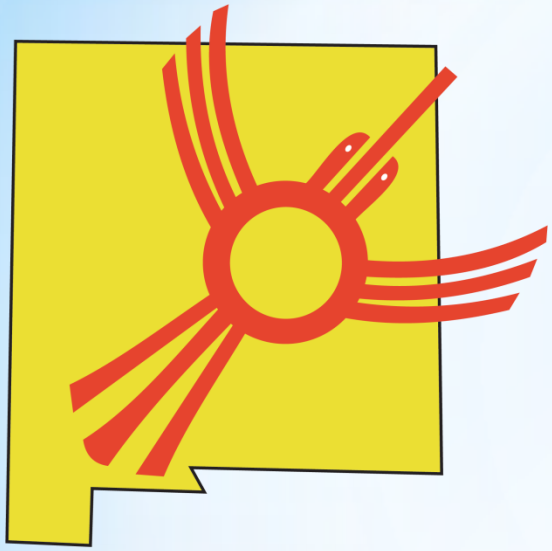
New Mexico Avian Conservation Partners

Image: Rick and Nora Bowers

Image: Audubon

Image: Glen Bartley

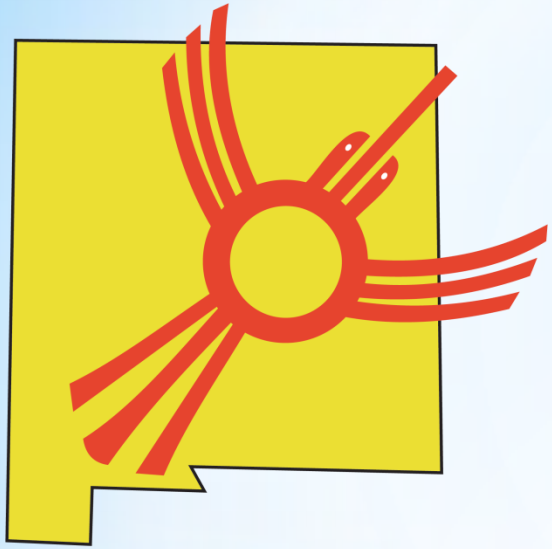
Image: USGS



Thanks to retired steering committee member Janet Ruth for creating the above NM Avian Conservation Partners logo!

Steering Committee:

- Peggy Darr - Chair (NM Department of Game and Fish)
- Brian Dykstra (US Forest Service)
- Christopher Rustay (Playa Lakes Joint Venture)
- Dave Krueper (US Fish and Wildlife Service)
- Gail Garber (Hawks Aloft, Inc.)
- Kammie Kruse (US Fish and Wildlife Service)
- Kristine Johnson (Natural Heritage NM)
- Marcia Wilson (National Park Service)
- Marikay Ramsey (Bureau of Land Management)
- Tom Jervis (Audubon NM)

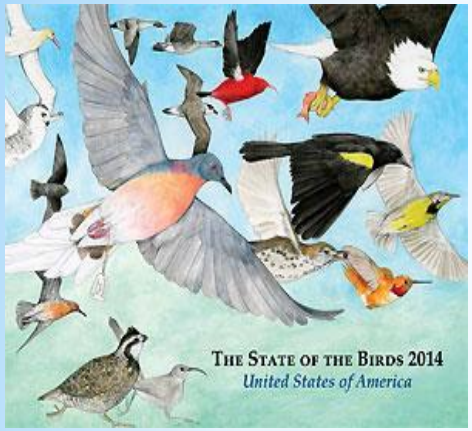


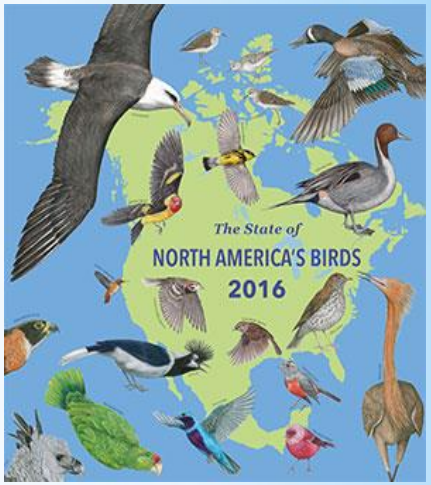
Goals of Meeting:

- Unveil updated assessment scores for all bird species in NM – assessments last completed 9 years ago
- Discuss what these scores mean for bird conservation in NM
- Discuss habitats of concern, as well as high priority species and management recommendations within these habitats
- Discuss available bird conservation resources and how to use them

Image: The Debt Fix

Introduction to National Bird Conservation Plans





nabci

Waterbird Conservation
FOR THE AMERICAS

Partners in Flight

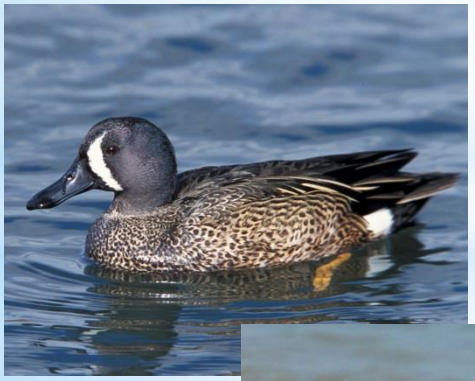
North American
WATERFOWL
Management Plan
2012

United States Shorebird Conservation Plan

The U.S. Shorebird Conservation Partnership

Building Collaborative Action for Shorebird Conservation

Introduction to NM Avian Conservation Partners



- Established in 1995
- State chapter of National Partners in Flight
- Originally called New Mexico Partners in Flight
- Initially focused only on landbirds
- Went “all-bird” in 2000
- Past accomplishments include compilation of New Mexico’s first bird conservation plans
  - Version 1.0 in 2000
  - Version 2.1 in 2007

Why Do We Assess/Score Species?

- Limited Money and Resources
- Transcend inherent biases
- Numerous factors go into making a species vulnerable, and all are important

Image: modernsurvival blog

Different Scoring Systems and Their Relationships

- Numerous scoring systems exist for wildlife, including:

NatureServe

IUCN RED LIST

Partners in Flight

Why Do We Recommend the Partners in Flight Assessment Process for Birds?

- Developed by bird biologists specifically for birds
- Review published by the American Ornithologists' Union in the *Auk* scientific journal
- Used by nearly every bird conservation organization in the U.S. including:

NEW MEXICO GAME & FISH

AMERICAN BIRD CONSERVANCY

Audubon

U.S. FISH & WILDLIFE SERVICE
DEPARTMENT OF THE INTERIOR

Updated Partners in Flight Landbird Conservation Plan

2004

2016

Updated Partners in Flight Landbird Conservation Plan

Plan Highlights:

- Updated Watch List of species in greatest need of conservation attention in the U.S. and Canada (pages 6-7)
- Population goals and objectives for Watch List species (pages 24-27)
- List of common birds in steep decline (page 11)
- Appendix A (pages 104-113) showing updated assessment scores for all landbird species in the U.S. and Canada
- Appendix A (pages 104-113) showing global population estimates and percent population change for all landbird species in U.S. and Canada

Updated Partners in Flight Landbird Conservation Plan

Plan Highlights:

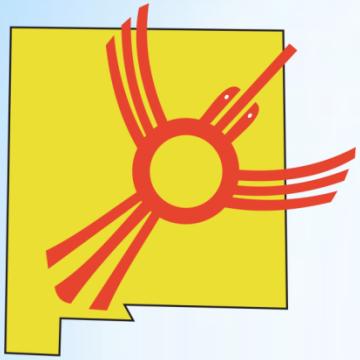
- ***Half-Life Research***: number of years it will take current population to decline by another 50%, if current trends continue; found in Appendix A (pages 104-113) for all bird species in the U.S. and Canada

- Three regularly breeding species in NM have already lost at least half of their population in the past 40 years and are expected to lose an additional 50% in less than 20 years:

Image: Audubon

Image: Rick and Nora Bowers

Image: Glenn Bartley



How Does The Assessment Process Work on the National Scale?

- Four Categories; each species receives a score of 1-5 in each category, with a maximum possible score of 20:
  - Population Size
  - Distribution (breeding and nonbreeding; uses the highest of the two)
  - Threats (breeding and nonbreeding; uses the highest of the two)
  - Population Trend

Image: Work Positive Profile

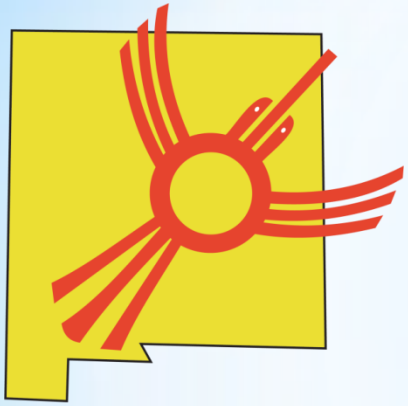
How Does The Assessment Process Work on the National Scale?

- **Each category has specific requirements for each numerical score**

- **For example, in the population size category, the following framework is used:**

Score	Criterion
1	World breeding population ≥50,000,000
2	World breeding population <50,000,000 and ≥ 5,000,000
3	World breeding population <5,000,000 and ≥500,000
4	World breeding population <500,000 and ≥50,000
5	World breeding population <50,000

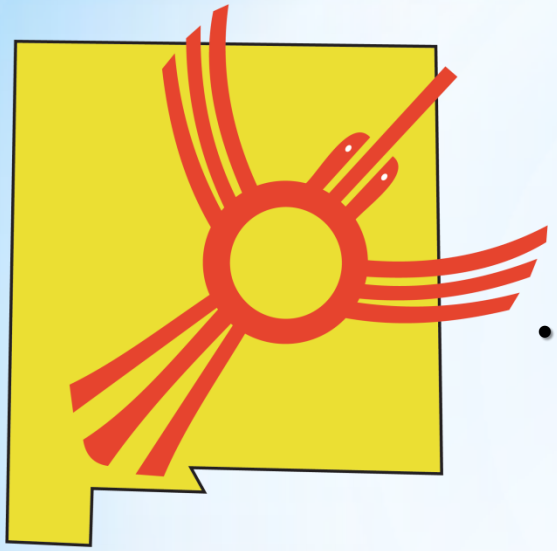
For More Information Refer to the Partners in Flight Handbook on Species Assessment; Version 2012



How Does The Assessment Process Work on the National Scale?

Image: Stockjocknroll.com

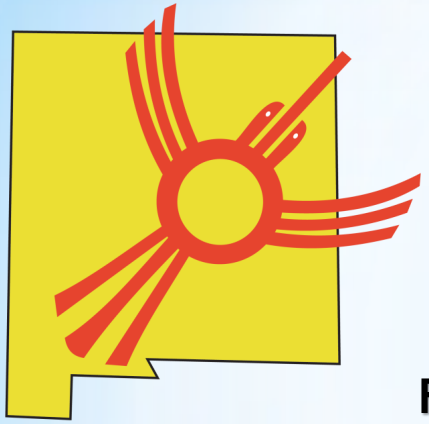
- National Watch List Species have a Maximum Combined Score of ≥ 14 OR a Maximum Combined Score of 13 with a Population Trend Score of 5
- Watch List divided into RED list and YELLOW list, with red list species being of the highest concern
- For more information, see pages 96-101 of the Landbird Conservation Plan



How Does The Assessment Process Work in New Mexico?

- Five Categories; each species receives a score of 1-5 in each category, with a maximum possible score of 25:
  - Population Size
  - Distribution (breeding and nonbreeding; highest of the two scores used)
  - Threats (global breeding, global nonbreeding, and NM Breeding/Nonbreeding; highest of the three scores used)
  - Population Trend in NM (if this is not available the national trend score is used)
  - Importance of NM for Breeding or Wintering

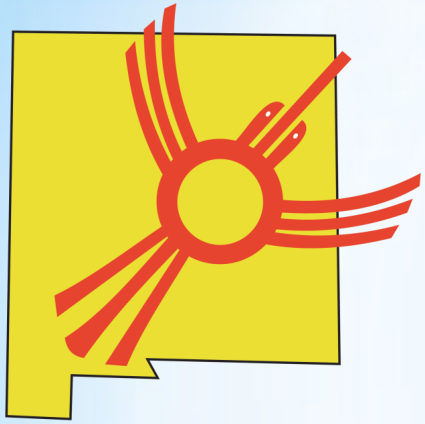
Image: Diana Nunnaley and Mary Anne Mather Blog



How Does The Assessment Process Work in New Mexico?

Four watch lists created using the following formulas:

Priority List	Abbreviation	Formula
Species Conservation Level 1	SC1	Importance of New Mexico to Breeding > 1 and Combined Score > 16
Species Conservation Level 2	SC2	Importance of New Mexico to Breeding > 1 and Combined Score = 15 or 16 or
		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



How Does The Assessment Process Work in New Mexico?

- 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.

Image: St. James United Methodist Church

Understanding the Scores

- How can the scores be accurate if birds many of us see regularly in our backyards, like the Woodhouse's Scrub-Jay and Juniper Titmouse, are on the level one priority list, while a bird many of us rarely see, the Gray Vireo, is on the level two priority list?

Image: John C. Folinsbee

Image: Dustin Huntington

Image: Brian E. Small

Understanding the Scores

Woodhouse's Scrub-Jay Population Trends According to the Breeding Bird Survey

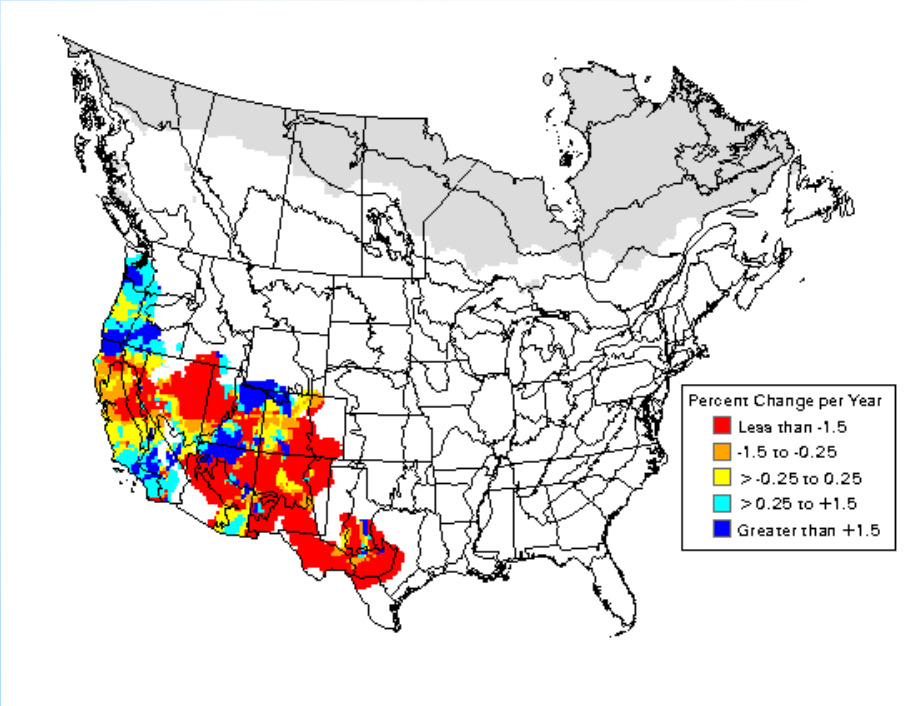


Image: BBS

- **Woodhouse's Scrub-Jay:**
  - Population has declined in NM by 3.17% per year since the 1960s
  - NM is home to approximately 18% of the global population
- **Juniper Titmouse:**
  - Population has declined in NM by 1.36% per year since the 1960s
  - NM is home to approximately 41.8% of the global population

Understanding the Scores

Gray Vireo Population Trends According to the Breeding Bird Survey

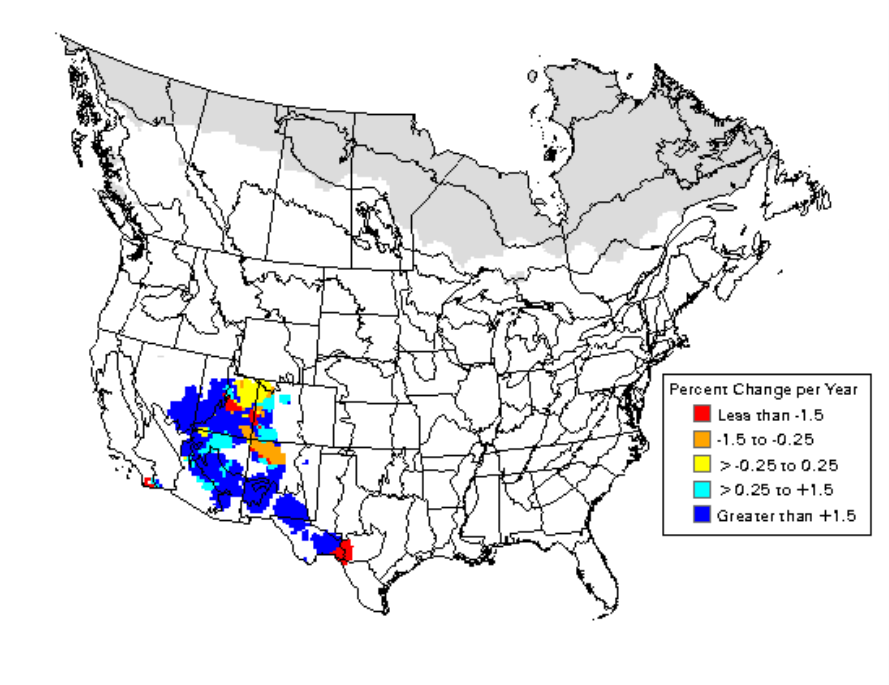


Image: BBS

- <u>Gray Vireo:</u>
  - Population is currently not declining in NM, or rangewide
  - Threats considered lower than other piñon-juniper birds
  - Still of conservation concern (level 2) because:
    - NM is home to approximately 15.3% of the global population
    - Global range is very small

Understanding the Scores

American Coot Population Trends According to the Breeding Bird Survey

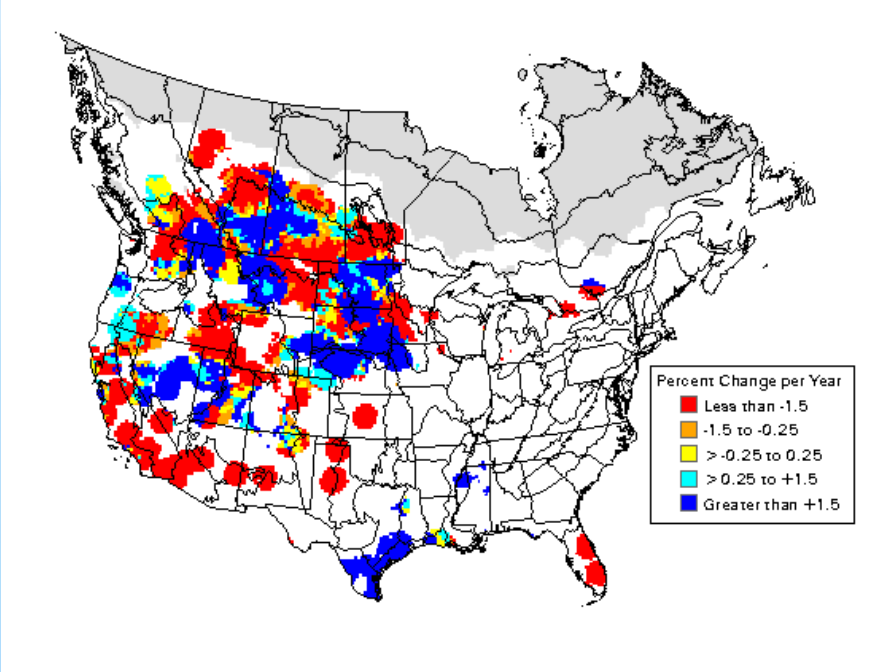


Image: BBS

- Why is American Coot on the Biodiversity Conservation Level 2 list?
- Common in winter, but not as common in summer
- Breeding populations appear to be declining in NM
- Breeds in wetland habitats, which face a variety of potential threats
- Conservation of wetlands for higher priority species will also maintain biodiversity in NM by maintaining small breeding American Coot population

What Can We Learn from the Updated Assessment Scores in NM?

<u>Species Conservation Level 1</u>

Bendire's Thrasher (22)
Lesser Prairie-Chicken (21)
Brown-capped Rosy-Finch (breeding and winter;21)
Pinyon Jay (19)
Juniper Titmouse (19)
Chestnut-collared Longspur (winter;19)
Virginia's Warbler (19)
Flammulated Owl (19)
Black Rosy-Finch (winter;19)
Spotted Owl (18)
McCown's Longspur (winter;18)
Lewis's Woodpecker (18)
Grace's Warbler (18)
Scaled Quail (17)
Red-faced Warbler (17)
Mexican Whip-poor-will (17)
Woodhouse's Scrub-Jay (17)

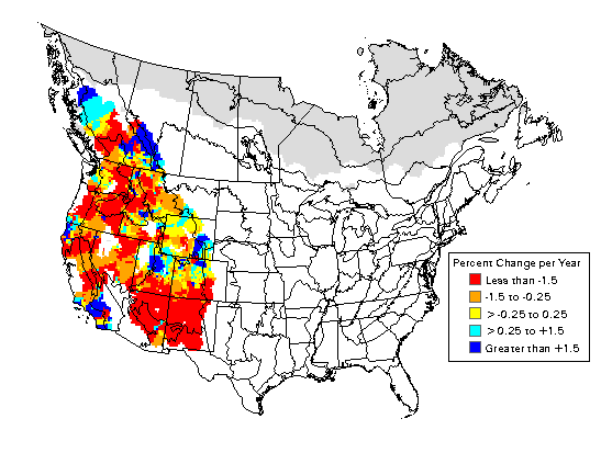
Image: Rick and Nora Bowers

There are many species that are currently not federally listed (or petitioned) that are likely in need of conservation attention in NM; we should consider working together NOW to prevent them from becoming listed in the future

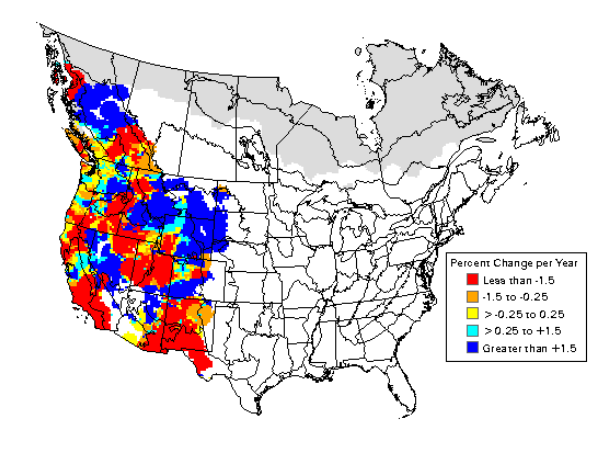
What Can We Learn from the Updated Assessment Scores in NM?

- Many species that are still relatively common in NM are showing significant declines
- This has resulted in many common NM birds being listed on the Species Conservation Level 2 List including:

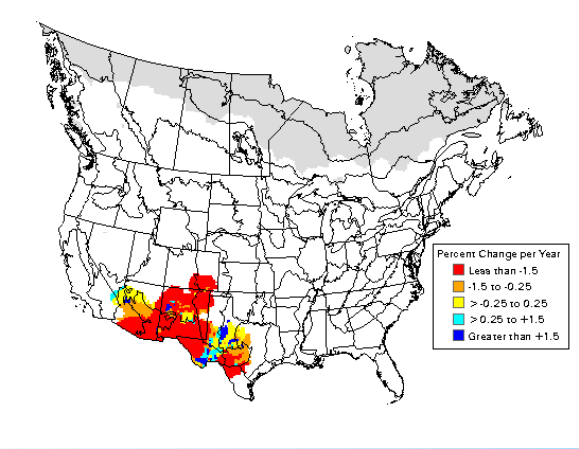
Mountain Chickadee



Violet-Green Swallow



Canyon Towhee



Images: BBS

What Can We Learn from the Updated Assessment Scores in NM?

Habitat Associations for Species with Scores ≥ 19

Piñon-juniper: 3

Ponderosa Pine Forest: 2

Alpine/Tundra: 2

Chihuahuan Desert Grassland: 1

Plains-Mesa Sand Shrub: 1

Plains-Mesa Grassland: 1

Chihuahuan Desert Shrub: 1

Great Basin Shrub: 1

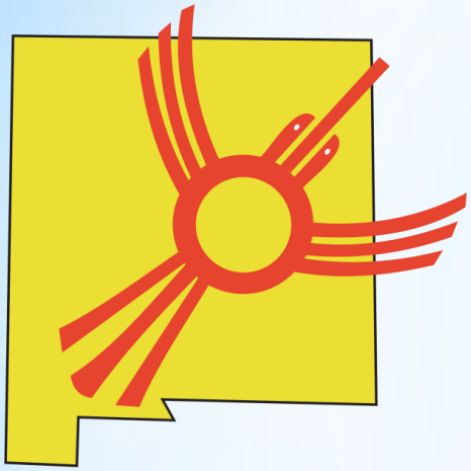
Image: John Phelan

- **Piñon-juniper habitats contain more of the highest scoring species (species scoring ≥ 19) than any other habitat type**
- **We likely need to focus more conservation attention on Piñon-juniper woodlands**

Image: Audubon

Image: Glenn Bartley

<u>Pinyon Jay</u>
Population Loss = 85%
Half-Life = 19 Years



What Can We Learn from the Updated Assessment Scores in NM?

Habitat Associations for all SC1 Species

Ponderosa Pine Forest: 7
Piñon-juniper-Juniper: 4
Mixed-Conifer: 3
Chihuahuan Desert Grassland: 3
Plains-Mesa Grassland: 3
Alpine/Tundra: 2
Mid-elevation Riparian: 1
Chihuahuan Desert Shrub: 1
Great Basin Shrub: 1
Plains-Mesa Sand Shrub: 1
Montane Shrub: 1

Habitat Associations for SC2 Species

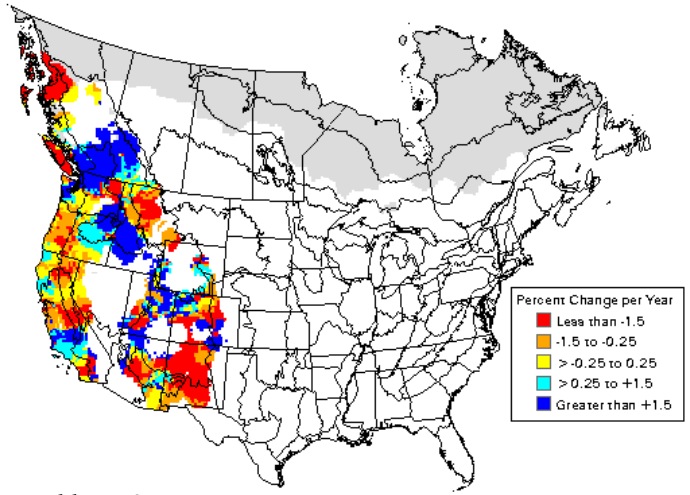
Mixed-Conifer Forest: 12
Piñon-juniper Woodland: 8
Ponderosa Pine Forest: 7
Spruce-fir Forest: 6
Montane Shrub: 6
Madrean Pine-Oak Woodland: 5
Great Basin Desert Shrub: 5
Plains-mesa Grassland: 4
Chihuahuan Desert Shrub: 4
Southwest Riparian: 3
Chihuahuan Desert Grassland: 2
Montane Riparian: 2
Plains-mesa Sand Shrub: 2
Wet Meadows/Montane Grassland: 1
Cave/Rock/Cliff: 1
Middle Elevation Riparian: 1

Our montane habitats likely need more conservation attention

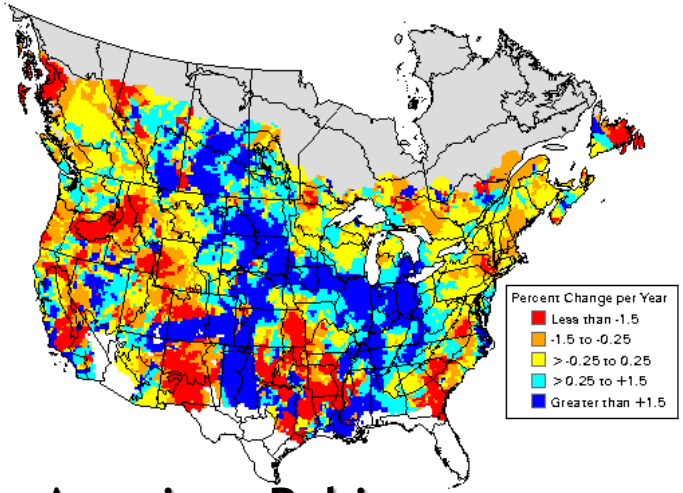
Image: Arizona Wilderness Coalition

What Can We Learn from the Updated Assessment Scores in NM?

- Even common, widespread montane species are showing significant declines in NM, further indicating these habitats are likely in poor condition and need more attention

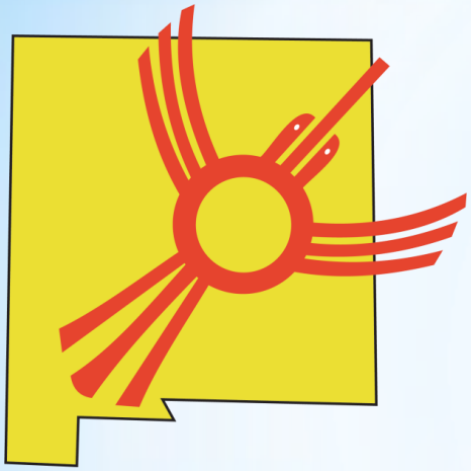


Steller's Jay



American Robin

Images: BBS



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Alpine/Tundra: 2

Mid-elevation Riparian: 1

Chihuahuan Desert Shrub: 1

Great Basin Shrub: 1

Plains-Mesa Sand Shrub: 1

Montane Shrub: 1

We likely need to continue grassland conservation in eastern NM, and increase conservation efforts in our Chihuahuan Desert grasslands

Image: The Nature Conservancy

What Can We Learn from the Updated Assessment Scores in NM?

Habitat Associations for all SC1 Species

Ponderosa Pine Forest: 7

Piñon-juniper: 4

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Alpine/Tundra: 2

Mid-elevation Riparian: 1

Chihuahuan Desert Shrub: 1

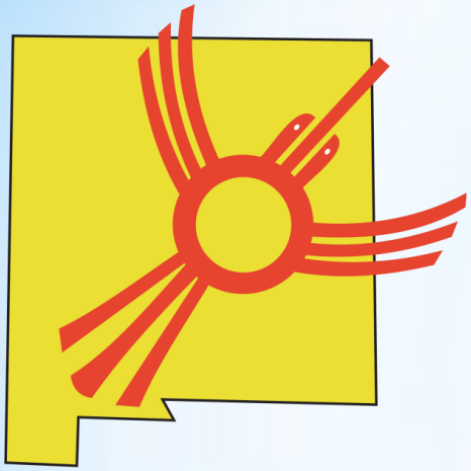
Great Basin Shrub: 1

Plains-Mesa Sand Shrub: 1

Montane Shrub: 1

Image: Geoff Malosh

- **Climate change is likely a major threat for alpine species, as well as for all other bird species in NM**
- **Populations of both the Brown-capped and the Black Rosy-Finch have declined by 95% since the 1960s**



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Scaled Quail (17)
Red-faced Warbler (17)
Mexican Whip-poor-will (17)
Woodhouse's Scrub-Jay (17)

Image: Audubon

- **Full life-cycle conservation is Important**
- **We should try to conserve breeding, <u>wintering</u>, and <u>migrating</u> populations of birds to be effective – this will require *collaboration across state and international boundaries***

What Can We Learn from the Updated Assessment Scores in NM?

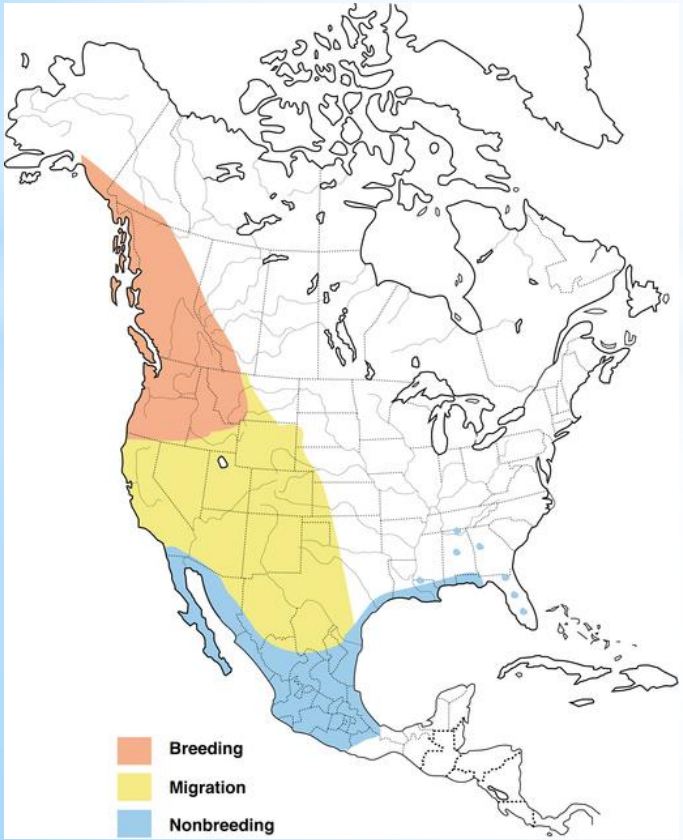
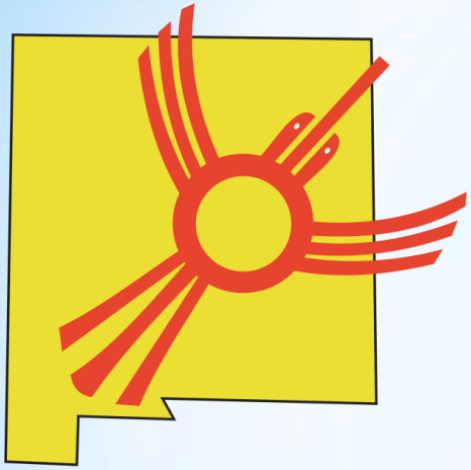


Image: Birds of North American Online

Image: Verdon Tomajko

- Scores for migrating species were not conducted due to a lack of data
- HOWEVER, NM is an important migration site for many species of high national concern, like the Rufous Hummingbird, whose population has declined by 60%
- We need to account for the needs of migrating species



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Red-faced Warbler (17)
Mexican Whip-poor-will (17)
Woodhouse's Scrub-Jay (17)

Image: Greg Lasley

- **Most of the highest priority species are also on the national Partners In Flight Watch List, however, several are not**
- **Conservation at different scales is important!**

What's Next for NMACP?

- Complete full winter assessments
- Update all species accounts; will need help from species experts
- Host large partners meetings every other year
- Sign up for the NMACP listserv to receive updates