



Southern Lakes Grizzly Bear Study: Using Collars to Learn About Grizzly Bears

Animals are often fitted with VHF-radio, GPS (geographic positioning system) or satellite collars as part of wildlife management studies. Collars have been used in the Yukon to study wolves, grizzly bears, moose, muskox, wolverine and caribou.

Why collar grizzly bears?

Wildlife managers use collars to track animals and gather information on seasonal movements and habitat use, distances, and frequency of travel. Information from the collars also helps wildlife managers estimate population size and understand reproduction and survival rates. Understanding survival and reproduction is very important for determining the sustainable harvest. It is not possible to get this type of information without using collars.

What types of collar are used?

The type of collar used depends on what kind of information wildlife managers need to meet the study objectives, combined with the resources available to fund and carry out the research program.



Environment Yukon is currently using VHF-radio and GPS collars for grizzly bear research. The collars are made of leather or vinyl belting. There are two antennae that run along one side of the belting. The antennae come out of the top of the collar to send and receive messages. A small GPS unit is stored inside the GPS collars and hangs at the bottom.

How is information gathered from wildlife collars?

All GPS collars used for Environment Yukon's grizzly bear studies store the location information in the collar (called *GPS store-on-board* collars); some of these collars are also equipped to transmit location data through satellites to a receiving station (called *GPS Argos-uplink* collars). All GPS collars record multiple locations each day. For GPS store-on-board collars, the information can only be retrieved by recovering the collar itself. Wildlife managers decide how many locations to record and how often this

information is transmitted for satellite collars.

All of the collars also send off VHF-radio signals so that the bears can be located during over-flights. These flights are done every couple weeks to monitor survival and reproduction.

How long do collar batteries last?

The life of the batteries used in the collars is about three years. Bears usually wear the collar for this long and then it has to be replaced. When the study is finished, the collars drop off so that the animals do not have to be handled again.

What happens if a collared bear is accidentally shot?

Environment Yukon and local communities invest a lot of time and money in wildlife studies. Collared animals are important to the success of these studies. If you accidentally shoot a collared bear, there are no penalties as long as you report the kill and return the collar to Environment Yukon.



Animals that wear or have worn collars are very important. They provide information that helps wildlife managers understand the way they use the land, their relationship with other species and how human activities affect them. These animals should be protected and deserve our respect for the information they have provided and continue to provide about themselves and their species.



For more information about the Yukon Southern Lakes Region Grizzly Bear Population Study check out www.env.gov.yk.ca/bears or contact Environment Yukon at (867) 667-5652 or toll-free at 1-800- 661-0408. You may also email sighting information to carnivore@gov.yk.ca.

