

Y2Y Partner Profiles

Miistakis Institute for the Rockies and the Western Transportation Institute are dedicated to mitigating the impacts transportation corridors have on wildlife throughout the Yellowstone to Yukon region.

Highways and railroads are a chief cause of habitat fragmentation. Fortunately, two of Y2Y's partners are working to better understand and mitigate the negative impacts of transportation infrastructure on wildlife and wildlife habitats.

Highway 3 climbs through mountains, skirts rivers, and runs through the forests of southern Alberta and British Columbia. It takes its common name, Crowsnest Highway, from the pass it crosses over the Continental Divide. It's a beautiful road, as long as you're not travelling on four legs.

Even while it connects human communities between Vancouver and Medicine Hat, Highway 3 fragments wildlife habitat in the Crown of the Continent Ecosystem, one of the premier mountain ecoregions in the world. The Crown – a 42,000-square kilometer (16,158-square mile) area with Waterton-Glacier International Peace Park at its core – is also fragmented by political lines: the US/Canadian border, as well as boundaries around national and provincial parks, wilderness areas, private lands, First Nations lands, and towns. In 1995, the **Miistakis Institute for the Rockies** was formed to facilitate ecosystem management for this environmentally important area.

In one recent important effort, Miistakis worked with Y2Y and Western Transportation Institute (WTI) to convene a groundbreaking workshop bringing together scientists and researchers who identified ways to work together to minimize and mitigate the effects of roads on connectivity in the Crown.

"The Highway 3 wildlife movement and mitigation assessment project is a great partnership between Y2Y, WTI, and Miistakis" says Tracy Lee, Miistakis Senior Project Manager, citing the synergy of outreach and science. "We see Y2Y as a partner in conservation with similar goals. Our key focus area is the Crown of the Continent, and it's also one of Y2Y's Priority Areas."

Established as a nonprofit corporation affiliated with the University of Calgary, the Institute undertakes and supports research to deepen scientific and ecological understanding of the Crown. Partnerships are important to the organization, which works closely with federal and provincial/state agencies, landowners, First Nations communities, conservation organizations, and industry. "The Highway 3 project is a good example of not only our ability to attract funding to a partnership, but also of the different roles the organizations play in helping move the project forward," says Lee. "It's exciting."

On a wet, spring night in Canada's Waterton Lakes National Park, long-toed salamanders obey their instincts and troop en masse from Linnet Lake toward breeding grounds in the foothills of Crandell Mountain. They creep safely through special tunnels, while cars whiz by overhead in the rainy darkness. Wildlife crossings aren't just for grizzly bears and elk anymore.

The Road Ecology group of the **Western Transportation Institute** (WTI) is leading the way in wildlife crossing research and in creating transportation infrastructure. Based in Bozeman, Montana, and established under the auspices of the US Department of Transportation, the group operates the largest road ecology research program in North America. Currently, 15 of their 25 active projects are in the Yellowstone to Yukon region. Their first landscape-level work was the successful wildlife crossings project in Banff National Park, which reduced animal-vehicle collisions with ungulates by 96 percent and all large mammals by 80 percent. An equally extensive project is now underway on Montana's Highway 93.

Among other efforts, WTI is working with Y2Y to study the effects of busy highways on birds. WTI also recently completed an assessment of the distribution and connectivity of native trout in the Bow Valley.

Road Ecology group director Rob Ament says that one of the great strengths in the relationship between WTI and Y2Y is providing opportunities to study a wide variety of species. The concerns of the group stretch far past wildlife crossings, says Ament, pointing to WTI's work on such diverse issues as the impact of roads on water and air quality, and how road-induced fragmentation affects vegetation patterns. The latter could prove especially important in the face of climate change, as plants are forced to 'migrate' due to drought or other conditions.

"The ultimate goal," says Ament, "is institutional change. As new highways are designed, they incorporate methods and technologies that make them sensitive to nature. That's actually starting to happen. We have a chance to do better."

