

**2014**

**BC Boreal Caribou Implementation Plan:**

**Mortality Investigation Summary Report No. 7:  
January 25, 2014**

## **BACKGROUND**

During the winter of 2012-13, 164 adult female boreal caribou were radio-collared in British Columbia's boreal caribou ranges as part of the *British Columbia Boreal Caribou Implementation Plan* (BCIP). Caribou collaring activities were administered and funded through the Science Community Environmental Knowledge Fund (SCEK).

The VHF signal status of each active collar is monitored monthly during regular fixed-wing telemetry monitoring flights and incidental associated surveys. In addition to the SCEK collars, active caribou and wolf collars from other programs, known to be present within each caribou range, are also monitored for approximate location and mortality status. These include caribou and wolf collars deployed by MFLNRO, as well as collared caribou that have entered BC's boreal caribou ranges from adjacent jurisdictions.

Upon detection of a suspected mortality event, through VHF signal status or transmitted GPS/satellite data, a ground-based mortality investigation is conducted to determine the cause and approximate date of death, collect biological samples, and recover the collar for redeployment during the upcoming winter capture season. Adult mortality information is used in conjunction with juvenile recruitment data to estimate population trend.

This summary report pertains to mortality signals detected during the January 21-22, 2014 fixed-wing telemetry monitoring flight, with the mortality investigation conducted on January 25, 2014.

## **METHODS**

Mortality sites are typically accessed by helicopter from the Fort St. John airport, in the case of the Milligan and Etthithun cores of the Chinchaga Range, and from the Fort Nelson airport in the case of the Chinchaga RRA and all other ranges and cores. Information recorded for each confirmed mortality site includes: animal ID, collar frequency, collar condition, GPS coordinates, photodocumentation, condition of remains, and other evidence relevant to suspected cause of death. Where available, and when the stage of decomposition allows, biological samples are collected (e.g., leg bones (femur or humerus), lower jaw, tissue samples, and internal organs). Mortality investigation numbers are assigned based on the date of detection, not the date of the ground investigation.

## **RESULTS**

One caribou mortality (SCEK116; VHF) was detected during the January 21-22, 2014 monitoring flight; the mortality site investigation was conducted on January 25.

SCEK116 was collared in February 2013 and was last known to be alive on December 19, 2013. The caribou was observed without a calf on November 21, 2013, during the SCEK fall calf survey. The cause of death was confirmed as wolf predation. With the exception of several fragments of bone and teeth, the carcass was completely consumed and the VHF collar damaged (Table 1; Appendix I).

No wolf mortalities were detected during the January 21-22, 2014 monitoring flight, however, BW016 Snake pack; Iridium) was transmitting a VHF low battery signal. The wolf was recaptured and the GPS collar retrieved and replaced with a VHF collar on January 25.

*First Nation Contractors*

Laurelle Dettiah, of Fort Nelson First Nation, participated in the January 25 mortality site investigation for caribou SCEK116, as well as the collar retrieval and redeployment for Snake pack wolf BW016.

Table 1. Summary of SCEK and MFLNRO radio-collared boreal caribou mortality investigations conducted on January 25, 2014, northeastern British Columbia ( $n=1$ ).

Mort Invest #	Caribou ID	Range <sup>1</sup>	Collar Type	Date Collared	Core <sup>2</sup> Collared	Core Died	Date of Death	Date Last Known Alive	Date Investigated	Cause of Death	Comments
048	SCEK116	CAL	VHF	25-Feb-13	CAL	CAL	Unknown	19-Dec-13	25-Jan-14	Wolf kill	Abundant wolf sign at kill site; open black spruce bog/forest habitat approximately 100 m from cutline.

<sup>1,2</sup>CAL - Calendar

## **APPENDIX I: Caribou Mortality Investigation Report**

Mortality Investigation #048: SCEK116, January 25, 2014, report and photos.

Mortality Investigation #	048
Caribou ID	SCEK116
Range	Calendar
Date Detected	21-Jan-14
Date Investigated	25-Jan-14
Collar Type	VHF
Frequency	
Date Collared	25-Feb-13
Core Collared	Calendar
Capture Site UTM	10.634060.6639060
Core Died	Calendar
Date of Death	Unknown
Date Last Known Alive	19-Dec-13
Mortality Site UTM	10.650857.6652756
Cause of Death	Wolf kill
Samples	Tooth fragments, hair, wolf scat
Collar Condition	Damaged - webbing chewed through
Photos	2875-2883
Investigators	Brad Culling, Diane Culling, Laurelle Dettiah
Site Investigation Comments	Confirmed wolf kill; carcass consumed and collar webbing chewed through, remains limited to bone and tooth fragments and hair; collar found 43 m from kill site; abundant wolf sign, kill site in open black spruce bog/forest habitat approximately 100 m from cutline.



Plate 1. Mortality Site Investigation #048: SCEK116 (VHF), Calendar Range, (UTM 10.650857.6652756), January 25, 2014. (1/2)



Plate 2. Mortality Site Investigation #048: SCEK116 (VHF), Calendar Range, (UTM 10.650857.6652756), January 25, 2014. (2/2)