

## **Cassin's Kingbird (*Tyrannus vociferans*)**

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

NMPIF assessment score: 15

NM stewardship responsibility: High

National PIF status: No special status

New Mexico BCRs: 16, 18, 34, 35

Primary breeding habitat(s): Middle-Elevation Riparian, Southwestern Riparian, Pinyon-Juniper Woodland

Other habitats used: Ponderosa Pine Forest, Madrean Pine-Oak Woodland, Agricultural

### **Summary of Concern**

Cassin's Kingbird is found in a wide variety of habitats throughout the southwestern United States, but BBS data indicate the overall population may be decreasing. In New Mexico, the species is often associated with pinyon-juniper woodlands and riparian areas. The species is of conservation concern in New Mexico because a considerable portion of the global population nests in state.

### **Associated Species**

Northern Flicker, Plumbeous Vireo (SC2), Western Bluebird (SC2), Virginia's Warbler (SC1), Black-throated Gray Warbler (SC2), Hepatic Tanager, Brown-headed Cowbird

### **Distribution**

Cassin's Kingbird breeds from southern California east through southern Nevada, southern Utah, Arizona, southern Colorado, and New Mexico to western Texas, and south through Mexico (Tweit and Tweit 2000). A disjunct population breeds in eastern Wyoming and surrounding areas. It is associated with a wide variety of habitat types, with the common link being that there are suitable nest sites with nearby open areas for aerial foraging (Tweit and Tweit 2000).

In New Mexico, the species breeds nearly statewide at elevations ranging from 1,300 meters near Lordsburg to 2,400 meters in the Zuni and Capitan Mountains and Santa Fe County. It is most often

found on plains with scattered trees, mountain foothills, riparian areas, and oases, but is rare on most of the southeastern plains (Parmeter et al. 2002).

### **Ecology and Habitat Requirements**

Cassin's Kingbirds occupy a wide variety of habitats, including pinyon-juniper woodlands, riparian areas, open oak savannahs, ponderosa pine woodlands, and grasslands with scattered trees (Tweit and Tweit 2000). In New Mexico, pinyon-juniper woodlands appear to be one of the preferred habitats (Travis 1992). Other commonly-used habitats include pinyon-juniper-ponderosa and pine-oak woodlands, middle and higher elevation riparian areas, and grassland and agricultural areas with scattered trees.

Cassin's Kingbirds begin arriving in New Mexico in mid- to late April, and migrates south from August through early October (Tweit and Tweit 2000). Nesting begins in early May, with fledging occurring from mid-June through the end of July. Nests are generally placed on a horizontal branch in the canopy of mature trees. In northern New Mexico, nest height ranged from 7.5 to 13.5 meters (Travis 1992). Clutch size ranges from 3-6, and generally only a single brood is raised per year. Brood parasitism from Brown-headed Cowbirds is apparently rare (Tweit and Tweit 2000). Diet consists primarily of insects captured either in flight or on the ground, but berries are also consumed.

### **Conservation Status**

#### **Species Assessment**

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

Cassin's Kingbird is a Species Conservation Concern, Level 2 species for New Mexico, with a total assessment score of 15.

### **Population Size**

PIF estimates a total species population of 4.3 million, 50% of which occurs in the United States. The size of the New Mexico population is estimated at 960,000 or 22.3% of the species population. Reported breeding densities vary widely. In Arizona, breeding densities ranged from 2.2 to 8.7 pairs/40 ha (Tweit and Tweit 2000). Densities are generally higher in areas where there is no range overlap with Western Kingbird. No information available on New Mexico breeding densities.

### Population Trend

BBS data indicate that overall, the population may be slightly decreasing. The New Mexico population, however, appears to be increasing. BBS data for 1966-2006 are:

	Annual Trend (%)	P-value	Number of Routes
New Mexico	1.8	0.29	56
FWS Region 2	-0.3	0.83	119
Western BBS	-0.5	0.69	155

### Threats

Cassin's Kingbirds in New Mexico are susceptible to the loss of breeding habitat, especially in pinyon-juniper woodlands and riparian areas. The loss of suitable nest trees due to logging and/or fire could negatively impact the population.

### Management Issues and Recommendations

The Cassin's Kingbird population in New Mexico is considered to be stable to slightly increasing. The species is of conservation concern in New Mexico due to its relatively small global population, and the considerable portion of the population that breeds in state.

### NMPIF Recommendations

- Maintain healthy pinyon-juniper and pine-oak woodland breeding habitat, with open grassy areas between larger trees. Discourage chaining practices.
- Maintain healthy riparian breeding habitat, especially mature trees for nesting.

- Encourage studies that will provide a better understanding of habitat use and preference in New Mexico, including breeding density estimates in different regions and habitat types across the state.

### **Species Conservation Objectives**

#### **NMPIF Objectives**

- Maintain or increase the current population in New Mexico.

#### **Sources of Information**

Parmeter, J., B. Neville, and D. Emkalns. 2002. New Mexico bird finding guide. New Mexico Ornithological Society, Albuquerque, NM.

Travis, J. R. 1992. Atlas of the birds of Los Alamos County, New Mexico. Los Alamos National Lab., Los Alamos, NM.

Tweit, R. C., and J. C. Tweit. 2000. Cassin's Kingbird (*Tyrannus vociferans*). In *The Birds of North America*, No. 534. (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.