

PROJECT WAFLS: PREDICTING RESPONSES OF SHORT-EARED OWL POPULATION SIZE, DISTRIBUTION, AND HABITAT USE IN A CHANGING CLIMATE

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The Short-eared Owl is an open-country, ground-nesting species found in marshes, grasslands, shrublands, and tundra across North America and around the world. Evidence suggests that Short-eared Owl populations are experiencing long-term, range-wide, substantial declines in North America, but sufficient monitoring data is lacking to quantify any possible trend. Complicating trend analysis efforts for this species is the expected annual variation in breeding densities, believed to be associated with prey availability. We present evidence from four years of surveys, starting in the Intermountain West, but now encompassing eight western states, confirming annual variation in both density and distribution of Short-eared Owls. Furthermore, we have identified the landscapes features where owls are least susceptible to this variation. Lastly, we present climate-informed projections for the future viability of the species within the region. The results of our work will directly inform the prioritization of actions to help conserve this often neglected species.