



Using Collars to Learn about Grizzly Bears

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

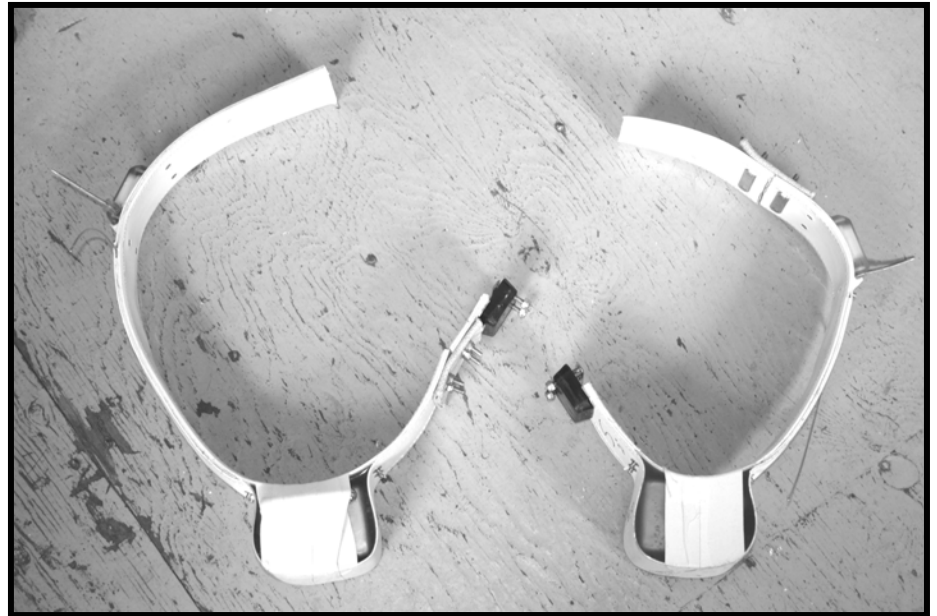
Biologists use collars to track animals to learn about where they spend time in different seasons of the year, how much they move around and how far they travel. Information from the collars also helps biologists calculate population size and understand reproduction and survival rates. Understanding survival and reproduction is very important for determining the sustainable harvest. It would be very difficult to get much of this kind of information without using collars.

Types of collars

The type of collar used depends on what kind of information the biologists 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 a 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.



GPS store-on-board collars record multiple locations a day. The information is stored in the collar and can only be retrieved by flying over the bear or by recovering the collar itself. GPS Argos-uplink collars are programmed to transmit locations to a receiving station via satellite. Biologists can decide how many locations need to be recorded and how often this information is transmitted. This is often the only location information biologists receive until the collars are retrieved.



All of the collars also send off VHF-radio signals so that the bears can be located during over-flights. These flights are done when it is time to get the information stored in the GPS units.

The life of the batteries used in the collars is about two years. Bears usually wear the collar for this long and then it has to be replaced. When the study is finished, biologists capture the bear again to remove the collar. The collars are specially designed to fall off after a number of years in case it is not possible to remove them at the end of the study.

Environment Yukon and local communities invest a lot of time and money in wildlife studies. Collared animals are important to the success of any research. 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.

If you see a collared bear note the location and report it to the nearest Environment Yukon office.

Government of Yukon, Department of Environment, can provide more information about collaring grizzly bears. Contact Ramona Maraj, Carnivore Biologist, Whitehorse, (867) 393-7423, ramona.maraj@gov.yk.ca (toll free 1-800-661-0408) or the Regional Biologist in your area.

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