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Abstracts

FEATURE ARTICLES

SPACE USE, MIGRATORY CONNECTIVITY, AND POPULATION SEGREGATION AMONG WILLETS BREEDING IN THE WESTERN GREAT BASIN

SUSAN M. HAIG[1,3], LEWIS W. ORING[2], PETER M. SANZENBACHER[1] AND ORIANE W. TAFT[1]
[1]*USGS Forest and Rangeland Ecosystem Science Center, 3200 SW Jefferson Way, Corvallis, OR 97331*
[2]*Department of Environmental and Resource Science, University of Nevada, 1000 Valley Rd., Reno, NV 89512*
Manuscript received 19 November 2001; accepted 28 March 2002.
[3]E-mail: susan_haig@usgs.gov

Abstract. Western Willets (*Catoptrophorus semipalmatus inornatus*) were banded (*n* = 146 breeding adults and chicks) and radio-marked (*n* = 68 adults) at three western Great Basin wetland complexes to determine inter- and intraseasonal space use and movement patterns (primarily in 1998 and 1999). Birds were then tracked to overwintering sites where migratory connectivity and local movements were documented. Willets arrived synchronously at breeding sites during mid-April and spent less than 12 weeks in the Great Basin. There were no movements to other sites in the Great Basin during the breeding or postbreeding season. However, most breeding birds moved locally on a daily basis from upland nest sites to wetland foraging sites. The mean distance breeding birds were detected from nests did not differ between sexes or between members of a pair, although these distances were greater among postbreeding than breeding birds. Home-range estimates did not differ significantly between paired males and females during breeding or postbreeding. However, female home ranges were larger following breeding than during breeding. Shortly after chicks fledged, adult Willets left the Great Basin for locations primarily at coastal and estuarine sites in the San Francisco Bay area. Limited data revealed little among-site movements once Willets arrived at the coast, and birds appeared to be site faithful in subsequent winters. Winter sites of western Great Basin Willets differed from those used by birds from other areas in the subspecies' range, suggesting another subspecies or distinct population segment may exist. This study illustrates the importance of understanding movements and space use throughout the annual cycle in conservation planning.

Key words: *annual cycle*, Catoptrophorus semipalmatus inornatus, *connectivity, dispersal, Great Basin, home range, Willet.*