiuqatigiiktunut anguniaqtit hamna tahiuqtit iqalukhiuqtit aulattittijut uvani Iqaluit majuliraangata ingilravingit. Tahapkuat iqalukhiuqtit, kihiani aulattittihimaittuq qanilruanit ukiunganit. Hamna iqalukhiuqtut akhuuqpiaqtangit uvanngat tahiuqtit iqalukhiuqtut aulattittijut ihumagijaulluanngittut uuktuqhimmaaqpakkamik iqalugaangat utiqtittivagaat; kihiani, huli hulivakhutiktauq naittuugaluarmik iqalukhiuqtut iqalugaangat amigaiqtittigaangat ihivriuqhimajaat kuukkait. Una iqalukhiurniq akhuuqpiarningit iqalliqigaangamik qaffiuningit aallannguqtaulaaqhuni aippaagunnguraangat..

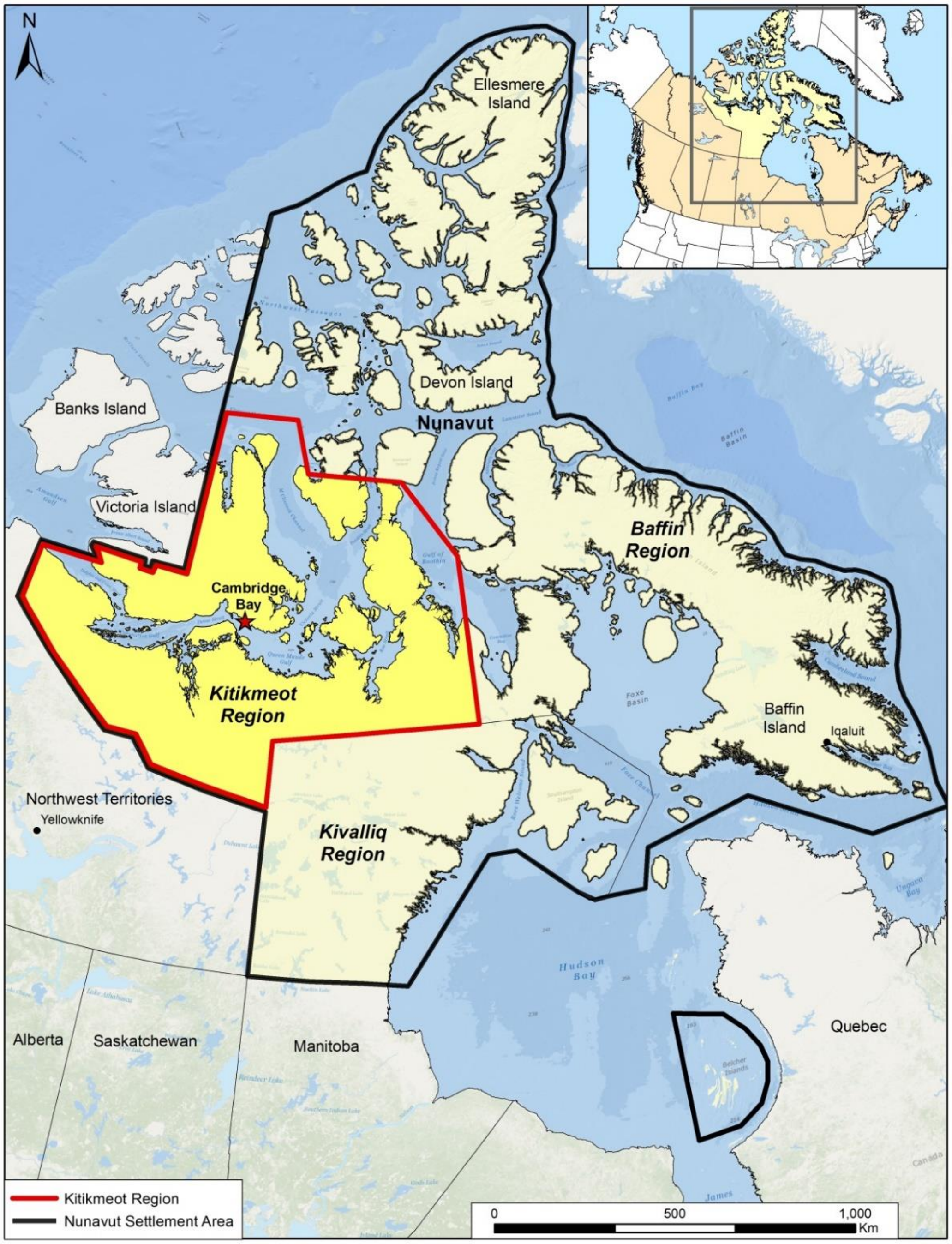
Amihut aallat iqalukhiuqtut najugaat qanilruani nunalingni atuqtauvaktut tamarmik hulilukaaqhutik (tahiuqtaujut) unalu niqikhaqhiuqtut iqalukhiurningit (haffumanngat (haffuminngatut, Niaqurnarjuaq, Tikirarjuaq, Iqaluktuuttiaq, Kuugaq) nunamiuqatigiiktunut. Qangaraalungmi, tamait maniliurahuaqtunut iqalukhiuqtut najuqpaktangit, atauttimuunngittumi, anguniarviuvakhuni niqikhaqhiuqtunut. Tadja anguniarviujut qanilruani hulilukaaqtumik iqalukhiuqpagaat najugait qanilrukkut nunangani Iqaluktuuttiaq.

1.4 Najugaat Iqalliqinirnut

Una Nunalingni Iqaluktuuttiaq najugaat hivuraanit hinaanit Kiillinirmi iluani Kanatamiunut Ukiuqtaqtuq Qikiqtalingnit, Tattiit iluani. Iqaluktuuttiaq anginiqhaujuq nunanganit Qitirmiut Aviktuqhimajumi (Naahaut 1). Iqalukhiuqpagaat nunami hanianiluuniit hivua Iqaluktuuq (Ekalluk), Paalliryuak (Surrey), Halugvik (Thirty-Mile), Paalik (Lauchlan) unalu Jayko (Jayco) kuukkait (

Naahaut 2) hivumuurutigijangit uvanngat hiugaangat (upinngaami) uuminngaluuniit majuraangat (ukiakhami) ingilrajut.

Naahaut 1. Nunaujaq Nunavut Nunataarviup Iluani ukunanngat Qitirmiut Aviktuqhimajumi nunalingni Iqaluktuuttiaq.



Naahaut 2. Nunaujaq Iqaluktuuttiaq nunangani takukhaujut tadja maniliurahuaqtut iqalukhiuqtut najugait.

1.5 Iqalukhiuqtut Ilitquhiita

Angiriiqtauliramik haffumani Nunavut Angirutaanit uvani 1993 mi, tamaita aturaaqtakhait iniqhimaittut uuminngaluuniit avguiningit qaffiujut uumajuit anguniarviulaaqtut iluani Nunavut Nunataarviup Iluani atiliuffaarmijangit ukpirijauvlutiglu aulpkaivlunilu ukunanngat NWMB. Tahapkuat maliguarutit ilaliutijangit huli ilittuqhimainnaqtut kigligutaanit maliguarutit unalu munaqtiunirnut Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiuqtut, kiugiaqaqtangillu aallat pivikhait:

- Laisikhaq maniliurahuaqtut iqalukpik imaup iluani nalunaiqtauhimajut uvani Parnaijaut V haffumani *NWT Iqalukhiuqtunut Maliguarutit* (https://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._847/index.html)
- Munaqhiijangit malikhimajangit, ilaliutijangit ingilrutikhait iniqhimaittut, pidjarikhilugillu aturaaqtakhangit anguniaqtangit
- Kiugiaqaqhutik titiqqat pihimainnarlugit unipkaarinahuarlugillu anguniaqtangit nalunaitkutat

Atauttimuuqhimalugillu Ilangani 17(1) haffumani *NWT iqalukhiurnirnut Maliguarutit,* tamaat tarjurmiujut maniliurahuaqtut iqalukhiuqtut Iqaluktuuttiaq nunangani titiraqhimajuq uvani Parnaijaut V malikhugu Aviktuqhimaninga IV Qitirmiut Ukiuqtaqtumi (Takulugu Ilulinga 3 (Ilainnaa 6) iluani IFMP tadja avguiningit). Aallatqiingujut Malikhimajakhaat titiraqtauhimajut aippaagunnguraangat ukunanngat DFO angmaqhimalugit tamainnit maniliurahuarnirnut tarjut ilittuqhimalugillu iqalukhiuqtangit ininganit, avguiningit, unalu ingilrutikhait kiuvikhangit. Uvani atulihaaqhimi aippaagunnguraangat, DFO tuhaqtittivagaat nainaaqhimajuq tamainnut titirariiqhimajut Aallatqiingujut Pitquijukhat (https://www.dfo-mpo.gc.ca/fisheries-peches/commercial-commerciale/atl-arc/variation-orders-ordonnances/nunavut-2018-19-v001-eng.html) tamainnut nunalingnit HTO havagviat Nunavunmi. Ilagijangillu, nunalingni pijumajainnit angmaqtirlugillu maniliurahuaqtunut tarjuq anguniaqhimaittut qanilruani ukiunganit, hamna HTO tukhiutigilaaqtangit tarjuq angmaumahimalutik maniliurahuaqtunut iqalukhiuqtut.

Iqalukhiuqtit inmi tukhiutijakhaat laisikhainit maniliurahuarumagumik tarjurmi. Laisiit ilittuutijangit tarjurmiunit, avguiningit unalu aahiit qanurilingavikhat (ilagijaujut Amiakkukhait Laisikhat Maliktakhait) tadja atiliulaaqtut uvanngat nunamiuqatigiingnut Annguhiqijit Havaktit (Avatiliqijitkut Havagviat – Nunavut Kavamangit) ilagijaujut DFO nit. Tamait maniliurahuaqtut tarjumi iqalukhiuqhimajut uvanngat iqalukhiuqti hivuliqtinga havaqatigiqaqtut malruk uvvaluuniit tallimat aallat iqalukhiuqtit. Ungahingningit uvanngat Iqaluktuuttiarmit, ukiivit najugaaniillutik tarjup hinaanit, iqalukhiuqtit ukiivingmiinniaqhutik iqalukhiuqhutik, iniqhimalugillu 3 nit Santiqhiiglutik avataagulluuniit.

Iqalukpiit anguniaqtaujuktut mahikkut kuvjiliqijut uvani hanianiluuniit hivuraanit kuukkait iqalut ingilraliraangat hituliraangamik tarjumut Taaqhivalirvingnuliraangat, qaujimajauvlutik upinngaami iqalliqigaangat (Lauchlan unalu Surrey kuukkait), uuminngaluuniit uvanngat mahikkut kuvjiliqijut uvanngaluuniit haputit utirnialiraangamik halumajumik imaq uvani Niqiliqivik-qitqanit uvuuna Apitilirvik-qitqanit qaujimajaujuq ukiakhami iqalliqijut (Halugvik, Iqaluktuuq, unalu Jayko kuukkait). Iqaluktuumi (Ekalluk) Kuugaq iqalut anguniajuktangit ikaaruhianut kuukkami qanirluanit uvanngat Kitigaq Tahiq, iniliurahuariami tahiuqtut-iqalukhiurumajunut nunami tahamani.

Maniliurahuaqtunut anguniaqtut aulapkaihimajut uvanngalluuniit mahikkut kuvjiliqijit haputimiluuniit, qanuritkumi kihiani kuukkap ilitquhia. Humiliqaak qanurilingajaujut naammagijaujut (ikkattuuvluni nakitqijaujut kuugaq iluani), haputit ilitqijauvakhuni angunialiraangat. Haputit nakuutqijauvaktut mikitqijaujut iqalungnaittumik huvaqaliqtuniglu Iqalukpik utiriaqaqhutik aanniqtaililugillu, tahapkuallu Iqalukpiit anginiqhaujut utiqtigiami ajurnaittut, taimaa ajuqhautihimaittumik naammatqijauvluni iqaluk. Humiliqaak mahikkut kuvjiliqijut taimaa tautungaqhutik ajuqhautijut iqalungnut, haputimi anguniaqtut niuvirnaqpiaqtut tamainnut niqaita niqidjarikhivlutik, taimaa iqalukhiuqtit akiliqtauvaktut iqaludjarikhinirnut. Haputit ilingatqijaujut taimaa anguniarumiuk ihumaliuqpagaat, taimaa hivuurananngittuuvluni ingilrutikhait tammarnaittumiglu, aallat imarmiuttat ilitturnainnamiglu.

Iqalukpiit pilaktauvaktut maniqqami (haffumani hungaijaqtauvaktut mahiillu ahivaqtauvaktut) halummaqhugillu hikuqaqtumik qijuqutiqtautinnatik. Tamaat qijuqutit tigumialaaqtangit tukingit, 45 uqumaidjuhingit (100 lbs.) pilakhimataaqtut iqalut unalu amigaitpaktut 13 nit qijuqutit agjaqtaulaaqtut uvani tingmiannuanut puptalaaqtumik. Puptalaaqtut tingmiat akiliqtauvagaat uvanngat Qitirmiut Niqiqarvit Timiqutingit agjaqhivaktut iqalut iqalukhiurvingmit najugaat Iqaluktuuttiarmut, uhiijaivagaat tulagvingmit agjaqhivlugillu niqiqarvingmut havaarivlugit atauttimut. Iqalut niqiqarvingnunngaugaangat, qijuqutit uqumaidjuhiuqpagaat ahikkut qanurittuuvlutik qaffiuningillu atiliuqtauvaktut.

Hamna niqiqarvik titiraqhimavlugit anguniaqtangit tukiliugait ilagijauvaktut ubluq tamaat uqaqhimavaktut uvunga DFO nut, taimaa anguniarvingit unipkaarijangit unalu avguiningit munaqhiijangit uvanngat maniliurahuaqtunut iqalukhiuqtut hilaqutikhanut. Ihuaqhijauhimajut onversion ilagijangit aturnaqhutik anguniarviujut atauttimuurahuaqhugit avataanut uqumaidjuhinga (uvanngat hungaijaqhimajut uqumaidjuhia) uvunga kilukulaanut, atiliuqhimajuq maniliurahuaqtunut avguiniq. Hamna avguiniq akturaangamiuk, Nalunaitkutaq Umikhimajaujuq titirariiqtauvaktut uvanngat DFO nit unalu atiliuqtaaqhuni nunalingni, ilittuqhiivluniuk umikhimajaat tarjumi hinaa kinguagut maniliurahuaqtunut iqalukhiuqtut.

Tamaat ukiunganit DFO havaqatigivagaat maniliurahuaqtunut iqalukhiuqtit, Qitirmiut Niqiqarvik Timiqutait, taijauvagaat, Kitikmeot Foods Ltd., unalu anguniaqtit timiqutait EHTO nalunaiqhiivakhutik hivulliutikhangit munaqtiuningit akihautingit, uvani iqalukhiurnaqhigaangat hilaqutitigut DFO Iqalukhiurniq Havaktit munarivlugit maniliurahuaqtunut anguniaqtit hulijakhait malikhimavlugillu ukunanngat *Iqalungnit Maligaq* unalu aturnaqtumik maliguarutit. Munaqtiunirnut akihautingit malikhugillu ihumaaluutigijait turaaqtaujut uvani iqalukhiurnaqhigaangat hilaqutitigut uvani iqalukhiuqtinnagut unalu iqalikhiuqtaaqhutik katimavlutik, humiliqaak pijumagaangat. Ilagijaujut, Qitirmiut Niqiqarvik Timiqutingit taidjutilik, Kitikmeot Foods Ltd. Kamigivagaat iqalukhiuqtinnatik katimajut hivunngani tamainnut iqalukhiurnaqhigaangat katimadjutigivlugillu ilagijaujut akihautingit hivulliutikhangillu.

1.6 Aulattittiningit

Hamna Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalliqijunit munaqtiuqatigiiktut ukunanngat Nunavut Uumajuliqijit Katimajit (NWMB), Ekaluktutiak Anguniaqtit Timiqutit (EHTO), unalu Iqalungnut Tarjungillu Kanata (DFO), atauttimuuqhutik malikhutik ukunanngat una Nunavut Angirutaat (NA), una *Iqalungnut Maligaq* unalu maliguarutingillu. Una NWMB ingilrutilluanguuvluni haffumani anngutikhanut munaqhaijut Nunavut Nunataarviup Iluani (NSA), kihiani hamna Minista huli aulapkailluarijaat munarivlugillu anngutikhanut munaqhaijut hapummivikhangillu iqalungnut.

1.6.1 *Iqalungnut Maligaq, maliguarutit unalu atuagait*

Una Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalungnut maliguarutaujut ukunanngat *Iqalungnut Maligaq* (R.S., 1985, c. F-14) unalu maliguarutit maligautaat malikhugit, ilagijaujut *Iqalungnut (Tamaat) Maliguarutit* unalu *Nunatsiaq Iqalungnut Maliguarutit.* Humiliqaak aallannguqtiqattaqtut ilitturnaqtut uvanngat tahapkuat titirariiqhimajut maligautit unalu Nunavut Nunataaqtunut Angirutaat, una Angirut tikilluaqtakhaat kigluanut aallannguqtiqattaqtumik.

Tahapkuat titiqqait angmaumajut uvani Ikiaqqivikkut uvani: http://www.dfo-mpo.gc.ca/acts-lois/index-eng.htm

1.6.2 *Atuqattainnarniq Iqalungnut Havaarijaujukhaq*

DFO malikhimainnaqtangit hamna Atuqattainnarniq Iqalungnut Havaarijaujukhaq (SFF) tamainnut Kanatamiunut iqalungnut malikhimainnarlugillu hivunikhautikhangit hiliktumik aturaaqtakhainit, maniliurahuaqtut nakuuqpiaqtumik, unalu ihuaqtumik aulattittinirnut Kanatamiunut iqalungnut tikinnahuarlugit. Una SFF ilaliutijangit atuagait malikhimainnarlugit nunap avatiqatautijut inikhaliuqtangit iqalungnut munaqhiijangit, ilaliutijangit hamna *Iqalungnut Ihumaliuqtangit Havaarijaujukhaq Ilaliutijangit hamna Qajagijaujuq Inikhaq, Munarivluniuk Ihuiluutaujut Iqalukhiurniq haffumani Imarmiujunit Najuqpaktangit, Nunaliit unalu Uumajuit* unalu *Atuagaq Munarijaat Iqalugaangata.*

Tahapkuat titiqqait angmaumajut uvani Ikiaqqivikkut uvani: http://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/overview-cadre-eng.htm

1.6.3 *Atuagaq Munarijaat Iqalukhiurnirnut*

Iqalukhiurnirnut iluani Iqaluktuuttiaq iqalukhiurniq titiraqtauhimajut ukunanngat Atiliuqpagaat makpiraanmi uvani maniliurahuarnirnut laisilingnit qanurilingajaujut (takulugu ilangani 4.2 unalu 7.1). Una iqalukhiurniq atuinnaqhugillu haputit anguniaqpagaat ilitturvikhanut uvani malruk najugaanit, ahivaqtauvaktut ungahiktumit tamaat tuqutiqpagaat iqalukhiuraangata. Qimilruqtaaraangata uvani Atiliuqpagaat makpiraanmi nalunaitkutaanit, iqalungnit munaqhiivagaat nalunaijaijut tuhaqtittivakhugillu avatikhanut atuqtittijut unalu munaqtiuqatigiiktut parnautingit, ihumaliuqhimavagaat una iqalukhiurnirnut mikijumik ihuiluutauvaktut ihumaaluutiginngittangilluuniit aallanut iqalut, imarmiutaujut tingmiat unaluuniit imarmiutaujut huraat amihuuningit. Unipkaaqtauhimaittut imarmiutaujut huraat Ilagijaujut Tuqutiqpagaat Aanniqpiaqhimaittunigluuniit (IMSI) kinguani 5 nit iqalukhiuqtunut Iqaluktuuttiaq nunangani. Maniliurahuaqtut mahikkut kuvjiqijut ihivriuqtauvaktut pingahuaqtaat hitamaaqtalluuniit 3-4 ubluq tamaat, unalu imarmiutaujut huraat nalvaaqtaugaangat uumajuit utiqtittivakhutik, kihianiluuniit anguniajuktangit niqikhamaat malikpiaqhugillu nunataarviup pijunnautingit.

Una Iqaluktuuttiaq maniliurahuaqtunut iqalukhiuqtut ilagijaujuq uvani Amialikaup Kanatamiunit Tarjurmiuttat unalu Avaliqanngittumik Aulattittinirniup (NOAA) Titiraqhimajut Haffumani Ahivaqtittihimajangit Iqalungnit (LOFF) malikhimainnarilugit hilarjuatigut maliguarutit pilimmakhaqhimajut haffumani Imarmiuttat Huraat Hapummijakhaat Maligaq unalu hivuniqhilugit ilaliutaujut. Hamna LOFF ilitturnaqtut humiliqaak " ahivaqtittihimajangit" uuminngaluuniit "ahinirmunngarahuaqtut" iqalut kigligutaujut qajagijauhimajut imarmiutaujut huraat iqalukhiuqhimajangit. Nutqaqtittihimajut haffumani hilarjuarmiujut tuqutiqhimajangit uuminngaluuniit aanniqtittijut haffumani imarmiutaujut huraat (ilagijaat nattiit) maniliurahuaqhutik iqalukhiuqtut aulattitivlutik malikhijakhaat tamarmik ahivaqtittijimajangit unalu ahinirmunngarahuaqtut iqalungnut. Tukhiutihimajangit haffumani Iqaluktuuttiaq maniliurahuaqtunut iqalukhiuqtut uvunga LOFF huli qimilruqtauhimajut ukunanngat NOAA, kihiani niriugijaujut ahivaquijaat naittuuvlutik ihuiluutaunianut unalu mikijuuvlutik ilagihimajaujut ukunanngat imarmiutaujut huraat ilittuvlutik iluani iqalukhiurnirnut.

1.6.4 Ikhinnainnarningit Iqalukhiurnirnut Inikhautaat

Aullaqtilihaaqhutik uvani 2019 mi, Iqaluliqijitkut taidjuhia DFO pivallialiqhutik Ikhinnainarningit Iqalukhiurnirnut Inikhautaat. Hamna hivunikhaat haffumani Inikhautaat naiglinahuaqtangit ihuiluutigijaujut palaastiit halumairningit unalu ikhinnainnarningit iqalukhiuqtunut ilagijaujut taimmaivagaat iqalukhiuqtingit parnautingit uvanngat Kanatamiunut iqalukhiuqtunut, ikajuqhugillu angiklijuummiqtangit atuqtattaqtakhangillu iqalukhiurnirnut, imarmiuttat uumajuit qajagijaujut, unalu aanniaqtailinirnut haffumani Kanata'p tarjungit aahiillu imarmiuttait avatiqatigiiktut najugait ikajuqhugillu haffumani Iqaluliqijitkut taidjutilik DFO't munarilluaqhimajakhait. Haffumani Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiuqtut, laisiata qanurilinganingit pilimmakhaqhimajut munarivlugillu uuktuutigijangit hanajauliqhutik aadjigiikhimagiami tadja atuqtangit uuktuutigijangit unalu hivuani ikajurlugillu unipkaarijaujukhat tammaqhimajut unalu/nalvaaqhimajaallu iqalukhiuqtunut parnautingit. Tadja, tammaqhimajut parnautingit ihumaaluutaunngittuq iqalukhiurnirnut.

1.6.5 Nunavut Angirutaat

Uvani 1993, Kanata iniqhimajaat iniqpiaqhimajumik nunanut nunataarviujut angirutaat ukunanngat Inuit haffumani Nunavut Nunataarviujut Iluani. Una Nunavut Angirutaat (NA) nautkalihaaqhimajut inikhautivikhangit unalu uumajuit anguniaqtakhat pijunnautingit haffumani Inuit unalu aallat Nunaqaqaaqhimajut ilagijaujut ilitquhiqaqhutik anguniaqpagaat iluani Nunavut Nunataarviup Iluani NSA.

Una Angirutaat nautkaivlutiglu Nanminirijaanit Inungnut Kavakhait, una NWMO, avvautigivagaat ihumaliuqpaktunut aulattittinirnut ukunanngat Kavamarjuangit Kavamangit. Una NWMB unalu DFO Ministangit ihumaliuqhutik qanurilinganingit ilagijaanit nalaumattiaqtumik munaqtiunirnut unalu munarivagaat iqalukhiurnirnut unalu hapummijangit iqalut Nunavut Nunataarviup Iluani. Malikhugillu munaqtiuqatigiiktunut timiqutingit, hamna NWMB ingilrutilluanguuvluni uumajunut munaqtiunirnut, kihimi Minista tigumiaqpagaat munarilluaqtangit uumajuit munaqtiunirnut angiqhimalaaqtullu, qinngihimalaaqhutik uuminngaluuniit aallannguqtilaaqtangit ihumaliuqtangit nauhimajaat ukunanngat NWMB ihumagijaanit anguniarnirnut aahiillu ihumaliuqtangit ilagijaanit munaqtiunirnut unalu hapummijakhaat uumajuit unalu uumajuit najuqpaktangit.

Una NA aulattittivagaat uumajuit munaqtiuvaktangit aulattittinirnut uvunga Aviktuqhimajumik Uumajuit Timiqutingit (RWO) unalu Anguniaqtiujut Timiqutingit (HTO). Una RWO iluani Iqaluktuuttiaq nunangani hamnaujuq Qitirmiut Aviktuqhimajumi Uumajuliqijit Katimajit (KRWB). Hamna nauhimajait unalu havaangit haffumani RWOt (NA 5.7.6) ilagijaujut:

- Maliguarutit anguniaqtunut maligautingit unalu ingilrutingillu ilagijaujut haffumani HTOtkut aviktuqhimajumi, ilagijangillu atuqpagaat avvautigiinngittunit iniqhimaittut.
- Avguiningit akhuuqujaujullu aviktuqhimajumi ajurnaittumik ihariahungningit maligautait unalu ihuaqhijauhimajut ajurnaittumik maligautaat tamainnut HTOtkut nunangani.
- Atiliuqhimajangit kitunuliqaak uuminngaluuniit timinganit ahikkuuqtangit hamnaunngittut HTO, piqaqtumik piqanngittuuvlutigluuniit aturnaqtumik ihumaliuqtangit qanurilinganingilluuniit, ilainnaatigut haffumani nunangani ajurnaittumik ihariagijainnit ihuaqhimalugillu pijumajainnit maliktangit.
- Tamainnut, una munarijangit anguniaqtangit tamainnut ilagijaujut HTOtkut nunangani.

Una HTO Iqaluktuuttiaq nunangani hamnaujuq Ekaluktutiak Anguniaqtangit Timiqutingit (EHTO). Aulattittiningit hulijakhangillu haffumani HTOtkut (NA 5.7.3) ilagijaujut:

- Maliguarutit anguniaqtangit maligautingit ingilrutikhangillu tamainnut ilagijaujut, ilagijaattauq atuqtakhainit munaqtiuvikhangit uuktuutigijait.
- Avguiningit unalu aulattittijakhait nunalingnit ajurnaittumik ihariagijainnit unalu ihuaqhihimajangit ajurnaittumik maliktangit tamainnut ilagijaujut.
- Atiliuqtakhait ilagijaunngittunut, uuminngat uuminngaunngittunilluuniit aturluaqtakhainit ihumaliuqtakhait qanurilingajaujunillu, hunalikiaq ilanganit nunalungnit ajurnaittumik ihariagijamingnit maliktakhait unalu ihuaqhijaujut ajurnaittumik ihariagijaanit maligautit.
- Tamainnut, una munarijangit anguniaqtangit, munarijaanit anguniaqtunut tamainnut ilagijaujut.

Una Nunavut Angirutaat nauhimajaujut aulattittinirnut uvunga Nunavut Tunngavik Timigutaat hivulliuvluni Tikkuaqtauhimajuq Inuit Timinganit maligautilik Angirutaa (Nakataq 39). Kamagijakhaat pidjarikhilugillu hamna Inuit pijunnautingit unalu munarilluaqtakhaat maliktangit Nunavut nunataariup pilimmakhaqtauhimajut, ilagilugillu uumajuit munaqtauhimajut ilaliutijait (Nakataq 5) haffumani Nunavut Angirutaanit.

Malikhugu Angirutaa, uumajuliqijit munaqhaijangit unalu Inuit anguniaqtangit munarijaujut uvanngat hivunikhaliurutikhanut hapummivikhaq (NA s.5.1.5).

Una Nunavut Angirutaa angmaumajuq ikiaqqivikkut uvani:
http://laws-lois.justice.gc.ca/eng/acts/N-28.7/

1.7 Angiriiqtauhimajuq Piliriakhaq

Una IFMP tunijauniaqtuq uvunga Iqaluliqijit DFO Minista unalu NWMB qaangiqtaugialik. Una IFMP pivalliahimajuq ihuaqhiqattaqtaujukhaq titiraq, tukiqaqtuq titiraqtauhimajuq nalaumattiariangani aturaaqtaujukhaq, ihuaqhihimaittumik nunguavikhaq. Uvuuna qimilruqattaqtakhaat (takulugu Ilanga 9 haffumani IFMP) ukunanngat IFMP Havaqatigiiktunut Ilagijaujut unalu ilauhimajunut, nutaannguqhimajut ihuaqhaqtauhimajullu tunijaulunilu NWMB unalu Minista Iqaluliqijit Tarjurmiunillu qaangiqtaugialik, kiugiaraangat.

Hamna qaangiqtauhimajuq IFMP numiktaulunilu Inuinnaqtun, makpiraaliuqtaujukhaq tunijaulunilu uvunga munaqtiuqatigiiktunut parnautinut, unalu inungnut tautuktakhaat angmaumaluni ikiaqqivikkut ukunanngat DFO.

2 Iqalut Ihivriuqtauningit, Qaujiharniq unalu Ilitquhirnut Qaujimajangit (Qaujiharniq hivullingit)

2.1 Uumajuliqinirnut Tautukhimajangit

Harris, aahiittauq., (2020a) ilaliutihimajangit iniqpiaqhimajumik nainaaqhimajut titiqqat haffumani uumajuit Iqaluktuuttiaq Iqalukpik, ihivriurningillu tikkuaqhimajaat iluaniittut. Iqalukpik, *Salvelinus alpinus* (L.) ilitturnaqtut tamainnit Kanatamiunit Ukiuqtaqtuq ilaliutijangillu qikiqtat haffumani Ukiuqtaqtumik Qikiqtalingnit (McPhail & Lindsey, 1970; Scott & Crossman, 1973), ilitturnaqhunilu tamarmiujuk tahirmiujut (tahirmiujut unalu nunamiujunilluuniit) unalu (haffuminngatut, tajurmut hituvaktut) ilitturningit (Johnson, 1980; Jonsson & Jonsson, 2001; Loewen aahiittauq, 2009). Ikalukpit tarjulingmiulaaqtut angiklikhimajuktullu 150 uvunga 200 mm (Johnson, 1980; Gilbert aahiittauq, 2016), angikligaangat utiqpakhutik kuugarnut imarmiunirnut najuqpaktangit niqikhaqhiuraangat (Moore, 1975; Harris, aahiittauq, 2020). Nirivakhutik hinaani, ikkattumik uvani kuukkap nuvuani 30-45 ublunganit haniraagutqaak, kihimi arvinilik ublunganit titiraqhimainnaqhimajuq (Dutil, 1986; Gyselman 1994; Moore, aahiittauq, 2016). Nirijunit qaanganit pivakhutik kihiani niqikhaqhiujuktut agluqhutik avataanit 30 m titiraqtauhimajut (Harris, aahiittauq, 2020). Kihiani kuukkat nuvua aturluarnaqtut aujami niqikhaqhiuqtunut tarjurmit (Harris, aahiittauq, 2020), ilangit ungahiktumit imarmiuttat ingilrajut titiraqhimajajut (haffuminngatut, ≥ 100-400 km, Gyselman 1994; Dempson & Kristofferson, 1987; Moore, aahiittauq, 2016). Una Iqaluktuuttiaq maniliurahuaqtut iqalukhiuqtunut makaqhiivaktut hituaraqtut, uuminngaluuniit upinngaami, ingilrajut (Taaqhivalirvia) ilagijaujut nirivlutik majuraraangatalu, ukiakhami, ingilrajut (qitqani uvunga kinguani Niqiliqivik atulihaaqtumi Apitilirvik) ilagijaujut utirniaraangat huvangniliraangat uuminngaluuniit ukiiliraangat najuqpaktangit.

Huvangniliraangata halumajumik imarmiunit ukiakhami, uvaniqaat kinguani-Apitilirvik uvaniluuniit hivunngani-Tattiarnaqtumi, hiuralingnit uvani tahirmiinngaaraangat najuqpaktangit. Iqaluktuuttiaq nunangani iluani, unalu qitqanit Kanatamiunit Ukiuqtaqtuq uvani, huvangniliraangat tahirmit, amihut kuukkat qiqivakkamik ukiumi (Johnson, 1980). Huvat ahivaraangat, iqalugait halumajumi imarmiunginnaqhutik (Johnson, 1980). Iqalugait nirijuktut halumajumik imarmik kinguit (amphipods) kumaruillu, inirniit nirijuktut iqalunnuanut unalu tarjurmiuttat kumait, uviluit, kinguillu. Ilitquhingit, iqalugait aktigiliqtaat150-200 mm hitamat tallimanit ukiunit, ingilraliqhutik tarjurmut (Gilbert aahiittauq, 2016) taimaa niqikhaqhiuriami uqhulingnit imarmiuttat niqikhainit. Ukiakhami, tamaat Iqalukpiit utiqpakhutik halumajumi imarmut ukiivakhutik qaajurnailrumik ukiaq imarmiut imat (Johnson, 1980).

Tarjurmiunngittut Iqalukpiit nalvaaqtauvaktut najuqpaktullu uvani tarjurmiunit ilitquhiit. Kihiani Iqalukpiit tarjurmunngalaaqtut, ingilrajuittu. Hungmallikiaq huli ilittuqhiigialik iluani Iqaluktuuttiaq nunaani, kihiani, aahiit ingilranirnut parnaijautingit ilitturnaqtuq inuuhirnut ilitquhirnut inikhaanit qanurilinganingit ilangani atulihaaqtangit aktilaangit angiklilaangilluuniit (Hendry, aahiittauq, 2004; Moore aahiittauq, 2014).

Angutaugumi arnaugumiluuniit ilitquhiita haffumani ingilrajuktut kuugarmut huvaniliraangat Iqalukpik angiklilaaqtut aktukkuhianit 450 mm aktilaangit (Johnson, 1980; Harris aahiittauq. 2020a). Qanilruani, Harris aahiittauq. (tuhagakhaujuq) kangiqhidjuhia aktilaangit (L_{50}) ukiungillu (A_{50}) uvanngat 50% inirninnguqtut tukiliutaat haffumani nautqiktaqtut ilitquhia malruk pivikhangit nunangani iluani. Tamatkiqtangit kangiqhijaujuq L_{50} uvani Jayko Kuugaq hamnauvlutik 553.7 mm uvanilu Halugvik Kuugaq hamnauvlutik 539.7 mm. Tamainniqhaanit ihivriuqtauningit ilagijaujut, Harris aahiittauq. (tuhagakhaujuq) nalvaaqtangit tamainnut A_{50} uvani Jayko hamnaugaluaqtuq 12.5 ukiunganit humiliqaak tamainnut A_{50} uvanngat Halugvik hamnaugaluaqtuq 10.4 ukiunganit. Tahapkuat kangiqhidjutingit nauqattaqhutik ihumagijaujut, kihiani, aallatqiiqattaqhutik ukiut aallat. Arnat tigumiaqpaktangit 3000 uvunga 5000 huvait (Scott & Crossman, 1973). Iqalukpik huvanikpaktut atauhiunngittumik inuuhirnut. Iqaluktuuttiaq nunangani, kihiani, takukhaujuittut huvaniliraangat aippaagunnguqtumik ukiunganit, arnait angutilluuniit ilitquhiita tikittaraangat kihiani. Huvaniktittijuitpakatut ukiakhami iqalut majuliraangata ihumagijaujut pijuittut, ilagijaanit, tarjurmunngauvakhutik aujami huvaniktinnatik (Johnson, 1980, Moore aahiittauq, 2017). Huvaijaraangat, Iqalut halumajumi imarmiujuktut ukiivlutik niqikhaqhiuqhutik ingilraliraangat tarjurmut upinngaliraangat. Una ilitquhia qapaktitpakhutik 30-40% timingat uqumaidjuhianut, qapakpakhutik taimaa uvani (Dutil, 1986).

Inuudjuhia ilitquhia unalu ingilravingat pitquhingit Iqaluktuuttiaq Iqalukpik unalu malikhimajangit ilagijaujut nauhimaningit amihuuningit ilitquhiat nainaaqhimajut naittumik ukunanngat Harris aahiittauq. (2020a). Ilitturluangit uqariiqhimajut ataani. Ilaita munarijainnit kititiqtauhimajut ungahiktumik amihuuningit (haffuminngatut “Iqauktuuq”, “Paalliarjuk” ahiarmiuttat amihuuningit ilagijaujut) tukhiutigijaugaluaqtut uvanngat Kristofferson aahiittauq. (1984, takulugulu Dempson & Kristofferson, 1987) aallaugamik nanminiringani ilitquhiita uvanngat amihuuningit ilittuqtauhimajut hivitujuraalungnit nalunaitkutaliuqtangit naunaijaijut. Ihivriuqhiijangit timinganit ilitquhingit aallatqiingujut Kristofferson (2002) ilittuqhimajaat huvaniktut iqalukpik nunangani puqtuhijumik nanminirijaanit malittiaqhimainnaqtangit unalu ilittuqhimajaat aallat amihuuningit takukhaulaaqtut uvanngat akunnganit iluanilu kuukkait pivikhangit. Qanilruanit mikijunnuamik ilittuqhaijjut takukhauvlutik DNA ihivriurningit (Harris aahiittauq. 2016) nalvaaqhimajuq aviktuqhimajumik nauhimaningit ihuaqhijauhimajut tamainnut ilittuqhimajut nunangat aadjigiiktumi tukhiutauhimajuq ukunanngat Kristofferson aahiittauq. (1984), kihiani, iqalukhiurnirnut ihivriuqhiijaut najugaita Iqaluktuuttiaq nunangani hakuittuuvlutik aallatqiingujut. Harris aahiittauq. (2016) kiuhimajaallu hamna avaliqanngittut amihuuningit ilihimajaujut aadjigiinngittutik hivitujut tarjurmiittutik ilagiinnaqtangit tuharnaqtut nipiliuqhugit itquumaningit (Moore, aahiittauq, 2016, 2017). Una kinguani ilitturningit, akhuuqpiaqtangit aallannguqhutik munaqtiunirnut iqalukhiurnigut. Qanilruanit Moore aahiittauq. (2017) ilaqatigijaat ilaruit uumajuit ilitquhiit nipiliuqhimajangillu nalunaijainingit ilittuqhimagiami hakuiqhimajut, nauhimajut amihuuningit aallaujut unalu aadjigiinngittut hiamihimajut. Ilagijaujut nalunaijainingit uqaqhimajut hamna Iqalukpik Iqaluktuuttiaq nunangani iluani utiqpaktut angilrarvingnut nanminirijaat kuukkangit huvanigiami, kihimi ukiivakhutik kuukkanit naitpiaqtut ingilravingit naigligiami akikhangit ingilrajunut huvanijuittumik ukiungani. Una tukiqaqhuni avaliqanngittut amihuuningit avivaktut tarjurmiigaangata, avivakhutik hivitujumik halumajumi imarmi ukiivakhutik najuqpaktangit. Hivunngani aallangujut amihuujut iqalungnut qaujihaijut hivunigijaat hup amihuujut anguniaqtauvaktut humiqaak aktikkutaanit tamarmik tarjurmiuttat halumajumik imarmiujut najugaat qulaaniittukhaujut hivulliulutik.

Uvani tukiliuqtauhimajuq ukunanngat Harris aahiittauq. (2020a), hamnaujut hivituraaluit tikkuarningit kangiqhigiangani nauvikhangit amihuuningit ilitquhiita ilagivluniuk munaqtiunirnut iqalukpik amihuuningit nunangani iluani:

1. Ahiakkut amihuuningit ilihimajaujut avvautivaktut ungahiktumik tarjurmiigaangat,
2. Avvautigaangat ahiakkut amihuuningit amigaitpaktut ukiigaangamik najuqpaktangit,
3. Avaliittut Iqalukpik utiriaqaqtut halumajumut imat ukiunnguraangat ukiivlutik nauhimaitkaluaqhutik ilitquhiat taimailiuqpaktut ilitquhinganit malruk aallatqiingujut huvaniliraangat (haffuminngatut, huvaniktumik ukiivakhutik taimaa),
4. Iqaluktuuttiaq nunangani iluani ungahiktumik tamaita majuliqpaktut ingilravlutik avaliittumik taimaa ilitturnaqtuq-ukiungani huvanijuittullu unalu ilitquhiittut hunaugumik ingilravaktut tadja atuqtumi ukiungani unalu,
5. Amigaittut huvaniktut hulijut taimaa ukiivaktut huvniktumik unalu
6. Tamainnit malittiqhimajaat tautungnaqtut ikittuuvlutik hamna uumajuit.

Munarijakhaat hivunikhaat, tamaita Iqalukpik takunnaqtut iluani uvanngat imaup timing munarijauvlutik ahiqanngittumik munarijaujut ilagijaat, avaliqanngittut uvanngat Iqalukpik amihuuningit iluani aallat imarmiujut. Hamnaujuq ilitquhirijangit munaqtiunirnut inikhautaa haffumani Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiurnirnut, ublunganit ilittuqpiaqhimajut aturaaqattaqtut. Nutaannguqtiqtut nalunaitkutaq ilitquhirnut unalu tautungnaqtut avvautijut-amihuuningit anguniaqtut pilaaqtut ihuaqhalaaqtut atuqtangit kuukkait-ihumagijaujut munaqtiunirnut aulattittinirnut munaqtiunirnut nunangani iluani.

2.2 Nunat avatiqatigiiktunut najuqpaktangit Ilagijaujut

DFOt Hapummivikhaq Iqalukhiurnirnut Havaarijaujukhaq (SFF) hivunigijaat ikajuqtut amihuuningit hapummivikhaq aturaaqtakhangillu atuqtangit imarmiuttat avatikhait Kanata iluani (DFO 2016). Una havaarijaujukhaq tahiuqtangit ilagijaujut iqalukhiurnirnut munaqtiunirnut upalungaijautingit kihimi ihumagijaujut imarmiuttat avataita najuqpaktangit qanuq uumajuit ilagijaujut iluani avataita najuqpaktangit, ikajuqtangit malikhugillu avatiqatigiiktunut-kigligutaat inikhautikhangit munaqtiunikhangit hivunigijangit hapummigiami imarmi iluaniittut nauhimajut iqaluillu najuqpaktangit.

Najuqpaktangit aallannguqhimajut unalu/uuminngaluuniit halumainningit huvangnikhangit unalu ukiivakhutik najugait takunnaittut ihumaaluutigivagaat. Kristofferson (2002), ikajuqtauvluni nunalingi inirniit iqalukhiuqtillu, nalunaiqtauhimajut 12 huvaniktumik maniraa Iqaluktuuttiaq nunangani iluani. Aktilaangit unalu ajurnautingit tamainnut maniliurahuaqtunut halumajumik imarmiujut, kihiani, tutqittiarnaqhuni aallaujuttauq huvaniktunut maniraanit iluani tamainnut kuukkait. Tahapkuay nalunaiqtauhimajut ukunanngat ilitquhirnut qaujimajangit qaniluani maniraanit haffumani maniliurahuaqtunut iqalukhiurvingit najugait. Ilahimajangit, huvaniktut tattiit nalunaiqtauhimajut uvani 2013 (L.N. Harris, makpiraaqtauhimaittuq naunaijainiq) ilagijangit haffumani aturaaqtakhait-hivitunia nipiqaqtut ihivriuqtangit piliriakhaq aturaaqtangit nunangani iluani uvani (takulugu Moore aahiittauq. 2016, 2017, Harris aahiittauq, tuhagakhanmit).

Tarjurmiitkaluaqtut kuukkamiujut Iqalukpik niqikhaqhiuqpaktut imarmiunit imarmiujut qupilruit (kinguit haffuminngatut *Parathemisto libellula* unalu kingukpaluktut qupilruit (Mysidacea)) imarmiujullu iqalut (amigaittut Uugait (*Boreogadus saida*), iqalugait (*Mallotus villosus*) unalu qupilruktut ittut (*Ammodytes dubius*) tarjurmiigaangat aujami (Dempson & Kristofferson, 1987, Gyselman 1994, Dempson aahiittauq. 2002, Spares aahiittauq. 2012) . Iqalukpinnuit nirijauvaktut Tahirmiuttat Ihuuq (*Salvelinus namaycush*) halumajumik imat; naujaillu, aallat iqalungnit nirijuktut tingmidjat ilaaniitauq nattiit tarjurmiigaangamik. Ihuiluutaunngittut taimaa kihimi ihumaaluutaulluaqtut Iqalukpik amihuuningit inuuhirnut. Angijaaqtut Iqalukpik takunnaqtut ungahiktumik munarijaujut niqikhaqhiuqtunut ihumagijaujut ulurianaqtumik niqikhaqhiuqtunut (Johnson, 1980), kihiani nattiit tautuktauvaktut iqiittumik malingnivaktut iqalungnut nunangani (L.N. Harris, nanminirijamingnit tautukhimajaa).

Naittuuvlutik aallanit iqalukhiuqhimajut iluani Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiuqtut makakhimajaat iqalukhiurnirnut akunningit unalu ingilrutikhait ilihimajangit. Qanilruanit maniliurahuaqtunut tautukhimajangit nalunaiqhimajaat hamna halumajumik imaq mahikkut kuvjiliqijut (haffuminngatut, Tahiryuaq humili Iqaluktuuq amihuuningit iqalukhiuqhimajangit) ikittuuvlutik aallanit iqalukhiuqhimajait ilitturnaqtuq, kihiani tautungnaraangat, Tahirmiuttat Kapihilik (*Coregonus clupeaformis*) unalu Ihuuq iqalukhiujuktangit uumajuit iqalukhimajangit.

Iluani imarmiujut avatingit, iqalukhiuqhimajut uumajuit ilagijaujut tarjurmiuttat kanajuq (*Myoxocephalus spp*.) unalu Uugaq. Ilangit iqalukhiuqhimajangit iqalukhiuqtangit maniliurahuaqtunut iqalukhiuqtut atuliqpagaat nanminikhait iqalukhiuqtunut aujiivingnit. Iluani haputit iqalukhiuqtut, tamaita iqalukhimajangit utiqtittivagaat aanniqhimaittumik. Qanilruani, ihuaqhimajumik qanilruani ihuaqhihimajangit uuktuutijangit, tuulliit nalunaiqtauvaktut ilagijauvaktut. Tamainnut, iqalukhiuqhimajangit ihumagijaujut mikijumik ihuiluutauvaktut uvunga nunat avatiqatigiikhimajunut.

2.3 Ilitquhingit Qaujimajait unalu Inuit Qaujimajatuqangit

Iqaluktuuttiaq nunangani unipkaalluarijauvaktuq qangaraaluk iqalukhiuqtunut taimaa. Inuit Iqaluktuuttiarmiut amigaittunik kititiqhimavaktuq pitquhituqainnut nunaup avataita avatiqattautigiingnillu ilihimarjuaqtangit anguniarjuaqtut niqikhaqhiuqhutik ilitturijauvakhuni ikivalliavlutiglu humiliqaak nunangani (Riedlinger & Berkes, 2001). Nalauttiaqhugit Iqaluktuuq (Ekalluk Kuugaq) unipkaarijaulluaqhuni titiraqhimavlunilu pitquhituqangit avatiqatigiiktunut nunami qaujimajainnit (TEK) hamnaujut Iqaluktuurmiut, Inuit ilaqatigiikhutik najuliqpagaat ilavlutik. Niplautigijaujuq uvani takunnaqtumi makpiraannuami nipiliuqhimajaat Qitirmiut Ingilraatigut Katimajit (2007), hakugikpiarami kuukkani Iqalukpik takukhauvaktut tamarmi upinngaami ukiakhamilu Iqaluktuuq (Ekalluk Kuugaq) najuqtaulluaqpagaat nunaa amigaittuuvlutik ittarningit ilitturnaqtuq nunangani najurjuaqpagaat qangaraalungmi hitamat tausiatigut ukiunganit (Takuluguttauq Friesen, 2002).

2000ngutillugu, Qitirmiut Ingilraatigut Katimajit havaqatigihimagaluaqtut Ilinniarvigjuangat Torontomi unipkaaliuqhutik/ittarnitaliqijit qaujihaqtit havaarivlugit titiraqhutik ilitquhirnigut inuuhiangit hivunigilluaqhugit iqalukhiurnirnut hulidjuhiit, ilagivluniuk qaujimajatuqangit, maligautingit ukpiruhuutaillu (Friesen, 2002, 2004). Takunnaqtut makpiraannuami nalvaaqtamingnit angmaumajut uvani ikiaqqivikkut: https://www.kitikmeotheritage.ca/.

Inuit unipkaangit unalu Inuit Qaujimajatuqangit (IQ) huli tukiqarjuaqhuni munarivlugit iqalukhiurnirnut, atuqhugillu qaujimajainnit ilihimajangit ihuaqtumik iqalukhiurnirnut ihumaliugait unalu pivallianikhanut qaujiharnirnut unalu iqalukhiurnirnut munarijaanit upalungaijautingit (Thorpe unalu Moore 2019). Inuit unipkaangit unalu Inuit Qaujimajatuqangit ilagijaujuq qanilruanit Iqalukpik huvanigaangamik najugainit kititiqhimajaat ikajuqtauvlutik nunalingnit inirniit iqalukhiuqtiillu (Kristofferson, 2002) unalu unipkaaqhimajaujut qauhimajangit tunihimajaat nalunaitkutaq pijumajaanit ikajuutauvluni nutaannguqtiqtauvlutik amihuuningit ilitquhiita maniliurahuaqtunut anguniaqhimajangit Iqalukpik Iqaluktuuttiaq nunangani iluani (Day & Harris, 2013, Harris aahiittauq 2020a). Inuit unipkaarianganit, ilagijaujut TEK unalu IQ huli kititiqhimmaaqpaktut nunalingnit katimaliraangatcontinue. DFO Qaujihainingit qaujihaqtut upalungaijautingit qimilruinnaqtangit ukiunnguraangat ukunanngat avatingnut atuqtunut, unalu havaanut tukiliutainit ihuaqhihimajangit ilaliutijangit qanilruanit qaujimajangit kiujaujukhallu. Una IFMP, ilagijaujut munaqtiunirnut maligautingit nakuuqpiaqtumik maligautingit ilagijaujullu atuqtaujut iqalukhiuqtunut ingilrutingit ahivaijaqtakhaat huvaniktunut iqalukpik, pivalliahimajut ukunanngat

Iqaluktuuttiaq Iqalukpik Havaqatigiiktut Ilagijaujut katimadjautigijangillu nunalungni. Kinguani, uvani 2016 mi katimaqatigijangit aullaqtittijangit ukunanngat Ekaluktutiak Anguniaqtit Timinganit (EHTO) unipkaaliuqhugit hamna Inuit Qaujimajatuqangit Ukiuqtaqtuq iluani Iqaluktuuttiaq nunanganito (Thorpe unalu Moore 2019). Una havaaq, maningnit tunijauvlutik ukunanngat Ukiuqtaqtumi Qaujimaningit Kanatamit, ilagijaallu ilihautikhangit nunamiunut inulrammiit aullapkailugillu ikajuqtauvlutik havaangit nunami nalunaijaivlutik ilittuqhaijut unipkaaliuqhimajut titiraqhimagiami Inuit Qaujimajatuqangit uvunga arvinilik hitamat inuit nunalingnit (Thorpe unalu Moore 2019). Unipkaaliuqhimajut nalvaarijangit parnautigivlugu Inuit Qaujimajatuqangit qaritaujamut iliuraivikhangit munarijaat ukunanngat EHTO parnautingillu iniqhugulu uvanngat inirniit-inulrammiillu qaujimajainnit himmauqatigiikhutik aujiivik Santiqhiiqhutik uvani Niqiliqivik 2016 mi. Una parnaijautingit aulapkaqhutik kivgautigivlutiglu aadjikkutaanit hulijakhainit atuqattaqtakhait aippaagukhamut taimaa nunamiuqatigiit atauttimut katimaqataugiami unipkaaqatigilutik iqalukpik qaujiharningit munarilugillu mikhaagut nunangani iluani.

2.4 Amihuuningit Ihivriurniq

Iniqpiaqhimajuq amihuuningit ilitquhinga ihivriurningit haffumani Iqaluktuuttiaq Iqalukpik iniqhimajaujuq ukunanngat Day & Harris (2013) angmaumajurlu ikiaqqivikkut uvani: http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ResDocs-DocRech/2013/2013_068-eng.html. Una ihiviurnikhanut qaujihaqtauhimajuq iqalukhiurnirnut-malikpagaat nalunaijainit hivunigijaat pivalliajauvluni nanminirijangit ilitquhiit tamarmit maniliurahuaqtunut anguniaqhimajangit imaup mikhaagut. Una ihivriurningit ihumaliuqtaujuq tamaat hivulliujunit amihuuningit aallatqiiktut, hamnaunngittuq Kuunajuk, ilittuqtauhimajut naittuuvluni qajagijauvluni iqalukhiurluarumi hamna anguniaqtangit parnautingit talvani. Qaffiuningit amihuuningit ihivriurnikhanut tautukhutik apquhiutikhangit qaujihaqtauhimavluni (Zhu aahiittauq. 2014 a,b) kihiani kiujaujut haffumani nalunaijaijut huli kiuttiaqhimaittut ilitturvikhangit atuqtaaqhimajut munaqtiunikhanut parnautingit.

Hamna Qajagilraaningit Apquhiurningit (PA) uvunga iqalukhiurnirnut munarijaat iluani hapummijaujukhat iqalukhiurnirnut havaarijaujukhaq ilagijaujut tukhiutijakhaat anguniaqtunut parnautikhat hamna (1) nalunaiqhiijut pingahut amihuuningit ilitquhingit kigligutaat (aanniarnanngittut, qajagijaujut, unalu ihumaalungningit) malikhugit qulvahingningit amihuuningit unalu naigliligullu kiuvikhangit tiliugait (2) turaaviuhijangit anguniaqtunut uuktuutigijangit tamainnut kigligutat unalu (3) ihuaqhihimalugit ahivaqtirlugit uuktuutingit iqalungnut amihuuningit ilitquhiita (DFO 2006). Qanilruani, hamna ihivriurningit haffumani Halugvikost (Thirty-Mile Kuugaq) unalu Jayko (Jayco Kuugaq) ilagijaujuq ingilrahimajut nalunaijainingit (Harris aahiittauq. 2020a) haffumani qaffiuningit takukhaujut (Zhu aahiittauq. Tuhagakhaujuq) ihivriuriangani amihuuningit unalu nanminirijaat kiujangit tiliugait ukunanngat PA uvunga iqaluliqinirnut munaqhainiq. Una ihivriurningit iniqhuni tamarmik iqaluliqinirnut ihumaliuqhutik haniraanit kigligutaatigut aanniarnanngittumik unalu qajagijaujukhaq kigligutaa unalu ilittuqhimajaujuq naittumik ingattarnaittuq uvunga amihuuningit anguniaqtaugumik aulanngitpat.

Ikajuqhimavlutik amihuuningit ihivriurnirnut, kinguani pinahuaqhutik ihumagivlugit amigainningit aallatqiitigut pivikhait (McGowan, 1990; McGowan unalu Low 1992, Harris aahiittauq. Makpiraaliuqhimaittuq nalunaijainiq), hivunngani uvuuna atuqhugit haputit majuliraangamik ingilrajut.Tahapkuat kititirningit aallatqiinguvaktut kuukkap qanurilinganingit, ilaani, tamainnut ukiunganit iluani aadjikkutaanit pivikhait. Nalaumajuq kititirningit qaffiujut ukiunganit ilitturnaqhutik aturnaqtut kangiqhigiami ulurianaqtumik malikhimajangit hapummijaulaaqtut tahapkuat uumajuit. Uvani, tahapkuat nalunaijaijut angmaumanngittut.

Hamna Iqaluktuuttiaq maniliurahuaqtut iqalukhiurnirnut haffumani Iqalukpik ihumagijaujut nalunaijaijut-naammagijaunngittut iqalukhiurnirnut ilitturnaqhunilu amihuujut akihautiqaqhutik unalu nalunaqpiaqhunilu haffumani ilitarijaujut amihuuningit ihivriurnit (Tallman aahiittauq. 2013). Amihuujut-ukiunganit amihuujut ihivriurningit pivalliahimajut ukunanngat DFO, katimaqatigivlugillu avatingnut atujuktangit unalu munaqtiuqatigiiktunut timiujut, uvanngat Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiurnigut turaaqhimagiami una nalunaijaijangit-naammagijaunngittuq ihumaaluut. Una hulijakhautikhat haffumani upalungaijautit ihivriuriami amihuuningit inuuhingit hapumminnaqtumik anguniarniq maligautingit tamainnut nunaliit anguniaqpagaat imarmi. Tamarmik iqalukhiurnirnut maliinnaqtangit (tahapkuat nalunaijainiq kititiqhimajaujut uvanngat maniliurahuaqtunut iqalukhiurnirnut) unalu nanmirijaujut nalunaijainiq (tahapkuat kititiqtauhimajut nanminirijangit haffumani maniliurahuarnirnut iqalukhiurningit) kiujaujukhaq ilagijaujut hamna upalungaijautingit kititiqhimajukhaq aippaagunnguraangat.

Iqalukhiurniq-maliinnaqtangit nalunaijainingit huli kititiqhimainnaqtangit uvuuna DFO-maningnut ikajuqtauvaktut iqalliqarvingmi qaujihaijut havaangit, nautkaihimakhaaqhuni hivitujumik-atullaktangit ilagijaujut haffumani nanminirijaat nalunaijainingit (aktingnia, uqumaidjuhia unalu ukiunga) unalu ihiviurluaqtaujut ingilrutinga Iqaluktuuttiarmi. Ihivriurningit ihivriuqtauvaktut nalunaijaivlutik aallannguqhimagiakhaat aktingnia, uqumaidjuhia ukiunganilu hulidjuhianit tunihimajangit taimaa nalunaiqhimajaulaaqtuq kiuviniit amihuuningit uvunga ublumi atuqtangit maligautaanit anguniarnigut.

2012 mi atulihaaqtumi, EHTO, ikajuqtauvlutik ukunanngat Qitirmiut Niqiqarvik Timinganit unalu DFO, aulapkaihimajut aturaaqtakhangit-hivitunia, kuukkap kigligutaanit munarijaujut havaangit kititiqhutik anguniaqtangit ilangani mikhaagut (CPUE) unalu anguniarnirnut nalunaitkutaq. Una havaangit ikajuutauvluni uvunga iqalukhiurnirnut maliinnaqtangit nalunaijainingit kititirningit havainnaqtut anguniaqhimajait maniliurahuaqtunut iqalukhiurnirnut. Una havaaq munarijauvluni haffumani tallimanit nutqaqhimaittumik ukiunganit uvuuna manngit ikajuqtauvlutik uvanngat Nunavut Tamatkiumajangit Munaqtiujut Upalungaijaut qaangiqtautinnatik uvunga maniliurahuaqtunut iqalukhiuqti-hivulliutijangit havaaq. Una munaqtiunirnut havaat tukiliutilik kangiqhiinnaqhugit ukiungani CPUE haffumani maniliurahuaqtunut anguniaqtut uvuuna atuqhutik nalunaijaijut titiraqhutik makpiraarmi. Ilagijaujut, unipkaaqhugit anguniaqtangit unalu iqqaqhimajaat iluani iqalukhiurnirnut huli parnautiginiaqtangit ihuaqhijauhimajumik kangiqhidjuhia haffumani uumajuit ilagijaujut. Illirivlugillu nalunaijaijut titiraqtakhat makpiraanmi iniqhimajut nalaumattiaqtut tadja ilagijauvlutik laisianut qanurilinganingit haffumani Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiurnirnut.

Iqalukhiurniq-nanminirijaujut nalunaijainingit kititiqhimajaujut uvani Jayko (Jayco Kuugaq) uvanngat 2010-2015, unalu uvani Halugvik (Thirty-Mile Kuugaq) uvanngat 2011-2015. Tahapkuat nalunaijainingit tunngaviliuqhimajut haffumani 2017 ihivriurningit tamainnut iqalukhiurvingmi (Takulugu Harris aahiittauq. Tuhagakhaujuq, Zhu aahiittauq. Tuhagakhaujuq). Iqalukhurvingit-nanminirijamingnit ihivriuqhiijut tadja havaktauliqtuq uvani Paalliq (Lauchlan Kuugaq) niriugijaujut havaktauniaqtuq inirlutik 2022 mi, ihivriuqtaarumik amihuuningit havaktauluni. Ilgaijaujurlu, hivitujumik nipiliugait atiliuqhimajakhaat havaaq (havaqatigihimajangit ukunanngat Ilinniarvigjuangit Windsor unalu Universite Laval), havakhimajaat uvani 2013 mi, ihivriuqhiivlutik ingilrajuktut unalu ahinunngauvaktut pivikhangit, ikaaqattaqtut tarjurmi ingilrajut ilitquhiat imarmiujut unalu halumajumit imat najuqpaktangit atuqtut (Harris aahiittauq. 2014, Moore aahiittauq. 2016, 2017, Harris aahiittauq. 2020). Kinguani, kumaruit ihivriuqhimajangit haffumani Iqalukpik uvanngat tamaat kuukkamiujut tadja iniqhimaliqtangit (havaqatigivlugit ukunanngat Lakehead Ilinniarvigjuaq), tarjuq iluani ilitquhingit ihivriuqtauliqhutik (havaqatigijangit ukunanngat McGill Ilinniarvigjuaq), inuuhiq pitquhituqangit aallatqiingujut ihivriuqtauliqtut ukunanngat uumajunit ilaurutiqaqtut iijingnut takukhaulaittut kumaruit (havaqatigijangit ukunanngat Ilinniarvigjuangat Waterloo), uunarningit iniqhimaittut unalu anirnigut ilitturningit tadja qanilrukkut ihivriuqtauliqhutik (havaqatigivlugit Ilinniarvigjuangat British Columbia) hamnalu ihuiluutiniit haffumani imarmiuttat iijingnut takukhaulaittut kumaruit haffumani Iqalukpik nalunaijailiqtut (havaqatigijangit Ilinniarvigjuangat Toronto).

Tadja avguiningit kigligijaujut uvani “Tallman’ip maligautaa” ilitquhirijaujut ulurianaqtumik pingujaujuq uuktuutigijangit haffumani 5% avvautingit qaffiujut Iqalukpik ingilravaktut ajuqhaqhutik iqalukhiuqtunut (Tallman aahiittauq 2015). Uqaqtauhimagaluaqtuq qaangani, hivuani qaujiharningit nutaannguqhimajut ulurianaqtumik pingujaujut uuktuutijangit haffumani maniliurahuaqtunut anguniaqtangit Iqalukpik nunangani pijumajaujut. Ihuaqtumik kangiqhidjutingit haffumani amihuuningit, utuqqaujut qaujiharningit, unalu amihuuningit inuuhingit ihumagijaulluaqtangit ihivriuriami tahapkuat ulurianaqtumik pingukluktut uuktuutigijangit aulakpaihimajangit hapummijakhaat anguniaqtut maligautaat tamainnut imarmi.

2.5 Qajagijaunirnut Inikhaq

Uvani tukiliuqtauhimajuq qulaanit, una SFF ilagijaujurlu maliktakhaat haffumani PA havaarijaujukhaq uvunga iqalukhiurnirnut munarijaujukhaq. Una havaarijaujuq (1) nalunaiqhimajut pingahut amihuuningit ilitquhiita kigligutaat (inuuhingit, qajagijauniq, ihumaalungniq) malikhugit qaanganiittut amihuuningit unalu naiglihimalugit kiuviniit tiliugait (2) turaarviujut anguniaqtunut maligautait tamainnut kigligutaat unalu (3) ihuaqhihimajut ahivaqtaunirnut maligaut malikhugillu iqaluk amihuuningit ilitquhia. Kihimi qanilruani kiuvikhangit tilihimajut nalunaiqtauhimajut malruk kuukkat pivikhait (Halugvik unalu Jayko Kuugak) Iqaluktuuttiaq nunangani iluani (Zhu aahiittauq. Tuhagakhaujut). Haffumani ihivriurningit naiglihimajaujut-kigligutaanit amihuuningit

qaujihaijut (DB-SRA) unalu nalunaijainingit- iniqhimanngittut ingilrutaat (DLM) havaktitijaujut ihivriuriami amihuuningit ilitquhiita hapummijaujuq iqalukhiurnirnut munarijaat haffumani iqalukhiurnirnut. Malikhugit qajagijaunirnut inikhaq iluani iqalukhiurnirnut munaqhiijakhangit, tamarmik iqalukhiurnirnut ihumagijaujukhat qanilruani kigligutaanit haffumani inuuttiarnirnut unalu qajagijaujukhaq kiglingat kihimi inikhangit ataaniittumik haffumani Qulaaniittumik Amihuuningit Kiuviniit 0.8 B_{MSY}. Kihiani, nalunaqpiaqhuni tadja, unalu naittuuvluni kigligutaat ukpirijaujut nutqaqattaqtut qaliriiqhimajut haffumani naittumik-iniqhimaittuq kiuvikhaat tiliujaunigit haffumani iqalukhiurnirnut. Kiuvikhangit tiliugait pivalliahimaittuq qujaginnaq aallait iqalukhiurnirnut iluani Iqaluktuuttiaq nunangani.
Iqalukhiurniq-nanminirijaujut nalunaijainingit kititiqhimajaujut uvani Jayko (Jayco Kuugaq) uvanngat 2010-2015, unalu uvani Halugvik (Thirty-Mile Kuugaq) uvanngat 2011-2015. Tahapkuat nalunaijainingit tunngaviliuqhimajut haffumani 2017 ihivriurningit tamainnut iqalukhiurvingmi (Takulugu Harris aahiittauq. Tuhagakhaujuq, Zhu aahiittauq. Tuhagakhaujuq). Iqalukhurvingit-nanminirijamingnit ihivriuqhiijut tadja havaktauliqtuq uvani Paalliq (Lauchlan Kuugaq) niriugijaujut havaktauniaqtuq inirlutik 2022 mi, ihivriuqtaarumik amihuuningit havaktauluni. Ilgaijaujurlu, hivitujumik nipiliugait atiliuqhimajakhaat havaaq (havaqatigihimajangit ukunanngat Ilinniarvigjuangit Windsor unalu Universite Laval), havakhimajaat uvani 2013 mi, ihivriuqhiivlutik ingilrajuktut unalu ahinunngauvaktut pivikhangit, ikaaqattaqtut tarjurmi ingilrajut ilitquhiat imarmiujut unalu halumajumit imat najuqpaktangit atuqtut (Harris aahiittauq. 2014, Moore aahiittauq. 2016, 2017, Harris aahiittauq. 2020). Kinguani, kumaruit ihivriuqhimajangit haffumani Iqalukpik uvanngat tamaat kuukkamiujut tadja iniqhimaliqtangit (havaqatigivlugit ukunanngat Lakehead Ilinniarvigjuaq), tarjuq iluani ilitquhingit ihivriuqtauliqhutik (havaqatigijangit ukunanngat McGill Ilinniarvigjuaq), inuuhiq pitquhituqangit aallatqiingujut ihivriuqtauliqtut ukunanngat uumajunit ilaurutiqaqtut iijingnut takukhaulaittut kumaruit (havaqatigijangit ukunanngat Ilinniarvigjuangat Waterloo), uunarningit iniqhimaittut unalu anirnigut ilitturningit tadja qanilrukkut ihivriuqtauliqhutik (havaqatigivlugit Ilinniarvigjuangat British Columbia) hamnalu ihuiluutiniit haffumani imarmiuttat iijingnut takukhaulaittut kumaruit haffumani Iqalukpik nalunaijailiqtut (havaqatigijangit Ilinniarvigjuangat Toronto).

Tadja avguiningit kigligijaujut uvani “Tallman’ip maligautaa” ilitquhirijaujut ulurianaqtumik pingujaujuq uuktuutigijangit haffumani 5% avvautingit qaffiujut Iqalukpik ingilravaktut ajuqhaqhutik iqalukhiuqtunut (Tallman aahiittauq 2015). Uqaqtauhimagaluaqtuq qaangani, hivuani qaujiharningit nutaannguqhimajut ulurianaqtumik pingujaujut uuktuutijangit haffumani maniliurahuaqtunut anguniaqtangit Iqalukpik nunangani pijumajaujut. Ihuaqtumik kangiqhidjutingit haffumani amihuuningit, utuqqaujut qaujiharningit, unalu amihuuningit inuuhingit ihumagijaulluaqtangit ihivriuriami tahapkuat ulurianaqtumik pingukluktut uuktuutigijangit aulakpaihimajangit hapummijakhaat anguniaqtut maligautaat tamainnut imarmi.

2.6 Qajagijaunirnut Inikhaq

Uvani tukiliuqtauhimajuq qulaanit, una SFF ilagijaujurlu maliktakhaat haffumani PA havaarijaujukhaq uvunga iqalukhiurnirnut munarijaujukhaq. Una havaarijaujuq (1) nalunaiqhimajut pingahut amihuuningit ilitquhiita kigligutaat (inuuhingit, qajagijauniq, ihumaalungniq) malikhugit qaanganiittut amihuuningit unalu naiglihimalugit kiuviniit tiliugait (2) turaarviujut anguniaqtunut maligautait tamainnut kigligutaat unalu (3) ihuaqhihimajut ahivaqtaunirnut maligaut malikhugillu iqaluk amihuuningit ilitquhia. Kihimi qanilruani kiuvikhangit tilihimajut nalunaiqtauhimajut malruk kuukkat pivikhait (Halugvik unalu Jayko Kuugak) Iqaluktuuttiaq nunangani iluani (Zhu aahiittauq. Tuhagakhaujut). Haffumani ihivriurningit naiglihimajaujut-kigligutaanit amihuuningit qaujihaijut (DB-SRA) unalu nalunaijainingit- iniqhimanngittut ingilrutaat (DLM) havaktitijaujut ihivriuriami amihuuningit ilitquhiita hapummijaujuq iqalukhiurnirnut munarijaat haffumani iqalukhiurnirnut. Malikhugit qajagijaunirnut inikhaq iluani iqalukhiurnirnut munaqhiijakhangit, tamarmik iqalukhiurnirnut ihumagijaujukhat qanilruani kigligutaanit haffumani inuuttiarnirnut unalu qajagijaujukhaq kiglingat kihimi inikhangit ataaniittumik haffumani Qulaaniittumik Amihuuningit Kiuviniit 0.8 B_{MSY}. Kihiani, nalunaqpiaqhuni tadja, unalu naittuuvluni kigligutaat ukpirijaujut nutqaqattaqtut qaliriiqhimajut haffumani naittumik-iniqhimaittuq kiuvikhaat tiliujaunigit haffumani iqalukhiurnirnut. Kiuvikhangit tiliugait pivalliahimaittuq qujaginnaq aallait iqalukhiurnirnut iluani Iqaluktuuttiaq nunangani.

2.7 Qaujiharniq

Qaujiharniq ihumagijaulluqtakhaat haffumani nalunaijainingit haffumani hapummijakhaat munaqtiunirnut haffumani Iqalukpik Iqaluktuuttiaq nunangani iluani. Uvani tukiliuriiqhimajut uvani naittumik-hivituniq hulijakhainit haffumani titiraqhimajut pijumajaujuq nutaannguqtiqhimalugit amihuuningit ihivriurningit nalunaitkutaq unalu tuhaqtittilugillu hapummijaujukhat anguniaqtangit maligautaanit tamainnut maniliurahuaqtunut imap unalu ihuaqhihimalugillu kangiqhimajaqqut haffumani uumajuit ilittuqhainingit haffumani Iqalukpik nuna iluani. Iqalukhiurnirnut-maliinnaqtangit nalunaijaijut kititiqhimajangit ihumagijaulluaqtangit ilagijangit nunangani ilittuqhimajangit (aktingningit, uqumaidjutingit unalu ukiungit) tamainnit anguniaqhimajangit amihuuningit aippaagunnguraangat. Taimailiuqpakhutik aippaagunnguraangat maniliurahuaqtunut iqaluliqivik ihivriuqtaujut havaangit (havaqatigivlugit ukunanngat Qitirmiut Niqiqarvik Timigutaa) taimaa kititiqhimavaktut uumajuit ilittuqhiijut nalunaijainingit havakhimakhaaqtangit uvanngat 1970 ngutillugu. Iqalukhurnirnut nanminirijangit qaujihaijut iniqhimajangit aippaagunnguraangat kititiqtauhimajut uvuuna qaujiharvingmi havaangit unalu ungahingnia kangiqhidjutigut haffumani iqalukpik uumajuit ilitturningit. Uvani 2013, havaqatigihimajangit ukunanngat DFO, unalu Tarjungit Nalunaijaijut Havaqatigiiktut (OTN), Ilinniarvigjuangit Laval unalu Ilinniarvigjuangit Windsor ilittuqtaulihaaqhimajut atuqhugit nipiqaqtumik nipiliuqtangit ingilrutilingnit naunaijaivlugit ingilrajunit Iqalukpik tamarmik tarjurmiuttat unalu halumajumik imait nunangani.

Una hivuniqhuutikhangit haffumani qaujiharningit havaangit huli havaarijauniaqtuq uvani 2022 mut. Una kiuviniit titiqqangit havaavut ilaliutauhimajuq ilulingit iluani tarjurmiuttat najuqpaktangit atuqpagaat unalu havaangit ingilrajunut ukunanngat halumajumik unalu tarjurmiuttat najuqpaktangit tamarmik Iqalukpik (Moore aahiittauq. 2016, 2017, Harris aahiittauq 2020b) unalu Tahirmiut Ihuuq (Harris aahiittauq. 2014, 2020c). Una iningit haffumani halumajumik imaq ingilrajut unalu halumajumik imarmik najuqpaktangit atuqtangit (huvanijuktut unalu ukiivaktut) tadja ilihautigijangit tamarmik Iqalukpik unalu Ihuuq ilagijaujut havaangillu, hamna kiuviniit hapkuat makpiraaliuqhimanngittut. Ilagijaujut qaujiharniq qanilruani ukiungani hivunigijauvluni amihuuningit naammagijaunngittut kangiqhihimajangillu ingilrainnaqtut ahinunngaujuktut tamainnut amihuuningit iqalukpik nunangani (Harris aahiittauq. 2016, Moore aahiittauq. 2017). Una kiuviniit haffumani ilittuqhimajangit kiujakhaat hivitujumik kihimi hakuiqtut nauviniit aallatqiingujut tamainnut iqalukpik amihuuningit nunangani iluani unalu ingilrajuktut ulurianaqpiaqtumik ihumagijaulluaqtangit aquhimajut ukiiraaqpaktut hiamihimajut. Aallat qanilruani havaaq hivunigijaat ihivriurnikhanut niklaumaningit ilagijaujut ilaurutingit uumajuit kumaruit unalu anginiqhautingit uummatigut tigigutaat tahapkuat majuqtunut ingilrajut Iqalukpik Qitirmiut nunangani iluani nalvaaqtauhimajut iqalukpik qaujimajangit niklaumaninga qaanganit ilitturvikhangit iniqhimanngittut (Gilbert aahiittauq. 2020). Amihiijut aallaujut ilitarijaunngittut makpiraaliuqhimajut avatiqatigiingnigut nunami-kigligutaat ilihautigijangit tadja havaarijaujuq qimilruqtauhimajuq haffumani tarjurmiutaujut niqit nikhikhimaningit nunangani ilagijaujut nirijuktangit inikhautaat haffumani Iqalukpik nalunaijaijut kumaruit ilitturnaqtut maniliurahuaqtunut anguniaqhimajut iqalukpik.

3 Inungnut, Pitquhirnigut unalu Havaakhanut Ihumagijaulluaqtangit haffumani Iqalukhiurnirgut

3.1 Inungnut unalu Pitquhirnigut

Iqalukpik aturlluaqpagaat inungnut katilviuningit, pitquhirnigut tukiliutingit unalu niqinut kiuvikhaanit Inuit tamainnut Kanatami (Myers aahiittauq 2005; Balikci 1980). Iqaluktuuttiaq ilihimajaujuqtauq Ekaluktutiak, Inuinnaqtun tukiqaqtuq”Nakuujumik Iqalugviutaulluaqtuq” tautungnaqhunilu hakugiktumik pitquhituqangit unalu ilitquhirnut katilviujuq inungnut avvautivagaat Iqalukpik (Thorpe aahiittauq. 2019). Ublumi nunangit huli hivitujumik niqimik iqalukhiurutaujuq uuminngalu inungnut havaakhanullu tunihivaktut uvuuna hulilukaaqtunut unalu maniliurahuaqtunut iqalukhiurnirnut.

Iqalukpik inikhautauvluni aturluarivagaat niqitqiktumik (Evans aahiittauq. 2016) unalu inungnut pitquhirnut nunalingni – malittiaqhugulu pitquhituqarnut unalu inuuhittiarnigut maligaaqhugit ilagivagaat pitquhirnigut niqinut, unalu nunamiunullu inmikkut-ihuaqpiarijamingnit (Thorpe aahiittauq. 2019). Una niqigiktuq naammagluarijaat manirarmiunit niqit haffuminngatut Iqalukpik nalaummajumik himmautaulaittuq ukunanngat hivuraanirmiunit niqit, akitturluaqhutik agjaqtaugiami unalu iharianaqtumik aadjikkutaanit niqinit ihuaqtumik (Myers aahiittauq. 2005). Haffuminngatut, ublumimut Nunavut Iqalukhiurnigut Parnaujautinga, 2016-20 kangiqhijauvluniguuq niqikhanut himmauhirijaat akingit iqalukpik avatquumajaujuq $7 milian taala (Una Nunallaami Nunavunmi, Nunavut Kavamangit, Avatilqijit Havagviat, 2016). Ilagijaujuq, Iqalukpik ihumagijauvaktuq niqitqigluaqtuq maligahuaqhutik naahurivlugulu pitquhirnirnut nirijamingnit naiglinahuaqhugu Hg (mercury) nirijaangat ilagijauvaktangit aallat pitquhirnirnut niqingit (haffuminngatit, Tahirmiuttat ihuuq unalu imarmiuttat huraat, Evans aahiittauq. 2016). Una maniliurahuaqtut anguniaqtangit Iqalukpik ikajuutauvlutik aturluarijangit inungnut pitquhirnirnullu ukpiruhuutait ilagiiktunut, avvautigijangillu nunalingni qangaraaluk malikhimainnaqtangit akuniraalungmi iqalukhiuqtunut. Ilangit iqalukhiuqtit uvani maniliurahuaqtunut iqalukhiurnirnut anguniaqtut aadjigiiktumik najugait humi inuuhimajut, humi ilaitalu najuqpagaat iqalukhiuqtut anguniaqtullu. Ajuinningit unalu pitquhirnirnut ilittuqtangit taimaa maliinnaqhugu ilihaqhutik tunihivakhutik ilagiiktunut avvautigiiktut aahiittauq iqalukhiuqtit.

Malikhugit uvanngat Nunavut Uumajuliqijiit Anngutikhanut Ilihautikhaq (NWMB 2004), Iqalukpik anguniarluarviujuq avatikhanut Nunavunmi. Ukunanngani 1996 unalu 2001 ukiunnguraalungmi qaffit niqikhaqhiuqtut anguniaqtit Iqaluktuuttiaq nunangani aallatqiingujut ukunanngat 23 unalu 55, anguniaqtunut hamnauvluni 6,461 Iqalukpik ukiungani uvanngat amihuujut qanilruani imarmit. Iqaluk niuviqtittijut iqaluliqivik ahivaqtauhimajuq uvanngat ilitturvikhangit. Kangiqhijaujuq aktilaangit haffumani Iqalukpik uvanngat niqikhaqhiuqtunut anguniaqtut aadjigiiktut haffumani maniliurahuaqtunut anguniaqhimajut aktilaangit, una Ilihautikhangit kiujaujuq imaatut niqikhaqhiuqtut anguniaqtut avvautainnaatigut pivlutik maniliurahuaqtunut anguniaqtangit.

3.2 Havaakhanut Aturluarningit

Hamna maniliurauhaqtut ikajuqhimajut haffumani Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiurnirnut tamainnut aturluarijaujuq tamarmik havaakhanut unalu Nunallaanmi. Uvani 2015, una qaffiuningit Iqalukpik maniliurahuaqtunut anguniaqtut Nunavut iluani kangiqhijaujut uvani 72,574 kilukulaatigut kangiqhijaujut nunamunngaujut akikhangit akingit hamnaujuq $1,800,000 (2016 GN Iqaluliqinirnut Parnautingit). Iqaluktuuttiaq tunihimajaat haffumani 37,765 kilukulaatigut uqumaidjuhingit (52%) atautimuuqtumik anguniaqtangit, kangiqhijauhimajuq niuviqtakhaujut akingit maniliuqhimajut haffumani $855,363.[1] Qanilruani, uvani 2019 mi Iqaluktuuttiaq maniliurahuaqtunut iqalukhiurnirnut anguniaqhimajangit 99% haffumani makaqhimajaujuq avguiningit (48,493 Kilukulaatigut uqumaidjuhingit), atauttimuuqhimajut 48,097 Kulikulaatigut uqumaidjuhia.

Hamna qanilruani 5-ukiungani ikaarningit angmaumajuq Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut anguniaqtangit (2015-2019), una ukiungani ilitquhirnut nunamunngaqtauhimajut avvautingit makaqhimajaat avguiningit nalvaaqtauvaktut puqtuhijullu haffumani Iqaluktuuq (Ekalluk Kuugaq) (96%), malikhugit ukunanngat Halugvik (Thirty-Mile Kuugaq) (93%), Jayko (Jayco Kuugaq) (89%), Paallirjuaq (Surrey Kuugaq) (86%), unalu Paalliq (Lauchlan Kuugaq) (90% avatquumajut 2 ukiungit). Nunamiuhimajut akingit aulavikhangit ukunanngat nunamiuhimajut avatquumajunit uvani 5-ukiunganit akunngani kangiqhijaujunaqhijangit $942,883, ukunanngat ukiunguraangat atuqtakhangit haffumani $188,577.

Uvanngat una 2015-2019, ikaangit, niuviqtakhaat akingit aulapkaihimajangit ukunanngat nunamunngautihimajangit Iqaluktuuttiaq kangiqhijaujunaqhijuq $4,073,397, ukuninngat ukiunngani tukiqaqhuni haffumani $814,679. Una tallimmat-ukiuq tukingit maniliurahuaqtut akingit tamainnut ilitturnikkut Iqaluktuuttiaq Iqalukpik nauhimajuq ukunanngat Qitirmiut Niqiqarvingat Timigutaa hamnauvluni $22.65/kilukulaatigut uqumaidjuhia[2].

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[1] See Appendix D: Economic Analysis for details.

Uvanngat qanilruani, havaakhanut tunihimajaat haffumani Iqalukpik aadjigiinngittut aallannguqattaqtut aippaagut amihut qanurilingagamik. Hamna avguiningit huli aulajuittut, ukiungani aulattittijangit akikhaat, niuviqtakhaujut akhuuqtut unalu akikhangit, unalu hailihakhaujut anguniariami malikhimanngittangit aippaagunnguraangat aallauvakkamik. Haffuminngatut, akituvallaaqpakkami agjaqtuinirnut akikhait, niqiliuqtangillu iqaluliqinirnut, unalu hilatqiijukkhamilu ihuiluutauvaktuq niuvirumajunut, pijumalluaqtangit Iqalukpik. Tukiliuqhimajuq nalunaijainingit nunamunngaqtaujut, akikhangit, havaangit ihuaqutingit unalu ihumagijauvaktut havaatigut ihumagijaujut ilaliutauhimajuq uvani Ilulingni D: Havaakhanut Qaujiharningit.

Una Nunavut Pivallianikhanut Timiqutingit inungnut ikajuutaujuq haffumani Nunavut Kavamanut, munarijakhaattauq ikajurahuaqtangit havaakhanut hailijakhaat, aadjigiinngittut, unalu aturaaqtakhangit angiklningit unalu ajuqhanngittut Nunavunmi. Hamnalu angikliktiqhutik Iqalukpik niuviqtakhaat tamarmik iluani hilataanilu. Ihuaqhittiaqhutik havaqatigiiktunut ukunanngat NDC, Nunavut Kavamangit, DFO, unalu nunalingni ikajuinnaqtut ihuaqhinahuarlugit kangiqhijunit ihumagijaujunut Iqalukpik ikajurahuaqhugit havaakhanut ikajuutikhait nunamiunit nunallaamilu ihumagijaulluaqtangit nalaumattiaqtumik munarijakhaat iqalukhiurnirnut.

Ocean Wise tarjukkut qaujimaningit taidjuhia tarjurmiuttat niqit nanminirijaujuq hapummiviujuq havaanut ajurnaittuni niuvirumajunut qanuq pukukhimagiami manirarmiujut tarjurmiuttat niqit kivgaqtuijut unalu nirrivingmiunit qangaraaluk hivitunianut aanniaqtailinirnut unalu aturaaqhimajakhaat haffumani Kanata'p iqaluliqinirnut. Hitamaujut malikhimajangit ilitturvikhangit Tarjukkut Qaujimaningit ilitarijaujukhaq hamnaujut: (1) Iqalukhiurnirnut amihuuningit unalu aturaaqhimajaujukhat iqalukhiuqtunut akhuuqtangit, (2) nakuuqpiaqtumik munarijaujuq ukunanngat iniqpiaqhimajumik munaqtiunirnut upalungaijautingit kigligutigijaat tadja atuqtangit qaujiharniq, (3) anguniaqhimajangit ukpiruhuutait pidjarikhihimajangit iniqhimaittut anguniaqhimajangit makautihimanngittangit unalu nungutpallialiqtut uumajuit, unalu (4) anguniaqhimajangit inilingnit iniqhimaittut ahiruqhimajaujut uvunga tarjurmiuttat uuminngaluuniit imarmiuttat najuqpaktangit unalu ihuittumik ilagijaujut ukuninngat aahiit uumajuit.

Uplumimut, Qitirmiut Niqiqarvit Timiqutit havaktittijut qaffiujungnaqhijut 28 nit nunamiuqatigiiktut unalu nunataarviujut ikajuqhutik haffumani Iqalukpik maniliurahuaqtunut iqalukhiurnirnut ukiunnguraangat kigligutaa. Maniliurahuaqtut iqaluliqinirnut anginiqhautaanit nunamiuqatigiiktunut havaktittijunut hailijakhainit, taimaa iqalukhiuqtit nunaqaqtut havakhutiktauq Iqaluktuuttiami ikajuqhugillu nunamiuqatigiiktunut havaangit taimaa amiriinnaqhugulu hivunikhautikhangit ajuinningit uvanngat pitquhirijamingnit inuuhingit.

Iqalukpik atauttimuuqtut niuviqtaujut unalu niuvirumajunut hailijakhainit angiklijuummiqhuni, aulavikhangit akikhagit taimaa angiklivakhunilu. Qitirmiut Niqiqarvik Timigutaat taimaa maliinnaqtangit atuinnaqhutik tingmiakkut agjaqhiijut akingit akikihimaningit uvanngat Nunavut Pivallianikhanut Timiqutaat aturaaqhimainnaqtangit kigligutaanit taimaa ikajurahuaqhutik akitturjuummiqtumik tingmiakkuuqtut agjaqtuinit akikhangit ajuqhautivagaat agjaqhiinahuaqtangit Iqalukpik iqalukhiurvingni najugaanit niqiqarvingnut uvungalu aallatqiingujut nunamiunit iluani ahinunullu hilarjuarmit niuvirumajunut. Avatquttumik 5-ukiunganit ikaarningit haffumani 2014-2018, Qitirmiut Niqiqarvik Timigutaat ilittuqhimakhaaqtangit angiklijuummiqhimajut agjaqtuinirnut ilagijaat akikhangit ukiunganit, uvanngat 20% avvautingat tamainnut aulattittinirnut akiliakhait uvani 2014 mit uvunga 27% avvautaanit uvani 2018 mi.

4 Munaqtiunirnut Akihautingit

Amihuujut akihautiqaqtut hamna munaqtiuqatigiiktunut timiujut turaaqhimajaat iluani munaqtiunirnut haffumani Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiurnirnut. Una hivulliujuq munaqtiunikhanut akihautingit ilagijaujut pijumajainnit haffumani nutaannguqtiqattaqtumik amihuuningit amigainningit kangiqhutaat ikajuqhugit munaqtiunirnut ihumaliugainit, tuulliiqhimaittumik anguniarnikkut uqariiqhimajut unalu titirainnaqhimalugillu unipkaarijangit anguniaqhimajangit unalu angujangit hakugikpiaqtumik nalunaijaijut ikajuqhutik aturaaqtakhangit anguniaqtangit maliktaat, pidjarikhihimalugillu aturaaqtakhaanit-hivitunia uuktuqattaqtangit nautkailluaqtangillu haffumani maniliurahuarnirnut iqalukhiurnigut.

4.1 Amihuuningit Amigainningit Kangiqhijaujuq unalu Ihuiluutaujut uuktuutingit

Iniqpiaqhimajuq nutaannguqhimajut amihuuningit (uuminngaluuniit uumajuit anngutikhangillu nauliqpagaat) kangiqhidjutingit unalu amihuuningit ihivriurnikhat huli kiugiaqaqtangit amihuujut haffumani amihuuningit haffumani maniliurahuaqtunut anguniaqhimajangit Iqalukpik (takulugu Ilangani 3.2.5). Pitquhirijangit qaujiharnirnut inikhaat haffumani amihuuningit ihivriurnikhanut amihuuningillu kangiqhijaujut iniliurlugit aturaaqtakhangit anguniarnirnut malikhimajangit havangnainniaqhuni uumanngat akikhangit, tikihimalaaqtangit unalu aturnaqtut tamainnut kuukkait ilitturvingit. Angiqhimagiami inikhautingit, amihuuningit atuqtangit ukpiruhuutait kangiqhijauhimajut hakugingningit tadja kiujauliqtut amihuujut hulijakhait humiliqaak nalunaijaijut angmaumajut. Ukuninngat nutaannguqtiqhimajut amihuuningit kangiqhuutingit unalu amihuuningit ihivriurningit, nutaannguqtaujut aanniqtittijunit malikhimajangit haffumani maniliurahuaqtunut Iqalukpik iluani Iqaluktuuttiaq nunangani ilaliutaulaaqtut. Nalunaiqhimajukhaq, kihiani, hamna aanniqtittiniagut maligautaat hapummijaulaaqtut Iqalukpik mikhaagut huli kangiqhijaunngittut qaujihaqtauvlutik hivunigijangit iniqhimagiami maligautaat naammagijaujut uumajuit aulapkaijukhaq. Kiujauhimajuq ilangani aviktuqhimajumi haffumani Kanatamiunit Ukiuqtaqtumi, hamna aanniqtittijunit maliktangit hammaujut 11% hapummihimanngittut (Johnson 1980), hamna uvani aahiit inikhaanit ahivaqtittivaktut maligautaanit haffumani 15% - 41% uqaqtauhimajut (Dempson 1995).

Tadja, anginiqhautaat aanniqtittiniagut huli hapummijauvlutik Iqalukpingnut Nunavut iluani nalunaqtuq ajurnaqhunilu atanngujait munarigiami amihuuningit. Kiujauhimajut qulaani, humiliqaak amihuuningit (uuminngaluuniit uumajuit amihuuningit) ilihimajaujut qajagijaujukhat maligautaa haffumani 5% (“Tallman’ip Maligaut ”) tukhiutauhimajuq hapummigiangani nalunaijainingit ahuigijaujut ihivriurningit. Talvanngaanit, tutqittiarnaqtuq havaaq hivumuurutijangit kangiqhittiariami anguniarnirnut akhuuqtaujuq(t) uvani uumajunit hapummijaulaaqhutik anguniariami hivulliutijangit. Tamaat unniqtaujut, qaujiharniq qaujihaijut pijumajangit huli ikajuqhimmaarlutik munaqtiunirnut ihumaliuqtangit avatikhangillu hapummivikhaq.

Angiqhimajaat una iqalukhiurnirnut huli ihumajaujut nalunaijainingit-nakuunngittuq, malikhimajangit maligautingit ihivriurnikhanut, tamarmik iqalukhiurnirnut-munaqtaujut (tahapkuat nalunaijainingit kititiqtauhimajut uvnanngat maniliurahuaqtunut iqalukhiurninut) unalu iqalukhiurnirnut-munaqtaunngittut nanminirijaat(tahapkuat kititiqhimajaat inmikkut haffumani maniliurahuarnirnut iqalukhiurnigut) maligiaqaqtangit. Aturaaqtakhaat-hivituningit munarijaat, tiliuqhimajut kangiqhinahuarlugit ukiungani CPUE haffumani anguniaqtangit unalu titiraqhimajaat anguhimajangit unalu iqqaqhimajaat iqalukhiurnirnut iluani, taimaa ikajuutauniaramik ihuaqtumik kangiqhidjuhianit amihuuningit unalu uumajuit ilagijaujut, pijumajaujut aturaaqtakhangit unalu nunat avatiqatigiiktunut-kigligutaa munarijaat haffumani Iqalukpik Iqaluktuuttiaq iluani.

4.2 Anguniarniq Unipkaaqtakhat

Ikaarvikhaq, nalaumajumik unipkaarijaujukhat tamainnut anguhimajainnit unalu havaktauhimajut atuqhimajangit anguniarutaanit tahapkuat angujangit uvanngat maniliurahuaqtunut iqalukhiurvingnit imat unipkaaqtaugialik. Iniqhimaitkumik unalu nalaumattiaqtumik munaqtauniq tamainnut anguniaqtunut hulijakhangit, atauttimuuqtut anguniaqtangit ahivaqtauhimajut uvanngat iqalukhiurvingnit nalunaramik, unalu munaqtiuqatigiiktut uuktuqattaqtakhaat qajagijauluni aullaqtilihaarumik anguniarnirnut iniqhimaittut taimaa inuuttiarnaqtumik Iqalukpik amihuuningit aturaaqattariangani anguniaqtut unalu niqikhainit pijumajainnit Inuit munarijaangani.

Anguniaqpallaarumik maniliurahuaqtunut avguiningit tautungnaqpakhuni ilaani. Maniliurahuaqtunut anguniaqtangit ihariajuktumik huli ittukhaujuq iluani maliguarutigut anguniaqtangit maligautaanit. Una ikaarvingit akunikhaat unipkaarijaanit pitquijangit atanngujat ihivriurluniuk anguniarnirnut iniqhimaittumik iniliuqhimajangit. Qanilruani inikhautikhangit kiuhijaujut ubluq tamaat unipkaarijangit haffumani maniliurahuarnirnut nunamunngautihimajangit uvuuna iqalukhiurvingnut ihivriuqtauhimajut (takulugu Munaqtiunirnut Maligautaa, Ilangani 7.4). Ilagijaujut, avvautijangit munarilluarnikkut munaqtiunirnut piliriakhaq ilagijaujut EHTO, Qitirmiut Niqiqarvik Timigutaat unalu DFO talvanngat manngit ikajuqtauhimajut ukunanngat Nunavut Tamatkiumanirnut Munaqtiunirnut Upalungaijaut havaarijaujuk uvanngat 2011-2017. Tamaat maniliurahuaqtunut iqalukhiurnirnut tadja munarijaujut atauttimut ahivaqtauhimajut, ilagijaujut maniliurahuaqtut nunamunngautijangit unalu iqqaqtauhimajut, unalu nanminirijangit niqikhainit kiugiaqaqtuq qanilruani maniliurahuaqtunut laisikhaanit qanurilinganingit.

4.3 Havaanut Uuktuutikhangit haffumani Iqalukhiurnirnut

Puqtuhimajuq agjaqtuinirnut akikhat ihuiluutiliqhugit havaakhanut iniqtirumajangit haffumani maniliurahuaqtunut iqalukhiuqtut humiliqaak ungahiktut kuukkanut mikhaagut, iniqhimaittuullu ihumaliuqtangit aulapkaigiami nutaamik maniliurahuaqtunut iqaluliqinirnut aallat ungahiktumi iqalukhiuqtunut najugait. Niuviqhimajangit Iqalukpik uvanngat qanilruani nunaliit, atuqhugit umiat, aahiillu parnaijautingit ihivriuqtaujut ikajuqtunut ilauhimajunut tunihivlutik maniliurahuaqtut nunamunngaqtittijut anguniaqtangit Iqaluktuuttiarmut, pidjarikhijaami hivitujumik pivallianikhangit havaktittijunullu inikhautaat haffumani Qitirmiut Niqiqarvik Timigutaat. Aviktuqhimajumi unalu nunallaamilu munariqattariiqtut timiujut huli ikajuqhimmaaqhutik havaakhanut uuktuutijangit pidjarikhivlugillu amihuuningit humaanngittut amihuuningillu.

5 Hivunigijakhaat

Hivunigijakhaat haffumani Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiurningit hivunigilluarijaat haffumani IFMP. Aturaaqtakhangit hivitunia hivunigijakhaat tahiuqtaat munaqhiijangit haffumani iqalukhiuqtunut taimaa ilanngailaaqhugit amihuuningit hapummivikhangit, nunat avatiqatigiit, avvautihimalugillu munarjuarnikhat, inuuhirnut, pitquhirnut unalu havaakhanut hivunigijakhaanut. Tamaita aturaaqtakhaat hivitunia hivunigijakhaat ikajuqtauhimajut atauhirmit amihuujunilluuniit naittumik hivituningit hivunigijakhaanit turaaqhutik atuqtaaqhimajangit munaqhiinirnut akihautingit iqalukhiurnirnut. Una hivunigijakhaat titirariiqhimajut uvani Nalunaitkutaq 2 hannaijariiqhimajaujut uvannga IFMP Havaqatigiiktunut Ilagijaujut unalu aallat ikajuqhimajut ilauhimajut.

Nalunaitkutaq 2. Aturaaqtakhangit-hivitunia unalu naittumik-hivitunia hivunigijakhaat Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiuqtunut.

Aturaaqtakhat-hivitunia Hivunigijakhaat	Naittumik-hivitunia Hivunigijakhaat
Amihuuningit Hapummijangit	
Hapummilugit Iqalukpik amihuuningit uvuuna aturaaqattaqtakhainit atuqtangit unalu ihuaqtumik iqalukhiurnirnut munaqhainingit	• Nutaannguqtirlugit amihuuningit ihivriurnikhanut nalunaitkutaq unalu kiujakhaat aturaaqtakhainit anguniaqtangit maligautait taminnut maniliurahuaqtunut imat • Ihuaqhimalugit ilihimajainnit haffumani Iqalukpik nauviniit, avataita unalu amihuuningit ajuqhautingit • Ihuaqhimalugit ikaarvingit nalaumadjuhia anguniaqtumut unalu CPUE uqaqtauhimajut uvani maniliurahuaqtunut, hulilukaaqtunut

Aturaaqtakhat-hivitunia Hivunigijakhaat	Naittumik-hivitunia Hivunigijakhaat
	unalu niqikhaqhiuqtut iqalunirnut qanilrukkut munarilugit atauttimuuqtut ahivaqhiijut iqalukpik angujangillu. • Ikajuinnarlugit hapummijakhaat unalu aulapkaijut iqalukhiuqtut maligautait Iqalukpinut. • Ilitturnaqtuq nalunaqtumik ilagijaat amigainningit Iqalukpik amihuuningit Iqaluktuuttiaq nunangani iluani, anguniaraaqhimalutik hapummiqattaqhimalutik maligautaanit atuqhimainnarlugit PA havaarijaujuq.
Avatiqaqatigiingniq	
Hapummilugit angujangit uumajuit uvuuna ihuaqpiaqtumik iqalukhiuqtunut munaqhainingit.	• Ihuaqhimalugit nalaumajangit iniqpiaqhimajut uqaqtauhimajut angujait ihuaqtumik kangiqhittiariami uumajuit ilagijaujut unalu munaqhainingit.
Avvautihimalugit Munarjuarningit	
Ikajuinnaqhimalugit havaqatigiingnirnut, ilauqatigiingnirnut ihumaliuraangat, avvautihimalugillu auladjutingit ukunanngat avatingnit atuqattaqtut, munaqtiuqatigiiktunut timingat unalu aallat ikajuqhimajut ilauhimajullu.	• Aulapkailugit kinguani-hilaqutitigut iqalukhiuqtunut katimajut unalu IFMP Havaqatigiiktunut Ilagijaujut katimajut ukiumi atuqtangit. • Ilagiinnaqhimmaarlugit nunamiuqatigiikunut ilauqatauhimajut uvani munariqatauhimajunut hulijakhait tamainnut hailijaugaangat. • Ikajuinnarlugit auladjutikhangit haffumani maniliurahuaqtunut iqalukhiuqtit munarigiami qanilrukkut unalu uqaqhimalugit, laisikhaitigut maliktangit. • Hukahimalugit manngit ikajuutikhangit munarigiami qanilrukkur ilihautikhangit haffumani maniliurahuaqtunut, hulilukaarvikhanut unalu niqikhaqhiuqtunut iqalukhiurningit.
Inungnut, Pitquhirnigut unalu Havaakhanut	
Ikajuqhimalugit havaktittinahuarniq	• Ikajurlugit inikhautikhangit ihuaqhinahuarlugillu nunalimiunut

Aturaaqtakhat-hivitunia Hivunigijakhaat	**Naittumik-hivitunia Hivunigijakhaat**
aulattinnaqtumik unalu inmikkut-nakuuqpiarijamingit iqalukhiurniq kigligutaa puqtuhijumik nakuuqpiaqtumik angiklijuumminaqtumik inungnut unalu havaakhanut ikajuqpiaqtangit, pidjarikhinahuarlugillu amihuuningit aanniaqtailinahuarlugit amihuuningillu hivunikhanut aturaaqtakhangit.	piliriakhaat unalu havaktittinirnut inikhautikhangit. • Ikajurahuarlugit parnaijautikhangit angiklinahuariami tikinnaqtumik maniliurahuaqtunut auladjutikhangit amihunut ungahitqijaujut kuukkait aahiillu iqalukhiurvingit najugait. • Munarilgut hapummilugillu nunamiujut pitquhingillu iqalukhiuqtunut hulijakhait nunaillu. • Ikajuinnarlugit havaqatigiiktunut tamainnut munariqatigiiktunut timiujut ilagiinnaqtangit ukunanngat havaakhaliurniq pivallianikhaq tamainnut Nunauvnmi.
Malittiarniq	
Ikajuinnarlugu malittiarlugit maligautingit, maliguarutit, unalu munarijaujut maligautaa tikinnahuarlugit hapummijakhat aturaaqtakhangillu atuqtut.	• Pidjarikhilugit maniliurahuaqtunut laisikhaat maligautaa nutaannguqhimajut qautamaat, tautukhimalugillu atuqattaqtakhanut munaqhainingit haffumani iqalukhiurnirnut. • Ikajuinnarlugit malittiarniq uvuuna ilihautiniq unalu avvautigiinnarlugu munarjuaqatigiiktut. Havaqatigittiarlugillu nunamiunit nunallaamilu uumajuliqijit havaktit. • Ikajuinnarlugit malittiarniq qanilrukkut munariqattarlugit unalu qunnianginnarlugit piksaliurnigut hulidjuhiit, angiklijuummirlugillu tautukhimainnaqtangit nunalingni.

6 Atuqtittinuq unalu Avguiningit

Maniliurahuaqtut avguiningit auladjutaujut tamainnut imat, turaaqhimajut uvani Parnaijaut V haffumani *NWT Iqalukhiurnirnut Maliguarutit.* Tamaat imait akihautiqaqtut avguiniq; imaatuttauq, tamaat iqalukhiuqtit laisikhautigut maniliurahuaqtut iqalukhiulaaqtut
Angiqtauhimajunmi imarmi iqalukhiurnaqtuq kihimi atauttimuunganut avguinikhanut imarmi. Avaliqanngittut avguiningit qaffiuningit ilagijaujut ukunanngat maniliurahuaqtunut iqalukhiuqtunut. Una maniliurahuaqtunut iqalukhiurnirnut

angmaumajuktuq ukiunnguraangat uvuuna Aallatqiingujunut Maliktangit, unalu umikpakhunilu Nalunaitkutalik Umikhimajuq avguiningit tikittaraangat. Maniliurahuaqtunut iqalukhiuqtut laisikhat titiraqtaujut iqalukhiuqtit malikhaugit Ilangani 7 haffumani *Iqalukhiurnirnut Maligaq*.

Kinguani ilagijaungmat haffumani Paalliq (Lauchlan Kuugaq) uvani 2018, hivumuurutigijaat naiglivlugit qaffiuningit turaaqtaujuq qaffiuningit uvunga Iqaluktuuq unalu Jayko Kuukkat havaarivlugit angiklijuummiqhugu nunamunngaqtittijut anguhimajainnit niriugijaujuq uvanngat Paalliq (Lauchlan Kuugaq). Tahapkuat hivunigijaat naiglijauvlutik qaffiuningit aadjigiinngittut ukiungani maliinnaqhugit havaatigut uvani iqalukhiurvingnit aulattittijut tamatkiumangit inikhautiningit ublumimut atauttimuuqtumik qaffiuningit tutquumavikhangit inikhaqannginnamik angiqtaujumik amigaittumik Iqalukpingnut. Naiglijauhimajut hivumuurutingit qaffiuningit atuinnaqhugu uvunga ukiakhami iqalukhiuqtunut, ihuaqhinahuarlugit nakiruutikhangit haffumani upinngaami-ukiakhamilu anguniaqtangit kivgautijangit, ilagilugulu pivigilaaqtangit iqalukhiuqtit unalu puptalaaqtumik tingmiat aullarumik Jaykomit qilamik, hikutinnagu hilarluktinnagulu taimaa qajagijauvakkamik kinguani Apitilirvingmi.

Nalunaitkutaq 3 takunnaqtuq tadja maligautigut qaffiuningit haffumani maniliurahuaqtunut iqalukhiuqtunut tamarmik avatainnaagut uqumaidjuhigut kilukulaatigut (una nalaumaqpiangit naujangit ilitturningit qaffiuningillu malikhimajangit qaffiuningit avguiniagut, turaaqhimajaujuq uvani Parnaijaunmi V) unalu iliuttuq uqumaidjuhianut uqumaidjuhingit (ilitturningit iluittumiglu aktilaanganit atuqtauvaktut titiraqhugit angujangit). Uuktuutiniagut kititiqhimajangit tukiliuqhimajuq uvani Ilangani 7.3. Qaffiuningit unalu angujangit haffumani maniliurahuaqtunut iqalukhiurnirnut qanilruani aippaanganit takukhaujut uvani Iluani B mi. Uvani qanilruanit aippaanganit Qitirmiut Niqiqarvik Timingat ilagijaat hivunikhaanut qaffiuningit tautungnaqtut niqiqarvingat inikhaat.

Nalunaitkutaq 3. Maligautigut qaffiuningit Iqaluktuuttiaq Iqalukpik iqalukhiuqtunut.

Najugaat	**Maligautigut Qaffiuningit** *(Kg, Iliuttut Uqumaidjuhia)*	**Ihuaqhiriiqhimajut Maligautigut Qaffiuningit** *(Lbs, Tiataaqhimajut Uqumaidjuhia)*
Iqaluktuuq (Ekalluk) Kuugaq	20,000	36,744
Halugvik (Thirty-Mile) Kuugaq	5,000	9,186
Jayko (Jayco) Kuugaq	17,000	31,232
Paallirjuaq (Surrey) Kuugaq	9,100	16,718
Paalliq (Lauchlan) Kuugaq	9,100	16,718
Tamatkiqtaat	**60,200 Kgs.**	**110,598 Lbs.**

Atauttimuuqtut		

7 Auladjutingit Maligaat haffumani Havaktauvlutik Upalungaijautingit

Auladjutingit maligaat tukiqaqtuq munarilluaqtangit uuminngaluuniit malikhimajangit maliktaat iqalukhiurnirnut, ilagijaujut amihuuningit hapummijaujut aturaaqtakhangillu auladjutiningit maliktangit. Auladjutingit maliktangit haffumani Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiurnignit ilagijaujut munarijaat ilagivlugit qaffiuningit, angmaumaningit unalu nalunaitkutingit nutqaqhimajut haffumani iqalukhiuqtunut; laisikhaanit unalu malikhimajakhaat laisikhaat, ilagijangit uqaqtakhanut kiuvikhangit angujangit, iqqaqhimajangit, imarmiuttat anngutikhangit ilagijaujut nalvaaqtangillu/tammaijangit ingilrutingit uvuuna atuqhugit maniliurahuaqtunut uqaqtakhaat titiraqhimajut makpiraanmi. Tahapkuat malikhimajangit kigliutijangit uvanngat *Iqalukhiurnirnut Maligaq* unalu maliguarutit, una Nunavut Angirutaat NA, Iqaluliqijirjuat DFO atuagait, unalu malikhimajangit angiriiqhimajaat uvanngat IFMP Havaqatigiikhimajut Ilagijaat, ikajuqtauvlutik haffumani aturaaqtakhangit auladjutigijangit. Ilagijaujurlu, tahapkuat malikhimajangit munarijauvlutik avvautihimajangit munarirjuarningit ihuaqhiriiqhimajut nakuuqpiaqtumiglu malittiaqtangit inikhalik haffumani Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiuqtunut (takulugu Ilainnaa 8). Iluaniittumi C takunnaqtuq tamatkiumajangit haffumani auladjutiningit malikhimajangit tadja inikhautaujuq.

7.1 Laisikhaatigut haffumani Maniliurahuaqtunut Iqalukhiuqtut Hulidjuhiit

Maniliurahuaqtunut iqalukhiuqtunut laisikhaat titirariiqhimajut ukiunnguraangat malikhugit ukunanngat Ilainnaa 7 haffumani *Iqalukhiurnirnut Maligaq.* Ilainnaa 5(1) haffumani *NWT Iqalukhiurnirnut Maliguarutit* kinguani ilittuqhimajaat tamaita iqalukhiuqtut hulidjuhiit pijukhautaujut aulattittinirnut laisikhaanit. Ilagilugulu ilaliutauhimajut turaaqtauhimajuq iluani *Iqalukhiurnirnut (Tamainnut) Maliguarutit* unalu *NWT Iqalukhiurnirnut Maliguarutit*, naunaittiaqhimajut auladjutinigut maliktangit tukittaaqhimajuq iluani maniliurahuaqtunut laisikhaanut.

7.2 Qaffiuningit

Tamaat imat akiharnaqtumik avguiniqaqtut. Hamna akihautigijangit avguiniq tikitkumiuk imarmi, anguniaraaqtakhaunngittut haffumani Iqalukpik pijakhaunngittut maniliurahuaqtut hulidjutikhait piffaaqtakhaunngittut iqalukhiurvinut ikaarutingit (Qiqailruq 31). Imat umikhimajut maniliurahuaqtumik iqalukhiuqtakhaunngittut uvuuna kitunuliqaak kivgautinirnut pinahuarniq haffumani Nalunaitkutaq Umiktauhimajuq ukunanngat Iqalukhiurnirnut Havakti maliinnarlugu Ilainnaa 19(2) haffumani *NWT Iqalukhiurnirnut Maliguarutit*. Una ilagijaat titiraqtauhimajut tamarmik uvunga EHTO unalu Qitimriut Niqiqarvik Timigutaa nalunaiqhiijakhaat nanminingillu najurvingit.

7.3 Munaqtiuningit unalu Unipkaaqtakhaat

Maniliurahuaqtunut iqalukhiuqtit munarijakhaat unipkaaqtakhaat nunamunngaqtaugumik, una ilagijaujuq ukunanngat *Iqalukhiurnirnut (Tamainnut) Maliguarutit* unalu *NWT Iqalukhiurnirnut Maliguarutit* una tiliuqhimajuq iluani munaqhiijangit maligautaat haffumani upalungaijaut. Ikajuqtauvlutik maligautaa, titiraqhimajakhaat nalunaijaijut makpiraanmi angmaumajut uvanngat EHTO, GN Annguhiqijit Havagvia, uuminngaluuniit Qitirmiut Niqiqarvik Timigutaa. Iniqpiaqhimalugit naunaijaijut titiraqhimajaat makpiraanmi hamna nutaannguqtiqtaujut malikhugit laisikhaanit, unalu aulapkaijakhaat haffumani maniliurahuaqtunut iqalukhiuqtit. Maniliurahuaqtunut iqalukhiuqtit kiuqattaqtakhaat atuinnarlugit nalunaijaijut makpiraanmi nipiliurlugit tamaat maniliurahuaqtangit angujangit, iqalukhiuqtunut hulidjuhingit, Iqalukpik iqqaqtauhimajangillu pihimajangit niqikhamaat, ikhinnaqtauhimajut ingilrutingit uqaqtaujukhat, tarjurmiut tingmiat unalu imarmiujut huraat hulivangniagut, unalu tamaita iqaluk anguhimajangit havakhutik maniliurahuaqtunut iqalukhiurnirnut. Nalunaijaijut titiraqhimajangit makpiraanmi tunijaujukhat uvunga una nunamiuqatigiiktunut uumajuliqiji havagviat uvungaluuniit iqaluqarvik utittillugulu uvunga Iqaluliqijirjuakkut DFO inirutaanit iqalukhiuqtunut.

Ikajuqhimagiami anguniarluaqtut uqaqtauhimajut unalu qaffiuningit avguiniq munarijangit, ubluq tamaat nipiliuqtakhaat anguhimajangit tamainnut maniliurahuaqtunut imarmi pihimajaat ukunanngat Qitirmiut Niqiqarvik Timigutaa unalu uqaqtauvaktut ubluq tamaat uvunga DFO. Unipkaangit angiqtauvaktut qautamaat iqalukhiuliraangat hilaqutitigut, kititiqtauvakhutik angihimajainnit tamainnut imarmi nalunaijaivakhutik naunaijariangani maniliurahuaqtunut avguiningit. Havakhimajangit titiraqtauvakhutik naunairiaqaqtut atuqhugit nalunaijaijut makpiraanmi nalunaitkutaq nunguani hilaqutitigut. Ihuigijauningit turaaqtauhimajut uvani nunguani-hilaqutitigut qimilrurningit.

Aturnaqtumi avguiningit munaqtaujut kiugiaqaqtangit tukhiutijangit uuktuutigijaangani mikhaagut. Anguhimajangit nipiliuqtaujut titiraqhugit uqumaidjutitigut (lbs nut) tiahimajut uqumaidjuhia, humiliqaak avguiningit titiraqtauhimajut imaatut kilukulaatigut (Kg) iluittut uqumaidjuhia. Uqumaidjuhiatigut atuqtangit hamanujuq 1.2 titiraqhimajaujuq avvautigivlugit hapkuat tiahimajunit uqumaidjuhigut iluittumiglu uqumaidjuhitut. Titirariiqhimajut avvautiniagut hamnaujuq 0.45359237 atiliuqhimajut avvautaugumi uqumaidjutitigut uvunga kilukulaatigut. Iluittut uqumaidjuhia kilukulaatigut kangiqhidjuhia kititiqtautinnagu atuqhugit avigiirningit:

Avataatigut Uqumaidjuhia Kg = (Tiahimajut Uqumaidjuhia lbs. x 1.2) x (0.45359237)

Haffuminngatut munarijaujut qanilrukkut unalu titiraqtaujut piliriangit takukhaujut uvani Ilulingit B. Avguiningit qanilrukkut munarijaat avvautigijangillu unipkaanga (Naahaut 4) havaktaujut kigligutaanit ubluq tamaat unipkaagutaat titirariiqhimaningit nainaaqhimajut (Naahaut 5) unalu ubluq tamaat agjaqtaugaangat unipkaagutaanit (Naahaut 6).

7.4 Ilagijaujut Laisikhangit Qanurilinganingit

Uvani ilagijaujut tadja laisikhanut qanurilinganingit, maligautingit, unalu munaqtiunikhanut unalu unipkaaqtakhaat kiuvikhangit, ilagijaujut qanurilinganingit aulattittihimajangit iluani iqalukhiurnirnut ihuaqhihimagiangani iqalukhiuqtit, nalunaijainingit kititiqhimajangit akhuurningit, unalu ihuaqtumik aturaaqtakhangit munaqtiunikhanut haffumani iqalukhiurnirnut tamainnut.

7.4.1 Una avvautingit nalunaiqtauhimajut uvani laisikhanut atauttimuuqtut avguiningit haffumani akiharnaqtumik maniliurahuaqtunut avguiningit ilittuqtauhimajut imanganit. Iqalukhiuqtunut hulijakhangit nutqaqtukhaq kinguani avvautingit naahimagumiuk. DFO nalunaiqhimaniaqtangit avatikhanut atuqtittijut hamna umigumik haffumani iqalukhiurnirnut ukunanngat ilitarijaujunut nalunaitkutaq.

> 1.1 Iqalukhiuqtunut hulijakhangit nutqariaqaqtut qilamik naahimagumiuk avguiningit.

7.4.2. Maniliurahuaqtut titiraqhimajaat nalunaijaijut titiraqhimajakhaat ihuaqpiaqtumik, iniqpiaqhimalugillu, unalu taigurnaqtut qautamaat kuvjat ihivriuqtaugaangat uuminngaluuniit haputit imairaangata. Tamaat uumajuit angujaujut, munarihimajangit iqqaqhimajangillu titiraqtauhimajukhat, ilagijaujurlu anguhimajangit uumajuit, unalu qujaginnaq tarjurmiuttat tingmiat unalu tarjurmiuttat huraat ilagijauvaktut.

7.4.3. Ikajuqtauhimajut haffumani Ikhinnaqtauhimajut Ingilrutit Iqalukhiurnigut Inikhautikhangit (takulugu ilangani 1.6.4), laisikhangit tigumiaqtit kiugiaqaqtangit unipkaaqhimajakhaat tammaqtauhimajut kukiktauhimajulluuniit kuvjat uvunga DFO qaritaujakuurrvigilugit uvunga:
DFO.CALostandRetrievedGear-EnginsPerdusRecupCA.MPO@dfo-mpo.gc.ca. Kinguani Ikhinnaqtauhimajut Iqalukhiuqtunut Ingilrutingit Inikhautikhangit, ingilrutikhat nalunaitkutait pilimmakhaqtaujut uvani maniliurahuaqtunut iqalukhiurnirnut, ikajuqtauhimajut ukunanngat uuktukkaffuktut havaaq hivuliqtigijangit ukunanngat DFO ikajuqtauvlutik ukunanngat Anguniaqtit HTO unalu nunamiuqatigiiktunut Hapummijunut Havaktit.

Nalaumattiaqtumik ingilrutikhat nalunaitkutat ilahimajaat uvunga maniliurahuaqtunut mahikkut kuvjangit ukunanngat Iqaluliqijinut Havakti uuminngaluuniit tikkuaqtunut nunamiujunut Annguhiqijit Havakti iqalukhiurnahuaqtinnatik atuqhimalugillu alilaittumik qiliirutikhaq. Ingilrutit nalunaitkutait munarittiaqhimajakhaat iliuraqtakhaat uvunga mahikkut kuvjat qautamaat hamna kuvjaq atuqtauhimakpat maniliurahuaqtunut iqalukhiurnirnut hivunikhaat. Tammaqhimagumik nalunaitkutat unqaqtaujukhaujut uvunga Lostgear-enginsperdus@dfo-mpo.gc.ca hivajarlugilluuniit akiittukkut uvunga 1-800-465-4336 unalu titirariaqaqtut (iluani ilittuqhaijut makpiraaq).

8 Avvautijangit Munarilluaqtangit Ihuaqhihimajangit

Una IFMP haffumani Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiurnirnut aulapkaihimajangit pivalliahimajangillu ukunanngat Iqaluktuuttiaq Iqalukpik Havaqatigiiktunut Ilagijaujut uvani 2010 mi. Ilauqatauhimajut haffumani Havaqatigiiktunut Ilagijaujut ilagijaat kivgaqtuihimajangit uvanngat EHTO (Ikhivautaqatigiiktunut), Qitirmiut Niqiqarvinga Timiqutingit, maniliurahuaqtunut iqalukhiuqtit, nunalingni inutuqait, Avatiliqijit Havagviat – Iqalukhiurnirnut unalu Nattirnut Avvautingit, unalu DFO. Inulrammiit uvanngat nunamiuqatigiiktunut angajukhiit iliharvik akhuuquijut upainnaqhimalutik ilauqataulutiglu ikhivajunut ilauqatigiiktunut haffumani Havaqatigiiktunut Ilagijaujut.

Una titiraqhimajut ikajuutigijangit uvanngat NWMB tunijauhimajut ukunanngat Havaqatigiiktunut Ilagijaujut uvani 2011 mi pijumajaulluaqtangit ikajuutikhangit inikhautikhangit haffumani Havaqatigiiktunut Ilagijaujut unalu pivallianikhanut haffumani munaqtiunirnut upalungaijaut. Katimajukhat katimahimajut Iqaluktuuttiami atauhiiqhutik ukiungani uvani 2010 mi. Tamaita katimajut ilaqatauvakhutik nunalingni katimadjutikhangit nalvaarahuaqhutik nunalingnit tautukhimajangit malikhugit Iqalukpik munaqhiijangit akihautingit, hivunikhautikhangit, munaqhiijangit maligautaat unalu qaujiharnirnut qaujiharniq.
Una tallimanit five (5) ukiunganit qimilrurningit haffumani IFMP havaktauhimajut uvani 2019/2020 unalu titiqqangit kigligutaanit nutaannguqtiqtuniglu numigutaat haffumani IFMP.

Amihuujut aallatqiingujut inikhautikhangit hamna hivunigijakhaat haffumani iqalukhiurnirnut tikihimalaaqtangit. Tadja munarijaat maligautingit nalunaiqtaujut uvani Ilaliutaanit C. Aallat maligautingit aulapkaihimalaaqtut ukunanngat munaqtiuqatigiiktunut timinganit, ukunanngat IFMP Havaqatigiiktunut Ilagijaujut, unalu ilaliutijangit iluani ilanganit haffumani IFMP.

8.1 Nakuuqpiaqtumik Munarijakhaanit Maliktangit – Huvaniktittijut

Ikajuqhugu haffumani aturaaqtakhangit-hivitunia aanniaqtailinirnut haffumani hapummijakhaat iqaluliqinirnut mikhaagut, aturluarnaqhunilu naiglinahuariami hup ihumagijaulluaqtangit ihuiluutauhimajut uvunga huvaniktittijut amihuuningit. Taimaa iniqpiaqhimajuq tammaqpalliajut huvaktittijunut ukiakhami majuqtunut ingilrajut kiutquijangit tahapkuat huvaniktittijut ilagijangit haffumani amihuuningit ihuittumik ihuiluutaunngittut ukunanngat maniliurahuaqtunut iqaluliqinikkut. Hamna huvaniktittijut angujaugaangat kuvjanut iqalukhiurniq, unalu uumagaangamik, tamaat huvanikhimajut Iqalukpik utiqtittijakhaat humiliqaak anguhimajaat, taimaa aanniqtailinahuarlugit. Haputimi iqalukhiuraangamik, tamaat huvanikhimajut iqalukpik utiqtittijakhaat aanniqtailihimalutik. Tahapkuat nakuuqpiaqtumik munaqhiiningit tadja malikhimajakhaat uvani maniliurahuaqtunut iqaluliqijunut.

8.2 Nakuupiaqtumik Munaqhiijangit Uuktuutingit- Hapummijaujukhaq Inikhautikhaq

Paalliq (Lauchlan Kuugaq) maniliuqtauhimaittut ananguniaqtakhat uvanngat 2010 uvunga 2017 havaakhaqannginnamik uuktuutikhangit ilagijaujut angmaumajunut maniliurahuaqtunut avguiningit unalu hivitujumik agjaqtuinirnut akikhangit. Atulihaaqhimajut uvani 2018 mi, makaktaujukhaq maniliurahuaqtut avguiningit haffumani Paalliq (Lauchlan Kuugaq) turaaqtauhimajut uvanngat 5,000 kilukulaatigut uqumainningit, ikajuriami ihuaqtumik amihuuningit ihivriurningit unalu havaakhanut uuktuutigijangit. Una maligautingit avguiningit haffumani iqalukhiurningit hamnaujuq 9,100 kilukulaatigut uqumainningit, kihimi nalunaqtuq amihuuningit qaffiuningit kumaruit uumajuit uvani.

8.3 Nakuuqpiaqtumik Munaqhiijangit Uuktuutigijangit – Haputit Aturnaqtut

Una haputit pitquhirijaujut ukpiruhuut Inuit aturaaqhimajaat iqalukhiuqtut nuvuani kuukkait. Haputit pitquhirijangit aktigilluaqhugut tamaat kuukkait taimaa ingilragaangat iqalut katitiqtauvlutik hanaqivlugillu. Haputit atuqtauvagaat niqikhaqhiuliraangata unalu maniliurahuaqtunut kititiqpagaat Iqalukpik uvani Jayko Kuugaq. Atuqhugit haputit taimaa ajuqharnaittut iqalungnut avguiningit qilamik tatatpaktuq, naiglivlugillu pijumanngittangit anguhimajangit, anngutikhanullu nirijumajangit unalu tammarnaittut ingilrutingit. Haputit taimaa iqalukhiuqtinut pijumajainnit pukungnaqhuni kititiqhimajangit iqalut, ajurnaittumik utiqtittilaaqtangit huvaniktunut arnat kuugarnut aanniqtailivlutik; taimaa atuqhimaittut kuvjanik.

9 Angiqatigiikhimajuq Upalungaijaut

Una DFO Hapummijangit unalu Hiamittailiniarniq havaaq ikajuqhimajut angiqatigiikhutik maligautaat, maliguarutit unamu munaqhiinirnut maliktangit pilimmakhaqhutik inirahuaqhutik hapummijakhaat aturaaqattarlutiglu atuqtakhaat Kanata’p imarmiuttat avatingit..

Una piliriakhaq turaaqhimajaujuq ukunanngat DFO Iqaluliqinirnut Havaktit Qitirmiunmi unalu Ukiuqtaqtuq Nunangani ukunanngat nalruujuq maliguarutit munaqhiijangit akhuuqhimajangillu apqutikhangit ilagijaujut hamnaujut:

- Ikajuinnarlugit angiqatitiikhimajut uvuuna ilihautiniq avvautijangillu munaqhaijangit;
- Munarinahuarlugit, maniqhiilugit unalu tautukhimajangit hulijakhangit; unalu
- Munaqhiijangit qimilruutijangit ilagijaujut ajurnaqtumik angiqatigiikhimajut akihautingit.

9.1 Angiqatigiiktut Piliriakhaq Agjaqtuiniq

DFO Iqaluliqiniq Havaktit munarijakhaat angiqatigiikhimajut hulijakhait ilagijaat uvunga Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqaluliqiniq. Iqaluliqiniq Havaktit nautkaihimajut qunniaqtaujukhaq hulajhkangit, ikajuqtauhimajut ukunanngat

Aviktuqhimajumi DFO havaktiit ikajuinnaqtangit uvuuna munaqhiijangit, unipkaarijangit, ilihautiniq unalu avvautijangit munqhiiqattaqtangit.

Iqaluliqiniq Havaktit tikkuaqtakhaat maligautigut Ilangani 5 haffumani *Iqalukhiurnirnut Maligaq* akhuuqhutik hakugingningit munarijakhangillu ilaliutijaat ukunanngat *Iqalukhiurnirnut Maligaq* unalu aahiit Maligaq Maligarjuarnigut, ilagijaattauq Ihuinaarnirgut Maliktakhaq unalu *Hivulliqpaangit Kavamarjuangani Maligaq*. Iqaluliqiniq Havaktit qimilrulaaqtangit ihivriurlugillu havaarijaujumik aulattittijut, iqalukhiurvingit najugaat unalu umiangit angiqatihimajaujut uvanngat *Iqalukhiurnirnut Maligaq* unalu ilagijaujuq maliguarutit, ilagivluniuk Aallatqiingujut Maliktakhat qanurilinganingillu laisingit.

9.2 Katimadjutigijangit

DFO Iqaluliqiniq Havaktit ilauqatauvaktut qimilruutivlugit katimajunit atauttimuuqtunit akihautaat tautungnaqtut kiugiaqaqtangillu iniqhimajakhaanit. Uuminngalu, ilitarijaunngittumik katimajunit huli uvani ihariahugaangata ihuaqhinahuariami iluani – hilaqutitigut hulijakhait. Iqaluliqiniq Havaktit niplautigijangit iqaluliqinirnut hapummivikhangit avvautigijangillu munarittiaquvlugit pulaaraangata Iqaluktuuttiaq ilaqatigiikhugillu nunalingni avatingnut atuqtunut, iqalukhiuqtit havaarijaujullu.

9.3 Angiqatigiingningit Aulapkainiq

Kinguani hilaqutitigut qaujiharningit katimajut nauhimajut qimilruriangani akihautingit katittugit hivuani havaarijaanit kiutquijangillu ihuaqhigiangani munaqhiijangit malikhimajangit.

10 IFMP Aulapkainingit Qimilrurningit

Una IFMP pivalliahimajuq uvuuna katimadjutauvluni piliriakhaq ilagijaujuq avatikhanut atuqtunut, munaqtiuqatigiiktunut timiujut unalu ikajuqtiujut ilauhimajut. Maniliurahuaqtunut iqalukhimajaat Iqalukpik amihuuningit Iqaluktuuttiaq nunangani iluani unalu amihuujunit ukiukhami ihivriurningit huli ihivriuqtauhimmaaqtukhat mamakhimajaat ikajuqtangit qaujiharnirnut kiuvikhangit. Munarijangit iqalukhiurnirnut iniqtukhaq atuqhugit amihunit ingilrutikhangit ilagijaujut ubluq tamaat unipkaariluniuk nunamunngautihijangit iqalut, avguiningit munarijaat, iqalungnut-maliinnaqatangit (iqaluqarvik) ihivriurningit, titiraqattarlugit naunaijaijut makpiraanmi, unalu tautukhimainnarlugit piksaliutimi.

Kinguani hilaqutitigut qimilrurningit havaariniaqtangit qautamaat ukunanngat ikajqutiujut ilauhimajut unalu IFMO Havaqatigiiktut Ilagiit. Havaadjaringningit tikihimajainnit naittumik hivitunia havaarijakhaat ihuarutingillu pilimmakhainirnut munarijangillu malikhimajaat nalunaiqtaulunilu iluani Munaqhiijangit Upalungaijautingit qimilruqtauluni. Kiujakhaujut ihuaqtumik munaqtiuningit haffumani Iqaluktuuttiaq

Iqalukpik maniliurahuaqtunut iqaluliqiniq pivallianahuaqtuangit tikinnahuarlugulu aturaaqtakhait hulijakhaat hapummijaujukhaq iqaluliqiniq.

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Tukiliutingit

Amihuuningit: Naahautingit avaliqanngittut iluani amihuujut uuminngaluuniit amihuuningit.

Ukiuq Havaangit: Qaffiuningit avaliqanngittut aallatqiingujut ukiungit amihuujut uuminngaluuniit angujangit.

Tarjurmiuttat Kuukkanunngaujuktut Iqalut: Tarjurmiuttat kuukkanunngaujuktut uumajuit, iqaluktut, inuuhingit tarjurmiunginnaqtut utiqpakhutik halumajumut imat huvaniliraangat kuugarmiujunit.

Aallatqiit Iqalukhimajut: Ihumagijaunngittut iqalukhimajangit makakhimaittangit uumajuit iqalukhiuraangata aallamik uumajukhiuqtut. Haffuminngatut, iluani IFMP iqalukhiurumajangit Iqalukpik, iqalukhimajut tamaat aallaujut uumajuit.

Nauhimajut uumajunit: atauttimuuqtut uqumaidjuhia tamainnut avaliqanngittut amihuujut amihuuningit.

Iqalukhiurniq: Tukiqaqtuq ukunanngat *Iqaluliqinirnut Maligaq*, iqaluliqinirnut ilagijaujut nunagani, huqpaniittumi, najugaat iqalukhiurvingat iluani qaangani uqumaidjuhia, iqalukhiurut, kuvjaq, haputi, uumingaluuniit aallat iqalukhiurvikhamik atuqpaktut, hannaijaqhimajuq, atuqtangit, humunngaqhimajangit, uuminngaluuniit najurvingit, nunangani, ilangani, tahinia imaup iluani uvanngat iqaluk unguvaqtauhimajuq. Hivunikhautikhangit haffumani IFMP, tamaita ublungani Iqalukpik maniliurahuaqtunut imangit iluani Iqaluktuuttiaq nungani kititiqhimajut kiujauvaktuq “Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiurniq”.

Mahingnut kuvjaq: Iqalukhiuqtut ingilrutik: kuvjaliqijut uqumaidjutiqaqtut ataani puptalaaqtut qulaanit atuqhutik iqalungnigiangat. Mahikkut kuvjat aallatqiinit hitijumik kihaqalingnit tarjurmi nunangat. Hivunigijangit haffumani IFMP, tamaat maniliurnirnut atuqtauvaktut kuvjat naihimajukhat imaatut aktilaangit 139mm (5-½ inch), malikhimajangit ukunanngat *NWT Iqalukhiurnirnut Maliguarutit.*

Anguniaqtut: Angujangit angunahuaqtangit iqalut humik atuqhugit.

Nunamiuhimajut: Qaffiuningit uumajuit anguhimajangit pihimajangillu. Hivunikhautigijangit titiqqaitigut, nunamiuhimajangit turaarviujuq qaffiuningit Iqalukpik pihimajangit maniliurahuaqtunut niuviqtakhaq.

Nalunaitkut Umikhimajuq: Hamna tukiliutiqaqtuq Ilangani 19 haffumani *NWT Iqalukhiurnirnut Maliguarutit*, naunaiqtauhimajuq titirariiqtaujuq uvanngat Iqalukhiurnirnut Havaktinga uuminngaluuniit Aviktuqhimajumi Tukimuaqtittiji-

Atanngujaq uqaqhimajuq hamna naahautingit turaaqhimajaujuq iluani Aallatqiingujut Maliktakhat pivluni, pinahuaqhuniluuniit, tikihimajangit. Naunaitkutaa tunihimajakhaat ilihimajakhait inungnit ihuiluutauhimajut ukunanngat (haffuminngatut, nalunaitkutaq tunijauhimajuq uvunga Ekaluktutiak Anguniaqtit HTO unalu Qitirmiut Niqiqarvik Timinganit kitunuliqaak tautuktakhat).

Nunavut Angirutaat (NA): Una 1993 angirutaat ukunanngat Inuit haffumani Nunavut Nunataarviujuq Nunangani, kivgautijangit uvanngat Tunngavik Timiqutaat Nunavunmi unalu Kuin Pijunnautinga Kanatami.

Nunavut Uumajuliqijit Katimajit (NWMB): Aullaqtilihaaqhimajuq ukunanngat Nunavut Angirutaat NA, timiujuq inungnut kavamangit avvautijangit ihumaliuqatigiiktut aulattittijut ukunanngat Kavamarjuangit.

Amihuuningit: Ilagijaujut inungnit aadjigiiktut uumajuit, nauhimajut ilagijaujut, unalu avvautigijangit uumajuit najuqpaktangit.

Avguiningit: Hivunigijaujut haffumani IFMP, qaffiujut atauttimuuqtut (uvani Kilukulaatigut Avatingnut Uqumaidjuhia) haffumani Iqalukpik maniliurahuaqtut anguniaqtakhaat, turaaqhimajaujut uvani Nakataq V, Havaakhanut V haffumani *NWT Iqalukhiurnirnut Maliguarutit* uuminngaluuniit ilagijaujuq ukunanngat Aallatqiingujut Maligautaat.

Huvanilaaqtut: Arnaujut inirniujut avaliqanngittut.

Amihuuningit: Tukiqaqtuq amihuuningit avaliqanngittut ataujiujuq uumajuit nalvaaqtauhimajut humiliqaak nunangani. Haffuminngatut, ilagijaujut Iqalukpik avvautigijangit aadjikkutaanit ilagiinnaqtut. Imaq hivitujuq amihuuningit atuqtauvaktut ilangani iqalukhiurnirnut munarijaat hivunikhautikhangit Iqaluktuuttiaq maniliurahuaqtunut iqalukhiurnirnut. Munarijakhaanit hivunikhautikhangit, tamaita maniliurahuaqtut imanganit ihumagijaujut avaliqanngittumik munarijaat ilanganit.

Ilitquhingit Avatiqatigiikhimajut Qaujimajangat (TEK): Amigaitpaktut timingat qaujimajangit tunihimajaat ukunanngat akuniraalut pitquhirnirnut turaaqhimajaujut ilaqatigiiktunut uumajuit (ilagijaattauq inut) atauhiuqatigiiktut nunap avatingillu.

Aallatqiingujut Malikhimajanit: Tukiliuqhimajut uvani Ilangani 6(1) haffumani *Iqalukhiurnirnut (Tamainnut) Maliguarutit*, humiliqaak umikhimajaujut ikaarvikhanut, iqalukhiuqtut avguiningit uuminngaluuniit iniqhimaittut aktilaangit uuminngaluuniit uqumaidjuhiat iqaluk ihuaqhihimajaujut ihumavlugit iningani (hamnaujuq imap ilangani) malikhugit Maliguarutit, Aviktuqhimajumi Tukimuaqtittiji-Hivulliujuq imailiulaaqtuq, aallatqiingulaaqtut iniqhimaittumik.

Haputit: Iqalukhiuqtut ingilrutingit: imarmiujut ataaniittut talua ihuaqhiriiqhimajuq uvani V-tut ilitquhiqaqtuq, tukiliuqhimajuq kajumiiqtittilaaqtut ikaaqhimajut iqalut. Itiqhimalaaqtut haniraagut ikaaqhimajut, taimaa iqalut angulaaqtangit haputi iluanut.

Iluani Iqaluktuuttiaq nunangani haputit ilitquhiutauvluni iqalukhiuqtunut qangaraaluk ujararnut hanavlugit. Tadja ublumimut haputit hanaujaujut tuqhualingnit.

Iluliutaa A Pitquhituqangit Maniliurahuaqtunut Iqalukhiuqtut Najugait

Naahaut 3. Nunaujaq Iqaluktuuttiaq nunangani takukhaujuq ilitquhimingnit maniliurahuaqtunut iqalukhiuqtut najugait.

Iluliutaa A Maniliurahuaqtunut avvautingit unalu nunamunngaqtut unipkaaqtaujut

Nalunaitkut 4. Maniliurahuaqtunut Iqalukpit avvautingit unalu nunamunngaqtut iluani Iqaluktuuttiaq nunangani, 2009-2020

	Ekalluktok/ Ekalluk Kuugaq		Paliryuak/ Surrey Kuugaq		Halokvik/ Thirty-Mile Kuugaq		Paalik/ Lauchlan Kuugaq		Jayko/ Jayco Kuuga	
Ukiuq	Avvautingit	Nunamunngaqtut	Avvautingit	Nunamunngaqtut	Avvautingit	Nunamunngaqtut	Avvautingit	Nunamunngaqtut	Avvautingit	Nunam
2009	20,000	12,666	9,100	8,657	5,000	5,219	2,400	NF	17,000	
2010	20,000	20,434	9,100	9,074	5,000	3,317	2,400	2,534	17,000	
2011	20,000	13,636	9,100	11,475	5,000	1,124	2,400	NF	17,000	
2012	20,000	19,038	9,100	8,945	5,000	4,920	2,400	NF	17,000	
2013	20,000	18,548.48	9,100	9,078.01	5,000	4,768.16	2,400	NF	17,000	1
2014	20,000	18,279.37	9,100	9,082.10	5,000	5,010.08	2,400	NF	17,000	1
2015	20,000	16,929.78	9,100	6,823.75	5,000	4,159.62	2,400	NF	17,000	
2016	20,000	20,011.32	9,100	5,739.49	5,000	4,212.42	2,400	NF	17,000	
2017	20,000	20,000.97	9,100	8,990.11	5,000	4,888.46	2,400	NF	17,000	1
2018	20,000	16,569.64	9,100	8,791.71	5,000	4,997.05	9,100	3,917.13	17,000	1
2019	20,000	16,698.91	9,100	8,883.97	5,000	4,971.74	9,100	5,061.27	17,000	1
2020	20,000	14,496.63	9,100	7,826.65	5,000	4,917.58	9,100	NF	17,000	1

Avvautingit nunamunngaqtullu akikhangit unipkaaqtaujut Kilukulaatigut uqumaidjutaanut, Tamatkiqtangit Uqumaidjuhiq.
NF = Iqalukhiuqhimaittuq.

Iniqhimajuq ilitquhiita (1960 – 2009) avvautingit anguniaqtangit Iqaluktuuttiaq Iqalukpik maniliurahuaqtunut iqalukhiurniq ilagijaujut uvanngat Day unalu Harris (2013).

Naahautaa 4. Ilitquhiqtut haffumani avguiningit munaqhiijangit unalu ihuaqhaihimajangit unipkaangit (2020)

Site	2020 Commercial Quota - Round		2020 Targeted Harvest		2020 Commercial Quota - Dressed Weight (conversion		2020 Targeted Harvest - Dressed Weight		Kitikmeot Foods Reported Harvest (original reporting in			Kitikmeot Foods Harvest (converted to Round Weight)		Quota (Round Weight) Remaining		Percentag e
	KG	LB	KG	LB	KG	LB	KG	LB	KG	LB		KG	LB	KG	LB	
Lauchlan (Byron Ba	9,100	20,062	0	0	7,583	16,718	0	-	0.00	-		0.00	0.00	0.00	20,062.04	#DIV/0!
Ekalluk	20,000	44,092	17,418	38,400	16,667	36,744	14,515	32,000	12,080.53	26,633.00		14,496.63	31,959.60	2,921.37	12,132.80	83.2%
Halovik (30 Mile)	5,000	11,023	4,899	10,800	4,167	9,186	4,083	9,000	4,097.98	9,034.50		4,917.58	10,841.40	-18.58	181.70	100.4%
Jayco	17,000	37,479	13,063	28,799	14,167	31,232	10,886	23,999	9,278.01	20,454.50		11,133.61	24,545.40	1,929.39	12,933.14	85.2%
Paliryuak (Surrey)	9,100	20,062	8,709	19,200	7,583	16,718	7,258	16,000	6,522.20	14,379.00		7,826.65	17,254.80	882.35	2,807.24	89.9%
TOTAL	60,200	132,718	44,089	97,199	50,167	110,598	36,741	81,000	31,978.72	70,501.00		38,374.46	84,601.20	5,714.54	28,054.88	87.0%
					Reflects a round weight to dressed weight (gutted, head on) conversion in kilograms - Standard conversion for Cambridge Bay	Reflects a round weight to dressed weight (gutted, head on) conversion in pounds - Standard conversion for			Harvest converted to kilograms, Dressed Weight (gutted, head on) - this column can be compared	Original harvests from Kitikmeot Foods are reported in Lbs, Dressed Weight (gutted, head on) - this column can be compared to Column E (quota) THIS IS THE ONLY COLUMN YOU NEED TO ENTER DATA IN - all other data is automatically calculated from this.		Harvest converted to kilograms, Round Weight (gutted, head on) - this column is compared to Column B to	Original harvests from Kitikmeot Foods in Lbs, converted to Round Weight - this column is compared to Column C to determine	A negative (-) value (displayed in red) indicates an over-harvest of the quota	A negative (-) value (displayed in red) indicates an over-harvest of the quota	
	This column reflects what is actually issued on a Variation Order		Kitikmeot Foods has advised that Ekalluk and Jayko targeted harvest is reduced by 5000 and 8000 lbs respectively to offset the increased landings expected from harvesting at Lauchlan. The fish plant operates at			This column can be used by Kitikmeot Foods for tracking of the annual quota (since it reports harvests in dressed				This column reflects what is actually reported by Kitikmeot Foods			This column reflects the dressed to round weight conversion of what is actually reported by Kitikmeot Foods (Column H)			

Nanminirijangit titiqqat uvaniittut qaritaujami Excel spreadsheet, nutaannguqtiqattaqhutik qautamaat Ubluq Nalunaijaigaangat nainaaqhimajuq Titiqqanmi (takulugu Naahautaa 5 ataani)

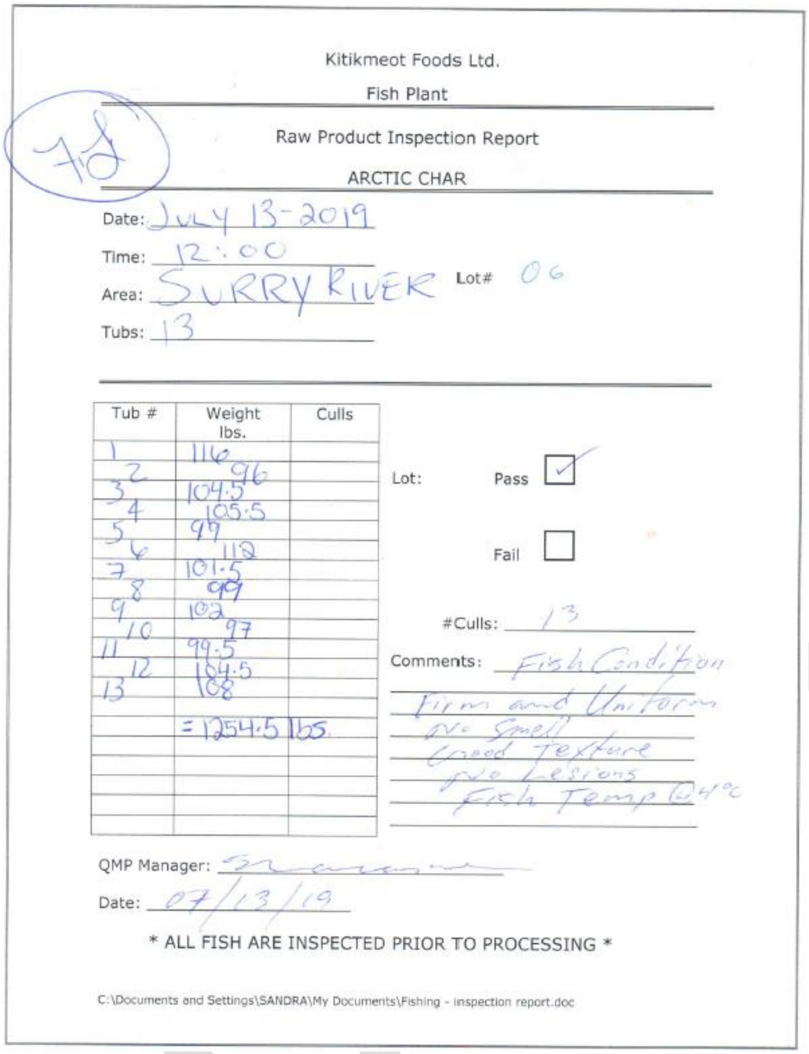
Naahautaa 5. Ilitquhiatigut ubluq tamaat titiraqhimainnaqtangit havaangit uvani 2019

Date	Time	Lot#	Tub#	Dressed Weight (lbs)	Round Weight (Kg)	Trip Total	per Tub per Trip (Lbs)	Culls (#)	Comments
10-Jul-19	18:35	1	1	102.5	55.79				
10-Jul-19	18:35	1	2	110.5	60.15				
10-Jul-19	18:35	1	3	99.0	53.89				
10-Jul-19	18:35	1	4	102.0	55.52				
10-Jul-19	18:35	1	5	97.5	53.07				
10-Jul-19	18:35	1	6	98.5	53.61				
10-Jul-19	18:35	1	7	97.0	52.80				
10-Jul-19	18:35	1	8	81.0	44.09				
10-Jul-19	18:35	1	9	98.5	53.61				
10-Jul-19	18:35	1	10	96	52.25	982.50	98.25	10	Fish Condition: firm and uniform, no smell, good texture, no lesions, fish temp @ 3C.
11-Jul-19	10:15	2	1	100.0	54.43				
11-Jul-19	10:15	2	2	95.5	51.98				
11-Jul-19	10:15	2	3	89.0	48.44				
11-Jul-19	10:15	2	4	120.0	65.32				
11-Jul-19	10:15	2	5	107.0	58.24				
11-Jul-19	10:15	2	6	120.0	65.32				
11-Jul-19	10:15	2	7	96.5	52.53				
11-Jul-19	10:15	2	8	106.5	57.97	834.50	104.31	8	Fish Condition: firm and uniform, no smell, good texture, no lesions, fish temp @ 3C.
12-Jul-19	13:45	5	1	108.5	59.06				
12-Jul-19	13:45	5	2	103.5	56.34				
12-Jul-19	13:45	5	3	100	54.43				
12-Jul-19	13:45	5	4	100.5	54.70				
12-Jul-19	13:45	5	5	98.5	53.61				
12-Jul-19	13:45	5	6	94.5	51.44				
12-Jul-19	13:45	5	7	98.5	53.61				
12-Jul-19	13:45	5	8	102.0	55.52				
12-Jul-19	13:45	5	9	110.5	60.15				

Site:	Surrey River
Fishing Period:	7/10/2019 - 7/21/2019
Average Weight per Tub:	102.60
Average Weight per Trip:	1,088.10
Total Trips:	15
Total Culls:	159
Quota (Dressed Wt LB):	16,718
Targeted Quota (Dressed Wt LB):	16,718
Total Harvest (Dr Wt LB):	16,321.50
Remaining Quota (Dr Wt LB):	396.89
Remaining Trips (estimate):	0.364753438
Quota (Rd Wt KG):	9,100
Targeted Harvest (Rd Wt KG)	9,100
Harvest to date (Rd Wt KG):	8,883.97
Remaining Quota (Rd Wt KG)	216.03
Percent Landed to date:	97.6%

Nanminirijangit titiqqat uvaniittut qaritaujami Excel spreadsheet, nutaannguqtiqattaqhutik qautamaat Ubluq Nalunaijaigaangat nainaaqhimajuq Titiqqanmi (takulugu Naahaut 6 ataani)

Naahaut 6. Ilitquhiatut ubluq tamaat agjaqattaqtunut titiqqangit iniqhimajaat ukunanngat Kitikmeot Foods Ltd (2019).



Kitikmeot Foods Ltd.

Fish Plant

Raw Product Inspection Report

ARCTIC CHAR

Date: July 13-2019

Time: 12:00

Area: Surry River Lot# 06

Tubs: 13

Tub #	Weight lbs.	Culls
1	116	
2	96	
3	104.5	
4	105.5	
5	99	
6	112	
7	101.5	
8	99	
9	102	
10	97	
11	99.5	
12	104.5	
13	108	
	=1254.5 lbs.	

Lot: Pass ☑ Fail ☐

#Culls: 13

Comments: Fish Condition Firm and Uniform No Smell Good Texture No Lesions Fish Temp @4°C

QMP Manager: [signature]

Date: 07/13/19

* ALL FISH ARE INSPECTED PRIOR TO PROCESSING *

C:\Documents and Settings\SANDRA\My Documents\Fishing - inspection report.doc

Nalunaitkutaq: nunamunngaqhimajut unipkaaqhimajangit uvanngat Uqumaidjuhiatigut, Iluittukkut Uqumaidjuhia. Uqumaidjuhiat ihuaqhijaujut atiliuqhimajut uvani Naahautaanit 4 unalu 5.

Tadja atuqhimajangit munaqtiunirnut uuktuutingit

Munaqtiunirnut Uuktuut	Tukiliutaa
Najugait	• Maniliurahuaqtunut imarmiujut turaaqhimajaujut uvani NWT Maliguarutaanit. • Imarmiuttat angmaumajut ukiunnguraanit Aallatqiingujut Maliktangit

Munaqtiunirnut Uuktuut	**Tukiliutaa**
Avguiningit	• Turaaqhimajut uvani NWT Maliguarutimi tamainnut maniliurahuaqtunut imarmiujut. • Tamaat imarmiujut akiharnaqtumik avguinilgit. Avaliqanngittuq avguinikhanut ilagijaujut ukunanngat maniliurahuaqtunut iqalukhiurnirnut.
Laisiata	• Kiugiaqaqtut maniliurahuaqtut iqalukhiuraangat.
Uumajuit, nunaanit iqalukhimajangit iniqhimaittut	• Uumajuit unalu imarmiujut atiliuqtukhat iqalungnut ilittuqtaugaangat. • Qaffiuningit ilittuqtauhimajut Kilukulaatigut, Avataanit Uqumaidjuhia. • Aallanngurningit pihimajut ilittuqhimajut, aturnaraangat. • Qaffiuningit ilittuqhimajaujut atauttimut akihautingit maniliurahuaqtut qaffiuningit angmaumajut.
Iqalukhiuqtut Hilaqutitigut	• Qitiqqautijuq1 – Qiqailruq 31, ukiunnguraangat.
Naunairutaanut umikhimajuq	• Akiharnaliraangat avguiningit tikihimagaangat, imarmiujut umikhimajut maniliurahuaqtunut iqalukhiuqtut. • Uvuuna inungnut nalunaitkutaq, titiraqhimajut ukunanngat Iqalliqinirnut Havakti.
Iqalukhiuqtut Ingilrutaa	• Mikiniqhautaanit mahiutigut kuvjiqijut aktikkutaa 139mm (5-½ takinia). • Hapunmi aturaangamik, 1/3 hivitunia kuugarmi kuugannuamiluuniit angmaumainnaqtukhaq.
Ikhinnainnarningit	• Laisiqaqtunut unipkaaqhimajukhat tammaijaut kukiktauhimajut kuvjait nalvaaqhimagumigluuniit iqalukhiuqtunut ingilrutikhaq, uvani 24 ikaarnikkut ilittuqhimajunut DFO qaritaujami titiraqhimajut uvani Ilagijaujukhanut Laisinut Qanurilinganingit haffumani maniliurahuaqtunut iqalukhiuqtut laisinut.
Iqqaqhimajangit	• Iqaluk igittukhaujut uvani tarjurminut marluanit. Tahapkuat tikkuariiqhimajut ukunanngat Iqalungnut Havaktit maligautaanit ilangani 56 haffumani Iqalungnut Maligaq.
Ahivaqtauhimajut unala hulugijait	• Tamaat igijauhimajut Iqalukpik, ilagijangillu nanminirijaanit nirihimajangit, titiraqhimajukhat nalunaitkutaq makpiraanmi. • Igijauhimajut iqaluk titiraqhimajukhat nalunaitkutaq makpiraanmi, nalunaiqhimajangit pihimaniaqtangit nanminirijakhait nirijakhait kititiffaaqhimajangillu.
Unipkaaqhimajangit Kiuviniit	• Unipkaaqhimalugit nunamunngaqhimajut kiugiaqaqtangit haffumani maniliurahuaqtut iqalukhiuqtit. • Unipkaaqhimalugit tamaita igijauhimajut unalu iqaqtaujut nalunaitkutaq makpiraanmi. • Unipkaaqhimalugit tamainnut imarmiujut uumajuit ilagijaujut kiuhimajaujut haffuminngatut annauvikhanut anguniaqtut uuminngaluuniit utiqtittijut uumagaluaqhutik; unipkaariaqaqhutik

Munaqtiunirnut Uuktuut	Tukiliutaa
	nalunaitkutaq makpiraanmi. • Maniliurahuaqtunut iqalukhiuqtit nalaumajumik iniqpiaqhimajumiglu titiraqhimajakhaat iqalukhiuqtunut hulijakhainit, ilagilugillu iqaluktut qanurilinganingillu tamainnut mahingnut kuvjiliqijut uuminngaluuniit haputinut nunamunngautijut, titiraqtakhait uvani nalunaitkutaq makpiraanmi. Nalunaijaijut makpiraanmi pivigiinnarialik uvanngat EHTO uvanngaluuniit Kitikmeot Foods Ltd. • Kitikmeot Foods Ltd. Ilaliutijakhaat unipkaaqtut tamainnut aullaqhimajut, ilaliutijangit ublunganit, ikaarningit, najugaat, humiittut qijuqutingit naahautingit, unalu nunamunngaqhimajut qaffiuningit. Auhimajut Ililikhanut Ihivriuqhimajangit Unipkaarutikhat angiqtauhimajuq ilitturvikhaq. Tamainnut aullaaqhimajut unipkaangit kajumiktukkuuqhimajut uuminngaluuniit qaritaujakkuuqhimajut uvunga DFO ublungani aullaqhimajut taimaa.

Iluliutaa A Havaakhaliurniq qaujiharniq Iqaluktuuttiaq Iqalukpik haffumani Iqaluktuuttiaq Maniliurahuaqtunut Iqalukpik Ilagijaujut Iqaluliqinirnut Munaqhiijangit Upalungaijaut

Iqalukhiuqtit Iqaluktuuttiarmi taimaaraaluk ilitarihimaliqtangit aturluaqtauvaktuq Iqalukpik avatikhangit nunangani. Maniliurahuaqtut iqalukhiurnirnut havaktauhimajut ukunanngat nunamiuqatigiiktunut Inuit iqalukhiuqtit ilagivluniuk ukunanngat aulattittinirnut ikajuqtaujut ukunanngat niqiqarvik Kitikmeot Foods Ltd. (KFL), maniliuqhimajut niqiqarviujuq tamarmik Iqalukpik umingmainillu. Qitirmiut niqiqarvik taidjuhia Kitikmeot Foods Ltd., niqiqarviutuangujuq Iqaluktuuttiami, nauhimajuq uvani 1990 mi himmauhiutaujuq uvanngat Nunavut Pivallianikhanut Timiqutait. KFL kivgaqtuijut angiklijuummiqhuni aimavingnit unalu hilarjuarnut iqalungnit niuviqtittijut malikhugit nunallaam atituangit hamna *Truly Wild Arctic Char*™.

Hivitujuq maniliurahuarniq iqalukhiuqtunut najugait Iqaluktuuttiami tadja ilagijaat kuukkait Iqaluktuuq (Ekalluk), Paalliryuaq (Surrey), Halugvik (Thirty-Mile), Paalliq (Lauchlan) unalu Jayko kuugait.

Nunamunngauliqtut unalu Nunamiittut Akikhangit

Uvani 2014/15-2018/19, ilagijaujut atauttimuuqtut haffumani 227,915 kg uqumaidjuhia haffumani Iqalukpik nunamunngaqhimajut Iqaluktuuttiarmi maniliurahuaqtunut iqalukhiurnirnut (Tukiliutaa 5 unalu 7).[2] Kititiffaarnirnut ajuqhautingit, ukiunganit naahautingit atuqhimajut uvani havaatigut qaujihaijut hamnaunngittuq Paalliq (Lauchlan Kuugaq) iqalukhiunnginnamik uvanngat 2010 unalu 2018. Atulihaaqtumi uvani 2018, Paalliq (Lauchlan Kuugaq) iqalukhiurviutaujuq malikhugit naiglihimajunit avguiningit, hamna qaujihaqtauhimainnami naunairvikhainit, ihumaliuqhugit ukunanngat IFMP havaqatihimajangit ilagijaujut ikajuqhugit hapumminahuarlugit inikhautikhangit aturaaqattaqtakhait munarijangit iqalukhiurnirnut. Una nunamunngaqhimajut akikhangit aulapkaihimajuq ukunanngat iqalukhiurnirnut hamnaujuq $1.2 milian taala atauttimut akuniujumi, ukiunganit atuqpagaat haffumani $298,000.[3]

Tukiliutaa 5. Atauttimuuqtut nunamunngaujut avatquumajut 5 ukiukhamut 2014/15-2018/19

	Nunamunngaqtut iqaluktangit (kg)[1] avataanit 5 ukiukhamut akuningit	Ukiukhamut nunamunngaqpagaat (%)[2]
Iqaluktuuq (Ekalluk Kuugaq)	91,791	95
Jayko (Jayco Kuugaq)	69,528	86
Paalliryuaq (Surrey Kuugaq)	39,427	87
Halugvik(Thirty-Mile Kuugaq)	23,268	93
Paalliq (Lauchlan Kuugaq)	3,902	7890 (2 ukiungani avatquttut iqalukhiuqhimajut)
Atauttimuuqtut	**227,915**	**90**

Nanminiat Havaarijaujut

Uvani 2014/15 - 2018/19, una 5-ukiukhamut ilagijaujut niuviqtittijut akingit nauhimajut nunamunngautihimajut hamnaujungnaqhijut $5.9 milian taalaujuq, ukiunganit havaarijauvagaat $1.5 milian taalaujuq. Niuviqpaktangit akingit Iqaluktuuttiaq Iqalukpik hamnauvlutik $25.9/kg (takulugu Tukiliutaa 7 tukingit)[4] ilitturnaqhunilu maniliuqhimajut akingit angiklivalliavluni haffumani 22% uvani 5 ukiungani akunngani havaanut. [5]-Una puqtuhitqijaujut angiklivallianinga titiraqhimajuq niaqua/papirua ahivaqtauhimajuq havaanut uvanngat (35%) malikhugit iluittuq (28%), tiahimajut (19%) ihiqhungnittut haniraat (10%) mikpiliuqhimajullu (4%). Angiklihimajut niuviqtukhat akikhangit ilainaa tukiqaqhuni angiklijuummiqtumik niuvirumalluaqtut; angiklivallianingit kangiqhijaujuq

[4]Uqumaidjuhia niuviqtunut akikhangit kititiqhimajut kigligutaanit avvautainnaatigut niuviqhimajut ilainnaatigut hamnaujut: (i) Tamatkiujut Ilulia: 55% havaarijaujut; (ii) Niaqua, papirua ahivaqtauhimajut: 23%; (iii) Tiahimajut: 10%; (iv) Ihiqhungnittut haniraat: 8%; unalu (v) Mipkuliuqhimajut: 4%. Tukittiaqhimagiami avvautainnaatigut niuviqhimajut ilainnaatigut, takulugu hamna RT & Associates (2001).

niuviqtunut akikhangit angiklijuummiqhuni akikhangit aulattittinirnut (hamnaujut tingmiakkut agjaqhiijut aallat akikhangillu) haffumani iqalukhiurnirnut.

Tukiliutaa 6 KFL Aulattittinirnut Akingit 2014/15 – 2017/18

Akingit Pivikhait osts Items	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**Average**
Tingmiakkut Agjaqtuijut Ilagijangit Akiliakhat					
Akiliakhat	20%	21%	22%	27%	22%
Qulliliqinirnut	25%	25%	25%	24%	25%
Havagviat Aulattittiningit	38%	40%	36%	33%	37%
Iqalut Niuviqtittijut unalu Iqalliqijut	17%	15%	17%	16%	16%
Atauttimuuqtut	**100%**	**100%**	**100%**	**100%**	**100%**
Akingit kilukulaatigut Kg Iqalliqinirnut	$16.6	$22.4	$18.3	$16.1	**$18.3**

Tunngavia: Atuagaq Maniliurahuarnit, DFO Ukiuqtaqtuq Nunangani kititiqhimajut kiglianut nalunaijainirnut ukunanngat Kitikmeot Foods Ltd.

Naunaitkut: KFL aulattittiningit akingit nalunaijainingit haffumani 2018/19 angmaumanngittuq uvani kititiqhutik.

Uvannga 4 ukiunganit akunnganit haffumani 2014/15 – 2017/18 akunnganit, qaffiujut ukiunganit aulattittihimajut akikhangit maniliuqhimajut ukunanngat KFL hamnaujungnaqhijut $800,000. Hamnauvluni, havagviata aulattittinirnut tukihiaqhuniuk akikhangit (37%) malikhugit, qulliliqiniagut (25%), tingmiakkuuqtut akikhangit (20%) unalu akiliakhangit iqalukhiuqtunut iqalliqijunullu (16%).

Qaujiharningit nanihimajangit akikhangit anguniarnirnut Iqalukpik aadjigiinnginnamik uvanngat $2.9 - $3.6 uqumaidjuhianut haffumani maniliurahuaqtunut iqalukhiurvingnit uvanngat 2014/15 – 2017/18 akunnganit. Ilitturnaqhunilu ilangit kuukkait, kihimi atauttimuuqtut akikhait iqalukhiuqtunut puqtuhivallaaqhuni, ilainnaa akikhangit ikitpiaqhuni anginiqhautaanit iqalukhiuqtunut avguiningit puqtuhigamik (haffumani Iqaluktuuq kuugaa). Taimaattauq, puqtuhijumik uuktuutigijangit anguniarnirnut uvaniittuni iqalukhiurvingnit, ikittumik akikhangit agjaqtuinirnut akikhangit unalu KFL Niqiqarvingit ilanganit ikivalliangmat. Qaujiharningit takukhauvluni iqalukhiuqtut Iqalukpik uvanngat maniliurahuaqtunut iqalukhiurvingnit kinguani niqiliuqhimajut niqiqarvingmi tunihigiami hivulliujut niuvirumajunut, ukiunnguraangat aulattittinirnut akikhangit uvanngat $18.0 kilukulaatigut uqumaidjuhia Iqalukpik hanajauhimajut.

Havaktittinirnut

Hamna maniliurahuaqtunut iqalukhiurniq unalu niqiqarvingit havakhaitigut aturluarnaqtuq nunalingni Iqaluktuuttiarmiunut. Iqalukpik iqalukhiurniq ikajuinnaqpagaat nunamiunut havaakhanut nautkaqhugit nanminiqutigullu angiklijuummiqpaktut, ikajuqpakhutik aturaaqtakhat havaktittinirnut ilihautikhangillu hailijaujut nunamiuqatigiiktunut, ikajuqhutik havaakhanut aallatqiinut.

Qitirmiut Niqiqarvik havainnaqhutik ukiuraalungmi unalu havaktittivakhutik nunamiujunut iqalukhiuqtit iqalukhiurnaqhigaangat upinngaami ukiakhamilu iqalukhiurnaqtumi. Iqaluqarvik havaktiqaqhutik 6 havainnaqtunut havaktit, 14 niglu hilaqutitigut havaktiqaqhutik, unalu naahimavaktut 20 nit hilaqutitigut iqalukhiuqtit.

Iluani Iqaluktuuttiaq Iqalukpit iqalukhiurnigut, tamainnit maniliurahuaqtunut iqalukhiurvingit najugait aulapkaihimajut ukunanngat hivuliqti iqalukhiuqti, munarivagaat havaktit aahiittauq ajuitpiaqtunut iqalukhiuqtit. Aktigijaat havaktit aallatqiingujut aallat hulijakhainut, ilagijaujuttauq havagviata najugaat ingilrutingillu atuqpagainit, niriugijaujut aullarutaat (haffuminngatut avguiningit, hilaup, havaup ikaarvingit), angmaumagumiglu qaujimajaujut iqalukhiuqtit. Ilangit iqalukhiuqtit havaaqajuktut amihut iqalukhiurvingnit najugaat. Havaarijangit uvani 2014-18, tukingit aippaagutaanit naahautingit anguniaqtit hamnaujut 10.[6] Amihunit iqaluk anguniaqtit hulijakhaqaqhutik uvani Iqaluktuuq (Ekalluk) Kuugaq, Paalliryuaq (Surrey) unalu Jayko (Jayco) Kuugait, tautukhugit anginiqhaujut avguiningit nunamunngautijangit kiujangillu uuktuutigijangit aulattittinirnut uvani najugainit.[7]

Tunihimajangit unalu Akigutaat

KFL maliinnaqhugit aturaaqattaqtakhat anguniaqtunut haffumani Iqalukpik niqikhait uvani Qitirmiut nunangani Nunavunmi. KFL pivalliavlutik aturluaqtumik ikajuqtaujumajunut parnautikhangit maniliurahuaqtunut niuvirumajut tamainnut Nunavunmi Nunatsiarmilu, hivuraanit Kanata iluaniittullu Amialikan. Qanilruani ilitarijaujut ukunanngat Ocean Wise™, avaliqanngittut ihivriuqhiivlutik una iqalukhiurnirnut kinugani maliinnaqtangit aturaaqattaqtakhat haffumani Iqaluktuuttiaq Iqalukpik iqalukhiurningit.

Una hivulliujut niuviqattaqtunut haffumani Iqaluktuuttiaq maniliurahuaqtunut Iqalukpik ilagijaujut Nunavut unalu NWT mi, tikkuaqhimajaujut niuviqtittijut tamainnut Kanatami unalu Amialikanmilu. Aujami ukiakhamilu anguniaqtunut hilaqutigut, nutaangujut Iqalukpik agjaqtauvaktut uvanngat Edmonton-mit agjaqtaugiami aallanut nunalirjuanut tamainnut Kanatami unalu San Francisco, taikanngat agjaqtauvakhutik puqtuhijumut nirriviit tamainnut Amialikanmi US (haffumanit San Francisco, Boston). Toronto, Ottawa, unalu Montreal tadja hivulliuvaktut Kanatamiunut najurvingnit Iqaluktuuttiaq Iqalukpik hilataanit nunallaanmit.

Ungahikpallaaramik iqalukhiurnirnut, iqalukhiuqtit najuinnaqtut qulvahiktumik tatqiqhiutigut iqalukhiuraaqtut, talvanngat agjaqtauvaktut puptalaaqtumut tingmiannuakkut uvunga KFL niqiliuriami. Niqiqarvik KFL havaktiita iqaluliqivakhutik tiavlugit niqiliuqhugittauq aallatqiitigut iqalugiagaangata pivlutik ukiunganit. Havaarivlugit imaatut hungaijaqhimajut iqalut (nutaangujut/qiqumajut), niaqua/papirua

[6] Naahautaa ihuaqhihimajuq pittailinahuaramik maniliqinirnut amihuujut havaktittijut aallaunngittunut iqalukhiuqti aallatqiinut iqalukhiurvingnit.
[7] Una havaktittijut ilitquhiita niplautigijangit ilanganit hivunigijaanit havaktittijunut nautkaihimajut iqalukhiuqtunut hulijakhainit. Taimaa, kihiani, nalunaiqhimajakhaat hamna maniliurahuaqtut iqalukhiuqtut hulijakhat nautkaqhutik ilangani nalruunngittut naiklivakhutik havaktittijut iluani aallat Nunaqaqaaqhimajunut nanminiqutilingnit maniliuqtunut.

ahivaqtaujut, tiahimajut (mamaqhittiqhugit/aulayuittullu), ihiqhunngittumik tiahimajuq/avguqhimajut, hiirnaqtumik iqalukpik, mikpuliuqhimajangillu (KFL Akingit Titiraqhimajut, 2017/18), titiraqtauhimajut hiniktarvingnut, nirriviit, niqitqittiaqtut niuvirumajunut, niqimik niuvirvingnut, aittuuhikhanut niuvirvingnut, nunamiunullu nirijumavagait niuviqtittivaktut (Consilium Nunavut Inc., 2002). Pitquijangit uvanngat 2011/12 aallatqiingujut maniliuqtut kiuviniit haffumani KFL, atauttimuuqtangit maniliuqhimajut uvanngat Iqalukpik niuviqtittijut hamnaujuq $466,916, haffumani iliuttut (nutaangujuq unalu qiqumajut) maniliuqhimajut haffumani 31%; pidjariktumik tiahimajunillu (30%), mikpiliuqtangit (12%), niaqua/papirua ahivaqtaujut (11%), ihiqhungnittut (7%), aahiittauq niqiliuqhimajangit (10%).

Iqalukpik ihumagijaujuq puqtuhilluaqhimajuq-nakuuqpiaqtumik, kihimi akituvallaaqtut, himmautauvlutik uvanngat Iqaluliqijunut amigaiqtittijut Iqaluk (FishChoice, 2018). Iceland aulattittivagaat iqaluliqijit Iqalukpik uvunga Amialikan U.S., nauhimavagaat 3,260t uvani 2012, humiliqaak Kanata unalu Amialikan US atauttimut nautkaihimajut haniraanit 500t. Nautkaihimavaktut pivakhutik uvani Norway unalu Sweden, kihiani, ahinut niuviqtittijut US nut naittuuvlutik (Eithier, 2014). Tautungnaqhunilu ihariahugluaqtut Iqalukpik uvani US mi avatqulluaqhutik nautkainirnut Iqalukpingnit. Kihiani, ilitturnaqhuni hamna maliinnaqhugu KFL Iqalukpik niuviqtittijut ahiqanngittuq inmikkut iluani niuvirumajunut akihautihimalaaqhugit iqaluliqihimajut Iqalukpik Iqaluillu amigaitpaktut uvani nunangani. Niuvirluarumajut Iqalukpingmi uvani Europe, kihimi nunamiungani nautkaihimajut, iqaluliqivlutik taamna kahakhimalruuqtut taimaa.

Taimaa kiutqujauhimajut uvani ilagijanganit hivunigivlutik haffumani US unalu Kanatamiunut niuvirumajunut, hakugitqijaujut niuvirumajunut pivallialaaqtut Iqalukpik Nunavunmi Nunatsiarmilu (Consilium Nunavut Inc., 2002). Angiklijuummiqhutik akikhangit ilagijaujut haffumani aulattittinirnut, agjaqtuinirnut, unalu himmauhiqattaqtut niqit tamainnut Nunavut nunaliit naiklilaaqhutik havaatigut iniliurutikhait angiklijuummiqtumik niuvirumajut, unalu kiujaulaaqhutik nunamiuttanut unalu pitquhirijainnit niqit hakugitqijaujut niuviqtunut Nunavut iluani.

Nunguani

Tahapkuat ihumaaluutigijangit ihuiluutaujut maniliurahuarnirnut aulattittinirnut unalu ilitturnahuaqtavut haffumani iqalukhiurnirnut. Hivulliqpaangmi, aallannguqtiqattaqhimajut haffumani Kanatamiunit taalangit uvanngat Amialikan US taalangit. Aippaanganianit, qaffiuningit akikhangit haffumani Kanatamiut taalangit ikivallaaqhimajuq avataanit 33% uvanngat Amialikan US taalangit. Aadjigiinnginnamik haffumani naiglihimagamik haffumani Kanatamiunit taalangit uvanngat Amialikan US taalangit angiklijuummiqhunilu ilagijaujut maniliuqhimajainnit uvannga Iqalukpik iqalukhiuqtunut hulidjuhianit ilainnaanit iqalut ahinut agjaqtauhimajut akingillu atuqhugit Amialikan US taalainnut. Tuglirijaangillu, angiklijuummiqhuni akikhat nauhimagiami (haffuminngatut, tingmiakkut agjaqtuijut akingit hanaliugait tunihiniit akikhangillu); unalu kinguani, pijumajaujut ihuaqhinahuaqtangit avguiningit hailijakhangillu iqalut himmauhiqattaqtut iqalukhiuqtunut najugaat angikligiangani uuktuutingit unalu aturnaqtut haffumani iqalukhiurnigut. Maniliurahuaqtut anguniaqtut uvanngat Paalliq (Lauchlan Kuugaq) titiraqtauhimajuq 2010 mi talvanngat iqalukhiuruiqhutik tahamanngat maniliuttiaqhimaittut iqaluqqukitpakkami avguiningit akituvaalliqpakhunilu tingmiakkut agjaqhiliraangat. Uvani 2018 mi, maniliurahuaqtut anguniaqtut uvani Paalliq (Lauchlan Kuugaq) iqalukhiuffaarmijut ihuaqhihimavlunilu avvauningit haffumani 5,000 kg (iluittuq uqumaidjuhia) malikhimainnaqtangillu aturaaqtakhangit iqalukhiurnirnut.

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Nalunaitkut 6. Nunamunngaqhimajut, nunamiittut unalu niuviqtakhaat akikhangit unalu akingit ukunanngat imarmiutaujut huminngaaqtut, 2015 - 2019

Imamiutaujut huminngaaqtut Atinga	2015	2016	2017	2018	2019	5-Ukiuq Atauttimuuqtut	5-Ukiunga Ilitquhia
Iqaluktuuq Kuugaa (Ekalluk)							

Nunamunngaqtut (kg)	16,930	20,011	20,001	16,570	16,699	**90,211**	**15,344**
Nunamiittut Akingit[8]	$88,712	$104,859	$104,805	$86,825	$87,502	**$282,684**	**$56,537**
Niuviqtakhat Akingit[9]	$383,460	$453,256	$453,022	$375,302	$379,230	**$1,774,002**	**$354,800**
Jayko Kuugaa (Jayco)							
Nunamunngaqtut (kg)	9,851	17,011	16,200	11,573	12,481	**36,072**	**7,214**
Nunamiittut Akingit[10]	$51,620	$89,137	$84,885	$60,643	$65,402	**$161,292**	**$32,258**
Niuviqtakhat Akingit[11]	$223,130	$385,295	$366,919	$262,132	$282,702	**$771,068**	**$154,214**
Halugvik Kuugaa (Thirty-Mile)							
Nunamunngaqtut (kg)	4,160	4,212	4,888	4,997	4,972	**19,135**	**3,827**
Nunamiittut Akingit[10]	$21,796	$22,073	$25,616	$26,185	$26,052	**$89,700**	**$17,940**
Niuviqtakhat Akingit[11]	$94,215	$95,411	$110,724	$113,183	$112,610	**$419,245**	**$83,849**
Paalliryuak Kuugaa (Surrey)							
Nunamunngaqtut (kg)	6,824	5,739	8,990	8,792	8,884	**43,007**	**8,601**
Nunamiittut Akingit[10]	$35,756	$30,075	$47,108	$46,069	$46,552	**$185,057**	**$37,011**
Niuviqtakhat Akingit[11]	$154,558	$129,999	$203,626	$199,132	$201,222	**$1,002,092**	**$200,418**
Paalliq Kuugaa (Lauchlan)							
Nunamunngaqtut (kg)	NF	NF	NF	3,902	5,061	**8,963**	**1,792**
Nunamiittut Akingit[10]	-	-	-	$20,449	$26,521	**$46,970**	**$9,394**
Niuviqtakhat Akingit[11]	-	-	-	$88,390	$114,638	**$203,028**	**$40,605**
Atauttimuuqtut[10]							
Nunamunngaqtut (kg)	37,765	46,973	50,079	45,834	48,097	**228,748**	**345,749.6**
Nunamiittut Akingit[11]	$197,885	$246,144	$262,414	$240,170	$252,029	**$942,883**	**$188,577**
Nunamiittut Akingit /kg	$4.57	$4.29	$5.85	$7.04	$5.00		**$5.24**
Niuviqtakhat Akingit[11]	$855,363	$1,063,962	$1,134,290	$1,031,139	$1,089,402	**$4,073,397**	**$814,679**
Niuviqtakhat Akikhaq/kg	$19.23	$19.75	$24.26	$26.33	$24.09		**$22.65**

Niuvrutikhait Akingit/ Lb. Iqalukpik Qanurittunik Ilingajuq							
Tamatkiujuq Hungaiqhimajuq	$6.02	$6.27	$7.67	$9.17	$8.15	NA	$7.45
Niaquq, papirua ahivaqhimajuq	$7.04	$7.29	$10.21	$10.84	$9.05	NA	$8.89
Tiahimajut	$10.22	$10.47	$11.87	$12.59	$12.61	NA	$11.55

[8] Nunamunngaqtut akingit avaliqanngittut imarmit najugaanit avaliqanngittuq agjaqtuinirnut pivikhait, Nalunaijainiq angmaumanngittuq ukunanngat imarmiujunit.

[9] Niuviqtakhangit akingit kigliutigijangit uvanngat Qitirmiut Niqiqarvinga Kitikmeot Foods Ltd. Akingit Atiliuqtangit (aallatqiiktut ukiunganit) kititiqtauvluni kigligutigijaat avvautigijaanit niuviqhimajait hamnaujut: (i) Tamainnit pilakhimajut: 55% nauhimajainnit; (ii) Niaqua, papirua ahivaqtaujut: 23%; (iii) Tiataaqhimajut: 10%; (iv) Ihiqhungnittut haniraa: 8%; unalu (v) Mipkuliuqtut: 4%.

[10] Nailukkaangujut angiqtauhimaittut atauttimut akikhaat avatainauvluni haffumani akikhangit/akingit.

[11] Atauttimut nunamiittunit akikhaat nainaaqhimajut akiliakhangit iqalukhiuqtit agjaqtuijunillu akikhangit. Ilagijaunngittut aallat havaarijangit akikhangit. Atauttimut nunamiittunut akikhaat ikaarningit uvanngat 2010-12 ilagijaujut agjaqtuinirnut akikhangit angirutaujut. Tingmidjutigut uhiijut akikhangit ikajuutaujut uvanngat $32,555 tunijauhimajut uvani 2012 ilagijaunngittut.

Ihiqhungnittut	$15.39	$15.64	$17.04	$18.08	$18.15	NA	$16.86
Mipkunnuit	$39.02	$38.89	$47.85	$43.13	$41.84	NA	$42.14
Uqumaidjutigut Akingit	**$8.74**	**$8.98**	**$11.03**	**$11.97**	**$10.95**	**NA**	**$10.33**

Ilittuqhaiji: KFL Niqiqarvik; Atuagaq unalu Maniliurahuarningit, C&A, DFO, havaktit kititiqhimajangit
Naunaitkut: - Iqalukhiuqhimanngittut; NA – Aturnaittuq.

Nalunaitkut 7. Aulattittinirnut akikhangit ilingaujaujuq ukunanngat Qitirmiut NiqiqarvikTimingat, 2008-2012

Akingit Pivikhat	2008	2009	2010*	2011*	2012*	Atauttimut	Tukinga
Iqaluktuuq Kuugaq (Ekallu							
Havaatigut Akinga[12]	$34,136	$44,145	$74,441	$64,617	$63,347	$461,053	$56,537
Uqumaidjuhia (lb.)	24,078	27,865	44,956	29,999	41,883	168,781	33,756
Akinga uvanngat lb.[13]	$1.50	$1.58	$1.66	$2.15	$1.51		$1.67
Jayko Kuugaq (Jayco)							
Havaatigut Akinga[14]	$65,912	$37,696	-	-	$57,684	$161,292	$53,764
Uqumaidjuhia (lb.)	31,519	14,330	NF	NF	33,509	79,359	26,453
Akinga uvanngat lb.[15]	$2.09	$2.63	-	-	$1.72		$2.07
Halugvik Kuugaq (Thirty-Mile)							
Havaatigut Akinga[16]	$21,533	$23,044	$15,253	$13,099	$16,770	$89,700	$17,940
Uqumaidjuhia (lb.)	10,021	11,481	7,297	2,473	10,824	42,097	8,419
Akinga uvanngat lb.[17]	$2.15	$2.01	$2.09	$5.30	$1.55		$2.27
Paalliryuak Kuugaq (Surrey)							
Havaatigut Akinga[18]	$25,533	$36,847	$38,451	$44,451	$39,804	$185,057	$37,011
Uqumaidjuhia (lb.)	10,681	19,046	19,963	25,247	19,678	94,615	18,923

[12] Aulattittinirnut akikhangit ilagijaat akiliakhat iqalukhiuqtit agjaqtuijullu akikhangit, Ilaginngittangit KFL niqiqarvik akikhangit. Atauttimut havaarijangit akikhaat uvanngat ikaarningit 2010-12 ilagijaujut agjaqtuinirnut akikhangit angiqtauhimajut. Tingmidjutigut uhiijut akikhangit ikajuutaujut uvanngat $32,555 tunijauhimajut uvani 2012 ilagijaunngittut.
[13] Ilagijaunngittut KFL niqiqarviup akikhangit.
[14] Aulattittinirnut akikhangit ilagijaat akiliakhat iqalukhiuqtit agjaqtuijullu akikhangit, Ilaginngittangit KFL niqiqarvik akikhangit. Atauttimut havaarijangit akikhaat uvanngat ikaarningit 2010-12 ilagijaujut agjaqtuinirnut akikhangit angiqtauhimajut. Tingmidjutigut uhiijut akikhangit ikajuutaujut uvanngat $32,555 tunijauhimajut uvani 2012 ilagijaunngittut.
[15] Ilagijaunngittut KFL niqiqarviup akikhangit.
[16] Aulattittinirnut akikhangit ilagijaat akiliakhat iqalukhiuqtit agjaqtuijullu akikhangit, Ilaginngittangit KFL niqiqarvik akikhangit. Atauttimut havaarijangit akikhaat uvanngat ikaarningit 2010-12 ilagijaujut agjaqtuinirnut akikhangit angiqtauhimajut. Tingmidjutigut uhiijut akikhangit ikajuutaujut uvanngat $32,555 tunijauhimajut uvani 2012 ilagijaunngittut.
[17] Ilagijaunngittut KFL niqiqarviup akikhangit.
[18] Aulattittinirnut akikhangit ilagijaat akiliakhat iqalukhiuqtit agjaqtuijullu akikhangit, Ilaginngittangit KFL niqiqarvik akikhangit. Atauttimut havaarijangit akikhaat uvanngat ikaarningit 2010-12 ilagijaujut agjaqtuinirnut akikhangit angiqtauhimajut. Tingmidjutigut uhiijut akikhangit ikajuutaujut uvanngat $32,555 tunijauhimajut uvani 2012 ilagijaunngittut.

Akinga uvanngat lb.[19]	$2.42	$1.93	$1.93	$1.75	$2.02		$1.89
Paalliq Kuugaq (Lauchlan)							
Havaatigut Akinga[20]	$19,795	-	$15,646	-	-	$35,441	$17,720
Uqumaidjuhia (lb.)	5,208	NF	5,574	NF	NF	10,782	5,391
Akinga uvanngat lb.[21]	$3.80	-	$2.81	-	-		$3.29
Atauttimut							
Havaatigut Akinga[22]	**$169,235**	**$141,732**	**$206,693**	**$184,715**	**$240,508**	**$942,883**	**$188,577**
Uqumaidjuhia (lb.)	**81,507**	**72,722**	**77,791**	**57,719**	**105,895**	**395,634**	**79,127**
Akinga uvanngat lb.[23]	**$2.08**	**$1.95**	**$2.66**	**$3.20**	**$2.27**		**$2.38**
KFL Niqiqarviup Akingit							
Havaktut Akingit	$40,228	$101,236	$38,491	$50,248	46,148	$276,350	$55,270
Alrujaqtuqtut	$30,071	$58,109	$26,979	$40,330	36,892	$192,381	$38,476
Uqhurjuaq	$3,933	$7,087	$7,065	$3,460	9,183	$30,728	$6,146
Imaq	$2,115	$2,067	$2,982	$1,744	3,028	$11,936	$2,387
Atauttimuuqtut	**$76,347**	**$168,499**	**$75,517**	**$95,781**	**$95,251**	**$511,395**	**$102,279**
Tunihijut haffumani KFL Akikhat							
Havaatigut Akinga	32.0%	21.7%	25.8%	26.0%	32.4%		27.6%
KFL Niqiqarviup Akingit	31.1%	54.3%	26.8%	34.1%	28.4%		35.2%
Uqumaidjuhia	81,507	72,722	77,791	57,719	105,895		79,127
Tukinga Atauttimut Akingi uvanngat lb.	**$3.01**	**$4.27**	**$3.63**	**$4.86**	**$3.17**		**$3.68**

Ilittuqhaiji: Qitirmiut Niqiqarvinga Timingat (KFL).
Naunaitkut: NF – Iqalukhiuqhimanngittut

Iluliutingit E Qajagijaujukhaq tarjurmit

Umiaq nanminirijangit unalu hivuliqtiujut munarijakhaat malittiaqtakhaat qajagijaujukhat havaktiita umiangillu. Malittiarialik qajagijaunirnut maliguarutit unalu nakuujumik uuktuutikhangit nanminiqutigijangit, hivuliqtit havaktingillu iqalukhiuqtunut umiangit ikajuutauniaqtut annautigiami inuuhirnut, hapummilugillu umiat ahiruqtailigiami hapummilugillu avatikhait. Tamaat iqalukhiuqtut umiat naammakpiaqtumik tarjurmiutaujukhat munarittiaqhimainnarlugillu maligautigut ukunanngat Agjaqtuinirnut Kanata (TC), unalu aahiit aturnaqtut ilauhimajunut. Umiat maligiaqaqhutik

[19] Ilagijaunngittut KFL niqiqarviup akikhangit.
[20] Aulattittinirnut akikhangit ilagijaat akiliakhat iqalukhiuqtit agjaqtuijullu akikhangit, Ilaginngittangit KFL niqiqarvik akikhangit. Atauttimut havaarijangit akikhaat uvanngat ikaarningit 2010-12 ilagijaujut agjaqtuinirnut akikhangit angiqtauhimajut. Tingmidjutigut uhiijut akikhangit ikajuutaujut uvanngat $32,555 tunijauhimajut uvani 2012 ilagijaunngittut.
[21] Ilagijaunngittut KFL niqiqarviup akikhangit.
[22] Aulattittinirnut akikhangit ilagijaat akiliakhat iqalukhiuqtit agjaqtuijullu akikhangit, Ilaginngittangit KFL niqiqarvik akikhangit. Atauttimut havaarijangit akikhaat uvanngat ikaarningit 2010-12 ilagijaujut agjaqtuinirnut akikhangit angiqtauhimajut. Tingmidjutigut uhiijut akikhangit ikajuutaujut uvanngat $32,555 tunijauhimajut uvani 2012 ilagijaunngittut.
[23] Ilagijaunngittut KFL niqiqarviup akikhangit.

ihivriuqtauhimalutik malikhimalugillu ilitaridjutauqaqtumik ihivriuqtauhimajut nalaumajukhat iningit auladjarikhijukhat.

Iluani kavamarjuangit, munarijaujukhat agjaqtuinirnut, nahittaqtauhimajut, unalu umiaq qajagijauningit maliguarutit unalu ihivriuqtukhat malikhimainnaqtakhaat ukunanngat Agjaqtuinirnut Kanata; qilanaaqtukkut kiujaujukhat ukunanngat Kanatamiunit Nahittaqtiit unalu DFO munaqhaivikhalik iqalungnut avatikhangit. Nunavut iluani, Havaktunut Aanniqtailinikkut Munaqtiujut atanniqtuivikhaqaqhutik uvanngat aanniaqtailinirnut hivuuranairutikhanut akihautingit havagvik iluani. DFO unalu TC havaamingnut Maligautiqaqhutik ilittuqhiigiangani ikajuqatigiiktunut unalu aulapkailugillu, munarilugit ikajuqhimalugillu aanniqtailijaamik pitquhiata iluani iqalukhiurnirnut havaamingnit.

Naunaittiariami haffumani qajaqturnirnut aanniqtailinikkut, hivajainnarialik uvunga TC Havagviata Qajarnirnut Aanniqtailinirnut akiqanngittukkut hivajautaa uvani 1-800-267-6687 qaritaujakkut ikiaqqivikkut takugulu uvani https://tc.canada.ca/en/marine-transportation/marine-safety/office-boating-safety.

ᑐᓂᓴᐅᔪᖅ
ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᓲᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᓲᖏᓐᓄᑦ

<u>**ᐅᕗᖓ**</u>

ᑐᓴᒃᓴᖅ: X **ᐃᓱᒪᓕᐊᒃᓴᖅ:**

ᐱᔾᔪᑕᐅᔪᖅ: ᑐᓴᐅᒪᑎᑦᑎᓂᖅ ᐱᔾᔪᑎᒋᓪᓗᒋᑦ ᐸᕐᓇᐅᑎᑦ ᐅᖃᖃᑎᒌᒍᑎᒃᓴᓄᑦ ᐊᒻᒪᓗ ᐃᓱᒪᓕᐅᕈᑎᒃᓴᓄᑦ ᐱᔾᔪᑎᒋᓪᓗᒋᑦ ᐃᓚᓕᐅᑎᔭᐅᒐᔭᕐᒪᖔᑕ ᓇᑦᑏᑦ ᐊᑎᖄᓕᕐᓗᑎᒃ ᐊᑦᑕᕐᓇᖅᑐᒦᓕᕐᓂᖏᓐᓂᒃ ᑖᒃᕗᓇ *ᐆᒪᔪᑦ ᐊᑦᑕᕐᓇᖅᑐᒦᓕᖅᑐᓄᑦ ᐱᖁᔭᕐᔪᐊᖅ.*

ᖃᓄᐃᓐᓂᕆᓯᒪᔭᖓᑦ:

ᒪᓕᒡᓗᒍ ᑎᑎᕋᖅᓯᒪᔪᖅ 3.5 ᐊᑑᑎᖃᖅᑐᓕᒫᑦ ᑲᑎᑕᐅᑎᓪᓗᒋᑦ ᖃᐅᔨᓴᖅᓯᒪᔪᓪᓗ ᐱᓕᕆᔭᐅᕙᓪᓕᖓᑎᓪᓗᒋᑦ, ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕ ᑐᓴᕐᑎᑦᑎᓯᒪᔪᑦ ᓄᓇᕗᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ ᑕᒪᑐᒥᖓ ᑲᑎᒪᔨᕋᓛᑦ ᐊᑦᑕᕐᓇᖅᑐᒦᓕᖅᑎᓪᓗᒋᑦ ᓂᕐᔪᑎᑦ ᑲᓇᑕᒥ ᖃᐅᔨᓇᓱᑦᑎᐊᖅᓯᒪᔪᑦ ᖃᓄᐃᓕᖓᖕᒪᖔᑕ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕ ᐅᖃᐅᓯᕆᔾᔪᑎᒋᔪᒪᔭᖏᓐᓂᒃ ᓇᑦᑎᕐᓂᒃ. (ᓴᕿᔮᖅᑐᖅ 1).

ᓇᑦᑏᑦ

ᐅᑯᐊ ᒥᑭᔪᑦ ᓇᑦᑏᑦ ᓇᒥᑐᐃᓐᓇᖅ ᐱᑕᖃᖅᑐᑦ ᐅᑭᐅᖅᑕᖅᑐᒥ ᐊᒻᒪᓗ ᓇᑦᑏᑦ ᐆᒪᑦᑎᐊᕈᓐᓇᖅᓯᒍᑎᒃ ᑕᕆᐅᖅ ᓯᑯᐊᓂᑦ. ᐅᑯᐊ ᐅᓄᕐᓂᖅᐹᑦ ᑕᕆᐅᕐᒥᐅᑕᓂᑦ ᐳᐃᓴᓂᑦ ᑲᓇᑕᐅᑉ ᐅᑭᐅᖅᑕᖅᑐᐊᓂ. ᐱᒻᒪᕆᐅᔪᑦ ᓇᑦᑏᑦ ᐃᓄᙱᓄᑦ ᐊᒻᒪᓗ ᓂᕿᑐᐊᕆᔭᐅᓪᓗᒋᒃ ᓇᓄᕐᓂᑦ. ᐅᓄᖅᑎᒋᓂᖏᑦ ᐊᒻᒪᓗ ᐊᓯᕈᖅᑕᖃᑦᑕᕐᓂᖏᑦ ᐅᓄᕐᓂᖏᑕ ᖃᐅᓯᒪᓇᙱᑦᑐᑦ, ᑕᐃᒪᓐᓇᐅᑲᓗᐊᖅᑎᓪᓗᒍ ᐅᓄᕐᓂᖏᑦ 2 ᒥᓕᐋ ᐊᑐᓂ. ᐃᓄᐃᑦ ᖃᐅᓯᒪᔭᑐᖃᙱᑦᑎᒍᑦ ᑕᒫᙶᑦ ᓄᓇᓕᙳᓂᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑎᒍᑦ, ᑭᓯᐊᓂ ᐃᓱᒪᒋᔭᐅᔪᑦ ᓄᖑᑉᐸᓪᓕᐊᔮᙱᓐᓂᙱᓐᓂᒃ. ᐅᓄᓗᐊᕈᓐᓃᖅᐸᑕ ᐊᑕᐅᓯᕐᒥ ᓄᓇᒥ ᐊᒻᒪᓗ ᑕᕆᐅᖅ ᓯᑯᖃᑦᑏᔭᕈᓂ ᐱᔾᔪᑎᒋᓪᓗᒍ ᓯᓚᐅᑉ ᐅᕐᑰᓯᕙᓪᓕᐊᓂᖓᓄᑦ ᑲᓇᑕᐅᑉ ᐅᑭᐅᖅᑕᖅᑐᐊᓂ, ᐃᒻᒪᖄ ᐅᓄᕈᓐᓃᖅᐸᓪᓕᕐᑎᑦᑎᔪᓐᓇᖅᑐᑦ ᓇᑦᑎᐊᑦ ᐃᓂᖏᓐᓂᒃ ᐱᔾᔪᑎᒋᓪᓗᒋᑦ ᓯᑯᖃᕈᓐᓃᕐᓂᖓᓄᑦ ᐊᒻᒪᓗ ᐅᐱᕐᙯᒃᑯᑦ ᐊᐳᑎᖃᙵᓗᐊᕐᓂᖓᓄᑦ, ᑖᒃᑯᐊ ᐊᙳᕆᒥᒃ ᐅᓗᕆᐊᖅᓵᕆᔪᑦ ᑖᒃᑯᓂᖓ ᐆᒪᔪᕐᓂᒃ. ᑲᓇᑕᒥ ᐅᓄᕐᓂᖓᑦ ᓂᕆᐅᒋᔭᐅᔪᖅ ᐅᓄᕈᓐᓃᖅᐸᓪᓕᕈᕿᓯᒋᔭᐅᓪᓗᑎᒃ ᐊᒡᒥᖅᑐᓂ ᐱᙳᔪᖓᓐᓄᑦ ᑭᖑᕚᕆᔫᒪᖅᑕᑦᑎᓐᓄᑦ, ᐊᒻᒪᓗ ᐊᑦᑕᕐᓇᖅᑐᒦᓕᕈᓐᓇᖅᑐᑦ ᓄᖑᓕᕋᔭᕐᓂᖏᑦ ᐱᔾᔪᑎᒋᓪᓗᒋᑦ ᐊᖏᔪᑦ ᐊᒻᒪᓗ ᑲᔪᓯᔪᑦ ᐊᓯᑦᓱᖅᑐᑦ ᑕᕆᐅᖅ ᓯᑯᐊᓂᒃ ᐊᒻᒪᓗ ᐊᐳᒻᒥᒃ ᓱᑲᓕᔪᒻᒪᕆᐋᓘᓂᖓᓄᑦ-ᐅᕐᑰᓯᕙᓪᓕᐊᔪᖅ ᐅᑭᐅᖅᑕᖅᑐᖅ.

ᓇᑦᑏᑦ ᐃᓱᒪᒃᓴᖅᓯᐅᕈᑕᐅᓚᐅᖅᑐᑦ ᐊᑦᑕᕆᔭᐅᓕᖅᑐᓄᑦ ᑲᑎᒪᔨᕋᓛᓂᑦ ᑕᐃᑲᓂ ᓄᕕᐱᕆ 2019 ᐊᒻᒪᓗ ᓂᕈᐊᖑᓪᓗᑎᒃ ᐃᓱᒫᓗᕆᔭᐅᔭᕆᐊᖃᕐᓂᖏᓐᓄᑦ.

ᐱᒻᒪᕆᔭᐅᔪᑦ

ᓇᑦᑏᑦ ᒥᑭᓂᖅᐹᖑᔪᑦ ᐹᖑᓲᓂ, ᐃᓐᓇᐃᑦ 1.5 ᒦᑕ ᑕᑭᑎᒋᕙᒃᑐᑦ ᐊᒻᒪᓗ ᐅᖁᒪᐃᑎᒋᓪᓗᒋᑦ 70 ᑭᓚᒎᓪᓵ - ᐊᖑᑎᑦ ᐊᖏᓂᖅᓴᐅᕌᕐᔫᒡᓗᒋᑦ ᐊᕐᓇᓂᑦ. ᓇᑦᑏᑦ ᐱᒻᒪᕆᐅᔪᑦ ᑕᒪᐃᓐᓄᑦ ᑮᓇᐅᔭᓕᐅᕈᑕᐅᖕᒪᑕ ᐊᒻᒪᓗ ᐅᑭᐅᖅᑕᖅᑐᒥ ᓄᓇᖃᖅᑐᓂᑦ ᐊᑐᖅᑕᐅᓪᓗᒋᑦ. ᓇᑦᑏᑦ ᓂᕿᓪᓗᐊᑕᕆᔭᐅᔪᑦ ᓇᓄᕐᓂᑦ, ᑭᓯᐊᓂ

ᐱᔾᐅᓇᓱᓲᖑᖏᕙᑦ ᐋᕐᓗᖕᓂᑦ, ᐊᐃᕗᕐᓂᑦ, ᐊᒻᒪᓗ ᐃᖃᓗᒡᔪᐊᓂᑦ. ᑎᓇᒐᓂᐊᑦ ᐱᒻᒪᕆᐅᒃᓴᖅᑐᑦ ᓂᕿᖏᓪᓗᒋᑦ ᓇᑦᑎᐊᕗᓃᑦ, ᐱᓗᐊᖅᑐᒥᒃ ᐊᐱᓯᒪᓂᖓ ᐊᐳᑎᑭᑎᓪᓗᒍ.

ᓵᕿᔮᖅᑐᖅ 1: ᐊᔾᔨᓕᐅᖅᑕᐅᓯᒪᔪᑦ ᓇᑦᑏᑦ (ᑖᒃᑯᓇᖕᒐᑦ ᐊᑦᑕᓇᔭᐅᓕᖅᑐᓄᑦ ᑲᑎᒪᔨᕋᐴᓂᑦ 2019).

ᓇᒧᖕᖔᓯᒪᓂᖏᑦ

ᓇᑦᑏᑦ ᓯᓚᕐᔪᐊᑉ ᑲᔾᔨᐊᓃᑦᑐᑦ ᑕᒪᐃᓐᓂ ᐅᑭᐅᖅᑕᖅᑐᖅ ᐊᒻᒪᓗ ᐃᒪᖏᑦ, ᐊᑐᖅᓯᓪᓗᑎᒃ ᑭᓯᐊᓂ ᑕᓇᐅᖅ ᓯᑯᐊᓂ ᓇᔪᖅᐸᖕᒪᒋᑦ. ᑲᓇᑕᒥ ᓇᒧᖕᖔᓯᒪᓂᖏᑦ ᑕᐅᕗᖕᒐ ᔫᑳᓐ ᐱᓇᓐᓇᖕᒐᓄ ᓂᒋᐊᓄᑦ ᖄᐸᑐᐊ ᑕᐅᕙᓂ ᑲᓇᑕᐅᐸ ᑲᓇᖕᓇᖕᒐᓂ, ᐃᖅᓐᓂᒃᑯᑦ ᑕᑯᕙᖃᓚᐅᕿᖅ ᖃᓪᓗᓈᑦ ᓄᓇᖕᒐᓂ ᑕᓇᐅᕐᒥ ᒪᓕᒡᓗᒍ ᐊᕐᕋᒍ ᓯᑯᑦ ᑕᒪᐃᓐᓂ ᐸᓯᕗᒃ ᐊᒻᒪᓗ ᐊᑦᖀᓐᑎᒃ ᐃᒪᕗᖏᑦ.

ᐅᖃᖃᑎᒌᒍᑕᐅᔭᓇᐊᓕᑦ ᐊᒻᒪᓗ ᐊᖕᖏᖃᑎᒌᒍᑕᐅᔭᓇᐊᓕᑦ

ᐊᖏᕈᑎᑦ 5.2.34 (f) ᑖᒃᑯᓇᓂ ᓄᓇᕗᑦ ᓄᓇᑖᕈᑎᑦ ᐊᖏᕈᑎᖏᓐᓂ ᐅᖃᖅᓯᒪᔪᖅ ᐅᑯᐊ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔩᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᐃᒪᓐᓇᐅᓂᐊᖅᑐᑦ, ᐃᓱᒪᒋᔭᒥᒍᑦ, ᐊᖏᖅᓯᓗᑎᒃ ᐋᕿᒃᑕᐅᔪᓐᓇᕐᓂᖏᓐᓄᑦ ᐱᑕᖃᑳᓂᔩᕈᓐᓃᖅᑐᑦ, ᐅᓗᓇᐊᓇᖅᑐᒥᑦᑐᑦ ᐅᑲᓘᓐᓃᑦ ᓄᖑᑕᐅᓕᖅᑐᑦ ᐆᒪᔪᑦ. ᐊᒻᒪᓗ, ᒪᓕᒐᖅ 27 (2) (c) ᑖᒃᑯᓇᓂ ᐆᒪᔪᑦ ᐊᑦᑕᕐᓇᖅᑐᒦᓕᖅᑐᑦ ᐃᓅᓯᓕᓗᐊᕐᑯᓇᖏᑦ ᐱᕐᑯᔭᕐᔪᐊᖅ ᐃᒪᓐᓇᐅᔭᕆᐊᖅᑎᑦᑎᔪᖅ ᑕᐃᒫᒃ ᐊᑐᓕᖅᑕᐅᕐᑯᔾᓚᐅᓐᖏᓂᖏᓐᓂ ᐃᓚᓕᐅᑎᔪᓐᓇᕐᒪᖔᑕ ᐅᒡᓗᓐᓃᑦ ᐃᓚᓕᐅᑎᔭᕆᐊᖃᖕᖏᒻᒪᖔᑕ ᐆᒪᔪᓄᑦ ᓄᖑᑕᐅᓕᖅᑐᓄᑦ ᐃᓂᖕᒐᓂ 1, ᒥᓂᔅᑕ ᐅᖃᐅᔾᔭᔭᕆᐊᖃᖅᑐᖅ ᑲᑎᒪᔨᓄᑦ ᐆᒪᔪᓄᑦ ᖃᐅᔨᒪᔭᐅᓕᖅᑐᑦ ᐃᒃᐱᒋᑦᑎᐊᕆᐊᖃᕐᓂᖏᓐᓂᒃ ᐱᔾᔪᑎᒋᓪᓗᒍ ᓇᓕᐊᒃ ᑲᑎᒪᔨ ᐊᖏᖅᑕᐅᓯᒪᖕᒪᑕ ᓄᓇᑖᕈᑎᑦ ᐊᖏᕈᑎᖏᑦᑎᒍᑦ ᐱᓕᕆᓂᐊᕐᓗᑎᒃ.

ᐱᔾᔪᑎᒋᓪᓗᒍ ᐱᒻᒪᕆᐅᒋᔭᐅᖕᒪᑕ ᓄᓇᕗᒻᒥ ᐊᒻᒪᓗ ᐱᓇᖕᓇᖕᒐᓂ ᐅᑭᐅᖅᑕᖅᑐᖅ ᐊᒻᒪᓗ ᐊᓯᖏᑦᑕᐅᖅ ᑲᓇᑕᒥᑦᑐᑦ, ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕ ᓂᕆᐅᒃᑐᑦ ᐅᓇ ᐊᑯᓂᐅᓂᐊᖅᑐᖅ ᐅᖃᐅᓯᐅᕙᓪᓕᐊᔾᔪᓯᖕᒐ ᑐᑭᓯᖃᑎᒌᖕᒐᓱᐊᕐᓂᖅ.

ᑐᑭᓯᖃᑎᒌᖕᒐᓱᐊᕐᓂᖅ ᐊᒻᒪᓗ ᐊᖕᖏᖅᓯᔾᔪᑎᑦ:

ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕ ᐸᕐᓇᐃᔪᖅ ᐅᖃᓪᓚᖃᑎᒋᓗᒋᑦ ᑕᒪᕐᒥᒃ ᐊᖑᓇᓱᒃᑐᓕᕆᔨᒃᑯᑦ ᓄᓇᕗᒻᒥ ᐱᔾᔪᑎᒋᓗᒍ ᓇᑦᑏᑦ, ᐃᒻᒪᖄ ᐱᒋᐊᕐᕙᔭᖅᑐᑦ ᐅᑭᐊᒃᓵᖅ, ᖃᐅᔨᒪᓇᑦᑎᐊᕐᓂᐊᕐᒪᑦ ᑖᒃᑯᐊ ᓇᓕᐊᑐᐃᓐᓇᖅ

ᑎᑎᕋᖅᑕᐅᔪᒪᔪᑦ ᐃᓱᒪᓕᐊᕆᔭᐅᑦᑎᐊᕐᓗᑎᒃ ᑕᒪᒃᑭᕐᓗᑎᒃ ᑕᐅᑦᑐᙱᑦ ᐃᓄᐃᑦ. ᐅᖃᐅᓯᒃᓴᐃᑦ ᐱᔭᐅᔪᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᑦ ᒥᓂᔅᑕ ᐃᓱᒪᓕᐅᕈᑎᒃᓴᙱᓐᓄᑦ ᖃᓄᖅ ᐊᑐᓕᖅᑕᐅᕐᑯᔨᒐᔭᕐᒪᙲᑦ ᒪᓕᒐᖅᑎᒍᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᓕᕐᓗᑎᒃ ᓄᙳᓕᕐᓂᙱᓐᓄᑦ ᓇᑦᑏᑦ. ᐅᖃᓪᓚᖃᑎᒌᒍᑎᒃᓴᐃᑦ ᓇᐃᓈᖅᓯᒪᓗᑎᒃ ᑐᓂᔭᐅᓗᑎᒃ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔩᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᙱᓐᓄᑦ, ᐃᒻᒪᖔ ᐅᑭᐊᒃᓵᙳᓂ 2022.

ᐊᖏᖅᑕᐅᓂᖓ

ᐱᔮᕇᖅᐸᑕ ᐃᓄᓕᒫᓂᒃ ᐅᖃᓪᓚᖃᑎᖃᕐᓂᖅ, ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕ ᑐᓂᓯᓂᐊᖅᑐᑦ ᑲᑎᒪᔩᓄᑦ ᓇᐃᓈᖅᓯᒪᓗᒍ ᓄᓇᓕᙳᓂᑦ ᐅᖃᖃᑎᒌᒍᑕᐅᔪᓂᒃ ᖃᓄᐃᓕᙵᙱᙲᑕ ᑖᒃᑯᓄᙵ ᓇᑦᑎᕐᓄᑦ. ᑭᙳᓂᐊᒍᑦ ᐅᖃᐅᑎᓂᐊᖅᑕᕗᑦ ᑲᑎᒪᔩᑦ ᖃᓄᖅ ᒥᓂᔅᑕ ᐸᕐᓇᐃᓯᒪᙱᙲᑦ ᐊᑐᓕᖅᑕᐅᕐᑯᒐᔭᖅᑕᖏᓂᒃ ᐱᔾᔪᑎᒋᓪᓗᒋᑦ ᑎᑎᕋᖅᑕᐅᖃᓯᐅᑎᔭᐅᓯᒪᒐᔭᕐᒪᙲᑕ. ᑕᐃᑲᓂ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕ ᐊᐱᕆᓂᐊᖅᑐᖅ ᑲᑎᒪᔩᓄᑦ ᓂᓪᓕᕈᒪᙱᙲᑕ ᐅᑉᐸᓘᖕᓃ ᓂᓪᓕᕈᒪᖕᖏᒻᒪᙲᑕ ᐱᔾᔪᑎᒋᓪᓗᒍ ᑎᑎᕋᖅᑕᐅᖃᓯᐆᑎᔭᐅᓕᕐᓂᖏᓐᓄᑦ.

ᑎᑎᕋᖅᑐᖅ:

ᕵᓪ ᓯᑎᐊᕙᓐᓴᓐ, ᐆᒪᔪᓂᒃ ᐅᓗᕆᐊᓇᖅᑐᒦᑦᑐᓂᒃ ᖃᐅᔨᓴᖅᑎ, ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ, ᐋᓐᑎᐅᕆᔫᒥ ᐊᒻᒪᓗ ᐊᑉᐸᓯᑦᑐᓂ ᓄᓇᓂ ᐊᕕᑦᑐᖅᑕᐅᓯᒪᔪᓂ, ᐅᐃᓂᐱᐊᒡ

ᐅᓪᓗᒥ:

ᔫᓄᐊᕆ 12, 2021

ᐃᓚᒋᓕᐅᑎᓯᒪᔪᑦ:

ᐃᓚᒍᑕᖓ 1 - ᐊᑦᑕᕆᔭᐅᓕᖅᑐᓄᑦ ᑲᑎᒪᔨᕋᓛᑦ ᐊᐅᓚᑦᓯᔨᖏᓐᓂᑦ ᓇᐃᓈᖅᓯᒪᔪᖅ
ᓇᑦᑏᑦ

ᐃᓚᒍᑕᖅ 1:

ᐊᑦᑕᕆᔭᐅᓕᖅᑐᓄᑦ ᑲᑎᒪᔨᑫᓛᑦ ᐊᐅᓚᑦᓯᔨᖏᓐᓂᑦ ᓇᐃᓈᖅᓯᒪᔪᖅ

ᓇᑦᑏᑦ

Pusa hispida

ᓂᕐᔪᑎ ᑭᓲᓂᖅ ᐊᒻᒪᓗ ᐊᖏᓂᖅ
ᓇᑦᑏᑦ ᐸᕝᖑᓲᑦ ᐊᔾᔨᒌᖕᖏᑦᑐᑦ ᑖᓕᒪᐅᓪᓗᑎᒃ, ᐃᓚᖓᑦ ᐱᑕᖅᑲᖅᑐᑦ ᑲᓇᑕᒥ, ᓇᑏᑦ. ᒥᑭᓐᓂᖅᐹᖑᖃᑕᐅᔪᑦ ᐃᒪᕿᐅᑕᓂ, ᐃᓐᓇᐃᑦ ᑎᑭᐅᑎᓲᑦ 1.5 ᒦᑕ ᑕᑭᓂᖅ ᐊᒻᒪᓗ 70 ᑭᓚᒎᓚᒃ ᐅᖁᒪᐃᓐᓂᖅ - ᐊᖑᑎᑦ ᐊᖏᓂᖅᓘᕐᔫᕙᒡᓗᑎᒃ ᐊᕐᓇᓂᑦ. ᓇᑦᑏᑦ ᐱᒻᒪᕆᐅᔪᑦ ᑕᒪᐃᓐᓄᑦ ᑮᓇᐅᔭᓕᐅᕈᑕᐅᓪᓗᑎᒃ ᐊᒻᒪᓗ ᐊᑐᖅᑕᐅᓪᓗᑎᒃ ᐅᑭᐅᖅᑕᖅᑐᒥ ᓄᓇᖅᑲᖅᑐᓂᑦ ᐊᒻᒪᓗ ᐱᒻᒪᕆᐅᕆᔭᐃᑦ ᓂᕿᕆᔭᐅᙱᑕ ᓇᓄᕐᓂᑦ.

ᓇᒧᑦ ᑎᑭᐅᑎᓯᒪᕗᑦ
ᓇᑦᑏᑦ ᓯᓚᕐᔪᐊᑉ ᑲᔾᔨᐊᓂ ᓇᓂᑐᐃᓐᓇᖅ ᐅᑭᐅᖅᑕᖅᑐᒥ ᐊᒻᒪᓗ ᐃᒪᖏᓐᓂ, ᐆᒪᓲᑦ ᑕᕆᐅᖅ ᓯᑯᐊᓂ ᓇᔪᖅᓗᒋᑦ. ᑲᓇᑕᒥ ᑎᑭᐅᑎᓯᒪᔪᑦ ᔫᑳᓐ ᑕᐅᕗᖓ ᐱᓇᙵᖓᓂᑦ ᓂᒋᐊᓄᑦ ᕈᐸᑐᐊ ᑲᓇᑕᐅᑉ ᑲᓇᙵᖓᓂ, ᑕᑯᔭᐅᓲᖑᖅᒥᔪᑦ ᐃᕈᓐᓂᒃᑯᑦ ᑎᑭᐅᑎᓯᒪᔪᑦ ᖃᓪᓗᓈᑦ ᓄᓇᖓᓂ ᓯᑯᐃᔭᓕᖅᑎᒋᑦ ᑕᒪᕐᒥᒃ ᐸᓯᕚᒃ ᐊᒻᒪᓗ ᐊᑦᓛᓐᑎᒃ ᐃᒪᕚᖏᑦ.

ᓇᔪᖅᐸᒃᑕᖏᑦ
ᓇᑦᑏᑦ ᓯᑯᒥᒃ ᓱᖏᐅᑎᓯᒪᑦᑎᐊᖅᑐᑦ. ᓇᔪᖅᐸᒃᑕᖏ ᐊᕐᕌᒍᑕᒫᑦ ᖃᖃᓕᕋᖓᑦ ᓂᒡᓚᓱᓕᕋᖓᑦ, ᐃᓐᓇᐃᓪᓗ ᑲᑎᑦᑎᐊᖅᓗᑎᒃ ᑭᒧᒡᔪᖕᓂᓗ ᑕᐃᑲᓂ ᐅᑭᐊᒃᓵᖅ ᓯᑰᓪᓕᐊᓕᖅᑎᓪᓗᒍ. ᖃᑐᕐᖏᐅᓲᑦ ᑭᓯᐊᓂ ᓯᑯᖃᑦᑎᐊᓕᕋᖓᑦ ᑐᕚᒃᑯᓪᓗ, ᑕᒫᓂ ᓄᓇᕐᔭᖏ ᐃᒃᑲᓐᓂᖓᓂ (<150 ᒦᑕ). ᓇᑎᐊᕙᓂᖃᓲᖅ ᖁᒨᔾᔪᓂ ᑐᕚᓂ. ᓇᑦᑏᑦ ᖃᓯᖏᑦ ᐊᒦᔭᓕᓲᑦ ᑕᕆᐅᖅ ᓯᑯᐊᓂ ᐊᐅᔭᖑᓕᖅᑎᓪᓗᒍ ᐊᒻᒪᓗ ᓇᒥᑐᐃᓈᓕᓲᑦ ᐃᒫᓂ ᐊᔾᔨᒌᖕᖏᑦᑐᓂ ᐃᑎᓂᖏᑦ ᓯᑯᖃᕈᓐᓂᕋᓕᖅᑲᑦ, ᐃᒻᒪᖄ ᑭᐅᓯᒃᔪᑎᖏᑦ ᓂᕿᖃᖅᑐᓄᑦ ᑕᒪᒃᑯᓂᖅ.
ᓇᑦᑏᑦ ᐱᐅᓐᖏᑦᑐᒥᑦ ᐊᒃᑐᖅᑕᐅᔪᓐᓇᖅᑐᑦ ᐃᔾᔪᓗᐊᖅᐸᑕ ᓯᑯᐃᑦ (ᐊᑯᓂ ᐊᐅᖕᓇᓵᖅᐸᑕ) ᐊᒻᒪᓗ ᓯᑯᖃᓐᖏᓗᐊᖅᐸᑦ ᐊᕐᕋᒍᓂ (ᖃᓚᒥᑯᓘᒃᐸᑦ ᓯᑯᐃᑲᐅᑎᒋᒃᐸᑦ ᐅᐱᕐᖔᖓᓂᑦ).

ᐆᒪᔾᔫᓂᖅ
ᐅᑯᐊ ᓇᑦᑎ ᓄᓕᐊᕈᓯᖓᑦ ᐃᓱᒪᒋᔭᐅᔪᖅ ᐊᒥᓲᓐᖏᑦᑐᓂᒃ ᓄᓕᐊᖃᓲᑦ, ᑭᓯᐊᓕ ᑕᑯᔭᐅᓯᒪᔪᑦ ᑕᐃᒪᓐᓇᐅᓐᖏᒻᒥᔪᖅ ᐱᑕᖃᕐᒥᔪᑦ ᒪᓕᒡᓗᒍ ᐊᕙᒃᑐᖅᓯᒪᔪᑦ. ᓈᕐᒥᐅᑕᖃᓲᑦ (10-11 ᑕᑭᓄᑦ) ᐃᓗᐊᓂ ᐱᕈᖅᐸᓪᓕᐊᓂᖅ ~2-3 ᑕᕿᓄᑦ, ᐃᓗᒥᐅᑕᕆᑐᐃᓐᓇᖅᓱᒋᑦ ᐊᒻᒪᓗ ~8 ᑕᕿᓄᑦ ᑭᓯᐳᖅᐸᓪᓕᐊᓗᓂ ᐱᕈᖅᐸᓪᓕᐊᓗᓂ. ᓇᑎᐊᑦ ᐃᓅᕗᑦ ᐅᐱᕐᖠᒃᑯᑦ, ᐃᓗᐊᓂ ᐅᐃᒍᐊᒃᑯᑦ ᓯᑯᓂ, ᐊᒻᒪᓗ ᐊᒫᒪᒃᑎᑕᐅᓪᓗᑎᒃ 5-8 ᐱᓇᓱᐊᕈᓯᕐᓄᑦ. ᐊᓈᓇᖏᑦ ᓄᓕᐊᓕᓲᑦ ᐊᒫᒪᒃᑎᑦᑎᔩᓃᑐᐊᕋᒥᒃ. ᐅᑭᐅᖏᑦ ᐃᓐᓇᕈᕐᓂᖏᑦ ᐊᔾᔨᒌᖕᖏᑦᑐᑦ, ᑭᓯᐊᓂ 6 ᐅᑭᐅᓄᑦ ᑕᐃᒪᓐᓇᐅᓚᔫᖑᓪᓗᑎᒃ, ᐊᖑᑎᑦ ᓄᓕᐊᓕᓲᑦ ᑭᖑᓪᓕᐅᓪᓗᑎᒃ ᐊᕐᓇᓂᑦ. ᐊᑯᓂ ᐃᓅᓲᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᖅᑐᖅ 45 ᐅᑭᐅᓄᑦ, ᑭᓯᐊᓂ ᐃᓅᕙᓚᓱᕆᔭᐅᔪᑦ 20 ᐅᑭᐅᓄᑦ.

ᑕᐃᑲᓂ ᓯᑯᖅᑎᓐᓇᒍ ᐃᒪᖓ ᐊᐅᔭᒃᑯᑦ, ᓂᑭᖃᓲᑦ ᑭᓲᐃᓐᓇᓂᒃ ᐃᖃᓗᔭᕐᓂᒃ ᐊᒻᒪᓗ ᐃᒪᐅᑉ ᖁᐱᕈᖏᑦ ᐱᕈᖅᑐᓪᓗ ᑲᐅᖃᑎᐊᕐᓂᐊᑫᒃ. ᐱᓇᓱᒃᐸᒃᑕᖏᑦ ᓂᕿᑦᓗᑦ ᐃᖃᓗᔭᐃᑦ ᓱᕐᓗ ᐆᒐᕐᓂᒃ, ᖁᐋᔭᓇᑦ, ᐊᒻᒪᓗ ᐃᖃᓗᑫᓛ, ᐊᒻᒪᓗ ᐃᖃᖓᓂᕿᐅᑕᐃᑦ.

ᐊᑕᐅᓯᐅᓪᓗᑎᒃ ᓄᒃᑕᕌᑦ ᓇᒧᑐᐃᓐᓇᖅ ᐊᒻᒪᓗ ᒪᓕᒃᑐᖅ ᓂᕿᑎᓂᐊᖅᑕᒥᙵᓂᒃ ᓇᓃᑉᐸᑕ. ᓄᒃᑕᕐᓂᖏᑦ ᐅᖓᓯᒃᑐᐊᓗᓐᒧᐊᕈᓐᓇᖅᑐᑦ ᓯᑯᖅᑎᓐᓇᒍ ᐃᒪᖓ, ᐊᒻᒪᓗ ᑕᐅᒪᓐᓇ ᐊᕐᕋᒍᑕᒫᑦ ᓇᔪᖅᐸᒃᑕᒥᓄᑦ ᐊᒻᒪᓗ

ᐊᔾᔨᒋᓐᖏᑦᑐᓄ ᐃᖏᕐᕿᓰᖑᓪᓗᑎᒃ ᐃᓐᓇᕈᖅᐸᓪᓕᐊᔪᑦ. ᑰᐊᖅᑎᓪᓗᒍ ᐃᒪᖅ, ᐃᓐᓇᐃᑦ ᓄᒃᑕᓰᑦ ᐃᕐᓂᐅᕐᓂᕐᒥᒍᑦ ᐊᒻᒪᓗ ᐋᕿᒃᓯᓪᓗᑎᒃ ᑲᑎᙵᕝᕕᒃᓴᒥᓐᓂᒃ, ᐃᓐᓇᕈᓵᖅᑐᑦ ᕿᒫᑎᑕᐅᓪᓗᑎᒃ ᐅᕝᕙᓘᓐᓃᑦ ᓂᕈᐊᖅᓱᑎᒃ ᓇᒧᖓᐅᑲᓐᓂᕐᓗᑎᒃ ᓯᑯᑦ ᐃᖏᕐᕿᓂᖏᑦᑎᒍᑦ ᐊᒻᒪᓗ ᐊᐅᒃᑲᕐᓃᑦ ᑕᐃᒪᓗ ᐊᔪᕐᓇᓐᖏᓂᖅᓴᐅᖕᒪᑕ ᐳᐃᕕᒋᕙᒡᓱᒋᑦ ᐊᑦᑎᖕᓂᖅᓴᒦᒻᒪᑕ. ᐃᓐᓇᐃᑦ ᑕᑯᑎᑦᑎᓯᒪᔮᑦ ᐃᕐᓂᐅᕐᕕᒋᑲᓐᓂᓲᖏᑦ.

ᓇᑦᑏᑦ ᓂᕿᒋᔭᐅᔪᑦ ᓇᓄᕐᓂᑦ ᑭᓯᐊᓂ ᓂᕿᒋᔭᐅᓲᖑᖕᒥᔪᑦ ᐋᕐᓗᖕᓂᑦ, ᐊᐃᕙᕐᓂᑦ, ᐃᖅᑲᓗᒃᔪᐊᓂᑦ, ᐊᒻᒪᓗ ᐃᓄᖕᓂᑦ. ᑎᓇᒐᓂᐊᑦ ᐱᒻᒪᓇᕆᓪᓗᒍ ᓂᕿᕆᓲᖏᑦ ᓇᑦᑎᐊᕕᓐᓂᑦ, ᐱᓗᐊᖅᑐᒥᒃ ᐊᐳᑎᖃᑦᑎᐊᓐᖏᑦᑐᓂ.

ᐅᓄᕐᓂᖏᑕ ᐊᖏᓂᖏᑦ ᐊᒻᒪᓗ ᐊᔾᔨᒌᓐᖏᓐᓇᖅᐸᓐᖏᑦᑐᑦ ᐅᓄᕐᓂᖏᑦ

ᑐᓴᐅᒪᔾᔪᑎᒋᔭᑦᑎᓐᓂᑦ ᓇᑦᑏᑦ ᐅᓄᕐᓂᖏᓂᒃ ᑕᒪᐅᓐᓇ ᖃᖓᑕᓲᒃᑯᑦ ᓈᓴᐃᔪᖃᖅᓱᓂ, ᐅᑯᐊᓗ ᐱᓕᕆᔭᐅᓲᑦ ᓈᓴᐃᓂᖅ ᓇᑦᑏᑦ ᑲᑎᖓᑎᓪᓗᒋᑦ ᓯᑯᒥ ᐊᒥᖏᑦ ᐲᔭᓕᖅᑎᓪᓗᒋᑦ. ᐱᔾᔪᑎᒋᓪᓗᒍ ᐅᑯᐊ ᖃᖓᑕᓲᒃᑯᑦ ᓈᓴᐃᓃᑦ ᐃᓚᐃᓐᓇᖏᓐᓂᐅᓲᖅ ᐊᒻᒪᓗ ᑕᒫᓃᑐᑐᐃᓐᓇᓂᒃ, ᓇᓚᐅᑖᖅᓯᒪᓪᓗᑎᒃ ᖃᐅᔨᒪᑦᑎᐊᕐᓇᓗᐊᕿᑎᒃ ᐊᒻᒪᓗ ᐅᓪᓗᖏᑦᑎᒍᑦ. ᑕᐃᒪᓐᓇᐅᑲᓗᐊᖅᑎᓪᓗᒍ, ᐆᒪᔪᑦ ᐅᓄᖅᑑᔪᑦ, ᓇᓚᐅᑖᖅᓯᒪᔪᖅ 2.3 ᒥᓕᐊᓐ ᓇᑦᑏᑦ (1.15 ᒥᓕᐊᓐ ᐃᓐᓇᐃᑦ) ᑲᓇᑕᒥ ᐊᒻᒪᓗ ᖃᓂᒋᔭᖏᓐᓂ ᐃᒪᕐᓂ (ᐱᓇᖕᓇᖕᓄ ᐊᑯᑭᑦᑐᖅ, ᐊᓛᔅᑲ, ᐅᓚᓯᐊ).

ᐅᓗᕆᐊᖅᓵᕆᔪᑦ ᐊᒻᒪᓗ ᐅᓄᕈᓐᓂᖅᑎᑦᑎᓕᖅᑐᑦ

ᐅᑭᐅᖅᑕᖅᑐᖅ ᐊᑐᖅᓯᕗᖅ ᐊᖏᔪᒥᒃ ᓯᓚ ᐅᖅᑯᓯᕚᓪᓕᖅᓱᓂ ᐊᓯᑦᔨᖅᓱᓂ ᑕᐃᒪᙵᓂ ᐊᑖᓂ 1970-ᓂᑦ: ᐊᕐᕌᒍᑕᒫᑦ, ᑕᐃᒪᓐᓇᐅᖏᓐᓇᐅᔭᖅᓱᑎᓪᓗ, ᐊᒻᒪᓗ ᓯᑯᑦ ᐅᑭᐅᖅᑕᖅᑐᖅ ᑕᕆᐅᖏᓐᓂ ᐊᕗᖕᒫᓘᖓᓪᓗᑎᒃ, ᐊᒻᒪᓗ ᐅᑭᐅᖅᑕᖅᑐᖅ ᑕᕆᐅᖓ ᐃᔾᔪᓪᓗᓂ ᐊᒻᒪᓗ ᐊᖏᔫᓪᓗᓂ, ᐊᖏᓗᐊᕈᓐᓃᖅᓯᒪᖕᒪᑦ ᐅᑭᐅᖅᑕᖅᑐᖅ ᑕᕆᐅᖓ ᓯᑯᓐᖐᓐᓇᖅᑲᑦᑕᓕᕐᓂᖓᓄᑦ ᐃᓚᖓ. ᑕᐃᒪᖓᓂᑦ1967-ᒥᑦ 2012-ᒧᑦ ᐊᑯᓂᐅᑎᕆᔪᖅ, ᐅᑭᐅᖅᑕᖅᑐᖅ ᓯᓚᖓ ᐊᐳᑎᖃᕐᒪᑦ ᑎᑭᐅᑎᓯᒪᓂᖓᑦᑕᐅᖅ ᐊᐳᑎᖃᓗᐊᕈᓐᓃᖅᑐᖅ ᖃᖓᑐᐃᓐᓇᒃᑯᑦ ᑕᕿᓂ ᐊᒻᒪᓗ ᐱᓗᐊᖅᑐᒥᒃ ᐅᐱᕐᖔᒃᑯᑦ. ᑕᒪᒃᑯᓄᖓ ᓯᑯᓂᒃ ᐊᑐᖅᑐᑦ ᐅᑭᐅᖅᑕᖅᑐᖅ ᓂᕐᔪᑎᖏᑦ ᓱᕐᓗ ᓇᑦᑏᑦ, ᐅᑯᐊ ᓇᑭᑐᐃᓐᓇᖅ ᐊᓯᑦᔨᖅᑐᒧᑦ ᑕᕆᐅᖅ ᓯᑯᐊᓂ ᐊᒻᒪᓗ ᐊᐱᓯᒪᓘᓂᒃ ᓇᔪᖅᐸᒃᑕᖏᓐᓂᒃ ᐊᓯᐅᑎᑦᑎᔪᓐᓇᖅᑐᑦ ᐊᒻᒪᓗ ᐊᒥᓱᒻᒪᓇᐋᓗᖕᓂᒃ ᐊᓯᐅᑎᑦᑎᔪᓐᓇᖅᑐᑦ ᐆᒪᔪᓕᒫᓂᒃ ᐊᑐᖅᑕᓕᒫᖏᓐᓂᓪᓗ ᐊᒃᑐᖅᑕᐅᓗᑎᒃ. ᐅᓇ ᐆᒃᑑᑎᕆᓗᒍ, ᓂᓪᓚᓱᖏᑦᑎᐊᓚᐅᕐᒪᑦ 2010 ᑕᐃᒪᓗ ᓇᑦᑏᑦ ᓂᕿᑦᑎᐊᓇᓚᐅᓐᖏᑦᑐᑦ ᑲᖏᖅᓯᐋᓗᖕᒥ. ᓇᑦᑏᑦ ᐊᒃᓱᕈᖅᑎᑕᐅᒍᑎᒃ, ᐅᓄᓐᖏᓂᖅᓴᓂᒃ ᓇᑦᑎᐊᓕᐅᕈᓐᓇᖅᑐᑦ ᑕᐃᒪᓐᓇ ᐊᕐᕌᒍ ᐊᓂᒍᖅᓯᒪᓕᖅᑎᓪᓗᒍ ᐊᕐᕌᒍᑲᓐᓂᓄᑦ. ᐊᑯᓂᑲᓪᓚᒃ, ᐊᓯᐅᓯᒪᔪᓐᓇᖅᑐᑦ ᓇᔪᖅᐸᒃᑕᖏᑦ ᐱᔾᔪᑎᒋᓪᓗᒍ ᓯᓚᐅᑉ ᐅᖅᑯᓯᕚᓪᓕᐊᓂᖓᓄᑦ ᐊᓯᑦᔨᖅᑐᓄᑦ ᑕᒪᓐᓇ ᐊᖏᔪᒥᒃ ᐅᓗᕆᐊᖅᓵᕆᔪᖅ. ᓯᑯᖅᑎᑦᑎᐊᕈᓐᓃᖅᓯᓂᖓᓄᑦ ᑕᕆᐅᖅ ᐅᓄᖅᓯᑎᑦᑎᓯᒪᖕᒥᔪᖅ ᐱᕙᖅᑎᑦᑎᓂᕐᒧᑦ ᑮᓇᐅᔭᓕᐅᕈᑎᒃᓴᓄᑦ ᐅᓯᑲᖅᑕᕐᓂᖅ, ᐳᓚᕋᑎᑦ ᐊᒻᒪᓗ ᑲᓪᐸᓂᑦ ᓴᓇᖅᑦᑕᓕᕐᒪᑕ, ᐅᑯᐊ ᐅᓄᖅᓯᑎᑦᑎᓯᒪᔪᑦ ᐸᒡᕕᔪᓐᓇᖅᑐᓂᒃ, ᓇᔪᖅᐸᒃᑕᖏᓐᓂᒃ ᐋᕿᒋᐊᑲᓐᓂᖅᓯᒪᓕᕐᒪᑕ ᐊᒻᒪᓗ ᓱᕈᖅᓴᐃᓕᖅᓱᑎᒃ ᓯᓚᒥᒃ. ᓂᕿᖃᖅᑐᑦ ᑕᒪᒃᑯᐊ ᓇᓄᐃᑦ ᐅᓄᓯᓂᒃ ᑐᖅᑯᓴᐃᔪᑦ. ᐊᖑᓇᓱᒃᑎᑦ ᐃᓄᐃᑦ ᐅᓄᖃᖅᑎᑦᑎᓯᒪᔪᓐᓇᖅᓯᐅᑎᒃ, ᑭᓯᐊᓂ ᐱᑕᖃᖅᑎᒃᑲᓐᓂᖅᐸᓪᓕᐊᑎᑦᑎᓂᖓᓄᑦ ᓱᑲᓂᖓ ᐊᖏᕐᓂᖓᑦᑎᒍᑦ ᐊᑦᑎᒃᓯᓯᒪᔪᑦ ᑖᒃᑯᓇᖓᓪᓚᕆᑦ ᓇᓄᕐᓄᑦ.
ᓯᕿᓯᐃᓂᖏᑦ ᖃᓅᑎᕆᓂᖏᑦ ᐊᔾᔨᒋᓐᖏᑦᑐᑦ ᐊᕙᑖᓂᑦ ᐊᕙᒃᑐᖅᓯᒪᔪᑦ, ᐃᓚᖏᑦ ᐅᓄᖅᓯᑎᑦᑎᓯᒪᔪᑦ ᐊᒃᑐᐃᔪᓐᓇᖅᑐᒥᒃ ᓇᓄᕐᓄᑦ ᑭᓯᐊᓂ ᖃᐅᔨᒪᓕᖅᑐᑦ ᑕᒪᓐᓇ ᐊᒃᑐᐃᓯᒪᓕᕐᒪᑦ ᓇᓂᖅᓴᕐᓂᖅ.

ᓴᐳᓐᓂᐊᕐᓂᖅ, ᒪᓕᒐᖅᑎᒍᑦ ᖃᓄᐃᑦᑐᒦᑉᐸᑦ, ᐳᖅᑐᓕᓃᓕᖅᑎᓯᒪᔪᑦ

ᐱᑕᖃᓐᖏᑦᑐᖅ ᓯᓚᕐᔪᐊᒥ ᐊᖏᕈᑎᓂᒃ ᐅᕝᕙᓘᓐᓃᑦ ᒪᓕᖅᑯᔭᐅᔪᓂᒃ ᓴᐳᒻᒥᓂᐊᖅᓱᑎᒃ ᓇᑦᑏᑦ, ᑭᓯᐊᓂ ᓯᓚᕐᔪᐊᒥ ᐊᖏᕈᑎᑕᖃᖅᑐᖅ ᓄᖑᑕᐅᓕᖅᑯᓇᒋᑦ ᓇᓄᐃᑦ ᐊᒻᒪᓗ ᓇᔪᖅᑕᖏᑦ ᑕᒪᓐᓇ ᐃᓚᖓᒍᑦ ᓴᐳᓐᓂᐊᕈᑎᒥᖕᒥᔭᖓ. ᓇᑦᑏᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᓐᖏᑦᑐᑦ ᓇᓂᑐᐃᓐᓇᖅ ᐃᓚᓕᐅᑎᓯᒪᓗᑎᒃ ᒪᓕᒐᕐᓂ ᓯᓚᕐᔪᐊᒥ ᑕᐅᖅᓰᓂᕐᒧᑦ ᓇᓂᓯᒪᓂᐊᖅᑐᓂ ᐱᓯᒪᔪᓂᒃ ᐊᐅᓚᑦᑎᓂᖅᓴᓂᒃ ᓇᓄᐃᑦ ᐊᒻᒪᓗ ᐊᑐᓂ "ᐃᓱᒪᓗᑦᑕᐅᖁᔭᐅᖏᑦᑐᑦ" ᓯᓚᕐᔪᐊᒥ ᔫᓂᐊᒃᑯᓂ ᓄᖑᑕᐅᕙᓪᓕᐊᓕᖅᑯᓇᒋᑦ ᐱᓯᒪᔪᓂᒃ ᐊᐅᐸᖅᑐᓂᒃ ᑎᑎᖅᑕᐅᓯᒪᓂᒃᑯᖅ (ᑕᒪᕐᒥᒃ ᓂᕐᔪᑎᑦ ᐊᒻᒪᓗ ᐅᑭᐅᖅᑕᖅᑐᖅ ᐆᒪᔾᔪᑲᓂᖏᓐᓂᑦ). ᐳᖅᑐᓕᓃᓕᖅᑎᓯᒪᔪᑦ N5B, N5N, N5M" ᐅᓇ ᑭᖑᓪᓕᖅᐹᖑᓚᐅᖅᑐᖅ ᓂᕐᔪᑎᓂᒃ

(ᑕᐃᒫᑐᐃᓐᓇᖅ ᒪᓕᒐᖅᑎᒍᑦ) ᐅᓂᒃᑳᖅ (ᑲᓇᑕᒥ ᐆᒪᔪᑐᐃᓐᓇᐃᑦ ᐊᑦᑕᓇᔭᐅᓕᖅᑐᓄᑦ ᓴᐳᓐᓂᐊᖅᑎᑦ ᑲᑎᒪᔨᑦ 2016). ᐊᑦᑕᓇᔭᐅᓕᖅᑐᓄᑦ ᑲᑎᒪᔨᕋᓛᑦ ᖃᐅᔨᓇᓱᑦᑎᐊᖅᓯᒪᔭᕐᒥᑦ ᐆᒪᔪ ᐊᑦᑕᓇᔭᐅᓕᖅᑐᑦ ᓄᖑᓕᕐᓂᕐᒥᓐᓄᑦ ᓄᕕᐱᓇ 2019; ᖃᐅᔨᓇᓱᒃᑕᐅᑲᓐᓂᕋᒥᒃ ᖃᐅᔨᓇᖅᓯᓚᐅᖅᑐᑦ "ᐊᑦᑕᕐᓇᖅᑐᒦᓐᖏᑦᑐᑦ" ᑕᐃᑲᓂ 1989, ᐊᒻᒪᓗ ᒫᓐᓇ ᑎᑎᕋᖅᑕᐅᓯᒪᓇᑎᒃ *ᐆᒪᔪᓕᒫᓄᑦ ᐊᑦᑕᕐᓇᖅᓯᔪᓂ ᐱᕐᑯᔭᕐᔪᐊᖅ.* ᐅᑭᐅᖅᑕᖅᑐᖅ ᐆᒪᔪᖏᑦᑕᐅᖅ ᑖᒃᑯᐊ ᐊᑖᓃᑦᑐᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᐊᑦᑕᕐᓇᖅᑐᒦᓕᕐᓂᖏᓐᓂᒃ ᓄᖑᑕᐅᕕᓕᕐᒪᑕ ᐊᑖᒍᑦ ᔪᓇᐃᑎᑦ ᓯᑕᐃᑦᔅ *ᐊᑦᑕᕐᓇᖅᑐᒦᑦᑐᑦ ᓄᖑᑕᐅᓕᖅᑐᓄᑦ ᐆᒪᔪᓄᑦ ᐱᕐᑯᔭᕐᔪᐊᖅ.* ᓇᑦᑏᑦ ᐳᖅᑐᓕᓅᑦ ᑕᐃᒪᓗ ᐃᓱᒫᓗᒋᔭᐅᓐᖏᑦᑎᐊᖅᑐᑦ ᐊᑯᑭᑦᑐᓂᑦ, ᐊᑦᑕᕐᓇᓇᔭᐅᓕᖅᓗᑎᒃ ᓄᐊᕕᐋ (ᓴᕙᒡᕚᑦ), ᐊᒻᒪᓗ ᑎᑎᕋᖅᑕᐅᓯᒪᓇᑎᒃ ᐅᓚᓯᐊᒥ.

ᑲᓇᑕᒥ, ᓇᑦᑏᑦ ᐱᓕᕆᐊᖑᑉᐳᑦ ᐊᐅᓚᑕᐅᓪᓗᑎᒃ ᐊᑖᒍᑦ ᐊᖏᖅᓯᔾᖃᖅᑐᑦ ᑕᕆᐅᑉ ᓂᕐᔪᑎᖏᑦ ᐳᐃᔩᑦ ᐱᕐᑯᔭᕋᓛᖏᑦ (ᑎᑎᕋᖃᓂ/93-56) *ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐱᕐᑯᔭᕐᔪᐊᖅ.* ᓇᑦᑎᕋᓱᖕᓂᖅ ᑕᓇᐅᖕᒋᓐᓂ ᓄᓇᑦᓯᐊᖅ, ᓄᓇᕗᑦ, ᓄᓇᕕᒃ ᐊᒻᒪᓗ ᓛᐸᑐᐊ ᐊᐅᓚᑦᑎᖃᑎᒌᖕᒪᑕ ᑖᒃᑯᑎᒎᑦ ᐊᔾᔨᒌᓐᖏᑦᑐᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᓂᑦ ᑲᑎᒪᔨᖏᓐᓂᑦ, ᑕᒪᒃᑯᓄᖓ ᖃᐅᔨᓴᖅᑎᒻᒪᓈᑦ ᑭᒡᓕᓐᓂᐊᕐᓂᖏᑦᑎᒍᑦ ᐃᒪᕐᒥᐅᑕᓕᓇᔫᒃᑯᑎᒍᑦ. ᒫᓐᓇ ᑲᓇᑕᒥ ᒥᖑᐃᖅᓯᕐᕕᑦ, ᑲᓇᑕᒥ ᓂᕐᔪᑎᖃᕐᓂᖏᑦ ᐊᒻᒪᓗ ᐊᓯᖏᑦ ᓄᓇᑦ ᓇᖕᒥᓂᓇᔭᐅᔪᑦ ᐊᒻᒪᓗ ᐊᐅᓚᑕᐅᔪᑦ ᑲᓇᑕᐅᑉ ᒐᕙᒪᒃᑯᖏᓐᓂᑦ ᒥᑭᔫᒐᓗᐊᒥᒃ ᓇᔪᖅᑕᖏᓐᓂᒃ ᓴᐳᓐᓂᐊᕐᓂᖃᖅᑐᑦ. ᒫᓐᓇ ᐱᑕᖃᖅᑐᑦ ᐊᒻᒪᓗ ᑐᒃᓯᕌᖑᔪᑦ ᑕᓇᐅᕐ ᓴᐳᓐᓂᐊᕈᑎᒃᓴᖏᑦ ᐊᒻᒪᓗ ᑲᓇᑕ ᑕᓇᐅᕐ ᓴᐳᓐᓂᐊᕐᓂᖓᑦ ᐃᓚᖓᒍᑦ ᓴᐳᓐᓂᐊᕈᑕᐅᕗᑦ.

<u>ᑐᓂᔭᐅᔪᑦ ᑖᒃᑯᓇᙵ</u>
<u>ᓄᓇᕗᑦ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᐊᒻᒪᓗ</u>
<u>ᓄᓇᕕᒃ ᑕᕆᐅᑉ ᐊᕕᒃᑐᖅᓯᒪᓂᖏᓐᓄᑦ ᐆᒥᒪᔪᓕᕆᔨᕐᔪᐊᒃᑯᖏᑦ ᑲᑎᒪᔨᖏᑦ</u>

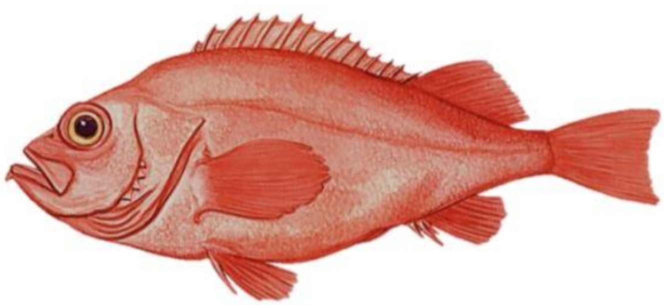
<u>ᐅᑯᓇᙵ</u>

ᑐᓴᐅᒪᔾᔪᑎ: X **ᐃᓱᒪᓕᐅᕈᑎ:** **ᐃᒪᓐᓇᖅᑑᑎᑦ:**

ᐱᓇᐃᓗᑕᖅ: **ᑎᑉᑎᑐᑦ ᐃᖃᓗᕋᓛᑦ *(ᓯᐸᐃᔅ ᒫᑎᓚ ᐊᒻᒪᓗ ᓯᐸᐃᔅ ᕚᔅᓯᐊᑕᔅ)* ᐱᔭᐅᔪᒪᙱᑦᑐᑦ ᑕᐃᑲᓂ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᒃᐸᙳᓂᐊᕐᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᓂᕐᒥᑦ ᑕᐅᕙᓂ ᑲᓇᙶᙵᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ**

ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᒃᐸᐃᑦ (*ᐹᓐᑕᓚᔅ ᐳᐊᕆᐋᓕᔅ*)

ᑕᖅᓴᓖᑦ ᑭᖑᒃᐸᐃᑦ (*ᐹᓐᑕᓚᔅ ᒫᓐᑕᒍᐃ*)



ᐃᖃᓗᕋᓛᑦ *(ᓯᐸᐃᔅ ᒫᑎᓚ ᐊᒻᒪᓗ ᓯᐸᐃᔅ ᕚᔅᓯᐊᑕᔅ)*

<u>ᖃᓄᐃᓕᖓᓂᖓ</u>

ᒪᕐᕉᒃ ᑭᖑᒃᐸᐃᑦ ᐊᔾᔨᒌᙱᑦᑐᑦ (*ᐹᓐᑕᓚᔅ ᐳᐊᕆᐋᓕᔅ* ᐊᒻᒪᓗ *ᐹᓐᑕᓚᔅ ᒫᓐᑕᒍᐃ*) ᐱᑕᖃᓲᑦ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᒃᐸᙶᓱᙵᕐᒥᑦ ᐱᓕᕆᐊᖑᕙᒃᑐᓂ ᕿᑭᖅᑖᓘᑉ ᐃᑭᙵᓂᑦ ᐊᒻᒪᓗ ᑲᓇᙶᙵᓂᑦ ᓄᓇᕕᐅᑉ ᕿᑭᖅᑖᓘᑦᑐ ᐃᑭᙵᓂᑦ. ᑕᒪᓐᓇ ᐃᖃᓗᓕᕆᓂᖅ ᑲᒪᒋᔭᐅᔪᖅ ᒪᓕᒃᓱᑎᒃ ᒪᕐᕉᙵᒃ ᐊᔾᔨᒌᙱᑦᑑᙵᒃ ᐃᖃᓗᖃᕐᕕᐅᔪᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᓂᒃ ᐃᓂᓂᑦ, ᑖᒃᑯᐊᒃ ᐱᓇᙵᓇᙶᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᑦ ᐃᓃᑦ (WAZ) ᐊᒻᒪᓗ ᑲᓇᙶᙵᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ (EAZ) (ᐊᑦᑕᑕᖅᑎᓯᒪᔪᖅ 1).

ᐅᑐᐱᕆ 2020, ᑭᒻᒪᖅᑐᐃᔩᑦ ᐃᒪᕕᙵᓂᑦ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᒃᐸᓕᕆᔨᓂᑦ ᐅᓂᒃᑳᓚᐅᖅᑐᑦ ᐅᓄᖅᑐᒻᒪᕇᑦ ᑎᑉᑎᑐᑦ ᐃᖃᓗᕋᓛᑦ ᐱᔭᐅᔪᒪᙱᑦᑐ ᐃᒪᙵᓂᑦ ᑲᓇᙶᙵᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ (EAZ) (ᕿᑭᖅᑖᓘᑉ ᐃᑭᙵᓂᑦ ᐱᓇᙶᙵᓂᑦ) ᐊᒻᒪᓗ ᑭᖑᒃᐸᖕᓂᒃ ᐃᖃᓗᙵᓯᒻᕕᖕᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 4 ᐃᒪᐃᑎᑦᑎᕙᓵᖅᓱᑎᒃ ᓅᑦᓱᑎᒃ ᐊᑐᖅᑕᐅᔭᕆᐊᓖᑦ ᒪᓕᒃᑕᐅᔭᕆᐊᖃᖅᑎᑕᐅᔪᑦ ᓚᐃᓴᓐᓯᖓᓄᑦ (COL).

ᑖᒃᑯᐊ ᐊᑐᖅᑕᐅᔭᕆᐊᓖᑦ ᐃᒪᐃᑎᑦᑎᕙᒃᑐᑦ ᐅᒥᐊᕐᔪᐊᓂᒃ ᐊᓯᔾᔨᓄᑎᒃ ᐃᖃᓗᒐᓱᐊᑉᕕᖏᓐᓂᑦ ᓅᓪᓗᑎᒃ ᒥᑭᓛᖑᔪᓐᓇᕐᓗᓂ 10 ᒪᐃᓖᑦ ᐃᒪᐃᒃᑐᖃᕐᓂᕈᓂ ᐃᖅᑳᕐᒥᐅᑕᑦ ᐃᖃᓗᕋᓖᑦ ᐱᔭᐅᔪᒪᙱᑦᑐᑦ (ᐃᓚᐅᓪᓗᑎᒃ ᐃᖃᓗᕋᓖᑦ) ᑲᓚᑕᐅᔪᓂᑦ ᐅᖓᑕᐅᔾᔫᒃᐸᑕ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᕗᒌᖅᑐᓂᒃ ᖃᓄᐃᑦᑐᖃᖅᑳᖅᑎᓐᓇᒍ ᑭᒡᓕᐅᔪᓂᒃ (ᐊᖏᓂᖅᓴᖅ 2.5% ᐃᒃᑕᕇᓐᓂᖓᓄᑦ ᑭᖑᒃᐊᒃᑕᖏᑕ, ᐅᕝᕙᓘᓐᓃᑦ 100 ᑭᓗᒍᕚᒡ) (ᐊᑦᑕᑕᖅᑎᓯᒪᔪᖅ 2).

ᐅᑭᐊᒃᓵᖓᓂᑦ 2020, ᑕᒪᒃᑯᐊ ᓅᓐᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᔭᕆᐊᓖᑦ ᐊᑐᖅᑕᐅᒐᔪᓚᐅᖅᑐᑦ ᑕᐅᕙᓂ ᑲᓇᙵᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ (EAZ) ᐊᒻᒪᓗ ᑭᖑᒃᐸᙵᓂᒃ ᐃᖃᓗᒐᓱᑉᕕᙵᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 4 ᐊᑐᖅᑕᐅᑦᑎᐊᓚᐅᖅᑐᑦ ᑭᖑᒃᐸᓐᓂᐊᖅᓱᑎᒃ ᐃᖃᓗᖓᓱᒃᑎᓪᓗᒋᑦ, ᓴᖅᑮᓪᓗᓂᓗ ᐱᒻᒪᕆᐅᔪᒥᒃ ᑮᓇᐅᔭᑎᒍᑦ ᐊᔪᕐᓇᙱᓐᓇᔭᕋᓗᐊᕐᒪᖔᑕ ᐃᓱᒫᓘᑕᐅᓪᓗᑎᒃ ᐃᒪᕙᖏᑦ ᑭᖑᒃᐸᓯᒃᐸᒃᑐᓄᑦ. ᓴᖅᑭᓐᓂᖓ ᐅᓄᖅᑐᑦ ᑎᑦᑎᑦᑐᑦ ᐃᖃᓗᕋᓖᑦ ᐱᔭᐅᔪᒪᙱᑦᑐᑦ ᐃᓱᒪᒃᓴᖅᓯᐅᕈᑕᐅᓚᐅᖅᑐᑦ ᑐᐊᕓᓇᖅᑐᒥᒃ ᐊᒻᒪᓗ ᑕᐃᒪᐃᒐᔪᙱᓐᓂᖓᓄᑦ ᐱᔾᔪᑕᐅᓪᓗᓂ. ᐱᑕᖃᕆᐊᖃᕐᓂᖓᓄᑦ ᑲᒪᔾᔪᑎᒃᓴᓂᒃ ᑲᒪᒋᔭᐅᖁᓪᓗᒋᑦ ᐸᒡᕙᓴᐃᓂᖏᑦ ᑭᖑᒃᐸᒐᓯᖕᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑐᐊᕙᕐᓇᓗᐊᓚᐅᖅᑐᖅ ᐃᒪᐃᓐᓂᖓᓄᑦ ᐃᖃᓗᖓᓯᖕᓂᕐᒧᑦ ᐱᕙᐅᔪᑦ ᓱᓕ ᐅᓄᙳᒥᒻᒪᑕ ᐊᒻᒪᓗ ᐱᔾᔪᑕᖃᖅᐸᒃᐳᑎᒃ ᓯᑯ ᖃᓄᐃᓕᖓᓂᖓᓄᑦ.

ᒫᓇ ᒪᒃᐱᖓᔪᖃᙱᑦᑐᑦ ᑖᒃᑯᓄᖓᓪᓚᕆᒃ ᐃᖃᓗᕋᓛᓄᑦ ᐃᖃᓗᒐᓱᒃᑕᐅᔪᓐᓇᕐᓗᑎᒃ ᑕᐃᕙᓂ ᐃᓂᒥᑦ. ᐃᖃᓗᖃᓛᓂᒃ ᐃᖃᓗᒐᓱᖕᓂᖅ ᑕᐃᑲᓂ ᐅᐊᖕᓇᔩᖓᓂᑦ ᐱᓇᖕᓇᒥᑦ ᓂᐅᕗᓛᓐ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑎᒥᕐᑯᑖ (NAFO) ᐃᓗᐊᓂᑦ ᐃᓂᑦ 2 + ᐊᕕᒃᑐᖅᓯᒪᔪᑦ 3K ᐱᓕᕆᕝᕕᐅᓚᐅᒃᑐᑦ ᑕᐃᑲᙱᓂᑦ 1997.

ᑭᓪᓕᓯᓂᐊᖅᓯᒪᔪᑦ ᐅᖃᐅᔾᔨᒋᐊᕈᑏᑦ

ᐃᖃᓗᕋᓛᖃᖅᑐᑦ ᓴᖅᑮᔭᖅᑎᑦᑎᔪᑦ ᐃᓛᓐᓂᒃᑯᑦ ᐃᖃᓇᐅᔭᓚᐅᒃᑲᑦᑕᖅᑎᑦᑎᓗᑎᒃ, ᓴᖅᑮᔭᑦᑎᐊᖅᑎᑦᑎᓪᓗᑎᒃ ᒥᑭᑦᑐᒥᒃ ᐊᕐᕌᒍᒧᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᓄᑦ ᐃᓚᖏᓐᓂᑦ ᐊᕐᕌᒍᓂᑦ ᐊᒻᒪᓗ ᐃᓛᓐᓂᓚᐅᓱᖓᒃᑯᑦ ᐅᓄᖅᑑᕝᕙᓗᑎᒃ ᐊᕐᕌᒍᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᐃᓛᓐᓂᒃᑯᑦ ᐊᑯᑦᑐᔫᓕᕆᓐᓂᖏᑦ ᐊᕐᕌᒍᓄᑦ ᖁᓕᓅᔪᓐᓇᖅᓱᓂ. ᑕᒪᒃᑯᐊ ᐊᑯᑦᑐᔫᓂᖏᑦ ᐅᓄᖅᑑᓚᐅᑲᖃᑦᑕᕐᓂᖏᑦ ᐃᖃᓇᐃᔭᖅᑎᓯᐅᓂᕐᒧᑦ ᐃᒪᕆᐅᔪᑦ ᐊᖑᓇᓯᐃᓐᓇᖃᑦᑕᖁᓪᓗᒋᑦ ᐅᓄᕐᓂᖏᓐᓄᑦ ᐊᑯᓂᐅᔪᒃᑯᑦ.

ᐱᑕᖃᖅᑐᑦ ᐃᖃᓗᕋᓖᑦ ᐊᒻᒪᓗ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᒃᐸᐃᑦ ᓇᓂᔭᐅᔪᓇᖃᑦᑕᕐᓂᖏᑦ ᐊᔾᔨᐸᓗᖓᓂᑦ ᐊᕙᑎᓂᑦ, ᓯᕗᓪᓕᖅᐹᖅ ᓇᓗᓇᐃᔭᐅᑎ ᐱᑕᖃᑎᐊᖅᑐᐊᓘᓂᖏᓐᓄᑦ ᐅᓄᖅᑑᓪᓗᑎᒃ ᓇᓗᓇᐃᒃᑯᑕᐅᒐᔪᒃᑐᖅ ᐊᑐᖅᓱᑎᒃ ᐅᓄᕐᓂᖅᓴᐅᓂᖏᓐᓄᑦ ᐱᔭᐅᔪᒪᙱᑦᑐᑦ ᐅᓄᖅᓯᕗᓪᓕᐊᓂᖏᑦ ᐊᓯᖏᓐᓂᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᓂᕆᐊᕆᔭᖃᙱᑦᑐᑦ ᐊᖑᓂᒐᒃᓴᒥᖏᓐ ᓖᕐᓗ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᒃᐸᓂᒃ. ᐃᖃᓗᕋᓖᑦ ᐱᔭᐅᔪᒪᙱᑦᑐᑦ ᐃᓗᓕᖃᑐᐃᓐᓇᕆᐊᓖᑦ ᒪᕐᕆᖕᓂᒃ ᐅᕝᕙᓘᓐᓃᑦ ᐊᔾᔨᐳᙱᑦᑐᓂᒃ (ᒪᓕᒃᑕᐅᓪᓗᑎᒃ ᐃᓂᖏᑦ) ᐊᕕᒃᑐᖅᑕᐅᖃᑦᑕᙱᑦᑐᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐅᓂᒃᑳᓄᑦ ᐅᕝᕙᓘᓐᓃᑦ ᐱᑕᖃᕐᓂᖏᓐᓄᑦ ᖃᐅᔨᓴᕈᑎᓂᒃ ᐱᔾᔪᑎᖃᕐᓗᑎᒃ. ᐊᒃᑐᐊᔪᑦ ᐱᑕᖃᕐᓂᖏᑦ ᐊᑐᓂ ᐃᖃᓗᕋᓖᑦ ᐊᔾᔨᙱᑦᑐᑦ ᑕᒪᒃᑯᓇᓂ ᐱᔭᐅᔪᒪᙱᑦᑐᓂᑦ ᐊᓯᔾᔨᖅᓯᒪᖃᑦᑕᖅᑐᑦ ᐅᑭᐅᖅᑕᖅᑐᒧᐊᕐᐸᓪᓕᐊᓪᓗᑎᒃ.

ᑭᖑᓪᓕᖅᐹᖅ ᖃᐅᔨᓴᕈᑎ ᑖᒃᑯᓇᖓ ᐃᖃᓗᕋᓛᓄᑦ ᐱᑕᖃᕐᓂᖓᓂᑦ ᑕᐃᑲᓂ ᐅᐊᖕᓇᔩᖓᓂᑦ ᐱᓇᖕᓇᒥᑦ ᓂᐅᕗᓛᓐ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑎᒥᕐᑯᑖ (NAFO) ᐃᓂᑦ 2 + ᐊᕕᒃᑐᖅᓯᒪᔪᑦ 3K ᐱᓕᕆᕝᕕᐅᓚᐅᖅᑐᑦ ᑕᐃᑲᓂ 2016. ᖃᐅᔨᓴᕈᑏᑦ ᓴᖅᑮᓚᐅᖅᑐᑦ ᐃᖃᓗᕋᓛᓂᒃ ᐱᑕᖃᕕᐅᔪᑦ ᐅᓄᖅᓯᕆᐊᖅᓯᒪᔪᑦ ᐊᖏᔪᒥᒃ ᑕᐃᑲᙵᑦ 2003-ᒥᑦ 2010-ᒧᑦ ᐊᒻᒪᓗ ᐱᑕᖃᕕᐅᔪᑦ ᐊᑐᖅᑎᓪᓗᒋᑦ 2010-ᒥᑦ 2015-ᒧᑦ ᒥᒃᓴᐅᓴᒃᑕᐅᓯᒪᔪᑦ ᓇᑉᐸᖓᓂᒃ ᑲᑕᓚᐅᖅᑳᖅᑎᓇᒋᑦ (1978-1990) ᑯᕝᕙᓯᓕᕇᖕᓂᖏᑦ. ᑖᒃᑯᐊ 2016 ᖃᐅᔨᓴᕈᑏᑦ ᓴᖅᑮᓯᒪᔪᑦ ᑕᒪᒃᑯᐊ ᐃᖃᓗᕋᓛᓄᑦ ᐃᖃᓇᐃᔭᓕᖅᑎᑦᑎᔾᔪᑏᑦ ᑕᐃᑲᙱᓂᑦ 2000 ᐅᖓᑖᓃᓚᐅᖅᑐᑦ ᐊᑯᓂᐅᔪᒃᑯᑦ ᑕᐃᒪᐃᒐᔪᒃᑐᑦ ᑕᐅᑐᒃᑕᐅᑎᓪᓗᒋᑦ, ᖃᖓᐅᓂᖓᓄᑦ–ᐋᖅᑭᒃᓱᖅᑕᐅᓯᒪᔪᑦ ᖁᕝᕙᓯᓛᖅ ᑕᐃᑲᓂ 2014 (ᐊᑦᑕᑕᖅᑎᓯᒪᔪᖅ 3).

ᒫᓇᓕᓴᐅᓂᖅᓴᖅ ᓴᖅᑭᑕᐅᓵᖅᑐᑦ ᑕᐃᑲᙵᑦ ᐅᒥᓱᓚᐃᑦ–ᐊᔾᔨᐅᙱᑦᑐᓄᑦ ᖃᐅᔨᓴᕈᑏᑦ (ᑖᒃᑯᓇᖓᑐᐊᖑᙱᑦᑐᑦ ᖃᐅᔨᓴᕈᑏᑦ ᐃᖃᓗᕋᓛᓄᑦ) ᑕᐃᑲᓂ ᐅᐊᖕᓇᔩᖓᓂᑦ ᐱᓇᖕᓇᒥᑦ ᓂᐅᕗᓛᓐ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑎᒥᕐᑯᑖ (NAFO) ᐃᓂᑦ 2 + ᐊᕕᒃᑐᖅᓯᒪᔪᑦ 3K ᐱᓕᕆᕝᕕᐅᓚᐅᒃᑐᑦ ᓴᖅᑮᓯᒪᔪᑦ ᐅᓄᖅᓯᕆᐊᕐᓂᖏᑦ ᑎᑉᐹᑦᑐᑦ ᐃᖃᓗᕋᓖᑦ ᐃᖃᓇᐃᔭᓕᖅᑎᑦᑎᔪᓇᖅᑐᑦ ᑕᐃᑲᓂ 2019 (ᑕᐃᒪᐃᑦᑐᒃᓴᐅᖕᒥᔪᖅ 2018 ᐊᕐᕌᒍᒧᑦ–ᐊᕕᒃᑐᖅᓯᒪᔪᑦ), ᖃᐅᔨᒪᔭᐅᔪᑦ ᐊᔪᕐᓇᙱᓐᓂᖓᓂᒃ ᓇᓗᓇᐃᔭᖅᓯᒪᔪᓂᑦ ᑕᐃᑲᙵᓂᑦ 2016 ᖃᐅᔨᓴᕈᑎᓂᑦ.

ᐱᑕᖃᙱᓐᓂᖓᓄᑦ ᒫᓇᓵᖅ ᐱᑕᖃᕕᐅᔪᑦ ᒥᒃᓴᐅᓴᒃᑕᐅᓯᒪᓂᖏᑦ ᑕᒪᒃᑯᓄᖓ ᐃᖃᓗᕋᓖᑦ ᐅᓄᕐᓂᖏᓐᓄᑦ ᑕᐃᑲᓂ ᑭᖑᒃᐸᙵᓂᒃ ᐃᖃᓗᒐᓱᑉᕕᙵᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 4 ᐅᕝᕙᓘᓐᓃᑦ ᑲᓇᙵᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ (EAZ), ᒥᒃᓴᐅᓴᒃᑕᐅᔪᓇᖅᑐᑦ ᐊᒃᑐᐃᓃᑦ ᑖᒃᑯᓇᖓ ᐃᖃᓗᕋᓖᑦ ᐱᔭᐅᔪᒪᖃᑎᙱᑦᑐᑦ ᑖᒃᑯᓇᓂ ᐃᓂᓂᑦ ᐅᓄᕐᓂᖏᓐᓄᑦ ᐅᑎᖅᑎᑦᑎᓇᓱᐊᕈᑎᒃᓴᓄᑦ. ᐊᒻᒪᓗᒃᑳᓂᖅᑕᐅᖅ, ᖃᐅᔨᒪᔭᐅᕗᓂᙱᑦᑐᖅ ᑕᒪᒃᑯᐊ ᒫᓇᓵᖅ ᐅᓄᖅᑐᓂᒃ ᐃᖃᓇᐃᔭᓕᖅᑎᑦᑏᑦ ᐊᔪᐃᓐᓇᕐᓂᐊᕐᒪᖔᑕ ᐊᑯᓂᐅᔪᒃᑯᑦ ᐅᓄᕐᓂᖏᓐᓄᑦ.

ᐃᖃᓗᓕᕆᔩᑦ ᐊᒻᒪᓗ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᑲᓇᑕᒦᑦ (DFO) ᓄᓇᒥᖖᑦ ᑲᒪᔩᑦ ᑐᓂᔭᐅᓯᒪᔪᑦ ᑐᙵᕋᑕᐅᓯᒪᔪᓂᒃ ᑕᒪᒃᑯᓄᖓ ᐃᖃᓇᐃᔭᖃᑎᒌᓄᑦ–ᕿᒥᕐᕈᔭᐅᔭᕆᐊᓖᑦ ᐱᑕᖃᕐᓂᖏᓐᓄᑦ ᖃᐅᔨᓴᕈᑏᑦ ᑕᒪᒃᑯᓄᖓ ᐃᖃᓗᕋᓛᓄᑦ ᑕᐃᑲᓂ ᐅᐊᖓᓃᖓᓂᑦ ᐱᓇᖓᒥᑦ ᓂᐅᕗᓛᓐ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑎᒥᖁᑖ (NAFO) ᐃᓂᑦ 2 + ᐊᕕᒃᑐᖅᓯᒪᔪᑦ 3K ᐱᓕᕆᕝᕕᐅᓚᐅᒃᑐᑦ ᐊᒻᒪᓗ ᐃᓂᒃᑳᓂᐅᔭᖅ 0 (ᑐᔅᔭᐱᒃᓗᓂ ᑖᒪᑐᒧᖓ ᑲᓇᖕᓇᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ [EAZ]), ᓴᖅᑭᑕᐅᓂᐊᖅᑐᑦ ᓂᕆᐅᒋᔭᐅᔪᑦ ᑕᐃᑲᓂ ᐊᐃᕐᕆᓕ–ᒪᐃ 2021.

ᑲᒪᓂᕐᒧᑦ ᑭᒡᒍᑏᑦ

ᓄᕕᐱᕆ 2020-ᐅᑎᓪᓗᒍ, ᓴᓇᕝᕕᐅᔪᖅ ᑐᓴᕋᓱᐊᓚᐅᑐᖅ ᓴᓇᕝᕕᖕᓂᑦ ᐊᒻᒪᓗ ᑲᑎᒪᔨᓂᑦ ᐃᖃᓇᐃᔭᖅᑎᓂᑦ ᑕᒪᑐᒧᖓ ᐊᑐᓚᐅᑲᖕᓂᐊᖅᑐᒧᑦ ᑲᒪᔪᑎᓄᑦ ᑭᒡᒍᑎᓂᒃ ᐱᑕᖃᓗᐊᕐᓂᖏᓐᓄᑦ ᐃᖃᓗᕋᓛᑦ ᐱᔭᐅᔪᒪᙱᑦᑐᑦ ᓂᕿᒃᓴᖅᓯᐅᑎᓂᒃ ᐱᓕᕆᑦᑎᐊᕈᓐᓇᕐᑯᓪᓗᒋᑦ ᐊᒥᐊᒃᑯᖏᓐᓂᒃ 2020-2021 ᑭᖑᒃᐸᖕᓂᒃ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ, ᐃᓱᒪᒋᔭᐅᓯᓐᓈᖅᓗᑎᒃ ᐱᑕᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᑦ ᐊᒃᑐᐃᓃᑦ ᑕᒪᒃᑯᓄᖓ ᐃᖃᓗᕋᓛᑦ ᐅᓄᕐᓂᖏᓐᓄᑦ. ᐊᑐᕐᓃᑦ ᒫᓐᓇᓚᐅᑲᒃ ᐊᑐᖅᑕᐅᓚᔪᒃᑐᓂᒃ ᐱᔅᔪᑎᖃᓚᐅᖅᑐᑦ ᑲᒪᓗᑎᒃ ᓄᑖᑎᒍᑦ ᐃᖃᓗᓕᕆᔅᔪᑎᓂᒃ ᓂᕿᒃᓴᖅᓯᐅᖅᑎᓂᑦ ᐊᒃᑐᑦᑕᐅᔪᓂᑦ ᐃᓂᓂᑦ ᐃᓄᐃᓴᒃᓖᓯᒪᕐᑯᓪᓗᒋᑦ ᓯᕗᓂᒃᓴᑦᑎᓐᓂᑦ ᐃᖃᓗᕋᓛᑦ ᐱᔭᐅᔪᒪᙱᑦᑐᑦ.

ᓴᓇᕝᕕᐅᔪᑦ ᐃᓱᒪᒃᓴᖅᓯᐅᕈᑎᖃᑦᑎᐊᖅᓯᒪᔪᑦ ᓴᓇᕝᕕᐅᔪᓂᑦ–ᑐᒃᓯᕌᖑᔪᑦ ᐊᑐᖅᑕᐅᖕᒐᔪᒃᑐᑦ ᑕᒪᒃᑯᓇᓂ ᑐᓴᕋᓱᐊᕐᓂᕐᓂᑦ ᑲᑎᒪᔩᑦ ᐃᖃᓇᐃᔭᖅᑎᖏᓐᓂᒃ ᐊᒻᒪᓗ ᐃᖃᓗᓕᕆᔩᑦ ᐊᒻᒪᓗ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᑲᓇᑕᒦᑦ (DFO) ᑭᓪᓕᓯᓂᐊᕈᑎᖏᓐᓂᒃ. ᓄᙳᐊᓂᑦ ᓄᕕᐱᕆ, ᐃᒪᕕᖕᒥᑦ ᑭᖑᒃᐸᖕᓄᑦ ᒪᓕᒃᑕᐅᔭᕆᐊᖃᖅᑎᑕᐅᔪᑦ ᓚᐃᓴᓯᖕᖓᓄᑦ (COL) ᐋᖅᑭᒋᐊᖅᑕᐅᓚᐅᖅᑐᑦ ᐃᒪᐃᑦᑐᓇᕐᑯᓪᓗᒋᑦ ᐅᒥᐊᕐᔪᐊᑦ ᓅᑦᑐᓇᕐᓗᑎᒃ 5 ᒪᐃᓕᓂᒃ ᑲᑎᓪᓗᒃᑖᕐᓗᒋᑦ ᐱᔭᐅᔪᒪᙱᑦᑐᑦ ᐃᖃᓗᕋᓛᑦ ᑕᑯᖖᕐᓗᒋᑦ ᑭᖑᓂᑦᑎᓐᓂᑦ ᐊᕐᕕᓂᓖᑦ ᑲᓕᑕᖏᑦ ᐅᖓᑕᐅᔾᔫᐸᑕ 10% ᐃᒃᑕᕆᖕᓂᖓᑕ ᑲᑎᓪᓗᒃᑖᖅᓗᒍ ᐊᖑᓂᒃᑕᖏᑦ ᑭᖑᒃᐸᐃᑦ (ᐊᑦᑕᑕᖅᑎᓯᒪᔪᖅ 2). ᑕᒪᓐᓇ ᐊᑐᖅᑕᐅᒐᔪᒃᑐᖅ ᐃᒪᐃᑦᑎᑦᔪᓐᓇᕐᓂᖓᓄᑦ ᐅᓄᕐᓂᖅᓴᐃᑦ ᐃᖃᓗᕋᓛᑦ ᐱᔭᐅᔪᒪᙱᑦᑐᑦ ᐊᒻᒪᓗ ᐃᓄᐃᓴᒃᓖᒋᐊᕐᓗᒋᑦ ᐊᑐᖅᑕᐅᒐᔪᒃᑐᑦ ᓅᖃᑦᑕᕐᓃᑦ. ᑕᒪᓐᓇ ᐊᑐᖅᑕᐅᓚᐅᒃᑐᖅ ᐊᖏᖅᑕᐅᓯᒪᔪᖅ ᐊᑯᓂᐅᓂᖃᕈᓐᓇᕐᓗᓂ 8 ᐱᓇᓱᐊᕈᓯᕐᓄᑦ (ᓄᕕᐱᕆ 26, 2020-ᒥᑦ ᔮᓄᐊᕆ 21, 2020-ᒧᑦ).

ᑕᒪᓐᓇ ᑐᕌᖅᑕᐅᔪᖅ, ᑭᒡᒍᑎᓯᕐᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᒧᖅ ᑭᓪᓕᓕᖅᓯᒪᔪᖅ ᑕᐃᑯᖓ ᑭᖑᒃᐸᖕᓂᒃ ᐃᖃᓗᒐᓱᖕᕕᖕᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 4 ᐊᒻᒪᓗ ᕿᑭᖅᑖᓘᑉ ᐃᑭᖓᓂᑦ ᐱᓇᖕᓇᖓᒥᑦ ᑲᒪᓂᕐᒧᑦ ᓇᐃᓴᖅᓯᔅᔪᑏᑦ. ᐃᒪᒃᑯᓂ ᓄᓇᕗᒻᒥᑦ ᐊᒻᒪᓗ ᓄᓇᕕᖕᒥᑦ ᐊᕕᒃᑐᖅᑕᐅᓂᖏᓐᓄᑦ ᑎᒍᒥᐊᖅᑏᑦ ᐊᖅᑯᓭᑦᑕᐅᑎᑐᐃᓐᓇᕆᐊᓖᑦ ᐊᑯᓐᓂᖏᓐᓂᑦ ᕿᑭᖅᑖᓘᑉ ᐃᑭᖓᓂᑦ ᐱᓇᖕᓇᖓᓂᑦ ᐊᒻᒪᓗ ᓄᓇᕗᒻᒥᑦ/ᓄᓇᕕᖕᒥᑦ ᑲᓇᖕᓇᖓᓄᑦ ᑲᒪᓂᕐᒧᑦ ᓇᐃᓴᖅᓯᔅᔪᑏᑦ ᑖᒃᑯᓇᓂᔅᓴᐃᓐᓇᖅ ᑲᓕᑕᐅᔪᓂᑦ, ᐃᓚᒋᐊᓪᓚᐅᑕᐅᓪᓗᑎᒃ ᑕᒪᑯᒧᖓ ᐊᑐᓚᐅᑲᖕᓂᐊᖅᑐᒧᑦ ᓄᓇᕗᒻᒥᑦ/ᓄᓇᕕᖕᒥᑦ ᑲᓇᖕᓇᖓᓂᑦ ᐱᑕᖃᕆᐊᖃᓚᐅᕐᒪᑦ ᑕᒪᒃᑯᓄᖓ ᐊᐅᓚᓂᕐᒧᑦ ᑕᐅᑐᒃᑕᐅᔪᓂᑦ.

ᑭᖑᓪᓕᕐᒥ ᖃᓄᐃᓕᐅᕆᐊᕈᑏᑦ

ᒪᓕᑐᐃᓐᓇᕋᓱᐊᖅᑎᓪᓗᒋᑦ ᐊᑐᐃᓐᓇᐅᓂᖏᑦ ᓄᑖᙳᕆᐊᖅᓯᒪᔪᑦ ᐱᑕᖃᕐᓂᖏᓐᓄᑦ ᖃᐅᔨᓴᕈᑎᓂᑦ ᑕᒪᒃᑯᓄᖓ ᐃᖃᓗᕋᓛᓄᑦ ᓂᕆᐅᒋᔭᐅᔪᑦ ᐊᐃᕐᕆᓕ–ᒪᐃ 2021, ᓄᓇᒥᖕᖖᑦ ᑲᒪᔩᑦ ᑐᓂᔭᐅᓯᒪᔪᑦ ᑐᙵᕋᑕᐅᓯᒪᔪᑦ ᐃᖃᓇᐃᔭᖃᑎᒌᓄᑦ–ᕿᒥᕐᕈᔭᐅᔭᕆᐊᓖᑦ ᑭᓪᓕᓯᓂᐊᖅᑐᓕᕆᓂᕐᒧᑦ ᐅᖃᐅᔅᓯᕆᐊᕈᑏᑦ ᑕᒪᒃᑯᓄᖓ ᑲᒪᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᒐᔪᒃᑐᑦ ᑲᒪᒋᔭᐅᖁᓪᓗᒋᑦ ᐱᓇᐃᓗᑕᐃᑦ ᑕᒪᒃᑯᓄᖓ ᐃᖃᓗᕋᓛᑦ ᐱᔭᐅᔪᒪᙱᑦᑐᑦ ᑕᐃᑲᓂ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᒃᐸᓂᒃ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᕙᒃᑐᑦ ᑕᐃᑲᓂ ᑭᖑᒃᐸᖕᓂᒃ ᐃᖃᓗᒐᓱᖕᕕᖕᓂᑦ ᐃᓂᐅᔪᓂᑦ (SFA) 4-6, ᑲᓇᖕᓇᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ (EAZ) ᐊᒻᒪᓗ ᐱᓇᖕᓇᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᑦ ᐃᓃᑦ (WAZ). ᑭᓪᓕᓯᓂᐊᖅᓂᕐᒧᑦ ᐅᖃᐅᔅᓯᕆᐊᕈᑏᑦ ᑐᓂᔭᐅᓯᒪᔪᑦ ᑐᑭᓯᔪᒪᓪᓗᑎᒃ ᐊᒃᑐᐃᓂᖅᑕᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖓᓄᑦ ᐃᖃᓗᕋᓛᑦ ᐲᖅᑕᐅᓂᖏᓐᓄᑦ ᖃᓄᐃᓪᓕᓯᒪᖏᑦᑎᐊᕐᓂᖏᑦ ᐅᓄᕐᓂᖏᑕ ᑕᐅᕙᓂ ᐃᓂᓂᑦ. ᑕᒪᓐᓇ ᐱᓕᕆᐊᖅ ᓂᕆᐅᒋᔭᐅᔪᖅ ᐱᒋᐊᓖᕐᓗᓂ ᕿᓚᒻᒥᐅᓖᒃᑯᑦ ᐅᑭᐅᖓᓂᑦ 2021.

ᐃᖃᓗᓕᕆᔩᑦ ᐊᒻᒪᓗ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᑲᓇᑕ (DFO) ᓄᓇᒥᖖᑦ ᑲᒪᔩᑦ ᑲᒪᓃᑦ ᑲᔪᓯᓂᐊᖅᑐᑦ ᖃᐅᔨᓴᐃᓐᓇᖅᑕᐅᕐᑯᓪᓗᒋᑦ ᐱᔭᐅᔪᒪᙱᑦᑐᑦ ᑕᐅᕙᓂ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᑭᖑᒃᐸᓕᕆᓂᕐᒧᑦ ᐃᖃᓗᓕᕆᓂᕐᒥᑦ ᑕᐃᑲᓂ ᑲᓇᖕᓇᖓᓂᑦ ᖃᐅᔨᓴᕐᕕᐅᒧᑦ ᐃᓃᑦ (EAZ) ᐊᒻᒪᓗ ᖃᓂᒋᔭᖏᓐᓂᑦ ᑭᖑᒃᐸᖕᓂᒃ ᑲᒪᓂᕐᒧᑦ ᓇᐃᓴᖅᓯᔅᔪᑏᑦ ᑐᑭᓯᑎᐊᒃᑲᓂᕐᑯᓪᓗᒋᑦ ᐊᒃᑐᐃᓂᐅᑐᐃᓐᓇᕆᐊᓖᑦ ᑖᒃᑯᓄᖓ ᓂᕿᒃᓴᖅᓯᐅᖅᑎᓄᑦ ᐊᒻᒪᓗ ᐊᖑᓇᓱᓗᐊᖅᑕᐃᓕᓂᕐᒧᑦ ᑕᒪᒃᑯᓂᖓ ᐃᖃᓗᕋᓛᕐᓂᒃ ᐱᑕᖃᕐᕕᐅᔪᓄᑦ. ᖃᒃᑲᓂᐊᒍᑦ, ᐃᖃᓗᓕᕆᔩᑦ ᐊᒻᒪᓗ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᑲᓇᑕ (DFO) ᐃᓱᒪᒃᓴᖅᓯᐅᕈᑎᖃᕐᓂᐊᖅᑐᑦ ᐃᑲᔪᖅᓯᕈᓐᓇᕐᑯᓪᓗᒋᑦ ᓴᓇᕝᕕᖕᓄᑦ ᐱᓕᕆᐊᖑᓇᓱᒃᑐᓂᒃ ᖃᐅᔨᓴᕐᑯᓪᓗᒋᑦ ᓄᑖᖑᓂᖅᓴᒃᑯᑦ

ᐃᖃᓗᓕᕆᔾᔪᑎᓂᒃ ᐱᓕᕆᔾᔪᑎᓂᒃ ᐃᓄᐃᓭᒡᓕᕆᓂᐊᖅᑐᓂᒃ ᓯᕗᓂᒃᓴᒥᑦ ᐃᖃᓗᕋᓛᑦ ᐱᔭᐅᔪᒪᖃᑦᑕᙱᑦᑐᓄᑦ, ᑕᐃᒪᐃᑦᑐᓐᓇᕌᖓᑕ.

ᓱᖅᑯᐃᓈᓂᙱᑦᑐᖅ ᓱᓕ ᐃᒪᐃᒃᑲᓗᐊᕐᒪᙵᑕ ᐃᒪᐃᙱᒃᑲᓗᐊᕐᒪᙵᑕ ᓯᕗᓂᒃᓴᒥ ᖃᓄᐃᓕᖓᓂᐅᕙᖅᑐᑦ ᐃᒪᐃᓐᓂᐊᕋᓱᒋᔪᑦ ᐱᑕᖃᓕᐊᖅᑎᑦᑎᑐᐃᓐᓇᓕᐊᓖᑦ ᑭᒡᒍᑎᐅᓚᐅᒃᑲᒃᑲᓐᓂᕋᔭᖅᑐᓂᒃ. ᒫᓐᓇ ᑐᓂᓯᑎᓪᓗᑕ ᑖᒃᓯᒥᙵ, ᓴᓂᖅᑯᐃᒃᑲᓐᓂᕈᑏᑦ ᐅᖓᑖᒍᑦ 8 ᐱᓇᓱᐊᕈᓰᑦ ᖃᐅᔨᓴᖅᑕᐅᔪᑦ ᑐᒃᓯᕋᖅᑕᐅᓯᒪᔪᑦ ᐅᕝᕙᓘᓐᓃᑦ ᐊᖏᖅᑕᐅᓯᒪᔪᑦ.

ᐱᕙᖏᑕᖅᑕᖓ ᐆᒪ: ᑯᐊᑦᓂ ᑕᐅᔅᑦ, ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᓄᓇᒥᙯᖅᑐᓂᑦ ᑲᒪᓃᑦ, ᐃᖃᓗᓕᕆᔩᑦ ᐊᒻᒪᓗ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᑦ ᑲᓇᑕ

ᐅᓪᓗᖅ: ᓈᕝᕗᐊᕆ 4, 2021

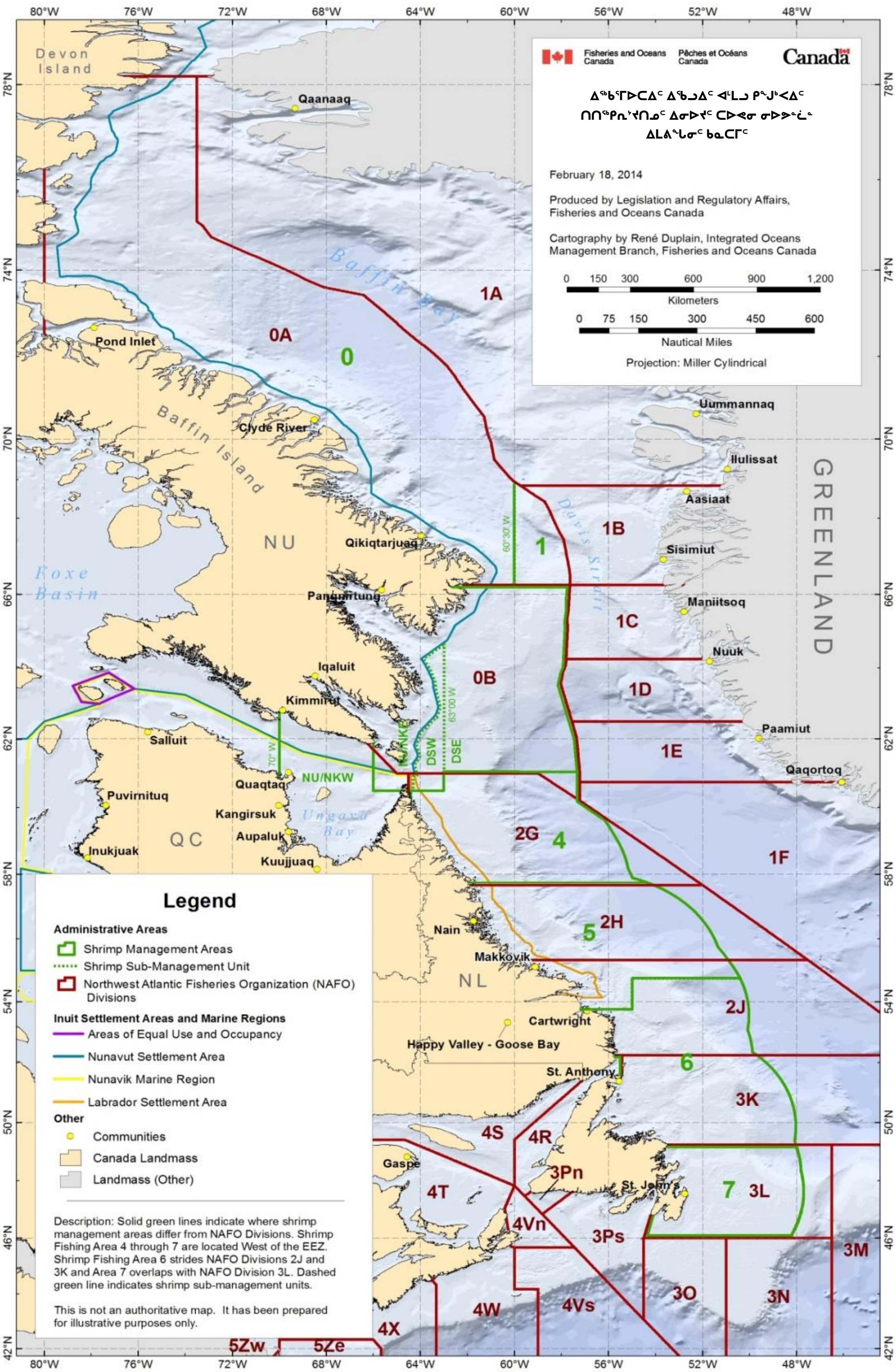
<u>ᐊᑦᑕᑦᑕᖅᑎᓯᒪᔪᑦ</u>

ᐊᑦᑕᑦᑕᖅᑎᓯᒪᔪᖅ 1 – ᓄᓇᕘᒧᐊᖅ ᐃᖅᑲᕐᒥᐅᑕᐃᑦ ᐃᖃᓗᐃᑦ ᐊᒻᒪᓗ ᑭᙳᒃᐸᐃᑦ ᑎᑎᖅᑭᕆᔾᔪᑎᓄᑦ ᐃᓂᐅᔪᑦ ᑕᐅᕗᓂ ᓂᐅᕖᓛᓐ ᐃᒪᕖᙵᓂᑦ ᑲᓇᑕᒥᑦ

ᐊᑦᑕᑦᑕᖅᑎᓯᒪᔪᖅ 2 – ᒪᓕᒃᑕᐅᔭᕆᐊᖃᖅᑎᑕᐅᔪᑦ ᓚᐃᓴᓐᓯᙵᓄᑦ (COL) ᐃᓚᒋᐅᕈᑎ ᓄᕕᐱᕆ 2020

ᐊᑦᑕᑦᑕᖅᑎᓯᒪᔪᖅ 3 – ᓇᐃᓈᖅᓯᒪᔪᑦ: ᐱᑕᖃᖅᓂᖏᓐᓄᑦ ᖃᓄᐃᓕᙵᓂᐅᔪᑦ ᐃᖃᓗᕋᓛᑦ ᑕᐃᑲᓂ ᐅᐊᙵᔫᙵᓂᑦ ᐱᓇᙵᒥᑦ ᓂᐅᕗᓐᓛᓐ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑎᒥᖁᑖ (NAFO) ᐃᓂᑦ 2 + ᐊᕕᒃᑐᖅᓯᒪᔪᑦ 3K (ᑭᒡᓕᓯᓂᐊᖅᓯᒪᔪᑦ ᐅᖃᐅᔾᔨᕆᐊᕈᑏᑦ ᐅᓂᒃᑳᖏᑦ 2020/021)

ᐊᑦᑕᑦᑕᖅᑎᓯᒪᔪᖅ 4 – ᐊᑕᖏᖅᓘᕆᖅ ᓴᖅᑭᑕᖅ: ᐱᑕᖃᖅᓂᖏᓐᓄᑦ ᖃᓄᐃᓕᙵᓂᐅᔪᑦ ᐃᖃᓗᕋᓛᑦ ᑕᐃᑲᓂ ᐅᐊᙵᔫᙵᓂᑦ ᐱᓇᙵᒥᑦ ᓂᐅᕗᓐᓛᓐ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑎᒥᖁᑖ (NAFO) ᐃᓂᑦ 2 + ᐊᕕᒃᑐᖅᓯᒪᔪᑦ 3K (ᑭᒡᓕᓯᓂᐊᖅᓯᒪᔪᑦ ᐅᖃᐅᔾᔨᕆᐊᕈᑏᑦ ᐅᓂᒃᑳᖏᑦ 2020/021)


Fisheries and Oceans Canada
Pêches et Océans Canada
Canada
ᐃᖅᑲᕐᒥᐅᑕᐃᑦ ᐃᖃᓗᐃᑦ ᐊᒻᒪᓗ ᑭᙵᒃᐸᐃᑦ
ᑎᑎᖅᑭᕆᔾᔨᑎᓄᑦ ᐃᓂᐅᔪᑦ ᑕᐅᕙᓂ ᓂᐅᕗᖕᓛᖕ
ᐃᒪᕕᖕᒐᓂᑦ 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
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
Devon Island
Qaanaaq
Baffin Bay
Pond Inlet
Clyde River
Baffin Island
NU
Qikiqtarjuaq
Pangnirtung
Iqaluit
Kimmirut
Foxe Basin
Salluit
Quaqtaq
Puvirnituq
Kangirsuk
Aupaluk
Inukjuak
Kuujjuaq
Ungava Bay
QC
NU/NKW
NU/NKE
DSW
DSE
70°W
60°30' W
63°00' W
Davis Strait
GREENLAND
Uummannaq
Ilulissat
Aasiaat
Sisimiut
Maniitsoq
Nuuk
Paamiut
Qaqortoq
Nain
Makkovik
NL
Cartwright
Happy Valley - Goose Bay
St. Anthony
Gaspe
St. John's
0A
1A
0
1B
1
1C
0B
1D
1E
2G
4
1F
2H
5
2J
6
3K
4S
4R
3Pn
4T
7
3L
4Vn
3Ps
3M
3O
3N
4W
4Vs
4X
5Zw
5Ze

ᐃᒪᕙᖕᒥᑦ ᑭᖑᒃᐸᖕᓄᑦ ᒪᓕᒃᑕᐅᔭᕆᐊᖃᖅᑎᑕᐅᔪᑦ ᓚᐃᓴᓐᓯᖓᑦ

5.2. ᐃᒪᐃᑉᐸᑦ ᑲᑎᒍᒃᑖᖅᓱᒋᑦ ᐃᖃᓗᒃᑕᐅᔪᑦ ᐊᑕᖏᕐᓗᒋᑦ ᐃᖃᒥᐅᑕᑦ ᐊᔾᔨᒌᙱᑦᑐᑦ ᖃᑭᑕᐅᔪᓂᑦ ᐅᖓᑕᐅᔾᔮᒃᐸᑕ ᐊᖏᓂᖅᓴᐅᓗᑎᒃ 2.5%-ᒥᒃ ᐃᒃᑕᕆᖕᓂᖏᑎᒍᑦ ᐱᔭᐅᔪᑦ ᑭᖑᒃᐸᖕᑕᐅᔪᑦ ᐅᕝᕙᓘᓐᓃᑦ 100 ᑭᓗᒍᕌᒻ, ᓚᐃᓴᓐᓯᒥᒃ ᑎᒍᒥᐊᖅᑎ ᐅᕝᕙᓘᓐᓃᑦ ᐅᒥᐊᕐᔪᐊᒥᒃ ᐊᐅᓚᑦᑎᔨ ᐊᓯᔾᔨᑲᐅᑎᒋᔭᕆᐊᓕᒃ ᐃᖃᓗᒐᓯᒡᕕᖓᓂᒃ ᐃᓂᒥᑦ ᒥᑭᓛᖑᔪᓇᖅᑐᑎᒍᑦ ᖁᓖᑦ (10) ᒪᐃᓕᓂᒃ ᑕᐃᑲᙵᑦ ᐃᓂᒋᔮᖅᑕᖓᓂᑦ ᑲᑎᕝᕕᒋᔮᖅᑕᖓᓂᑦ ᐱᑦᑕᐃᓕᖁᓪᓗᒋᑦ ᐃᖃᓗᒃᑕᖏᓐᓂᒃ ᑖᒃᑯᓇᙵᓗᒃᑖᖅ ᐃᖃᒥᐅᑕᓂᒃ. ᓅᕐᓂᒃᐸᑕ ᐊᒻᒪᓗ ᐊᑕᖏᕐᓗᒋᑦ ᓅᓐᓂᑦ ᑭᖑᓂᐊᒍᑦ, ᑭᖑᓪᓕᖅ ᖃᑭᑕᖏᑦ ᐅᓄᕐᓂᖅᓴᐅᒃᐸᑕ 2.5% ᐃᒃᑕᕆᖕᓂᖑᓄᑦ ᐃᖃᓗᒃᑕᐅᔪᑦ ᑭᖑᒃᐸᐃᑦ ᐅᕝᕙᓘᓐᓃᑦ 100 ᑭᓗᒍᕌᒻ, ᐅᒥᐊᕐᔪᐊᖅ ᑲᔪᓯᔭᕆᐊᓕᒃ ᐃᖏᕐᕋᓗᓂ 10 ᒪᐃᓕᓂᒃ ᐃᓂᒋᔭᒥᓂᒃ ᑲᓕᕝᕕᒋᔮᖅᑕᖓᓂᑦ ᐱᔭᐅᔪᒪᙱᑦᑐᖅᑯᑎᖃᖅᑯᓇᒋᑦ. ᓚᐃᓴᓐᓯᒥᒃ ᑎᒍᒥᐊᖅᑎ ᐅᕝᕙᓘᓐᓃᑦ ᐅᒥᐊᕐᔪᐊᒥᑦ ᐊᐅᓚᑦᑎᔨ ᑎᑎᕋᖅᓯᒪᔭᕆᐊᓕᒃ ᑎᑎᕋᕐᕕᖕᒥᓄᑦ ᕿᒥᕐᕈᐊᒧᑦ (ᐅᖃᐅᓯᒃᓴᓄᑦ ᐃᓂᒧᑦ) ᐱᓕᕆᓂᐅᓵᖅᑐᑦ ᑕᐃᒪᐃᑦᑕᐃᓕᔾᔪᑎᓂᒃ ᐊᑐᖅᑯᓪᓗᒋᑦ ᑲᒪᒋᔭᐅᖅᑯᓪᓗᒋᑦ ᑲᓕᑕᐅᔪᑦ ᐃᓗᓕᖃᖅᑐᑦ ᐅᖓᑕᐅᔾᔨᓯᒪᔪᓂᒃ ᐃᖃᒥᐅᑕᓂᒃ ᐱᔭᐅᔪᒪᙱᑦᑐᓂᒃ, ᓇᓃᓐᓂᖓ (ᐅᑭᐅᖅᑕᖅᑐᒦᑉᐸᓪᓕᐊᓂᖓ ᐊᒻᒪᓗ ᓴᓂᒨᕐᓂᖓ) ᖃᖓᒃᑯᑦ ᐃᖃᒥᐅᑕᖅᑎᓪᓗᒋᑦ ᐱᔭᐅᔪᒪᙱᑦᑐᓂᒃ, ᐊᒻᒪᓗᑦᑕᐅᖅ ᐅᓄᕐᓂᖏᑦ ᐱᔭᐅᔪᑦ ᐅᖁᒥᐊᓂᖅᓯᐅᑎᒃᑯᑦ ᑭᓗᒎᕌᒻᓂᒍᑦ.

ᒪᓕᒃᑕᐅᔭᕆᐊᖃᖅᑎᑕᐅᔪᑦ ᓚᐃᓴᓐᓯᖓᓄᑦ (COL) ᐃᓚᒋᐊᕿᑏᑦ ᐊᑐᓕᖅᑐᖅ ᓄᕕᐱᕆ 26, 2020, ᑕᐃᑯᖓᓯᖓᖅ ᔮᓄᐊᕆ 21, 2021:

5.2.3 ᐱᔭᐅᙱᓱᓂ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ 5.2 ᖁᓛᓂᑦ, ᐃᖃᓗᒐᓯᒃᑎᓪᓗᒋᑦ ᐃᓗᐊᓂᑦ ᐊᒻᒪᓗ/ᐅᕝᕙᓘᓐᓃᑦ ᐊᑭᐊᓂᑦ ᐃᒪᐃᑦ ᐅᑯᓄᖓ ᑲᒪᓂᕐᒧᑦ ᓇᐃᓴᖅᓯᔾᔪᑏᑦ ᐊᑐᓂ ᐃᖃᓗᒐᓯᒃᑎᓪᓗᒋᑦ ᐊᐅᓪᓚᖅᓯᒪᑎᓪᓗᒋᑦ: ᓄᓇᕗᑦ ᑲᓇᖕᓇᖓᓂᑦ, ᓄᓇᕕᒃ ᑲᓇᖕᓇᖓᓂᑦ, ᕿᑭᖅᑖᓘᑉ ᐃᑭᖓᓄᑦ ᐱᓇᖕᓇᖓᓂᑦ, ᐊᒻᒪᓗ/ᐅᕝᕙᓘᓐᓃᑦ ᑭᖑᒃᐸᖕᓂᒃ ᑲᒪᓂᕐᒧᑦ ᓇᐃᓴᖅᓯᔾᔪᑏᑦ 4, ᑲᑎᒍᒃᑖᖅᓱᒋᑦ ᐱᔭᐅᔪᒪᙱᑦᑐᑦ ᐃᖃᓗᒐᓰᑦ ᐅᖓᑕᐅᔾᔮᒃᐸᑕ 10% ᐃᒃᑕᕆᖕᓂᖏᑎᒍᑦ ᑲᑎᒍᒃᑖᖅᓱᒋᑦ ᐃᖃᓗᒃᑕᐅᔪᑦ ᑭᖑᒃᐸᐃᑦ ᑖᒃᑯᓇᓂ ᐊᕐᕕᓂᓕᖕᓂᑦ ᑲᓕᑕᐅᔪᓂᑦ, ᓚᐃᓴᓐᓯᒥᒃ ᑎᒍᒥᐊᖅᑎ ᐅᕝᕙᓘᓐᓃᑦ ᐅᒥᐊᕐᔪᐊᒥᒃ ᐊᐅᓚᑦᑎᔨ ᐊᓯᔾᔨᑲᐅᑎᒋᔭᕆᐊᓕᒃ ᐃᖃᓗᒐᓯᒡᕕᖓᓂᒃ ᐃᓂᒥᑦ ᒥᑭᓛᖑᔪᓇᖅᑐᓂ ᑕᓪᓕᒪᑦ (5) ᒪᐃᓖᑦ ᑖᒃᑯᓇᙵᑦ ᐃᓂᖏᓐᓂᑦ ᓇᓕᐊᖕᓂᑐᐃᓐᓇᖅ ᑲᓕᕝᕕᒋᔮᖅᑕᖏᓐᓂᑦ. ᐅᒥᐊᕐᔪᐊᑦ ᐃᖏᕐᕋᓂᖑᐸᑕ ᑕᓪᓕᒪᑦ (5) ᒪᐃᓕᓂᒃ ᐅᕝᕙᓘᓐᓃᑦ ᐅᖓᑖᓄᑦ ᐃᓂᖏᓐᓂᑦ ᓇᓕᐊᖕᓂᑐᐃᓐᓇᖅ ᑲᓕᕝᕕᒋᔮᖅᑕᖏᓐᓂᑦ, ᐅᑯᐊ ᑲᓕᑕᐅᔪᑦ ᐃᓱᒪᒃᓴᖅᓯᐅᕈᑕᐅᔭᕆᐊᓖᑦ ᓯᕗᓪᓕᖅᐹᒥᒃ ᑭᖑᓕᕐᓂᖅᓴᓄᑦ ᐊᕐᕕᓂᓕᖕᓄᑦ ᑲᓕᑕᖕᓄᑦ ᐃᓱᒪᒃᓴᖅᓯᐅᕈᑕᐅᔭᕆᐊᓖᑦ. ᓚᐃᓴᓐᓯᒥᒃ ᑎᒍᒥᐊᖅᑎ ᐅᕝᕙᓘᓐᓃᑦ ᐅᒥᐊᕐᔪᐊᒥᒃ ᐊᐅᓚᑦᑎᔨ ᑎᑎᕋᖅᓯᒪᔭᕆᐊᓕᒃ ᑎᑎᕋᕐᕕᖕᒥᓄᑦ ᕿᒥᕐᕈᐊᒧᑦ (ᐅᖃᐅᓯᒃᓴᓄᑦ ᐃᓂᒧᑦ) ᑕᐃᒪᐃᑦᑕᐃᓕᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᕙᓪᓕᐊᑎᓪᓗᒍ ᑲᓕᑕᐅᓇᓱᒃᑐᓄᑦ ᐃᓗᓕᖃᖅᑐᑦ ᐅᖓᑕᐅᔾᔨᓯᒪᔪᓂᒃ ᐃᖃᓗᒐᓯᒃᑐᓂᒃ ᐱᔭᐅᔪᒪᙱᑦᑐᓂᒃ, ᓇᓃᓐᓂᖓ (ᐅᑭᐅᖅᑕᖅᑐᒦᑉᐸᓪᓕᐊᓂᖓ ᐊᒻᒪᓗ ᓴᓂᒨᕐᓂᖓ) ᑕᐃᑲᓂ ᐃᖃᓗᒐᓯᒃᑐᓂᒃ ᐱᔭᐅᔪᒪᙱᑦᑐᓂᒃ ᐊᒻᒪᓗᑦᑕᐅᖅ ᐅᓄᕐᓂᖏᑦ ᐃᒃᑕᕆᖕᓂᖏᑎᒍᑦ ᑭᓗᒍᕌᒻᒥᒃ. ᖁᓛᓂᑦᑐᑦ ᐊᑐᖅᑕᐅᓇᔭᕐᒪᑦ ᑕᐃᑲᓂ 5.2.3 ᐊᑐᓕᖅᑎᑕᐅᓂᖓᓂᑦ 0001 UTC ᓄᕕᐱᕆ 26, 2020 ᑕᐃᑯᖓ 2400 UTC ᔮᓄᐊᕆ 21, 2021-ᒧᑦ.

ᓇᐃᓈᖅᓯᒪᔪᖅ: ᐱᑕᖃᖅᓂᖏᓐᓄᑦ ᖃᓄᐃᓕᖓᓂᐅᔪᑦ ᐃᖃᓗᕋᓛᑦ ᑕᐃᑲᓂ ᐅᐊᖕᓈᔾᖓᓂᑦ ᐱᓇᖕᓇᒥᑦ ᓂᐅᕝᕕᓐ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑎᒥᖁᑖ (NAFO) ᐃᓂᑦ 2 + ᐊᕕᒃᑐᖅᓯᒪᔪᑦ 3K (ᑭᒡᓕᓯᓂᐊᖅᓯᒪᔪᑦ ᐅᖃᐅᔾᔨᒋᐊᕈᑏᑦ ᐅᓂᒃᑳᖏᑦ 2020/02)

- ᐱᑕᖃᕐᕕᐅᔪᑦ ᐅᓄᖅᓯᒋᐊᖅᓯᒪᔪᑦ ᐊᖏᔫᒪᕆᖕᒥᒃ ᑕᐃᑲᙵᓂᑦ 2003-ᒥᑦ 2010-ᒧᑦ. ᐱᑕᖃᕐᕕᐅᔪᑦ ᐱᓕᕆᑎᓪᓗᒋᑦ 2010-2015 ᒥᒃᓴᐅᓴᒃᑕᐅᓯᒪᓚᐅᖅᑐᑦ ᓇᑉᐸᖓᓂᑦ ᑲᑕᖅᑳᖅᑎᓐᓇᒋᑦ (1978–1990) ᖁᕝᕙᓯᓕᓃᖕᓃᑦ.
- ᐃᖅᑲᓇᐃᔭᓕᖅᑎᑦᑎᓂᖅ (ᐱᑕᖃᕐᓂᖏᓐᓄᑦ ᐃᖃᓗᕋᓛᑦ ᐊᖏᓂᖃᖅᑐᑦ < 15 ᓴᓐᑎᒦᑕᓂᒃ) ᑕᐃᑲᙵᓂᑦ 2000 ᐅᖓᑖᓅᓚᐅᖅᑐᑦ ᐊᑯᓂᐅᔪᒃᑯᑦ ᑕᑯᔭᐅᒐᔪᖕᓂᖏᑦ ᖃᖓᒃᑰᓂᖓ–ᐋᖅᑭᒃᓱᖅᑕᐅᓯᒪᔪᑦ ᖁᕝᕙᓯᓚᐅᖅᑐᑦ ᑕᐃᑲᓂ 2014-ᒥᑦ.
- ᐃᖃᓗᐃᑦ ᑐᖁᖃᑦᑕᕐᓂᖏᑦ ᐊᑐᖅᑕᐅᔪᓐᓇᕐᓂᖏᑦ ᐊᒃᐸᓯᒃᑑᕐᔪᐊᖅᓯᒪᔪᑦ (< 1%) ᑕᐃᑲᙵᓂᑦ 2006. ᐃᖃᓗᓕᕆᓂᖅ ᓱᓕ ᐊᑐᖅᑕᐅᔪᓐᓇᙱᑎᑕᐅᓚᐅᑲᒃᑐᖅ, ᐱᔭᐅᔪᒪᙱᒐᔪᒃᑐᑦ (ᐃᓚᐅᓪᓗᑎᒃ ᐃᒋᑕᐅᔪᑦ) ᑕᐃᑲᙵᓂᑦ 2006 ᒥᒃᓴᐅᓴᒃᑕᐅᓯᒪᔪᑦ 500 ᐃᒃᑕᓇᖕᓃᑦ.
- ᑲᑎᒪᓃᑦ ᐊᔪᓚᐅᖅᑐᑦ ᐅᕝᕙᓘᓐᓃᑦ ᑕᐃᒪᐃᓐᓂᕋᐃᓗᑎᒃ ᑕᐃᒪᐃᙵᕆᓐᓂᕋᐃᓗᑎᒃ ᐱᑕᕐᓂᖓᓂᒃ ᐅᖃᐅᓯᐅᔪᓄᑦ (ᐃᖃᓗᓕᕇᑦ ᐊᒻᒪᓗ ᐃᒪᕐᒥᐅᑕᓕᕇᑦ ᑲᓇᑏᒃᑯᓐᓂᑦ [DFO] 2012) ᐱᔭᐅᔪᑦ ᐃᖃᓗᒐᓱᖕᓂᐊᖅᑕᐅᔪᑦ ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᓇᓗᓇᐃᖅᑎᖁᓪᓗᒋᑦ ᐃᓱᒫᓘᑕᐅᔪᑦ ᑕᒪᒃᑯᐊ ᐱᕝᕕᐅᔪᑦ ᑎᑎᖅᑲᖁᑎᖏᓐᓂᒃ ᐊᒻᒪᓗ ᐱᐊᓂᒃᓯᒪᙱᑦᑐᑦ ᑎᑎᖅᑲᖁᑏᑦ ᑕᐃᑲᓂ ᐋᖅᑭᒍᐊᖅᑕᐅᓯᒪᔪᓂᑦ ᐋᖅᑭᒃᑰᑕᐅᓂᖏᓐᓄᑦ.
- ᐊᓯᖏᑦ ᐊᑐᖅᑕᐅᖖᕈᓇᖅᑐᑦ ᑕᒪᒃᑯᓄᖓ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᐊᖏᓛᑦ ᐱᑕᕐᕕᐅᓂᖁᔪᒃᑐᓂᒃ (LRP) ᐃᓱᒪᒋᔭᐅᓯᒪᔪᑦ. ᑭᓯᐊᓂᓕ, ᐃᓱᒪᒋᓪᓗᒋᑦ ᐊᔪᕿᓇᕈᑏᑦ ᐊᒃᑐᐊᔪᑦ ᐊᑐᓕᖅᑎᑕᐅᓂᖏᑦ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᐊᖏᓛᑦ ᐱᑕᕐᕕᐅᓂᖁᔪᒃᑐᓂᒃ (LRP) ᐋᖅᑭᒃᑕᐅᓯᒪᔪᑦ ᑕᒪᒃᑯᓄᖓ ᐃᖃᓗᕋᓛᖏᓐᓄᑦ ᐃᓚᐅᓪᓗᑎᒃ ᐃᖅᑲᓇᐃᔭᓕᖅᑎᑦᑎᓚᐅᓱᖓᖃᑦᑕᕐᓂᕐᒧᑦ, ᐊᔾᔨᒌᙱᑦᑐᑦ ᐊᕕᒃᑐᖅᓯᒪᓂᖏᑦ, ᐊᒻᒪᓗ ᐊᓯᖏᑦ ᑎᑎᖅᑲᑦ ᑭᒡᓕᓕᖅᓯᓯᒪᔪᑦ, ᐊᓯᖏᑦ ᑕᒪᒃᑯᐊ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᐊᖏᓛᑦ ᐱᑕᕐᕕᐅᓂᖁᔪᒃᑐᓄᑦ (LRP) ᐊᑐᖅᑕᐅᖖᕈᓇᖅᑐᑦ ᐊᖏᖅᑕᐅᓚᐅᙱᑦᑐᑦ.
- ᐱᑕᖃᙱᑦᑐᖅ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᐊᖏᓛᑦ ᐱᑕᕐᕕᐅᓂᖁᔪᒃᑐᓄᑦ (LRP) ᖃᐅᔨᓴᖅᑕᐅᓯᒪᔪᓂᒃ (ᐃᓚᐅᓪᓗᑎᒃ ᐃᖃᓗᓕᕇᑦ ᐊᒻᒪᓗ ᐃᒪᕐᒥᐅᑕᓕᕇᑦ ᑲᓇᑕ [DFO] 2012) ᐃᓱᒪᒋᔭᐅᓯᒪᔪᑦ ᐊᑐᖅᑕᐅᔪᓐᓇᕐᓗᑎᒃ ᒫᓐᓇᐅᖅ.
- ᐱᑕᖏᓐᓂᖏᓐᓄᑦ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᐊᖏᓛᑦ ᐱᑕᕐᕕᐅᓂᖁᔪᒃᑐᓄᑦ (LRP), ᐊᔪᕐᓇᖅᑐᖅ ᓇᓗᓇᐃᔭᕆᐊᒃᓴᖅ ᓇᓕᐊᒃ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᑕᐃᑲᓂ ᐅᔾᔨᖅᓱᕐᓗᑎᒃ ᐊᑐᖅᑕᐅᔪᓐᓇᖅᑐᑦ (PA) ᐋᖅᑭᒃᓱᖅᑕᐅᓯᒪᔪᑦ ᑕᒪᒃᑯᓄᖓ ᐱᑕᕐᑐᓄᑦ ᒫᓐᓇ ᐃᓗᐊᓂᑦ. ᐃᒪᓐᓈᖅᑐᖅᑕᐅᔪᖅ ᐋᖅᑭᒋᐊᕈᑏᑦ ᐊᒻᒪᓗ ᐅᔾᔨᖅᓱᕐᓗᑎᒃ ᑲᒪᔾᔪᑏᑦ ᐊᑐᖅᑕᐅᓗᑎᒃ ᑖᒃᑯᓄᖓ ᐅᒃᑯᐃᖓᔪᓄᑦ ᐃᖃᓗᓕᕆᔾᔪᑎᓄᑦ.

<u>ᑐᓂᔾᐳᐊᑦ ᐅᕗᖓ</u>
<u>ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔩᑦᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ</u>
<u>ᒫᑦᓯ 2021</u>

<u>ᐆᒥᖓ</u>

ᑐᑭᓯᒋᐊᕈᑏᑦ: X ᐃᓱᒪᓕᐅᕐᓂᖅ:

ᐱᔾᔪᑎᖓ: ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ (ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ) ᑐᑭᓯᒋᐊᕈᑏᑦ – ᐃᒪᕐᒥ ᓴᐳᒻᒥᑦᑎᓂᕐᒧᑦ ᐱᓕᕆᐊᕆᔾᔪᑦ

ᓇᓗᓇᐃᔾᖏᓯᒪᓂᖏᑦ ᑐᑭᓯᒋᐊᕈᑎᖏᑦ

ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ ᐃᒪᕐᒥ ᐸᕐᓇᐃᓂᕐᒧᑦ ᐊᒻᒪ ᓴᐳᒻᒥᑦᑎᓂᕐᒧᑦ ᐱᓕᕆᐊᖅ (ᐅᓇᐅᓚᐅᖅᑐᖅ ᐃᒪᕐᓄᑦ ᐱᓕᕆᐊᖅ) ᐱᓕᕆᐊᖅᑲᑐᐊᖅᑐᑦ ᐊᑐᓕᖅᑎᑕᐅᓂᖏᓐᓄᑦ ᑲᒪᒋᔭᐅᔭᕆᐊᓖᑦ ᐃᓗᐊᓂ *ᐃᒪᕐᓄᑦ ᐱᕐᑯᔭᖅ*, ᐊᑐᖅᑐᑎ ᐃᓚᓕᐅᔾᔭᐅᓯᒪᔪᑦ ᐃᒪᕐᓂᖅᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐊᒻᒪ ᐃᒪᕐᓂᑦ ᓴᐳᒻᒥᑦᑎᓂᕐᒧᑦ ᓴᓇᕈᑏᑦ. ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ – ᐅᑭᐅᑕᖅᑐᒧᑦ, ᐃᖅᑲᓇᐃᔭᖅᑎᖃᖅᑐᑦ ᐃᓄᓐᓂᑦ ᐱᓕᕆᖅᑎᖏᓐᓂᑦ ᐊᒥᓱᓚᓐᓂᑦ ᐃᒪᕐᒥ ᓴᐳᒻᒥᑦᑎᓂᕐᒧᑦ ᐱᓕᕆᐊᕆᔾᔪᑎᓂᑦ ᐃᓗᐊᓂ ᐊᒻᒪ ᑦᑐᐊᓂᓕᓐᓄᑦ ᓄᓇᕗᒻᒧᑦ. ᑖᒃᑯᐊ ᐱᓕᕆᐊᕆᔾᔪᑦ ᐱᕐᑲᓯᐅᔾᔫᑦ ᓯᕗᒧᒋᐊᖅᑕᐅᓂᖏᑦ ᐃᒪᕐᒥ ᓴᐳᒻᒥᑦᑎᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᔪᑦ ᑐᕋᔭᐃᑦᑐᕐᒧᑦ ᐊᒻᒪ ᖃᓂᒋᔭᖓᓂ ᓴᓪᓖᑦ ᕿᑭᖅᑕᖓᓂ ᐊᒻᒪ ᐊᐅᓚᑕᐅᓂᖏᓐᓄᑦ ᒫᓐᓇᐅᔪᒥᑦ ᐃᒪᐃᑦ ᖃᓄᐃᖏᑎᐊᕐᓂᕆᔭᖏᓐᓂ. ᑐᔾᓯᕗᖑᓯᒪᑎᓪᓗᒍ ᕿᑭᖅᑕᓂ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖅᑎᕈᖏᓐᓄᑦ (QIA) ᐊᒻᒪ ᓄᓇᓕᖓ ᓴᓂᑭᐊᖅ, ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ ᐃᓚᒋᔭᐅᕐᑕᐅᒻᒥᔪᑦ ᐊᒥᓱᓚᓐᓂᑦ ᑎᒥᐅᔪᓂᑦ ᐅᖅᑲᑎᕌᓐᓂᐅᔪᓂᑦ ᓯᕗᒧᒋᐊᖅᑎᑦᑎᓂᕐᒧᑦ ᐃᓱᒪᒋᔭᐅᔪᓂᑦ ᓴᐳᒻᒥᔾᔪᑕᐅᓂᐊᖅᑐᓂᑦ ᕿᑭᖅᑕᓂ.

ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ ᓯᕗᒧᒋᐊᖅᑎᑎᒻᒥᔪᑦ ᐃᒪᕐᒥ ᐊᕙᑎᖓᓂ ᐱᐅᓂᖓᓄ ᐊᑐᐊᒐᐃᑦ ᐃᑲᔪᖅᑐᒍ ᒪᑭᒪᑎᑦᓴᐅᔪᓂᑦ ᐱᕙᓪᓕᐊᑎᑦᑎᓂᕐᒧᖅ ᐊᒻᒪ ᐃᓚᓕᐅᔾᔭᐅᓯᒪᔪᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ, ᐊᒻᒪ ᐃᑲᔪᓂᕐᒧᑦ ᐊᑐᓕᖅᑎᑕᐅᓂᖏᓐᓄᑦ ᐊᑐᓕᕐᑯᔭᐅᔪᑦ ᐅᑯᓇᖓᑦ ᐱᑭᐊᓚᓯᕐᓯᐊᖅ ᑲᒪᓃᑦ ᐃᓗᐊᓂ ᓴᕐᕙᓂᐅᐊᖅ ᐱᓕᕆᖅᑎᖅᑐᑎ ᕿᑭᖅᑕᓂ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖅᑎᕐᖏᓐᓂ.

ᒫᓐᓇᐅᔪᒥᑦ ᖃᓄᐃᓕᖓᓂᖓ

<u>ᓴᓪᓖᑦ ᕿᑭᖅᑕᖓᓂ ᓇᒦᓐᓂᖓ ᐱᔪᒪᓂᕆᔭᐅᔪᖅ</u>

- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ ᐊᒻᒪ ᑭᕙᓪᓕᕐᒥᑦ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖅᑎᕐᖏᑦ (KIA) ᐱᓕᕆᖅᑎᖅᑲᓕᖅᓯᒪᔪᑦ ᓯᕗᒧᒋᐊᕐᓗᒍ ᓴᓪᓖᑦ ᕿᑭᖅᑕᖓᓂ ᓇᒥᓂᖓ ᐱᔪᒪᓂᕆᔭᐅᔪᖅ ᓇᓗᓇᐃᖅᑕᐅᔪᓐᓇᕐᓂᖓᓄᑦ ᓄᑖᖑᓗᓂ ᐃᒪᖓ ᓴᐳᒻᒥᔭᐅᓗᓂ. ᓴᓪᓖᑦ ᕿᑭᖅᑕᖓᓂ ᓇᒥᓂᖓ ᐱᔪᒪᓂᕆᔭᐅᔪᖅ ᐃᓚᒋᔭᕐᑲᖅᑐᑦ ᓄᓇᖅᐸᓯᒻᒥ ᐃᒪᐃᑦ ᖃᓂᒋᔭᖓᓂ ᓴᓪᓖᑦ ᕿᑭᖅᑕᖓ ᐊᒻᒪ ᐃᓪᓗᓕᒫᕐᔪᒃ ᑭᕙᓪᓕᕐᒥ ᓄᓇᕗᑦ. ᑭᖑᓪᓕᖅᐹᒥ ᑭᓪᓕᑭᔪᓐᓇᖅᑕᖏᑦ ᐱᑕᕐᑲᕈᓐᓇᑐᐃᓐᓇᕆᐊᕐᑲᖅᑐᓄᑦ ᓯᕗᓂᖕᓴᒥ ᐃᒪᐃᑦ ᓴᐳᒻᒥᔭᐅᓂᖏᑦ ᑐᓐᖓᓂᕐᑲᓂᐊᖅᑐᑦ ᖃᐅᔨᓴᕐᓂᒃᑯᑦ.
- ᓴᓪᓖᑦ ᕿᑭᖅᑕᖓᓂ ᓇᒦᓐᓂᖓ ᐱᔪᒪᓂᕆᔭᐅᔪᖅ ᐱᕙᓪᓕᐊᑎᑦᑎᕐᑲᑎᕈᓐᓂᕐᒧᑦ ᑲᑎᒪᔩᑦᑖᑦ ᑲᑎᒪᕋᓛᓚᐅᖅᑐᑦ ᓯᑎᐱᕆ 2020. ᑐᓴᕐᕙᕐᑲᖅᑐᑎᑦ ᐃᒪᕐᓂᑦ ᓴᐳᒻᒥᔭᐅᔪᓂᑦ ᐱᕙᓪᓕᐊᓂᐅᔪᓂᑦ, ᐱᕙᓪᓕᐊᑎᑦᑎᕐᑲᑎᕈᓐᓂᕐᒧᑦ ᑲᑎᒪᔩᑦᑖᑦ ᑭᒡᒐᖅᑐᐃᔨᕐᑲᖅᑐᑦ ᐊᐃᕙᑦ ᐊᒻᒪ ᐊᕐᑭᓪᓕᖅ ᐆᒪᔪᕐᓂᐊᑎᒃᑯᑦ ᑲᑐᔾᔨᖅᑎᕐᖏᑦ, ᐃᕐᓂᐅᕐᕙᑦ ᐊᐅᓚᑦᑎᕐᑲᑎᕈᓐᓂᕐᒧᑦ ᑲᑎᒪᔩᑦᑖᑦ, ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᑦ, ᑭᕙᓪᓕᕐᒥ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖅᑎᕐᖏᑦ, ᐊᒻᒪ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ.
- ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᕐᑲᖏᓐᓄᑦ ᑲᑎᒪᓂᕐᑲᓚᐅᖅᑐᑦ ᐅᑐᕝᕙ 2020 ᑲᖏᕐᖠᓂᕐᒥᑦ, wᑖᔾᑕᒪᑦ ᑲᑎᒪᖅᑕᐅᓪᓗᑎᑦ ᐃᓪᓗᓕᒫᕐᔪᒃ, ᑎᓴᒪᐅᔪᖅᑐᑦ ᓴᓪᓖᑦ, ᐊᒻᒪ ᐊᑕᐅᓯᕐᒍᑏᑦ KIA ᐊᒻᒪ ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᑦ.

ᐃᓄᐃᑦ ᖃᐅᔨᒪᔾᔪᑎᖃᕐᓂᑦ ᑲᑎᒪᓂᕐᒧᑦ ᐅᓂᒃᑳᑦ ᓴᖅᑭᖅᑎᑕᐅᓚᐅᖅᑐᑦ.

- ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ ᑲᓇᑕᒥ ᖃᐅᔨᓴᓂᕐᒧᑦ ᐅᖃᐅᔾᔨᒋᐊᓂᕐᒧᑦ ᑎᑎᕋᕐᕕᖓ (CSAS) ᑲᑎᒪᓂᖃᓚᐅᖅᑐᑦ ᑎᑎᓯᐱᕆ 2018 ᔫᐃᓂᐸᐃᒻᒥᑦ ᐊᒻᒪ ᐃᖕᒋᓐᓃᕈᑎᒃᑯᑦ ᖃᕋᓴᐅᔭᒃᑯᑦ ᐋᕐᒌᓯ 2020. ᑲᑎᒪᔾᔪᑎᒥᓃᑦ ᐊᑐᐃᓐᓇᐅᔪᑦ ᑮᒃᑯᓕᒫᓄᑦ CSAS ᐃᖕᒋᓐᓃᕈᑎᒃᑯᑦ ᑐᑭᓯᒋᐊᕐᕕᖓᒍᑦ.

- ᒫᓐᓇᐅᔪᒥᑦ ᖃᐅᔨᓴᕐᓂᖅᖅᑐᒍᑦ ᓇᒦᓐᓂᕆᔭᖓᓂ: ᐆᒪᔩᑎᕋᓖᓄᑦ ᐊᑯᑎᖓᓄᑦ, ᐃᓄᐃᑦ ᖃᐅᔨᒪᔾᔪᑎᖃᕐᓂᑦ, ᐃᓅᖃᑎᒌᓐᓂᕐᒧᑦ ᑉᐱᓇᐅᔭᓕᐅᕋᓱᓐᓂᕐᒧᑦ, ᐅᖅᓱᐊᓗᑦᑕᖁᓐᓇᕐᓂᖓ. ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ ᐱᓕᕆᖃᑎᖃᖅᑐᑦ ᐱᓕᕆᖃᑎᖏᓐᓂᑦ ᐊᒻᒪ ᑎᒍᒥᐊᖅᑎᐅᖃᑕᐅᔪᓂᑦ ᐊᔾᔨᒌᖏᑦᑐᓂᑦ ᐊᖃᐅᔨᓴᓂᕐᒧᑦ ᐅᓂᒃᑳᓂᑦ, ᑐᕋᖓᖅᑕᐅᓪᓗᓂ ᑭᒍᓪᓕᖅᐹᒥᑦ ᐅᓂᒃᑳᑦ ᐅᑭᐅᖅ/ᐅᐱᕐᓈᖅ 2021, ᑭᒍᓪᓕᕐᒥ ᐱᓕᕆᐊᕈᓂᐊᖅᑐᑦ, ᐱᒋᐊᕐᓂᐊᖅᑐᕆᔭᐅᔪᑦ ᐅᐱᕐᖔᖓᓂ 2021, ᓇᓗᓇᐃᕐᓗᒋᑦ ᓴᐳᒻᒥᑎᓂᕐᒧᑦ ᐱᓕᕆᐊᕈᕆᐊᓖᑦ ᐊᒻᒪ ᐊᑦᑕᓇᕈᓐᓇᖅᑐᓂᑦ ᖃᐅᔨᓴᕐᓂᖃᕐᓗᑎᑦ ᒫᓐᓇᐅᔪᒥᑦ ᐊᒻᒪ ᓯᕗᓂᖓᓴᒥᑦ ᐱᓕᕆᐊᕈᔪᓐᓇᖅᑐᓄᑦ, ᖃᐅᔨᑎᑦᑎᒍᑎᐅᓂᐊᖅᑐᑦ ᒪᓕᑦᑕᐅᔭᕆᐊᓕᓐᓄᑦ ᐱᔾᔪᑎᓕᓐᓄᑦ (ᓲᕐᓗ, ᑐᔅᓯᕋᕈᔪᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᑦ).

- ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ ᐱᓕᕆᖃᑎᒌᓐᓇᓂᐊᖅᑕᕆᑦ ᐱᓖᕆᖃᑎᕆᑦ ᐊᒻᒪ ᑎᒍᒥᐊᖅᑎᐅᖃᑕᐅᔪᑦ ᐃᒪᐃᑦ ᓴᐳᒻᒥᔭᐅᓂᖓ ᓴᖅᑭᖅᑎᑕᐅᕙᓪᓕᐊᓂᖓᓄᑦ.

<u>ᑐᕌᐃᑦᑐᖅ ᐃᒪᖓ ᓴᐳᒻᒥᔭᐅᓂᖓ</u>

- ᓴᖅᑭᖅᑎᑕᐅᔪᒪᓂᑦ ᑐᕌᐃᑦᑐᖅ ᐃᒪᖓ ᓴᐳᒻᒥᔭᐅᓂᖓ ᒥᓂᔅᑕᓄᑦ ᐋᒡᒌᓯ 2019, ᖃᐅᔨᓴᕐᓂᐅᔪᖅ ᓇᓗᓇᐃᕐᓗᒍ ᓈᒻᒪᓐᓂᖓᓄᑦ ᐊᒻᒪ ᐱᔪᒥᓇᕐᓂᖓᓄᑦ ᐊᑯᓂᐅᔪᒧᑦ ᓴᐳᒻᒥᔭᐅᓗᓂ ᐱᒋᐊᖅᑎᑕᐅᓯᖅᑐᖅ ᐱᓕᕆᖃᑎᒋᓪᓗᒋᑦ ᒥᕐᖑᐃᓯᕐᕕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ, ᕿᑭᖅᑕᓂ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᒌᖕᒋᑦ ᐊᒻᒪ ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᑦ. ᕖ–ᔫᐊᕆ 2020, ᐱᓕᕆᔨᑦ ᓴᖅᑭᖅᑎᑕᐅᓚᐅᖅᑐᑦ ᐃᓚᒋᔭᐅᓪᓗᑎ ᐊᑕᖅᑐᑎ ᑎᒥᐅᔪᓂᑦ ᐊᑐᓕᖅᑎᓪᓗᒍ ᐊᕐᕿᑕᐅᓯᒪᔪᖅ ᐃᖅᑲᓇᐃᔭᕈᓂᐊᖅᑐᓄᑦ ᐸᕐᓇᐅᑦ. ᑐᕋᒧᐃᑦᑐᓕᕆᔩᑦ ᑕᒪᑐᒥᖓ ᐃᖅᑲᓇᐃᔮᕈᔪᒥᑦ ᑲᔪᓯᕙᓪᓕᐊᓂᖃᖅᑐᖅ, ᐃᓚᖕᒋᓐᓄᑦ ᑭᒍᕙᖅᓯᒪᓪᓗᑎ ᐱᔾᔪᑎᕆᓪᓗᒍ ᓄᕙᒡᔪᐸᕐᓇᖅ-19.

- ᐃᓄᑦᑎᒍᑦ ᓄᓇᓕᒻᒥ ᑲᑎᒪᑎᑦᑎᓂᐅᔪᑦ ᐅᑯᓇᓂ ᐃᑉᐱᐊᕐᔪᒃ, ᑲᕆᖅᑐᓪᓚᐱᒃ, ᐊᐅᓯᐃᑦᑐᖅ, ᒥᑦᑎᒪᑕᓕᒃ ᐊᒻᒪ ᖃᐅᓯᐃᑦᑐᖅ ᐸᕐᓇᑕᐅᓚᐅᖅᑐᑦ ᐅᑭᐊᕐᔅᓵᓄᑦ 2020 ᑭᓯᐊᓂ ᑭᒡᒍᕙᖅᑎᑕᐅᓯᒪᔪᑦ. ᑐᕋᒧᐃᑦᑐᓕᕆᔩᑦ ᐃᓱᒪᒋᔭᐅᔪᓂᑦ ᓴᖅᑭᑎᑦᑎᕙᓪᓕᐊᔪᑦ ᐊᓯᐊᒎᕈᑎᔅᓴᓂᑦ ᑲᑎᒪᑎᑦᑎᓂᕐᒧᑦ ᐱᕙᓪᓕᐊᓂᖓᓄ ᑲᑎᒪᔾᔪᑕᐅᓂᐊᖅᑐᑦ ᑐᓂᐅᖅᑲᖅᑕᐅᓂᕆᓐᓇᓄᑦ ᓄᑖᒥᑦ ᑉᐱᓇᐅᔭᓕᕆᓂᕐᒧᑦ ᐊᕐᕌᒍᒥ. ᑲᑎᒪᑎᑦᑕᓐᓂᕐᓂᐅᔪᑦ ᓂᕆᐅᕆᔭᐅᔪᑦ ᐅᐊᑦᑎᐊᕈᒃᑲᓐᓂᐅᓕᖅᑲᑦ ᓈᒻᒪᓐᓂᖓᓄ ᖃᐅᔨᓴᕐᓂᖃᖅᑎᓪᓗᒋᑦ ᓄᓇᓕᐅᔪᑦ ᐊᒻᒪ ᑎᒍᒥᐊᖅᑎᐅᖃᑕᐅᔪᑦ ᐅᖃᐅᓯᔅᓴᖃᖅᕕᖃᖅᑎᓪᓗᒋᑦ ᖃᓄᐃᓐᓂᓇᕆᐊᓐᖓᖅᑕᕆᓐᓄᑦ.

- ᐱᔭᕇᓚᐅᖅᑎᓪᓗᒍ ᓈᒻᒪᓐᓂᖓᓄ ᖃᐅᔨᓴᕐᓂᐅᔪᖅ ᐊᒻᒪ ᐊᑐᐊᓂᖏᑦ ᑲᑎᒪᑎᑦᑎᕙᓪᓕᐊᓂᕐᒧᑦ, ᐅᓂᒃᑳᑦ ᐊᑐᓕᖁᔭᐅᔪᓂᑦ ᑐᓂᔭᐅᓂᐊᖅᑐᑦ ᒥᓂᔅᑕᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ ᐊᒻᒪ ᓯᑯᓯᐅᑎᒃᑯᑦ ᑲᓇᑕᒥ, ᒥᓂᔅᑕ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᐊᒻᒪ ᓯᓚᐅᑉ ᐊᓯᔾᔨᕐᓂᖓᓄᑦ ᑲᓇᑕ, ᒥᓂᔅᑕ ᐊᕙᑎᓕᕆᔩᒃᑯᑦ ᐊᒻᒪ ᒥᓂᔅᑕ ᐃᖏᕋᔪᓕᕆᔩᒃᑯᑦ ᐊᒻᒪ ᐱᕙᓪᓕᐊᔪᓕᕆᔩᒃᑯᑦ ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᓐᓄᑦ, ᐊᒻᒪ ᐊᕐᕆᔪᖅᑳᕐᓗ ᕿᑭᖅᑕᓂ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᒌᖕᒋᑦ.

<u>ᑲᓇᓐᓇᕐᓗᓂ ᐅᑭᐅᑕᖅᑐᒥ ᐃᒪᕐᒥᑦ ᒫᓐᓇᐅᔪᒥᑦ ᖃᓄᐃᕐᒋᑎᐊᕐᓂᕆᔭᕐᒥᑦ</u>

- ᐃᑲᔪᖅᑕᐅᓪᓗᑎ ᐊᐅᓚᑦᑎᖃᑎᒌᓐᓂᕐᒧᑦ ᐱᓕᕆᖃᑎᖏᓐᓂᑦ, ᐃᖃᓗᓕᕆᓂᐅᔪᒥᑦ, ᐊᒻᒪ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ, ᐱᕐᕕᓱᑦ ᑲᓇᓐᓇᕐᓗᓂ ᐅᑭᐅᑕᑐᖅ ᐃᒪᕐᒥᑦ ᒫᓐᓇᐅᔪᒥᑦ ᖃᓄᐃᕐᒋᑎᐊᕐᓂᕆᔭᕐᒥᑦ, ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᒪᑐᔭᐅᔪᑦ ᐊᑖᓂ *ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐱᖁᔭᖅ* ᐊᑐᓕᖅᑎᑕᐅᓚᐅᖅᑐᖅ 2017–ᒥᑦ ᐃᑲᔪᖅᑐᐃᓂᖅᑲᖅᑐᓂᑦᑕᐅᖅ 1.17% ᐃᒪᕐᒥᑦ ᓴᐳᒻᒥᑎᓂᕐᒥᑦ.

- ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ ᖃᐅᔨᓴᖃᑦᑕᖅᑐᑦ ᒪᓕᓐᓂᖃᓂᕐᒧᑦ ᑖᒃᑯᓂᖓ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᒪᑐᔭᐅᔪᓂᑦ ᐃᒪᕐᒦᑦᑐᑎᑦ ᐃᐊᑦᑎᖃᑦᑕᖅᑐᑎᑦ ᐊᒻᒪ ᖃᖓᑕᓲᒃᑯᑦ ᖃᐅᔨᓴᖃᑦᑕᓂᒃᑯᑦ ᐊᒻᒪᓗᑦᑕᐅᖅ ᐊᑐᖅᑐᕆᑦ

ᐅᒥᐊᕐᔪᐊᓂᑦ ᖃᐅᔨᓴᖃᑦᑕᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᔪᑦ. ᐃᒪᖅᑭᑦ ᒫᓇᐅᔪᒥᑦ ᖃᓄᐃᖏᑎᐊᕐᓂᕆᔭᖏᑦ ᓴᖅᑭᖅᑎᑕᐅᔪᒻᒪᓂᑦ ᕿᑎᐊᓄᑦ ᐅᑭᐅᑕᖅᑐᒧᓪᓗ, ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ ᖃᐅᔨᓴᖅᓯᒪᔪᑦ ᐊᑕᐅᓯᕐᒥᑦ ᓯᕐᑯᒥᑦᑎᔪᒥᑦ ᐊᒻᒪ ᖃᐅᔨᕐᓗᑎ ᐊᒥᓱᓚᓐᓂᑦ ᓯᕐᑯᒥᑦᑎᓂᖃᕈᓇᖅᑐᓂᑦ.

- ᖃᐅᔨᓴᓂᒧᑦ ᐱᓕᕆᐊᑦ ᓱᕐᓗ ᖁᒻᒧᐊᑦᑎᑕᐅᓯᒪᔫᒃᑯᑦ ᓇᓗᓇᐃᒃᑯᓯᖅᓯᖃᑦᑕᕐᓂᖅ ᐊᒻᒪ ᖃᐅᔨᓴᖃᑦᑕᕐᓂᖅ ᐊᑯᑭᑦᑐᑦ ᖃᓕᕋᓕᖕᖏᓐᓂᑦ, ᐊᑯᑭᑦᑐᑦ ᐃᖃᓗᙳᐊᖕᖏᓐᓂ ᐊᒻᒪ ᓇᑖᕐᓇᓂᑦ ᐊᒻᒪᓗᑦᑕᐅᖅ ᐃᖃᓗᓕᕆᓂᐅᔪᓂᑦ ᖃᐅᔨᓴᕐᓂᐅᔪᑦ ᑲᔪᓯᓂᖃᖅᑐᑦ ᐃᓗᐊᓂ ᐊᒻᒪ ᖃᓂᒋᔭᖕᖏᓐᓂ ᐃᒪᖅᑭᑦ ᒫᓇᐅᔪᒥᑦ ᖃᓄᐃᖏᑎᐊᕐᓂᕆᔭᖕᖏᓐᓂ.

- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ ᖁᕕᐊᓱᓚᐅᖅᑐᑦ ᐱᓕᕆᖃᑕᐅᓗᑎ ᐃᓄᓕᒫᓂᑦ ᑐᓴᖅᑎᑦᑎᓂᕐᒧᑦ ᐱᓕᕆᐊᒥᑦ ‘ᓴᐳᒻᒥᑦᑎᔩᑦ ᑕᕆᐊᕐᒥᑦ’ ᑕᑯᔅᓴᐅᑎᑦᑎᔪᑦ ᑲᓇᓐᓇᖕᖓᓂ ᐅᑭᐅᑕᖅᑐᖅ ᐃᒪᖅᑭᑦ ᒫᓇᐅᔪᒥᑦ ᖃᓄᐃᖏᑎᐊᕐᓂᕆᔭᖏᑦ.

ᐱᑭᐊᓚᓱᕐᓯᐊᖅ

- ᐱᑭᐊᓚᓱᕐᓯᐊᖅ ᑲᒪᔩᑦ (PC) ᓴᖅᑭᖅᑎᑕᐅᓚᐅᖅᓯᒪᔪᑦ ᓯᓚᕐᔪᐊᒥ ᐃᓄᐃᑦ ᑲᑎᒪᔩᖏᓐᓄᑦ (ICC) ᕿᓂᕐᓗᑎ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᓇᓖᕐᕋᖅᓴᓂᑦ ᐊᖏᔪᓄᑦ, ᓯᓚᕐᔪᐊᒥ ᐅᑭᐅᑕᖅᑐᖓᓂ ᐃᒪᖓ ᐃᒪᐅᖏᓐᓇᖅᑐᖅ. ᐱᑭᐊᓚᓱᕐᓯᐊᖅ ᑲᒪᔩᑦ ᐅᓂᒃᑳᖏᑦ ᐃᓗᓕᕐᑲᖅᑐᑦ ᐱᖓᓱᓂᑦ ᐊᑐᓕᕐᑯᔭᐅᔪᓂᑦ, ᒪᕿᒃ ᐊᑦᑐᐊᓂᓖᒃ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ ᑐᕌᖓᖏᓐᓄᑦ: ᓴᖅᑭᖅᑎᑕᐅᓂᖓ ᐊᐅᓚᑦᑎᓂᐅᕐᒧᑦ ᑎᒥᐅᔪᖅ, ᐱᖃᓯᐅᑎᓪᓗᑎ ᐃᓄᓐᓄᑦ ᑐᑭᒧᐊᖅᑎᑕᐅᔪᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐱᔪᓐᓇᐅᑎᓖᑦ; ᐊᒻᒪ ᓇᓗᓇᐃᖅᑕᐅᓂᖏᓐᓄᑦ ᓴᐳᒥᔭᐅᔪᖅ ᖃᓄᐃᑦᑐᒃᑐᑕᐅᓂᖏᑦ ᐃᒪᐅᖏᓐᓇᖅᑐᖅ ᐊᒻᒪ ᐱᖃᓯᐅᑎᓪᓗᑎ ᐊᖏᓂᖅᓴᐅᔪᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᑮᓪᓚᖏᑦ.

- ᐃᓄᐃᑦ–ᒐᕙᒪᑐᖃᒃᑯᑦ ᐱᓕᕆᖃᑎᒌᓐᓂᖏᓐᓄᑦ ᑲᑎᒪᔩᕋᓛᑦ ᓴᖅᑭᑎᑦᑎᑎᒌᓚᐅᖅᑐᑦ ᐅᓂᒃᑲᓂᑦ ᒫᑦᓯ 2019 ᑲᔪᖏᖅᓯᒪᓂᖏᓐᓄᑦ ᓯᕗᓕᖅᑏᑦ ᐃᖅᑲᓇᐃᔭᖃᑎᒌᓪᓗᑎ ᑲᑐᑎᓗᑎ, ᐊᒻᒪ ᒐᕙᒪᖏᓐᓂ ᐊᑯᑭᑦᑐᑦ ᐊᒻᒪ ᑎᐊᓈᒃ, ᐊᑐᓕᖅᑎᑕᐅᓂᖏᓐᓄᑦ ᐊᑐᖅᑕᐅᓂᖓ ᐱᓕᕆᐊᖃᕐᓗᑎ ᐃᓱᒫᓘᑕᐅᔪᓂᑦ ᓇᓗᓇᐃᖅᑕᐅᔪᑦ ᐱᑭᐊᓚᓱᕐᓯᐊᖅ ᑲᒪᔨᓄᑦ.

- ᐅᖃᖃᑎᒌᓐᓂᖅ ᐃᓄᓐᓂᑦ ᐱᓕᕆᖃᑕᐅᔪᓂᑦ ᑲᔪᓯᕗᓪᓚᐊᔪᑦ ᓇᓗᓇᐃᕐᓗᒥᑦ ᐃᑲᔪᕐᕕᒃᓴᐅᔪᓐᓇᖅᑐᑦ ᐊᒻᒪ ᐱᔪᓐᓇᕐᓂᓚᐅᕐᓗᑎ ᐃᓗᐊᓂ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᒌᖕᖏᓐᓂᑦ ᓴᖅᑮᔭᖅᑎᓪᓗᒍ ᓯᕗᓕᖅᑎᐅᓂᕐᒧᑦ ᑕᕝᕙᓂ ᐱᓕᕆᔭᐅᔪᒥᑦ. ᕿᑭᖅᑕᓂ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᒌᖕᖏᑦ ᓯᕗᓕᖅᑎᐅᓯᒪᔪᑦ ᑲᒪᒋᔭᖃᓂᕐᒥᑦ ᓯᕗᒧᑦᑎᐊᒋᐊᕐᓂᖏᓐᓄᑦ ᐅᖃᖃᑎᒌᓐᓂᐅᔪᑦ ᐱᔾᔪᑎᖃᖅᑐᓂᑦ ᓴᕐᙯᖅᔪᐊᖅ (ᑲᓇᑕᐅᑉ ᐃᓚᖓᓃᑦᑐᖅ ᐱᑭᐊᓚᓱᕐᓯᐊᖅ) ᐊᒻᒪ ᑐᓴᖅᑎᑎᓪᓗᑎ ᑕᑯᓐᓇᖃᑎᒋᔭᖏᓐᓂᑦ ᕿᑭᖅᑖᓗᒻᒧᑦ.

- ᐅᖃᖃᑎᒌᒋᐊᓐᖓᕐᓂᐅᔪᑦ ᐱᒋᐊᖅᓯᒪᓕᖅᑐᑦ ᐊᑯᑭᑦᑐᓂᑦ ᐊᒻᒪ ᑎᐊᓈᒃ ᐱᕙᓪᓕᐊᑎᑕᐅᓂᖓᓄᑦ ᓴᓇᓯᒪᓂᖓ ᐊᑐᓕᖅᑎᑕᐅᓂᖓᓄᑦ ᐃᒪᕐᒥ ᐊᐅᓚᑦᑎᓂᕐᒥᑦ ᐱᑭᐊᓚᓱᕐᓯᐊᖅᓚᒫᒥᑦ. ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ ᐃᖅᑲᓇᐃᔭᖃᑎᖃᓂᐊᕐᒥᔪᑦ ᑲᓇᑕᒥ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᒌᖕᖏᓐᓂ ᐊᒻᒪ ᐊᓯᖏᑦ ᐱᓕᕆᖃᑦᑕᓗᐊᑕᐅᔪᑦ ᑐᓴᖅᑎᑦᑎᒍᑎᐅᓗᑎ ᓯᓚᕐᔪᖃᒥ ᐅᖃᖃᑎᒌᓐᓂᐅᔪᓂᑦ.

- ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ ᑲᓇᑕᒥ ᖃᐅᔨᓴᓕᑎᑦ ᐅᖃᐅᔾᔨᕆᐊᖅᑏᑦ ᑎᑎᕋᕝᕕᖓ (CSAS) ᑲᑎᒪᓂᖃᓚᐅᖅᑐᑦ ᔫᓐᓄᐊᕆ 2020 ᕗᐃᓂᐸᐃᒡᒥ ᓯᓚᕐᔪᐊᒥ ᐊᔪᖏᑎᑕᖃᖅᑐᑎᑦ ᐊᒻᒪ ᖃᐅᔨᓴᖅᑏᑦ ᕿᒥᕐᕈᓗᑎ ᒫᓇᐅᔪᒥᑦ ᑐᑭᓯᒋᐊᕈᑎᓵᐅᔪᓂᑦ ᐊᑦᑐᐊᓂᓕᓐᓄᑦ ᐱᑭᐊᓚᓱᕐᓯᐊᖅ/ᓴᖅᑫᖅ. ᑲᑎᒪᓂᐅᔪᓄᑦ ᐅᓂᒃᑳᑦ ᐊᒻᒪ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᒫᓇᒫᕈᓗᒃ ᐊᑐᐃᓐᓇᐅᓂᐊᖅᑐᕆᔭᐅᔪᑦ ᐊᒻᒪ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᑐᔪᕚᖑᓗᑎ ᐊᒻᒪ ᐃᓄᓕᒫᓄᑦ ᐊᑐᐃᓐᓇᐅᓪᓗᑎ CSAS ᐃᕐᖏᓈᕈᑎᒃᑯᑦ ᑐᑭᓯᕆᐊᕝᕕᖓᒍᑦ

<u>ᐃᒪᐅᑉ ᐊᕙᑎᖓ ᐱᐅᓂᖓ</u>

- ᐸᕐᓇᐅᑎᕋᑖᖅᓯᒪᔪᑎ ᐃᒪᐃᑦ ᓴᐳᒥᔭᐅᓂᖏᓐᓄᑦ ᐸᕐᓇᐅᑦ (OPP) ᐱᓕᕆᑎᑦᑎᓂᐅᔪᑦ ᐃᑲᔪᖅᑐᑦ ᐃᒪᕐᒥ ᐊᕙᑎᖓ ᐱᐅᓂᖓᓄ (MEQ) ᐱᓕᕆᙱᐊᓄᑦ ᐊᑖᓂ *ᐃᒪᕐᓄᑦ ᐱᕐᑯᔭᖅ*. ᑲᔪᖏᑕᐅᓯᒪᔪᑦ ᐊᑖᓂ ᐃᒪᐃᑦ ᓴᐳᒥᔭᐅᓂᖏᓐᓄᑦ ᐸᕐᓇᐅᑦ ᐱᓕᕆᐊᖃᓗᐊᕐᓗᑎ ᐱᓗᐊᕐᔭᐃᖅᓯᒪᑎᑦᑎᓂᕐᒥᑦ ᐊᑦᑕᓇᕈᑎᐅᔪᓐᔭᖅᑐᓂᑦ ᐃᓄᓐᓄᑦ ᐊᓯᕈᕈᑎᖃᖅᑎᑕᐅᔪᓄᑦ ᐃᒪᐅᑉ ᐊᕙᑎᖓᓂ, ᐱᖃᓯᐅᑎᓪᓗᑎ ᐊᑦᑐᖅᑕᐅᔪᑦ ᐃᒪᕐᒥ ᓂᐱᓄᑦ ᐅᒥᐊᕐᔪᐊᓄᑦ.

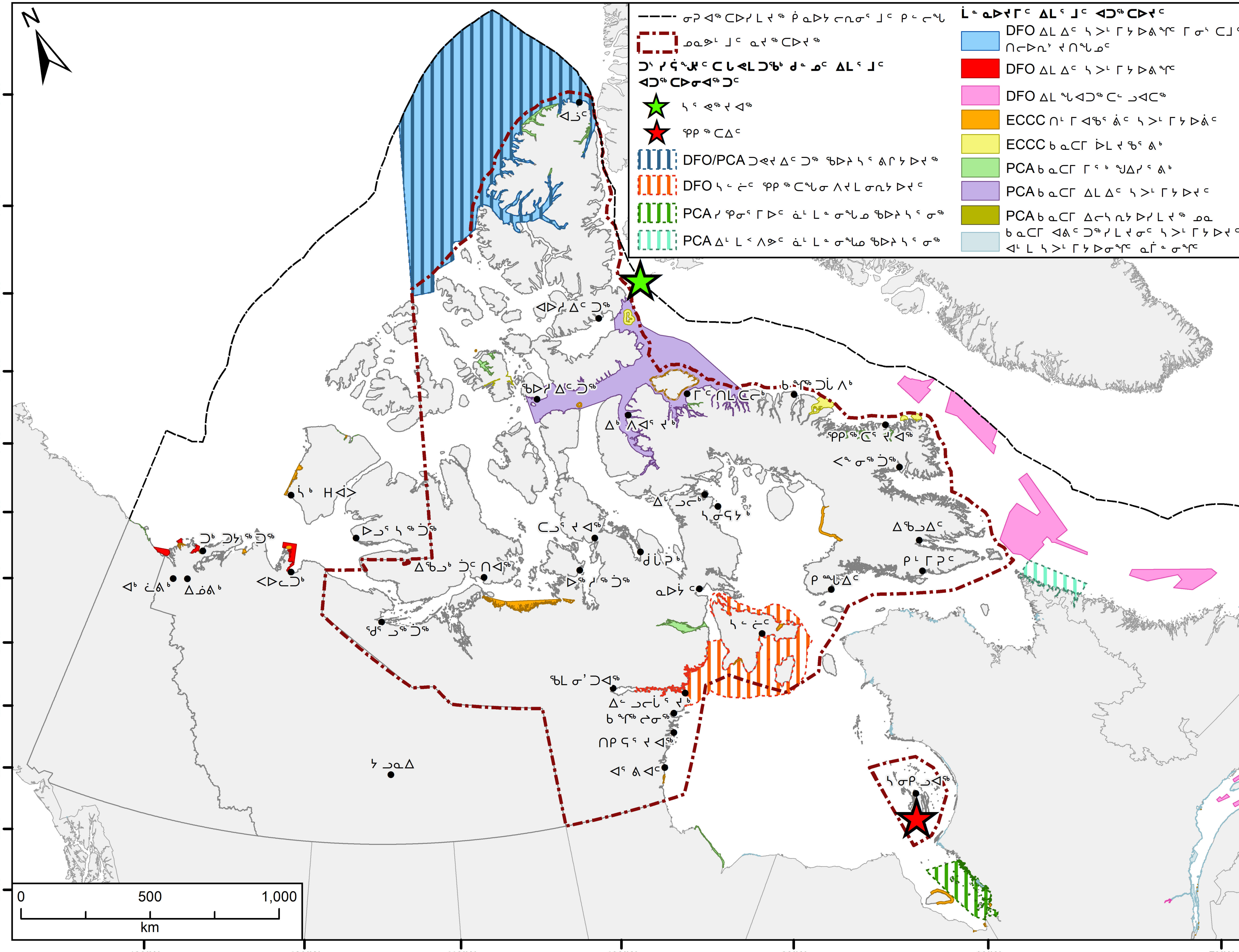
- ᐃᖅᑲᓇᐃᔾᖃᑎᒋᓪᓗᒋᑦ ᐱᓕᕆᖃᑕᐅᔪᑦ, ᑲᓇᑕᒥ MEQ ᐱᓕᕆᐊᖅ ᑐᕌᓂᖃᖅᑐᖅ ᓴᖅᑭᑎᑦᑎᓂᕐᒥᑦ ᐃᓚᓕᐅᔾᔨᐅᓯᒪᔪᓂᑦ ᐊᒻᒪ ᖃᐅᔨᔨᐅᓯᒪᔪᓄᑦ ᑐᓐᖓᓂᖃᖅᑐᑦ ᓴᓇᕿᑰᑦ ᐊᒻᒪ ᐸᕐᓇᐅᑰᑦ ᐊᐅᓚᑦᑎᐊᓂᖅᓵᓗᒋᑦ ᐊᒻᒪ ᖃᓄᐃᖕᒋᑎᐊᖅᑮᓇᕐᓗᒋᑦ ᐊᒻᒪ ᒪᑭᒪᑎᓪᓗᒋᑦ ᐃᒪᐃᑦ, ᓄᓇᖅᐸᓯᒻᒥ, ᑰᑦ ᐃᓱᓂᖕᒋᓐ ᐃᒪᐃᑦ ᐊᕙᑎᖕᒋᑦ.

- ᑲᓇᑕᒥᓕ, ᐃᖅᑲᓇᐃᔾᓂᐅᔪᖅ ᐱᕙᓪᓕᐊᑎᑕᐅᓂᖓ ᐃᒪᕐᒥ ᓂᐱᓄᑦ ᐸᕐᓇᐅᑦ ᐊᐅᓚᑦᑎᓗᓂ ᒐᕙᒪᑐᖃᒃᑯᓐᓂᑦ ᐱᓇᓱᐊᖅᑕᐅᔪᑦ ᑐᑭᓯᔭᐅᓂᖕᒋᓐᓄᑦ ᐊᒻᒪ ᐊᐅᓚᑕᐅᓂᖕᒋᓐᓄᑦ ᐃᓄᓐᓃᖕᖒᖅᑐᑦ ᓂᐲᑦ ᐃᒪᕐᒥ. ᐅᖃᖃᑎᒌᓐᓂᕐᒧᑦ ᑎᑎᕋᖅᓯᒪᔪᑦ ᓴᖅᑭᖅᑎᑕᐅᓚᐅᖅᑐᑦ ᐱᓕᕆᖃᑎᖃᖅᑐᑎᑦ ᐊᓯᖕᒋᓐᓂ ᒐᕙᒪᑐᖃᒃᑯᓐᓂᑦ ᐱᓕᕆᕖᓐᓂᑦ ᐊᒻᒪ ᑎᒥᐅᔪᓂᑦ ᓇᓗᓇᐃᔾᕐᓗᒍ ᓵᙳᒪᓂᖓ ᐸᕐᓇᐅᒻᒧᑦ ᐊᒻᒪ ᐱᕐᑯᔾᖅ ᐊᐅᓚᔾᔪᑎᓪᓗᐊᑕᐅᓪᓗᓂ ᑐᓵᕙᖃᕆᐊᓐᖓᕐᓗᓂ ᐱᓕᕆᖃᑎᕌᑦᑐᓂᑦ, ᑎᒍᒥᐊᖅᑎᐅᔪᓂᑦ, ᐊᒻᒪ ᑲᓇᑕᒥᐅᑕᓂᑦ ᑮᒃᑯᓕᒫᓂᑦ. ᑕᑯᔅᓴᐅᑎᑦᑎᓚᐅᖅᑐᑦ ᓄᓇᕗᒻᒥ ᐃᒪᕐᒥ ᓴᐳᒥᑦᑎᓂᕐᒧᑦ ᑐᕌᖅᑕᐅᔪᓂᑦ ᑐᑭᒧᐊᖅᑎᑦᑎᔾᔮᑦ ᑲᑎᒪᔩᑦᑏᖕᒋᑦ ᑎᓯᐱᕆ 2, 2020.

- ᐃᓗᐊᓂ ᓄᓇᕗᒻᒥ, ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ ᐃᖅᑲᓇᐃᔾᖃᑎᖃᖅᑐᑦ ᐱᓕᕆᖃᑎᖕᒋᓐᓂ ᓴᖅᑭᑎᑦᑎᓗᑎ ᐃᒪᕐᒥ ᓂᐱᓄᑦ ᑐᓐᖓᕙᖕᒋᓐᓂ ᑕᓯᐅᔾᖅᔪᐊᒥᑦ ᐊᒻᒪ ᓴᓪᓖᑦ ᕿᑭᖅᑕᖓᓂ ᐱᔪᒪᓂᕆᔾᔨᔪᒥᑦ.

- ᓴᖅᑭᑎᑦᑎᓂᖅ ᐅᑭᐅᑕᖅᑐᒦᖕᒎᖅᑐᑦ ᐊᑐᖅᑕᐅᔾᔪᕆᐊᓖᑦ ᐊᑦᑎᓪᓕᒋᐊᖅᑎᑦᑎᓂᕐᒧᑦ ᐊᑦᑕᓇᕈᑎᐅᔪᓐᓇᖅᑐᓂᑦ ᐃᒪᕐᒥ ᓂᐱᓄᑦ. ᑎᑎᕋᖅᑕᐅᕆᐊᓐᖓᖅᓯᒪᔪᑦ ᐱᔾᔪᓃᖅᓯᒪᔪᑦ, ᖃᐅᔨᓴᖅᑕᐅᓯᒪᔪᖅ ᐃᖃᓗᓐᓂ ᐃᒪᕐᒥ ᐃᑎᔪᒥ ᑐᓚᑦᑕᕐᕕᓕᐅᖅᑕᐅᔪᒥᑦ ᐊᒻᒪ ᑐᓂᔾᔭᐅᓯᒪᔪᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ ᖃᐅᔨᓴᖅᑎᓄᑦ ᕿᒥᕐᕈᔾᔭᐅᓗᑎ.

ᑎᑎᕋᖅᑐᑦ: ᐅᑭᐅᑕᖅᑐᒧᑦ – ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ, ᐃᒪᕐᒥ ᐸᕐᓇᐃᓂᕐᒧᑦ ᐊᒻᒪ ᓴᐳᒻᒥᑦᑎᓂᕐᒧᑦ ᐱᓕᕆᐊᖅ
ᐅᓪᓗᖓ: ᔫᓐ ᓄᐊᕆ 28, 2021



ᒫᓐ ᓇᐅᔭᒥᑦ ᐊᒻᒪ ᓯᕗᓂᖓ ᓴᒥ ᐱᑕᖃᕈᓐ ᓇᖅᑐᓂᑦ ᓯᕗᓂᖓ ᓴᒥ ᐅᑭ ᐅᑕᖅᑐᒥ ᓴᐳᒻ ᒥᔮ ᐅᔪᑦ ᐊᒻᒪ ᓴᐳᒻ ᒥᔮ ᐅᕙᐅᔪᑦ. DFO = ᐃᒪᕐ ᒥ ᐅᑕᓕᕆᔨᒃ ᑯᑦ ᑲᓇᑕᒥ;
PCA = ᒥᕐ ᖑᐃᓯᕐ ᕙᓕᕆᔨᒃ ᑯᑦ ᑲᓇᑕᒥ ᑎᒥ ᖁᑦ; ECCC = ᐊᕙᑎᓕᕆᔨᒃ ᑯᑦ ᐊᒻᒪ ᓯᓚᐅᑉ ᐊᓯᔾᔨᕐ ᓂᖓᓄᑦ ᑲᓇᑕᒥ

<u>ᐃᓚᒎᑦᓯᐅᑎᔪᑦ ᑐᓂᔭᐅᓯᒪᔪᓄᑦ</u>

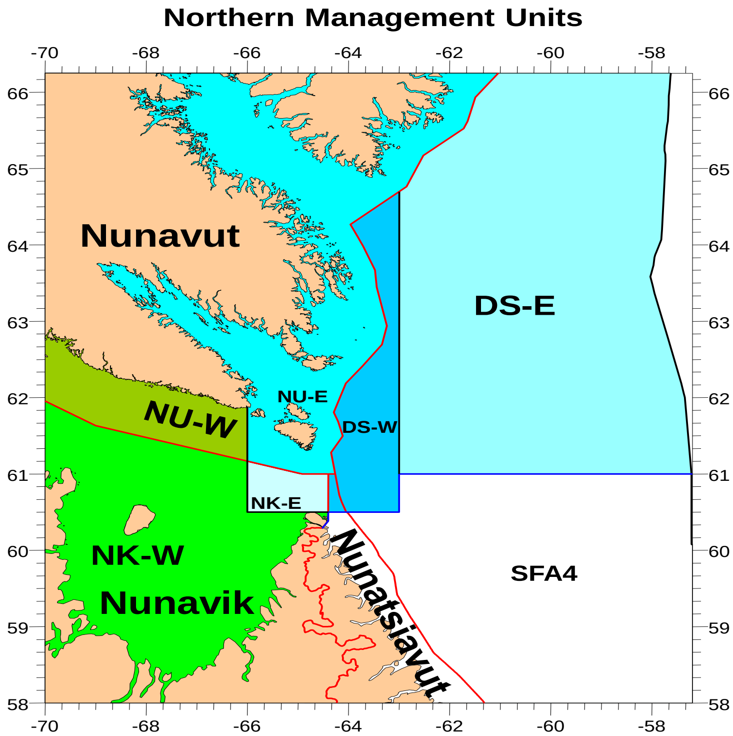
<u>ᓄᓇᕝᒧᑦ ᐆᒪᔪᓕᕆᔨᖁᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ ᐊᒻᒪᑦᑕᐅᖅ ᓄᓇᕕᒃ ᑕᕆᐅᖓᓄᑦ ᐆᒪᔪᓕᕆᔨᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ</u>

<u>ᐅᑯᓄᖓ</u>

ᑐᓴᐅᒪᒃᔪᑎ: X **ᐋᖅᑭᕋᒃᓴᖅ:** **ᐊᑐᓕᖁᔭᒃᓴᓕᐊᖅ:**

ᐃᓱᒪᕆᔭᒃᓴᖅ: ᓯᕗᕋᕆᔭᖃᓪᓗᑎᒃ ᑐᕌᒐᖃᖁᔭᑦ ᑐᙵᕕᒃᓵᓄᑦ ᐅᑭᐅᖅᑕᖅᑑᑉ (*ᐸᓐᑖᓚᔅ ᐳᐊᕆᔭᓕᔅ*) ᐊᒻᒪᓗ ᑕᖅᓴᓖᑦ (*ᐱ. ᒪᓐᑕᒍᐃ*) ᑭᖑᒃᐸᐃᑦ ᐱᖓᓐᓈᒍᑦ ᑲᓇᙳᒍᓪᓗ ᖃᐅᔨᓵᕆᔭᐅᓃᑉ ᐃᓂᕆᔭᖏᓄᑦ

<u>ᓄᓇᖖᒍᐊᖅ:</u>
ᑐᖑᔪᖅᓯᖅᓯᒪᔪᑦ – ᑲᓇᖕᓇᐅᑉ ᖃᐅᔨᓵᕆᔭᖅ ᐃᓂᖓ
ᐆᔭᐅᔨᖅᓯᒪᔪᑦ – ᐱᖓᓐᓇᐅᑉ ᖃᐅᔨᓵᕆᔭᖅ ᐃᓂᖓ



ᐅᑭᐅᖅᑕᖅᑑᑉ ᑭᖑᒃᐸᒃ (*ᐸᓐᑖᓚᔅ ᐳᐊᕆᔭᓕᔅ*)

ᑕᖅᓴᓕᒃ ᑭᖑᒃᐸᒃ (*ᐸᓐᑖᓚᔅ ᒪᓐᑕᒍᐃ*)

ᐅᖃᐅᓯᖃᒃᓯᒪᓂᖏᑦ

ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ (DFO) ᑐᓂᓯᓚᐅᕐᒪᑕ ᐅᓂᒃᑳᓕᐊᓂᒃ ᓇᐃᓈᕐᓯᒪᔪᓂᒃ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔨᒃᑯᓐᓄᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᑲᑎᒪᔩᑦ (NWMB) ᐊᒻᒪᓗ ᓄᓇᕕᒻᒥ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ (NMRWB) ᕕᕗᐊᕆ 2021 ᐱᒋᕈᑎᒃᓴᐅᓪᓗᓂ ᑲᑎᖕᒐᓗᑎᒃ ᐋᕿᒃᓯᓂᐊᕐᓂᖏᓐᓄᑦ ᐊᑐᓕᖁᔭᐅᔪᓂᒃ ᐅᔾᔨᕐᓭᕐᓂᕐᒧᑦ ᐱᒋᐊᕐᑕᐅᔫᒃᓴᓂᒃ (PA) ᐊᑐᕐᑕᐅᓂᐊᕐᑐᓂᒃ ᒪᕈᖕᓄᑦ ᐅᒪᔪᖕᓄᑦ ᑭᖑᒃᐸᐃᑦ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ).

ᐅᓂᒃᑳᓕᐊᖓ ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᕚᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓱᐃᔩᑦ ᑲᑎᒪᔨᑦ (NPAWG) ᐊᑐᐃᓐᓇᐅᓚᐅᖏᒻᒪᑕ ᑐᓂᔭᐅᑎᓪᓗᒋᑦ. ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔨᒃᑯᓐᓄᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᑲᑎᒪᔩᑦ ᑐᒃᓯᕋᓚᐅᕐᑐᑦ ᑖᓱᒥᖓ ᑐᓂᔭᐅᖁᓪᓗᒍ ᑐᓴᒃᓴᐅᓗᓂ ᒪᔨ 10, 2021 ᑲᑎᒪᓂᖏᓐᓂ.

ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᕚᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓱᐃᔩᑦ ᑲᑎᒪᔨᑦ: ᑲᓄᐃᓕᖓᓕᕐᓂᖓᑕ ᐅᓂᒃᑳᓕᐊᖅ (ᕕᕗᐊᕆ 2021) ᑐᓂᔭᐅᓯᒪᔪᖅ ᑐᓴᒃᓴᐅᓪᓗᓂ ᑕᕝᕙᓂ ᐃᓚᐅᓪᓗᓂ (ᐊᑦᑕᑕᖅᑎᓯᒪᔪᖅ 1). ᑖᓐᓇ ᐅᓂᒃᑳᓕᐊᖅ ᖃᓄᐃᓕᖓᓕᕐᓂᖓᓂᒃ ᐅᓂᒃᑲᓕᐊᖑᔪᖅ, ᐋᕿᒃᓱᑎᒃᓴᐅᖏᑦᑐᖅ. ᑭᖑᓪᓕᕐᐹᒥᒃ ᐅᓂᒃᑲᓕᐊᖅ ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᕚᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓱᐃᔩᑦ ᑲᑎᒪᔨᑦ ᐋᕿᒃᓱᕐᑕᐅᓂᐊᕐᑐᖅ ᐊᒻᒪᓗ ᑐᓂᔭᐅᓗᓂ ᑲᑎᒪᔨᓄᑦ ᐱᔭᕇᓯᒪᓕᕐᐸᑕ ᐋᕿᒃᓱᐃᔩᑦ ᑲᑎᒪᔨᖏᑦ.

ᐸᕐᓈᔭᐅᔪᖅ: ᑯᐊᑦᓂ ᑕᐅ'ᐆᔅᑦ, ᐃᖃᓗᒡᒃᓴᐅᓲᑦ ᐆᒪᔪᖏᑕ ᑲᒪᒋᔭᐅᓂᖏᓐᓄᑦ, ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᑲᓇᑕᒥ

ᐅᓪᓗᖓ: ᓇᑦᓯᐊᓕᐅᑦ 5, 2021

ᐃᓚᒌᑕᖓ 1- ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᕚᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓱᐃᔩᑦ ᑲᑎᒪᔨᑦ (NPAWG): ᖃᓄᐃᓕᖓᓕᕐᓂᖓᑕ ᐅᓂᒃᑳᓕᐊᖅ (ᕕᕗᐊᕆ 2021)

ᐅᑭᐅᖅᑕᖅᑐᒥ ᐅᔾᔨᖅᓱᑎᐊᖅᓂᖅᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᖅᑭᒃᓱᐃᔩᑦ ᑲᑎᒪᔩᑦ (NPAWG): ᖃᓄᐃᓕᖓᓕᖅᓂᖓᑕ ᐅᓂᒃᑳᓕᐊᖅ

ᕕᕗᐊᕆ 2021

ᐃᒪᐃᑦᑑᓂᖓ ᓇᓗᓇᐃᖅᓂᖅ: ᑖᓐᓇ ᐅᓂᒃᑳᓕᐊᖅ ᖃᓄᐃᓕᖓᓕᖅᓂᖓᓂᒃ ᐅᓂᒃᑲᓕᐊᖑᔪᖅ, ᐋᖅᑭᒃᑏᑎᒃᓴᐅᖏᑦᑐᖅ. ᑮᖑᓪᓕᖅᐹᒥᒃ ᐅᓂᒃᑲᓕᐊᖅ ᐅᑭᐅᖅᑕᖅᑐᒥ ᐅᔾᔨᖅᓱᑎᐊᖅᓂᖅᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᖅᑭᒃᓱᐃᔩᑦ ᑲᑎᒪᔩᑦ ᐋᖅᑭᒃᓱᖅᑕᐅᓂᐊᖅᑐᖅ ᐱᔭᕇᓯᒪᓕᖅᐸᑕ ᐋᖅᑭᒃᓱᐃᔩᑦ ᑲᑎᒪᔩᖏᑦ.

<u>ᐋᖅᑭᒃᓱᖅᓯᒪᓂᖓ ᐊᒻᒪᓗ ᑕᐃᒪᐃᓕᖓᓂᖓ</u>

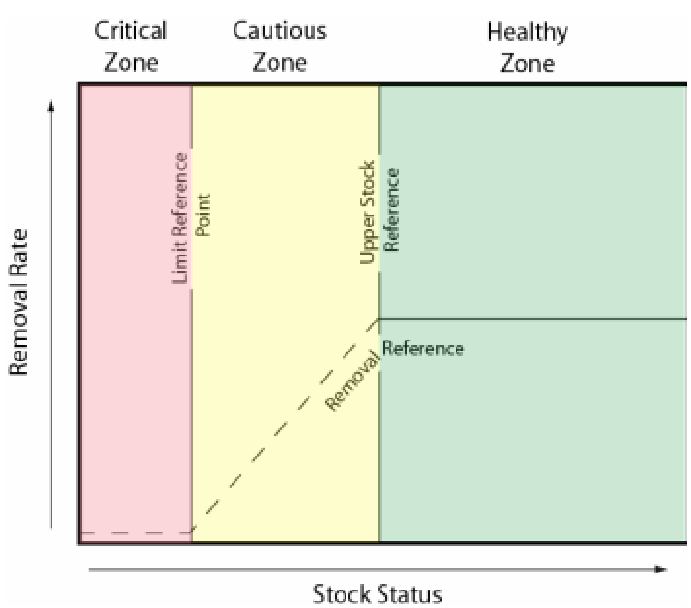
ᐅᑭᐅᖅᑕᖅᑐᒥ ᐅᔾᔨᖅᓱᑎᐊᖅᓂᖅᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᖅᑭᒃᓱᐃᔩᑦ ᑲᑎᒪᔩᑦ (NPAWG) ᓴᖅᑕᐅᓚᐅᖅᓯᒪᔪᑦ ᓄᕕᐱᕆ 2020. ᐅᔾᔨᖅᓱᑎᐊᖅᓂᖅᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᖅᑭᒃᓱᐃᔩᑦ ᑲᑎᒪᔩᑦ ᐃᓚᐅᓪᓗᑎᒃ ᐃᑲᔪᖅᑎᒑᖅᓂᒃᑯᑦ ᐊᐅᓚᑦᑎᖃᑎᒌᒃᑐᑦ, ᑎᒍᒥᐊᖅᑎᐅᔪᑦ, ᐊᕕᒃᑐᒃᓯᒪᔪᓂ ᑲᕙᒪᐅᔪᑦ ᐊᒻᒪᓗ ᐱᓕᕆᔨᖅᔪᐊᓂᑦ ᐃᖃᓗᓕᕆᓂᖅᒧᑦ ᐃᒪᖅᒥᐅᑕᓕᕆᓂᖅᒧᓪᓗ ᑲᓇᑕᒥ. ᑭᓇᒃᑰᓂᖏᓐᓂᒃ ᐅᑭᐅᖅᑕᖅᑐᒥ ᐅᔾᔨᖅᓱᑎᐊᖅᓂᖅᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᖅᑭᒃᓱᐃᔩᑦ ᑕᑯᔪᓐᓇᖅᑕᑎᑦ ᐊᑦᑕᑕᖅᑎᓯᒪᔪᖅ 1.

ᐋᖅᑭᒃᑕᐅᔪᑦ ᐅᑭᐅᖅᑕᖅᑐᒥ ᐅᔾᔨᖅᓱᑎᐊᖅᓂᖅᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᖅᑭᒃᓱᐃᔩᑦ ᑲᔪᓯᖃᑦᑕᖅᓯᒪᔪᑦ ᑕᐅᑐᖃᑦᑕᐅᑎᓪᓗᑎᒃ ᖃᕋᓴᐅᔭᒃᑯᑦ ᓄᕕᐱᕆ 2020 ᑎᑭᓪᓗᒍ ᕕᕗᐊᕆ 2021. ᑐᓴᐅᒪᑎᑦᑎᓂᖅᒧᑦ ᖃᖓᐅᓂᐊᖅᓂᖏᑦ ᑎᑎᕋᖅᓯᒪᔪᑦ ᐊᑦᑕᑕᖅᑎᓯᒪᔪᖅ 2.

<u>ᐱᔾᔪᑎᖓ ᐊᒻᒪᓗ ᑐᕌᖓᖏᑦ</u>

ᐱᔾᔪᑎᖓ ᐅᑭᐅᖅᑕᖅᑐᒥ ᐅᔾᔨᖅᓱᑎᐊᖅᓂᖅᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ (PA) ᐋᖅᑭᒃᓱᐃᔩᑦ ᑲᑎᒪᔩᑦ ᐅᖃᐅᔾᔨᒋᐊᖅᑎᐅᓗᑎᒃ ᐃᓗᓕᖏᓐᓂᒃ ᐅᔾᔨᖅᓱᑎᐊᖅᓂᖅᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᖅᑭᒃᑕᐅᓯᒪᔪᒧᑦ ᐅᑭᐅᖅᑕᖅᑐᒥ ᕿᑐᙵᐸᐃᑦ *(ᐹᓐᑕᓚᒃ ᐳᐊᓇᐋᓕ)* ᐊᒻᒪᓗ ᑕᓴᖃᐅᖅᑐᑦ ᑯᑐᙵᐸᐃᑦ *(ᐹᓐᑕᓚᒃ ᒫᓐᑕᒍᐃ)* ᐱᑕᖃᖅᓂᖏᑦ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᖅᓱᑎᐊᖅᓂᖅᒧᑦ ᐃᓂᖓ (WAZ), ᐊᒻᒪᓗ ᓄᑕᖑᕆᐊᖅᓯᒪᔪᖅ ᐅᔾᔨᖅᓱᑎᐊᖅᓂᖅᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᖅᑭᒃᑕᐅᓯᒪᔪᒧᑦ ᑖᒃᑯᓄᖓ ᐱᑕᖃᖅᓂᐅᔪᓄᑦ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᖅᓱᑎᐊᖅᓂᖅᒧᑦ ᐃᓂᖓ (EAZ).

ᒪᓕᒃᓗᒋᑦ ᐅᑯᐊ [*ᐃᖃᓗᓕᕆᓂᖅᒧᑦ ᐋᖅᑭᒃᓱᐃᔩᑦ ᐱᖃᓱᐅᔾᔨᓯᒪᔪᖅ ᐅᔾᔨᖅᓱᑎᐊᖅᓂᖅᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒥᒃ*]() *(<u>Fishery Decision-Making Framework Incorporating the Precautionary Approach)</u>* (ᐃᖃᓗᓕᕆᓂᖅᒧᑦ ᐃᒪᖅᒥᐅᑕᓕᕆᓂᖅᒧᓪᓗ ᑲᓇᑕᒥ [DFO], 2009) (ᑕᐃᔭᐅᔪᖅ ᐃᒪᖅᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐅᔾᔨᖅᓱᑎᐊᖅᓂᖅᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒥ [PA] ᐊᑐᐊᒐᖏᑦ), ᐃᓗᓕᕆᓪᓗᐊᑕᖅᑕᖓ ᐅᔾᔨᖅᓱᑎᐊᖅᓂᖅᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒥ ᑐᑭᓯᓇᖅᓯᑎᑕᐅᕆᐊᖅᑐᓂ ᐱᖓᓲᔪᑦ ᐱᑕᖃᖅᓂᐅᔪᑦ ᖃᓄᐃᓕᖓᓂᖏᓐᓂᒃ ᓇᓗᓇᐃᖅᕕᖏᑦ (ᖃᓄᐃᖏᑦᑎᐊᖅᓂᖏᑦ, ᐅᔾᔨᖅᓱᕆᐊᓖᑦ ᐊᒻᒪᓗ ᐱᕕᖕᓇᖅᑐᕐᑦᑐᑦ ᓇᓗᓇᐃᖅᕕᖏᑦ [ᑎᑎᕋᖅᓯᒪᔪᖅ 1]) ᐊᒻᒪᓗᑦᑕᐅᖅ ᐃᖃᓗᓕᐊᒃᑕᐅᓂᖏᓐᓄᑦ ᑐᕌᒐᐅᔪᑦ ᐱᖃᓱᐅᑎᓯᒪᑐᐃᓐᓇᕆᐋᑦ ᐃᖃᓗᒃᑕᐅᔪᑦ ᐋᖅᑭᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᒐᐃᑦ (HDR).



ᐊᔾᔨᖑᐊᖅ 1. ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᕐᑎᓂᕐᒧᑦ ᓴᓇᔨᓂᖓ ᒪᓕᓐᓂᖃᖅᑐᖅ ᓱᕗᓂᐊᒍᑦ ᐊᕐᑕᓇᐃᖅᓯᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᔪᒥᑦ

ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᕆᐊᒐᒃᓴᐅᔪᒥ ᐋᕿᒃᑕᐅᓯᒪᔪᖅ ᑖᒃᑯᓇᙵ ᐃᖃᓗᙵᓄᑦ ᖃᐅᔨᒪᔾᔪᑕᐅᓂᐊᕐᒪᑦ ᐃᖃᓗᒐᓱᒃᑎᐅᔪᓄᑦ ᐊᐅᓚᑦᑎᔪᓄᑦ ᐋᕿᒃᓱᐃᑎᓪᓗᒋᑦ ᐊᒻᒪᓗ ᐱᑕᖃᐃᓐᓇᕐᑎᑕᐅᓂᖏᓐᓄᑦ ᐊᐅᓚᑎᓂᕐᒧᑦ ᐃᖃᓗᐃᑦ ᑕᒫᓃᑦᑐᑦ. ᐊᒻᒪᓗᑦᑕᐅᖅ, ᐱᕙᓪᓕᐊᑎᑕᐅᓇᓱᒃᓗᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᕆᐊᒐᒃᓴᐅᔪᒥ ᐋᕿᒃᑕᐅᓯᒪᔪᖅ ᑕᕐᓴᖃᐅᕐᑐᑦ ᑯᙵᐸᐃᑦ *(ᐹᓐᑕᓚᒃ ᒫᓐᑕᒍᐃ)* ᑕᕝᕙᓂ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ), ᐱᓗᐊᕐᑐᒥᒃ ᐱᕙᓪᓕᐊᓂᖓ ᑭᒃᓕᖃᕐᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᕆᐊᕐᕕᐅᔪᖅ ᐱᕆᐊᕐᕕᒃ (LRP) ᐊᒻᒪᓗ ᑐᕌᕐᑕᐅᔪᖅ ᖃᐅᔨᕆᐊᕐᕕᐅᔪᖅ ᐱᕆᐊᕐᕕᒃ (TRP), ᐊᒃᑐᐊᔪᑦ ᖃᓄᐃᓕᙵᓂᖏᓐᓂᒃ ᑕᕆᐅᕐᒥ ᐸᕿᔨᐅᔪᓄᑦ ᑲᑎᒪᔨᖏᑦ (MSC) ᐊᖏᕐᑕᐅᓯᒪᓂᖏᓐᓂᒃ ᐃᖃᓗᓕᕆᓂᖅ.

ᑭᒃᓕᖃᕐᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᕆᐊᕐᕕᐅᔪᖅ ᐱᕆᐊᕐᕕᒃ (LRP)

ᒪᓕᒃᑯᒍ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ (DFO) ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᕆᐊᒐᒃᓴᐅᔪᒥ ᐊᑐᐊᒐᖏᓐᓂ, ᑭᒃᓕᖃᕐᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᕆᐊᕐᕕᐅᔪᖅ ᐱᕆᐊᕐᕕᒃ (LRP) ᓴᕿᑕᐅᓂᒋᔪᑦ DFO ᑭᒃᓕᓯᓂᐊᕐᑎᖏᓪᓗᑦ ᐱᕆᐊᕕᐅᔪᓐᓇᕐᓗᑎᒃ ᑐᓖᓃᓕᕈᓂ ᐅᓗᕆᐊᓇᕐᑐᒦᓕᕋᔭᕐᓂᖏᓐᓂᒃ ᐱᑕᖃᕐᓂᐅᔪᑦ. ᒪᐃ 2020, ᑲᓇᑕᒥ ᑭᒃᓕᓯᓂᐊᕐᓂᕐᒧᑦ ᐅᖃᐅᔾᔨᕆᐊᕐᑎᑦ ᐱᓇᓱᒃᕕᖓ (CSAS) ᕿᒥᕈᓪᓗᑎᒃ ᐊᐅᓚᓂᖓᓂ ᐱᕆᐊᕐᑎᑦᑎᓚᐅᕐᑐᑦ ᓴᕿᑦᑎᓪᓗᑎᒃ ᑭᒃᓕᖃᕐᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᕆᐊᕐᕕᐅᔪᖅ ᐱᕆᐊᕐᕕᒃ (LRP) ᑖᒃᑯᓇᙵ ᐅᑭᐅᕐᑕᕐᑐᒥ ᑭᖑᓐᐸᐃᑦ *(ᐹᓐᑕᓚᕐ ᐳᐊᕆᐋᓕᕐ)* ᐊᒻᒪᓗ ᑕᕐᓴᖃᐅᕐᑐᑦ ᑯᖑᑉᐸᐃᑦ *(ᐹᓐᑕᓚᕐ ᒫᓐᑕᒍᐃ)* ᐱᑕᖃᕐᓂᐅᔪᓂ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ), ᐊᒻᒪᓗ ᓄᑖᖑᓇᐊᕐᓂᖏᑦ ᐱᑕᖃᕐᐸᕇᕐᑐᑦ ᑭᒃᓕᖃᕐᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᕆᐊᕐᕕᐅᔪᖅ ᐱᕆᐊᕐᕕᒃ ᐱᑕᖃᕐᓂᐅᔪᓂ ᑲᓐᖓᓐᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ). ᐅᖃᓕᐅᒪᓕᐅᕐᑕᐅᔪᑦ ᕿᒥᕈᔭᐅᓂᖓᓂᑦ ᐊᐅᓚᓂᖓᓂᑦ ᓴᕿᑕᐅᓚᐅᕐᑐᑦ ᓄᕕᐱᓇ 2020 ᐊᒻᒪᓗ ᑐᓂᐅᖃᕐᑕᐅᓪᓗᑎᒃ ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᕆᐊᒐᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓯᐃᔾᔭᑦ ᑲᑎᒪᔾᔭᑦ. ᐊᔾᔨᖏᓐᓂᒃ ᑭᒃᓕᓯᓂᐊᕐᓂᕐᒧᑦ ᐅᖃᐅᔾᔨᕐᐊᕐᑎᑦ ᐅᓂᒃᑲᓕᐊᖓ (2020/053) ᑐᓂᔭᐅᓚᐅᕐᑐᑦ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔨᒃᑯᓐᓄᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᑲᑎᒪᔩᑦ ᐊᒻᒪᓗ ᓄᓇᕕᒻᒥ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᑎᓯᐱᕆ 2020 ᐊᒻᒪᓗ ᒪᔨ 2021 ᑲᑎᒪᓂᖏᓐᓂ.

- ᑎᑎᕋᖅᓯᒪᔪᑦ ᑐᑭᒧᐊᕈᑎᖏᑦ
- ᑭᒃᓕᓯᓂᐊᕐᓂᕐᒧᑦ ᐅᖃᐅᔾᔨᕐᐊᕐᑎᑦ ᐅᓂᒃᑲᓕᐊᖓ 2020/053
- ᖃᐅᔨᓴᕐᓂᕐᒧᑦ ᑎᑎᕋᕐᓯᒪᔪᑦ 2020/072
- ᑲᑎᒪᓂᐅᔪᑦ 2020/024

ᑭᒃᓕᖃᕐᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᕆᐊᕐᕕᐅᔪᖅ ᐱᕆᐊᕐᕕᒃ (LRP) ᓴᕿᑕᐅᓚᐅᕐᑐᑦ ᒪᐃ 2020 ᐃᖃᓇᐃᔭᕐᑎᑦ ᕿᒥᕈᓪᓗᑎᒃ ᐊᐅᓚᓂᖓᓂ ᓴᕿᑕᐅᓪᓗᑎᒃ 40-ᐳᓴᓐ ᒥᑕᑎᒍᑦ ᐊᖏᓚᙳᒐᔭᕐᑐᑦ ᐃᕐᓂᐅᕐᐸᓪᓕᐊᔪᑦ ᐱᑕᖃᕐᓂᖏᑦ ᐅᓄᕐᑎᒋᓂᖏᑦ (SSB) ᖃᐅᔨᒪᔾᔪᑎ ᖃᖓᒃᑰᖓᓂᖏᓐᓄᑦ (ᑎᑎᕋᕐᓯᒪᔪᖅ 1).

ᓇᓄᓇᐃᒃᑯᑎ 1. *ᑮᓕᖅᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᒋᐊᖕᐅᔪᖅ ᐱᒋᐊᖕᕕᒃ ᐊᒻᒪᓗ ᑐᒃᓯᕋᐅᑕᐅᔪᖅ ᖁᑦᑎᒃᓂᖅᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᖕᕕᒃ*[1] *ᑮᓕᖓ ᐊᑭᓐᓇᖓᓂ ᖃᐅᔨᓴᖕᐅᔪᑦ ᑲᓇᖕᓇᖓᓂ ᖃᐅᔨᓴᖕᐅᔪᖅ ᐅᑭᐅᕐᑕᕐᑐᒥ ᑭᖑᖅᐸᐃᑦ (ᐸᖕᑕᓚᔅ ᐳᐊᕆᐋᓕᔅ) ᐊᒻᒪᓗ ᑕᕐᓴ ᖃᐅᕐᑐᑦ ᑯᖑᑉᐸᐃᑦ (ᐸᖕᑕᓚᔅ ᒫᖕᑕᒍᐃ) ᑕᕝᓂ ᐊᑭᓐᓇᖓᓂ ᖃᐅᔨᓴᖕᐅᔪᑦ ᐊᒻᒪᓗ ᑲᓇᖕᓇᖓᓂ ᖃᐅᔨᓴᖕᐅᔪᑦ.*

ᐆᒪᔪᐃᑦ ᓇᓄᓇᐃᖅᓯᒪᔪᑦ	**ᐊᑭᓐᓇᖓᓂ ᐅᔾᔭᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ)**		**ᑲᓇᖕᓇᖓᓂ ᐅᔾᔭᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ)**	
	ᑮᓕᖅᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᒋᐊᖕᐅᔪᖅ ᐱᒋᐊᖕᕕᒃ (LRP) (40–ᐳᓴ)	**ᖁᑦᑎᒃᓂᖅᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᖕᕕᒃ (USR)[1] (80-ᐳᓴ)**	**ᑮᓕᖅᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᒋᐊᖕᐅᔪᖅ ᐱᒋᐊᖕᕕᒃ (LRP) (40–ᐳᓴ)**	**ᖁᑦᑎᒃᓂᖅᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᖕᕕᒃ (USR)[1] (80-ᐳᓴ)**
ᐅᑭᐅᕐᑕᕐᑐᒥ ᑭᖑᖅᐸᐃᑦ *(ᐸᖕᑕᓚᔅ ᐳᐊᕆᐋᓕᔅ [Pandalus borealis])*	4,100 ᐃᑲᓇᖏᓐᑦ *ᓄᑕᖅ	8,200 ᐃᑲᓇᖏᓐᑦ	15,800 ᐃᑲᓇᖏᓐᑦ *ᓄᑖᖑᕆᐊᕐᓯᒪᔪᖅ *(ᐊᖏᓕᒋᐊᕐᑐᖅ ᑕᕝᖓᑦ 6,800 ᐃᑲᓇᖏᓐᑦ ᐊᑐᓕᕐᑎᑕᐅᓚᐅᕐᑐᖅ 2009)*	31,600 ᐃᑲᓇᖏᓐᑦ *ᓄᑖᖑᕆᐊᕐᓯᒪᔪᖅ *(ᐊᖏᓕᒋᐊᕐᑐᖅ ᑕᕝᖓᑦ 18,200 ᐃᑲᓇᖏᓐᑦ ᐊᑐᓕᕐᑎᑕᐅᓚᐅᕐᑐᖅ 2009)*
ᑕᕐᓴᓃᑦ ᑭᖑᖅᐸᐃᑦ (*ᐸᖕᑕᓚᔅ ᒫᖕᑕᒍᐃ [Pandalus montagui]*)	12,300 ᐃᑲᓇᖏᓐᑦ *ᓄᑕᖅ	24,600 ᐃᑲᓇᖏᓐᑦ	3,100 ᐃᑲᓇᖏᓐᑦ *ᓄᑖᖑᕆᐊᕐᓯᒪᔪᖅ *(ᐊᖏᓕᒋᐊᕐᑐᖅ ᑕᕝᖓᑦ 2,300 ᐃᑲᓇᖏᓐᑦ ᐊᑐᓕᕐᑎᑕᐅᓚᐅᕐᑐᖅ 2009)*	6,100 ᐃᑲᓇᖏᓐᑦ *ᓄᑖᖑᕆᐊᕐᓯᒪᔪᖅ *(ᐊᓯᑦᓕᖏᑦᑐᖅ ᑕᕝᖓᑦ 6,100 ᐃᑲᓇᖏᓐᑦ ᐊᑐᓕᕐᑎᑕᐅᓚᐅᕐᑐᖅ 2009)*

ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔭᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓯᐃᔾᔪᑦ ᑲᑎᒪᔾᔪᑦ ᐅᖃᐅᓯᖃᕐᓂᖏᑦ

ᐱᕙᓪᓕᐊᑎᑕᐅᓂᖏᑦ ᑮᓕᖅᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᒋᐊᖕᐅᔪᖅ ᐱᒋᐊᖕᕕᒃ (LRP) ᑭᖑᖅᐸᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔭᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔭᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ) ᐃᓄᐊᓃᖏᓪᒪᑦ ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔭᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓯᐃᔾᔪᑦ ᑲᑎᒪᔾᔪᑦ ᐱᔭᒃᓴᖏᓐᓂᒃ ᑐᕌᓚᖏᓐᓂᒃᑯ, ᑲᑎᒪᔾᔪᔪᑦ ᐋᕿᒃᓯᐃᔾᔪᑦ ᐅᖃᐅᓯᖃᓚᐅᕐᑐᑦ ᐃᓱᒫᓗᑕᐅᔪᓂᒃ ᓴᕿᑦᑎᓇᓱᖕᓂᕐᒧᑦ ᖃᐅᔨᒪᔾᔪᑕᐅᓂᐊᕐᑐᒥᒃ ᐱᒋᐊᖕᕕᖓᓂᒃ. ᑐᓂᔭᐅᔪᑦ ᑕᕝᕙᖓᑦ ᑲᓇᑕᒥ ᑲᑐᔾᔨᖃᑎᒌᑦ ᑭᖑᑉᐸᓂ ᐱᕈᖕᓴᐃᔾᔪᑦ (CAPP) ᐊᒻᒪᓗ ᑲᑎᖕᖓᓪᓗᑎᒃ ᑐᓂᓯᔪᑦ ᑖᒃᑯᐊ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᖃᑐᔾᔨᖃᑎᖏᑦ (NFA) ᐊᒻᒪᓗ ᐅᑭᐅᖅᑕᖅᑐᒥ ᑲᑐᔾᔨᖃᑎᖏᑦ (NC), ᐃᖃᓗᖕᓯᒃᑎᐅᔪᑦ ᐅᖃᕐᓯᒪᔪᑦ ᐊᕙᑎᖓᓃᑦᑐᑦ ᐊᒻᒪᓗ ᐅᓄᕐᑎᒋᓂᖏᑦ ᐅᑭᐅᕐᑕᕐᑐᒥ ᑭᖑᖅᐸᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᓴᕐᑕᐅᓯᒪᖏᓄᐊᓂᕐᖏᓐᓂᒃ ᐋᕿᒃᓯᕐᑕᐅᓯᒪᖏᓐᓂᖏᓐᓂᒃ ᑮᓕᖅᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᒋᐊᖕᐅᔪᖅ ᐱᒋᐊᖕᕕᒃ (LRP). ᐊᒻᒪᓄᑦᑕᐅᖅ, ᑲᑎᒪᔾᔪᔪᑦ ᐃᓱᒫᓗᑎᖃᓚᐅᕐᒥᔪᑦ ᖃᓄᑎᒋ ᐅᔾᔭᕐᓱᕐᑎᒋᔭᐅᔭᕆᐊᖃᕐᒪᖔᑕ ᐋᕿᒃᓯᓇᓱᒃᓗᑎᒃ ᑮᓕᖅᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᒋᐊᖕᐅᔪᖅ ᐱᒋᐊᖕᕕᒃ (LRP) ᐊᒻᒪᓗ ᑖᒃᑯᐊ ᖃᐅᔨᒋᐊᖕᕖᑦ ᑮᓕᖏᑦ ᐊᑐᓕᕐᑎᑕᐅᓗᑎᒃ ᐊᑐᓚᐅᑲᖕᓂᐊᕐᓗᑎᒃ.

ᐃᖃᓇᐃᔭᕐᑎᖏᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ ᐅᖃᐅᓯᖃᓚᐅᕐᑐᑦ ᖃᓄᑎᒋ ᐱᑕᖃᕐᑎᕐᒋᖕᒪᖔᑕ ᑎᑎᕋᕐᓯᒪᔪᓂ (ᑮᓕᖃᕐᑐᒥᒃ ᑎᑎᕋᕐᓯᒪᔪᑦ ᖃᖓᒃᑰᖓᓂᖏᑦ) ᐊᒻᒪᓗ ᖃᓄᑎᒋ ᖃᐅᔨᒪᓇᖏᑎᒋᖕᒪᖔᑕ ᑐᖔᓂᓕᕈᑎᒃ ᑮᓕᖓᑕ ᐅᓄᕆᐊᓇᕐᑐᒦᓕᕋᔭᕐᓂᖏᑦ ᑕᐃᒪᐃᓕᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᓐᓂᒃ ᐱᑕᖃᕐᓂᖏᑦ, ᐅᖃᕐᖁᑎᒃᑯ ᖃᐅᔨᓴᕐᑕᐅᑎᓪᓗᒍ ᒪᐃ 2020 ᑲᓇᑕᒥ ᑮᓕᓯᓂᐊᕐᓂᕐᒧᑦ ᐅᖃᐅᔾᔨᒋᐊᕐᑎᑦ ᐱᓇᓱᒃᕕᖓ ᐃᓚᐅᖃᑕᐅᔪᑦ ᐅᔾᔭᓴᕐᓂᖅᓴᐅᕐᑯᔾᔨᓪᓗᑎᒃ ᐊᕿᑦᓯᕐᑕᐅᑎᓪᓗᒍ ᑮᓕᖅᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᒋᐊᖕᐅᔪᖅ ᐱᒋᐊᖕᕕᒃ (LRP). ᑭᓪᓕᕐᑐᐃᔪᑦ ᓚᕝᒪᒃᑯᑦ ᑯᐱᒃ ᐊᒻᒪᓗ ᓄᓇᕗᒥ ᓚᕝᒪᒃᑯᓐᓂ ᐃᓱᒫᓗᑎᖃᓚᐅᕐᑐᑦ ᐱᑕᖃᕐᓗᐊᕐᓂᖓᓂᒃ ᐸᕐᓇᐅᑎᓂᒃ ᐅᕙᓗᓐᓃᑦ ᑮᓇᐅᔭᓂᒃ ᐊᑐᐃᓐᓇᐅᔪᖃᕐᓇᓂᖓᓂᒃ ᑎᑎᕋᕐᑕᐅᔪᑕᐅᔪᓐᓇᕐᑐᓂᒃ (ᐱᓄᐊᕐᑐᒥᒃ, ᐊᕙᑎᓕᕆᓂᒃᑯᑦ ᐊᒻᒪᓗ ᐃᓂᒋᔭᖏᑦ ᑎᑎᕋᕐᑕᐅᓂᖏᓐᓄᑦ) ᐊᑭᓐᓇᖓᓂ

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[1] ᖁᑦᑎᒃᓂᖅᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᖕᕕᒃ (USR) ᑮᓕᖓ ᖃᐅᔨᒪᔾᔪᑕᐅᔪᖅ ᑎᑎᕋᕐᓯᒪᔪᒥ 1 ᐱᕐᖁᔭᐅᓯᒪᔪᖅ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ (DFO) ᑮᓕᓯᓂᐊᕐᑎᖏᓄᑦ. ᖁᑦᑎᒃᓂᖅᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᖕᕕᒃ (USR) ᑮᓕᖓ ᐱᔭᕇᕐᑕᕐᑎᑦᑎᖓᒪᑕ ᑲᑎᒪᔩᑦ ᐊᑐᓕᖁᔨᓂᖏᓐᓂᑦ (ᓈᒻᒪᒃᑯᓂ) ᐱᒋᐊᕐᑎᑕᐅᓚᐅᖏᓐᓂᖓᓂ.

ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ) ᐃᓗᐊᕐᓯᒋᐊᕈᑕᐅᔪᓐᓇᕐᑐᓂᒃ ᖃᐅᔨᒪᓇᖏᑦᑐᓄᑦ ᐊᒻᒪᓗ ᐱᒋᐊᕈᑕᐅᔪᓐᓇᕐᓯᒐᔭᕐᒪᑕ ᐋᕿᒋᐊᕐᓯᒪᔪᓂᒃ ᖃᐅᔨᒪᔾᔪᑕᐅᓂᐊᕐᑐᓂᒃ ᑭᒃᑯᖕᖓᓂᒃ ᕿᓚᒻᒥᐅᔪᒃᑯᑦ.

ᖃᓄᐃᓕᖓᓂᖓ

ᑭᒃᑯᖃᕐᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᒋᐊᕐᕕᐅᔪᖅ ᐱᒋᐊᕐᕕᒃ (LRP) ᐃᑦᒪᒋᔭᐅᖕᒪᑕ ᐊᑐᓕᕐᑎᑕᐅᓯᒪᓂᖏᓐᓂᒃ ᐊᒻᒪᓗ ᐊᑐᐃᓐᓇᕐᓂᐊᕐᓗᑎᒃ ᑭᓯᐊᓂ ᐋᕿᒋᐊᕐᑕᐅᓚᐅᕐᑎᓪᓗᒋᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ ᑭᒃᑯᓯᓂᐊᕐᑎᖕᖏᓐᓄᑦ. ᑕᐃᒪᐃᑎᓪᓗᒍ, ᐋᕿᒃᓯᓚᐅᖕᒋᑦᑐᑦ ᐅᑐᓕᕐᑯᔭᐅᔪᓂᒃᓘᓐᓃᑦ ᐱᓇᓱᓚᐅᖕᒋᑦᑐᑦ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔨᒃᑯᓐᓄᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᑲᑎᒪᔨᑦ ᐊᒻᒪᓗ ᓄᓇᕕᒻᒥ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖕᒋᑦ, ᐅᕙᓗᓐᓂᑦ ᐅᑭᐅᕐᑕᕐᑐᒥ ᑭᖑᖕᐸᐃᑦ ᐅᖃᐅᔾᔨᒋᐊᕐᑏᑦ ᑲᑎᒪᔨᖕᒋᑦ (NSAC) ᐅᒪᔪᐃᑦ ᒥᒃᓴᓄᑦ.

<u>**ᕐᑯᑦᑎᒃᓂᕐᓴᐃᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR)**</u>

ᒪᓕᒃᓗᒍ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒥ ᐊᑐᐊᓚᐃᑦ, ᑕᓐᓇ ᕐᑯᑦᑎᒃᓂᕐᓴᐃᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) ᐱᑕᖃᕐᓂᖕᒋᑦ ᖃᓄᑎᑦᕐᓂᖕᒋᑦ ᑭᒃᑯᖓ ᑐᖕᖄᓂᒃᑯᓂ ᐲᓴᕐᑕᐅᔭᕆᐊᖃᕐᑐᑦ ᐱᕙᓪᓕᐊᓗᓂ ᒥᑭᒃᓕᒋᐊᕐᐸᓪᓕᐊᓗᒍ ᑎᑭᐅᑎᑦᑕᐃᓕᒪᓇᑦᒃᓗᓂ ᑭᒃᑯᖃᕐᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᒋᐊᕐᕕᐅᔪᖅ ᐱᒋᐊᕐᕕᒃ (LRP). ᓴᕿᑕᐅᓂᖓ ᕐᑯᑦᑎᒃᓂᕐᓴᐃᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) ᐊᐅᓚᑦᑎᔨᓄᑦ ᐋᕿᒃᒃᑕᐅᔪᓐᓇᕐᑐᖅ, ᐱᔭᐅᕙᓪᓕᐊᓂᖕᒋᑦ ᒪᓕᒃᓗᒋᑦ ᑐᕌᒐᐅᔪᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ, ᐅᒪᔪᓂᖕᒋᑦ ᐃᑦᒪᒋᔭᐅᓗᑎᒃ ᐊᒻᒪᓗ ᐃᓄᓯᓕᕆᓂᒃᑯᑦ ᐊᒻᒪᓗ ᑮᓇᐅᔭᓕᕆᓂᒃᑯᑦ ᑐᕌᒐᐃᑦ ᐃᖃᓗᒐᓱᖕᓂᕐᒧᑦ. ᐋᕿᒃᑕᐅᔪᖅ, ᑕᐃᒪᐃᑎᓪᓗᒍ, ᑐᓴᐅᒪᑎᑦᑎᓪᓗᑎᒃ ᖃᐅᔨᒪᔭᐅᑎᑦᑎᓪᓗᑎᒃ ᐃᖃᓗᓕᕆᔨᓂᒃ ᐊᔪᕐᓐᓂᒃᓗ ᐱᓇᓱᒃᑎᐅᔪᓂᒃ, ᐅᖃᐅᔾᔭᐅᒋᐊᕐᓯᒪᓪᓗᑎᒃ ᐊᒻᒪᓗ ᑐᓴᕐᕕᐅᓯᒪᓪᓗᑎᒃ ᑭᒃᑯᓯᓂᐊᕐᑏᑦ. ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓱᐃᔾᔨᑦ ᑲᑎᒪᔾᔨᑦ ᑎᒥᐅᓪᓗᑎᒃ ᑐᓴᐅᒪᑎᑦᑎᔾᔭᐅᓪᓗᑎᒃ ᐊᐅᓚᓂᖓᓂᒃ. ᕐᑯᑦᑎᒃᓂᕐᓴᐃᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) ᐱᔭᕇᐊᖃᕐᑎᑦᑎᒧᑦ ᑲᑎᒪᔨᓂᒃ ᐋᕿᒃᓯᓗᑎᒃ ᐊᒻᒪᓗ ᐊᑐᓕᕐᑯᔨᓗᑎᒃ (ᓈᒻᒪᒃᑯᓂ) ᓯᕗᓂᐊᓂ ᓴᕿᑕᐅᕐᖓᓐᓂᕐᖓᓂ ᒥᓂᔅᑕᒧᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ.

ᐃᓚᒋᔭᖓ ᒪᐃ 2020 ᑲᓇᑕᒥ ᑭᒃᑯᓯᓂᐊᕐᓂᕐᒧᑦ ᐅᖃᐅᔾᔨᒋᐊᕐᑎᑦ ᐱᓇᓱᒃᕕᖓ ᕿᒥᕈᔨᐅᔪᑦ ᐊᐅᓚᓂᖓᓂ, ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ ᑭᒃᑯᓯᓂᐊᕐᑎᖕᒋᑦ ᑐᒃᓯᕋᓚᐅᕐᒥᔪᑦ ᕐᑯᑦᑎᒃᓂᕐᓴᐃᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) ᐱᑕᖃᕐᓂᖕᒋᑦ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᓄᑖᖑᕆᐊᕐᑕᐅᓗᑎᒃ ᕐᑯᑦᑎᒃᓂᕐᓴᐃᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ ᐱᑕᖃᕐᓂᖕᒋᑦ ᑲᓇᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ). ᕐᑯᑦᑎᒃᓂᕐᓴᐃᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) ᑐᒃᓯᕋᐅᑕᐅᓚᐅᕐᒥᔪᖅ 80-ᐳᓴᓐ ᐅᒪᔩᓂᖕᒋᑦ ᐅᖓᑖᓄᖕᒋᑦᑐᖅ ᐃᕐᓂᐅᕐᐸᓪᓕᐊᔪᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᐅᓄᕐᑎᒋᓂᖕᒋᑦ (SSB) ᖃᖓᒃᑰᖓᓂᖕᒋᑦ (ᑎᑎᕋᕐᓯᒪᔪᖅ 1).

ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓱᐃᔾᔨᑦ ᑲᑎᒪᔾᔨᑦ ᐅᖃᐅᓯᖃᕐᓂᖕᒋᑦ

ᐱᔪᓐᓇᕐᑕᖕᒋᑦ ᒪᓕᒃᓗᒋᑦ, ᐋᕿᒃᓱᐃᔾᔨᑦ ᑲᑎᒪᔾᔨᑦ ᐅᖃᐅᓯᖃᓚᐅᕐᑐᑦ ᐊᕋᒍᒥᑦ ᐊᕋᒍᒧᑦ ᐊᔾᔨᒌᖕᖏᓕᕐᑕᕐᓂᖓᓂᒃ ᐱᑕᖃᕐᓂᖕᒋᑦ ᖃᐅᔨᒪᔾᔪᑕᐅᓗᓂ (ᐃᖃᓗᑲᓯᒃᓴᐅᔪᑦ ᐊᒻᒪᓗ ᐃᕐᓂᐅᕐᐸᓪᓕᐊᔪᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᐅᓄᕐᑎᒋᓂᖕᒋᑦ [SSB]) *ᐹᓐᑕᓚᑦ ᐳᐊᕆᐋᓕᑦ* ᐊᒻᒪᓗ *ᐹᓐᑕᓚᑦ ᒫᓐᑕᒍᐃ* ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ), ᖃᐅᔨᒪᔭᐅᓗᓂ ᐃᑦᑏᓗᓐᓇᕐᑐᕐᑕᖃᓚᐅᕐᓯᒪᖕᖏᓐᓂᖓᓂᒃ ᓇᓕᐊᒃᓂᑐᐃᓐᓇᖅ ᑭᖑᖕᐸᐃᑦ. ᐃᖃᓗᐃᑦ ᑐᕐᑯᕐᐸᓪᓕᐊᔩᖑᓂᖕᒋᑦ ᐅᖓᑖᓂᑦᑐᑦ ᐊᒻᒪᓗ ᖃᐅᔨᒪᓇᖕᒋᓗᐊᕐᓂᖕᒋᓐᓄᑦ ᖃᓄᐃᑉᐸᓪᓕᐊᑎᒋᓂᖕᒋᑦ ᑐᑭᓯᕕᐅᒨᓴᕐᑐᓂ ᑭᒃᑯᖃᕐᑐᒥᒃ ᖃᖓᒃᑰᖓᓂᖕᖏᓐᓂᒃ, ᐃᓚᖕᒋᑦ ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓱᐃᔾᔨᑦ ᑲᑎᒪᔾᔨᑦ ᐅᖃᓚᐅᕐᑐᑦ ᐋᕿᒋᐊᕐᑕᐅᔭᕆᐊᖃᕐᓂᖓᓂᒃ ᐊᔾᔨᒌᖕᖏᓂᕆᔭᖕᒋᑦ.

ᐱᒋᐊᕐᑕᐅᔪᓐᓇᕐᑐᑦ ᐅᖃᐅᓯᐅᓚᐅᕐᑐᑎᒃ ᐋᕿᒃᓱᐃᔾᔨᑦ ᑲᑎᒪᔨᖕᒋᓐᓄᑦ ᐱᖃᓯᐅᑎᓪᓗᒍ ᕐᑯᑦᑎᒃᓂᕐᓴᐃᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) 70-ᐳᓴᓐ ᐅᒪᔪᓂᖕᒋᑦ ᐅᖓᑖᓄᖕᒋᑦᑐᖅ ᑕᕙᖓᑦ ᐃᕐᓂᐅᕐᐸᓪᓕᐊᔪᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᐅᓄᕐᑎᒋᓂᖕᒋᑦ (SSB) ᖃᐅᔨᒪᔾᔪᑕᐅᔪᑦ ᖃᖓᒃᑰᖓᓂᖕᒋᑦ. ᐃᓚᖕᒋᑦ ᑲᑎᒪᔩᑦ ᑐᒃᓯᕋᓚᐅᕐᑐᑦ ᐊᕕᒃᑐᕐᓗᒍ (2 ᐅᕙᓘᓐᓃᑦ 3) ᐃᕐᓂᐅᕐᐸᓪᓕᐊᔪᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᐅᓄᕐᑎᒋᓂᖕᒋᑦ (SSB) ᐊᑐᕐᑕᐅᓗᓂ ᑐᑭᓯᐅᒪᔾᔪᑕᐅᓂᐊᕐᒪᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᖃᓄᐃᓕᖓᓂᖕᒋᑦ ᐊᒃᑐᐊᔪᑦ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ

ᐱᒋᐊᒐᒃᓴᐅᔪᒥ ᖃᐅᔨᒪᕕᐅᓂᐊᕐᑐᑦ ᑭᒃᑯᖓ. ᐃᖃᓗᑦᑕᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᑦᑕᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ ᑭᒃᑯᓯᓂᐊᕐᓂᕐᒧᑦ ᐅᖃᕐᓯᒪᔪᑦ ᑐᑭᓯᓇᑦᑎᐊᕐᑐᒃᑯᑦ ᐊᒻᒪᓗ ᖃᖓᑦᑎᐊᖑᖏᖑᔪᒃᑯᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᓄᑎᒌᕐᓂᖏᑦ ᓇᓗᓇᐃᒃᑯᑕᐅᓪᓗᓂ ᐊᑕᐅᓯᐅᓪᓗᓂ ᑎᑎᕋᕐᓯᒪᔪᖅ ᐱᒋᐊᕐᕕᒃ, ᐊᑯᓂᕐᓱᕐᑑᖏᓪᓗᓂ. ᑭᐅᔾᔪᑕᐅᓪᓗᓂ ᑕᐃᒪᐃᓕᖓᓂᖓ, ᐃᓚᖏᑦ ᑲᑎᒪᔨᐅᔪᑦ ᐅᖃᓕᒫᐅᕐᑐᑦ ᖁᑦᑎᒃᓂᖕᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) ᓴᕿᑕᐅᕐᑯᔭᐅᖏᓐᓗᓂ ᐊᒻᒪᓗ ᐅᓇᖒᖅ ᐱᔭᐅᖒᕐᓗᓂ ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᖅᑲᕐᓯᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᒐᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓯᐃᔾᔨᑦ ᑲᑎᒪᔨᑦ ᑐᕌᒐᖃᕐᓗᑎᒃ ᖃᐅᔨᒋᐊᕐᕕᖕᒥᒃ ᑭᒃᑯᖓᓂᒃ ᑕᕆᐅᕐᒥ ᐸᕿᔾᔨᐅᔪᓄᑦ ᑲᑎᒪᔨᖏᑦ (MSC) ᖃᓄᐃᓕᖓᓂᖏᑦ ᒪᓕᒃᑐᒋᑦ. ᑕᒃᑯᐊ ᐱᒋᐊᕐᑕᐅᔪᑦ ᒥᑭᒃᑎᒋᐊᕈᑕᐅᒐᔭᕐᒪᑕ, ᐅᕙᓂᓐᓂᑦ ᐱᑕᖄᓐᓃᕈᑕᐅᓗᑎᒃ, ᐃᑕᖃᕐᓂᖏᑦ ᐅᖅᑲᕐᓯᕐᓇᐊᖃᕐᓂᒦᑦᑕᕐᓗᑎᒃ. ᐃᖃᓗᒐᓱᒃᑎᐅᔪᑦ ᐅᖃᓚᐅᕐᑐᑦ ᐅᓗᓇᐊᓇᕐᑐᒦᑦᑕᕐᑎᑕᐅᔪᓐᓇᕐᒪᑕ ᓂᐅᕕᐊᒃᓴᐅᖃᑦᑕᕐᓂᖏᓐᓄᑦ ᐱᑕᖃᕐᓂᖏᑦ ᐅᖅᑲᕐᓱᓇᐊᖃᕐᓂᒦᑦᑕᕐᐸᑕ.

ᐃᖃᓗᑦᑕᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᑦᑕᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ ᐃᓱᒪᓗᑎᒃ, ᐱᑕᖃᕐᑎᒋᓂᖏᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ ᐃᓗᐊᓃᒻᒪᑦ ᑭᒃᑯᓯᓂᐊᕐᑎᑦ ᐱᑕᓇᐊᒃᓴᖏᓐᓂ ᐊᒻᒪᓗ ᐊᕋᒍ ᐊᑕᐅᓯᕐᒥ ᖃᓄᑎᒌᕐᓂᖏᑦ ᐅᓄᕐᑎᒋᓂᖏᑦ ᓇᓗᓇᐃᕐᑕᐅᒃᐸᑕ ᑐᑭᓯᔾᔪᑕᐅᔪᓐᓇᕐᒪᑕ ᖃᓄᐃᓕᖓᓂᖏᓐᓂᒃ ᖃᖓᐅᑎᓪᓗᒍ. ᐊᒻᒪᓗᑦᑕᐅᖅ, ᐅᖃᐅᓯᐅᕆᓪᓗᓂ ᖁᑦᑎᒃᓂᖕᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) ᐃᓚᒋᔭᐅᖓᒪᑕ ᐃᖃᓗᑦᑕᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᑦᑕᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ ᐅᖅᑲᕐᓯᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᒐᒃᓴᐅᔪᒥ ᐊᑐᐊᒐᐃᑦ, ᐱᒋᐊᕐᕕᐅᔪᓐᓇᕐᑐᒥᒃ ᓈᒻᒪᒃᑐᒥᒃ ᐅᖓᑖᓃᓪᓗᓂ ᑭᒃᑲᖃᕐᑎᑕᐅᓂᕐᒧᑦ ᖃᐅᔨᒋᐊᕐᕕᐅᔪᖅ ᐱᒋᐊᕐᕕᒃ (LRP) “ᐱᕕᖃᕐᑎᑦᑎᓇᓱᒃᓗᑎᒃ ᐊᐅᓚᑦᑎᔨᐅᔪᓂᒃ ᐊᐅᓚᓂᖏᓐᓂᒃ ᐃᓚᓴᕐᓯᔪᓐᓇᕐᓯᓗᑎᒃ ᐅᓄᕈᓐᓃᕐᐸᓪᓕᐊᓂᖏᓐᓂᒃ ᐱᑕᖃᕐᓂᖏᑦ ᐊᒻᒪᓗ ᐱᕕᖃᕐᓂᕐᓴᐅᓗᑎᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐊᐅᓚᔅᓯᒋᐊᕐᑎᑦᑎᓗᑎᒃ ᐱᒋᐊᕐᑎᑦᑎᓗᑎᒃ.” ᒪᓕᒃᑐᒋᑦ ᐃᖃᓗᑦᑕᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᑦᑕᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ ᐅᖅᑲᕐᓯᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᒐᒃᓴᐅᔪᒥ ᐊᑐᐊᒐᐃᑦ, ᖁᑦᑎᒃᓂᖕᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) ᐱᓪᓚᑕᐅᕗᖅ ᑐᑭᓯᓇᕐᓯᓇᓱᒃᓗᑎᑦ ᑭᒃᑲᒋᔭᖏᑦ ᖃᓄᐃᖏᑦᑎᐊᕐᑐᑦ ᐊᒻᒪᓗ ᐅᖅᑲᕐᓱᕐᓇᐊᓛᑦ ᐊᒻᒪᓗ ᐃᒪᕐᒥᐅᑕᑦᑕᓇᒃᑯᑦ ᑲᔪᓯᔪᑦ ᐅᓂᒌᑕᐊᖏᓐᓂᒃ ᑕᕙᓂ ᐊᑐᕐᓘᒍ ᐊᕋᒍᑕᒫᑦ [ᐱᑕᖃᐃᓐᓇᕐᑎᑦᑎᓂᕐᒧᑦ ᖃᐅᔨᓴᕐᓂᖅ ᐃᖃᓗᑦᑕᓂᕐᒥᒃ](#).

ᐊᑐᐊᒐᐅᔪᕐ ᓱᓕ ᓯᕗᒎᔾᔭᐅᔪᒪᓪᓗᓂ ᐃᒪᕐᒥᐅᑕᑦᑕᓇᒃᑯᓐᓄᑦ ᐱᒋᐊᕐᑎᑦᑎᓗᑎᒃ ᐱᔭᕇᕐᑕᐅᓗᓂ ᐅᖅᑲᕐᓯᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᒐᒃᓴᐅᔪᒥ ᐊᑐᕐᑕᐅᓂᐊᕐᑐᒥᒃ ᑲᓇᑕᒥ ᐃᖃᓗᑦᑕᓂᕐᒧᑦ ᐱᖃᓯᐅᑎᓗᒍ ᖁᑦᑎᒃᓂᖕᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR). ᐱᒋᐊᕐᑎᑕᐅᓂᖓ ᑐᕌᒐᖃᕐᓗᑎᒃ ᖃᐅᔨᒋᐊᕐᕕᖕᒥᒃ ᑭᒃᑯᖓᓂᒃ ᐱᑕᖃᖏᑎᓪᓗᒍ (ᐅᕙᓐᓂᓐᓂᑦ ᒪᕌᖓᓂᒃ ᐱᔾᔪᑎᓖᖓᓂᒃ) ᖁᑦᑎᒃᓂᖕᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) ᕿᒪᕈᑎᓂᐅᒐᔭᕐᒪᑦ ᓯᕗᒍᑎᔭᓇᐊᓕᖓᒧᑦ. ᑖᓇ ᐊᑐᓗᐊᕐᓂᐅᒐᔭᕐᑐᖅ ᑲᓇᖕᓇᖓᓂ ᐅᖅᑲᕐᓯᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ) ᐊᑐᕐᑕᐅᖃᑦᑕᕐᓯᒪᔪᖅ ᖁᑦᑎᒃᓂᖕᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) ᐊᕋᒍᒐᓴᐅᓕᕐᑐᓄᑦ.

ᖃᓄᐃᓕᖓᓂᖓ

ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᖅᑲᕐᓯᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᒐᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓯᐃᔾᔨᑦ ᑲᑎᒪᔨᑦ ᐃᑲᔪᕐᑐᐃᓯᒪᔪᑦ ᖁᑦᑎᒃᓂᖕᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) ᓴᕿᑕᐅᕐᑯᓪᓗᒍ 70-ᐳᓴᓐ ᐅᒪᔪ ᐱᑕᖃᕐᑎᒋᓂᖏᑦ ᐅᖓᑖᓄᖏᑦᑐᖅ ᐃᕐᓂᐅᕐᐸᓪᓕᐊᔪᑦ ᐱᑕᖃᕐᓂᖏᑦ ᐅᓄᕐᑎᒋᓂᖏᑦ (SSB) ᖃᖓᒃᑰᖓᓂᖏᓐᓄᑦ, ᐱᑕᖃᕐᓂᖏᓐᓄᑦ ᐊᑭᓐᓇᖓᓂ ᐅᖅᑲᕐᓯᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᖕᓇᖓᓂ ᐅᖅᑲᕐᓯᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ). ᑲᔪᓯᕙᓪᓕᐊᖏᓐᓇᕐᑐᖅ ᐊᕿᒃᓯᐃᓪᓗᑎᒃ ᐃᖃᓗᒃᑕᐅᔪᑦ ᐋᕿᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᒐᐃᑦ ᐃᓱᒪᒋᔭᐅᓗᓂ ᖁᑦᑎᒃᓂᖕᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ ᑕᕙᓃᑎᓪᓗᒍ. ᑲᑎᒪᔩᑦ ᑕᑯᕙᓪᓕᐊᖏᓐᓇᕐᑐᑦ ᓴᕿᑕᐅᕙᓪᓕᐊᓂᖓᓂᒃ ᖁᑦᑎᒃᓂᖕᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ ᐱᕙᓪᓕᐊᑎᑕᐅᑎᓪᓗᒍ ᐃᖃᓗᒃᑕᐅᔪᑦ ᐋᕿᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᒐᐃᑦ ᑲᑎᓪᓗᒋᑦ ᐃᖃᓗᒐᓱᒃᑯᐅᔫᓐᓴᕐᑐᑦ ᐊᒻᒪᓗ ᐱᑕᖃᕐᓂᖏᑦ ᐱᑕᖃᐃᓐᓇᕐᑎᑕᐅᓇᓱᖕᓂᖏᓐᓄᑦ.

<u>ᐃᖃᓗᒃᑕᐅᔪᑦ ᐋᕿᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᒐᐃᑦ (HDR)</u>

ᒪᓕᒃᑐᒍ ᐃᖃᓗᑦᑕᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᑦᑕᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ (DFO) ᐅᖅᑲᕐᓯᑦᑎᐊᕐᓂᕐᒥᒃ ᐱᒋᐊᕐᓂᖅ ᐊᑐᐊᒐᖓ, ᐊᖏᕐᑕᐅᓯᒪᕙᒋᕐᑐᖅ ᐃᖃᓗᒃᑕᐅᔪᑦ ᐋᕿᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᒐᐃᑦ (HDR) ᐊᒻᒪᓗ ᐊᐅᒪᓂᖓᓄᑦ ᐊᑐᕐᑕᐅᔪᑦ ᐊᑐᓂ ᐃᖃᓗᒐᓱᒃᑯᐅᒧᓂ ᐃᓗᐊᓂ ᐅᖅᑲᕐᓯᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᕐᓂᖅ ᐋᕿᒃᓯᒪᔪᒥ ᐱᓪᓚᑕᐅᕗᑦ ᐃᓗᓕᖏᓐᓂ ᐃᖃᓗᒐᓱᒃᓂᕐᒧᑦ ᑐᕋᒐᐅᔪᓄᑦ. ᐃᖃᓗᒃᑕᐅᔪᑦ ᐋᕿᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᒐᐃᑦ ᖃᓄᑎᒋ ᐱᖃᑦᑕᕐᑎᒋᓂᐊᕐᒪᖓᑕ ᐊᒻᒪᓗ ᐊᓯᖏᓐᓂᒃ ᐊᐅᓚᓂᐅᔪᓂᒃ ᒪᓕᒃᑕᐅᓂᐊᕐᑐᓂᒃ ᐊᑐᓂ ᐃᖃᓗᒐᓱᒃᑯᐅᔪᓂ. ᐃᖃᓗᒃᑕᐅᔪᑦ ᐋᕿᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᒐᐃᑦ ᐊᑐᓕᕐᑎᑕᐅᓯᒪᖏᑦᑐᖅ ᐱᑕᖃᕐᓂᖏᓐᓂ ᐊᑭᓐᓇᖓᓂ ᐅᖅᑲᕐᓯᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ). ᐃᖃᓗᒃᑕᐅᔪᑦ ᐋᕿᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᒐᐃᑦ ᓴᕿᑕᐅᓚᐅᕐᑐᑦ

ᐃᓗᐊᓂ ᑲᑎᑕᐅᓯᒪᔪᑦ ᐃᖅᑲᓗᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ (ᐅᐃᒍᖓᓂ 1) ᐱᑕᖃᕐᓂᖏᑦ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ) ᐊᒻᒪᓗ ᐊᑐᐃᓐᓇᕐᓗᓂ ᑭᓯᐊᓂ ᐋᕐᕿᐊᕐᑕᐅᒍᑎᒃ.

ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᕐᕿᒃᓱᐃᓃᑦ ᑲᑎᒪᔩᑦ ᐅᖃᐅᓯᖃᕐᓂᖏᑦ

ᐅᖃᐅᓯᐅᖃᑦᑕᓕᕐᑎᓪᓗᒍ ᐱᒋᐊᕐᓂᖓᓂ ᐅᓪᓗᒥᒧᑦ, ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᕐᕿᒃᓱᐃᓃᑦ ᑲᑎᒪᔩᑦ ᕿᒥᕈᓚᐅᕐᑐᑦ ᖃᓄᖅ ᐃᖃᓗᒃᑕᐅᔪᑦ ᐋᕐᕿᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᒐᐃᑦ ᐊᑐᕐᑕᐅᔫᓇᕐᒪᖔᑕ ᐊᔾᔨᒋᖏᑎᓪᓗᒋᑦ ᐅᒪᔫᓂᖏᑦ ᐱᑕᖃᕐᑎᒋᓂᖏᑦ ᑕᒪᕐᒥᒃ *ᐹᓐᑕᓚᕐ ᐳᐊᕆᐋᓕᕐ* ᐊᒻᒪᓗ *ᐹᓐᑕᓚᕐ ᒫᓐᑕᒍᐃ* ᑕᕙᓂ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ). ᐃᖅᑲᓗᒐᓱᒃᑎᐅᔪᑦ ᐅᖃᓚᐅᕐᑐᑦ ᑐᕌᒐᐅᔪᑦᐱᔭᐅᖃᑦᑕᕐᓂᖏᑦ ᐱᑕᖃᐃᓐᓇᕐᑎᑕᐅᓇᓱᒃᓂᕐᒧᑦ ᕿᓚᒻᒥᐅᔪᒃᑯᑦ ᓯᕗᓂᐊᓂ ᕿᒥᕈᔭᐅᖏᓐᓂᖏᓐᓂ ᐅᔾᔨᓱᕆᐊᖃᕐᓂᕐᒧᑦ ᐱᒋᐊᕐᑕᐅᔪᖅ ᖃᐅᔨᒋᐊᕐᕙᖓ ᑭᒃᓕᖓ, ᐊᒻᒪᓗ ᐱᔭᕆᐊᖃᕐᓂᖓ ᖃᐅᔨᒪᓇᕐᑐᒃᑯᑦ ᐊᕐᕋᒍᑕᓖᑦ ᑲᑎᓪᓗᒋᑦ ᐱᔭᐅᔪᓐᓇᕐᓂᖏᑦ ᐃᖅᑲᓗᒃᑕᐅᔪᑦ (TAC) ᖃᓄᑎᒌᕐᓂᖏᑦ. ᑐᒃᓯᕋᐅᑎᑦ ᐊᑕᐅᓯᐅᖏᑦᑐᖅ ᑐᓂᔭᐅᓚᐅᕐᑐᑦ ᐃᖅᑲᓗᒐᓱᒃᑎᑦ ᑭᒐᕐᑐᐃᔨᕐᓂᕐᓄᑦ ᐋᕐᕿᒃᓱᐃᔩᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ ᐃᓱᒪᒋᔭᐅᓂᐊᕐᑐᓂᒃ.

ᐃᓚᖓᑦ ᑐᒃᓯᕋᐅᑕᐅᔪᖅ ᐃᖅᑲᓗᒃᑕᐅᔪᑦ ᐋᕐᕿᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᒐᐃᑦ ᐱᒋᐊᕐᑕᐅᓗᓂ ᑕᑯᔭᐅᓗᓂ ᓴᕿᑕᐅᔪᓐᓇᕐᒪᖔᑦ ᐱᒋᐊᕐᕕᒋᔪᓐᓇᕐᑕᖓ ᑲᑎᓪᓗᒋᑦ ᐱᔭᐅᔪᓐᓇᕐᓂᖏᑦ ᐃᖅᑲᓗᒃᑕᐅᔪᑦ (TAC) ᑕᐃᒪᓐᓇᑦᑕᐃᓇᐅᓕᕐᓗᓂᓗ, ᖃᐅᔨᒪᔾᔪᑎᖃᕐᓗᑎᒃ ᐊᔾᔨᐅᖏᑦᑐᕐᑕᖃᓕᕌᖓᑦ ᐅᒪᔪᓂᒃ ᖃᓄᐃᓕᕐᓂᖏᓐᓂᒃ ᑕᑯᔭᐅᔪᓂᒃ ᖃᖓᐅᓕᕌᖓᑦ. ᑐᒃᓯᕋᐅᑎ ᖃᐅᔨᒪᔾᔪᑕᐅᔪᖅ ᐃᓱᒪᒋᔭᐅᓗᓂ ᐊᕐᕋᒍᓄᑦ ᐱᖓᓱᓄᑦ ᐊᑯᓐᓂᕐᓱᕐᑐᒥᒃ ᐃᕐᓂᐅᕐᐸᓪᓕᐊᓂᖏᑦ ᑭᖑᖕᐸᐃᑦ ᐅᒪᔪᑦ ᐱᔾᔪᑎᒋᓪᓗᒍ ᐅᔾᔨᕐᓱᕐᓂᕐᒥᒃ ᑭᒃᓕᖓ, ᑐᖔᓂᓕᕈᓂ, ᒥᑭᒃᓕᒋᐊᕐᑎᑕᐅᒐᔭᕐᒪᑕ ᑲᑎᓪᓗᒋᑦ ᐱᔭᐅᔪᓐᓇᕐᓂᖏᑦ ᐃᖅᑲᓗᒃᑕᐅᔪᑦ (TAC).

ᑭᖑᓪᓕᕐᒥᒃ ᑐᒃᓯᕋᐅᑎ ᓴᕿᑕᐅᓚᐅᕐᑐᖅ ᓂᕈᐊᕈᓐᓇᕐᓗᑎᒃ ᐃᓱᒪᒋᔭᐅᓗᓂ ᐅᒪᔪᑦ ᐱᑕᖃᕐᑎᒋᓂᖏᑦ ᐊᑐᓂ ᑭᖑᑉᐸᐃᑦ ᑲᑎᓪᓗᒋᑦ ᐱᔭᐅᔪᓐᓇᕐᓂᖏᑦ ᐃᖅᑲᓗᒃᑕᐅᔪᑦ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ) ᐊᑐᕐᑕᐅᓗᓂ ᒥᑭᒃᓕᒋᐊᕐᑎᑕᐅᔪᓐᓇᕐᓗᑎᒃ ᐊᕐᕋᒥᑦ ᐊᕐᕋᒧᑦ ᐊᔾᔨᒋᖏᑦᑐᒥᒃ ᒥᑭᒃᓕᒋᐊᕐᐸᓪᓕᐊᓂᖏᓐᓄᑦ. ᐃᖅᑲᓗᒐᓱᖕᓂᖏᑦ ᖃᓄᑎᒋᕐᓂᖓ (ᐅᑐᑎᒋᓪᓗᒍ 20-ᐳᓴᓐ ᐃᖅᑲᓗᒃᑕᐅᔪᑦ ᖃᓄᑎᒋᕐᓂᖓ ᖃᓄᐃᖏᑦᑎᐊᕐᑐᓄᑦ ᐃᓂᖓ) ᐊᑐᕐᑕᐅᔪᓐᓴᕐᑐᖅ ᐊᕐᕋᒍᓄᑦ ᐱᖓᓱᓄᑦ ᐊᑯᓐᓂᕐᓱᕐᑐᒃᑯᑦ ᑲᑎᓪᓗᒋᑦ ᐃᖅᑲᓗᒐᓱᒃᑕᐅᔪᓐᓇᕐᑐᑦ ᐅᒪᔪᐃᑦ ᐱᑕᖃᕐᑎᒋᓂᖏᑦ ᐃᓱᒪᒋᔭᐅᔪᑦ ᐊᑑᑎᖃᕐᓗᑎᒃ ᑲᑎᓪᓗᒋᑦ ᐱᔭᐅᔪᓐᓇᕐᓂᖏᑦ ᐃᖅᑲᓗᒃᑕᐅᔪᑦ (TAC) ᐊᑐᓂ ᑭᖑᖕᐸᐃᑦ ᑲᑎᖓᓗᑎᒃ ᐱᕕᐅᔪᓂ. ᐃᓱᒪᒋᔭᐅᓕᓚᐅᕐᑐᖅ ᑲᑎᓪᓗᒋᑦ ᐱᔭᐅᔪᓐᓇᕐᓂᖏᑦ ᐃᖅᑲᓗᒃᑕᐅᔪᑦ (TAC) ᖃᓄᑎᒌᕐᓂᖏᑦ ᐊᕕᒃᑐᕐᑕᐅᓗᓂ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ).

ᐋᕐᕿᒃᓱᐃᓃᑦ ᑲᑎᒪᔩᑦ ᑲᔪᓯᓗᑎᒃ ᐃᓱᒪᒋᔭᐅᓗᓂ ᐃᖅᑲᓗᒐᓱᒃᑎᐅᔪᑦ ᑐᒃᓯᕋᕐᓗᑎᒃ ᖃᓄᑎᒌᕐᓂᖓ ᐋᕐᕿᐊᕈᑕᐅᔪᓐᓇᕐᓗᓂ ᐅᕙᒎᓐᓃᑦ ᓄᑕᒥᒃ ᐱᒋᐊᕐᑕᐅᓗᓂ ᐃᓱᒪᒋᔭᐅᓂᐊᕐᑐᒥᒃ ᓯᕗᓂᒃᓴᒥ ᐅᖃᐅᓯᐅᓃᕐᑐᓂᒃ.

ᖃᓄᐃᓕᖓᓂᖓ

ᐱᕙᓪᓕᐊᑎᑕᐅᓂᖓ ᐃᖅᑲᓗᒃᑕᐅᔪᑦ ᐋᕐᕿᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᒐᐃᑦ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐱᑕᖃᕐᓂᖏᑦ ᐊᒻᒪᓗ ᐋᕐᕿᐊᕐᑕᐅᔪᓐᓇᕐᓗᑎᒃ ᐱᑕᖃᕐᐸᒌᕐᑐᑦ ᐃᖅᑲᓗᒃᑕᐅᔪᑦ ᐋᕐᕿᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᒐᐃᑦ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ) ᑲᔪᓰᓐᓇᕐᓗᓂ. ᐅᓄᕐᓯᕐᒪᑕ ᑐᓂᔭᐅᓯᒪᔪᑦ ᑐᒃᓯᕋᐅᑎᑦ ᐃᖅᑲᓗᒐᓱᒃᑎᐅᔪᓂᑦ, ᐃᖅᑲᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ ᓂᕆᐅᒋᔭᐅᔪᑦ ᑭᐅᔾᔪᑎᒃᓴᖏᓐᓂᒃ ᓴᕿᑦᑎᓂᐊᕐᑐᑎᒃ ᐊᒻᒪᓗ/ᐅᕙᒎᓐᓃᑦ ᓂᕈᐊᓚᒃᓴᐅᔪᓂᒃ ᐃᓱᒪᒋᔭᐅᓂᐊᕐᑐᓂᒃ ᐋᕐᕿᒃᓱᐃᓃᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ ᓯᕗᓂᒃᓴᒥ ᑲᑎᒪᓂᐊᕐᓂᖏᓐᓂ.

ᐊᓯᖕᒋᑦ ᐅᖃᐅᓯᐅᔪᑦ ᐱᔾᔪᑕᐅᔪᑦ: ᕿᒥᕐᔭᐅᓂᖓᑕ ᐱᕙᖅᑳᖕᒋᑦ

ᖃᖓᒃᑰᖓᓂᖓ ᐃᓱᒪᒋᓪᓗᒍ ᐊᒻᒪᓗ ᖃᐅᔨᒪᓇᖏᓐᖏᓐᓂᖓ ᑭᖑᖅᐸᐃᑦ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ) ᐊᒻᒪᓗ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ), ᐅᓄᕐᑐᑦ ᑲᑎᒪᔨᐅᔪᑦ ᐅᖃᕐᓯᒪᔪᑦ ᓂᕈᐊᕐᑕᐅᓯᒪᓂᕐᓴᐅᓂᖓᓂᒃ ᐅᔾᔨᕐᓱᕐᑎᐊᕐᓯᒪᓂᒃᑯᑦ ᐱᒋᐊᕐᑕᐅᓗᓂ ᕿᒥᕐᔭᐅᓗᓂ ᖃᖓᑦᑎᐊᒃᑯᑦ (ᓵᕐᓗ, 2–5 ᐊᕌᒍ ᐃᓗᐊᓂ). ᑲᑎᒪᔨᐅᔪᑦ ᐅᖃᕐᓯᒪᔪᑦ ᐱᙳᓪᓕᐊᑕᐅᓂᖓᓂᒃ ᑕᐃᒪᐃᒃᑯᑎᒃ ᐃᑲᔪᕐᑕᐅᓗᓂ ᖃᐅᔨᓴᕐᓂᒃᑯᑦ ᑐᑭᓯᔭᐅᔪᓂᑦ, ᐱᙳᓪᓕᐊᓗᓂᓗ ᑭᒃᑯᓯᓂᐊᕐᓂᒃᑯᑦ ᖃᐅᔨᓴᕐᓂᖅ ᑐᑭᓯᔾᔪᑕᐅᒃᑲᓐᓂᕈᓐᓇᕐᑐᓂᒃ ᐊᕙᑎᖓᓂᒃ ᐊᒻᒪᓗ ᐃᓅᓯᖓᓂᑦ ᐃᒃᐱᖕᓴᐅᑎᒧᑦ ᑖᒃᑯᓄᖓ ᑭᖑᖅᐸᖕᓄᑦ.

ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓱᐃᔮᑦ ᑲᑎᒪᔾᑦ ᐅᖃᐅᓯᖅᑳᕐᓂᖕᒋᑦ

ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ ᐃᓱᒫᓗᑎᖃᓚᐅᕐᑐᑦ ᐅᓪᓗᖃᕐᑎᑕᐅᒍᓂ ᐃᓱᓕᕝᕕᒃᓴᖓ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᕐᑕᐅᔪᖅ ᐋᕿᒃᓯᒪᓂᖓ ᐃᑲᔪᕐᑐᕐᑕᐅᑲᔭᖕᒋᓐᓂᖓᓂᒃ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᓐᓄᑦ ᐋᕿᒃᓱᐃᔨᐅᔪᓄᑦ ᐊᒻᒪᓗ ᐊᖕᒋᕆᐅᑎᒃ ᐊᒃᑑᑎᓪᓚᔾᕐᓂᖓᓂᒃ ᑕᕆᐅᕐᒥ ᐸᕿᔨᐅᔪᓄᑦ ᑲᑎᒪᔨᖕᒋᑦ (MSC) ᐊᖕᒋᕐᓯᔭᕆᐊᖃᕐᓂᖕᒋᑦ ᑭᖑᖅᐸᖕᓄᑦ ᐋᕿᒃᓯᒪᖕᒋᒃᑯᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᕐᑕᐅᔪᖅ ᐋᕿᒃᓯᒪᓂᖓ (ᐱᖃᓯᐅᑎᓗᒋᑦ ᖃᐅᔨᒋᐊᕐᑰᑦ ᑭᒃᑲᖕᒋᑦ) ᐃᓂᓪᓚᒃᓯᒪᖕᒋᑎᓪᓗᒍ. ᐃᓱᒪᒋᔭᐅᓪᓗᓂ ᕿᒥᕐᔭᐅᔭᕆᐊᖃᕐᒪᖓᑦ ᖃᖓᖖᒍᕐᐸᑦ ᐅᖃᐅᓯᐅᓪᓗᓂ.

ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ ᑭᒃᑯᓯᓂᐊᕐᑎᑦ ᐅᖃᕐᑐᑦ ᖃᐅᔨᒪᔭᐅᓂᖕᒋᑦ ᑭᖑᖅᐸᐃᑦ ᐅᓄᕐᓯᕆᐊᕈᑕᐅᓚᔭᖕᒋᓐᓂᖓᓂᒃ ᐊᓯᓪᓕᕈᑕᐅᓕᕋᔭᖕᒋᓐᓂᖓᓂᒃ ᐱᙳᓪᓕᐊᑎᑕᐅᓂᖓᓄᑦ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᕐᑕᐅᔪᖅ ᐋᕿᒃᓯᒪᓂᖓ ᓖᓐᓇ ᐱᓕᕆᐊᖑᔪᒧᑦ. ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ ᑐᒃᓯᕋᕐᑐᑦ ᐋᕿᒃᓱᐃᔾᑦ ᑲᑎᒪᔨᖕᒋᑦ ᐊᑐᓕᕐᑯᔾᔪᑎᒃ ᕿᒥᕐᔭᐅᕐᑯᓗᒍ ᖃᐅᔨᓯᒪᕝᕕᒃ ᑭᒃᑲᖓ (ᐊᒻᒪᓗ ᐃᓗᓕᒃᑲᓂᖅᑯᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᕐᑕᐅᔪᖅ ᐋᕿᒃᓯᒪᓂᖓ) ᐊᕌᒍᓄᑦ 4 ᐅᕙᓘᓐᓃᑦ 5 (ᓵᕐᓗ 2025 ᐅᕙᓘᓐᓃᑦ 2026), ᐱᔪᑎᒋᓗᒍ ᓴᕿᑕᐅᓂᖕᒋᑦ ᑲᑎᒪᔨᕋᓛᑦ ᐱᒋᐊᕐᑎᑦᑎᓗᑎᒃ ᕿᒥᕈᓂᕐᒥᒃ ᐊᒻᒪᓗ ᐃᓱᒪᒋᔭᐅᓂᐊᕐᑐᓂᒃ ᐊᑏᑎᖅᑎᒋᓂᖓᓂᒃ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᕐᑕᐅᔪᖅ ᐋᕿᒃᓯᒪᓂᖓ ᑕᐃᑲᓂ. ᐃᓱᒪᒋᔭᐅᓂᖓ ᒪᓕᒃᑐᒍ ᑎᑎᕋᕐᓯᒪᔪᑦ ᐱᑕᖃᕈᑎᒃ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ), ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓱᐃᔮᑦ ᑲᑎᒪᔾᑦ ᐅᖃᕐᓯᒪᒃᒪᑕ ᐱᑕᖃᓐᓇᐊᖅᑲᕐᓂᖓᓂᒃ ᑭᒃᑯᓯᓂᐊᕐᓂᒃᑯᑦ ᐱᐅᓯᕆᐊᕈᑎᕆᓗᒍ ᐊᕙᑎᖓᓂᑦᑐᓂᒃ ᖃᐅᔨᒪᔭᐅᓂᖓᓄᑦ.

ᐱᖃᑖ ᐱᓕᕆᕆᐊᕐᓂᐅᑉ

ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔨᕐᓱᑦᑎᐊᕐᓂᕐᒧᑦ ᐱᒋᐊᓚᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓱᐃᔮᑦ ᑲᑎᒪᔾᑦ ᑲᑎᒪᒋᐊᒃᑲᓐᓂᕐᓂᐊᕐᑐᑦ ᐅᖃᐅᓯᖅᑳᕐᓗᑎᒃ ᐃᖃᓗᒃᑕᐅᔪᑦ ᐋᕿᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᓕᐃᑦ ᕿᑎᐊᓂ ᓄᖑᕐᐸᓯᐊᓂ ᒪᔾ. ᑲᑎᒪᓂᖕᒋᓐᓂ ᖃᓄᐃᓕᓂᖕᒋᑦ ᒪᓕᒃᓗᒋᑦ, ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ ᐊᐱᕆᓂᐊᕐᑐᑦ ᐊᑐᓕᕐᑯᔭᐅᔪᓂᒃ ᐋᕿᒃᓯᕐᑯᔾᔪᑎᒃᑯ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔾᔪᑎᒃᑯᓐᓄᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᑲᑎᒪᔩᑦ ᐊᒻᒪᓗ ᓄᓇᕕᒻᒥ ᐃᒪᕐᒥᐅᑕᓕᕆᔾᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖕᒋᑦ ᑕᕝᕙ ᑯᑦᑎᒃᓂᕐᓴᐃᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᖃᐅᔨᒋᐊᕝᕕᒃ (USR) ᐊᒻᒪᓗ ᐃᖃᓗᒃᑕᐅᔪᑦ ᐋᕿᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᓕᐃᑦ ᐃᕙᖃᓕᕈᑎᒃ ᑭᖑᓪᓕᕐᒥᒃ.

ᐃᓚᒍᑕᖓ 1

ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ (DFO) ᐃᓚᒋᔭᐅᔪᑦ

ᑎᐅᓇᒃ ᒪᕼᐅᓂ (ᐅᒪᔪᓂᒃ ᐊᐅᓚᓂᖓᖏᓐᓂᒃ ᐊᐅᓚᑦᑎᔨ, ᐊᑐᕚ) (*ᐃᒃᓯᕙᐅᑕᖅ*)
ᑯᐊᑦᓂ ᑎᐊᐅᔅᑦ (ᐅᒪᔪᓂᒃ ᐊᐅᓚᓂᖓᖏᓐᓂᒃ ᐊᐅᓚᑦᑎᔨ, ᐊᑐᕚ)
ᓈ ᐃᑦᒍ (ᐅᒪᔪᓂᒃ ᐊᐅᓚᓂᖓᖏᓐᓂᒃ ᐊᐅᓚᑦᑎᔨ, ᐊᑐᕚ)
ᑯᓇᔅᑎ ᕗᓈᓴᓐ (ᐅᒪᔪᓂᒃ ᐊᐅᓚᑦᑎᔨ, ᐅᑭᐅᕐᑕᕐᑐᒥ)
ᔩᕝ ᐋᑕᓪ (ᐅᒪᔪᓂᒃ ᐊᐅᓚᑦᑎᔨ, ᐅᑭᐅᕐᑕᕐᑐᒥ)
ᓯᐅᓇ ᕗᓈᓴᓐ (ᐅᒪᔪᓂᒃ ᐊᐅᓚᑦᑎᔨ, ᐅᑭᐅᕐᑕᕐᑐᒥ)
ᕹᓕᒃᔅ ᑎᐊᓐ (ᐅᒪᔪᓂᒃ ᐊᐅᓚᑦᑎᔨ, ᑯᐱᒃ)
ᔨᕈᓪ ᐳᓕᐅ (ᐅᒪᔪᓂᒃ ᐊᐅᓚᑦᑎᔨ, ᑯᐱᒃ)
ᒫᑎᓐ ᕼᐃᓄᓕ (ᐅᒪᔪᓂᒃ ᐊᐅᓚᑦᑎᔨ, ᓂᐅᕙᐅᓐᓛᓐᑦ ᐊᒻᒪᓗ ᓛᐸᑐᐊ)
ᕘᓕᔫᑦ ᕞᑯᔅ (ᑭᒃᓕᓯᓂᐊᕐᓂᖅ, ᐋᑎᐅᓕᐅ ᐊᒻᒪᓗ ᐳᓕᐅᓕ)
ᑯᓕᔅᑕ ᐸᐃᑯ (ᑭᒃᓕᓯᓂᐊᕐᓂᖅ, ᓂᐅᕙᐅᓐᓛᓐᑦ ᐊᒻᒪᓗ ᓛᐸᑐᐊ)
ᑳᑐᓇ ᓯᑲᐃᓐ (ᑭᒃᓕᓯᓂᐊᕐᓂᖅ, ᓂᐅᕙᐅᓐᓛᓐᑦ ᐊᒻᒪᓗ ᓛᐸᑐᐊ)
ᐳᓇᑕᓂ ᐴᓵᓪ (ᑭᒃᓕᓯᓂᐊᕐᓂᖅ, ᐊᑐᕚ)

ᑕᕙᖕᒑᖕᒋᑦᑐᑦ–ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᓪᓗ ᑲᓇᑕᒥ (DFO)

ᕗᓚᒃ ᓃᓐ–ᒐᒃᓄ (ᓄᓇᕕᒻᒥ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ)
ᐋᓪᐳ ᒐᐃᔪᔅ (ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔨᒃᑯᓐᓄᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᑲᑎᒪᔩᑦ)
ᐊᐃᓇᓐ ᑕᐃᐅᓪ (ᑐᕐᖕᒐᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ ᐃᖃᓗᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ)
ᔪᔭ ᒪᑎᓐ (ᓄᓇᕗᒻᒥ ᒐᕙᒪᒃᑯᓐᓂ)
ᐅᒪ ᓴᕐ (ᒐᕙᒪᒃᑯᑦ ᑯᐱᒃ)
ᑖᑦ ᐳᕈᓪᐲᔪᑦ (ᓄᓇᑦᓯᐊᕗᑦ ᒐᕙᒪᖓ)
ᐋᓕᔅᑎᐅ ᐅᖁᐃᓕ (ᐅᑭᐅᖅᑕᖅᑐᒥ ᑲᑐᔾᔨᖃᑎᒌᑦ)
ᐳᕈᔅ ᓵᑉᒪᓐ (ᑲᓇᑕᒥ ᑲᑐᔾᔨᖃᑎᒌᑦ ᑭᖑᑉᐸᓂ ᐱᕈᖅᓴᐃᔩᑦ)
ᑑᓂ ᕋᐃᑦ (ᒪᑭᕝ ᑯᐊᐳᓈᓴᓐ)
ᐳᓚᐃᐊᓐ ᐳᒃ (ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᖃᑐᔾᔨᖃᑎᒌᑦ)

ᐃᓚᒍᑕᖓ 2

ᑲᑎᒪᓂᖓ ᑕᐃᔭᐅᓂᖓ	**ᐊᑐᖅᑕᐅᔪᒪᔪᑦ**	**ᑲᑎᒪᔩᑦᓛᖑᔪᑦ ᐃᓚᐅᖃᑕᐅᓂᐊᕐᑐᑦ**	**ᐅᓪᓗᖓ ᐊᒻᒪᓗ ᐃᑲᕋᖓ**
ᖁᑦᑎᒃᓂᕐᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) 4: ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ) ᐊᒻᒪᓗ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐱᑕᖃᕐᓂᖏᑦ	ᐅᖃᐅᓯᐅᓗᑎᒃ ᖃᐅᔨᒋᐊᕙᑦ ᑭᒃᓕᖏᑦ ᐊᒻᒪᓗ ᐃᖃᓗᒃᑕᐅᔪᑦ ᐋᕿᒃᑕᐅᔪᓄᑦ ᐊᑐᐊᒐᐃᑦ (ᐸ̇ᐳᐊᓇᐙᓕᒃ + ᒫᓐᑕᒍᐃ)	ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ)	ᕿᑎᕐᑰᑦ, ᕕᕗᐊᕆ 18 1 ᐅᓐᓄᓴᒃᑰᑦ – 3 ᐅᓐᓄᓴᒃᑰᑦ ᑲᓇᖕᓇᐅᑦ ᐃᑲᕋᖓ (ᐃᑲᕌᒃ ᒪᑉᐱᒃ)
ᖁᑦᑎᒃᓂᕐᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) 3: ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ) ᐊᒻᒪᓗ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐱᑕᖃᕐᓂᖏᑦ	ᐅᖃᐅᓯᐅᓗᑎᒃ ᖃᐅᔨᒋᐊᕙᑦ ᑭᒃᓕᖏᑦ (ᐳᐊᓇᐙᓕᒃ + ᒫᓐᑕᒍᐃ)	ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ)	ᐅᓪᓗᑐᐃᓐᓇᖅ, ᕕᕗᐊᕆ 5 9 ᐅᓛᒃᑰᑦ – 11 ᐅᓛᒃᑰᑦ ᑲᓇᖕᓇᐅᑦ ᐃᑲᕋᖓ (ᐃᑲᕌᒃ ᒪᑉᐱᒃ)
ᖁᑦᑎᒃᓂᕐᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) 2: ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ) ᐊᒻᒪᓗ ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐱᑕᖃᕐᓂᖏᑦ	ᐅᖃᐅᓯᐅᓗᑎᒃ ᓂᕈᐊᕐᑕᐅᔪᓐᓇᕐᑐᑦ USR (ᐳᐊᓇᐙᓕᒃ + ᒫᓐᑕᒍᐃ)	ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ)	ᐅᓪᓗᑐᐃᓐᓇᖅ, ᔭᓄᐊᕆ 15 10 ᐅᓛᒃᑰᑦ – 12 ᐅᓐᓄᓴᒃᑰᑦ ᑲᓇᖕᓇᐅᑦ ᐃᑲᕋᖓ (ᐃᑲᕌᒃ ᒪᑉᐱᒃ)
ᖁᑦᑎᒃᓂᕐᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) 1: ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ) ᐱᑕᖃᕐᓂᖏᑦ	ᐅᖃᐅᓯᐅᓗᑎᒃ ᓂᕈᐊᕐᑕᐅᔪᓐᓇᕐᑐᑦ USR (ᐳᐊᓇᐙᓕᒃ + ᒫᓐᑕᒍᐃ)	ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ)	ᓇᒡᒐᔾᔭ ᔭᓄᐊᕆ 11 10 ᐅᓛᒃᑰᑦ – 12 ᐅᓐᓄᓴᒃᑰᑦ ᑲᓇᖕᓇᐅᑦ ᐃᑲᕋᖓ (ᐃᑲᕌᒃ ᒪᑉᐱᒃ)
ᖁᑦᑎᒃᓂᕐᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᖃᐅᔨᒋᐊᕐᕕᒃ (USR) ᑭᖑᒧᐃᓐᓇᐃᑦ	ᐅᖃᐅᓯᐅᓗᓂ: ᖃᓄᐃᓕᖓᓂᖓ ᑲᓇᑕᒥ ᑭᒃᓕᓯᓂᐊᕐᓂᕐᒧᑦ ᐅᖃᐅᔾᔨᒋᐊᕐᑎᑦ ᐱᓇᓱᒃᕕᖓ ᐃᖃᓇᐃᔭᖃᑎᒋᑦ ᕿᒥᕈᓂᖏᑦ ᐅᖃᐅᓯᐅᓗᓂ ᐃᓱᒪᒋᔭᐅᔭᕆᐊᓕᑦ ᐱᓗᐊᕐᓂᖏᑦ USR	ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ)	ᕿᑎᕐᑰᑦ, ᑎᓯᐱᕆ 17 10 ᐅᓛᒃᑰᑦ – 12 ᐅᓐᓄᓴᒃᑰᑦ ᑲᓇᖕᓇᐅᑦ ᐃᑲᕋᖓ (ᐃᑲᕌᒃ ᒪᑉᐱᒃ)
ᐅᑭᐅᕐᑕᕐᑐᒥ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐱᕆᐊᕐᓚᒃᓴᐅᔪᒧᑦ ᐋᕿᒃᓱᐃᔩᑦ ᑲᑎᒪᔩᑦ (NPAWG) ᑲᑎᒪᓂᖏᑦ	ᑐᙱᓱᕆᑦ ᑕᕝᕙ NPAWG: ᑎᑎᕋᖅᓯᒪᔪᑦ ᑐᑭᒧᐊᕈᑎᖏᑦ ᓇᓗᓇᐃᕐᑕᐅᓂᖏᑦ ᐅᔾᔨᕐᓯᕐᓂᕐᒧᑦ ᐱᕆᐊᕐᑎᑦᑎᓂᖅ ᐋᕿᒃᑕᐅᓂᖓ ᓇᐃᓪᓕᕆᐊᖅᓯᒪᔪᖅ: ᑲᓇᑕᒥ ᑭᒃᓕᓯᓂᐊᕐᓂᕐᒧᑦ ᐅᖃᐅᔾᔨᕆᐊᕐᑎᑦ ᐱᓇᓱᒃᕕᖓ ᐃᖃᓇᐃᔭᖃᑎᒋᑦ ᕿᒥᕈᓂᖏᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ (LRP ᐊᒻᒪᓗ USR)	ᐊᑭᓐᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᖕᓇᖓᓂ ᐅᔾᔨᕐᓱᑎᐊᕐᓂᕐᒧᑦ ᐃᓂᖓ (EAZ)	ᓇᒡᒐᔾᔭ ᓄᕕᐱᕆ 30 10 ᐅᓛᒃᑰᑦ – 12 ᐅᓐᓄᓴᒃᑰᑦ ᑲᓇᖕᓇᐅᑦ ᐃᑲᕋᖓ (ᐃᑲᕌᒃ ᒪᑉᐱᒃ)

<u>**ᑐᓐᓂᕆᔭᖅ ᐃᓱᒪᓕᐅᒐᒃᓴᖅ**</u>

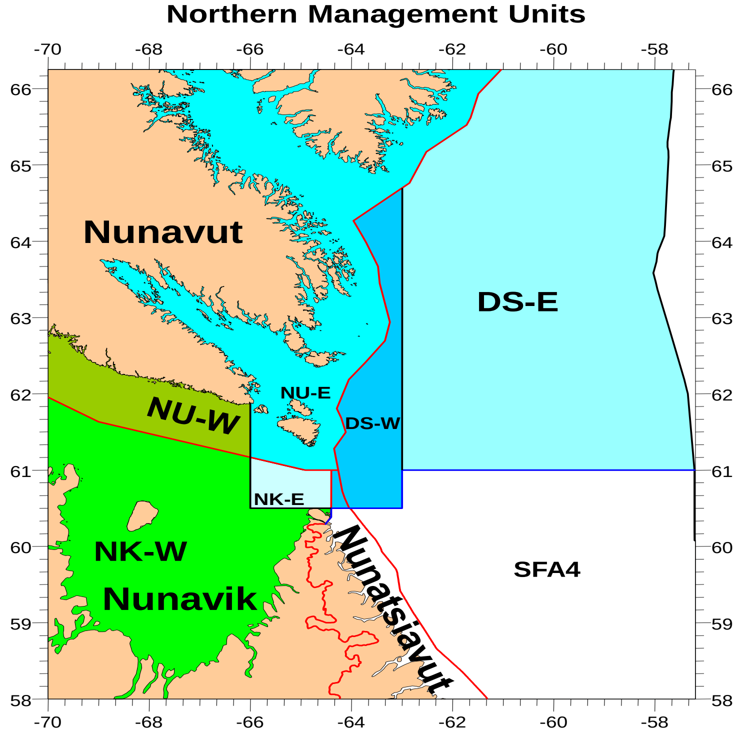
<u>**ᓄᓇᕗᒧᑦ ᐆᒪᔪᓕᕆᔩᑦᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ ᐊᒻᒪᑦᑕᐅᖅ ᓄᓇᕕᒃ ᑕᕆᐅᖓᓄᑦ ᐆᒪᔪᓕᕆᔨᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ**</u>

<u>**ᐅᑯᓄᖓ**</u>

ᑐᓴᐅᒪᔾᔪᑎ: **ᐋᖅᑭᒐᒃᓴᖅ: X** **ᐊᑐᓕᕐᑯᔭᒃᓴᓕᐊᖅ: X**

ᐃᓱᒪᒋᔭᒃᓴᖅ: ᓯᕗᕋᕆᔭᖃᓪᓗᑎᒃ ᑐᕌᒐᖃᕐᑯᔭᑦ ᑐᓐᖓᕕᒃᓵᓄᑦ ᐅᑭᐅᖅᑕᖅᑑᑉ (*ᐸᓐᑖᓚᔅ ᐳᐊᕆᔭᓕᕐ*) ᐊᒻᒪᓗ ᑕᖅᓴᓖᑦ (*ᐱ. ᒪᓐᑕᒍᐃ*) ᑭᖑᒃᐸᐃᑦ ᐱᖓᓐᓈᒍᑦ ᑲᓇᖕᓈᒍᓪᓗ ᖃᐅᔨᓴᕆᔭᐅᓃᑉ ᐃᓂᒋᔭᖏᓄᑦ

<u>**ᓄᓇᙳᐊᖅ:**</u>
ᑐᖑᔪᖅᓯᖅᓯᒪᔪᑦ – ᑲᓇᖕᓇᐅᑉ ᖃᐅᔨᓵᕆᔭᖅ ᐃᓂᖓ
ᐆᔭᐅᔨᖅᓯᒪᔪᑦ – ᐱᖓᓐᓇᐅᑉ ᖃᐅᔨᓵᕆᔭᖅ ᐃᓂᖓ



ᐅᑭᐅᖅᑕᖅᑑᑉ ᑭᖑᒃᐸᒃ (*ᐸᓐᑖᓚᔅ ᐳᐊᕆᔭᓕᕐ*)

ᑕᖅᓴᓕᒃ ᑭᖑᒃᐸᒃ (*ᐸᓐᑖᓚᔅ ᒪᓐᑕᒍᐃ*)

ᓇᕿᙱᕐᓂᖓ

ᒪᕐᕉᒃ ᑭᖑᒃᐹᒃ ᐃᒪᕐᒥᐅᑕᑦ (*ᐱ. ᐳᐊᕆᔭᓕᒃ* ᐊᒻᒪ *ᐱ. ᒪᓐᑕᒍᐃ*) ᐱᑕᖃᓲᑦ ᐅᑭᐅᖅᑕᖅᑐᒥ ᑭᖑᒃᐸᓚᓱᓲᓄᑦ ᐃᖃᓗᒐᓱᒃᑎᑦ ᐅᒥᐊᕐᔪᐊᖅᑎᑦ ᐱᓇᓱᓕᕌᖓᑕ ᕿᑭᖅᑖᓘᑉ ᐊᑯᑭᑦᑑᓪᓗ ᐃᑭᕋᔅᖓᓂ ᐊᒻᒪᑦᑕᐅᖅ ᓄᓇᕙᐅᑉ ᓄᓇᕘᓪᓗ ᐃᑭᕋᔅᖓᒍᑦ ᑲᓇᖕᓇᖅᐸᓯᐊᒍᑦ. ᑖᓐᓇ ᐃᖃᓗᓚᓲᓂᖅ ᑲᒪᔭᐅᓲᖅ ᐊᕙᒃᑕᐅᓯᒪᓪᓗᓂ ᐊᔾᔨᙳᑎᑦᑐᔪᓄᑦ ᐆᒪᔪᖃᕝᕙᓄᑦ ᐃᓂᓂᒃ, ᐱᖓᓐᓇᐅᑉ ᖃᐅᔨᓵᕆᔭᖅ ᐃᓂᖓ (WAZ) ᐊᒻᒪᓗ ᑲᓇᖕᓇᐅᑉ ᖃᐅᔨᓵᕆᔭᖅ ᐃᓂᖓ (EAZ). ᑖᒃᑯᐊᒃ ᐃᓂᐅᔫᒃ ᑎᑭᐅᒪᔭᖅᑑᒃ ᑕᒪᐃᓐᓂᒃ ᓄᓇᕗᑉ ᓄᓇᑖᕈᑖᑕ ᐃᓗᓐᓂᒃ (NSA) ᐃᓚᖓᓗ ᓄᓇᕝ ᑕᕆᐅᑉ ᐊᒃᑐᕐᓯᒪᓂᐊᓃᑦᑐᖅ (NMR) (ᓄᓇᙳᐊᖅ ᑕᑯᓗᒍ).

ᖃᒃᑲᓂᐊᑕ ᐅᓂᒃᑳᕆᐊᑕᐅᔫᑉ ᑎᑎᕋᖅᓯᒪᔫᑉ ᑐᑭᓯᐅᒪᔾᔪᑎᓕᐊᖑᔪᖅ ᓄᓇᕗᒥ ᐆᒪᔪᓕᕆᓂᕐᔪᐊᒃᑯᑦ ᑲᑎᒪᔨᖏᓄᑦ (NWMB) ᐊᒻᒪᓗ ᓄᓇᕝ ᑕᕆᐅᖓᓄᑦ ᐆᒪᔪᓕᕆᔨᑦ ᑲᑎᒪᔨᖏᓄᑦ (NMRWB) (ᑲᑎᒫᔩᒃ) ᑎᓯᐱᕆ 2020 ᐃᓗᐊᒍᑦ, ᑖᓐᓇ ᐅᑭᐅᖅᑕᖅᑐᒥ ᓯᕗᕆᔭᖅᑐᖅ ᑐᕌᖅᑕᒥᒍᑦ ᑲᑐᔾᔨᖅᑎᖠᖑᔪᑦ (NPAWG) ᑲᔪᓯᔭᖅᑐᑦ ᐱᓕᕆᖄᖅᖢᑎᒃ ᓴᓇᔮᕋᓱᒃᖢᒋᑦ ᐊᑐᓕᖁᔅᓴᓕᐊᕆᔭᖏᑦ ᓯᕗᕋᒋᔭᖅᑐᒦᒃ ᑐᕋᓚᖅᑐᖅ (PA) ᑐᙵᕕᒃᓴᕆᔭᓕᐊᖓᑦ ᑖᒃᑯᓇᖓ *ᐱ. ᒪᓐᑕᒍᐃ* ᐊᒻᒪ *ᐱ. ᐳᐊᕆᔭᓕᒃ* ᑭᖑᒃᐸᖏᓐᓄᑦ ᐃᓗᐊᓂ ᐃᓂᖏᑕ WAZ ᐊᒻᒪᑦᑕᐅᖅ EAZ, ᒪᓕᒃᑯᒋᒃ (ᐅᐃᒍᖅ 1). ᓈᒪᔪᖅ ᐱᔭᕇᖅᑕᖅ ᑐᙵᕕᒃᓴᕆᔾ PA ᐃᓚᖃᕋᔭᖅᑯᓂ ᓄᓇᙳᐊᒃᑯᑦ ᓇᐄᓴᐅᑎᓂᒃ ᑐᑦᑕᕝᕕᒃᓴᑦ ᐊᒻᒪᑦᑕᐅᖅ ᐊᙳᓂᒃᑕᐅᓂᖏᓄᑦ ᐊᖅᑮᔪᑎᒃᓴᓄᑦ ᒪᓕᒐᖏᓂᒃ (HDRs).

ᓴᓇᔭᐅᓂᖓ ᑎᑭᓪᓗᒍ ᐱᔭᕇᖅᑕᖅ ᑐᙵᕕᒃᓴᕆᔾ PA ᑭᖑᒃᐸᓄᑦ ᐱᔨᑦᑎᕋᐃᔦᓐᓇᖅᐳᖅ ᐃᖃᓗᓚᓱᒃᓴᓄᑦ ᐊᐅᓚᑦᑎᔨᑦ ᐊᖅᑮᔭᕆᐊᖃᓲᖏᓐᓄᑦ ᐃᑲᔪᐃᓗᑎᓪᓗ ᑲᔪᓰᓐᓇᖅᑐᒥᒃ ᑲᒪᒋᔭᖃᕈᓐᓇᕐᓂᕐᒥᒃ ᐆᒪᔪᕆᔭᖏᓐᓂᒃ ᐃᓂᒋᔭᖏᒍᑦ ᑲᒪᒋᔭᖏᑕ. ᖃᒃᑲᓂᐊᒍᑦ, ᐱᓕᕆᓂᕗᑦ ᓴᓇᓇᓱᒃᓗᑕ ᐱᔭᕇᖅᓯᒪᔪᒥᒃ ᑐᙵᕕᒃᓴᕆᔾ PA ᑭᖑᒃᐸᓄᑦ *ᐱ. ᒪᓐᑕᒍᐃ* ᐃᓗᐊᓂ WAZ, ᑐᑦᖓᓕᓚᕆᒃᑐᒥᒃ ᓴᖅᑮᓗᑕ ᑭᓪᓕᐅᑉ ᐊᐅᓛᓚᔾᔭᒍᑖ ᓇᐄᓴᐅᑎᖓᓂᒃ (LRP) ᐊᒻᒪᑦᑕᐅᖅ ᑐᕌᖅᑎᑕᒧᑦ ᑕᑯᒃᓴᐅᔾᔪᑖᑕ ᓇᐄᓴᐅᑖ (TRP)), ᐊᒃᑐᐋᓚᕆᒃᑑᒃ ᑭᓪᓕᓯᓂᐊᕆᔭᓄᑦ ᑕᕆᐅᕐᒥ ᑲᒪᑦᑎᐊᕐᓂᕐᒧᑦ ᑲᑎᒪᔨᕐᔪᐊᖅᑕ (MSC) ᐃᓕᓴᕆᔾᔪᑖ ᑲᒪᒋᔭᐅᑦᑎᐊᕐᓂᖓᑕ ᐃᖃᓗᓚᓲᓂᖅ.

ᐊᑐᓕᖅᑎᑕᐅᓂᖏᑦ ᓇᓗᓇᐃᕆᔾᔪᑏᑦ ᓇᐄᓴᐅᑎᑦ ᑖᒃᑯᓇᖓ *ᐱ. ᐳᐊᕆᔭᓕᒃ* ᐊᒻᒪ *ᐱ. ᒪᓐᑕᒍᐃ* ᐃᓗᐊᒍᑦ ᐊᐅᓚᑦᑎᕝᕕᖏᑕ WAZ ᐊᒻᒪᑦᑕᐅᖅ EAZ, ᐊᑐᕌᖓᓕᓗᑎᒃ, ᑐᕌᖓᑎᑕᐅᕗᑦ ᐊᕐᕌᒍᒧᑦ 2021-22.

ᓯᕗᒧᒃᓯᒪᓂᖏᑦ ᐅᓗᒥᒧᑦ

ᒪᓕᒃᑯᒍ ᑖᓐᓇ *ᐃᖃᓗᓚᓱᒃᑎᓄᑦ ᐊᖅᑮᔪᑎᓄᑦ–ᑲᑎᒪᔨᓄᑦ ᑐᙵᕕᒃᓵ ᐅᐃᒍᔭᖅᑐᖅ ᓯᕗᕆᔭᖅᓂᑦ* ᑐᕌᓚᓕᖏᒃ (ᐃᒪᕐᒥᐃᑕᓕᕆᔨᒃᑯᑦ, 2006), ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᖃᐅᔨᓴᖅᑎᖏᑦ ᑲᒪᒋᔭᖃᓚᐅᖅᑐᑦ ᖃᐅᔨᓴᖅᑎᐅᖃᑎᖏᓄᑦ ᕿᒥᕐᕈᔭᑦ ᐊᐅᓚᓂᕆᔭᓂᒃ ᓴᖅᑭᒋᐊᕈᑎᒃᓴᑦ ᑕᒪᒃᑯᓂᖓ ᑭᓪᓕᓯᓂᐊᕙᓂᒃ LRP ᑭᖑᒃᐸᓄᑦ ᐃᓗᐊᒍᑦ ᐃᓂᖓᑕ WAZ ᓄᑖᕈᕆᐊᕐᓗᒋᓪᓗ ᒪᑭᒪᕗᕖᖅᑐᑦ LRP ᑭᖑᒃᐸᓄᑦ ᐃᓂᖓᓄᑦ EAZ. ᓴᖅᑭᓐᓂᑯᑦ ᐊᕐᕌᒍᒧᑦ 2020 ᑲᓇᑕᒥ ᖃᐅᔨᓴᖅᑏᑦ ᐅᖃᐅᔾᔨᖅᓱᐃᔨᖏᑕ ᑎᑎᕋᕝᕙᐊᓄᑦ (CSAS) ᐊᐅᓚᓂᕆᔭᖏᑦ ᑕᐃᒍᖅᓯᒪᕗᑦ ᐃᓗᒍᑦ ᐅᐃᒍᖅ 2. LRP ᑕᒪᒃᑯᐊ ᐃᓱᒪᒋᔭᑦ ᐊᑐᕆᓚᖅᑐᑐᑦ ᐊᓯᐃᓛᒃ ᑲᑎᒪᔨᓄᑦ ᐊᖅᑮᔪᑎᒋᔭᕆᐊᖅᑕᐅᓇᑎᒃ.

ᐊᖅᑯᑎᒋᓪᓗᒋᑦ ᑲᔪᓯᕚᓕᐊᔪᑦ ᑲᑐᔾᔨᔪᑦ ᐱᓕᕆᖃᑎᒌᒍᑎᖏᑦ ᑲᑎᒪᓂᒃᑯᑦ ᐊᑯᓐᓂᐊᑕ ᓄᕝᐱᕆ 2020 ᑎᑭᓪᓗᒍ ᕝᕖᕗᐊᕆ 2021, ᑲᑐᔾᔨᔪᑦ NPAWG ᑲᔪᓯᕚᓕᖅᓯᒪᕗᑦ ᓴᓇᓇᓱᒃᑖᒍᑦ ᖃᒃᑲᓂᐊᒍᑦ ᓇᓗᓇᐃᕆᔾᔪᑎᓄᑦ ᓇᐄᓴᐅᑎᓂᒃ ᐊᐅᓚᔾᔭᐃᒋᐊᕆᔾᔪᑎᑦ ᐆᒪᔪᕐᑯᑎᖏᓄᑦ. ᑲᒪᒋᔭᖏᑦ ᑲᔪᓯᓂᐊᖅᑐᑦ ᕝᕖᕗᐊᕆ 2021 ᐃᓗᐊᓂ ᐃᓗᓕᕆᔾᔭ ᑖᔅᓯᒪ ᑐᙵᕕᒃᓴᐅᑉ PA ᑐᕌᖓᖃᓗᑎᒃ ᐱᔭᕇᖅᓯᓂᕐᒥᒃ ᐅᓂᒃᑲᓕᐊᖃᓕᕐᓗᑎᒃ ᓴᖅᑭᑕᕐᑎᑦ ᑲᑐᔾᔨᔪᑦ NPAWG ᖃᓄᐃᑦᑐᓪᓗ ᐊᑐᓕᖁᔭᐅᓂᐊᕐᓂᖏᑦ ᒫᔾᔨ ᐱᒋᐊᓕᓵᕈᓂ.

NPAWG ᓴᖅᑭᑕᖏᑦ ᐊᑐᓕᖁᔭᖏᓪᓗ ᐅᓂᒃᑳᖑᓂᐊᖅᐳᑎᒃ ᑕᐃᑲᓂ ᐅᑭᐅᖅᑕᖅᑐᒥ ᑭᖑᒃᐸᓄᑦ ᐅᖃᐅᔾᔨᖅᓱᐃᔨᑦ ᑲᑎᒪᔨᕋᓛᖏᑕ ᑲᑎᒪᓂᐊᒍᑦ ᒦᔨ 9, 2021 (ᑭᓕᖃᖅᑐᖅ ᑭᖑᒃᐸᖏᓄᑦ EAZ ᐃᓗᐊᓂ, WAZ ᐅᖃᐅᓯᐅᓇᑎᒃ). ᑕᕝᕙᓂ ᑐᓂᔭᐅᑎᓪᓗᒋᑦ, ᐅᓂᒃᑳᓕᐊᒥᒃ ᑎᒥᖓᓂᒃ NPAWG ᐊᑐᐃᓐᓇᐅᔪᖃᓚᐅᙱᒻᒪᑦ. ᐅᐃᒍᔫᒃᓴᒥᒃ ᑖᔅᓯᒧᖓ ᐅᓂᒃᑲᒧᑦ ᓴᖅᑮᓂᐊᖅᐳᖅ ᑐᑭᓯᐅᒪᔾᔪᑎᓂᒃ ᐃᑲᔪᐃᔫᒃᓴᖅ ᑲᑎᒪᔩᑦ ᐊᖅᑮᔭᕆᐊᓕᖏᓐᓄᑦ ᐊᒃᑐᐊᓂᕈᑦ ᑖᒃᑯᓇᖓ PA ᑐᙵᕕᖏᓄᑦ ᑭᖑᒃᐸᖏᓄᑦ ᐃᓗᐊᓂ WAZ ᐊᒻᒪᓗ EAZ.

ᐱᓕᕆᐊᒃᓴᑦ ᑭᖑᓪᓕᖅᐹᑦ

ᐱᓕᕆᐋᖑᔪᑦ ᓴᖅᑮᓇᓱᓐᓂᕐᒧᑦ HDR, ᑐᕌᖓᑎᑕᐅᔪᖅ ᑭᖑᓂᐊᑕ ᓴᓇᔭᐅᓚᐅᖅᑎᓪᓗᒋᑦ ᐊᑐᓕᖁᔭᐅᔪᑦ ᑖᒃᑯᓇᖓ ᓇᐄᓴᐅᑎᓄᑦ ᐊᐅᓚᔾᔭᐃᒋᐊᕈᑎᐅᓂᐊᖅᑐᓂᒃ. ᑖᒃᑯᐊ HDR ᐅᓂᒃᑳᕆᔭᖃᓪᓗᑎᒃ ᐃᓗᓕᕆᔭᕆᐊᓂᒃ ᓱᕐᓗ ᖃᓄᑎᒋ ᐱᔭᕆᔭᐅᕙᓪᓕᐊᓂᖏᑦ

ᐊᓯᙱᓪᓗ ᐊᐅᓚᑦᑎᔩᓐᑦ ᐊᐅᓚᔅᓯᒋᐊᕆᔅᐸᑕᐅᓲᑦ ᐅᓂᒃᑳᕆᓱᑦ ᒪᓕᒃᑯᒋᑦ ᐊᐅᓚᑕᙱᑦ ᐃᓕᖅᑯᓯᕆᓱᙱᑦ. ᓴᓇᕚᓪᓕᐊᓂᖅ ᑕᒪᒃᑯᓂᙵ HDR ᐃᓚᖃᕋᓱᖅᑐᖅ ᐅᖃᐅᓯᖃᑎᖃᕐᓂᕐᒥᒃ ᐃᓱᓕᐅᔾᔨᐸᑦ–ᐅᐃᕝᕙᙱᑦ ᒪᓕᒃᑕᐅᕙᒃᓴᓪᓗ ᑐᓂᔭᐅᓯᒪᔪᓐᑦ ᓄᓇᕗᒧᑦ ᓄᓇᕕᒻᒧᓪᓗ ᐃᖃᓗᒐᓱᒃᑎᕐᑯᑎᙱᓐᑦ ᐃᓂᒋᓯᙱᓐᓐᑦ.

ᐅᔾᔨᕐᓇᓗᐊᖅᓱᓂ, ᓴᓇᔭᐅᓂᙱᑦ ᑕᒪᒃᑯᐊ HDR ᐃᓚᒋᓯᐅᙳᑦᑐᑦ ᓴᖅᑮᓯᕆᐊᖃᕐᓂᙱᑦ ᑖᒃᑯᓐᙵ MSC ᐃᓕᓴᕆᔾᔨᑖᑕ ᑖᔅᓱᒥᙵ ᑭᙳᐸᒐᓯᓐᓂᐅᑉ ᐃᖃᓗᒐᓯᓐᓂᐊᓐᑦ.

<u>ᓇᐃᓕᒋᐊᙵᔪᖅ ᐱᔪᒪᔭᐅᔫᑉ</u>

ᐃᑲᔪᐃᓇᓯᓪᓗᑕ ᑲᑎᒪᔩᑦ ᐊᖅᑮᓱᕆᐊᓕᙱᓐᓂᒃ ᐊᒃᑐᐊᓂᓖᑦ ᑐᙵᕕᒃᓴᓕᐅᕆᓂᕐᒧᑦ PA ᑭᙳᒃᐸᙱᓐᑦ ᐃᓗᐊᒍᑦ ᐃᓂᙱᑕ WAZ ᐊᒻᒪᑦᑕᐅᖅ EAZ, ᐅᐃᒍᙵᓂᒃ ᐅᓂᒃᑳᓕᐊᙳᔪᒧᑦ ᐆᒧᙵ ᑐᓂᓯᓂᐊᖅᐳᑦ ᐊᒡᒋᖅᑐᓂᒃ ᐱᓇᓱᐊᕈᓯᑦ ᑖᔅᓯᒪ ᑐᙵᕕᒃᓴᐅᑉ PA ᑐᕌᖃᓪᓗᑎᒃ ᐱᔭᕇᖅᓯᓂᕐᒥᒃ ᐅᓂᒃᑳᓕᐊᖃᓕᕐᓗᑎᒃ ᓴᖅᑭᑕᙱᑕ ᑲᑐᔾᔨᔪᑦ NPAWG ᖃᓄᐃᑦᑐᓪᓗ ᐊᑐᓕᕐᑯᔭᐅᓂᐊᕐᓂᙱᑕ.

ᑕᐃᒪᓕ ᐃᓗᐃᑦᑑᔪᒥᒃ ᐃᓚᙵᒧᓪᓘᓐᓃᑦ ᐊᑐᓕᖅᑎᑦᑎᓂᐊᕐᓗᑎᒃ ᑭᒡᓕᓯᓂᐊᕈᑎᒥᒃ PA ᑐᙵᕕᒃᓴᙵᓂᒃ (ᐃᓚᖃᖅᑐᖅ ᑭᓯᐊᓂᓕ ᑭᒡᓕᖃᖅᑎᑕᐅᙳᑦᑐᖅ ᐊᐅᓚᔅᓯᐊᕈᑖᑕ ᓇᐃᓴᐅᑎᙱᓐᑦ) ᑖᔅᓯᒨᙵ ᐊᕌᒍᙵᓐᑦ 2021-22, ᐅᖃᐅᔾᔨᖅᓲᑎᑦ ᑕᑯᒃᑯᓐᙵ ᐃᓱᒪᒋᔭᕆᐊᓕᓐᓐᑦ ᐱᔪᒪᔭᐅᕗᑦ ᐊᔪᕐᓇᕈᓐᓃᑐᐊᕈᓂ:

ᐱᙵᓐᓇᐅᑉ ᖃᐅᔨᓵᕆᔭᖅ ᐃᓂᙵ:

1. ᐊᖅᑮᔭᒃᓴᑦ ᑭᒡᓕᒋᔭᓐᑦ ᓇᐃᓴᐅᑎᒃᓴᑦ ᑖᒃᑯᓐᙵ *ᐱ. ᐳᐊᕆᔭᓕᔅ* ᐊᒻᒪ *ᐱ. ᒪᓐᑕᒍᐃ* ᐃᓗᐊᒍᑦ WAZ, ᒪᓕᖃᑎᒋᒃᑑᒃ. *

ᑲᓇᙵᓐᓇᐅᑉ ᖃᐅᔨᓵᕆᔭᖅ ᐃᓂᙵ:

1. ᐊᖅᑮᔭᒃᓴᑦ ᑭᒡᓕᒋᔭᓐᑦ ᓇᐃᓴᐅᑎᒃᓴᑦ ᑖᒃᑯᓐᙵ *ᐱ. ᐳᐊᕆᔭᓕᔅ* ᐊᒻᒪ *ᐱ. ᒪᓐᑕᒍᐃ* ᐃᓗᐊᒍᑦ NU/NK E ᑲᒪᒋᔭᖃᖅᕕᙱᑕ ᐊᒡᒍᖅᓯᒪᓂᙱᒍᑦ. *

2. ᐊᑐᓕᕐᑯᔭᐅᔪᑦ ᑭᒡᓕᒋᔭᓐᑦ ᓇᐃᓴᐅᑎᒃᓴᑦ ᑖᒃᑯᓐᙵ *ᐱ. ᐳᐊᕆᔭᓕᔅ* ᐊᒻᒪ *ᐱ. ᒪᓐᑕᒍᐃ* ᐃᓗᐊᒍᑦ ᑕᕆᐅᑉ ᐃᒪᕕᐅᑉ ᐃᑭᕋᓴᙵᑕ ᕿᑭᖅᑖᓅᑉ ᐊᑯᑭᑦᑑᓪᓗ ᑲᒪᒋᔭᖃᕝᕕᐊᑕ ᐃᓂᙱᒍᑦ. *

**ᐊᖅᑮᔭᕆᔭᙱᑦ ᐊᑐᓕᕐᑯᔭᓕᐊᙳᔪᓪᓗ ᐊᐅᓚᔅᓴᐃᒋᐊᕈᑎᑦ ᓇᐃᓴᐅᑎᙱᓐᓐᑦ ᑲᑎᒪᔨᙱᓐᓂᒃ NWMB ᐊᒻᒪᓗ NMRWB ᐊᔾᔨᒌᓐᓂᖃᕆᐊᓖᒃ ᐱᓗᐊᖅᑐᒥᓪᓗ ᐊᒃᑐᐊᓂᖃᖅᑐᒥᒃ ᐊᐅᓚᔅᓴᐃᒋᐊᕈᑎ ᓇᐃᓴᐅᑖ ᓴᖅᑭᑕᐅᓗᓂ ᑭᙳᒃᐸᙱᓐᑦ ᑕᒪᐃᓐᓐᑦ ᖃᐅᔨᓵ ᐃᓂᒋᔮᑕ ᐃᓗᐊᓐᓐᑦ.*

ᐸᕐᓈᔭᐅᔪᖅ: ᑯᐊᑦᓂ ᑕᐅᑉᐆᔅᑦ, ᐃᖃᓗᒃᓴᐅᓲᑦ ᐆᒪᔪᙱᑕ ᑲᒪᒋᔭᐅᓂᙱᓐᑦ, ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ

ᐅᓪᓗᖓ: ᕕᕝᕗᐊᕆ 4, 2021

ᐃᓚᒍᑕᖏᑦ

ᐃᓚᒍᑕᖓ 1 – ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ DFO. 2020. ᖃᐅᔨᓴᖅᑎᓄᑦ ᐅᖃᐅᔾᔨᒋᐊᓂᕐᒧᑦ ᑭᓪᓕᖃᖅᑎᑕᐅᔪᓂᑦ ᖃᐅᔨᒋᐊᕐᕕᖏᓐᓂ ᐅᑭᐅᑕᖅᑐᒥ ᑭᖑᑉᐸᓄᑦ (*Pandalus Borealis*) ᐊᒻᒪ ᕿᓂᖅᑕᓘᑦ ᑭᖑᑉᐸᐃᑦ (*Pandalus Montagui*) ᑲᓇᓐᓇᖓᓂ ᐊᒻᒪ ᐱᖓᓐᓇᖓᓂ ᖃᐅᔨᓴᕐᓂᐅᔪᒥ ᑭᓪᓕᖏᓐᓂ. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2020/053.

ᐃᓚᒍᑕᖓ 2 – ᐊᑕᖏᖅᑐᑎᑦ ᓴᖅᑭᖅᑎᑕᐅᔪᑦ: DFO. 2020. ᖃᐅᔨᓴᖅᑎᓄᑦ ᐅᖃᐅᔾᔨᒋᐊᓂᕐᒧᑦ ᑭᓪᓕᖃᖅᑎᑕᐅᔪᓂᑦ ᖃᐅᔨᒋᐊᕐᕕᖏᓐᓂ ᐅᑭᐅᑕᖅᑐᒥ ᑭᖑᑉᐸᓄᑦ (*Pandalus Borealis*) ᐊᒻᒪ ᕿᓂᖅᑕᓘᑦ ᑭᖑᑉᐸᐃᑦ (*Pandalus Montagui*) ᑲᓇᓐᓇᖓᓂ ᐊᒻᒪ ᐱᖓᓐᓇᖓᓂ ᖃᐅᔨᓴᕐᓂᐅᔪᒥ ᑭᓪᓕᖏᓐᓂ. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2020/053.

ᖃᐅᔨᓴᖅᑎᓂᑦ ᐅᖃᐅᔾᔨᒋᐊᕈᑦ ᑭᓪᓕᖃᖅᑎᑦᑎᓂᕐᒧᑦ ᐱᑎᑕᐅᔪᓂᑦ ᐅᑭᐅᑕᖅᑐᒥ ᑭᖑᑉᐃᑦ (*PANDALUS BOREALIS*) ᐊᒻᒪ ᑭᖑᑉᐸᐃᑦ (*PANDALUS MONTAGUI*) ᑲᓇᓐᓇᖓᓂ ᐊᒻᒪ ᐱᖓᓐᓇᓂ ᖃᐅᔨᓴᕐᕕᒋᔭᐅᔪᓂᑦ ᑭᓪᓕᖏᑦ

ᑲᓇᑕᒥ ᖃᐅᔨᓴᖅᑎᓃᖑᖅᑐᑦ ᐅᖃᐅᔾᔨᒋᐊᓂᕐᒧᑦ (ᖃᐅᔨᓴᖅᑎᓃᖑᖅᑐᑦ ᐅᖃᐅᔾᔨᒋᐊᓂᕐᒧᑦ ᐅᓂᒃᑳᑦ 2020/053)

ᓇᓗᓇᐃᔭᖅᓯᒪᓂᖏᑦ

- ᓯᕗᓂᐊᒍᑦ ᐊᑦᑕᓇᐃᖅᓯᒪᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᓂᖓ (PA) ᓴᓇᓯᒪᓂᖓ ᑲᓇᓐᓇᖓᓄ ᖃᐅᔨᓴᕐᕕᐅᔪᒥᑦ ᑭᓪᓕᖓ (EAZ) ᓴᖅᑭᖅᑎᑕᐅᓚᐅᖅᓯᒪᔪᖅ 2009−ᒥᑦ ᑐᓐᖓᓂᖃᖅᑐᑎᑦ ᐊᕐᕋᒍᓄᑦ ᐱᖓᓱᓄᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᑐᑭᓯᒋᐊᕈᑎᓂᑦ ᐊᒻᒪ ᖃᓄᐃᓐᓂᕆᔭᖏᓐᓂ ᓯᕗᓂᐊᒍᑦ ᐊᑦᑕᓇᐃᖅᓯᒪᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᓂᖓ ᐃᓕᓐᓂᐊᓯᓈᕐᓂᖅ ᑲᓇᑕᒥ ᑭᖑᑉᐸᓂ ᐊᒻᒪ ᑭᖑᐃᑦ ᐊᒻᒪ ᐃᖃᓗᓕᕆᓂᐅᔪᑦ (DFO 2009b). ᐱᖓᓐᓇᖓᓄ ᖃᐅᔨᓴᕐᕕᐅᔪᒥᑦ ᑭᓪᓕᖓ (WAZ) PA ᓴᓇᓯᒪᓂᖓ ᓅᑦᑕᐅᓚᐅᖅᑐᖅ ᐱᔾᔪᑎᒋᓪᓗᒍᒍ ᖃᐅᔨᓴᓂᕐᒧᑦ ᓴᓇᓯᒪᓂᖓ 2014 ᐋᖅᑭᒋᐊᕆᒃᑲᓐᓂᓚᐅᖅᑐᖅ ᖃᖓᒃᑯᒡᒍᑕᐅᓂᖏᓐᓂᑦ. ᑐᕌᒐᕆᓚᐅᖅᑕᖏᑦ ᑖᔾᓱᒨᖓ ᑲᑎᒪᓂᕐᒧᑦ ᓴᖅᑭᑎᑦᑎᓗᑎ ᑭᓪᓕᖏᓐᓄᑦ ᖃᐅᔨᒋᐊᕐᕕᓂ (LRP) ᐊᒻᒪ ᑐᔅᓯᕚᖅᑐᑦ ᖁᑦᑎᓂᖅᓴᓂ ᐃᖃᓗᐃᑦ ᖃᐅᔨᒋᐊᕐᕕᖏᑦ ᐱᑎᑕᐅᔪᑦ (USR) ᐆᒧᖓ WAZ ᐊᒻᒪ ᐅᓪᓗᒥ ᒨᖓᓕᖅᑎᑕᐅᓗᑎ ᒫᓇᐅᔪᒥᑦ ᖃᐅᔨᒋᐊᕐᕕᐅᔪᓐᓇᖅᑐᑦ ᐆᒧᖓ EAZ.
- LRPs ᐅᑭᐅᑕᖅᑐᒥ ᑭᖑᑉᐸᓄᑦ (*Pandalus borealis*) ᐊᒻᒪ ᕿᓐᓂᖅᑐᓖᑦ ᑭᖑᑉᐸᐃᑦ (*P. montagui*) ᐅᕙᓂ ᑕᒪᒃᑭᓐᓂ WAZ ᐊᒻᒪ EAZ ᓄᑖᖑᓪᓗᑎ ᓴᖅᑭᖅᑎᑕᐅᓯᒪᔪᑦ 40%−ᖑᓪᓗᓂ, ᐊᒻᒪ ᑐᔅᓰᕚᖑᔪᑦ USRs ᐅᓇᐅᓪᓗᓂ 80%, ᐱᑕᖃᕐᓂᓪᓗᐊᑕᖏᓐᓄᑦ ᓱᕙᐃᔭᖅᑐᓂᑦ ᐊᔾᔨᒌᖏᑦᑐᓂ ᐆᒪᔪᓂᑦ (SSB). ᑖᒃᑯᐊ ᐋᖅᑭᑦᑕᐅᓯᒪᔪᑦ ᒪᓕᓐᓂᖃᖅᑐᑦ ᑐᑭᒧᐊᖅᑎᑕᐅᔪᒥᑦ ᐅᕙᓂ DFO PA ᐊᑐᐊᕈᐃᑦ.
- WAZ−ᒥᑦ, ᓄᑖᖅ ᓴᖅᑭᖅᑎᑕᐅᕋᑖᖅᓯᒪᔪᖅ LRPs ᐅᑭᐅᑕᖅᑐᒥ ᑭᖑᑉᐸᓄᑦfor (4,100 t) ᐊᒻᒪ ᕿᓐᓂᖅᑕᓖᑦ ᑭᖑᑉᐸᐃᑦ (12,300 t) ᑐᓐᖓᓂᖃᖅᑐᑦᒻ 6−ᐊᕐᕋᒍᓂ ᐊᑯᓂᐅᓂᖏᑦ (2014–2019). ᐊᔾᔨᐸᓗᐊᓂᓕ, ᓄᑖᖑᔪᖅ ᑐᔅᓯᕋᐅᑕᐅᔪᖅ ᖁᑦᑎᓂᖅᓴᒥ ᑭᖑᑉᐸᓄ ᖃᐅᔨᒋᐊᕐᕕᖏᑦ (USR) ᐱᑕᖃᖅᑎᑕᐅᔪᑦ ᐊᑐᓂ ᐆᒪᔪᓄᑦ (8,200 ᐊᒻᒪ 24,600 t, ᑭᖑᓕᕇᑦᑎᑎᑦ).
- EAZ−ᒥᑦ, ᐅᓪᓗᒥ ᒨᖓᓕᖅᑎᑕᐅᓯᒪᔪᑦ LRP ᐅᑭᐅᑕᖅᑐᒥ ᑭᖑᑉᐸᓄᑦ (ᖁᕝᕙᕆᐊᖅᑐᑦ 15,800 ᐅᕙᓐᖓᑦ 6,800 t) ᐊᒻᒪ ᑐᔅᓯᕙᖑᔪᖅ USR (ᖁᕝᕙᕆᐊᖅᑐᖅ ᑎᑭᑦᑐᒍ 31,600 ᐅᕙᓐᖓᑦ 18,200 t) ᑐᓐᖓᓂᖃᖅᑐᑦ 11-ᐊᕐᕋᒍᓂ ᐊᑯᓂᐅᓂᖃᖅᑐᓂᑦ (2009–2019). ᐋᖅᑭᑕᐅᒃᑲᓂᖅᑐᑦ LRP ᐊᒻᒪ ᑐᔅᓰᕚᖑᔪᖅ USR ᕿᓐᓂᖅᑕᓕᓐᓄᑦ ᑭᖑᑉᐸᓄᑦ ᐅᕙᓂ EAZ ᓴᖅᑭᑎᑦᑎᓚᐅᖅᑐᖅ 3,100 t (ᐅᕝᕙᕆᐊᖅᑐᖅ ᐅᕙᓐᖓᑦ 2,300 t) ᐊᒻᒪ 6,100 t (ᐊᓯᔾᔨᖏᑦᑐᖅ), ᑐᖏᓕᕇᑦᑎᓪᓗᒋᑦ.
- LRPs ᐊᒻᒪ ᑐᔅᓰᕚᖑᔪᑦ USRs ᑐᓐᓂᖅᑐᑦ ᐱᐅᓛᓂᑦ ᐊᑐᐃᓐᓇᐅᔪᓂᑦ ᖃᐅᔨᓴᖅᑎᓂᑦ ᑐᑭᓯᒋᐊᕈᑎᓂᑦ, ᑭᓯᐊᓂ ᐱᖃᓯᐅᔾᔨᖏᑦᑐᑦ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᐅᕝᕙᓘᓐᓃᑦ ᐊᕙᑎᖓᓄᑦ ᐱᔾᔪᑎᖃᖅᑎᑎᑦᑎᔪᑦ ᐋᖅᑭᔅᓯᓂᖏᓐᓄᑦ. ᑐᑭᓯᒋᐊᕈᑏᑦ ᐱᔾᔪᑎᖃᖅᑐᑦ ᑖᒃᑯᓄᖓ ᖃᐅᔨᓴᕐᕕᒋᔭᐅᔪᓄᑦ ᐱᑕᖃᑦᑎᐊᖏᑦᑐᑦ.
- PA ᖃᐅᔨᒋᐊᕐᕕᖏᑦ ᐅᑯᓄᖓ WAZ ᐊᒻᒪ EAZ ᖃᐅᔨᓴᖅᑕᐅᒃᑲᓐᓂᕆᐊᓕᒃ ᐊᒥᐅᓂᖏᓐᓄᑦ ᐊᑐᖅᑕᐅᔪᓐᓇᖅᑐᑦ ᓴᖅᑭᖅᑎᑕᐅᒍᓂ ᐅᕝᕙᓘᓐᓃᑦ ᖃᓄᐃᓘᖃᑦᑕᐅᑎᓂᖏᑦ ᑭᖑᑉᐸᓂᑦ ᑭᖑᓕᐅᕐᓂᖏᓐᓄᑦ ᐊᒻᒪ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᐅᕝᕙᓘᓐᓃᑦ ᐊᕙᑎᖓᓄᑦ ᐱᔾᔪᑎᖃᖅᑎᑦᑎᔪᑦ ᓈᒻᒪᑦᖅᑐᓂᑦ ᓴᖅᑭᖅᑎᑕᐅᓗᑎ ᖃᐅᔨᑎᑦᑎᒍᑎᐅᓗᑎ ᑭᖑᑉᐸᐃᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᖏᓐᓄᑦ.

December 3, 2020

To: Derek Mahoney, Chair - Northern Precautionary Approach Working Group (NPAWG)
From: Alastair O'Rielly, Northern Coalition
Brian Burke, Nunavut Fisheries Association
RE: Northern Precautionary Approach Working Group (NPAWG)

Good day Derek,

The Northern Coalition (NC) and Nunavut Fisheries Association (NFA) are writing this letter in response to the November 30th meeting of the Northern Precautionary Approach Working Group (NPAWG) and specifically the CSAS document and advice discussed at this meeting. Combined the NC and NFA represent all commercial fishing interests in Canada's Eastern Arctic, a group of Indigenous-owned companies that hold seven of the 17 offshore shrimp licenses, 100% of the shrimp allocations in the Western Assessment Zone (WAZ) and 65.9% of the shrimp allocations in the Eastern Assessment Zone (EAZ). From an economic perspective, these EAZ and WAZ allocations are extremely important to the viability of our members, especially given the recent reductions in allocations in Shrimp Fishing Areas (SFAs) 4 and 5.

From our joint perspective, any discussion and recommendations of the NPAWG must be cognisant of the respective Land Claims Agreements and the critical role of the Wildlife Management Boards.

The CSAS advice seeks to move the Limit Reference Points (LRP) for all shrimp stocks in the Eastern and Western Assessment Zones from 30% of the mean spawning stock biomass (SSB) to 40% of the SSB, a 1/3 increase in the LRP, predicated on inadequate science information and a presumption that this increase could provide for earlier and more effective response measures to reductions in the SSB.

The correspondence to you from Mr. Bruce Chapman of the Canadian Association of Prawn Producers (CAPP) provides a thoughtful and well articulated critique of the proposed shift in the LRP for stocks in the EAZ and WAZ shrimp areas. We generally concur with the perspective contained in this letter and look forward to receiving further information from the Department on use of 40% LRPs in other relevant shrimp stocks throughout the North Atlantic. From our perspective, the most relevant stocks would be those in the SFA 1 to 7 complex, all of which we understand utilize LRPs set at 30% of the SSB.

The assertion that the risks of stock decline in the North are greater than in southern stocks is implausible. SFA 4, 5 and 6 have all experienced precipitous declines in biomass in recent years. SFA 5 has seen a 43.6% decline over the past two years. We do not understand that there is evidence to suggest that a 40% LRP for these stocks would have produced a more expeditious management response that could have arrested these reductions. It is generally recognized that neither the unprecedented growth in shrimp biomass levels during the 1990s, nor the dramatic declines of recent years are correlated with fishery removal levels.

Survey variability for *Pandalus borealis* and *montagui* in the EAZ and WAZ areas are extreme and may not necessarily reflect interannual biomass variability. Application of a 40% LRP for these stocks, particularly given extreme shifts in biomass indices, holds the potential risk of inducing a series of dramatic oscillations in management responses which are unlikely to mitigate stock declines, would prove very disruptive to fishing operations and potentially undermine the credibility of Canada's resource management regime. Based on the information and materials provided thus far, we see no benefits to an arbitrary shift in the LRP for these stocks.

This approach by the Arctic region to implement restrictions on fishing activity which are inconsistent with DFO's decisions in other regions is reflective of recent decisions and recommendations made on several other issues, most recently the Arctic region's opposition to a 5% increase in the 0A/0B turbot quotas and revisions to the turbot conversion factor to be consistent with changes in the south. Both NC and NFA strongly oppose this inequity in approach for different regions, particularly when dealing with the same stock complexes, which is also contrary to DFO's stated goal of regional consistency.

The CSAS document also recommends a very significant increase in the LRP and USR for the EAZ based on additional years of data. For both the EAZ and WAZ we have some concerns regarding the potential setting of LRPs and USRs at periods of high stock levels, which may not be sustainable in the long-term, thus impacting negatively on future allocation levels, as witnessed in SFA 6.

We also note concern with the composition of the meeting attendees at the May 12-13, 2020 meeting on Science Advice on Limit Reference Points for Northern Shrimp and Striped Shrimp in the Western and Eastern Assessment Zones. Other than the respective Nunavut and Nunavik Management Board representatives, the meeting was dominated by representation from the Arctic region and the only non-DFO attendee was a recent DFO Science employee. Having other academic and industry science and technical participation would be appropriate.

Moving the LRP to 40% was presented as a 'fait accompli' further to the outcome of the May 2020 Canadian Science Advisory Secretariat meeting. We note that the Research Document 2020/072 dated November 2020 states on page iv that "The intent of this document is to serve as a source of supporting information to provide advice to DFO Resource Management, consistent with the Department's PA Framework in support of the sustainable management of these fisheries." Your presentation at the Working Group meeting indicated that the CSAS process is not an advisory function with respect to the setting of Limit Reference Points but has de facto decision-making authority within DFO's PA Framework.

Finally, we are very appreciative of the work of DFO Science and the challenges in monitoring and analyzing an extremely dynamic marine environment with a dearth of critical biological and environmental data. However, the recommended move to increase the LRP for EAZ and WAZ Shrimp does not appear to be based "on biological criteria', nor can it be demonstrably linked to "stock status below which serious harm is likely occurring to the stock."

As discussed, we request that the next meeting of the NPAWG include the full group and a fulsome discussion on these issues.

Sincerely,

Alastair O'Rielly
Executive Director, Northern Coalition

Brian Burke
Executive Director, Nunavut Fisheries Association

cc: Arran McPherson – Assistant Deputy Minister, Ecosystems and Oceans Science
Sylvie Lapointe – Assistant Deputy Minister, Fisheries and Harbour Management
David Whorley – Chair, Northern Shrimp Advisory Committee (NSAC)
Adam Burns – Director General, Fisheries Management
Courtney D'Aoust – Fisheries and Aquaculture Management Officer, DFO
Daniel Shewchuk, Chair – Nunavut Wildlife Management Board (NWMB)
Robert Moshenko, A/Chair - Nunavik Marine Region Wildlife Board (NMRWB)
Jason Akearok, Executive Director, NWMB
Janelle Kennedy, Executive Director, NMRWB
Bruce Chapman – Canadian Association of Prawn Producers (CAPP)

Good afternoon:

Before our NPAWG session tomorrow, I thought that it would be useful to recap our discussions and to provide an assessment of where we are in our work with respect to key elements in development of a Precautionary Approach (PA) Framework. In addition, I can report on discussions I have had internally with my DFO colleagues and management. My hope is that this update will help to focus our discussions tomorrow and give indication of what we might be able to accomplish in our remaining time before reporting to NSAC, and providing information to the Nunavut Wildlife Management Board and the Nunavik Marine Region Wildlife Board (the Boards).

As chair of this working group, I would first thank each of you for your participation in the group and for your flexibility in making yourself available, particularly as times have shifted for a number of our meetings. I have tried to guide discussions in a way that promoted open dialogue, with my ultimate goal being a consensus recommendation to NSAC. I believe that would be the best outcome for all involved. However, while consensus is a worthwhile goal, working groups like NPAWG are not a decision-making bodies. At the conclusion of our work, the Minister, in keeping with co-management processes with the Boards, will take decisions on the PA Framework for shrimp fisheries in the Eastern Assessment Zone (EAZ) and the Western Assessment Zone(WAZ). These decisions will, therefore, be informed by either consensus recommendations or the various views of our group.

Limit Reference Points (LRP)
As discussed in detail in our early sessions, the LRP for shrimp stocks in the EAZ and WAZ are established by DFO Science through peer-review, in accordance with DFO's PA policy. While our work as NPAWG is limited to non-LRP elements of the PA, I took from our discussions and from written submissions from working groups members that there are general concerns related to the uncertainties associated with EAZ and WAZ shrimp stocks. These concerns were partly reflected in members' calls for a review, in the near term, of these LRPs. I will address the idea of such a review later in this note.

Upper Stock Reference (USR)
The bulk of our discussions to this point have centered around USRs and the variability of stock status for shrimp in these areas. The data points that collectively produce this variability represent our best available science and, therefore, our clearest expression of stock status. However, given influences beyond fishing mortality and the lack of trends that can be derived from relatively limited time series, some NPAWG members felt that measures should be taken to mitigate the effects of this variability. These measures included the suggestion of a USR established at 70% of the geometric mean of SSB, where averaging of multiple (2 or 3 year) stock status data points would be used to determine stock status relative to established

reference points. DFO Science has been clear that stock status needs to be represented as a single data point rather than an average. In reaction to this position, some working group members then proposed that a USR not be developed and instead the NPAWG focus on a target reference point (TRP) to satisfy Marine Stewardship Council (MSC) certification conditions. These measures would effectively reduce, or eliminate, the potential for stocks to enter a defined cautious zone, which industry members have stated is significantly harmful to product marketability.

From DFO's perspective, stock status is exclusively within our Science sector's area of responsibility and a single-year value is the clearest expression of that status for a given point in time. Additionally, USRs are an integral part of DFO's PA policy, primarily serving as a point sufficiently above the LRP "to provide an opportunity for the management system to recognize a declining stock status and sufficient time for management actions to have effect". In keeping with DFO's PA policy, the USR is critical is defining the boundary between the Healthy and Cautious zones and DFO continues to report in this context through the annual Sustainability Survey for Fisheries.

It is true that DFO does manage some fisheries for which USRs are not in place, including in the WAZ. However, it is a policy priority for the Department to establish complete PA Frameworks for Canada's fisheries that include a USR. The establishment of a TRP without an accompanying (or dual purpose) USR would represent a departure from this priority. This would be particularly pertinent in the EAZ where a USR has been in place for a number of years.

For these reasons, I believe a recommendation from NPAWG to move forward without USRs is unlikely to be accepted by the Minister. The development, however, of a distinct TRP in addition to a USR could be a productive effort for this group in my view.

Harvest Control Rules (HCRs)
Secondary to reference points has been NPAWG's consideration of HCRs for shrimp fisheries in the EAZ and WAZ. I note that HCRs are not an outstanding MSC condition for these fisheries. In my experience, the development of HCRs is best to follow the establishment of reference points, so that the potential impacts of their application can be assessed relative to defined biomass values. It is my feeling that we are unlikely to revisit the HCRs for EAZ and/or contemplate the development of HCRs for the WAZ in our time remaining before the March 9, 2021, meeting of NSAC.

Review Provision
Given the limited time series and uncertainty surrounding the stocks in the EAZ and WAZ, many group members stated a strong preference for the PA to be reviewed in the near-term (i.e., 2-5 years). Members suggested the benefit of doing so with the aid of additional survey and, preferably, incremental science work that could provide some information related to environmental and ecological influences on these stocks.

From discussions I have had and from my own perspective, an expiry date on a PA Framework is unlikely to be supported by DFO decision-makers. Further, there could be implications for MSC certification in the event a PA Framework (including reference points) is not in place. A review after a certain time period may be a better way to proceed rather than a predefined expiry. In the very short-term, I do not believe the knowledge of these stocks is likely to sufficiently increase to the extent that we could expect any difference in the outcome of a similar process to what we are now undertaking. For this reason, I would suggest that NPAWG recommend a review of reference points (and any additional components of a PA Framework) in 4 or 5 years (i.e., in 2025 or 2026).

NPAWG may wish to consider the usefulness of establishing a committee to undertake this review and ultimately consider the merit of modifying the PA framework. Such a group would likely best be composed of DFO and non-DFO members. Associated with the notion of available data, NPAWG may also wish to emphasize the need for additional science to improve environmental knowledge as part of its report to NSAC and the Boards.

Path Forward

As I see it, tomorrow's (February 5) meeting will be important in determining if there is basis to continue the NPAWG process of developing elements of a PA framework for these stocks. If that proves the case, I believe we could plan 1-2 additional sessions before turning our focus to the development of a report.

Once again, thanks for your participation in NPAWG sessions. I look forward to our coming discussions.

Regards,

Derek Mahoney

From:	Brian Burke
To:	Jason Akearok
Cc:	Amber Giles; Denis Ndeloh
Subject:	FW: NPAWG update Feb 4 / GTAPN mise a jour 4 fév
Date:	Friday, February 5, 2021 10:43:31 AM
Attachments:	DMahoney_Letter_to_NPAWG_Feb_4_2021_English.DOCX

Good morning,

Due to the late sending of this note and its content, which dismisses any suggestions made by stakeholders in favour of a dictated DFO approach to PA in the WAZ and EAZ, NFA has boycotted today's NPAWG meeting.

It is my understanding that DFO intends to make a submission on the NPAWG to the NWMB for its March meeting. From a NFA perspective, this late date does not provide adequate time for us to prepare and submit a detailed paper on our views regarding the PA approach in the WAZ and EAZ. However, if DFO does make a submission for decision at the upcoming meeting which is based on the approach outlined in this note from the NPAWG Chair, this is an approach which does not have the support of NFA or any other industry participants in the WAZ and EAZ shrimp fisheries. As such, we would ask for the opportunity to provide input at the March meeting and request a call for written submissions take place for the following meeting.

As per our prior NFA and industry correspondence on this critical issue, we entered into the "working group" process in good faith with the belief that, as a working group, reasonable approaches that do not impact on the stock status but do take into account the potential socio-economic impacts on industry would be fully considered, leading to a negotiated consensus agreement on the way forward. Unfortunately, this does not appear to be the case and rather than being coopted by our participation in the "working group" being seen as acceptance, we have taken the decision to, for the present time at least, remove ourselves from this flawed process.

As with other issues impacting the Nunavut fishery, it is our view that the NWMB has a very strong decision and recommendation making role and mandate, and we look forward to the NWMB exercising this authority for the benefit of Nunavut and Nunavummiut.

Regards,

Brian Burke
Executive Director
Nunavut Fisheries Association (NFA)
Tel: (709) 351-7263

From: D'Aoust, Courtney <Courtney.D'aoust@dfo-mpo.gc.ca>
Sent: February 4, 2021 5:17 PM
To: D'Aoust, Courtney <Courtney.D'aoust@dfo-mpo.gc.ca>

Subject: NPAWG update Feb 4 / GTAPN mise a jour 4 fév

Sent on behalf of Derek Mahoney, Chair, Northern Precautionary Approach Working Group (NPAWG)

Good afternoon, please find attached a **note from the Chair** in regards to tomorrow's discussion. A copy is also available in the NPAWG Dropbox.

Session Title	Objectives	Sub-group(s) to attend	Date & Time
USR 3: EAZ & WAZ stocks	Discuss reference points (Borealis + Montagui)	WAZ & EAZ	**Friday February 5** 9 AM – 11 AM EST (2 hours) Join Zoom Meeting https://zoom.us/j/93998895525?pwd=clpnYWVRQkZkUzdvYTVrTFFMTDcvZz09 Meeting ID: 939 9889 5525 Passcode: 761300 1-855-703-8985 Canada Toll-free **interpretation not available*

Thank you.

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Envoyé de la part de Derek Mahoney, Président, Groupe de travail sur l'approche de précaution du Nord (GTAPN)

Bonjour, veuillez trouver ci-joint une **note du président** concernant la discussion de demain. Une copie est également disponible au Dropbox GTAPN.

Titre de la session	Objectifs	Sous-groupe(s) à assister	Date et heure
PRS 3: stocks ZEE & ZEO	Discuter les points de références (Borealis + Montagui)	ZEO & ZEE	**Vendredi le 5 février** 09h00 – 11h00 heure de l'est (2 heures) Rejoindre la réunion Zoom https://zoom.us/j/93998895525?pwd=clpnYWVRQkZkUzdvYTVrTFFMTDcvZz09 ID de la réunion: 939 9889 5525 Passcode: 761300 1-855-703-8985 Canada gratuit **interprétation non disponible*

Merci.

Courtney D'Aoust
Fisheries and Aquaculture Management Officer |
Agent, Gestion des pêches et de l'aquaculture
Fisheries and Oceans | Pêches et océans
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Nunavut Fisheries Association

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ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᓂᒧᑦ ᑲᑎᒪᔨᓄᑦ

ᐃᓱᒪᒃᓴᕐᓯᐅᕈᑕᐅᓂᐊᕐᑎᓪᓗᒋᑦ ᐊᒻᒪ ᐊᑐᓕᕐᑯᔨᕚᖑᕈᑕᐅᓂᐊᕐᑎᓪᓗᒋᑦ

ᐱᔾᔪᑕᐅᔪᖅ: ᐱᔪᓇᐅᑎᖃᓂᕐᒧᑦ ᐊᑭᓖᒋᐊᖃᕐᑎᑕᐅᓂᖏᑦ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᔾᔪᒃᑯᓐᓄᑦ ᑲᓇᑕᒥ ᐃᒪᕐᒥᐅᑕᓕᕆᔾᔪᒃᑯᓐᓄᑦ ᑭᖑᓂᐊᕈᓐᓇᕐᓂᕐᒧᑦ ᑭᓪᓕᓕᐅᕐᑕᐅᓯᒪᓂᐊᒍᑦ ᓂᒋᕐᐸᓯᐊᓂ ᐊᒻᒪ ᐅᐊᓕᓂᕐᐸᓯᐊᓂ

ᐱᔪᓇᕐᓂᖃᕐᑎᑕᐅᓂᖅ

ᐃᖃᓗᒐᓇᕐᓂᕐᒧᑦ ᐊᑭᓕᐅᕌᑦ ᐊᑐᕐᑕᐅᒪᓂᒪᑕ ᓂᐅᕕᐊᒃᓴᓂᒃ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᒥᐊᓂᕐᓯᔪᑎᑎᒍᑦ, ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ ᐅᒃᐱᕆᔭᖃᕐᑐᑦ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᔨᕐᔪᐊᑦ ᑲᑎᒪᔨᖏᑦ ᐊᑲᐅᓈᕋᓱᒋᓪᓗᒋᑦ ᑕᒪᒃᑯᓂᖓ ᑲᒪᒋᐊᖅ. ᒪᓕᓪᓗᒍ ᐅᓇ Section 5.2.34 (d) ᓄᓇᕘᑕᕐᓯᒪᓂᕐᒧᑦ ᐊᖏᖃᑎᒌᒍᑎᓅᑐᖅ, ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᕐᔪᐊᑦ ᐱᔪᓇᕐᓂᖃᒪᑦ ᐃᓱᒪᓕᐅᕈᑎᖃᕆᐊᖅ ᐸᕐᓇᒃᑕᐅᔪᓂᒃ ᐅᑯᓄᖓ *"(i) ᒥᐊᓂᕐᓯᓂᖅ, ᖃᓄᐃᑦᑑᓂᖏᓐᓂᒃ ᓇᓗᓇᐃᔭᐃᓂᖅ, ᓴᐳᒻᒥᓂᖅ, ᐅᓄᕐᓯᑎᕐᓯᕆᐊᕐᓂᖅ ᐅᕙᓗᓐᓃᑦ ᐱᕈᖅᑎᕐᓯᕆᐊᓪᓚᓐᓂᖅ, ᑲᒪᕐᓯᐊᕐᓂᖅ ᐆᒪᔪᓂᒃ ᐅᕙᓗᓐᓃᑦ ᐃᕐᓂᐅᕐᐸᓐᓂᖏᑦ ᐆᒪᔪᑦ..."ᒪᓕᓪᓗᒍ ᒪᓕᒐᖅ* Section 5.3.8, ᐊᐅᓚᕐᓯᒍᑕᐅᔪᖅ ᐆᒥᖓ section 5.2.34, *"ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᕐᔪᐊᑦ ᐃᓱᒪᓕᐅᕈᑎᖃᓂᐊᒍᑦ, ᑐᓂᔭᐅᓂᐊᕐᑎᓪᓗᒋᑦ ᐃᓱᒪᓕᐅᕈᑎᒋᔭᖓ ᒥᓂᔅᑕᒧᑦ."*

ᓱᓇᐅᓂᖏᑦ ᐅᖃᐅᓯᕆᔭᑦ

ᐃᖃᓪᓚᐊᕈᓇᕐᓂᕐᒧᑦ ᐊᑭᓕᐅᑕᐅᕙᑦᑐᑦ ᐱᖁᓯᐅᓯᒪᒻᒪᑕ ᓄᓇᖃᖅᑳᕐᓯᒪᔪᑦ ᐊᓯᓖᒪᑲᓴᖏᑕ ᐃᖃᓪᓚᐊᕈᓇᕐᓂᕐᒧᑦ ᐊᐅᓚᑕᐅᓯᒪᓕᕐᑎᒃ ᓄᓇᖃᖅᑳᕐᓯᒪᔪᑦ ᓄᓇᑖᕐᓯᒪᓂᖏᑎᒍᑦ ᐱᕐᑯᔭᕐᔪᐊᑎᒍᒍᑦ, ᐊᖏᖃᑎᒋᒍᑕᐅᓯᒪᔪᑎᒍᑦ, ᐅᕙᓗᓐᓃᑦ ᐊᓪᓚᓄᑦ ᐊᖏᕈᑕᐅᓯᒪᔪᑎᒍᑦ. ᐃᖃᓗᒐᓇᐅᓂᒃ ᐊᑭᓕᕐᑐᐃᓂᖅ ᐋᖅᑭᒃᓯᒪᑦᓯᐊᑐᒃᑯᑦ ᐊᑐᕐᑕᐅᑦᓯᐊᕐᓗᑎᒃ, ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ ᐊᑲᐅᖏᓕᐅᑎᖃᖅᑎᒻᒪᑕ ᐊᑭᓕᕐᑐᐃᒋᐊᖅ ᐃᖃᓗᒐᓇᕐᓂᕐᒧᑦ. ᑭᓯᐊᓂ, ᐱᖓᓇᕐᐸᓯᐊᓂ ᑭᓪᓕᓕᐅᕐᓯᒪᔪᒥ ᐊᒻᒪ ᐱᖓᓇᕐᐸᓯᐊᓂ ᑭᓪᓕᓕᐅᕐᓯᒪᔪᒥ ᑭᖑᓂᐊᕐᕖᖃᓂᖅ ᒫᕐᕈᓂᒃ ᐱᔾᔪᑎᖃᒪᑕ ᐊᑭᓖᒋᐊᖃᓂᕐᒧᑦ ᐃᓚᐅᒍᑎᒥᓂᒃ ᑲᒪᒋᔭᐅᒋᐊᓪᓚᓐᓂᒃ ᐱᔾᔪᑎᖃᓗᑎᒃ ᐃᓚᐃᓐᓇᕆᐊᖃᕐᖏᓐᓂᕐᒥᒃ. ᐅᓪᓗᒥ, ᑭᖑᓂᐊᕈᓐᓇᕐᓂᕐᒧᑦ ᐊᑭᓕᐅᑏᑦ ᐊᔾᔨᒋᑎᑕᐅᕙᖏᒪᑕ ᓂᐅᕕᐊᕐᓴᓕᐅᕐᓂᒃᑯᑦ ᑲᒪᒋᔭᐅᓂᖏᑎᒍᑦ ᑲᓇᑕᒥ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᓄᑦ ᑭᖑᓕᕆᓂᕐᒧᑦ (ᑕᒪᐃᓐᓂᒃ ᑭᖑᕐᐸᐃᑦ ᐊᒻᒪ ᑭᖑᑐᐃᓇᐃᑦ) ᐊᑭᖑᒍᑕᐅᕙᒻᒪᑕ $67.96/ᑕᓐᓗᑦ. ᑭᖑᓂᐊᕈᓇᕐᓂᕐᒧᑦ (ᐊᖏᓂᕐᓴᓂᒃ, montagui),ᓂᒃ ᐊᑭᓕᐅᑏᑦ ᐱᖓᓇᕐᐸᓯᐊᓂ ᑭᓪᓕᓕᐅᕐᑕᐅᓯᒪᓂᐊᒍᑦ ᓄᓇᑖᕐᓯᒪᓂᒃᑯᑦ, ᑲᓇᑕᒥᓗ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᖏᑦ ᐊᑐᖃᑦᑕᕐᒪᑕ ᑭᖑᓂᐊᕐᓂᕐᒧᑦ ᐊᖏᓂᕐᓴᓂᒃ ᐊᑭᖑᑎᓂᒃ ᐊᑐᕐᑕᐅᔪᓂᒃ ᓄᓇᑖᕆᔭᐅᓯᓯᒪᖏᑦᑐᓂ. ᑖᒪᓇ ᐱᖁᓯᕆᔭᖓ ᐋᖅᑭᒃᑕᕖᓂᐅᔫᒃᓴᐅᔪᖅ ᑲᒪᒋᔭᐅᕙᓪᓚᐊᕐᓯᐊᕐᓯᒪᓗᓂ, ᑕᒪᐃᓐᓂ ᓄᓇᓄᒻᒥ ᐊᒻᒪ ᓄᓇᕕᒻᒥ.

ᐱᖓᓇᕐᐸᓯᐊᓂ ᑭᓪᓕᓕᐅᕐᑕᐅᓯᒪᔪᒥ ᐊᑭᓕᒍᑎᑦ ᑭᖑᓂᐊᕈᓇᕐᓂᕐᒧᑦ

- ᐱᖓᓇᕐᒥ ᑭᓪᓕᓕᐅᕐᑕᐅᓯᒪᓂᐊ ᐊᑯᓂᖓᓂᕐᐳᖅ ᓄᓇᑖᕆᔭᐅᓯᒪᔫᑉ ᓄᓇᓄᒻᒥ ᐊᒻᒪ ᓄᓇᕕᒻᒥ, ᐃᒫᒃ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᕐᔪᐊᓄᑦ ᐊᐅᓚᑕᐅᓂᖃᕐᓱᓂ. ᑕᐃᒪᖓᓂᑦ ᑭᖑᐸᑦᑕᓕᕆᓂᕐᒧᑦ ᐊᒻᒪ ᑭᖑᑕᐃᓇᓕᕆᓂᕐᒧᑦ

ᓄᓇᕗᒻᒥ ᐃᖃᓗᒡᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ
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ᐋᖅᑭᒃᑕᐅᓚᐅᕐᓯᒪᒻᒪᑕ ᑭᓪᓕᓕᐅᕐᓯᒪᔾᒃᑯᑦ, ᒪᓕᑦᓱᒋᑦ ᖃᐅᔨᓴᕐᑕᐅᓯᒪᔪᑦ ᐊᑭᓕᕐᑕᐅᓯᒪᓪᓗᑎᒃ ᓂᐅᕕᐊᒃᓴᓕᐅᕐᑎᓄᑦᐊᒻᒪ ᐊᓯᙵᓂᒃ ᐃᓚᐅᖃᑕᐅᔪᓄᑦ ᓄᓇᕗᒻᒥ ᐊᒻᒪ ᓄᓇᕕᒻᒥ, ᑲᓇᑕᐅᑉ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᖏᑦ ᐊᑭᓕᑎᑦᓯᖃᑦᑕᕐᓯᒪᔪᑦ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᓂᒃ ᑭᙳᓂᐊᕈᓐᓇᕐᓂᕐᒧᑦ ᑕᒪᐃᓐᓂᒃ ᐊᖏᓂᖅᓴᓂᒃ ᒥᒃᓂᖅᓴᓂᓪᓗ ᐊᔾᔩᑦᑎᑐᐃᓐᓇᕐᓱᒋᑦ ᐊᑭᓕᕈᓯᐅᓂᖏᑦ. ᑲᑎᓪᓗᒋᑦ, ᐅᓪᓗᒥ ᐃᖃᓗᓐᓂᐊᕈᓐᓇᐅᑎᓂᒃ ᐊᑭᓖᑎᑕᐅᕚᒻᒪᑕ ᓄᓇᕗᒻᒥ ᓂᐅᕕᐊᒃᓴᐅᕐᓂᒃᑯᑦ ᒥᑭᓂᖅᓴᓂᒃ ᐊᒻᒪ ᐊᖏᓂᖅᓴᓂᒃ ᑭᙳᓐᓂᒃ ᐱᖓᓐᓇᖓᓂ ᑭᓪᓕᓕᐅᕐᑕᐅᓯᒪᔾᒃᑯᑦ ᐃᒪᐃᓪᓗᐊᕐᑐᓂᒃ $514,389 ᐊᕐᕌᒍᑕᒫᑦ.

- ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ ᖃᐅᔨᒃᑲᕐᑕᐅᓯᒪᔪᑦ ᓄᓇᕕᒻᒥ ᐃᖃᓗᓕᕆᔨᒃᑯᑦ ᐊᑭᓖᓯᒪᖏᒻᒪᑕ ᐊᑭᓕᕆᐊᓕᓐᓂᒃ ᐃᖃᓗᓐᓂᐊᕈᓐᓇᕐᓂᕐᒧᑦ ᐱᖓᓐᓇᕐᐸᓯᐊᓂ ᑭᓪᓕᓕᐅᕐᑕᐅᓯᒪᔾᒃᑯᑦ ᑕᐃᒪᙵᓂᑦ ᐃᖃᓗᓕᕆᓂᖅ ᐱᒋᐊᓚᐅᕐᓯᒪᑎᓪᓗᒍ. ᑐᑭᓯᐊᔭᐅᒻᒪᑦ ᐃᓖᒃ ᓄᓇᕕᒻᒥ ᐃᖃᓗᓕᕆᔨᒃᑯᑦ ᑐᑭᓯᐊᒻᒪᑕ ᒪᓕᑦᓱᒋᑦ ᓄᓇᕕᒻᒥ ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᕐᔪᐊᑦ, (NMRWB) ᒥᐊᓂᕐᓯᒪᑕ ᐊᒻᒪ ᑕᐃᒪᐃᒻᒪᑦ ᐊᑭᓖᒋᐊᖃᕐᑐᒋᖏᑦᑐᑦ ᐃᖃᓪᓕᐊᕈᓐᓇᕐᓂᕐᒧᑦ ᐊᑭᓕᕆᐊᓕᓐᓂᒃ.
- ᐊᔾᔨᒋᓇᓂᐅᒃ, ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒋᙵᓄᑦ ᐃᓚᐅᔪᑦ ᐊᑭᖀᖃᑦᑕᕐᓯᒪᔪᑦ ᑕᒪᐃᓐᓂᑲᓴᒃ ᐃᖃᓗᒍᓐᓇᕐᓂᕐᒧᑦ ᐊᑭᓕᕆᐊᓕᓐᓂᒃ ᐱᖓᓐᓇᖓᓂ ᑭᓪᓕᓕᐅᕐᑕᐅᓯᒪᔪᒥ, ᐃᓖᒃ ᐊᑕᐅᓯᖅ ᐃᓚᐅᔪᖅ ᐃᓱᐃᓪᓕᑎᑦᓯᓂᕐᒪᑦ ᐊᑭᓕᕆᐊᓕᓐᓂᒃ ᖃᐅᔨᒪᓕᕐᓱᓂ ᖃᓄᐃᓕᖓᓕᕐᓂᖏᓐᓂᒃ ᓄᓇᕕᒻᒥ. ᒥᓕᐊᓃᑦᑐᓂᒃ ᐃᖃᓗᓐᓂᐊᕈᓐᓇᕐᓂᕐᒧᑦ ᐊᑭᓕᐅᑎᓂᒃ ᐊᑭᓕᕐᑕᐅᓯᒪᔪᑦ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᒃᑯᑦ.
- ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ ᐊᒻᒪ ᑐᑭᓯᐊᔪᑦ ᐊᓪᓚᐃᑦ ᓄᓇᖏᓐᓂ ᖃᓪᓗᓈᓂ ᑭᓪᓕᓕᐅᕐᑕᐅᓯᒪᔾᒃᑯᑦ ᐊᑮᒋᐊᖃᕐᐸᖏᑦᑐᑦ ᐃᖃᓗᒍᓇᐅᑎᓂ ᓄᓇᒋᔭᒥᓂ ᓇᓗᓇᐃᕐᑕᐅᓯᒪᔪᓄᑦ.
- ᐊᕐᕌᒍᑕᒪᕐᓯᐅᑎᒃ ᖃᓄᑎᒋᖅ ᑭᙳᖃᒪᙶᑦ/ᐃᖃᓗᖃᒪᙶᑦ ᖃᐅᔨᓴᕐᓂᖅ ᐱᖓᓐᓇᖓᓂ ᑭᓪᓕᓕᐅᕐᑕᐅᓯᒪᔾᒃᑲᑦ ᐱᔭᕇᕐᑕᐅᔪᑦ ᐅᑭᐅᕐᑕᕐᑐᒥ ᑭᙳᓐᓂᒃ ᖃᐅᔨᓴᕐᓂᕐᒧᑦ ᑎᒥᐅᔪᒧᑦ (NSRF), ᐃᒪᕐᒥᐅᑕᓕᕆᓂᕐᒧᑦ ᑎᒥᐅᔪᒧᑦ, ᐊᒻᒪ ᐊᑭᓕᕐᑕᐅᓯᒪᓪᓗᑎᒃ ᐊᑕᖏᕐᓱᒋᑦ ᐱᓕᕆᖃᑕᐅᑎᐅᔪᑦ ᓄᓇᕗᒻᒥ ᐊᒻᒪ ᓄᓇᕕᒻᒥ, ᐱᖃᓯᐅᑎᓪᓗᒋᓪᓗ ᐃᖃᓗᓕᕆᓂᖅ ᐊᒻᒪ ᒐᕙᒪᖏᑦ ᓄᓇᕗᒻᒥ. ᓇᓪᓕᒋᐊᕐᓯᒪᔪᓂ ᐅᐃᒍᐊᕈᓯᐊᓂ Appendix 1,ᒥ, ᐱᒋᐊᕐᑎᑦᓯᓕᓚᐅᕐᓯᒪᔪᖅ ᖃᐅᔨᓴᕐᓂᕐᒥᒃ 2014,ᒥ, ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ ᐊᑮᓚᐅᕐᑐᑦ ᓴᓂᐊᓂ $1.3 ᒥᓕᐊᓐ ᑕᒪᑐᒧᖓ ᖃᐅᔨᓴᕐᓂᕐᒧᑦ ᐊᑭᖏᑦ, ᐊᒻᒪ 55.1%,ᓂᒃ ᑲᑎᑦᓱᒋᑦ ᐊᑭᖏᑦ. ᑲᑎᑦᓱᒋᑦ, ᓄᓇᕗᒻᒥ ᐱᓕᕆᖃᑕᐅᔪᑦ ᐊᑮᓯᒪᔪᑦ 76.3%,ᓗᐊᙵᓂᒃ ᑖᒃᑯᐊ $2.35 ᒥᓕᐊᓐ ᐃᑲᔪᕈᑕᐅᔪᑦ NSRF,ᑯᓐᓄᑦ ᑕᐃᒪᙵᓂᑦ 2014,ᒥᑦ ᐊᑐᕐᓂᐊᕐᑐᓂᒃ ᖃᐅᔨᓴᕐᓂᕐᒧᑦ. ᑲᓇᑕᒥ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐃᑲᔪᕐᓯᓯᒪᖏᑦᑐᑦ ᐊᑮᓂᒃᑯᑦ ᑕᒪᒃᑯᓂᖓ ᐱᒪᕆᐊᓗᓐᓂᒃ ᖃᐅᔨᓴᕈᑎᒃᓴᓂᒃ ᐊᕐᕌᒍᑕᒫᑦ.
- ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᑦ ᐃᓱᒪᓕᐅᕐᑯᔨᕗᑦ ᑲᑎᒪᔨᓂᒃ ᐱᔾᔪᑎᖃᓗᑎᒃ ᑲᓇᑕᒥ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᑦ ᐱᔪᓐᓇᕐᓂᖃᒪᙺᑕ ᐊᑮᑎᑦᓯᒋᐊᖅ ᑭᙳᓪᓕᐊᕈᓪᓚᕐᓕᕐᓄᑦ ᐃᒧ,ᔨᐅᕈᑕᐅᓇᐊᖃᕐᑎᓪᓗᒋᑦ ᓄᓇᕕᒻᒥ ᑲᑎᒪᔨᕐᔪᐊᓄᑦ ᑲᑎᒪᔨᑦ ᐃᓚᐅᑎᓐᓇᒋᑦ ᐊᖏᖃᑎᒌᖃᕐᓂᐅᑉ ᐊᒻᒪ ᐊᖏᕐᓂᐅᑉ ᒥᒃᓵᓄᑦ.
- ᐊᒻᒪᓗ, ᐊᖏᓂᖅᓴᐃᑦ ᑭᙳᐃᑦ ᐊᑭᑭᓐᓂᖅᓴᒻᒪᕆᐅᓯᒪᒻᒪᑕ ᒥᑭᓂᖅᓴᓂᑦ ᑭᙳᑐᐃᓐᓇᕐᓂᑦ ᓂᐅᕕᕐᕕᓂ ᑕᐃᒪᙵᓕᒫᑲᓴᒃ, ᐅᖃᐅᓯᕆᔭᐅᓯᒪᔪᑦ ᐅᐃᒍᐊᕈᓯᕐᒥ ᐅᕙᓂ Appendix 2,ᒥ, ᑲᓇᑕᐅᑉ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᖏᑦ ᐊᑮᑎᑦᓯᖃᑦᑕᕐᓯᒪᔪᑦ ᑕᐃᒫᑦᓴᐃᓐᓇᖅ ᐃᖃᓗᒍᓐᓇᐅᑎᓂᒃ ᑕᒪᑮᓄᑦ ᑭᙳᓐᓄᑦ ᑖᓐᒥᒃ ᑕᒪᐃᓐᓄᑦ. ᑖᓐᓇ ᐊᒃᓱᐊᓗᒃ ᐊᖏᔪᖅ ᐊᕐᕋᒍᑦᑎᓐᓂ

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ᑕᒪᒃᑯᐊ ᐊᖏᓂᖅᓴᐃᑦ ᑭᖑᐃᑦ ᐊᑭᖏᑦ ᒥᑭᓪᓕᒋᐊᕐᓯᒪᔪᒪᓇᐅᒪᑕ, ᓱᕐᓗ ᐃᒫᒃ ᑕᒪᒃᑯᐊ ᑭᖑᓐᓂᐊᕈᓐᓇᕐᓂᕐᒧᑦ ᐊᑭᓕᐅᑕᐅᕙᑦᑐᑦ ᐱᔾᔪᑕᐅᓗᐊᕐᑐᑦ ᐅᑎᕐᕕᐅᕙᓐᓂᖏᑕ ᖃᓄᐃᓕᖓᓕᕐᓂᖏᓐᓄᑦ, ᐃᖃᓗᓕᓂᕐᒧᐊᖓᔪᑦ ᐊᑭᓕᐅᑏᑦ ᐊᑲᐅᓇᕋᓱᐊᒻᒪᓇᑦᓱᒋᑦ. ᐃᓚᐅᔪᖃᕐᑎᓪᓗᒍ ᐊᑕᐅᓯᕐᒥᒃ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᐊᑭᓕᖏᑦᑐᓂᒃ ᐱᕙᒃᓴᖃᓂᖅᓴᐅᕗᑦ ᓂᐅᕙᐊᒃᓴᓕᐅᓇᐊᖅ ᐊᖏᓂᖅᓴᓂᒃ ᑭᖑᓐᓂ ᓴᓂᐊᓂ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᐅᑉ.

- ᐃᓚᐅᔪᑦ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᓐᓄᑦ ᐊᐱᕆᕗᑦ ᓄᓇᕗᒻᒥ ᐅᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᓂᒃ ᐃᓱᒪᓕᐅᕈᑎᖃᕐᑯᓕᓗᒋᑦ ᐊᑐᓕᕐᑎᑕᐅᒋᐊᖃᓂᖓᓂᒃ ᑐᑭᓯᐊᖃᑦᑕᐅᑎᓂᕐᒨᖓᔪᒥᒃ ᖃᑦᓯᓂᒃ ᑭᖑᑦᑕᕈᓐᓇᕐᓂᕐᒧᑦ ᐊᑭᓕᐅᑎᓄᑦ ᒥᒃᓵᓄᑦ ᓄᓇᕗᑦᑕᕆᔭᐅᓯᒪᔪᒥ, ᐃᓚᐃᓐᓇᖏᓪᓗᑎᒃᐊᒻᒪ ᑲᔪᓯᑦᓯᐊᖏᓐᓇᕐᑐᒃᑯᑦ ᓄᓇᕕᒻᒥ.
- ᐱᓗᐊᕐᑐᒥᒃ, ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᔨᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ ᑐᒃᓯᕋᒪᑕ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᕐᔪᐊᓂᒃ ᐃᓱᒪᒃᓴᓯᐅᕈᑎᖃᕆᐊᖃᓂᕐᒧᑦ ᕿᒥᕐᕈᓕᕐᐸᑕ: ᐊᑭᑐᑎᑕᐅᓗᐊᕐᒪᑕ ᐋᖅᑭᓱᕐᓯᒪᔫᒃᑯᑦ ᐊᖏᓂᖅᓴᓄᑦ ᑭᖑᓐᓄᑦ ᓴᓂᐊᓂ ᐊᑭᑐᓂᖅᓵᒪᓇᐅᒪᑕ ᒥᑭᓂᖅᓴᓂᑦ ᑭᖑᓐᓂᑦ; ᑕᒪᓐᓇᓗ ᐊᑭᖏᓐᓄᑦ ᑭᖑᐃᑦ ᐊᑲᐅᓈᕋᓂ ᓄᓇᕗᒻᒥ ᐃᓄᐃᑦ ᑲᒪᑯᓂᖏᓐᓄᑦ ᓴᓂᐊᓂ ᓄᓇᕕᒻᒥ ᑲᒪᑯᓃᑦ, ᐊᒻᒪ ᐃᑲᔪᕐᓯᒪᔪᒪᓇᐅᑎᓪᓗᒋᑦ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᒪᑯᓂᓄᑦ ᑐᕌᖓᔪᓂᒃ ᖃᐅᔨᓴᕋᔭᕐᓂᕐᒧᑦ ᐊᑭᖏᓐᓄᑦ, ᑮᓇᐅᔭᐃᑦ ᑐᕌᖓᑎᓪᓗᒋᑦ ᖃᐅᔨᓴᕈᑕᐅᓚᔭᕐᑐᓄᑦ.

ᑲᓇᖕᓇᕐᐸᓯᐊᓂ ᑭᓪᓕᓕᐅᕐᑕᐅᓯᒪᓂᐊᒍᑦ ᑭᖑᑦᑕᕈᓐᓇᕐᓂᕐᒧᑦ ᐊᑮᒍᑕᐅᔪᑦ

- ᑲᓇᖕᓇᕐᐸᓯᐊᓂ ᖃᐅᔨᓴᕐᓂᕐᒧᑦ ᑭᓪᓕᓕᐊᓇᓯᒪᔪᖅ (EAZ) ᓯᓚᑖᓃᒻᒪᑦ ᓄᓇᑖᓇᔭᐅᓯᒪᔪᑦ NSA ᐊᓯᖏᑦ ᐅᑯᐊ NU/NK E). ᑕᒫᓂ ᑭᓪᓕᓕᐅᕐᑕᐅᓯᒪᔪᒥ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔩᑦ ᐱᓕᕆᖃᑕᐅᔭᕆᐊᖃᕐᒪᑕ ᐊᑐᓕᕐᑯᔨᕗᖕᒐᕈᑎᓂᒃ ᒥᓂᑦᑕᒨᐊᕐᑐᒃᓴᓂᒃ
- ᑭᖑᑦᑕᕐᕕᒃ (SFA) ᐊᔾᔨᒌᔭᐅᖏᓐᓂᖕᒐ ᐱᖕᒐᓱᓄᑦ ᑭᖑᑦᑕᕕᓐᓄᑦ (ᑭᓯᐊᓂ ᑭᖑᑦᑕᕐᕕᐅᔪᑦ ᑕᐃᒫᒃ), ᓱᕐᓗ ᕿᑭᕐᑖᓗᑉ ᐃᑭᖕᒐᑕ ᐱᖕᒐᓐᓇᖕᒐᓂ (DSW), ᓄᓇᕗᑦ/ᓄᓇᕕᒃ ᑲᓇᓐᓇᕐᒥ (NU/NK E), ᐊᒻᒪ ᕿᑭᕐᑖᓗᑉ ᐃᑭᖕᒐᑕ ᑲᓇᓐᓇᖕᒐᓂ (DSE). ᑕᒪᕐᒥᒃ ᑖᒃᑯᐊ DSW ᐊᒻᒪ NU/NK E ᐃᓱᒪᒋᔭᐅᔪᑦ ᐃᖃᓪᓕᐊᕕᐅᔫᒃᓴᐅᓂᖏᑦ ᑕᐃᕕᔅ ᔅᑐᕇᒃᒥ ᖃᐅᔨᓴᖅᑳᕐᓗᒋᑦ ᐊᒃᑐᕐᑕᐅᓯᒪᒻᒪᑦᓴᒪᑕ ᐅᕙᓘᓐᓃᑦ ᐊᓐᓇᐃᑎᔪᑦ ᐃᓱᓕᑦᑕᕐᑐᓂᒃ ᑭᖑᑦᑕᕈᓐᓇᕐᑎᑕᐅᓚᕐᒥᒃ ᐊᕐᕋᒍᑕᒪᑦ, ᑕᒪᓐᓇᓗ ᐊᔾᔨᑲᓴᖕᒐᓂ ᑭᖑᑦᑕᕐᕕᑦ 1,ᒥ.
- ᑲᓇᑕᐅᑉ ᐃᒥᒪᕐᒥᐅᑕᓕᕆᔨᖏᑦ ᐊᑭᓕᖃᑦᑕᕐᑯᔨᒪᑕ ᐃᓚᐅᕕᖃᕐᑐᓂᒃ 50%,ᒥᒃ ᑭᖑᑦᑕᕈᓐᓇᕐᓂᕐᒧᑦ ᕿᑭᕐᑖᓗᑉ ᐃᑭᖕᒐᓂ ᓯᕗᓪᓕᕐᒥ, ᐃᒫᒃ ᐸᕐᓇᒃᓯᒪᖕᒋᒃᑲᓗᐊᕐᐸᑕ ᑭᖑᑦᑕᕋᔭᕐᓂᓇᐊᖅ ᑕᒫᓂ. ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᓐᓄᑦ ᐃᓚᐅᔪᑦ ᑎᒍᒥᐊᕐᒪᑕ ᑭᖑᑦᑕᕈᓐᓇᕐᓂᕐᒥᒃ ᕿᑭᕐᑖᓗᑉ ᐃᑭᐊᓂ, ᑕᒪᓐᓇᓗ ᐊᒃᓯᐊᓗᒃ ᐊᑲᐅᖏᒍᑕᐅᔪᖅ ᑮᓇᐅᔭᓄᑦ ᑭᖑᑦᑕᕈᒪᓂᕐᒧᑦ ᑕᒫᓂ ᑕᐃᒪᖕᒐᓕᒫᑲᓴᒃ ᑭᖑᑦᑕᕐᕕᐅᓚᔭᕐᑎᓐᓇᒍ. ᑲᑎᓪᓗᒋᑦ ᐊᑮᑦᓴᐅᑎᒋᒋᐊᖃᕐᐸᑦᑐᑦ ᓄᓇᕗᒻᒥ ᑭᖑᑦᑕᕈᓐᓇᐅᑎᒥᓂᒃ ᕿᑭᕐᑖᓗᑉ ᐃᑭᐊᓂ ᓴᓂᐊᓃᑦᑐᓂᒃ $55,000.

ᐱᔾᔪᑎᒋᓪᓗᒍ ᑭᖑᓐᓂᐊᕐᓂᖅ, ᐊᑯᓂᐊᓗᒃ ᐱᓕᕆᒍᓯᖃᕈᑕᐅᓯᒪᒻᒪᑦ ᕿᒥᕐᕈᔪᒃᓴᐅᓂᕐᒧᑦ ᐅᕙᓘᓐᓃᑦ ᐊᐱᕐᓱᕈᑎᖃᓂᒃᑯᑦ ᐱᔾᔪᑎᖃᕐᑐᓂᒃ ᑭᖑᓐᓂᐊᕈᓐᓇᕐᓂᖏᓐᓄᑦ ᐃᓚᐅᔪᑦ ᐊᑮᒋᐊᖃᕐᓱᑎᒃ ᑭᖑᓐᓂᐊᕈᓐᓇᕐᓂᕐᒧᑦ ᐅᕐᑯᒪᐃᓐᓂᓕᓐᓂᒃ 50 ᑕᓐᓵᓂᒃ ᐅᓄᕐᓯᕙᓪᓕᐊᒍᓐᓴᕐᓗᑎᒃ, ᑕᐃᒪᐃᒋᐊᖃᕈᑎᒃ, ᐃᖃᓪᓕᐊᕈᒪᓐᓂᕐᐸᑕ ᑕᒫᓂ. ᑕᒪᓐᓇ ᑲᔪᓯᑦᓯᐊᕐᓯᒪᔪᖅ ᐱᔭᕆᐊᑐᔪᐊᓗᓐᓇᐃᕐᑎᑦᓯᓂᕐᒧᑦ ᓂᐅᕙᐊᒃᓴᓕᐅᕐᓂᕐᒥᒃ. ᑲᓇᑕᐅᑉ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᖏᑦ ᐅᖃᕐᓯᒪᔪᑦ ᑖᓐᓇ 50%

ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ
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ᑎᑎᕋᕐᑕᐅᓯᒪᓪᒪᑦ ᒪᓕᒐᕐᑎᒍᑦ ᐊᒻᒪ ᐅᓪᓗᒥ ᐊᑐᓕᕐᑎᑕᐅᕙᓪᓕᐊᔪᑦ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ, ᑕᐃᒪᐃᓚᐅᖏᑦᑐᑦ ᑭᖑᓂᕐᒥ.

- ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ ᑐᒃᓯᕋᕐᑐᑦ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᕐᔪᐊᑦ ᐊᑐᓕᕐᑯᔨᔭᖏᕈᑎᓕᐅᕐᑯᓪᓗᒋᑦ ᒥᓂᔅᑕᒧᑦ ᐱᔾᔪᑎᖃᕐᑐᓂᒃ ᑭᖑᓂᐊᕈᓇᕐᓂᕐᒧᑦ ᐊᑮᓕᐅᑕᐅᕙᑦᑐᓂᒃ ᕿᑭᑦᑖᓗᑉ ᐃᑭᖓᓂ (ᐅᕝᕙᓘᓐᓃᑦ ᕿᒥᕐᕈᔭᐅᑭᐊᓕᓐᓄᑦ ᐊᓯᖏᓐᓄᑦ) ᐊᑮᓕᒍᓇᕐᓂᖏᓐᓂᒃ 50 ᑕᓐᓄᑦ ᐅᓄᕐᓯᕙᓪᓕᐊᒍᓇᕐᓗᑎᒃ, ᑭᖑᓂᕐᒥ ᐱᖁᓯᐅᓯᒪᔪᑎᒍᑦ ᐊᒻᒪ ᐃᓕᑕᕐᓯᓂᒃᑯᑦ ᕿᒥᕐᕈᕆᐊᖃᓂᕐᒥᒃ ᑕᒪᒃᑯᓂᖓ.

ᐱᓕᕆᖃᑕᐅᕙᑦᑐᓂᒃ ᐅᖃᖃᑎᖃᓂᖅ

ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑎᒥᐅᔪᖅ ᐅᖃᖃᑎᖃᕐᓯᒪᔪᑦ ᐱᓕᕆᖃᑕᐅᕙᑦᑐᓂᒃ ᐅᖃᐅᓯᖃᕐᑯᓪᓗᒋᑦ ᐃᓱᒪᒋᔭᖏᓐᓂᒃ ᐊᒻᒪ ᐱᔾᔪᑎᒥᑕ ᒥᒃᓵᓄᑦ. ᐅᖃᐅᓯᐅᓯᒪᓪᒪᑕ ᐅᐃᒍᐊᕈᓯᕐᒥ, Appendix 3,ᒥ, ᐱᖃᓯᐅᑎᓪᓗᒋᑦ ᐅᖃᖃᑎᒌᒍᑎᒋᓯᒪᔭᖏᑦ ᖃᓇᑕᐅᔭᑎᒍᑦ ᑭᓪᓚᕐᑐᕐᑎᐅᔪᓂᒃ ᐱᓕᕆᖃᑕᐅᓪᓗᑎᒃ ᓄᓇᕗᒻᒥ, ᐱᖃᓯᐅᑎᓪᓗᒋᓪᓗ ᓄᓇᕗᑦ ᒐᕙᒪᖏᑦ, ᓄᓇᕗᒻᒥ ᑐᓐᖓᕕᒃᑯᑦ, ᐊᒻᒪ ᕿᑭᕐᑕᓂ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᑦ. ᐅᖃᓘᑎᒃᑯᑦ ᑲᑎᒪᓂᖃᓚᐅᕐᑐᑦ ᐱᓕᕆᖃᑕᐅᔪᑦ ᔭᓄᐊᕆ 26,ᒥ ᐊᒻᒪ ᐃᓚᐅᓪᓗᑎᒃ ᑭᓪᓚᕐᑐᕐᑎᐅᔪᑦ ᓄᓇᕗᑦ ᒐᕙᒪᓄᑦ, ᕿᑭᕐᑕᓂ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᑦ ᐊᒻᒪ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᕐᔪᐊᑦ.

ᐊᒻᒪ ᒐᕙᒪᑐᖃᒃᑯᑦ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᖏᑦ ᐅᖃᕐᕕᐅᓯᒪᔪᑦ ᐃᓱᒪᒋᔭᖏᓐᓂᒃ ᓴᖅᑭᑦᓯᕐᑯᓪᓗᒋᑦ ᐊᒻᒪ ᑐᓂᓯᓗᑎᒃ ᑲᐅᔾᔨᒃᑲᐃᑎᓂᒃ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᔨᒃᑯᑦ ᐸᕐᓇᒃᑕᖏᓐᓂᒃ ᑐᓂᔭᐅᒐᔭᕐᑐᓂᒃ ᓄᓇᕗᒻᒥ ᐅᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᕐᔪᐊᓄᑦ ᐱᔾᔪᑎᓕᓐᓂᒃ ᑭᖑᓂᐊᕈᓇᕐᓂᕐᒧᑦ ᐊᑮᓕᐊᖃᕐᐸᓐᓂᕐᒥᒃ. ᖃᐅᔨᒪᓗᒍ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᔨᒃᑯᑦ ᑎᓕᔭᐅᓯᒪᓪᒪᑕ ᑲᓇᑕᒥ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᓄᑦ ᐅᖃᖃᑎᖃᕐᑯᓪᓗᒋᑦ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᕐᔪᐊᓂᒃ ᑕᒪᒃᑯᐊ ᐱᔾᔪᑎᒋᓗᒋᑦ, ᑲᑎᒪᔨᐅᔪᑦ ᐃᓱᒪᓕᐅᕈᑎᖏᑦ ᐊᒻᒪ ᐊᑐᓕᕐᑯᔨᔭᖏᕈᑎᑦ ᑐᕌᖓᔪᓂᒃ ᐳᖓᓐᖓᓂ ᑭᓪᓕᓕᐅᕐᓯᒪᔪᒥ ᐊᒻᒪ ᑲᓇᓐᖓᓂ ᑭᓪᓕᓕᐅᕐᓯᒪᔫᒃᑯᑦ.

ᓇᓪᓕᒋᐊᕐᓯᒪᔫᑦ ᑐᒃᓯᕋᕐᑕᐅᔫᑦ

ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ ᑐᒃᓯᕋᕐᐳᑦ ᑲᑎᒪᔨᐅᔪᓂᑦ ᐅᑯᓄᖓ ᐃᓱᒪᓕᐅᕈᑎᖃᓇᐊᖃᓂᕐᒥᒃ/ᐊᑐᓕᕐᑯᔨᔭᖏᕈᑏᓪᓗ:

1) ᐱᖓᓐᖓᓂ ᑭᓪᓕᓕᐅᕐᓯᒪᔪᖅ:
   a. ᐃᓱᒪᓕᐅᕈᑎᖏᑦ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᕐᔪᐊᑦ ᓴᖅᑭᑦᓯᕆᐊᖅ ᑐᑭᓯᐊᒍᑎᓂᒃ ᐊᑭᓕᐊᖃᕐᐸᓐᓂᕐᒧᑦ ᑭᖑᓂᐅᕈᓇᕐᓂᕐᒧᑦ ᓄᓇᕘᑦᑖᕐᓯᒪᓂᐅᑉ ᐃᓗᐊᓂ;
   b. ᕿᒥᕐᕈᓂᒃᑯᑦ ᐊᒻᒪ ᐃᓱᒪᓕᐅᕈᑎᖃᕐᐸᓪᓕᐊᓂᒃᑯᑦ, ᐃᓱᒪᒃᓴᕐᓯᐅᕈᑎᖃᓗᑎᒃ ᐃᓚᐃᓐᓇᓇᐊᖃᖏᓐᓂᕐᒥᒃ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᒃᑯᑦ: ᑭᖑᓂᐊᕈᓇᐅᑎᓄᑦ ᐊᑭᓕᓇᐊᑏᑦ ᐊᖏᓗᐊᕐᒪᑕ ᒪᓕᑦᓯᒋᑦ ᓂᐅᕕᐊᒃᓴᐃᑦ ᐊᑭᖏᑦ ᒥᑭᓂᕐᓴᐃᑦ ᐊᒻᒪ ᐊᖏᓂᕐᓴᐃᑦ ᑭᖑᐃᑦ; ᐊᑭᑦᑐᕋᐅᑎᓂᕐᒧᑦ ᐊᑲᐅᓈᖏᑦᑐᑦ ᓄᓇᕗᒻᒧᑦ ᓴᓂᐊᓂ ᓄᓇᕕᒻᒥ ᐃᖃᓪᓕᐊᕐᓂᐅᑉ, ᐊᒻᒪ; ᖃᐅᓴᕐᓂᖅ ᖄᓇᐅᔭᕐᑐᕐᒪᑦ ᐱᖓᓐᖓᓂ ᑭᓪᓕᓕᐅᕐᑕᐅᓯᒪᔪᒥ ᐊᑭᓕᕐᑕᐅᕙᑦᑎᓪᓗᒋᑦ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᓂᐅᕕᕐᑎᓄᑦ ᐊᒻᒪ ᐱᓕᕆᖃᑕᐅᕙᑦᑐᓄᑦ, ᐃᑲᔪᕐᑕᐅᑎᓐᓇᒋᑦ ᖄᓇᐅᔭᑎᒍᑦ ᑲᓇᑕᒥ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯᓐᓄᑦ.
2) ᑕᓐᓇᓕ ᑲᓇᓐᖓᓂ ᑭᓪᓕᓕᐅᕐᑕᐅᓯᒪᔪᒧᑦ, ᐅᑯᐊ ᑕᕝᕙ ᐊᑐᓕᕐᑯᔨᔭᖏᕈᑎᒃᓴᐃᑦ:

ᓄᓇᕗᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ
Nunavut Fisheries Association
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a. ᑭᖑᓐᓂᐊᕈᓐᓇᕐᓂᕐᒧᑦ ᐊᑭᓕᐅᑏᑦ ᕿᑭᑖᓘᑉ ᐃᑭᖓᑕ ᑲᓇᓐᓇᖓᓂ, ᕿᒥᕐᕈᔭᐅᒍᓐᓇᕐᒪᑦ, ᐊᑮᒍᓐᓇᕐᓂᕐᒧᑦ 50
ᑕᓐᓂᒃ ᐊᖏᓕᕚᓪᓕᐊᒍᓐᓇᕐᑎᓪᓗᒋᑦ ᐊᑐᕐᑕᐅᓂᖏᑦ ᑎᒍᒥᐊᕐᑎᐅᔪᓄᑦ.

ᐸᕐᓇᒃᑕᖏᑦ: ᐳᕋᐃᐊᓐ ᐳᒃ, Brian Burke, ᐊᓪᓚᕕᒥ ᐊᖓᔪᖅᑳᖅ, ᓄᓇᕗᑦ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᖓᓄᑦ

ᐅᓪᓗᖓ: ᕕᕗᐊᕆ 5, 2021

ᓄᓇᕗᑦ ᐃᖅᑲᓪᓕᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ
Nunavut Fisheries Association
Box 1349, Iqaluit, NU X0A 0H0
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ᐅᐃᒍᐊᕈᓯᖅ 1: ᑐᒃᓯᕆᐊᕈᑏᑦ ᐃᑲᔪᕈᑕᐅᕙᑦᑐᑦ ᒥᒃᓵᓄᑦ ᐊᕐᕿᒍᑕᒫᑦ ᐱᖓᓐᓇᖓᓂ ᑭᓪᓕᓪᓕᐅᕐᑕᐅᓯᒪᔪᒥ ᑭᖑᓂᐊᕐᐸᓂᐅ ᖃᐅᔾᓴᓚᐅᕐᓂᐅᑉ ᒥᒃᓵᓄᑦ – 2014-2020

WAZ Survey Contributions		
2020		
NFA	$163,500	50.0%
Makivik	$163,500	50.0%
Total	$327,000	100.0%
2019		
NFA	$179,944	56.9%
Makivik	$136,247	43.1%
Total	$316,190	100.0%
2018		
NFA	$217,994	68.9%
GN	$43,579	13.8%
Makivik	$54,599	17.3%
Total	$316,172	100.0%
2017		
NFA	$207,587	69.0%
GN	$41,516	13.8%
Makivik	$51,897	17.2%
Total	$301,000	100.0%
2016		
NFA	$175,000	60.3%
GN	$40,000	13.8%
BF	$25,000	8.6%
Makivik	$50,000	17.2%
Total	$290,000	100.0%
2015		
NFA	$175,000	42.7%
GN	$160,000	39.0%
BF	$25,000	6.1%
Makivik	$50,000	12.2%
Total	$410,000	100.0%
2014		
NFA	$175,000	45.1%
GN	$138,000	35.6%
BF	$25,000	6.4%
Makivik	$50,000	12.9%
Total	$388,000	100.0%
2014 to 2020		
NFA	$1,294,025	55.1%
GN	$423,095	18.0%
BF	$75,000	3.2%
Makivik	$556,243	23.7%
Total	$2,348,362	100.0%

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ᐅᐃᒍᐊᕈᓯᖅ 2: ᓂᐅᕕᐊᒃᓴᐃᑦ ᐊᑭᖕᒋᑕ ᐊᔾᔨᒌᖕᒋᓐᓂᖕᒋᑦ - ᒥᑭᓂᕐᓴᐃᑦ ᑭᖕᒍᐃ (P. borealis ᐊᔾᔨᒌᖕᒋᑦᑐᑦ P. ᑭᖕᒍᕐᐸᐃᑦ, montagui

ᐊᑭᖕᒋᑕ ᐅᔾᔨᒌᖕᒋᓐᓂᖕᒋᑦ ᑭᖕᒍᑐᐃᓐᓇᐃᑦ ᐊᒻᒪ ᑭᖕᒍᕐᐸᐃᑦ (*P. borealis* ᐊᒻᒪ*P. montagui*)

ᐊᑖᓃᑦᑐᑦ ᐅᖃᐅᓯᑦ ᐅᓂᒃᑳᑦᓯᐊᕐᓯᒪᔪᑦ ᖃᓄᖅ ᐊᑭᑐᑎᒋᓂᖕᒋᑕ ᐊᔾᔨᒌᖕᒋᓐᓂᖕᒋᓐᓂᒃ *ᑭᖕᒍᑐᐃᓐᓇᐃᑦ* ᐊᒻᒪ *ᑭᖕᒍᕐᐸᐃᑦ* ᓂᐅᕕᕐᑕᐅᕙᑦᑐᑦ ᓄᓇᕗᒻᒥ ᑲᒪᓂᓄᑦ. ᐱᔾᔪᑕᐅᓪᓗᓂ ᓇᒧᖕᖓᕈᓗᔭᕐᑕᐅᒋᐊᖕᖏᓐᓂᖕᒋᑦ ᑐᑭᓯᒋᐊᕐᕕᒃᓴᐃᑦ, ᑲᑎᕐᓱᕐᑕᐅᓯᒪᔪᑦ ᑐᑭᓯᒋᐊᕐᕕᒃᓴᐃᑦ ᓇᐃᓪᓕᒋᐊᕐᓯᒪᕗᑦ.

ᑭᖕᒍᕐᐸᐃᑦ, P. montagui ᑭᖕᒍᓐᓂᐊᕐᑕᐅᔪᒪᓂᕐᓴᐅᕗᑦ ᓄᑕᐅᓂᖕᒋᓐᓄᑦ ᑭᖕᒍᐃᑦ ᐊᒻᒪ ᖃᓄᖅ ᐅᓄᕐᑎᒋᓂᖕᒋᓐᓄ ᐊᑭᖕᒋᑦ ᐊᔾᔨᒌᖕᒋᓐᓂᖕᒋᒍᑦ ᒥᑭᔪᒻᒪᕆᐅᒻᒪᑕ. ᑭᓯᐊᓂ, ᓱᒃᑲᔪᒃᑯᑦ ᐅᓄᕐᓯᕗᓪᓚᐊᓯᒪᔪᒻᒪᕆᐅᒻᒪᑕ ᐊᕿᒍᕋᑖᓂ, ᑕᖅᕙᓂ ᐱᖓᓐᓇᖓᓂ ᑭᓪᓚᓚᐅᕐᑕᐅᓯᒪᔭᒃᑯᑦ ᐃᖃᓗᓚᕆᓂᒃᑯᑦ, ᑕᒪᓐᓇ ᐊᓯᔾᔨᕐᓯᒪᓕᕐᒪᑦ ᐊᒻᒪ ᐊᑭᖕᒋᑦ ᐊᔾᔨᒌᓐᓇᑎᒃ ᒥᑭᓂᕐᓴᐃᑦ ᑭᖕᒍᐃᑦ ᐊᒻᒪ ᓂᐅᕕᐊᒃᓴᐅᓪᓗᑎᒃ ᐊᑭᖕᒋᑦ ᒥᑭᓪᓕᕆᐊᕐᓯᒪᔪᒪᕆᐅᓪᓗᑎᒃ. ᓯᕗᓪᓕᕐᓂ ᐅᑭᐅᓂ, ᐃᖃᓗᓕᕆᓂᒃᑯᑦ ᐃᓕᓐᓂᐊᕙᓪᓕᐊᓕᓚᐅᕐᓯᒪᒻᒪᑕ ᖃᓄᖅ ᑲᒪᒋᐊᖅ ᐊᒻᒪ ᑭᖕᒍᓕᕆᒋᐊᖅ, ᑕᐃᑦᓱᒪᓂ ᐊᑲᐅᖕᒋᓕᐅᑎᖃᓚᐅᕐᑐᑦ ᖃᓄᐃᑦᑑᓂᖕᒋᓐᓂᒃ ᑭᖕᒍᐃᑦ (ᕿᕐᓂᕐᑐᓂᒃ ᑕᕐᓴᖃᕐᑐᑦ) ᐊᒃᑐᐃᓂᖃᓚᐅᕐᒪᑕ ᐊᑭᖕᒋᓐᓂᒃ ᐊᒻᒪ ᐱᔪᒪᔭᐅᕙᓐᓂᖕᒋᓐᓂᒃ. ᑕᒪᒃᑯᐊ ᐅᖃᐅᓯᕆᔭᐅᕐᔪᐊᖃᑦᑕᕐᓯᒪᓕᕐᑑᓚᓗᐊᑦ, ᓘᕐᓗ ᐊᑖᓂ ᐅᖃᐅᓯᑎᒍᑦ ᐊᑭᖕᒋᑕ ᐊᔾᔨᒌᖕᒋᓐᓂᖕᒋᑦ ᓱᓕ ᑲᔪᓯᕙᓪᓕᐊᑐᐃᓐᓇᕐᑐᑦ. ᑕᐃᒪᐃᒻᒪᑦ, ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᔩᑦ ᕿᓂᕐᑐᑦ ᐋᖅᑭᒋᐊᕈᑎᒃᓴᓂᒃ ᓂᐅᕕᐊᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐊᒻᒪ ᓇᓗᐃᔭᐃᒋᐊᖃᓂᕐᒧᑦ ᑭᖕᒍᑉᐸᐃᑦ ᒥᒃᓴᓄᑦ ᐊᑲᐅᖕᒋᓕᐅᑕᐅᔪᑦ ᑲᒪᒋᓗᒋᑦ ᐅᑭᐅᖕᒍᓂᐊᕐᑐᓂ ᖃᐃᔪᓂ, ᐃᑲᔪᕐᔭᐅᓗᑎᒃ ᐊᓯᖕᒋᓐᓂᑦ ᓯᓚᑖᓂᑦ.

ᓂᐅᕕᐊᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐊᔭᐅᕈᑎᓂᒃ ᑐᓂᓯᓂᖓ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ ᑳᓐᓄᐊᕐᑯᓐᓄᑦ, CanNor:

<u>ᑐᑭᓯᒋᐊᕐᕕᒃᓴᑦ</u>
ᑲᓇᑕᒥ ᑭᖕᒍᓐᓂᓐᓂᐊᕐᑎᑦ ᑭᖕᒍᓐᓂᐊᕐᐸᑦᑐᑦ ᒪᕈᐃᓂᒃ ᐊᔾᔨᒌᖕᒋᑦᑐᓂᒃ, *ᑭᖕᒍᕐᐸᓐᓂᒃ, P. borealis* ᐊᒻᒪ *ᑭᖕᒍᑐᐃᓐᓇᕐᓂᒃ, P. montagui*. The *P. borealis* ᓂᐅᕕᐊᖕᒍᓂᕐᐸᐅᑎᓪᓗᒋᒃ, ᐊᒥᓱᐊᓘᒍᓐᓇᕐᓱᑎᒃ ᑭᖕᒍᑦᑕᐅᔪᓐᓇᕐᑐᑦᐊᒻᒪ ᐃᓱᒪᒋᔭᐅᔪᑦ ᓂᐅᕕᕋᑎᓄᑦ ᐊᑲᐅᓈᕐᓂᕐᓴᐅᒐᔭᕐᓂᖕᒐ ᖃᓄᐃᑦᑑᓂᖕᒋᓐᓄᑦ ᐊᒻᒪ ᐊᑭᖕᒋᓐᓄᑦ. *ᑭᖕᒍᑐᐃᓐᓇᐃᑦ, P. montagui*, ᐊᔾᔨᒌᓐᓂᖕᒐ, ᐅᑭᐅᕐᑕᕐᑐᒥ ᑭᖕᒍᓐᓂᐊᕐᕕᐅᔪᓂ (SFAs) ᐊᒻᒪ ᑭᓯᐊᓂ ᓛᓐᓇᕋᑖᖕᒍᓚᐅᕐᑐᖅ ᐃᒃᐱᒋᔭᐅᓯᒪᖕᒋᓗᐊᕐᒪᑦ ᓂᐅᕕᐊᒃᓴᓕᐅᕐᓂᖅ. ᑕᐃᒪᐃᒻᒪᑦ, ᐊᕐᓱᕈᑎᖃᕆᐊᕐᓯᒪᓕᕐᑐᑦ ᕿᒥᕐᕈᒋᐊᖃᓂᖅ ᐊᒻᒪ ᐋᖅᑭᒃᓱᐃᒋᐊᖃᓂᖅ ᐱᕕᒃᓴᐅᓚᔭᕐᑐᓂᒃ ᓂᐅᕕᐊᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᑭᖕᒍᓐᓂᒃ ᐊᒻᒪ ᓂᐅᕕᕋᕐᓴᐅᓕᐅᕐᑏᑦ ᐊᖕᒋᕐᓯᒪᔪᑦ ᐊᑭᖕᒋᓐᓂᒃ ᒥᑭᓪᓕᒋᐊᕐᓯᒪᔪᒪᕆᐅᑎᓪᓗᒋᑦ *ᑭᖕᒍᕐᐸᐃᑦ*ᓂᐅᕕᐊᒃᓴᐃᑦ. ᑭᖕᒍᓐᓂᐊᕈᓐᓴᕐᓂᑦ ᐊᖕᒋᓂᕐᓴᓂᒃ ᐊᑐᕐᑕᐅᓂᕐᐸᐅᓯᒪᒻᒪᑦ ᐅᑭᐅᕐᑕᕐᑐᒥᐅᓄᑦ ᓄᓇᖃᖄᕐᓯᒪᔪᓄᑦ ᓇᒻᒥᓂᓪᓚᓐᓄᑦ ᓄᓇᕗᒻᒥ ᐊᒻᒪ ᓄᓇᕕᒻᒥ. ᐅᑭᐅᕐᑕᕐᑐᒥ ᕿᑐᕐᖕᒋᐅᕈᑎᖃᒪᑕ 100%,ᒥᒃ *ᑭᖕᒍᕐᐸᕐᓄᑦ* ᐊᒻᒪ 79%,ᒥ ᑲᑎᓪᓗᒋᑦ (ᐊᒥᐊᒃᑯᐃᑦ ᑭᖕᒍᕐᐸᑦᑕᐅᓯᒪᔪᑦ *ᒥᑭᓂᕐᓴᐃᑦ ᑭᖕᒍᑦ*). 2019,ᒥ, ᐅᕐᑯᒪᐃᓐᓂᖕᒋᑦ *ᑭᖕᒍᕐᐸᑦᑕᐅᒍᓐᓇᕐᑐᑦ* ᐅᓄᕐᓯᒋᐊᕐᑐᒻᒪᕆᐅᓚᐅᕐᒪᑕ ᐱᖓᓐᓇᖓᓂ ᑭᓪᓚᓚᐅᕐᑕᐅᓯᒪᔪᒃᑯᑦ, (WAZ), ᐊᒻᒪ 95%,ᒧᑦ ᐅᓄᕐᓯᒋᐊᕐᓯᒪᓪᓗᑎᒃ ᓘᕐᓗ ᒪᕈᕕᑲᓴᑦᓱᒋᑦ ᑭᖕᒍᑦᑕᐅᔪᓐᓇᕐᑐᑦ ᓄᓇᕗᒻᒥ ᐊᒻᒪ ᓄᓇᕕᒻᒥ ᐃᖃᓗᓕᕆᔩᓄᑦ. ᐅᓪᓗᒥ ᑕᑯᒋᐊᕐᓱᒋᑦ *ᑭᖕᒍᕐᐸᐃᑦ, P. montagui* ᖃᓄᐃᓪᓗᐊᕐᑐᓂᒃ ᐅᕐᑯᒪᐃᓐᓂᖃᑐᓂᒃ ᑭᖕᒍᑕᕈᓐᓇᐅᑎᓵᑦ ᒥᒃᓵᓄᑦ ᐅᖃᐅᓯᐅᓯᒪᔪᑦ ᐊᑖᓂ.

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2019 P. montagui Allocations					
	WAZ	EAZ	SFA 4	Total	%
Nunavut	5,987.5	337.2	355.9	6,680.6	40%
Nunavik	5,987.5	165.2	355.9	6,508.6	39%
Remaining Offshore (bycatch)	0.0	337.6	3,321.2	3,658.8	22%
Totals	11,975.0	840.0	4,033.0	16,848.0	100%
Note: NU and NK allocations for EAZ and SFA 4 include their respective shares of					
offshore bycatch in these areas. NU and NK hold 100% of directed P. montagui allocations.					

<u>ᐊᑭᖏᑕ ᐊᔾᔨᒌᖏᓐᓂᖏᑦ</u>

ᐊᖏᑭᑕ ᐊᔾᔨᒌᖏᓐᓂᖏᑦ ᑭᖑᕐᐸᐃᑦ ᐊᒻᒪ ᑭᖑᑐᐃᓐᓇᐃᑦ ᓂᐅᕕᐊᒃᓴᐃᑦ ᐊᔾᔨᒌᖏᑦᑐᒻᒪᕆᐅᒍᓐᓇᕐᒪᑎᒃ ᐊᒻᒪ ᐊᓪᓚᑦ ᐊᑭᑐᓂᕐᓴᐅᓗᑎᒃ ᑕᕆᐅᕐᒥ ᑭᖑᓐᓄᑦ ᐊᑲᐅᖏᓈᕐᑐᒃᑯᑦ ᑮᓐᖑᒪᔭᐅᓂᖏᑎᒍᑦ ᐊᒻᒪ ᐊᑭᖏᑕ ᒥᒃᓵᓄᑦ. ᐅᑭᐅᕐᑕᕐᑐᒥ ᑭᖑᐃᑦ ᐊᑭᖏᑦ ᒥᑭᓪᓕᕆᐊᕐᓯᒪᔫᒻᒪᕆᐅᓚᐅᕐᒪᑕ 2019,ᒥ ᑕᒪᐃᑎᒍᑦ ᖃᓄᓕᒫᖅ, ᓱᓕ ᐊᑲᐅᖏᓕᐅᑕᐅᒃᑲᓐᓂᕐᓱᑎᒃ *ᑮᒍᕐᐸᕐᓂᒃ* ᑮᓐᖑᒪᑦᓯᔪᓄᑦ ᐊᒻᒪ ᐊᑭᑦᓴᓕᐅᕐᐸᓐᓂᕐᒧᓪᓗ. ᐅᓪᓗᒥ, ᐊᑭᑭᓪᓕᕆᐊᕐᓯᒪᑎᓪᓗᒋᑦ ᑭᖑᑐᐃᓐᓇᐃᑦ, ᐊᒻᒪ ᓱᓕ ᓄᓇᓅᓗᒻᒧᑦ −19,ᒧᑦᐊᑲᐅᖏᓕᐅᕆᑎᖃᕐᑎᓪᓗᒥ5, ᐊᒻᒪ ᐊᑭᑭᓪᓕᕆᐊᕐᓯᒪᔫᒻᒪᕆᐊᓘᓂᖏᓐᓄᑦ *ᑮᖑᕐᐸᐃᑦ*, ᑭᖑᓐᓂᐊᕐᐸᓐᓂᖅ ᓄᓇᕗᒻᒥ ᓇᓗᓇᕿᒻᒪᑦ.

ᕿᒥᕐᕈᓂᒃᑯᑦ ᖃᓄᖅ ᐊᑭᖃᕋᔭᕐᓂᖏᑕ ᒥᒃᓵᓄᑦ ᑐᑭᓯᒋᐊᕐᕕᒃᓴᓂᒃ ᓇᒧᖓᕈᓗᔭᕐᑕᐅᒋᐊᖃᕐᑎᒃ ᓴᖅᑭᑕᐅᓯᒪᔪᓂᒃ ᓄᓇᕗᒻᒥ ᐃᖃᓗᓕᕆᔨᓄᑦ ᐊᕐᕿᔪᓯᒪᓕᕐᑐᓂ ᐱᖓᓱᓂ ᓇᓗᓇᖏᒍᑕᐅᒪᑦ ᐊᒃᓱᐊᓗᒃ ᐊᔾᔨᒌᖏᓐᓂᖏᓐᓂᒃ ᐊᑭᓕᐅᕐᑕᐅᓯᒪᓂᖏᑕ ᑭᖑᐃᑦ ᐊᒻᒪ ᖃᓄᖅ ᐊᔾᔨᒌᖏᓐᓂᖏᑦ ᐊᖏᓪᓕᑭᐊᕐᓯᒪᒪᖖᒋᑕ, ᐱᓗᐊᕐᑐᒥᒃ ᒥᑭᓂᕐᓴᐃᑦ ᑭᖑᐃᑦ ᐊᑭᑭᓪᓕᑭᐊᕐᓯᒪᒪᑕ. ᐃᑲᓯᒪᔪᑦ ᑭᖑᑐᐃᓐᓇᐃᑦ ᐊᒻᒪ ᑭᖑᕐᐸᐃᑦ ᐊᔾᔨᒌᖏᑦᑐᓂᒃ ᐊᑭᖃᒪᑕ (ᑭᖑᑐᐃᓐᓇᐃᑦ, borealis-montagui)/ᑭᖑᕐᐸᐃᑦ, montagui) ᐳᕐᑐᕐᑕᐅᕙᑦᑐᑦ ᒥᑭᓂᕐᓴᓄᑦ ᐱᒋᐊᕐᓱᒋᑦ 7-24%,ᒥᑦ 2017,ᒥ 20-50%ᓄ,ᒧᑦ 2018,ᒥ, ᐊᒻᒪ 26-50% 2019,ᒥ. ᓂᐅᕕᐊᒃᓴᐃᑦ ᑭᖑᐃᑦ ᐊᔾᔨᒌᖏᓐᓂᖃᕐᑐᑦ ᐱᒋᐊᕐᓱᑎᒃ 63-73%,ᒥᑦ 2018,ᒥ 112-125%,ᒧᑦ 2019,ᒥ. ᐃᓚᖏᑦ ᐊᔾᔨᒌᖏᓐᓂᖏᑦ ᐊᑭᖏᑕ ᐊᑲᐅᖏᓕᐅᑕᐅᕙᓗᐊᕐᑎᓪᓗᒋᑦ ᐊᔾᔨᒌᑎᑕᐅᖏᓐᓂᖏᓐᓄᑦ, ᑭᓯᐊᓂ ᐊᔾᔨᒌᑎᑕᐅᖏᓐᓂᖏᑦ ᑕᒃᑯᓇᖏᑦᑐᑦ ᐊᑲᐅᖏᓕᐅᑕᐅᓯᒪᔪᑦ ᐃᖃᓗᓕᕆᓂᒃᑯᑦ.

ᖃᓄᐃᓕᖓᓕᕐᓂᖏᑦ 2020,ᒥ ᐊᑭᓕᐅᕐᑕᐅᓯᒪᓂᖏᑦ:

ᐊᕐᕌᒍᖓᓂ 2020,ᒥ ᑭᖑᐃᑦ, ᐊᔾᔨᒌᖏᑦᑐᑦ ᑭᖑᕐᐸᐃᑦ ᒥᑭᓂᕐᓴᐃᓪᓗ ᐃᓚᓯᒪᔪᑦ ᐊᑯᓐᓂᖏᓐᓂᓚᐅᕐᑐᑦ 23% ᐃᖃᓗᑦᓯᐅᕐᓂᖅ ᐱᒋᐊᕐᓯᒪᓕᕐᑎᓪᓗᒍ 76%,ᒧᑦ ᑭᖑᓂᐊᓂ ᓂᐅᕕᐊᒃᓴᐃᑦ ᐋᖅᑭᓐᓂᕐᓴᐅᓪᓗᑎᒃ, ᓂᐅᕕᐊᒃᓴᐃᑦ ᐊᑭᖏᑎ ᐊᔾᔨᒋᖏᓐᓂᖃᕋᓗᐊᕐᑎᓪᓗᒋᑦ ᓴᓂᐊᓂ 128%.

ᐊᒻᒪ ᐊᔾᔨᒌᑎᑕᐅᖏᓐᓂᖏᑦ ᐊᑭᖏᑦ ᑭᖑᐃᑦ ᐊᕐᕌᒍᓯᒪᓕᕐᑐᓂ, ᓂᐅᕕᐊᒃᓴᐃᑦ ᐊᑭᖏᑦ ᑭᖑᐃᑦ ᑕᒪᕐᒥᒃ ᐅᓄᕈᓐᓇᐃᓇᐊᕐᓯᒪᒻᒪᑕ ᐊᑭᖏᑦ ᐊᕐᕌᒍᓯᒪᓕᕐᑐᓂ. ᑭᖑᕐᐸᐃᑦ, ᐊᑭᖏᑦ ᒥᑭᓪᓕᕆᐊᕐᓯᒪᓂᖃᒪᑕ ᐅᖓᑖᓄᑦ 185% ᐊᕐᕌᒍᓚᐅᕐᑐᓂ ᐱᖓᓱᓂ ᐊᒻᒪ ᓴᓂᐊᓂ 75% ᑕᐃᒪᖓᓂᑦ ᐊᕐᕌᒍᓚᐅᕐᑐᒥ.

ᓄᓇᕗᒻᒥ ᐃᖅᑲᓕᕆᓂᕐᒧᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ
Nunavut Fisheries Association
Box 1349, Iqaluit, NU X0A 0H0
Tel: (867) 979-7862 | Fax: (867) 979-7852

(ᓇᓗᓴᐃᕐᓯᒪᑦᓯᐊᕐᑐᑦ ᐊᑭᖕᒋᑕ ᒥᒃᓵᓄᑦ ᐊᑐᐃᓐᓇᕈᕐᑕᐅᓯᒪᔪᑦ ᓄᓇᕗᒻᒥ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᕐᔪᐊᓄᑦ ᓇᒧᑐᐃᓐᓇᕐᑕᐅᓂᐊᖕᒋᑎᓪᓗᒋᑦ ᑐᑭᓯᒋᐊᕐᕕᒃᓴᐃᑦ)

Nunavut Fisheries Association
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ᐅᐃᒍᐊᕈᓯᖅ 3: ᑐᓴᐅᒪᖃᑎᖃᓂᖅ ᐱᓕᕆᖃᑕᐅᕙᑦᑐᓂᒃ ᑭᖕᒍᓐᓂᐊᕈᓐᓇᕐᓂᕐᒧᑦ ᐊᑭᓕᐅᑏᑦ ᒥᒃᓵᓄᑦ

ᑐᓴᐅᒪᖃᑎᖃᓂᖅ ᓄᓇᕗᒻᒥ ᐱᓕᕆᖃᑕᐅᕙᑦᑐᓂᒃ (ᓄᓇᕗᑦ ᒐᕙᒪ, ᑐᓐᖓᕕᒃ, ᕿᑭᖅᑕᓂ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ), ᐱᒋᐊᖅᑎᑕᐅᓯᒪᓪᓗᑎᒃ ᐅᒃᑐᐱᕆ 19, 2020,ᒥ (5 ᖃᓇᑕᐅᔭᒃᑯᑦ)

ᑐᓴᐅᒪᖃᑎᖃᓂᖅ ᑲᓇᑕᒥ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᓂᒃ (ᒪᕐᕉᒃ)cccckmkppe

From:	Brian Burke
To:	Martin, Zoya; Onalik, Jimi; Andrew Bresnahan; Andrew Randall; Jeffrey Maurice
Cc:	CSFL - Sowdlooapik; QC - Jerry Ward; Jaypetee Akeeagok; David Alexander; AFA - Harry; Dave Bollivar (TFC; Peter Keenainak; Jesslene Jawanda; Jason Akearok; Denis Ndeloh; Amber Giles
Subject:	RE: NWMB Review of Nunavut Fisheries Association's Request for NWMB Decision and Recommendations Concerning Access Fees Charged to the Nunavut Fishing Industry
Date:	Tuesday, January 26, 2021 7:09:32 PM

Good evening,

Thank you to everyone who participated in this afternoon's call. As per the direction provided by the NWMB, it would be greatly appreciated if our stakeholders could provide the Board with their position on these issues and support for the NFA request in advance of the Board's upcoming deadline for their March 2021 meeting. Our submission will largely remain the same, I will be appending additional details on the market prices of borealis vs montagui shrimp, the costs that have been covered by industry to cover the annual WAZ survey, the 50 t increment access fee payment process used in other exploratory areas, and the reachout NFA has made to stakeholders on these issues. The revised document will also be shared in advance of the Board's deadline.

As indicated by the NWMB, consensus amongst our stakeholders would be very helpful in terms of the Board's decision making. Please let me know of any additional questions you may have and we would greatly appreciate your support on these issues, which are unfairly burdening our industry members.

Regards,

Brian

From: Brian Burke
Sent: January 25, 2021 9:43 AM
To: Martin, Zoya <ZMartin@gov.nu.ca>; Onalik, Jimi <JOnalik@GOV.NU.CA>; Andrew Bresnahan <ABresnahan@QIA.ca>; Andrew Randall <ARandall@QIA.ca>; Jeffrey Maurice <JMaurice@tunngavik.com>
Cc: sakiasie sowdlooapik <sowdlooapik@hotmail.com>; Jerry Ward <JWard@Qcorp.ca>; Jaypetee Akeeagok <Jaypetee@arcticfisheryalliance.com>; David Alexander <dalexander@baffinfisheries.ca>; Harry Earle <harry@arcticfisheryalliance.com>; Dave Bollivar (TFC <dbollivar@trinavfisheries.com>; Peter Keenainak <PKeenainak@Qcorp.ca>; Jesslene Jawanda <JJawanda@Qcorp.ca>
Subject: RE: NWMB Review of Nunavut Fisheries Association's Request for NWMB Decision and Recommendations Concerning Access Fees Charged to the Nunavut Fishing Industry

Good morning,

Looking to set a meeting time to discuss the access fees issues with the GN, QIA and NTI. Would 1 pm or later EST tomorrow (Tuesday) work for each of you? Let me know what time would be best and I will send around an invite.

Attached again is the NFA submission to the NWMB.

Regards,

Brian

From: Brian Burke
Sent: January 18, 2021 6:19 PM
To: 'Martin, Zoya' <ZMartin@gov.nu.ca>; 'Onalik, Jimi' <JOnalik@GOV.NU.CA>; 'Andrew Bresnahan' <ABresnahan@QIA.ca>; 'Andrew Randall' <ARandall@QIA.ca>; 'Jeffrey Maurice' <JMaurice@tunngavik.com>
Cc: 'sakiasie sowdlooapik' <sowdlooapik@hotmail.com>; 'Jerry Ward' <JWard@Qcorp.ca>; 'Jaypetee Akeeagok' <Jaypetee@arcticfisheryalliance.com>; 'David Alexander' <dalexander@baffinfisheries.ca>; 'Harry Earle' <harry@arcticfisheryalliance.com>; 'Dave Bollivar (TFC' <dbollivar@trinavfisheries.com>; 'Peter Keenainak' <PKeenainak@Qcorp.ca>; 'Jesslene Jawanda' <JJawanda@Qcorp.ca>
Subject: RE: NWMB Review of Nunavut Fisheries Association's Request for NWMB Decision and Recommendations Concerning Access Fees Charged to the Nunavut Fishing Industry

Good afternoon,

Following up on our access fees issue and obtaining input from the GN, NTI and QIA. We need to bring this back to the NWMB for their next Board meeting and need your input/response on the issues and/or a note indicating that your organization has been consulted. We can organize a call to discuss collectively or individually if you prefer.

Regards,

Brian

From: Brian Burke
Sent: November 18, 2020 6:12 PM
To: Martin, Zoya <ZMartin@gov.nu.ca>; Onalik, Jimi <JOnalik@GOV.NU.CA>; Andrew Bresnahan <ABresnahan@QIA.ca>; Andrew Randall <ARandall@QIA.ca>; Jeffrey Maurice <JMaurice@tunngavik.com>
Cc: sakiasie sowdlooapik <sowdlooapik@hotmail.com>; Jerry Ward <JWard@Qcorp.ca>; Jaypetee Akeeagok <Jaypetee@arcticfisheryalliance.com>; David Alexander <dalexander@baffinfisheries.ca>; Harry Earle <harry@arcticfisheryalliance.com>; Dave Bollivar (TFC <dbollivar@trinavfisheries.com>; Peter Keenainak <PKeenainak@Qcorp.ca>; Jesslene Jawanda <JJawanda@Qcorp.ca>
Subject: FW: NWMB Review of Nunavut Fisheries Association's Request for NWMB Decision and Recommendations Concerning Access Fees Charged to the Nunavut Fishing Industry
Importance: High

See attached from the NWMB denying our request for a chance to present this issue at their upcoming December meeting. As you recall I did reach out to each of you on this issue and requested your input and support. With respect to DFO, it was actually David Whorley who had indicated to one of my members that this needed to go to the NWMB for review. I would greatly appreciate if you could each inform the NWMB of this prior contact and request and, if possible, indicate your support for our position. I have sent an immediate request for the NWMB to reconsider their position and this would greatly help. Otherwise our industry will continue to be treated unfairly on this issue into another fishing year.

Stakeholder support would be greatly appreciated. If you are unable or unwilling to provide this support please let me know as soon as possible.

Regards,

Brian Burke
Executive Director
Nunavut Fisheries Association (NFA)
Tel: (709) 351-7263

From: Taqialuq Sataa <tsataa@nwmb.com>
Sent: November 18, 2020 5:41 PM
To: Brian Burke <executivedirector@noaha.ca>
Cc: Gabriel Nirlungyuk <gabriel.nirlungayuk@dfo-mpo.gc.ca>; david.whorley@dfo-mpo.gc.ca
Subject: NWMB Review of Nunavut Fisheries Association's Request for NWMB Decision and Recommendations Concerning Access Fees Charged to the Nunavut Fishing Industry
Importance: High

Good afternoon,

Attached is titled "**NWMB Review of Nunavut Fisheries Association's Request for NWMB Decision and Recommendations Concerning Access Fees Charged to the Nunavut Fishing Industry**", please confirm receipt, thanks.

PS the Inuktitut translation will be sent when we get it back from our translator, please let us know if you have any questions/comments, thanks again.