

TELEMETRY

CAMERA COLLARS



HOW DOES IT WORK?

- Video cameras are mounted onto modified radio collars, facing forward toward the jaw to record footage from the perspective of the animal.
- Cameras are retrieved later to access video recordings.



Photo credit: Sabrina Plante

WHAT CAN BE MEASURED?

- The GPS function provides information on distribution/occupancy, and images can show additional insights (e.g. calf presence, behaviour, cause of mortality),
- Camera collars provide information on weather conditions, presence of other species, mortality events, and calf survival/health.
- Camera collars allow observation of foraging and diet.

WHAT (AND WHO) IS REQUIRED?

- Costs include camera collar purchase and satellite download fees; deployment/retrieval of collars using helicopters are also costly.
- Fitting of collars should be done by experienced technicians. Analysis of images/videos is time-consuming, and may require specific training.
- Local community members can inform collar placement, and can be trained to analyse footage.

WHEN CAN IT BE USED?

Use: Camera collars are best suited to local-scale foraging and behavioural observations in seasons or habitats where caribou are otherwise difficult to observe.

Avoid: Not intended for demographic monitoring or nutrition monitoring. Not suitable for large/range-scale inference. Collars are typically not fitted on calves due to concerns that collar size and weight might impact calf survival or maternal behavior. There may be privacy concerns in areas of human activity.

Previous boreal caribou application: Camera collars were first used in Northern Ontario to study summer diets of caribou; they have since been used in Northern Quebec to evaluate calf survival and fine-scale habitat selection, and in Northern Ontario to study reproduction and calf mortality.

KEY CONSIDERATIONS

- Data accuracy is still being evaluated; battery life is uncertain and camera failure rates may be high.
- High costs can be mediated through combining camera collaring with other capture survey efforts.



Photo credit: OMNRF

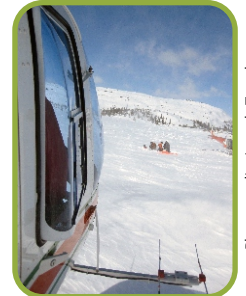


Photo credit: Joseph Townley

Cost:
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Logistical Complexity:
MODERATE-COMPLEX*

Capture/Handling:
YES

*Logistical complexity highly dependent on availability of qualified staff and on optimal capture conditions

For more information, including regional subtleties and method particularities, please refer to decision tree, detailed write-ups and suitability tables 1 and 2. The information contained in this factsheet is intended for rapid communication and summary purposes only.

