

## Gene flow of badgers in south-central British Columbia

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June 2016 - New science helping improve the health of endangered badger populations in south-central British Columbia.

A new project is underway using advanced genetic tools to help improve the outlook for endangered badgers in British Columbia. Biologists at UBC-Okanagan, BC Ministry of Environment, Washington Department of Fish and Wildlife, Okanagan Nation Alliance and Artemis Wildlife Consultants are collecting hair samples for genetic analysis to find out where important connections occur between badger populations in BC and the larger population in Washington State. By looking at the genetic fingerprints of badgers in these areas, they will be able to find out if animals are still able to move between the 2 populations. It is believed that the main link is through the Okanagan Valley, which likely connects the populations through a grassland corridor that is less than 25 km wide at points. This linkage zone is important for population health and persistence of badgers, as the estimated population of about 350 adult badgers in BC may rely upon animals being able to move here from the American population. Human activities in this bottleneck may be reducing gene flow such that the continued persistence of the western population in Canada is in jeopardy. New information collected as part of this scientific research will aid in recovery of this endangered grassland animal by helping us make sure that important landscape connections are kept intact.

Biologists and technicians are canvassing people in the South Okanagan, Similkameen, and Boundary regions to report any recent badger sightings or burrows so that they can attempt to collect hair samples from badgers in this area. If you have seen a badger or recent badger activity, please call the **Badger Hotline** at **1-888-223-4376**, or visit [www.badgers.bc.ca](http://www.badgers.bc.ca) and submit a sighting online.

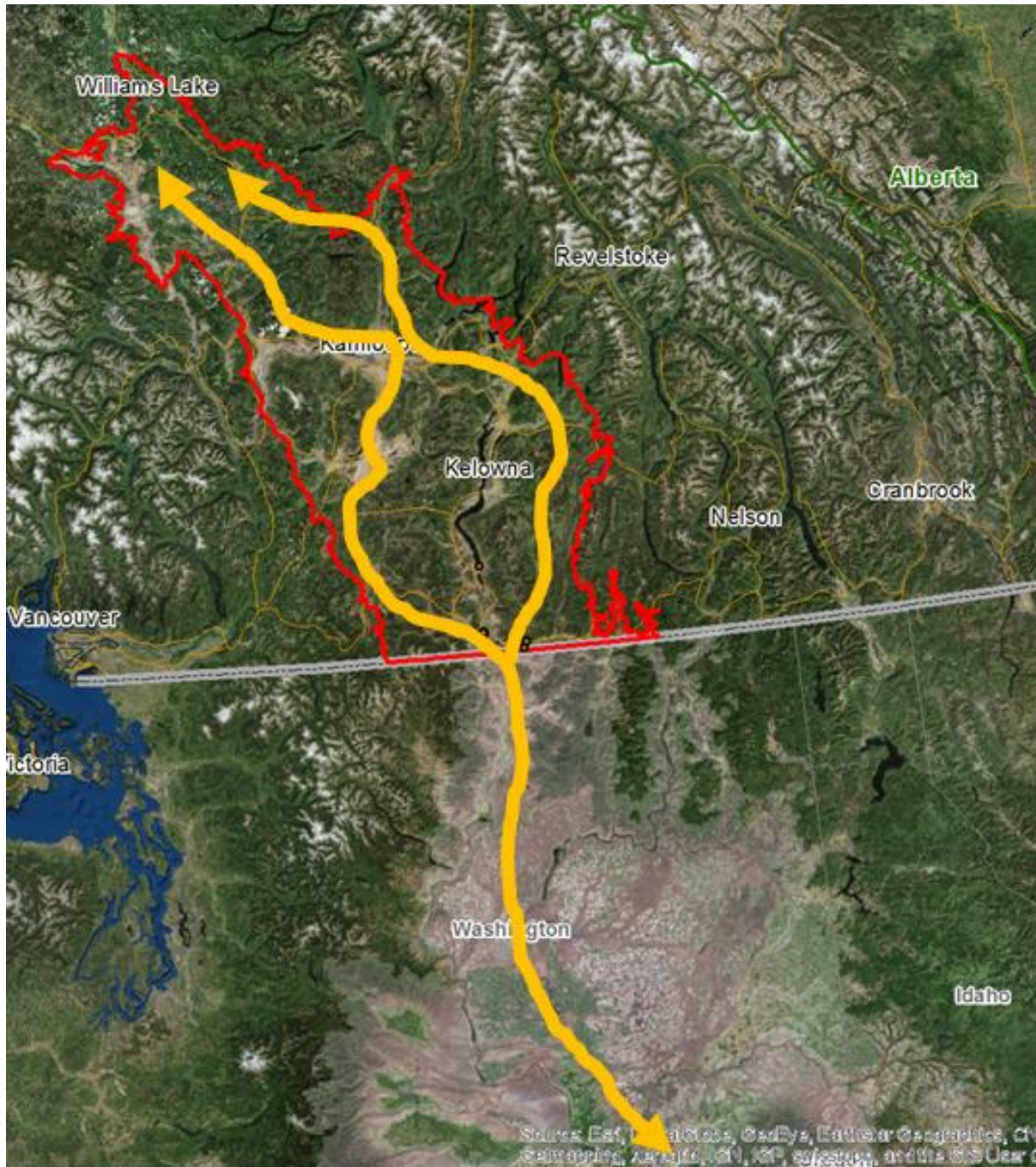


Figure 1. The most likely linkage of the endangered population of badgers in south-central BC to the larger Washington State population is believed to occur through the Okanagan Valley. If so, maintaining this linkage is critical to the health of the BC population of about 350 adult badgers.