

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

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Gunnison's prairie dog photo © Jess Alford

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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 September 4, 2008 as WildEarth Guardians' comments to NMDGF on the draft biennial review and recommendations.

WildEarth Guardians is also providing a copy of this report to the U.S. Fish and Wildlife Service to underscore the need for federal protection for the many species that are imperiled in New Mexico yet are not even state-listed. While state listing is not an adequate substitute for federal protection, it is at least an acknowledgement by NMDGF of the imperiled species in our midst that need safeguards from the threats they face.

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 – and has been for decades – that we are determined to persuade NMDGF to greatly expand the present list. In addition, requests for investigations of species that may require listing can be made at any time. This report should therefore be considered a request for investigation into dozens of species that are imperiled in New Mexico but aren't listed by the state.

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 taxon has been listed on the initiative of the administration. All listings under George W. Bush have occurred as the result of court orders. Fewer than ten species have been listed annually since George W. Bush has been in office, the lowest under any president since the Endangered Species Act (ESA) was passed. Contrast this with an average of 65 species per year under Bill Clinton and 58 species per year under George H.W. Bush.

The federal administration's non-enforcement and sabotage of the federal ESA 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, the federal ESA listing budget is starved. Based on the U.S. Fish and Wildlife Service's (FWS's) own admissions, some \$153 million is required to address the current listing backlog, yet less than \$15 million a year is being allocated toward federal listing. The lack of funding does not reflect a lack of need: nearly 300 species await listing as formal candidates for protection. 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

important for New Mexico to increase the vigor of its threatened and endangered species program, with the potential for more federal funds.

In the 2008 biennial review, we support the NMDGF recommendation to uplist the gray redbhorse to endangered. This highly imperiled fish biologically warrants this reclassification. Regarding the downlisting of desert bighorn, we urge NMDGF to end cougar control programs that have been conducted alongside bighorn reintroductions. NMDGF justifies downlisting based on increases in bighorn population numbers. Cougars play important ecosystem roles, are very vulnerable to human persecution, and should not continue to be killed for bighorn.

Fauna in Need of State Listing

All federally listed, candidate, and proposed species should be included on the NM state list. Here we discuss vertebrate species, although there are clearly invertebrates in NM that are imperiled yet aren't yet listed by the state. 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, Gunnison's 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.

¹See Hubbard, 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.

- **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).

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

- **Lesser Prairie-Chicken** (*Tympanuchus pallidicinctus*). This species was designated a candidate (warranted but precluded species) in June 1998. It has a rank of G3 (vulnerable) 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.
- **Gunnison's Prairie Dog** (*Cynomys gunnisoni*). The montane populations of this species were designated a candidate for ESA listing in February 2008. The full species has a rank of S2 (imperiled) in New Mexico.

Previous federal candidates or proposed 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 was removed due to political reasons from the candidate list in 2004. It has ranks of G4 and S2? in New Mexico by NatureServe. FWS is required to issue a finding on a 2007 ESA petition to list the species by November 30, 2008.
- **Mountain Plover** (*Charadrius montanus*). This species was proposed for listed in 1999 and 2002, but the listing proposal was withdrawn due to political reasons in 2003. It has a rank of G2 by NatureServe, which equates to "imperiled."
- **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 S2 in New Mexico (imperiled) and G3 globally (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.

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.
- **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 Reptiles:

- **Big Bend Slider** (*Trachemys gaigeae*). Designated G3 by NatureServe, range includes NM.
- **Massasauga** (*Sistrurus catenatus*). Designated G3/G4 by NatureServe, range includes NM.²

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.³ In addition to some species already identified above (e.g., black-tailed prairie dog, grayfooted chipmunk, desert pocket gopher), the IUCN Rodent Plan suggested the following species be designated as of special concern: **Zacatecan cotton rat** (*Sigmodon fulviventer*).

Fauna in Need of State Uplisting

The following species are listed as threatened, but biologically qualify as endangered. Their classification should be changed to endangered status:

- Loach minnow (*Tiaroga cobitis*).
- Gila topminnow (*Poeciliopsis occidentalis*).
- Gila springsnail (*Pyrgulopsis gilae*).
- Pecos springsnail (*Pyrgulopsis pecosensis*).
- New Mexico springsnail (*Pyrgulopsis thermalis*).
- Dona Ana talussnail (*Sonorella todseni*).
- Peppered chub (*Macrhybopsis tetranema*).
- White-sided jackrabbit (*Lepus callotis*).

Need for Conservation Actions

While the 2008 biennial review contains discussions of numerous threats to state listed species, the primary threat to state listed species is habitat loss and degradation. This fits

²The eastern subspecies of Massasauga (*Sistrurus catenatus catenatus*) is a federal candidate for listing.

³See <http://www.iucn.org/themes/ssc/actionplans/northamericanrodents/contents.pdf>.

with the broader pattern in the U.S. of habitat destruction factoring in the imperiled status of 85% of species listed under the federal ESA.⁴ However, state recovery plans generally fail to include enforceable and mandatory habitat protections, and the biennial review's recommendations on addressing these threats tend to be non-specific.

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 quarter, the BLM conducts oil and gas lease sales, which NMDGF could administratively challenge. The New Mexico State Land Office conducts oil and gas lease sales every month, which the NMDGF should also monitor and oppose parcels where oil and gas activities will imperil native fauna.

These lease sales have included parcels with suitable habitat for northern aplomado falcons, Pecos bluntnose shiners, and sand dune lizards, all of which are state listed. Habitat of numerous other species which are not state listed, but which should be, is also being impacted, including, for example, black-tailed prairie dog, lesser prairie-chicken, and Gunnison's prairie dog.

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

⁴See 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.

leasing in Sierra and Otero Counties, which cited your agency's concerns about the impacts of leasing on wildlife and wildlife habitat.⁵

The four imperiled aquatic invertebrates that were federally listed in 2005 – 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 its commitment to pressure BLM to deny applications for permit to drill or allow leasing of any more parcels in this or other areas that would harm these species. 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 that 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.⁶ It factors in the imperilment of a broad suite of native plants and animals.⁷ In addition to habitat degradation by livestock, rangeland management, which includes the persecution of native fauna seen as “pests” or “predators,” has led to species imperilment.⁸ 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 a wide gamut of listed taxa, including state listed invertebrates, fishes, birds, and mammals (e.g., Mexican wolf). But despite the

⁵See 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.

⁶See, e.g., Fleischner, Thomas L. 1994. “Ecological costs of livestock grazing in western North America.” *Conservation Biology* 8(3):629-644.

⁷Ibid. See also Wilcove et al. 1993.

⁸See, 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.

acknowledgement of the harms to native species from livestock grazing, recommendations in the biennial review generally 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, there is an urgent need for reform around the Mexican wolf recovery program. Yet, NMDGF's recommendations do not reflect the desperate situation the Mexican wolf is in within New Mexico and the Blue Range Wolf Recovery Area. In their entirety, the biennial review's recommendations read:

No change in the listing status of the Mexican wolf is recommended. NMDGF should continue to actively participate in on-going recovery activities of the U. S. Fish and Wildlife Service and other cooperators. The goal is to monitor the status of the reintroduced Mexican wolves and their habitats, and to work with local interests to ensure that and promote adaptive Mexican wolf reintroduction is successful and consistent with ongoing land uses (p. 116).

Continued participation in ongoing recovery activities has clearly not lead to success of the reintroduction program. NMDGF should emphasize the need to prevent more wolf control under FWS's failed SOP 13 policy. In addition, the last sentence does not make sense grammatically. Substantively, the problem is not wolf inconsistency with local land uses, as Defenders of Wildlife compensates ranchers for wolf depredations. Rather, the problem is irresponsible livestock management and federal agencies that cater to the livestock industry, which is bent on effecting the second extirpation of Mexican wolves in our nature's history. Furthermore, prescribing "adaptive" Mexican wolf reintroduction is too vague to be meaningful.

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 nonnative 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 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. We appreciated this recommendation for the Spikedace (p. 49), but it needs to be consistently made for all fishes that are imperiled from non-native fish stocked for angling.

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, and 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 (p. 77). 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 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 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 biennial reviews conducted between 2000-2008. In fact, only one species (the gray-banded kingsnake) has been added to the state list of threatened and endangered species since 1991.⁹ Since that time, two species were removed because they became extinct and two species were removed because they were no longer considered native species. In 2004, two species were uplisted from threatened to endangered. In 2006, two species were downlisted and four species were uplisted.

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.¹⁰

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, your agency'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.¹¹ This is despite the fact that this species is a federal candidate for listing and has disappeared from 56% of its range in the state, occurs only in sparse and scattered populations in another 28% of current range; with core remaining populations occupying only 16% of the species' historic range in New Mexico.¹²

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.¹³ 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. To implement the latter recommendation, NMDGF should also engage in inter-agency processes with federal and

⁹See 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.

¹⁰See Stein, Bruce A. 2002. "States of the Union: Ranking America's Biodiversity." Arlington, VA: NatureServe.

¹¹See Bailey, James A. 2002. "Prairie-chickens test the NM Wildlife Conservation Act." October 20, 2002 unpublished report.

¹²Bailey, J. A. and S. Williams. 2000. Status of the lesser prairie-chicken in New Mexico, 1999. *Prairie Naturalist* 32(3): 157-168; J. A. Bailey. 2002. Status of the lesser prairie-chicken in southeast New Mexico and southeast Chaves County, 2001. Unpublished report. Santa Fe, NM: 5.

¹³Ibid.

state land managers to better ensure activities such as oil and gas, livestock grazing, and logging not further imperil the state's at-risk species.

Many additions should be made to New Mexico's state list of threatened and endangered species. As we have shown in this report, dozens of imperiled fauna species deserve state-listing.

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 ESA so effective in preventing species extinctions.¹⁴ However, a strong New Mexico species conservation program should serve as a vibrant complement to ESA 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 unprotected species.

¹⁴See Taylor, Martin, Kieran Suckling, and Jeffrey Rachlinski. 2005. "The Effectiveness of the Endangered Species Act: A Quantitative Analysis." *BioScience* 55 (4): 360-367.