



**FOREST GUARDIANS' REVIEW OF
NEW MEXICO STATE THREATENED &
ENDANGERED SPECIES LIST**

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Introduction & Purpose of Report

Every two years, the New Mexico Game and Fish Department (NMDGF) reviews the state list of threatened and endangered species. This report was submitted on July 7, 2004 as Forest Guardians' comments on the preliminary draft biennial review and recommendations.

The NMDGF solicits comments only on upgrading a threatened species to endangered status or downgrading an endangered species to threatened status as part of this process. Additions and removals from the list are addressed through a separate mechanism. However, the present state list of threatened and endangered species is so incomplete that we feel compelled to comment on the numerous omissions in the present list.

In addition, for most of the species listed at the state level – despite their critical imperilment – the state has not provided any discussion of needed conservation measures. For the taxa accounts which include conservation measures, descriptions of these measures are generally far too vague to provide adequate guidance for species conservation.

Under the Bush Administration, the federal endangered species program is faltering. President George W. Bush has made his mark as the only president under whom not one taxa has been listed on the initiative of the administration. All listings under George W. Bush have occurred as the result of court-orders. A mere 31 species have been listed since George W. Bush has been in office, the lowest under any president since the Endangered Species Act was passed.

The federal administration's non-enforcement and sabotage of the federal Endangered Species Act underscores the urgency of a rigorous and effective species conservation program at the state level. Significant improvements, both in terms of taxa covered and conservation measures included, are required in New Mexico's program.

At the national level, significant funds are being requested for landowner incentives and related conservation, while the federal Endangered Species Act listing budget is starved. For instance, in its 2005 budget proposal, the Bush Administration requested \$90 million for the Cooperative Endangered Species Conservation Fund, in contrast with \$17 million requested for critical habitat designations and listings. Based on the U.S. Fish and Wildlife Service's own admissions, some \$153 million is required to address the current listing backlog. The underfunding of the federal listing program means that the backlog will continue for the foreseeable future.

While this policy dysfunction must be resolved in the form of more monies flowing toward federal listings, conservation initiatives such as landowner incentive programs will likely be implemented through state-level or inter-state species efforts. It is therefore timely for New Mexico to increase the vigor of its threatened and endangered species program, with the potential for more federal funds.

Before we turn to our critique of the 2004 biennial review, we offer praise for some portions of the report. The discussion on the aplomado falcon is laudable. We agree with the NMDGF that given the presence of wild falcons in the state, the designation of a reintroduced population as experimental non-essential by the U.S. Fish and Wildlife Service is indeed problematic. In addition, we appreciate the acknowledgement that cowbird parasitism of the Bell's vireo and other bird nests is a symptom of more fundamental habitat problems.

Fauna in Need of State Listing

All federally listed, candidate, and proposed species and subspecies should be included on the NM state list. It is especially striking that species for which NM is part of high-profile conservation efforts aimed at precluding the need for federal listing – e.g., the black-tailed prairie dog and the lesser prairie chicken – are not even included on the state list. The credibility of the state's stance that it will provide much-needed conservation actions for these species comes into question when the state fails to even flag, via state listing, these species as in need of conservation. In addition, species which have previously been candidates or proposed for listing at the federal level, but are still at risk, should be listed at the state level.

Federally listed species which should be listed at the state level in NM:

- **Canada Lynx** (*Lynx canadensis*). This species occurs in New Mexico and is federally listed as threatened.
- **Chiricahua Leopard Frog** (*Rana chiricahuensis*). This species occurs in New Mexico and is federally listed as threatened.
- **Black-footed Ferret** (*Mustela nigripes*). This species historically occurred in New Mexico, may still occur undetected in New Mexico,¹ and is federally listed as endangered.
- **Jaguar** (*Panthera onca*). This species' range includes New Mexico and it is federally listed as endangered. While listed as a "Restricted Species", a state endangered listing is merited.
- **Mexican Spotted Owl** (*Strix occidentalis lucida*). This species occurs in New Mexico and is federally listed as threatened.
- **Beautiful Shiner** (*Cyprinella formosa*). This species occurs in New Mexico and is federally listed as threatened.
- **Razorback Sucker** (*Xyrauchen texanus*). This species occurs in New Mexico and is federally listed as endangered.
- **Woundfin** (*Plagopterus argentissimus*). This species occurs in New Mexico and is federally listed as endangered (except for its experimental, non-essential designation in the Gila River drainage).

¹Hubbard, John P., and C. Gregory Schmitt. 1984. "The black-footed ferret in New Mexico." Report prepared for the U.S. Bureau of Land Management, April 30, 1984.

Federal proposed species which should be listed at the state level in NM:

- **Sacramento Mountains Checkerspot Butterfly** (*Euphydryas anicia cloudcrofti*). This subspecies if proposed for federal listing as endangered and is endemic to New Mexico.

Federal candidate species which should be listed at the state level in NM:

- **Black-tailed Prairie Dog** (*Cynomys ludovicianus*). This species was designated a candidate (warranted but precluded species) in February 2000. It has a rank of G3/G4 by NatureServe.
- **Lesser Prairie-Chicken** (*Tympanuchus pallidicinctus*). This species was designated a candidate (warranted but precluded species) in June 1998. It has a rank of G3 by NatureServe.
- **Western Yellow-billed Cuckoo** (*Coccyzus americanus*). The western distinct population segment of this species occurs in New Mexico and was designated a candidate (warranted but precluded species) in July 2001.

Previous federal candidates or proposed species which should be listed at the state level in NM:

- **Mountain Plover** (*Charadrius montanus*). This species was proposed for listed in 1999 and 2002, but the listing proposal was withdrawn in 2003. The withdrawal of the federally listing proposal will be litigated as the species remains critically imperiled, with a rank of G2.
- **Swift Fox** (*Vulpes velox*). This species was removed from the candidate list in 2001, but it remains imperiled in the majority of its range. NatureServe ranks this species as a G3, which equates to “vulnerable.”

All species ranked G1-G3 by the New Mexico Natural Heritage Program and NatureServe should be listed by the state. We delineate qualifying species below. In addition, NMDGF should list all S1-S3 species occurring in New Mexico. For instance, the **Gunnison’s Prairie Dog** (*Cynomys gunnisoni*) has a rank of S2 and was petitioned for federal listing in February 2004.² It should be included on the NM state list of threatened and endangered species.

G1-G3 Fishes:

- **Rio Grande Chub** (*Gila pandora*). Designated G3 by NatureServe, range includes NM.
- **Rio Grande Shiner** (*Notropis jemezianus*). Designated G3 by NatureServe, range includes NM.
- **Sonora Sucker** (*Catostomus insignis*). Designated G3 by NatureServe, range includes NM.

²See <http://www.fguardians.org/pdf/gunnison-pdog-petition.pdf>.

- **Headwater Catfish** (*Ictalurus lupus*). Designated G3 by NatureServe, range includes NM.
- **Mexican Golden Trout** (*Oncorhynchus chrysogaster*). Designated G1G3 by NatureServe, historic range included NM, may be extirpated.

G1-G3 Amphibians:

- **Sacramento Mountain Salamander** (*Aneides hardii*). Designated G3 by NatureServe, range includes NM.

G1-G3 Reptiles:

- **Big Bend Slider** (*Trachemys gaigeae*). Designated G3 by NatureServe, range includes NM.
- **Massasauga** (*Sistrurus catenatus*). Designated G3/G4 by NatureServe, range includes NM.³

G1-G3 Birds:

- **American White Pelican** (*Pelecanus erythrorhynchos*). Designated G3 by NatureServe and according to NatureServe occurs in NM.

G1-G3 Mammals:

- **New Mexico Shrew** (*Sorex neomexicanus*). This species is endemic to NM and has a rank of G2.
- **Gray-footed Chipmunk** (*Tamias canipes*). This species occurs in NM and has a rank of G3.
- **Desert Pocket Gopher** (*Geomys arenarius*). This species occurs in NM and has a rank of G3.

NMDGF should consult the IUCN/Species Survival Commission's North American Rodents Action Plan for additional candidates for listing at the state level, given that rodents comprise the majority of mammalian species in the American southwest.⁴ In addition to some species already identified above (e.g., black-tailed prairie dog, gray-footed chipmunk, desert pocket gopher), the IUCN Rodent Plan suggested the following species be designated as of special concern: **Zacatecan cotton rat** (*Sigmodon fulviventer*).

Also, a free-roaming herd of approximately 90 **bison** (*Bison bison*) has been documented in Chihuahua, Mexico and southwestern New Mexico. Given the presence of wild bison in the state, NMDGF should designate them an endangered species at the state level.

³The eastern subspecies of Massasauga (*Sistrurus catenatus catenatus*), is a federal candidate for listing.

⁴See <http://www.iucn.org/themes/ssc/actionplans/northamericanrodents/contents.pdf>.

Need for Conservation Actions

While the 2004 biennial review contains conservation recommendations for some species, the recommendations are often too general to be meaningful, and the majority of species are not provided with any conservation recommendations at all.

The primary threat to state listed species is habitat loss and degradation. This fits with the broader pattern in the U.S. of habitat destruction factoring in the imperiled status of 85% of species listed under the federal Endangered Species Act.⁵

Numerous land uses in New Mexico harm habitat and consequently imperil native fauna. These land uses include livestock grazing, water diversion and depletion for agriculture, oil and gas extraction, logging, recreation, and urban development. Many of these land uses appear within the species accounts in the biennial review. However, the recommendations within the review overwhelmingly fail to address these threats.

In addition, direct take – via collection or killing – by the public poses a threat to a variety of species listed at the state level. Limitations on take should be actively enforced by the NMDGF and plans for vigorous enforcement should be stated in the biennial review.

Below, we elaborate on the leading threats to listed fauna in New Mexico. This list is not comprehensive, as other threats such as mining, recreation, forest fire retardants, pesticides/herbicides, and urbanization are also taking their toll. We urge NMDGF to address any and all of these threats by including detailed conservation steps within its recommendations for each listed taxa in the biennial review.

Oil and gas exploration and extraction

Oil and gas exploration and extraction is a threat to many species occurring in eastern and southeastern New Mexico. Much of this activity is occurring on public lands, such as Bureau of Land Management (BLM) and New Mexico State Trust lands. Yet, NMDGF is not taking steps to counter this threat. This is not for lack of opportunity, as every three months, the BLM conducts oil and gas lease sales, which NMDGF could administratively challenge.

In the past three quarters, these lease sales have included parcels with suitable habitat for northern aplomado falcons and sand dune lizards, both of which are state listed.⁶ Habitat of numerous other species which are not state listed, but which should be, is also being

⁵See Wilcove, David S., David Rothstein, Jason Dubow, Ali Phillips, and Elizabeth Losos. 1998. "Quantifying threats to imperiled species in the United States." *BioScience* 48(8):607-615.

⁶See <http://www.fguardians.org/pdf/nm-ok-protest-oct03.pdf>, http://www.fguardians.org/pdf/nm-ks-protest_1_04.pdf. Forest Guardians' protest of BLM April 2004 lease sale available upon request.

impacted, including, for example, black-tailed prairie dog, lesser prairie chicken, Gunnison's prairie dog, and swift fox.

Administrative challenges of BLM leasing of select parcels with high wildlife habitat values would be in line with NMDGF's protest of the BLM's Proposed Resource Management Plan Amendment/Final Environmental Impact Statement for oil and gas leasing in Sierra and Otero Counties, which cited your agency's concerns about the impacts of leasing on wildlife and wildlife habitat.⁷

The four imperiled aquatic invertebrates proposed for federal listing – Noel's Amphipod, Koster's Springsnail, Roswell Springsnail, and Pecos Assiminea – are all imperiled by oil and gas exploration and extraction. This activity continues to be authorized by BLM adjacent to the Bitter Lake National Wildlife Refuge, the principal remaining habitat for these species. NMDGF should include in recommendations for these species to pressure BLM to not approve any more applications for permit to drill or allow leasing of any more parcels in this area. Other species which rely on this refuge (e.g., Wrinkled marshsnail) will also enjoy this habitat protection.

In addition, there is a concentration of state listed species in Eddy County and other areas in southeastern New Mexico, which is an area which has been ravaged by oil and gas development. One of these species, the sand dune lizard, is literally teetering on extinction and must be safeguarded from the oil and gas threat.

Logging

Timber harvest is cited as a factor in the imperilment of several species in the biennial review. Yet, as evidenced, for example, in the cases of the Shortneck snaggletooth (a mollusk) and the boreal owl, NMDGF includes no conservation recommendations to address this threat. NMDGF should analyze and disclose opportunities for protecting state listed species from the threat of logging, especially where it is occurring on public lands.

Livestock grazing

Livestock grazing is the most widespread land use in the western U.S.⁸ It factors in the imperilment of a broad suite of native plants and animals.⁹ In addition to habitat degradation by livestock, rangeland management, which includes the persecution of

⁷See Thompson, Bruce C. 2004. New Mexico Department of Game and Fish Protest of Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties. NMGF Doc. No. 9161. Dated February 5, 2004.

⁸See, e.g., Fleischner, Thomas L. 1994. "Ecological costs of livestock grazing in western North America." *Conservation Biology* 8(3):629-644.

⁹*Ibid.* See also Wilcove et al. 1993.

native fauna seen as “pests” or “predators” has led to species imperilment.¹⁰ Examples of wildlife imperiled by rancher persecution are prairie dogs, wolves, grizzly bears, pronghorn, rattlesnakes, and pocket gophers.

The biennial review discloses this threat to the gamut of listed taxa from this land use. Species impacted include: state listed invertebrates, fishes, birds, and mammals (e.g., Mexican wolf).

Despite the acknowledgement of the harms to native species from livestock grazing, recommendations in the biennial review do not include conservation steps which could address this widespread threat. A number of species imperiled by livestock grazing are located in the southwestern and southeastern portions of the state, areas which also contain a high proportion of federal land. This affords NMDGF the opportunity to participate in National Environmental Policy Act processes to voice its opposition to continued erosion of imperiled species and their habitat. This strategy should be noted in the biennial review.

In addition, we applaud the Wildlife Commission’s embrace of reform in regard to the Mexican wolf recovery program. In addition to direct releases of Mexican wolves into New Mexico, we implore NMDGF and the Wildlife Commission to advocate livestock management practices, such as timely removal of livestock carcasses, which are so imperative to the success of this recovery effort.

Water quality and quantity impacts

This threat includes groundwater pumping, stream and river diversion, water depletion, water contamination, stream channelization, poor watershed management, and impacts on water quality. State listed taxa negatively impacted include: all or nearly all the state listed invertebrates (27 taxa), all of the state listed fishes (23 taxa), listed herptiles, and some listed birds (e.g., least tern, southwestern willow flycatcher). Recommendations in the biennial review must be fleshed out to indicate the specific conservation steps NMDGF will take to address this threat.

Non-native predators

Many of the aquatic species listed at the state level are imperiled, in part, because of non-native predators. In some cases, these include sportfish stocked by NMDGF or other agencies. Examples of stocked species include smallmouth bass, largemouth bass, brown trout, and rainbow trout.

Native fauna impacted by non-native fish and other predators include the Chiricahua leopard frog (which should be listed at the state level), Gila chub, Chihuahua chub, roundtail chub, Rio Grande silvery minnow, southern redbelly dace, Colorado

¹⁰See, for example, Freilich, Jerome E., John M. Emlen, Jeffrey J. Duda, D. Carl Freeman, and Philip J. Cafaro. 2003. “Ecological effects of ranching: a six-point critique.” *BioScience* 53(8): 759-765.

pikeminnow, Zuni bluehead sucker, Gila trout, spikedace, loachminnow, White Sands pupfish, Gila topminnow, and lowland leopard frog.

It seems obvious, but bears stating that NMDGF should cease game-fish stocking where it is imperiling native fauna. This commitment should be included in recommendations for taxa that suffer from related threats.

Collection & Persecution

Herptiles in particular suffer from collection by the general public and scientists. Examples include the Sonoran desert toad, Gila monster, gray-checked whiptail, gray-banded kingsnake, Mexican gartersnake, New Mexico ridgenosed rattlesnake, Slevin's bunchgrass lizard, Canyon Spotted whiptail, Mountain skink, Green ratsnake, Western ribbonsnake, Mottled rock rattlesnake. NMDGF should include among its recommendations education of would-be collectors and enforcement of restrictions on take.

Snakes continue to suffer from negative perceptions among some sectors of the public and are persecuted. The biennial review indicates this ranks as a threat for the following taxa: Gila monster, Plain-bellied watersnake, and Narrow-headed gartersnake.

The Western river cooter (a turtle) is known by NMDGF to be a victim of "target practice" by recreationists and fishermen. If this practice is known, why isn't it stopped?

Some state-listed birds are even known to be the victims of shooting and/or persecution, including the Neotropic cormorant, Bald eagle, Peregrine falcon, Common black-hawk, and Gould's wild turkey.

For all of these and other cases where direct take by humans is imperiling fauna in the state, NMDGF must ensure enforcement adequate to address these relatively easy-to-manage managed threats can be addressed.

It is clear that NMDGF can authorize conservation recommendations for state listed species. For example, signage warning against the use of soap in the habitat of the New Mexico hot springsnail is included in the biennial review. Similarly, warnings against overcollection, shooting, and other threats to state listed species should be included within the conservation recommendations in the biennial review.

Need for Progress in State Listing and Conservation Program

There are minimal changes between the 2000, 2002, and 2004 biennial reviews. In fact, only one species (the gray banded kingsnake) has been added to the state list of threatened and endangered species since 1991.¹¹ Since that time, two species were

¹¹See New Mexico Department of Game and Fish. 2000. "Threatened and Endangered Species of New Mexico. Biennial Review and Recommendations." Discussion of changes to list is at p. i.

removed because they became extinct and two species were removed because they were no longer considered native species. Other changes have been fairly minimal, including the uplisting of 2 species from threatened to endangered in the 2000 biennial review and the recommendation in the 2004 biennial review to uplist 2 additional species.

The rather static nature of the state listing program sharply contrasts with the biodiversity crisis in which this state finds itself. Across the 50 states, New Mexico ranks #3 in the nation in terms of the number of mammalian species at risk, #2 in terms of the number of bird species at risk, #3 in terms of the number of reptilian species at risk.¹²

Indeed, species which clearly merit state listing have been denied this designation. A telling case study is the lesser prairie chicken. In 1997, conservation groups petitioned NMDGF to study this species for possible state listing. Following an investigation, NMDGF's director recommended in 1999 that the State Wildlife Commission list the species as threatened. The director made this request three times. The Commission failed to list the species and the director withdrew the recommendation.¹³

In addition, a NMDGF memo from 1998 indicates that at least 54 other species should be assessed for inclusion on the state list. Yet, progress toward listing on these species has not been made.¹⁴ We urge listing of more native fauna species and subspecies to ensure that the New Mexico species program is a systematic and comprehensive one.

Conclusions & Recommendations

We have two broad recommendations: 1) add taxa to the state list to make it more comprehensive; and 2) include conservation recommendations (and enforce these recommendations) that address the threats known to listed taxa.

Many additions should be made to New Mexico's state list of threatened and endangered species. These include listing eight species that are federally listed, one species that is proposed for federal listing, three species that are candidates for federal listing, two species that were previous candidates for federal listing, twelve taxa that are ranked G1-G3, free-roaming bison in southwestern New Mexico, the Zacatecan cotton rat, and the Gunnison's prairie dog. In addition, NMDGF should assess all S1-S3 taxa for inclusion on the state list.

The draft biennial review overwhelmingly fails to include conservation recommendations to address the threats impacting state listed species. As we have described above, a broad range of impacts, from habitat degradation and loss to direct take, are ushering the state's

¹²See Stein, Bruce A. 2002. "States of the Union: Ranking America's Biodiversity." Arlington, VA: NatureServe.

¹³See Bailey, James A. 2002. "Prairie-chickens test the NM Wildlife Conservation Act." October 20, 2002 unpublished report.

¹⁴Ibid.

fauna toward state extirpation and/or global extinction. In order for this biennial review to be more than a paper exercise, it is crucial that NMDGF include specific strategies for conserving and recovering imperiled wildlife.

A strong New Mexico endangered species conservation program is not a substitute for a strong federal program. The state law lacks the substantive protections and citizen enforcement provisions that have made the federal Endangered Species Act so effective in preventing species extinctions.¹⁵

However, a strong New Mexico species conservation program should serve as a vibrant complement to Endangered Species Act enforcement at the federal level. In addition, while species are in the “waiting room” – i.e., awaiting federal listing – a state listing can provide an important red flag to private parties and government agencies at all levels. The red flag signals the need for reforming policies that are factoring in the demise of imperiled but federally unprotected species.

¹⁵See Taylor, Martin, Kieran Suckling, and Jeffrey Rachlinski. 2003. “Critical habitat significantly enhances endangered species recovery.” Unpublished report. This report details how listing, critical habitat, and recovery plan that has been in place for more than 10 years are three times as likely to be recovering as species without critical habitat and a recovery plan less than 10 years old.