

Greater Pewee (*Contopus pertinax*)

NMPIF level: Biodiversity Conservation Concern, Level 2 (BC2)

NMPIF assessment score: 14

NM stewardship responsibility: Low

National PIF status: No special status

New Mexico BCRs: 34

Primary breeding habitat(s): Mixed Coniferous Forest, Ponderosa Pine Forest

Summary of Concern

Greater Pewee is a pine forest species of Mexico and the southwest United States. At the northern end of its breeding range in Arizona and New Mexico, this species may be vulnerable to loss or alteration of open pine woodland habitat due to tree cutting, fire suppression, or catastrophic fire.

Associated Species

Band-tailed Pigeon (SC2), Arizona Woodpecker (BC2), Mexican Chickadee (BC2), Olive Warbler (BC2), Red-faced Warbler (SC1), Western Tanager, Spotted Towhee

Distribution

Greater Pewee is resident in humid upland forests of Central America and Mexico. A migratory population extends north from the southern portions of Sonora and Chihuahua up the Sierra Madre Occidental to the Mogollon Rim and adjacent isolated ranges of Arizona and New Mexico.

In New Mexico, Greater Pewee is present in the Animas, Pinos Altos, and Mogollon Mountains (Chace and Tweit 1999, Parmeter et al. 2002).

Ecology and Habitat Requirements

Greater Pewees breed in open pine woodlands, often with an oak understory. The presence of mature tall pines is necessary, due to preference for mid-height pine branches as foraging, singing, and nesting

sites (Marshall 1957). In the Huachuca Mountains in Arizona, Greater Pewees were also found in riparian vegetation surrounded by pine-oak woodland, primarily in higher elevation riparian areas containing Arizona sycamore and Arizona walnut (Strong 1987). Snags or live trees rising above the forest canopy are important for foraging.

Short-distance migrants from Mexico arrive in the southwestern United States in early April, and may remain through mid-September. Nests are frequently placed in Ponderosa pine, though various other coniferous and deciduous tree species are sometimes used. Nest trees in the Huachucas were significantly taller, with the lowest limbs being higher than trees outside Greater Pewee territories. Typical clutch size is 3-4 eggs, and a single brood per season is raised. Greater Pewees typically sally for flying insects from open perches near the top of mature or dead pines (Chace and Tweit 1999).

Conservation Status

Species Assessment

DISTRIBUTION	4
THREATS	3
GLOBAL POPULATION SIZE	3
LOCAL POPULATION TREND	3
IMPORTANCE OF NEW MEXICO TO BREEDING	1
COMBINED SCORE	14

Greater Pewee is a Biodiversity Conservation Concern, Level 2 species for New Mexico, with a total assessment score of 14. At the continental level, it receives a high PIF vulnerability score of 4 for its relatively small distributional range.

Population Size

PIF estimates a species population of 2 million, less than 1% of which occurs in the United States. The size of the New Mexico population is unknown. In southeast Arizona pine-oak woodland habitats, breeding densities ranged from 0.5-1.7 birds/10 ha (Strong 1987).

Population Trend

This species is not well-sampled by BBS. A local population trend score of 3 indicates uncertainty regarding state trends.

Threats

Greater Pewees breeding in New Mexico may be threatened by loss or degradation of forest habitat due to fire suppression, which can prevent the formation of open forests with large mature trees, or catastrophic fire, which can eliminate breeding habitat. Habitat may also be lost to commercial timber harvesting or firewood cutting. Excessive grazing in montane riparian areas may also reduce habitat quality.

Management Issues and Recommendations

Management for Greater Pewee in New Mexico should focus on maintaining healthy pine forests with a variable age- and size-class structure. Habitat management to benefit the Mexican Spotted Owl should also benefit this species (Chace and Tweit 1999).

NMPIF Recommendations

- Carry out fire management including use of controlled burns to mimic natural fire patterns.
- Manage timber harvesting and firewood cutting to maintain an uneven-aged forest structure. Maintain tall snags or trees above canopy height.
- Maintain large stands of mature and old-growth ponderosa pine and mixed conifer forest.

Species Conservation Objectives

NMPIF Objectives

- Maintain current populations in the Animas, Pinos Altos, and Mogollon mountains.

Sources of Information

Chace, J. F., and R. C. Tweit. 1999. Greater Pewee (*Contopus pertinax*). In *The Birds of North America*, No. 450 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Marshall, J. T. 1957. Birds of pine-oak woodland in southern Arizona and adjacent Mexico. *Pac. Coast Avifauna*, No. 32.

Parmeter, J., B. Neville, and D. Emkalns. 2002. *New Mexico Bird Finding Guide*. New Mexico Ornithological Society, Albuquerque, NM.

Strong, T. R. 1987. Bird communities and the riparian habitats of the Huachuca Mountains and vicinity in southeastern Arizona. Ph.D. Diss., Univ. of Colorado, Boulder, CO.