

## **Western Scrub-Jay (*Aphelocoma californica*)**

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

NMPIF assessment score: 15

NM stewardship responsibility: Moderate

National PIF status: Stewardship

New Mexico BCRs: 16, 18, 34, 35

Primary breeding habitat(s): Pinyon-Juniper Woodland

Other habitats used: Madrean Pine-Oak Woodland, Montane Shrub, Urban

### **Summary of Concern**

Although stable or increasing in other areas, Western Scrub-Jay has experienced significant declines in New Mexico, Colorado, and Arizona since 1980. These losses may be compounded by recent and ongoing loss of pinyon-juniper habitat to drought and beetle infestation.

### **Associated Species**

Ladder-backed Woodpecker, Ash-throated Flycatcher, Cassin's Kingbird (SC2), Mountain Chickadee, Bushtit, Bewick's Wren, Blue-gray Gnatcatcher, Western Bluebird (SC2), Northern Mockingbird, Black-throated Gray Warbler (SC1), Hepatic Tanager, House Finch

### **Distribution**

Western Scrub-Jay is a year-round resident along the Pacific coast and adjacent interior valleys from Washington to the tip of Baja California and inland primarily in the intermountain and southern Rocky Mountain region, including Nevada and the "four corners" states, east to the western tip of the Oklahoma panhandle and Texas Hill Country. It also occurs in the Mexican highlands from Sonora south to Oaxaca and Veracruz (Currey et al. 2002).

In New Mexico, Western Scrub Jays are present in pinyon-juniper and pine-oak habitats throughout the state.

## Ecology and Habitat Requirements

Western Scrub-Jays are generally associated with scrub and open woodland habitats. In much of the southwest, including New Mexico, they show a strong association with both pinyon-juniper and pine-oak vegetation types, although they are also found in areas dominated by shrubs such as mountain mahogany. This species may also breed in suburban gardens. Nests are placed fairly low in pinyon pine, oak, or other dense shrubs. Generally, Western Scrub-Jays are found in drier, lower-elevation habitats than Steller's Jays and Pinyon Jays, but the ranges overlap. In winter, some scrub-jays descend further to lowland shrub and riparian habitats (Curry et al. 2002). Western Scrub-Jays are territorial, with reported territory sizes of 2.2-3.4 ha in California. They are socially monogamous. Cooperative breeding has been reported in Oaxaca, Mexico; elsewhere, non-breeders join floater flocks. The species is non-migratory, but individuals, especially floaters, of some populations wander outside their breeding range in winter (Curry et al. 2002).

Scrub-jays are omnivorous, but seeds from masting oak and pine trees are an important part of the fall and winter diet. Young are fed mainly insects; adults also eat arthropods and fruit. Surplus seeds are stored for later consumption, but Western Scrub-Jays are less dependent on cached seeds than Pinyon Jays.

## Conservation Status

### Species Assessment

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

Western Scrub-Jays are relatively common across the western United States and are generally not thought of as a species of concern. However, the species receives a score of 4 for a negative local population trend, along with moderate vulnerability scores of 3 for its breeding distribution and population size.

## Population Size

Total population for New Mexico is unknown. PIF estimates a species population of 3,400,000, and that New Mexico holds about 8.3 percent of the species population, or about 280,000 birds. Breeding densities are highly variable and may exceed 10 pairs/40 ha in superior habitat (Marzluff et al. 1994). In New Mexico, average density is likely much lower.

### Population Trend

BBS data indicate that Western Scrub-Jay populations are stable or increasing overall, but this is driven largely by trends in the Pacific coast states. In Colorado, Arizona and New Mexico, trends have been negative, particularly since 1980. For 1980–2004, New Mexico populations show a statistically significant annual decrease of -2.3%, and the FWS Region 2 area shows a statistically significant annual decline of -2.7%. BBS data for 1966-2004 are:

<b>1966-2004</b>	Annual Trend (%)	P-value	Number of Routes
New Mexico	-1.4	0.48	40
FWS Region 2	-1.2	0.29	88
Western States	0.6	0.05	352
<b>1980-2004</b>	Annual Trend (%)	P-value	Number of Routes
New Mexico	-2.3	0.02	37

### Threats

This species is generally tolerant of human activities and thrives in and around settled areas. Reasons for recent declines in the southwest are not known. General habitat degradation may be occurring. In pinyon-juniper habitat in New Mexico, Western Scrub-Jays were twice as abundant in a site where cattle grazing was excluded for 20 years, compared to nearby sites continuously exposed to light grazing (Goguen and Mathews 1998). Western Scrub-Jays are vulnerable to loss of habitat and food resources caused by pinyon pine die-offs, which are associated with bark beetle infestation and drought.

### Management Issues and Recommendations

It is important to understand reasons for regional declines in this species. Management should focus on maintaining healthy stands of pinyon-juniper and pine-oak habitat.

### **NMPIF Recommendations**

- Minimize cutting or clearing of healthy, mature pinyon-juniper habitat.
- Use of fire to manage pinyon-juniper habitat is not recommended.

### **Species Conservation Objectives**

#### **NMPIF Objectives**

- Seek to stop or reverse downward trends in Western Scrub-Jay populations in New Mexico.
- Seek to better understand reasons for recent declines.

### **Sources of Information**

Curry, R. L., A. T. Peterson, and T. A. Langen. 2002. Western Scrub-Jay (*Aphelocoma californica*). In *The Birds of North America*, No. 712 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Goguen, C. B., and N. E. Mathews. 1998. Songbird community composition and nesting success in grazed and ungrazed pinyon-juniper woodlands. *J. Wildl. Manage.* 62:474–484.

Marzluff, J. M., R. B. Boone, and G. W. Cox. 1994. Historical changes in populations and perceptions of native bird pest species in the west. Pp. 202–220 in *A century of avifaunal change in western North America* (J. R. Jehl and N. K. Johnson, eds.). *Stud Avian Biol.* 15.