

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

BURROWING OWL

Athene cunicularia

Family: STRIGIDAE
B269

Order: STRIGIFORMES

Class: AVES

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

A yearlong resident of open, dry grassland and desert habitats, and in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. Formerly common in appropriate habitats throughout the state, excluding the humid northwest coastal forests and high mountains. Numbers markedly reduced in recent decades. Present on the larger offshore islands. Found as high as 1600 m (5300 ft) in Lassen Co.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Eats mostly insects; also small mammals, reptiles, birds, and carrion. Hunts from a perch, hovers, hawks, dives, and hops after prey on ground.

Cover: Uses rodent or other burrow for roosting and nesting cover. Moves perch to thermoregulate; perches in open sunlight in early morning, and moves to shade, or to burrow, when hot (Coulombe 1971).

Reproduction: Usually nests in old burrow of ground squirrel, or other small mammal. May dig own burrow in soft soil. Nest chamber lined with excrement, pellets, debris, grass, feathers; sometimes unlined. Pipes, culverts, and nest boxes used where burrows scarce (Robertson 1929). Burrowing owl nests have also been observed in buildings (Zambrano 1998).

Water: Water requirements not well known; observed to drink in the wild (Coulombe 1971).

Pattern: Frequents open grasslands and shrublands with perches and burrows.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, circadian activity. Hunts day or night; frequently perches or stands at burrow entrance in daytime.

Seasonal Movements/Migration: Individuals in northern parts of the range may winter to the south, as far as Central America (Call 1978), but mostly resident in California. May be some movement downslope in winter, or wandering. Strong site fidelity is suggested (Schultz 1993).

Home Range: Home range at the Oakland Airport varied from 0.04 to 1.6 ha (0.1 to 4 ac), with a mean of 0.8 ha (2 ac) (Thomsen 1971).

Territory: Martin (1973) reported average distance between burrows of 166 m (436 ft), but

that burrow not defended until another burrowing owl came within 10 m (33 ft).

Reproduction: Male gives courtship display and notes in front of burrow. Breeding occurs from March through August, with peak in April and May. Clutch size 2-10, average 5-6 eggs; may increase to the north (Bent 1938). Young emerge from burrow at about 2 wk, and fly by about 4 wk (Zarn 1974a). Martin (1973) reported 95% of the young fledged, and a mean reproductive success of 4.9 young per pair. Semicolonial; probably the most gregarious owl in North America.

Niche: Conversion of grassland to agriculture, other habitat destruction, and poisoning of ground squirrels have contributed to the reduction in numbers in recent decades, which was noted in the 1940s, and earlier (Grinnell and Miller 1944, Zarn 1974a, Remsen 1978). Predators include prairie falcons, red-tailed hawks, Swainson's hawks, ferruginous hawks, northern harriers, golden eagles, foxes, coyotes, and domestic dogs and cats (Martin 1973). Fleas, lice, and feather mites are common ectoparasites. Collisions with autos may be a significant cause of mortality.

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