
HABITAT USE OF OVER-WINTERING ADULT GOLDEN EAGLES IN THE WESTERN U.S.

Robert Domenech*, Raptor View Research Institute, Missoula, Montana 59806

Bryan Bedrosian, Craighead-Beringia South, Kelly, Wyoming 83011

Ross Crandall, Craighead-Beringia South, Kelly, Wyoming 83011

A number of studies show declining migration count trends and breeding abundance in Golden Eagles (*Aquila chrysaetos*) in the West. We outfitted 13 adult, migrant Golden Eagles with transmitters from 2007-2012 with battery powered Argos Platform Terminal Transmitters (PTT) or 70-g solar-powered GPS/PTTs. Eagles wintered across the West, from central Montana to Arkansas. We gathered data on winter territory size, time spent on wintering grounds, and the habitat use of eagles during the winter. We measured a large degree of variability in both winter home range size and duration of winter range use. We found an average 50-percent Minimum Convex Polygon (MCP) home range estimate of 1680 km² (range 8-14,881 km²) and an average 95-percent MCP of 6578 km² (range 85- 36,143 km²). Winter home range estimates were extremely variable between individuals and even within the same individual between years. Eagles spent an average of 105 days on their wintering

territories (range 60-179 days). We found the most common habitat types were pinyon-juniper, coniferous forest, grassland, shrub, and sagebrush habitats which all comprised ≥ 10 percent of core wintering areas. Several habitat types were correlated to latitude and longitude: the percentage of coastal habitat within winter home ranges increased as eagles wintered further south, riparian and logged habitats increased to the north and west, and shrub habitat percentage of the home range decreased with an increase in latitude. Understanding wintering needs of Golden Eagles is essential to the long-term health of this species across the West.