

Swainson's Hawk (*Buteo swainsoni*)

NMPIF level: Species Conservation Concern, Level 2 (SC2)

NMPIF assessment score: 15

NM stewardship responsibility: Moderate

National PIF status: Watch List

New Mexico BCRs: 16, 18, 34, 35

Primary breeding habitat(s): All lowland shrubland and grassland types, and agricultural

Summary of Concern

Swainson's Hawk is a migratory raptor that breeds across much of western North America. Its range and population size have been reduced since the beginning of the 20th century, and declines continue in some areas, due to loss of suitable breeding habitat. The New Mexico population appears stable but bears continued monitoring.

Associated Species

Lesser Prairie-Chicken (SC1), Scaled Quail (SC2), Ferruginous Hawk (SC1), Burrowing Owl, Scissor-tailed Flycatcher, Western Kingbird, Loggerhead Shrike (SC2), Cassin's Sparrow (Stewardship), Western Meadowlark

Distribution

Swainson's Hawk breeds across much the western United States, extending from southern Canada to northern Mexico and from eastern portions of Washington, Oregon and California east to Minnesota and Iowa, and central portions of Nebraska, Kansas, Oklahoma and Texas. The species winters primarily in the pampas of Argentina and Uruguay, and in small numbers elsewhere in South and Central America.

In New Mexico, the species breeds in fairly low numbers in appropriate habitat statewide (Hubbard 1978, England et al. 1997, Parmeter et al. 2002).

Ecology and Habitat Requirements

Swainson's Hawk breeds and forages in grasslands, shrublands, and small, open woodlands. It also has adapted to foraging in agricultural areas, such as wheat and alfalfa fields, where crops do not exceed the typical height of native grasses. Typical landscapes for Swainson's Hawk include a mixture of grassland, cropland, and shrub vegetation. Nests are built in trees located within such a habitat matrix, often along stream courses or in planted shelterbelts or patches of open woodland. Typical nest trees include willows, black locusts, junipers, oaks, and cottonwoods. In New Mexico, the species nests commonly in mesquite, on utility poles, and in isolated trees in rangeland. Swainson's Hawk often chooses smaller trees in smaller clumps than does Red-tailed Hawk (England et al. 1997).

Most Swainson's Hawks arrive in New Mexico from late March through the end of April, and remain through August or early September. Nesting begins in mid-April through early May. Virtually the entire population of this species migrates between North America and the pampas of Argentina, often traveling in very large flocks. Home range size is variable, depending on the quality of the surrounding territory for foraging. Nesting densities are highest in areas with either a mixture of native habitat and agriculture, or a high diversity of irrigated crops. Densities are lower in areas dominated by juniper, sagebrush, or by crops unsuitable for foraging. Swainson's Hawk hunts a variety of prey in the breeding season, including rodents, rabbits, bats and reptiles, but becomes more insectivorous in the non-breeding season (Bednarz and Hoffman 1986, England et al. 1997).

Conservation Status

Species Assessment

DISTRIBUTION	3
THREATS	4
GLOBAL POPULATION SIZE	4
LOCAL POPULATION TREND	2
IMPORTANCE OF NEW MEXICO TO BREEDING	2
COMBINED SCORE	15

Swainson's Hawk is a Species Conservation Concern, Level 2 species for New Mexico, with a total assessment score of 15. It is also a national PIF Watch List species. At the continental level, it receives high PIF vulnerability scores of 4 for its small population size and for threats in non-breeding areas. Swainson's Hawk is a U.S. Fish and Wildlife Service (2002) national Bird of Conservation Concern.

Population Size

PIF estimates a species population of 490,000, and that New Mexico contains 10.3% of the species population, or about 50,000 birds. This is an initial estimate based on BBS data, and is probably high. Bednarz (1986) estimated >3,000 breeding pairs in the state. In southeast New Mexico, mean breeding density over 3 years was 9.5 pairs/100 km², and as high as 16.7 pairs/100 km² (Bednarz et al. 1990).

Population Trend

Swainson's Hawk populations have declined significantly since the late 19th century, due to plowing of grasslands and persecution by humans. In the Canadian prairies, reproduction has dropped in recent decades. Populations continue to decline in some areas but remain fairly stable overall. New Mexico populations appear to be stable or increasing. BBS data for 1966-2004 are:

	Annual Trend (%)	P-value	Number of Routes
New Mexico	2.2	0.08	40
FWS Region 2	0.3	0.70	176
Western States	0.0	0.98	331

Threats

Deliberate killing by ranchers and farmers has decreased, but may still occur in some areas. In Argentina, spraying of pesticides to control grasshopper outbreaks killed roughly 6,000 Swainson's Hawks in 1995 and 1996. Swainson's Hawk has benefited from some agricultural configurations, particularly alfalfa and hay fields where prey is abundant. Where changing land uses result in a decrease in the availability of nesting trees, the species declines. Conversion of native habitat to woody perennial crops and urban development eliminates Swainson's Hawk (England et al. 1997). Threats to breeding populations in New Mexico are considered low.

Management Issues and Recommendations

No special management is needed for Swainson's Hawk at this time, but populations should continue to be monitored.

NMPIF Recommendations

- Avoid removal of nest trees.
- Seek to identify locations where electrocution on power lines/poles may be occurring, and retro-fit to reduce this risk.

Species Conservation Objectives

PIF Objectives

The PIF North American Landbird Conservation Plan places Swainson's Hawk in the conservation action category Management. It sets a population objective of maintaining or increasing the current population over the next 30 years.

NMPIF Objectives

- Maintain or expand existing populations.

Sources of Information

Bednarz, J. C. 1986. Swainson's Hawk. Pp. 87–96 *in* Proceedings of the Southwest raptor management symposium (R. L. Glinski, B. G. Pendelton, M. B. Moss, M. N. LeFranc, Jr., B. A. Millsap, and S. W. Hoffman, eds.). Natl. Wildl. Fed. Sci. Tech. Ser. No. 11.

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