

NM Avian Conservation Partners (NMACP) Species Assessment Process

For each of the five factors below, birds are assigned a score of 1-5, for a maximum potential score of 25; the higher the score, the more vulnerable the bird species.

Vulnerability Factor	Description or Criteria
1 Distribution (the greater of the 2 following distribution scores)	
Breeding Distribution	PIF continental species assessment*
Non-breeding Distribution	PIF continental species assessment*
2 Threats (the greater of the 3 following threats scores)	
Global Breeding Threats	PIF continental species assessment*
Global Non-breeding Threats	PIF continental species assessment*
New Mexico Threats	NMACP state species assessment**
3 Population Size (Global)	PIF continental species assessment*
4 NM Population Trend	NMACP state species assessment **
5 Importance of New Mexico	NMACP state species assessment **

***Partners in Flight (PIF) continental species assessment scores** were obtained from the 2016 Partners in Flight Landbird Conservation Plan (for landbirds) AND the State of North America's Birds 2016 report (for waterbirds, waterfowl, and shorebirds).

****NMACP state species assessment scores** were obtained using the frameworks outlined below.

New Mexico Threats Assessment Framework:

Score of 1 = Future conditions for breeding or non-breeding populations are expected to improve (e.g., due to widespread human activities or land-uses that benefit the species). This category includes potential problem species (e.g., European Starling), along with species that benefit substantially from human activity such as habitat fragmentation, urbanization, bird-feeding, etc. (e.g., American Robin, American Crow).

Score of 2 = Future conditions for breeding or non-breeding populations are expected to remain stable; no significant threats. One or more of the following statements should be true:

- No known threats to population or habitats
- Species relatively tolerant of future changes likely to result from human activities or land-use trends (i.e., breeds in altered landscapes)
- Potential threats exist, but management or conservation activities have stabilized or increased populations (e.g., Osprey)
- Threats are assumed to be low

Score of 3 = Slight to moderate decline in the future suitability of breeding or non-breeding conditions is expected. This is a broad category that implies anything amounting to “moderate threats.” One or more of the following statements should be true:

- Moderately vulnerable to human activities and land-use trends, with increased human activity expected
- Does not occur in highly altered landscapes, with some expectation of increased landscape alteration within breeding or non-breeding range
- Area-sensitive species, or sensitive to habitat fragmentation (with fragmentation expected to increase within the area for which scores are being assigned)
- Relatively specialized on sensitive habitats (e.g., native grasslands) or successional stages that are limiting populations, or expected to become limiting, due to human activity or natural changes
- Requires relatively specialized conditions within habitats that are limiting populations, or expected to become limiting, due to human activity or natural changes

- Relatively sensitive to biotic factors, such as cowbird parasitism, predation, overgrazing, and other phenomena that are limiting populations
- Demographic factors (low productivity, single-brooded) may contribute to limiting populations, especially when combined with other threats
- Concentration or coloniality increases vulnerability to otherwise lesser threats
- Threats potentially increasing if present trends/conditions continue
- Population likely to decline in future if trends/conditions continue

Score of 4 = Severe deterioration in the future suitability of breeding or non-breeding conditions is expected. This is essentially a “high threats” category, with basically more severe versions of the above list for a score of three, but for species that are not quite in danger of extirpation from significant portions of range. One or more of the following statements should be true:

- Highly vulnerable to human activities and land-use trends, with increased human activity expected
- Highly area sensitive or intolerant of fragmentation (with fragmentation a significant factor within the area for which scores are being assigned)
- Highly specialized/ dependent on sensitive or undisturbed habitats (e.g., old-growth-dependent, upper margins of saltmarsh, etc.) that are in short supply, are under threat, or expected to come under threat
- Extremely specialized on specific conditions within a habitat (e.g., requires large snags or specific water levels) that are in short supply, under threat, or expected to decrease in availability
- Biotic factors (parasitism, hybridization) currently are having or are expected to have a strong adverse effect on a majority of the breeding population
- A high degree of concentration or coloniality makes sub-populations highly vulnerable to otherwise lesser threats
- Population certain to decline and may reach level where in danger of major range contraction if threats continue

Score of 5 = Extreme deterioration in the future suitability of breeding or non-breeding conditions is expected; species is in danger of extirpation from substantial portions of range leading to a major range contraction, or has a low probability of successful reintroduction across a substantial former range. This designation should only be applied to species that are in danger of extirpation from substantial portions of range within the area for which scores are being assigned, or have already suffered major range contractions (e.g., Red-cockaded Woodpecker).

New Mexico Population Trend Assessment Framework:

BBS Trend*	Score
≥ 0.00	1
-0.01 to -0.50	2
-0.51 to -1.00	3
-1.01 to -2.00	4
< -2.00	5

**Breeding Bird Survey (BBS) data was used; unknown NM trend or unreliable NM trend (i.e. assigned a red reliability index by BBS) = national trend score

Importance of New Mexico to Breeding Assessment Framework*:

Importance of NM to breeding**	Score
<2.00%	1
2.00%-10.00%	2
10.01% - 24.99%	3
25.00% - 40.00%	4
>40.00%	5

* Importance of NM to wintering assessment scores were determined using professional opinion, based on the best available scientific information.

**Percentages were obtained from the Partners in Flight population estimates database found at: <http://rmbo.org/pifpopestimates/>.

After determining species assessment scores for NM, four lists were created: Species Conservation Level 1, Species Conservation Level 2, Biodiversity Conservation Level 1, and Biodiversity Conservation Level 2. Species conservation lists contain species with high scores for which NM has a high stewardship responsibility; level 1 species are of higher concern than level 2 species. Biodiversity conservation lists are species with high threats for which NM does not have a high stewardship responsibility, but that are important for the state's biodiversity; level 1 species are of higher concern than level 2 species. Criteria for determining these lists are in the table below.

Priority List	Abbreviation	Formula
Species Conservation Level 1	SC1	Importance of New Mexico to Breeding > 1 and Combined Score > 16
Species Conservation Level 2		Importance of New Mexico to Breeding > 1 and Combined Score = 15 or 16 or
	SC2	Importance of New Mexico to Breeding > 1 and Combined Score = 14 and Breeding Season Threats in New Mexico + Local Population Trends > 5
Biodiversity Conservation Level 1	BC1	Importance of New Mexico to Breeding = 1 and Breeding Season Threats in New Mexico > 3
Biodiversity Conservation Level 2	BC2	Importance of New Mexico to Breeding = 1 and Breeding Season Threats in New Mexico = 3 and Combined Score > 11