

MAINTENANCE OF MOOSE COLLARS TO SUPPORT UNBC RESEARCH PROJECT

MOOSE ID: 15-7226 COLLAR ID: GSM20496

Moose Mortality Investigation #2, May 24, 2016

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Shifting Mosaics Consulting, Fort Nelson BC Canada



MOOSE MORTALITY GSM20496/ 15-7226

May 24 2016



SUMMARY

Moose ID: 15-7226

Collar number/ type: GSM20496 Vectronic

Sex: Female

Area found: Fortune (south of Pettitot River)

Frequency: 152.560

Cause of death: Not confirmed but had broken rib and 95-100% coverage of body with ticks – no evident predation by carnivores.

Date of death: Possibly May 20 2016

Date of investigation: May 24 2016

Investigation team: Sonja Leverkus, Harrison Dickie, Shawn Bertrand Thomas, Cameron Allan

ANIMAL BACKGROUND

- Initial notification of potential death by Caslys Consulting Ltd.: May 20th 2016
- No data was received after May 18 2016.
- The movement did not show a typical 'star pattern' mortality.



Figure 1. Caslys Consulting Ltd suggested that movement rates had decreased. The first location from the SE is from May 16, and the last point (red square) is from May 18 2016.



- There was one other collared cow moose in the area (GSM18284/ 15_5624) located at N59° 47' 36.3"/W122° 14 03.7" adjacent to a meadow complex. Two calves approximately less than 1 week old were present with the cow.

METHODS

The last known point of the collar was used to provide location to travel to via helicopter from Fort Nelson. Aerial telemetry techniques were used to determine the location of the collar. A GPS point was taken in the air to navigate towards on the ground. The team also identified vegetative features (clump of tall aspen and willow complex) to navigate towards when on the ground. The initial plan was to follow the BC Moose Research Mortality Investigation Form from Ministry of Forests, Lands, and Natural Resources. Two black bears were found within 150m of the identified collar location. We used the helicopter to haze the black bears away from the location, across the sedge meadow. The team used the best safety practices, had radio communication with the helicopter that was stationed at the sedge meadow, and walked together along the cutline to best access the GPS location taken while in the air.

RESULTS AND DISCUSSION

Moose 15-7226/GSM20496 intact carcass was found in an overstory of aspen with an understory of alder and willow approximately 110m east of a seismic line at 59°50'23.72"N/ 121°54'15.23"W.

The carcass was found lying on its left side and it appears that there was a struggle prior to death as there is evidence that shows the moose was kicking and thrashing on its side. The animal appeared to be of poor body condition, skinny, and had ticks covering 100% of the body. There was no discharge, blood, or feces found at the mortality site. The hoof and bone condition seemed normal except for a broken rib which had punctured the hide. The hair on the hide was falling out. There was no evidence of predation (wolf, bear, raven), however, prior to arrival on site, two black bears were travelling toward the location of the carcass. It was determined that continued investigation posed a safety risk to the team, given the two black bears in close proximity. The collar was retrieved and bagged. When the collar was lifted for removal, ticks fell off of it like water droplets. The concentration, density, and abundance of ticks on the moose was extreme.

There was significant browsing on the woody plants along the seismic line including highbush cranberry, alder, willow, and cottonwood. There was also evidence of browsing on woody shrubs by rabbits. The mortality location is within proximity of potentially active oil and gas production.

FIGURES



Figure 2. Moose GSM20496/15-7226 was discovered to the east of the cutline running south from the middle of the sedge meadow prior to the intersection with the cutline running southeast from the western corner of the meadow.



Figure 3. On the approach to the moose mortality site from the seismic line, there were several locations where the soil had been disturbed, potentially from the moose as it stumbled but that is speculation. There were no predator tracks, blood, or other signs of attack in the area.



Figure 4. The moose was found in a stand of alder under an aspen canopy. The moose was 100% covered in ticks.



Figure 5. The engorged ticks can be seen in this picture while the many other ticks were observed across the entire animal.



Figure 6. Moose GSM18284/ 15_5624 was observed within 20km away from mortality #2 in the Fortune area.

MOOSE MORTALITY GSM20496/ 15-7226
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APPENDIX A - INVESTIGATION MAP

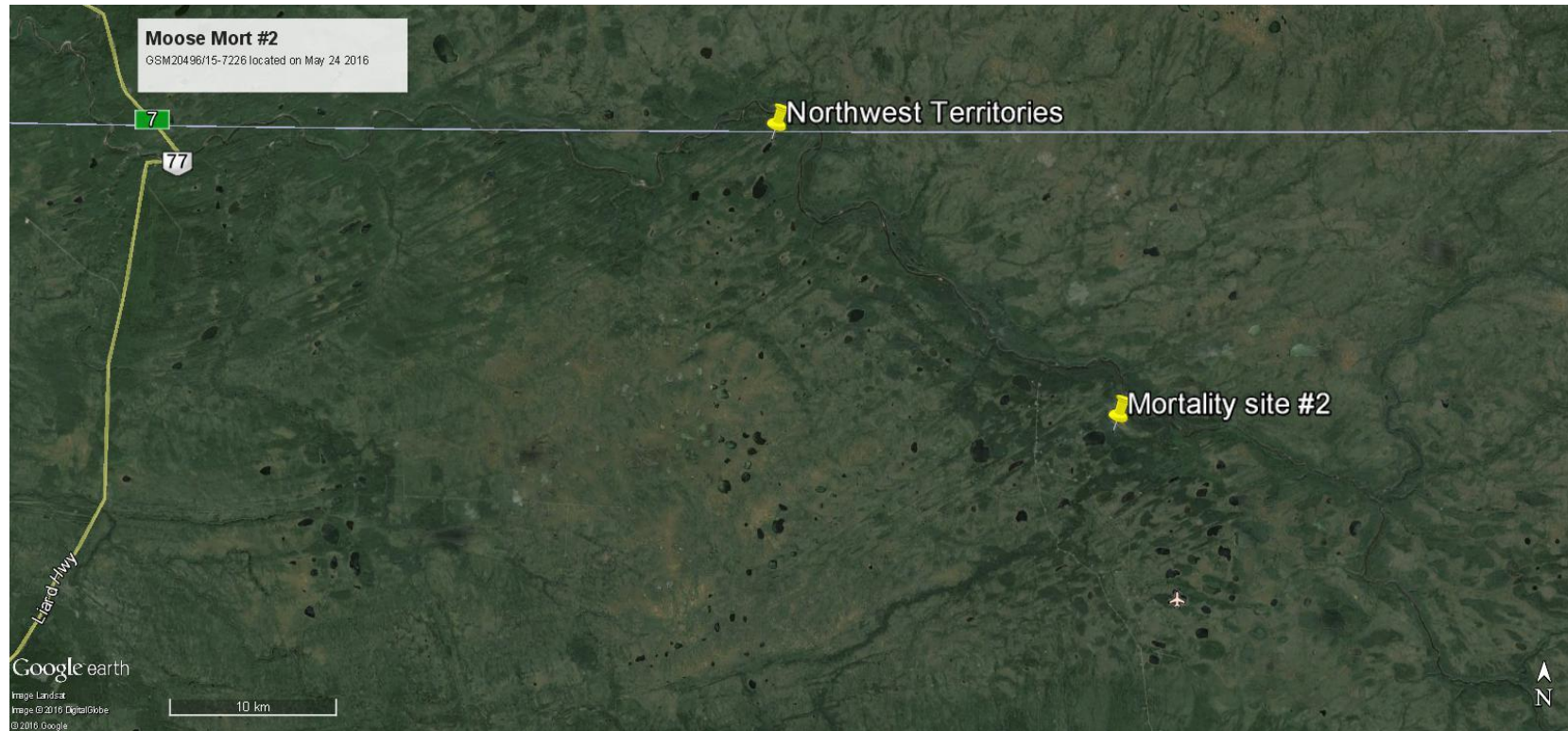


Figure 7. Moose mortality #2 (yellow pin) was located approximately 18km south of the border between BC and NWT (yellow pin).