

California Wildlife Habitat Relationships System
California Department of Fish and Wildlife
California Interagency Wildlife Task Group

SPOTTED SANDPIPER

Actitis macularius

Family: SCOLOPACIDAE
B170

Order: CHARADRIIFORMES

Class: AVES

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

An uncommon breeder from May to August along gravelly and sandy shores of riverine and lacustrine habitats in the Cascade, Sierra Nevada, Great Basin, and North Coast Ranges. Breeds south in the Sierra Nevada to near Kern Lake, Tulare Co. (Grinnell and Miller 1944), in coastal mountains to the Russian River, Sonoma Co., and in San Bernardino Mts. There are a few nesting records for Marin and Contra Costa cos. (Erickson 1982, Shuford 1982), Santa Cruz and Monterey cos., and southwestern California (Garrett and Dunn 1981). Breeds locally in Sacramento Valley. Breeding occurs from sea level to 3400 m (11,000 ft), but most nesting occurs below 1800 m (6000 ft), in coastal and montane regions (Grinnell and Miller 1944). Uncommon July to May along southern California coast. Smaller numbers winter along northern coast, in Sierra Nevada foothills, Great Basin, Central Valley, and at Salton Sea. At this time, occurs mostly on rocky marine shores, along gravel riverine shores, and less commonly along estuarine shores. Does not flock at any season.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Probes, gleans and stalks insects. Captures some insects on the wing, and also wades in water to forage on bottom. Mostly eats insects, including beetles, crickets, flies, grasshoppers, worms, and ants (Bent 1929). Aquatic fly larvae probably are especially important. Also takes other aquatic invertebrates, and catches small fish (Bent 1929).

Cover: Rocky, gravelly, and sandy shores, especially those with considerable driftwood, are used throughout the year: shores of rivers, lakes, and ponds during the breeding season and coastal shores during the nonbreeding season.

Reproduction: Nest is a depression in the ground; may be lined with bits of vegetation. Usually concealed in grass, or amid rocks or driftwood. In Michigan, nests usually were in thick grass 15-76 cm (6-30 in) tall, and shaded by brush, trees, or ferns (Miller and Miller 1948).

Water: No additional data found.

Pattern: Uses gravel shores of mountain streams, lakes, and reservoirs for foraging, and nearby low vegetation for nest concealment in breeding season. In nonbreeding season, rocky outer coasts, estuaries, and lowland rivers and lakes with suitable cover are preferred habitats.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, diurnal activity. Migrates at night.

Seasonal Movements/Migration: Moves out of high mountains after breeding season.

Migrants reach coast beginning in late July. Spring migration peak occurs in mid-May, and few occur in coastal habitats after early June (Page et al. 1979). Atypical habitats, such as offshore islands and desert oases, may be used in migration.

Home Range: Mean home range in a Michigan study was about 5 ha (12 ac) (Miller and Miller 1948). In New York, 3 individually marked breeding females fed and displayed over areas of 1.06, 1.8, and 3.2 ha (2.5, 4.5 and 8.0 ac), the latter 2 overlapping broadly (Hays 1972). Nesting density averaged 24/ha (10/ac) over a 9-yr period on a small island in Minnesota (Oring et al. 1983).

Territory: Female arrives on breeding grounds before male and establishes the nesting territory. Male also territorial (Oring et al. 1983). Female competes aggressively for male mates, performing elaborate courtship displays (Bent 1929, Palmer 1967). Winter feeding territory maintained.

Reproduction: In California, breeding season extends from late April to late August, with a peak from mid-May to late June (Bent 1929, Cogswell 1977). Polyandrous; this is one of the few well-documented cases of polyandry in birds (Hays 1972, Oring and Knudsen 1972). In Minnesota, female mated with an average 1.66 males every season; degree of polyandry was related to sex ratio of local population (Oring et al. 1983). Single-brooded. Polygyny may occur following nest loss. Probably a solitary nester in most areas of California. In some locations (e.g. Minnesota) may be semi-colonial. Of 317 nests in Minnesota, mean clutch size was 3.6 eggs (Oring et al. 1983). Incubation mostly by male; incubation period about 21 days. Precocial young leave nest within hours of hatching and are attended by male. Flight attained at 13-16 days (Palmer 1967). Mean age at first breeding is 1 yr for male, and 1.4 yr for female (Oring et al. 1983).

Niche: Adult mortality on breeding grounds is low, but nest mortality may be high. Of 1142 eggs, 39% hatched, and of 442 chicks, 58% survived to fledging (Oring et al. 1983). Mice and blackbirds were responsible for most of this egg loss, but a mink and a river otter also took eggs. Most chick loss was from unknown causes, but a mink and common grackles took some chicks (Oring et al. 1983). Periodic extirpation of breeding populations result from flooding and reduction in size of open areas caused plant growth. New areas become suitable for colonization through scouring action of water, and through human activity (Oring et al. 1983).

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