

Industrial 'borrow pits' benefit beavers and wolverines, study shows

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Beavers in northern Alberta are making their homes in industrial pits dug to supply materials for road construction, according to new research. Credit: A. Colton

Beavers and wolverines in northern Alberta are using industry-created borrow pits as homes and feeding grounds, according to a new study by University of Alberta ecologists.

The research examined the relationship between [local wildlife](#) and

borrow pits, where soil, gravel or sand has been dug up for road construction. The results show that when revegetated, the sites provide homes for beavers, which in turn support the survival of wolverines.

"The borrow pits enhance habitats for a number of species of wildlife in the bogs of northern Alberta," said Mark Boyce, co-author of the study and Alberta Conservation Association Chair in Fisheries and Wildlife.

"The [deep water](#) and adjacent forage create excellent habitats for beavers. And wolverines thrive when beavers do. Not only do they prey on beavers, but wolverines also have been shown to use beaver lodges as dens where they have their cubs."

Displacement of wildlife by industrial development is a complex issue, Boyce explained.

"In this case, industrial development created the borrow pits that are now used by beavers that actually enhances habitats for our wilderness icon, the [wolverine](#)."

The research was led by Ph.D. student Matthew Scrafford, who formed a partnership with the Dene Tha' First Nation that proved instrumental for the study.

"The most important partner on this research was the Dene Tha' First Nation," Boyce noted. "Several young people in the area were enthusiastic about the project. They were instrumental in building traps and supporting our research."

This research was funded by the Alberta Conservation Association, the Alberta Trappers Association, and Husky Energy.

The study, "Beaver (*Castor canadensis*) Use of Borrow Pits in an

Industrial Landscape in Northwestern Alberta," was published in the *Journal of Environmental Management*.

More information: Matthew A. Scrafford et al. Beaver (*Castor canadensis*) use of borrow pits in an industrial landscape in northwestern Alberta, *Journal of Environmental Management* (2020). [DOI: 10.1016/j.jenvman.2020.110800](https://doi.org/10.1016/j.jenvman.2020.110800)

Provided by University of Alberta

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