

## DEVELOPING A MONITORING FRAMEWORK FOR WOLVES IN IDAHO

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Since wolf reintroduction, radio telemetry has been the primary tool for monitoring wolves in Idaho. However, its efficacy as the sole method for population monitoring will wane as the wolf population expands and federal funding for wolf management diminishes. Maintaining radio-collared wolves dispersed widely across the landscape is an expensive and logistically difficult monitoring approach. Few studies, however, have developed reliable alternatives for monitoring wolves across varied landscapes. We are evaluating the effective-ness of wolf population monitoring methods within four separate study areas in Idaho. One method, the summer scat method, stratifies habitat to facilitate sampling, provides data indica-tive of reproduction, and can provide estimates of wolf abundance. We are also testing the ef-ficacy of hunter questionnaires and public sightings in estimating wolf abundance in the study areas. In addition, we are pilot testing several novel methods to detect and count wolves. To provide a statewide assessment of wolf distribution and abundance, we will collate data from tested non-invasive field methods, public observation data, and radio-collared animal data into an occupancy model. Preliminary analyses indicate an occupancy model using only public sightings can reasonably estimate number of wolf packs in Idaho. Development and refine-ment of such an occupancy model provides a framework for wolf population monitoring in the absence of, or complementary to, intensive telemetry-based monitoring. We expect our findings will be of interest and wholly applicable to professionals who manage wolf popula-tions in other states.