



## Plain Language Summary

### Muskox (*Ovibos moschatus*) abundance estimate on Victoria Island Group, MX-07

2023 – 2024

Victoria Island (Canada) was once the habitat of a dense muskox (*Ovibos moschatus*) population. The deterioration of muskox health conditions, increase number of grizzly bear and wolf sightings, migration of muskox off the island to the mainland might have all contributed to the observed decline of muskox in MX-07.

This vast landmass, MX-07, was surveyed in two consecutive years, 2013 and 2014. On transect, 1,296 muskoxen were counted, which resulted in an estimate of  $10,026 \pm 597$  (SE) (CV = 6%) muskoxen. Since the last survey in 2013-2014, the muskox decline seems to have continued.

The main goal of this study was to generate a new 2023-2024 abundance estimate of the muskox on Victoria Island Group, MX-07. Thus, the main objectives were: 1) to establish a new 2023-2024 abundance estimate of MX-07 and monitor the population trend and 2) to review the current management and propose new recommendations if need be.

The survey was performed in two parts, the south section between October 23<sup>rd</sup> and November 1<sup>st</sup>, 2023 and the north section between August 26<sup>th</sup> to September 1<sup>st</sup>, 2024.

On and off transect, 48 muskox groups were observed out of which there were 17 lone bulls. The average group size was 6.13 (sd = 4.11) when excluding lone bulls. Most of the muskoxen were observed in Stratum 13 with 11 groups and a minimum count of 47 muskoxen.

In the 2023-2024 survey, the number of muskox group on transect was too low to derive an abundance estimate with confidence (n = 43). Therefore, for the totality of the management zone, the minimum count was 180 muskoxen.

This handful number of muskox left in MX-07 is worrisome. To assure species persistence, it will be important to establish management strategies to promote the long-term maintenance of the species on the landscape and minimize extinction threats while promoting recovery. In between survey years, it will be important to continue gathering information on muskox population dynamics.