Project Title: Joint Canada-US Analysis of Wolverine Landscape Genetic Data

Discipline: Natural
Type of Project: Research and Education
Funding Agency: U.S. Fish and Wildlife Services
Other Partners/Cooperators: University of Montana
Student Participation: No
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Investigators and Agency Representative:
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Project Abstract:
Identify functional (i.e., genetic and landscape) connectivity barriers and linkages among existing wolverine habitat, such that conservation, restoration, or mitigation measures (e.g., corridor protection, highway crossing structures) for those specific areas could be prescribed and prioritized. Conduct analysis of genetic samples of wolverines collected in Canada and the United States to determine degrees and extent of genetic connectivity. Develop landscape-scale circuit-scape methodology, predictive maps, and mauscript to maintain or enhance gene-flow and connectivity among the population(s): Project Objectives and deliverables: Develop preliminary list of process and data needs; Attend 2 expert workshops in or near Missoula; Facilitate the landscape genetic portions of both workshops; Provide input and assistance with study area delineation and hypothesis development; Identify genetic distance metrics and calculate pairwise individual genetic distances from genotype data; Create landscape resistance models using methods selected by workshop participants; Conduct model selection using methods recently identified by recent work with Shirk and Cushman; Conduct simulations (if deemed desirable by workshop participants) to validate high-ranking models; Assist with report/manuscript preparation as a coauthor.