



California's Threatened and Endangered Species

Swainson's Hawk

Buteo swainsoni

California Department of Fish and Game



Status

Description

Habitat

Behavior

Diet

Reproduction

Distribution

Threats

Recovery

State Status:



Threatened

(Listed April 17, 1983)

Federal Status:



Not Listed

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Somewhat more slender and narrow winged than the more familiar Red-tailed Hawk, the graceful Swainson's was once the most common birds of prey in the low grasslands of California. It has a long, square tail and pointed wings that when fully extended measure out to about four feet from tip to tip. There are three main color variations: light, rufous, and dark, all of which have been observed in California. The adult birds have dark brown heads with a dark breast band, which is contrasted by a lighter brown belly, in the light variation. In the darker variation, the entire body may be a sooty-brown to black color, except for their partially white throat. The wings of all variations are bi-colored underneath with dark gray flight feathers and lighter wing linings. The adult female is slightly larger than the male weighing an average of 28 to 34 ounces, while males average about 25 to 31 ounces.

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The Swainson's Hawks basic requirements are large, open grasslands with abundant prey in association with suitable nest trees such as oaks, cottonwoods, walnuts, and willows in the Central Valley, and juniper in the Great Basin. Suitable hunting grounds include native grasslands or lightly grazed pastures, alfalfa and other hay crops and certain grain and row croplands. Croplands in which prey is scarce or difficult to get at because of the density of vegetative cover, are unsuitable hunting grounds for the Swainson's. Examples include vineyards, orchards, rice, corn, and cotton crops.

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Swainson's Hawks are masters at using the wind's propulsion and gravity to soar wherever they please. When the wind is just right, they can fly hundreds of miles in a single flight. By early September, they begin to migrate south in flocks sometimes as large as hundreds of birds. Their wintering grounds are as far south as Argentina, making their migrations one of the longest of any of the North American hawks, averaging 11,000 to 17,000 miles round-trip.

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Diet:

Its usual prey includes small mammals such as mice, gophers, ground squirrels, rabbits, and most commonly, voles. It hunts by surveying the land from above, soaring anywhere from 100 to 600 feet off the ground, then, once prey is spotted, it will swoop in and grasp its prey with its claws then return to the nest to feed. The Swainson's Hawk will also feed on other small birds, bats, and insects that it captures while in flight.

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From Early March to early April, the Swainson's Hawks arrive in their California breeding areas. By mid-May, the female lays two to four eggs. The female will remain in the nest incubating the eggs during the four weeks before hatching while the male hunts for both of them. After the chicks hatch, both parents share the tasks of attending and feeding them while defending the nest. Then in early July, several weeks after the young birds have learned to fly, the hawks begin to roost and hunt in flocks.

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Range Map

During the early 1900's, the Swainson's Hawk nested in lowlands throughout most of California maintaining populations as large as 17,000 pairs. Ten years ago, only 550 nesting pairs were found in California and numbers have been slowly declining. Today, most nesting is confined to the Central Valley and parts of the Great Basin. About two-thirds of the statewide population nest in the southern Sacramento Valley and northern San Joaquin Valley regions. Moderate numbers nest in northeastern California and the Klamath Basin. There have even been a few pairs nesting in southern Mono County and in the Owens Valley in Inyo County. One pair nests in Kern County, and another in Los Angeles County.

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The primary cause of the decline in Swainson's Hawk's population size is believed to be habitat destruction. Much of California's native grassland that was once their home has been converted to crop fields and pastures. This has led to a decrease in prey, loss of nesting sites, loss of hunting habitat, and exposure to harmful chemicals used for agricultural purposes, such as pesticides. Urbanization has also contributed to the loss of nesting and hunting habitat. In the Sacramento River Valley,

more than 95 percent of the original riparian habitat has been destroyed. The small areas of good habitat that remain are threatened by development.

Swainson's Hawks have adapted to hunting in certain types of agricultural lands which makes them vulnerable to changes in the land's use. For instance, in the Central Valley, farmers are beginning to plant more cotton, corn, rice, orchards, and vineyards, none of which support enough rodents to sustain hawks. Overgrazing has eliminated some hunting habitat in the Great Basin by reducing rodent populations. In addition, wildfire suppression has allowed forests to invade grasslands making the areas unsuitable for hunting.

In a 1994 study of the Swainson's Hawk, radio transmitters were placed on two hawks from Butte Valley, California to track their migratory route and learn more about their behavior in their wintering grounds. Further studies ran in 1996 using satellite transmitters showed that the hawks' mortality rate was very high in their wintering grounds, and that several of the hawks were being poisoned in Argentina by a pesticide used to kill grasshoppers that were attacking crops such as alfalfa and sunflowers. Chemical companies have since agreed to not use certain chemicals but more research needs to be done to curve the wintering mortality rate.

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Planting suitable nesting trees near the remaining suitable hunting grounds in the southwest corner of the San Joaquin Valley would at least increase nesting opportunities. The California Department of fish and Game and the U.S. Forest Service initiated one such planting project in Butte Valley in the Great Basin in 1987. It will be a few years before the trees are large enough to support hawk nests.

About 95 percent of the Swainson's Hawk territories in the Central Valley are on privately held lands. Thus, cooperation from the landowners will be necessary to achieve population stability. It will also be important to continue research on the effects that pesticides have on the hawks, and find a solution to the poisoning problem in Argentina. Local conservation planning efforts have been attempted in San Joaquin and Yolo

counties, but it will be several years before significant results will be seen. Educating farmers and the general public about the hawks' situation, and their usefulness as controllers of rodent populations will hopefully lead to more support for their recovery.

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