## California Wildlife Habitat Relationships System

# California Department of Fish and Wildlife California Interagency Wildlife Task Group

BLACK SKIMMER Rynchops niger

Family: LARIDAE Order: CHARADRIIFORMES Class: AVES

B236

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#### DISTRIBUTION, ABUNDANCE, AND SEASONALITY

A fairly common summer resident at the Salton Sea. Usually arrives by late April and departs by October, breeding in most recent years. A colony has bred at the south end of San Diego Bay since 1976; 75 were present by 1979. This population is resident all year (Garrett and Dunn 1981). First reported in California in 1962 on the coast of Orange Co. In 1968-71, observed at the Salton Sea, and a colony of 5 nests was noted there in 1972, at the south end (McCaskie et al. 1974). Numbers on the sea have increased steadily; 500, with 100 nests, were reported at several colonies in 1977 (Garrett and Dunn 1981). Increasingly frequent visitor to coastal estuaries and river mouths of southern California, and accidental at a few other interior locations, such as Lake Havasu and Palo Verde on the Colorado River, and Lakeview, Riverside Co. (Garrett and Dunn 1981).

#### SPECIFIC HABITAT REQUIREMENTS

Feeding: Foraging on small fishes and crustaceans takes place in calm, shallow water. At the Salton Sea, most feed near river mouths and other water channels (Garrett and Dunn 1981). Usually forages in early morning, evening, and at night when prey is near the water surface (Terres 1980). Rarely swims, and never dives for prey. Often flies for several hundred meters with the lower mandible cutting the water surface. The small wakes thus created may attract fish, which are grabbed by sideways head swings, or in later flights over the same area (Cogswell 1977). Often gregarious when feeding, and often maneuvers in compact flocks (Pough 1951). Young are fed regurgitated food initially, but whole fish later. Nestling lacks the asymmetrical bill of adult, and can pick up food and catch insects (Harrison 1978).

Cover: Roosting takes place on sandy beaches or gravel bars. Rarely alights on water. Usually spends daylight hours standing in dense flocks with all heads pointing in one direction (Terres 1980).

Reproduction: Nests primarily on gravel bars, low islets and sandy beaches (Harrison 1978), in unvegetated sites (Garrett and Dunn 1981). Nests usually in colonies of less than 200 pairs. Eggs are laid in hollows or sand scrapes above high water (Terres 1980). Dredging spoils and dikes along coastal waterways provide important artificial nesting sites, especially where human disturbance prevents nesting on nearby beaches (Terres 1980).

Water: No additional data found.

Pattern: Requires shallow, calm water for foraging, and sand bars, beaches, or dikes for roosting and nesting.

#### SPECIES LIFE HISTORY

Activity Patterns: Yearlong, circadian activity. Much of daylight spent roosting; foraging reported primarily in morning, evening, and night (Terres 1980). However, Erwin (1977a, 1977b) noted much foraging in daylight, suggested tide level had a greater influence (maximum effect at low tide).

Seasonal Movements/Migration: Nesters at the Salton Sea are long-distance migrants that winter from Mexico southward. The San Diego Bay colony is resident year-round (Garrett and Dunn 1981).

Home Range: No data found.

Territory: No data found.

Reproduction: Nesting at the south end of Salton Sea begins in June, and has continued into October on rare occasions (Garrett and Dunn 1981). Nesting dates vary with water levels at Salton Sea. Nests in dense, single-species colonies, often with gulls or terns nearby. Clutch size varies from 1-5 eggs, with 4-5 usual (Terres 1980). Single- brooded, and female incubates the eggs. Mean length of incubation in 110 nests in Virginia was 23 + or - 2 days (Erwin 1977a, 1977b). Young are semiprecocial (Harrison 1978). Both parents feed the young. Young dependent upon parents until full-grown and ready to fly, and for a month afterward for learning foraging techniques (Erwin 1977a, 1977b). No data found on age at first breeding.

Niche: Rising levels of the Salton Sea may threaten continued survival there (Grant and Hogg 1976, Garrett and Dunn 1981). High water levels threaten existing nest sites. Nearest breeding colonies are several hundred kilometers south in Sonora, Mexico (Garrett and Dunn 1981). Nesting colonies vulnerable to human disturbance on mainland beaches (Terres 1980). When forced into low sites, entire colonies can be washed away by high tides (Pough 1951).

### **REFERENCES**

- Cogswell, H. L. 1977. Water birds of California. Univ. California Press, Berkeley. 399pp. Erwin, E. M. 1977a. Black skimmer breeding ecology and behavior. Auk 94:709-717.
- Erwin, R. M. 1977b. Foraging and breeding adaptations to different food regimes in three seabirds: the common tern, Sterna hirundo, royal tern, Sterna maxima, and black skimmer, Rynchops niger. Ecology 58:389-397.
- Evens, J. G., R. A. Erickson, and K. V. Rosenberg. 1983. Middle Pacific Coast Region, Am. Birds 37:907-911.
- Garrett, K., and J. Dunn. 1981. Birds of southern California. Los Angeles Audubon Soc. 408pp.
- Grant, G. S., and N. Hogg. 1976. Behavior of late-nested black skimmers at Salton Sea, California. West. Birds 7:73-80.
- Harrison, C. 1978. A field guide to the nests, eggs and nestlings of North American birds. W. Collins Sons and Co., Cleveland, OH. 416pp.
- McCaskie, G., and S. Suffel. 1971. Black skimmers at the Salton Sea, California. Calif. Birds 2:69-71.
- McCaskie, G., S. Liston, and W. A. Rapley. 1974. First nesting of black skimmer in California. Condor 76:337-338.
- 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.
- Pough, R. H. 1951. Audubon waterbird guide. Doubleday, New York. 352pp.
- 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.
- Terres, J. K. 1980. The Audubon Society encyclopedia of North American birds. A. Knopf, New York. 1100pp.

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