

Andrew Shirk

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My expertise is primarily in landscape ecology, population genetics, and spatial statistics. I study the impacts of climate change and other anthropogenic factors on the viability of wildlife populations. These studies often involve inferring how landscape conditions influence gene flow and population demographics based on genetic data, GPS collars, and remote sensing. Once factors driving current population dynamics have been elucidated, I use simulations to explore potential future population viability given scenarios of future climate and landscape change. Ultimately, the goal is to identify conservation strategies that reduce or mitigate habitat loss and fragmentation while improving the capacity for wildlife populations to move across the landscape in response to climate change. I am currently using these approaches to inform conservation of the Greater Sage-grouse, Marbled Murrelet, Pygmy Rabbit, and American Marten in the Pacific Northwest. These projects stem from my membership in the Washington Wildlife Habitat Connectivity Working Group and collaborations with the Washington Department of Fish and Wildlife, the US Forest Service, and the US Fish and Wildlife Service. My education includes a Bachelor of Science in Biology from Indiana University, a GIS certificate from the University of Washington, and a Master's degree in Environmental Science from Western Washington University.