

**Endangered Species Act Perspectives (1966-2003)**  
**Insight for J. Prukop Testimony**  
**U.S. Congress Subcommittee on Energy and Mineral Resources**  
**Carlsbad, NM**  
**7 June 2004**

- 1966 – End. Species Preservation Act (1<sup>st</sup> federal End. Spp legislation)
- 1967 – 1<sup>st</sup> federal listing of endangered species (13 mammals, 36 birds, 3 reptiles, 3 amphibians, 22 fishes)
- 1969 – End. Spp. Conservation Act (additional protection of species worldwide) required U.S. to convene global convention (led to CITES)
- 1973 – Convention on International Trade in End. Spp of Wild Fauna and Flora (CITES) signed
- 1973 – Endangered Species Act (ESA) signed 28 December (PL-93-205)
- 1973 – ESA implements Convention of Nature Protection and Wildlife Preservation in Western Hemisphere (signed in 1940)
- 1976 – 1<sup>st</sup> invertebrates listed (6 butterfly species)
- 1977 – 1<sup>st</sup> plant species listed (San Clemente Island indian paintbrush and San Clemente Island broom)
- 1978 – ESA reauthorized and amended (PL-95-632) allowed economic impact assess of critical habitat, priority system for listing, required critical habitat with listing, specified public notice and hearing requirements prior to listing, cooperative agreements with states
- 1978 – 1<sup>st</sup> Recovery Plan (Kirtland's Warbler)
- 1979 – Exempted Tellico Dam project from ESA to allow completion, increased and extended funding authorizations through September 1982
- 1980 – Provided for listing regulations
- 1981 – Defined “harm”
- 1982 – ESA reauthorized allowed development of HCPs, critical habitat designation with listing made discretionary, restricted listing to biological and trade information without economic assessment, experimental population designation
- 1983 – 1<sup>st</sup> Habitat Conservation Plan (HCP) – San Bruno elfin butterfly (California)
- 1985 – 1<sup>st</sup> delisting (Brown Pelican on Atlantic Coast and part of Gulf Coast)
- 1986 – Section 7 regulations provided
- 1988 – ESA reauthorized Numerous clarifications including definition of “person” to include municipal corporations, enforcement re: import/export of listed plants, added “warranted but precluded” category, required recovery plan criteria, status report to Congress biannual, public review of new/revised recovery plans, 5-year monitoring of candidate and delisted species, and many others
- 1989 – Listing guidelines provided
- 1990 – Recovery guidelines provided
- 1992 – ESA authorization expires and is continued through annual appropriations
- 1994 – Draft HCP and Section 7 guidelines, No Surprises Policy, greater emphasis on Joint interagency ESA policies, initiation of policy adjustments to minimize landowner stimulus to harm wildlife habitat as means to avoid ESA implications
- 1995 – 1<sup>st</sup> Safe Harbor agreement approved, U.S. Supreme Court defines “harm” to include modifying or destroying habitat if it includes taking a listed species
- 1996 – Listing priority guidelines developed, Final HCP guidelines provided, Distinct Vertebrate Population Segments Policy recognized
- 1997 – Safe Harbor Policy and Candidate Conservation Agreements Policy drafted
- 1998 – Final Section 7 Guidelines, No Surprises Rule issued

- 1999 – Final Safe Harbor Policy issued, Final Policy for Candidate Conservation Agreements with Assurances, Regulations for Safe Harbors and CCAs
- 2000 – Improved coordination of ESA section 7 consultation for FERC licensing of hydro projects
- 2001 – Endangered Species Planning Act gives greater weight to use of scientific or commercial data that is tested or peer-reviewed and increases consideration of information from states, landowners, and affected others
- 2003 – Conservation Banking Guidance to offset adverse impacts to listed species, Draft Candidate Conservation Agreements Handbook, Policy for Evaluation of Conservation Efforts (PECE) when making listing decisions

**FEDERAL AND STATE PROTECTED AQUATIC WILDLIFE  
IN THE PECOS RIVER VALLEY, NEW MEXICO  
May 2004**

- Currently, there are 7 protected fish species within the mainstem Pecos River, NM. One, the Pecos bluntnose shiner, is state and federally protected, and the remainder (blue sucker, gray redhorse, Mexican tetra, Pecos pupfish, bigscale logperch, and greenthroat darter) are state protected. Two state-listed reptiles (plainbelly water snake, western river cooter) occur in the Pecos River. Several other state and federally listed species occur within springs, tributaries, sinkholes, and other off-channel habitats of the Pecos River basin. Greater potential for regulation of habitat will occur if the yellow-billed cuckoo (found in salt cedar and other riparian vegetation in the Pecos drainage), which is currently a Candidate for listing under the Endangered Species Act, becomes federally listed.
- Repatriation of Rio Grande silvery minnow to Pecos River has been identified as a recovery item.
- Almost all ESA-related concerns driven by efforts to manage the Pecos bluntnose shiner and Section 7 consultations.
- Major players in water issues are the Carlsbad Irrigation District, Fort Sumner Irrigation District, US Bureau of Reclamation (USBR), US Army Corps of Engineers, US Fish and Wildlife Service, New Mexico Interstate Stream Commission (NMISC), and the Pecos Compact Commission.
- Major issues are maintenance of Pecos River surface flows for the Pecos bluntnose shiner, delivery of full water allocation to districts, and meeting interstate delivery obligations.
- From ESA Biological Opinions in 1991 through late 90s, an inter-agency Memorandum of Understanding (MOU) (including the New Mexico Department of Game and Fish) provided for research and water management. All water obligations were met and surface water for the Pecos bluntnose shiner was maintained. the Pecos bluntnose shiner status was stable and the system was functioning to benefit all constituents (including fish). NMISC offered, but chose not to be signatory to MOU.
- MOU program was not perfect, but was working (1991-1998). Hydrological and biological research provided info for improved water and fish mgmt., intra- and interstate water obligations were met. Annual meetings for coordination of fish, water, agricultural needs were held. NEPA process for operation of Pecos reservoirs by USBR was initiated in late 90s. Co-leads on the NEPA process, including NMISC, were adamant about creating a new structure of biological and hydrological teams for the EIS. Confusion and disarray regarding integration of previously-collected information and possible river management options occurred.
- NMISC and its consultants refused to acknowledge the credibility and reliability of research accomplished over a 9-yr period and broad range of flows that identified habitat associations and biology of Pecos River fishes, particularly the Pecos bluntnose shiner. NMISC contracted work to duplicate and refute previous research. Work done by NMISC during 2 years of drought and did not refute and in some ways confirmed previous work.
- NM's difficulty in meeting inter-state compact obligations is a consequence of over-appropriation in NM, and not because of the Pecos bluntnose shiner. Shortfalls to TX occurred before the Pecos bluntnose shiner listed and any effort made to provide for it.
- Drought of past 3-4 years has complicated river and water management.
- During past 3-4 years, river has dried in substantial reaches, causing substantial loss of the Pecos bluntnose shiner and other fishes. Some drying is probably inevitable, but lack of cooperation and coordination, such as occurred during MOU period, likely exacerbated drying (extent and duration).

- Considerably more info on hydrology of system (e.g., water transport efficiencies) is available, and this has contributed to improved mgmt.
- Under the MOU, maintenance of winter flows improved water quality (reduced salinity) in Brantley—less water was needed for irrigation in some years. Maintenance of more consistent flows may also benefit sport fish.
- Although debated, maintenance of surface flow for the Pecos bluntnose shiner “cost” <1,000 ac-ft/year during drought and USBR paid for this water.
- Water leasing to maintain wet channel for the Pecos bluntnose shiner financially benefited FSID farmers.
- Many farmers in Roswell Basin believe maintenance of surface flows helped recharge aquifer.
- ESA has had no demonstrated negative economic impact (granted, compliance aggravates some) and maintenance of surface flows has likely had positive economic impact.
- Continued, broad-scale eradication of salt cedar on the Pecos to “produce” more water in the river could create a regulatory situation with yellow-billed cuckoo on the Pecos similar to southwestern willow flycatcher on the Rio Grande.

## **New Mexico's Threatened and Endangered Plant Species**

- There are eight federally listed plants in southeastern New Mexico:

- Kuenzler's cactus \*
- Gypsum wild-buckwheat \*
- Pecos sunflower \*
- Sacramento Mountain thistle \*
- Sacramento prickly poppy
- Todsens's pennyroyal
- Sneed's pincushion cactus
- Lee's pincushion cactus

\* Found in the Pecos River Basin

- Kuenzler's cactus (endangered) occurs in grasslands and savanna in the Guadalupe and Sacramento Mountains on BLM, U.S. Forest Service, state trust, and private lands. Its habitats on federal lands have been excluded from prescribed fire treatments, but have not curtailed or excluded livestock grazing. There is presently very little oil and gas development within Kuenzler's cactus habitat, so this has not been a conflict. ESA has protected this cactus only on federal lands. Recent surveys by EMNRD, USFS, and BLM have found this cactus to be more widespread than thought when listed. It could easily be down-listed to threatened.
- The Gypsum wild-buckwheat (threatened) exists in only three populations on relatively small gypsum outcrops on BLM and state trust land near Carlsbad. There are no conflicts with grazing, and oil and gas development can easily avoid impacting these small areas. The ESA has successfully protected this species from oil and gas development impacts without curtailing these activities, or causing any economic loss.
- The Pecos sunflower (threatened) occurs in the Pecos River drainage at Santa Rosa and the Roswell/Dexter region. It is a wetland species associated with springs and seeps (not the river proper). Its largest population is at Bitter Lake National Wildlife Refuge and is managed by USF&WS at that location. Most other populations are on private lands, but a few are on BLM land and at Bottomless Lakes State Park. Its greatest threats are salt cedar encroachment and aquifer depletion (drying habitats).
- Two Ranchers with state trust land springs (one near Fort Sumner and another near Bottomless Lakes) have volunteered to re-establish the Pecos sunflower on their ranches. The SLO and the EMNRD have assisted these ranchers by successfully seeding Pecos sunflower in suitable habitats on their ranches. This species can be recovered, but ESA needs to provide more grants to the state and landowners for habitat improvement and purchase of conservation easements.

- The Sacramento Mountain thistle (threatened) is a wetland species that occurs on springs around the Cloudcroft area - which is part of the Pecos River basin. Most of its locations are on the Lincoln National Forest, but one is on the Mescalero Reservation and another on private land. Its habitats are threatened by spring capture, noxious weeds, and chronic overgrazing by livestock. The plant itself would be seriously imperiled if weed management programs imported the Eurasian musk thistle weevil (*Rhinocyllus conicus*) to the Sacramento Mountains to control the noxious weed, musk thistle. Greenhouse studies have shown this exotic weevil prefers Sacramento Mountain thistle to the musk thistle. The U.S. Forest Service has modified some timber harvests and grazing allotments because of this threatened plant, so there have been some conflicts with land users. It needs long-term monitoring and protection on federal lands - recovery is elusive.
- The Sacramento prickly poppy (endangered) occurs in five canyons on the west escarpment of the Sacramento Mountains, mostly on Lincoln National Forest, but a few on BLM, private land, and there were 2 plants on Oliver Lee State Park five years ago. It grows on disturbed soils, but we have witnessed a steady decline in population during the last 15 years. There are now less than a 1000 individuals left on earth. We cannot figure out why this plant is headed for extinction. Lots of suitable habitat is available. This prickly poppy sometimes grows on roadsides, so it has been a headache for Dept. of Transportation, but has not significantly curtailed other land uses.
- Todsens' pennyroyal (endangered) occurs on gypsum outcrops on the west slope of the Sacramento Mountains and in the San Andres Mountains on White Sands Missile Range. It is entirely confined to Lincoln National Forest, BLM and DOD lands. This is just a rare plant that occurs on steep slopes in piñon-juniper woodland at a few scattered localities. There are presently no serious threats or land use conflicts.
- Sneed's pincushion cactus (endangered) occurs in widely scattered locations from the south end of the Organ Mountains to the Franklin Mountains and over to the Guadalupe Mountains. There are few land use conflicts in its habitats. It is almost entirely on BLM, DOD, and Lincoln National Forest (a few on private land in Texas). Recent surveys and taxonomic studies by EMNRD, BLM, USFS, USF&WS, and NPS have revealed this cactus to be more widespread and less threatened than thought when listed. It could easily be down-listed to threatened or removed from the list altogether.
- There is a variation of Sneed's pincushion cactus (*Escobaria sneedii* var. *leei*) in the Guadalupe Mountains called Lee's pincushion cactus (Threatened). It is confined to one or two ridges on the north end of Carlsbad Caverns National Park and is listed as threatened.

There are no land use conflicts since the Park is obliged to protect it. This is a very rare cactus (collectors want it), so will need perpetual consideration by NPS.

Most of these listed plants, the gypsum wild-buckwheat, Sacramento prickly poppy, Sacramento Mountain thistle, Todsens's pennyroyal, and Lee's pincushion cactus, are extremely rare naturally and will always need the protections afforded by the ESA. They will continue to be threatened as long as there are land uses in their habitats, so recovery is not a reasonable expectation.

To see photos or read more about these plants, go to the New Mexico Rare Plants Web site at <http://nmrareplants.unm.edu>. It is maintained by the New Mexico Rare Plant Technical Council was founded in 1999 and works to construct an informative Web site for land managers and the public.