

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

LEAST BITTERN

Ixobrychus exilis

Family: ARDEIDAE
B050

Order: PELECANIFORMES

Class: AVES

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

In southern California, common summer resident (especially April to September), at Salton Sea and Colorado River, in dense emergent wetlands near sources of freshwater, and in desert riparian (saltcedar scrub). Probably nests only in emergent wetlands. In deserts and coastal lowlands, quite rare, but breeds locally in the Owens Valley and Mojave Desert. Rare to uncommon April to September in large, fresh emergent wetlands of cattails and tules in San Diego county, and the Sacramento and San Joaquin Valleys, and where it nests (Cogswell 1977, McCaskie et al. 1979). In northeastern California, recent breeding records exist in Siskiyou, Modoc and Lassen counties. (Sterling, 2008).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Eats mainly small fishes, aquatic and terrestrial insects, and crayfish; also amphibians, small mammals, and miscellaneous invertebrates. Stalks or stands motionless in shallow water, then quickly strikes at prey, in water or on emergent vegetation; hunts in small openings in dense, emergent vegetation; moves on to new pool after each capture (Palmer 1962); at Salton Sea and Colorado River, also may feed in adjacent thickets of saltcedar. Often feeds on the open-water side of emergent vegetation, using vegetation stalks as stepping-stones (Weller 1961).

Cover: Rests, roosts, and hides in dense, emergent vegetation and, at Salton Sea and Colorado River, in adjacent thickets of saltcedar in desert riparian habitat.

Reproduction: Nests, made of dried and living plants, are built low in tules or cattails, usually above water level. Usually over water 0.3 m (1 ft), or more, deep (Cogswell 1977). Usually near open water, or a small opening in vegetation (Weller 1961).

Water: No additional data found.

Pattern: Uses dense, emergent vegetation for cover and nesting, and feeds in such vegetation, as well as in small openings. Often feeds along the edge of emergent vegetation, on the open-water side.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, diurnal or circadian activity. Feeds in daytime, but not known if it feeds at night as does American bittern. Migrates nocturnally (Terres 1980).

Seasonal Movements/Migration: Most of California population migrates south to Mexico for winter (mainly October to March). Part of population in southern California apparently is nonmigratory.

Home Range: Reported nest densities include: 15 nests in 0.8 ha (2 ac) of marsh in Michigan (Wood 1951) 26 nests in 26 ha (65 ac) (Beecher 1942), and 19 nests in an 18 ha (44 ac) marsh in Iowa (Palmer 1962).

Territory: Defends nesting territory, but size unknown.

Reproduction: Based on limited data, apparently arrives on California breeding ground late March to May, lays eggs mid-April to early July. Probably monogamous; nests solitarily, but sometimes in high densities in good habitat. Clutch size usually 4-5, range 2-7 (Weller 1961). Apparently double-brooded, at least in Iowa. Incubation 19-20 days (Weller 1961). Semi-altricial young, tended by both parents, sometimes until 26 days old. Ages at first flight, independence, and first breeding unknown (Palmer 1962).

Niche: Marsh wren has been seen puncturing eggs of this species (Bent 1926). Turtles sometimes eat young (Weller 1961). Populations have declined from marsh drainage, human disturbance, and pesticides (Palmer 1962, Arbib 1979). Because of nocturnal migration at low altitude, frequently killed, or injured, by collisions with obstacles such as TV towers (Terres 1980).

REFERENCES

- Arbib, R. 1979. The blue list for 1980. *Am. Birds* 33:830-835.
- Beecher, W. J. 1942. Nesting birds and the vegetation substrate. Chicago Ornithol. Soc., Chicago, IL. 69pp.
- Bent, A. C. 1926. Life histories of North American marsh birds. U.S. Natl. Mus. Bull. 135. 490pp.
- Cogswell, H. L. 1977. Water birds of California. Univ. California Press, Berkeley. 399pp.
- Garrett, K., and J. Dunn. 1981. Birds of southern California. Los Angeles Audubon Soc. 408pp.
- McCaskie, G., P. De Benedictis, R. Erickson, and J. Morlan. 1979. Birds of northern California, an annotated field list. 2nd ed. Golden Gate Audubon Soc., Berkeley. 84pp.
- Palmer, R. S., ed. 1962. Handbook of North American birds. Vol. 1. Yale University Press, New Haven, CT. 567pp.
- Remsen, J. V., Jr. 1978. Bird species of special concern in California. Calif. Dept. of Fish and Game, Sacramento. Wildl. Manage. Admin. Rep. No. 78-1. 54pp.
- Sterling, J. 2008. Least Bittern (*Ixobrychus exilis*) in Shuford, W.D. and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
- Terres, J. K. 1980. The Audubon Society encyclopedia of North American birds. A. Knopf, New York. 1100pp.
- Weller, M. W. 1961. Breeding biology of the least bittern. *Wilson Bull.* 73:11-35.
- Wood, N. A. 1951. The birds of Michigan. Univ. Mich., Ann Arbor, Mus. Zool. Misc. Publ. No. 75. 559pp.