

Canada Lynx Monitoring and the Plan for Conservation in the Western United States

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Canada lynx (*Lynx canadensis*) monitoring and conservation has been an ongoing challenge for forestry and wildlife managers throughout the western United States. There have been many independent efforts to monitor this cryptic species but in 2022, Montana Fish, Wildlife and Parks (FWP) initiated plans for a multi-state lynx monitoring program. From 1 December 2022 through 30 April 2023, FWP deployed 40 lynx monitoring stations as part of a pilot project to estimate lynx occupancy in high-quality modeled habitat versus marginal habitat in Montana. Lynx occupancy in the high-quality habitat of northwestern Montana was estimated at 0.77 (SE = 0.17) with a detection probability of 0.30 (SE = 0.077) while occupancy in marginal habitat, in the Greater Yellowstone Ecosystem (GYE) was functionally 0. This effort helped inform the U.S. Fish and Wildlife Services' redesignation of lynx critical habitat (CH) which resulted in a proposed elimination of the CH in the GYE in response to a lack of detections from the 2022–2023 occupancy pilot in that area. These pilot results also informed the multi-state occupancy survey conducted over the winter of 2023–2024 in Montana, Idaho, and Wyoming. From 1 December 2023 through 30 April 2024, biologists collectively deployed 123 lynx monitoring stations (10 in Idaho, 90 in Montana, and 23 in Wyoming) throughout areas modeled as high-quality lynx habitat to estimate lynx occupancy across a major part of the West. Montana FWP detected lynx at 26 of the 90 stations deployed in Montana while no lynx were detected in Wyoming or Idaho. The analysis from this study is ongoing but will provide detailed guidance to the USFWS during the implementation of their lynx recovery plan and future lynx monitoring and conservation efforts in the West.