

Prairie Falcon (*Falco mexicanus*)

NMPIF level: Species Conservation Concern Level 2 (SC2)

NMPIF assessment score: 15

NM stewardship responsibility: Low

National PIF status: No special status

New Mexico BCRs: 16, 18, 34, 35

Primary breeding habitat(s): Cliff/Cave/Rock

Other habitats used: Forages widely in grasslands and shrub-steppe habitats.

Summary of Concern

The Prairie Falcon is a widespread falcon of open areas of western North America. The population is thought to be stable, but is vulnerable due to its small size and the reliance of the species on limited nesting habitat, consisting of cliffs with minimal human disturbance and adjacent open areas that support a prey base.

Associated Species

Long-billed Curlew (SC1), Western Kingbird, Horned Lark, Grasshopper Sparrow (BC2), Eastern Meadowlark, Western Meadowlark

Distribution

Prairie Falcon breeds across much of western North America, from southern Canada south to central Mexico and from interior portions of the Pacific states east to the Dakotas, eastern Colorado and New Mexico, and west Texas. In winter, the range extends further east, and west to the Pacific coast. Prairie Falcon is sparsely distributed in New Mexico, but may occur in appropriate habitat statewide (Hubbard 1978).

Ecology and Habitat Requirements

Prairie Falcons inhabit arid plains and steppes at all elevations, wherever cliffs or bluffs are present for nesting (Brown and Amadon 1968). The species prefers open grassland habitats in Wyoming (Squires et al. 1993) and nests mainly near areas of cheatgrass and mixed shrubs in Utah (Peterson 1988). In west-central Arizona, it occurs mainly in desert grassland, chaparral, and creosote bush scrub habitats (Millsap 1981). It uses primarily open grassland habitat in spring and fall migration.

Prairie Falcons usually nest on cliff ledges or crevices, but occasionally elsewhere including trees, power poles, and buildings and steep sides of arroyos. Most cliff nests have some overhang, and are located on the upper half of the cliff face (Steenhoff 1998). Nesting densities frequently are limited by availability of cliffs with potential nest sites (Squires et al. 1993). Breeding activities begin as early as March, and continue through June. Prairie Falcons eat primarily ground squirrels when these are available, and also grassland songbirds such as Horned Larks and meadowlarks, particularly in winter. Individuals wintering in Colorado rely almost exclusively on Horned Larks (Beauvais et al. 1992).

Conservation Status

Species Assessment

DISTRIBUTION	2
THREATS	3
GLOBAL POPULATION SIZE	5
LOCAL POPULATION TREND	3
IMPORTANCE OF NEW MEXICO TO BREEDING	2
COMBINED SCORE	15

Prairie Falcon is a Species Conservation Concern, Level 2 species for New Mexico, with a total assessment score of 15. It receives a high vulnerability scores of 5 from PIF for its very small global population size. Prairie Falcon 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 species population of 36,000, and that New Mexico holds about 3.2%, or about 1,150 birds. Platt (1975) estimated the New Mexico breeding population at between 293-406 pairs.

Population Trend

Population trends for Prairie Falcon are generally stable, although localized declines are shown in some areas. This species is poorly sampled on BBS, and data may be inadequate to detect existing trends. BBS data for 1966-2004 are:

	Annual Trend (%)	P-value	Number of Routes
New Mexico	1.8	0.31	7
FWS Region 2	1.1	0.28	13
Western BBS	2.7	0.36	147

Threats

Populations may fluctuate as reproductive rates are tied to prey abundance, which in turn may be strongly affected by drought or other climatic events. Livestock grazing that reduces plant cover could limit food for ground squirrels, particularly in drought years. Platt (1974) considered overgrazing and associated sheet erosion to be one of the principal threats to stability of Prairie Falcon populations in New Mexico. Large-scale agricultural development may be harmful to the extent that it reduces prey populations, and may have contributed to population declines in portions of the range. Small scale agriculture that provides ecotone or edge habitat for prey species may be beneficial (Steenhof 1998). Prairie Falcons are particularly susceptible to loss of nesting or foraging habitat in breeding areas (Becker and Ball 1981). Illegal shooting is a common cause of mortality (Steenhof 1998). Prairie Falcon is legally harvested for falconry in 19 states, and falconers take an estimated 0.2% of the population annually (Steenhof 1998). Prairie Falcons may not tolerate a high level of disturbance around nest sites, and avoid nesting on cliffs near roads. However the species apparently can become habituated to frequent low-level flyovers by aircraft (Ellis et al. 1991).

Management Issues and Recommendations

Management for Prairie Falcons should focus on maintaining and enhancing the availability of nest sites, maintaining habitat for prey populations in nesting areas, and reducing human disturbance to nesting birds.

NMPIF Recommendations

- Limit human activity to a minimum of one quarter mile from known nests (Holthuijzen et. al. 1990), preferably one half mile (Suter and Jones 1981).
- Manage grazing to minimize erosion and maintain suitable habitat for prey species in areas within 20 miles of known nesting sites.

Species Conservation Objectives

NMPIF Objectives

- Maintain or increase the present breeding population.

Sources of Information:

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