ABSTRACTS FOR *CONDOR* 103(2) MAY 2001

FEATURE ARTICLES

MOVEMENTS, HABITAT USE, AND SURVIVAL OF NONBREEDING PIPING PLOVERS[1]

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Abstract. We studied movements, habitat use, and survival rates of 49 radio-marked Piping Plovers (*Charadrius melodus*) overwintering along the southern Laguna Madre of Texas during 1997–1998. Plovers exhibited strong site fidelity to nonbreeding areas throughout fall, winter, and spring. Mean home-range size of plovers (based on 95% of locations) was 12.6 km^2 with a mean core area (50% of locations) of 2.9 km^2. Seasonal home-range size and core areas differed only between fall and winter; home-range and core areas were smaller in fall than winter. Mean linear distance moved was 3.3 km; fall movements were smaller than those made in winter and spring. Habitat use varied seasonally: plovers used algal flats more during fall and spring than during winter; plovers used exposed sand flats more often during winter than in fall and spring. We recorded no mortality of radio-marked birds. High rates of survival and strong site fidelity throughout the nonbreeding period suggest that this period of the annual cycle may not contribute to the declining population size for Piping Plovers wintering in this region. However, because Piping Plovers spend most of the annual cycle on nonbreeding areas, they are likely to be negatively affected by loss of those sites, emphasizing the importance of conserving nonbreeding areas for this threatened and endangered species.

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