

Williamson's Sapsucker (*Sphyrapicus thyroideus*)

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

NMPIF assessment score: 16

NM stewardship responsibility: Moderate

National PIF status: Stewardship (Intermountain West)

New Mexico BCRs: 16, 34 (mostly 16)

Primary breeding habitat(s): Mixed Conifer Forest

Other habitats used: Ponderosa Pine Forest

Summary of Concern

A woodpecker of mixed conifer and deciduous montane forests of the western United States, Williamson's Sapsuckers have specific nesting requirements that make the species vulnerable to loss of mature forest habitat. Current population trends in New Mexico are uncertain.

Associated Species

Sharp-shinned Hawk, Flammulated Owl (SC1), Cordilleran Flycatcher (SC2), Warbling Vireo (SC2), Clark's Nutcracker, Violet-green Swallow, Dark-eyed Junco, Western Tanager, Chipping Sparrow

Distribution

The breeding distribution of Williamson's Sapsucker extends across the western United States, from southern British Columbia to central portions of New Mexico and Arizona, and from California and Oregon to the edge of the Great Plains in Wyoming, Colorado and New Mexico. The species winters from the southern part of its breeding range south through western Mexico as far as Jalisco and northern Michoacan (Dobbs et al. 1997).

In New Mexico, Williamson's Sapsucker breeds largely in the northwest quadrant, extending north from the Mogollon Rim and the Black Range to the Colorado border in the west, and north from the Sangre de Cristo and Jemez Mountains to the border in the north-central part of the state. Its winter range includes mid-elevation forests and woodlands in southwest New Mexico (Parmeter et al. 2002). Wintering sapsuckers also sometimes move into northeast plains and southeast mountain regions.

Ecology and Habitat Requirements

Williamson's Sapsucker inhabits open, mixed coniferous and deciduous forests in mountain areas up to 10,000 feet in elevation. Throughout its range, the species breeds in spruce-fir, Douglas-fir, and ponderosa pine forests, and particularly in areas where quaking aspen is present. Although aspen trees are often preferentially chosen for nesting, Williamson's Sapsucker tends to establish territories in areas dominated by conifers; its congener the Red-naped Sapsucker, tends to choose more aspen-dominated areas (Crockett and Hadow 1975).

Availability of suitable nest sites is an important component of breeding habitat. Sapsuckers excavate nest holes in both live trees and dead snags, usually where fungal infection has softened the wood. In Arizona, large aspen snags were selected preferentially to live aspens and to conifer snags (Conway and Martin 1993). In Colorado, on the other hand, one study found a majority of nests in live aspen, and another found most nests in pines (Crockett and Hansley 1977). In New Mexico, nests have been found in ponderosa pine and spruce (Travis 1992). Aspen snags may be the generally preferred nest substrate when available (Dobbs et al. 1997). Lower slopes and drainage bottoms are preferred over ridge tops (Conway and Martin 1993). The species forages primarily in living conifers, rarely in aspen (Smith 1982).

Williamson's Sapsuckers arrive in breeding areas from early to late April, with nesting activity extending through early July. They usually raise a single clutch of 4-5 eggs. In the fall, birds move to lower elevation and/or more southerly pinyon-juniper and pine-oak woodlands. Breeding sapsuckers in New Mexico probably migrate to Mexico for the winter, though some birds remain present in the southern part of the state. During the pre-nestling period, the species feeds exclusively on sap and phloem of conifers; after hatching of young, the diet switches to mainly ants. Wintering birds subsist on tree sap and fruit, including madrone and juniper berries (Bock and Larson 1986, Dobbs et al. 1997).

Conservation Status

Species Assessment

DISTRIBUTION	3
THREATS	3
GLOBAL POPULATION SIZE	4
LOCAL POPULATION TREND	3
IMPORTANCE OF NEW MEXICO TO BREEDING	3

COMBINED SCORE**16**

Williamson's Sapsucker is a Species Conservation Concern, Level 2 species for New Mexico, with a total assessment score of 16. It receives a high vulnerability score of 4 from PIF for its relatively small population size. Williamson's Sapsucker is a U.S. Fish and Wildlife Service (2002) national Bird of Conservation Concern.

Population Size

Total population for the state is unknown. PIF estimates a global population of 310,000, and that New Mexico holds about 9.6% of this population, or around 30,000 birds. However, this species is poorly sampled by BBS, and this number should not be considered a certain estimate.

Population Trend

Williamson's Sapsucker populations declined throughout the species' range from 1982 to 1991, particularly in the Pacific Northwest (Dobbs et al. 1997). This species is poorly sampled by BBS. Current rangewide BBS data suggest a stable population, but with insufficient sample size and data quality for a reliable estimate to be made. New Mexico numbers suggest increasing occurrence in at least some locations in the state; NMPIF assigns a score of 3 for local population trend, indicating uncertainty. BBS data for 1966-2004 are as follows:

	Annual Trend (%)	P-value	Number of Routes
New Mexico	8.6	0.02	6
FWS Region 2	3.9	0.44	9
Western States	0.4	0.76	94

Threats

Primary threats to Williamson's Sapsuckers are the loss or alteration of suitable nesting habitat. The species is relatively tolerant of disturbance, and maintained breeding densities in both logged and unlogged areas when aspens and large snags were spared (Franzreb and Ohmart 1978). However, contraction of mature aspen forest with snags and decaying trees suitable for nesting, and elimination of large snags generally due to fire or logging operations, decrease the extent of suitable habitat. Fire suppression in high-elevation conifer forests has resulted in overall loss of aspen habitat. Sapsuckers require particularly soft nesting substrates, which may be more common in older forests where snags

have been standing longer (Dobbs et al. 1997). In the Pacific Northwest, Thomas et al. (1979) estimated 371 snags of at least 30.5 cm dbh per 100 ha as necessary to support maximum populations. In Arizona, Conway and Martin (1993) found that optimal habitat contains more large aspen and aspen snags than called for in forest management plans for the area.

Management Issues and Recommendations

Management for Williamson's Sapsuckers in New Mexico should focus on the protection of features that allow for successful breeding in ponderosa pine and mixed conifer forest, and aspen woodlands. Of particular importance is the maintenance of large conifer and aspen trees and snags, particularly in areas subject to burning, thinning, or logging operations.

NMPIF Recommendations

- Maintain and restore (by controlled burning or mechanical thinning) ponderosa pine habitat with large trees, grassy understory, and an open, park-like structure.
- Where possible support controlled and natural fire in mixed conifer forest to increase aspen acreage.
- When carrying out logging operations, or when salvage-logging burned forest, leave tall snags and some taller trees for nesting habitat. Maintain a standing aspen component.
- Following the recommendations of Conway and Martin (1993), forest management plans should emphasize retention of groups of large snags and areas of high snag density, particularly in drainage bottoms.
- Management treatments of any habitat where Williamson's Sapsuckers are present should be accompanied by demographic studies and monitoring to determine species response.

Species Conservation Objectives

PIF Objectives

The PIF North American Landbird Conservation Plan designates Williamson's Sapsucker as a Long-Term Planning and Responsibility species, and sets an objective of maintaining or slightly increasing the present species population over the next 30 years.

NMPIF Objectives

- Maintain presence in each mountain range of the Mogollon Rim.
- Maintain density of 1 pair per 100 ac in suitable habitat in the Colorado Plateau and Southern Rocky Mountains.
- Develop and implement a censusing program and/or increase BBS routes to determine breeding densities and population trends of Williamson's Sapsuckers in the state.

Sources of Information

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