

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

SHORT-EARED OWL

Asio flammeus

Family: STRIGIDAE
B273

Order: STRIGIFORMES

Class: AVES

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

Formerly a resident locally the length of the state, excluding higher mountains. A widespread winter migrant, found primarily in the Central Valley, in the western Sierra Nevada foothills, and along the coastline. An uncommon winter migrant in southern California, including the Channel Islands (Garrett and Dunn 1981). Usually found in open areas with few trees, such as annual and perennial grasslands, prairies, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands. Occasionally still breeds in northern California (McCaskie et al. 1988). Breeding range includes coastal areas in Del Norte and Humboldt counties, the San Francisco Bay Delta, northeastern Modoc plateau, the east side of the Sierra from Lake Tahoe south to Inyo county, and the San Joaquin valley. Numbers have declined over most of the range in recent decades because of destruction and fragmentation of grassland and wetland habitats, and grazing (Remsen 1978). Increased levels of predation on this ground nester may also contribute to its decline (Holt and Leasure 1993).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Feeds primarily on voles and other small mammals (Bent 1938, Earhart and Johnson 1970). Birds are an important food source in coastal wintering areas, and in nesting season. Also eats reptiles, amphibians, and arthropods. Frequently searches in low, gliding flight 1-6 m (3.3 to 20 ft) above the ground; swoops and pounces; also hunts from a perch. Commonly found in treeless areas using fence posts and small mounds as perches.

Cover: Requires dense vegetation; tall grasses, brush, ditches, and wetlands are used for resting and roosting cover (Grinnell and Miller 1944).

Reproduction: Nests on dry ground in a depression concealed in vegetation, and lined with grasses, forbs, sticks, and feathers; occasionally nests in a burrow. One record nest recorded on bare soil with no nest material (Holt 1992).

Water: Has been observed drinking in the wild (Dixon and Bond 1937) and in captivity (Clark 1975), but not known if water is essential.

Pattern: Found in open, treeless areas with elevated sites for perches, and dense vegetation for roosting and nesting.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, circadian activity; mostly crepuscular, at night, and on cloudy days.

Seasonal Movements/Migration: Migrants usually arrive in California in September or October, and leave in April. Concentrates in winter in areas where prey is abundant, and snow cover is scant or absent (Bent 1938).

Home Range: Pitelka et al. (1955a) estimated that density on tundra in Alaska varied from 1.2 to 1.5 pair per km² (3-4 per mi²).

Territory: On prairie marshland in Manitoba, breeding territory in 1969 averaged 0.7 km² (0.3 mi²), and varied from 0.2 to 1.0 km² (0.1 to 0.4 mi²) (n = 5) (Clark 1975). In Alaska, Pitelka et al. (1955b) reported minimum breeding territory of about 20 ha (50 ac). Territory may vary greatly in response to small mammal density (Clark 1975).

Reproduction: Courtship consists of aerial displays and hooting (Pitelka et al. 1955a). Breeds from early March through July (Bent 1938). Clutch size 4-14 eggs, usually 5-7, and higher in years with high prey population. Eggs laid in April and May; incubated by female for 21-28 days. Male brings food to female, which feeds and cares for semialtricial young. Fledging is at 31-36 days (Urner 1923).

Niche: Predators include great horned owls (Hunt 1918, Killpack 1951), golden eagles (McGahan 1968), snowy owls (Murie 1929), and peregrine falcons (Sooter 1942). Small, predatory mammals and large reptiles may prey upon young and eggs. Competitors include northern harriers (Berger 1958), gulls (Fisler 1960), barn owls, and other large owls.

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