



April 6, 2021

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2021 Mackenzie Bison Collaring Program

This letter is to update you on the 2021 Mackenzie bison collaring program (GNWT-ENR Wildlife Research Permit #WL500919). In March 2021, 26 GPS collars were successfully deployed on adult female wood bison in the Mackenzie bison population. The attached map (Figure 1) shows the locations where collars were deployed. This is the first time bison have been collared in this range since 1993.

A fixed-wing aerial reconnaissance survey was flown to locate bison for the capture crew and to ensure collars were distributed across the entire Mackenzie bison range. We thank Shirley Coumont, Jess Hurtubise and Dustin Arychuk of the North Slave Métis Alliance for their work in this survey.

An experienced capture crew (Bighorn Helicopters) deployed the collars. They captured the bison using net-gun methods and there were no drugs involved. The capture crew based out of Kewit's Camp at KM 0 of the Tłıchq All-Season Road and completed the work under excellent weather conditions from March 9-11, 2021. There were no injuries or mortalities during capture work.

All of the bison collars collect GPS locations and transmit them via satellite. Four of the collars incorporate cameras programmed to collect 10-second video clips every 15 minutes during daylight hours; the batteries will last for 9 months. These collars can provide information on calf births, predation events (even those that do not result in the bison's death), feeding behaviour in various habitats, and bison activities. Camera collars will be retrieved in December 2021 to download and analyze the data. The remaining collars will collect 1 GPS location per hour for 2 years, followed by a reduced data collection schedule, and remain on bison for up to 6 years.

Renewed collaring of bison was recommended by the Mackenzie bison working group and is a Key Action in the *Mackenzie Bison Management Plan*, which was developed by the Mackenzie Bison Working Group and completed in 2018. The working group was composed of members from the Community Government of Behchokò, Deh Gáh Got'îê First Nation, Fort Providence Métis Council, the Hamlet of Fort Providence, North Slave Métis Alliance, NWT Wildlife Federation, NWT Métis Nation, Tłıchq Government, Wek'èezhì Renewable Resources Board, Yellowknives Dene First Nation and the Department of Environment and Natural Resources (ENR).



This project has several objectives developed as part of the *Mackenzie Bison Management Plan*. Objectives of the program are to: understand bison movements to improve monitoring and reduce vehicle collisions and human-bison conflicts; understand habitat selection and range use to aid in managing habitat; estimate sightability on population surveys; improve surveillance and detection of anthrax; and providing data on the frequency with which bison cross the Mackenzie River and enter the Bison Control Area.

Another key objective is to understand how bison interact with other species, especially moose, boreal caribou, wolves, and black bears. ENR is collaborating with Laval University on a Sentinelle Nord-funded project that will use data from collared animals of different species to make larger-scale predictions about the distribution dynamics of interacting large mammals. This collaborative project will also work on objectives under the *Management Plan*.

We would be happy to meet with your organization to discuss this program further. If you have questions feel free to contact Alicia Kelly (Alicia_Kelly@gov.nt.ca, 867-872-6408) or Terry Armstrong (Terry_Armstrong@gov.nt.ca, 867-872-6446).

Sincerely,

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- c. Mr. Tony Vermillion, Superintendent, ENR South Slave Region
Mr. Bruno Croft, Superintendent, ENR North Slave Region
Ms. Heather Sayine-Crawford, Director, ENR Wildlife and Fish Division
Dr. Daniel Fortin, Professor, Laval University, Co-Principal Investigator of Sentinelle Nord project

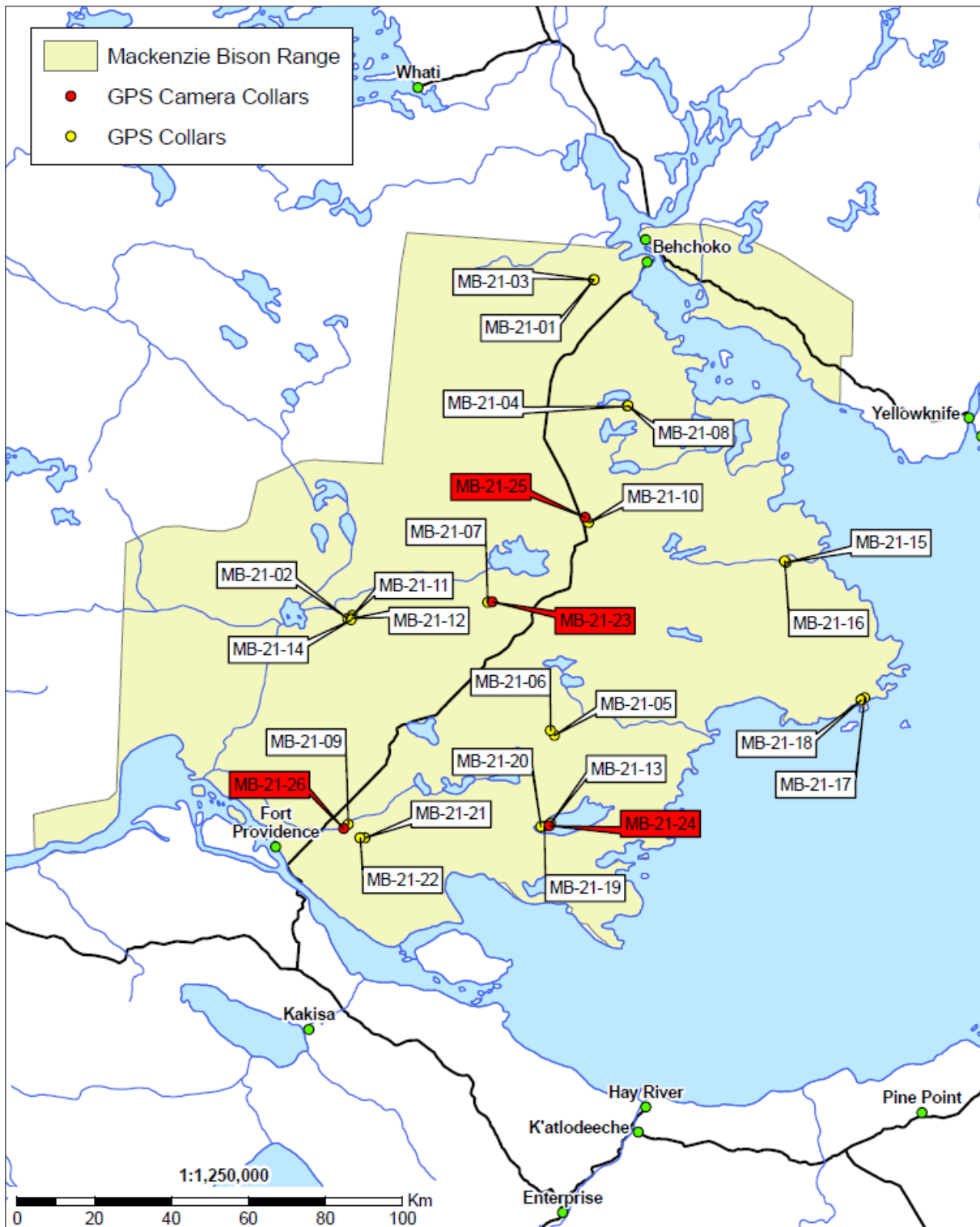


Figure 1: 2021 Mackenzie bison collar deployment locations



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