

# Swainson's hawk

## *Buteo swainsoni*



### STATUS

California Threatened and Federal Species of Concern

### LIFE HISTORY

Swainson's hawk is diurnal and similar in size to the more common red-tailed hawk (*Buteo jamaicensis*). There are two distinct color phases (morphs) of Swainson's hawks--light and dark-- with variations in between. Hawks of the light morph are the easiest to distinguish from other buteos (hawks of the same genus as Swainson's and the red-tailed). They have a whitish forehead and white patch on the throat below the bill. The rest of the head, sides of the throat, patch on its chest (resembling a baby's bib), and all other upper body parts are dark brown. The belly is white, barred with brown. In flight, their wings have dark trailing edges that contrast with the light colored leading edges and the belly.

Individuals of the dark morph are entirely dark brown, except for a patch under the tail. When overhead, the trailing edges of their wings might be slightly lighter in color than the leading edges. Throughout their geographic range, hawks of the dark morph comprise only 1 to 10% of the population; however, within northern California, the dark morph constitutes 35% of the population. There also is a rufous-colored variant of the dark morph that is lighter brown with rusty barring on the underparts.

Swainson's hawks prefer open habitats. These include: mixed and short grass grasslands with scattered trees or shrubs for perching; dry grasslands; irrigated meadows; and edges between two habitat types (ecotones). Within California, Swainson's hawks favor agricultural areas, (particularly alfalfa fields), juniper-sage flats, riparian areas, and oak savannas. Over 95% of the nesting sites for this species are estimated to be on private lands.

In the summer months, Swainson's hawks primarily eat insects, birds, and small mammals, occasionally taking reptiles, amphibians, and other invertebrates. During migration and in the winter, the hawk's diet consists of mainly of insects. The hawks appear to exploit the abundance of prey made available due to the effects of certain farming activities. This is most noticeable during migration when large flocks of Swainson's and other migrating hawks can be seen within fields being plowed. The birds will perch on the ground and wait for the tractor to pass by and then pounce on prey stirred up by the tractor. They will also follow the tractor diving down on the prey that the tractor stirs up.

Within California, Swainson's hawks begin nesting in late March and the young usually leave the nest (fledge) by July. Nests of sticks, bark, and fresh leaves are constructed in trees, shrubs, or on utility poles at heights of 4 to 100 ft. (1.2 to 30.5 m) above the ground. In the Central Valley they nest in

riparian areas. This association with riparian habitat is most likely due to the lack of trees in intensively cultivated and industrially-developed areas. Two to four eggs are laid at 2-day intervals and incubation lasts between 25 and 36 days. Incubation is performed primarily by the female; however, the male will cover the eggs when the female leaves the nest to forage. The young will leave the nest between 33 and 37 days after hatching and begin to kill insects and snakes on their own.

The populations of Swainson's hawks have declined by 90% since the 1940's due to the loss of nesting habitat. In the 1980's there was an estimated 375 pairs within California, but not all pairs nested. Although it is not an evident threat within California, pesticides and insecticides are a severe threat to the wintering birds in Argentina, killing over 10,000 birds in 1995 alone.

## **DISTRIBUTION**

Swainson's hawks breed in local areas in western North America, including east-central Alaska, southwest Canada, eastern Washington and Oregon, and in the Central Valley of California. The majority of the birds migrate south to the La Pampas region in Argentina for the winter months. Many juveniles form pre-migration flocks one or two months prior to migrating; however, there are a few groups of juveniles that do not migrate their first winter. When migrating and during the winter, this species forms large flocks of 20 to 100 birds that roost and forage together.

Migration of Swainson's hawks' south begins in August and lasts through October. In the spring, they begin returning north to California in March. The populations that nest within the Central Valley arrive and depart earlier than those populations in northern California. The intensity of the summer heat in the Valley is thought to be the trigger for these earlier dates.

## **CLASSIFICATION**

Order FALCONIFORMES, Family ACCIPITRIDAE, Genus *Buteo*, Species *swainsoni*

## **SUBSPECIES**

None

## **RECENT SYNONYMS**

None

## **OTHER COMMON NAMES**

grasshopper hawk

## **REFERENCES**

Bloom, P.H. 1980. The status of the Swainson's hawk in California, 1979. U.S. Dept. Interior, Bureau of Land Management, Sacramento. Project W-54-R-12, Job 11-8. Final Report, 42 pp; Schlorff, R.W., and P.H. Bloom. 1983. Importance of riparian systems to nesting Swainson's hawks in the Central Valley of California. Pages 612-618, in California Riparian Systems (R.E. Warner and K.M. Hendrix, eds.). Univ. of California Press, Berkeley, 1035 pp.; Estep, J. 1989. Biology, movements, and habitat relationships of the Swainson's hawk in the Central Valley of California, 1986-87. Calif. Dept. Fish and Game, Nongame Bird and mammal Section Report, 52 pp.

## **SIZE**

Length:

48.3-55.9 cm (19-22 inches)

Wingspan:

119.4-144.8 cm (47-57 inches)

Weight (average):

males--0.81 kg (1.81 lb)

females--1.11 kg (2.44 lb)

### IDENTIFICATION


Juveniles of the Swainson's hawk resemble those of the red-tailed hawk, however, Swainson's hawks lack the brown belly band characteristic of red-tailed hawks.

The call of the Swainson's hawk also is similar to that of the red-tailed hawk's, but the Swainson's is higher in pitch and weaker.

### AUTHOR OF PROFILE

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