

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

BANK SWALLOW

Riparia riparia

Family: HIRUNDINIDAE

Order: PASSERIFORMES

Class: AVES

B342

Written by: M. Green

Reviewed by: L. Mewaldt

Edited by: R. Duke, D. Winkler

Updated by: CWHR Program Staff, September 1999

DISTRIBUTION, ABUNDANCE, AND SEASONALITY

A neotropical migrant found primarily in riparian and other lowland habitats in California west of the deserts during the spring-fall period. A spring and fall migrant in the interior, less common on coast; an uncommon and very local summer resident. Casual in southern California in winter; a few winter records along central coast to San Mateo Co. (McCaskie et al. 1988). In summer, restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes. In migration, flocks with other swallows over many open habitats. Range in California estimated to be reduced 50% since 1900 (California Department of Fish and Game 1989). Formerly more common as breeder in California. Now, only approximately 110-120 colonies remain within the state. Perhaps 75% of the current breeding population in California occurs along banks of the Sacramento and Feather rivers in the northern Central Valley. About 50-60 colonies remain along the middle Sacramento River and 15-25 colonies occur along lower Feather River where the rivers meanders still in a mostly natural state. Other colonies persist along the central coast from Monterey to San Mateo counties, and northeastern California in Shasta, Siskiyou, Lassen, Plumas, and Modoc counties (Remsen 1978, California Department of Fish and Game 1989).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Forages by hawking insects during long, gliding flights. Feeds predominantly over open riparian areas, but also over brushland, grassland, wetlands, water, and cropland. Feeds on a wide variety of aerial and terrestrial soft-bodied insects including flies, bees, and beetles.

Cover: Uses holes dug in cliffs and river banks for cover. Will also roost on logs, shoreline vegetation, and telephone wires.

Reproduction: Predominantly a colonial breeder. Colonies range in size of 10 to 1,500 nesting pairs in California, although most colonies have 100-200 nesting pairs (Garrison et al. 1987). Requires fine-textured or sandy banks or cliffs to dig horizontal nesting tunnel and burrow. Nest almost always near water, and lined with grasses and other plant material and feathers. Burrows are 2.5 to 5.5 cm (1 to 2.2 in) wide and up to 140 cm (54 in) deep. A small chamber at end of burrow contains the nest.

Water: Drinks by skimming open surface and scooping up water with lower mandible (Garrison 1999). Riparian, lacustrine, and coastal areas used almost exclusively as nesting sites.

Pattern: Requires vertical banks and cliffs with fine-textured or sandy soils near streams, rivers, ponds, lakes, and the ocean for nesting. Feeds primarily over grassland, shrubland,

savannah, and open riparian areas during breeding season and over grassland, brushland, wetlands, and cropland during migration.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, diurnal activity.

Seasonal Movements/Migration: Arrives in California from South America in early March and numbers peak by early May. Numbers fall off in July and August as colonies are abandoned and migration begins. Colonies are vacant by late July or early August, and migrants are observed usually through early or mid-September. There are few winter records for California.

Home Range: Bent (1942) and Grinnell and Miller (1944) indicated that the foraging radius from the nest is not large.

Territory: In Wisconsin, Petersen (1955) reported that territory centered at burrow entrances, which were no closer than 15-20 cm (6-8 in) apart. In Michigan and Massachusetts, the nest burrow was defended. Male guarded female from other males, remaining within 1 m (3 ft) of mate during foraging (Beecher and Beecher 1979).

Reproduction: Breeds from early May through July, with peak activity from mid-May to mid-June. Pair usually nests colonially; sometimes solitarily or near a few other nests (Hoogland and Sherman 1976). Clutch usually 4-5; range 3-8. Two broods in 1 season have been reported in eastern North America (Stoner 1936), but single broods are only known from California (Garrison et al. 1987). Incubation 12-16 days, by both sexes. Altricial young tended by both adults; leave nest at 18-24 days, breed at 1 yr (Harrison 1978).

Niche: Eggs and adults preyed upon by rats, skunks, house cats, snakes, and some raptors. In California, however, gopher snakes (*Pituophis melanoleucus*) and American kestrels (*Falco sparverius*) are the most common predators. Nest sites sometimes taken by house sparrows (Bent 1942). Smallest swallow in North America.

Comments: Channelization and stabilization of banks of nesting rivers, and other destruction and disturbance of nesting areas, are major factors causing the marked decline in numbers in recent decades (California Department of Fish and Game 1989). Designated California Threatened in March 1989.

REFERENCES

- Beecher, M. D., and I. M. Beecher. 1979. Sociobiology of bank swallows: reproductive strategy of the male. *Science* 205:1282-1285.
- Bent, A. C. 1942. Life histories of North American flycatchers, larks, swallows, and their allies. *U.S. Natl. Mus. Bull.* 179. 555pp.
- California Department of Fish and Game. 1989. 1988 annual report on the status of California's state listed threatened and endangered plants and animals. Sacramento. 129pp.
- Garrett, K., and J. Dunn. 1981. *Birds of southern California*. Los Angeles Audubon Soc. 408pp.
- Garrison, B. A., J. M. Humphrey, and S. A. Laymon. 1987. Bank swallow distribution and nesting ecology on the Sacramento River, California. *W. Birds* 18:71-76.
- Garrison, B. A. 1999. Bank Swallow (*Riparia riparia*). In: *The Birds of North America* No. 414 (A. Poole and F. Gill eds.). The Birds of North America, Inc., Philadelphia, PA.
- Grinnell, J., and A. H. Miller. 1944. The distribution of the birds of California. *Pac. Coast Avifauna* No. 27. 608pp.
- Harrison, C. 1978. *A field guide to the nests, eggs and nestlings of north American birds*. W. Collins Sons and Co., Cleveland, OH. 416pp.
- Hoogland, J. L., and P. W. Sherman. 1976. Advantages and disadvantages of bank swallow

- (*Riparia riparia*) coloniality. Ecol. Monogr. 46:33-58.
- 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.
- McCaskie, G., P. De Benedictis, R. Erickson, and J. Morlan. 1988. Birds of northern California, an annotated field list. 2nd ed. Golden Gate Audubon Soc., Berkeley. Reprinted with suppl. 108pp.
- Peterson, A. J. 1955. The breeding cycle of the bank swallow. Wilson Bull. 67:235-286.
- Remsen, J. V., Jr. 1978. Bird species of special concern in California. Calif. Dep. Fish and Game, Sacramento. Wildl. Manage. Admin. Rep. No. 78-1. 54pp.
- Stoner, D. 1936. Studies on the bank swallow, *Riparia riparia riparia* (Linnaeus), in the Oneida Lake region. Roosevelt Wild Life Ann. 9:126-233.

B342

Life history accounts for species in the California Wildlife Habitat Relationships (CWHR) System were originally published in: Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Department of Fish and Game, Sacramento, California. Updates are noted in accounts that have been added or edited since original publication.