



# MIDDLE RIO GRANDE ENDANGERED SPECIES COLLABORATIVE PROGRAM

## April 2021 Newsletter

### FEATURED THIS ISSUE:

- ◆ Pecos Sunflower Spotlight
- ◆ Link to 2020 Bibliography
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### 2020

### BIBLIOGRAPHY

The 2020 MRGESCP Bibliography is now available on the Program Portal. You can browse publications related to the Middle Rio Grande, listed species, and MRGESCP efforts.

<https://webapps.usgs.gov/MRGESCP/documents/bibliography-of-literature-published-in-2020>

### SPOTLIGHT ON PECOS SUNFLOWER: FLASHING JEWEL OF THE CIÉNEGAS

The Pecos sunflower (*Helianthus paradoxus*; PESU) was federally listed as threatened in 1999. The PESU is a 1–3 meter tall branching forb with a typical “sunflower” head of yellow ray flowers centered around a dark brown disk growing from each branch. While visually sharing characteristics of both the common sunflower (*H. annuus*) and prairie sunflower (*H. petiolaris*), the PESU differs from both by occurring exclusively in ciénegas (spring-fed wetland ecosystems such as wet meadows), spring seeps, stream courses, and pond margins – all relatively rare habitats with wet, alkaline soils. The PESU blooms in large groups in September and October, creating visually stunning displays (Figure 1, page 2).

One designated core population of PESU occurs in the Middle Rio Grande, located on over 200 acres at the La Joya Waterfowl Management Area. This population is managed by the New Mexico Department of Game and Fish (NMDGF). Three other core PESU populations occur at Bitter Lake National Wildlife Refuge (Roswell, NM), Blue Hole Ciénega (Santa Rosa, NM), and Diamond Y Preserve (Pecos County, Texas). The PESU can also be found growing in multiple other areas in New Mexico (Figure 2, page 2).

Threats to PESU include adverse changes to groundwater and surface water, incompatible livestock grazing, and competition for space with non-native invasive trees. PESU recovery criteria are focused on the long-term sustainability and protection of core areas. These criteria have been

# SUNFLOWER SPOTLIGHT CONT...



Figure 1. Pecos sunflower in bloom.  
Photo credit: Joel Lusk

partially obtained for the core populations, and all four recovery regions have a protected population with certain requirements regarding protected water sources and self-sustaining population size still to be met.

Conservation actions to aid PESU include removal of invasive tamarisk and Russian olive, prescribed burning, timing/duration of compatible livestock grazing, increasing water availability, and reseeding good habitat areas. As an annual plant, PESU seed production, dispersal, and germination are important components for its

conservation. A successful new seeding effort was recently completed at the Rhodes property near Socorro, NM through a

collaborative effort of the Save Our Bosque Task Force, U.S. Fish and Wildlife Service, Natural Resources Conservation Service, New Mexico Forestry Division, and NMDGF. During this effort, invasive exotic trees were removed, and seed from the La Joya PESU population were planted, resulting in growth of thousands of PESU plants.

To see the PESU up close, and view a recent mapping effort at Bitter Lake National Wildlife Refuge, view this three-minute video: <https://youtu.be/g2ewLn2tpZY>. The film "Saving Beauty," an official selection of the 2021 Santa Fe Film Festival, focused on PESU and the ciénegas that support it, especially the Blue Hole in Ciénega Nature Preserve. View the film trailer (with many PESU photos) at <https://www.savingbeautyfilm.com/film>.

The primary PESU contact at the USFWS is Sarah Yates ([Sarah\\_Yates@fws.gov](mailto:Sarah_Yates@fws.gov)).

## References:

- New Mexico Rare Plant Technical Council. 1999. New Mexico Rare Plants. Albuquerque, NM: New Mexico Rare Plants Home Page. <https://nmrareplants.unm.edu> Latest update: 2020. Accessed 13 Apr 2021.
- U.S. Fish and Wildlife Service. 2005. Pecos Sunflower Recovery Plan. Albuquerque, New Mexico. 39 pp.
- U.S. Fish and Wildlife Service (USFWS). 2015. Pecos Sunflower (*Helianthus paradoxus*) 5-Year Review: Summary and Evaluation. USFWS New Mexico Ecological Services Field Office Albuquerque, NM, August 2015. 43 pp.
- U.S. Fish and Wildlife Service (USFWS). 2019. Biological Opinion for the Pecos Sunflower and Wright's Marsh Thistle Seed Collection and Germination Project. Consultation Number 02ENNM00-2019-F-1064. Prepared by the USFWS New Mexico Ecological Services Field Office, Albuquerque, NM. August 28, 2019. 19 pp.
- Zenone, P. 2012. Solving the Puzzle: Conservationists, Partners Help Secure a Bright Future for the Pecos Sunflower. *Endangered Species Bulletin* (September-October 2012). <https://www.fws.gov/endangered/news/bulletin.html>. 2 pp.

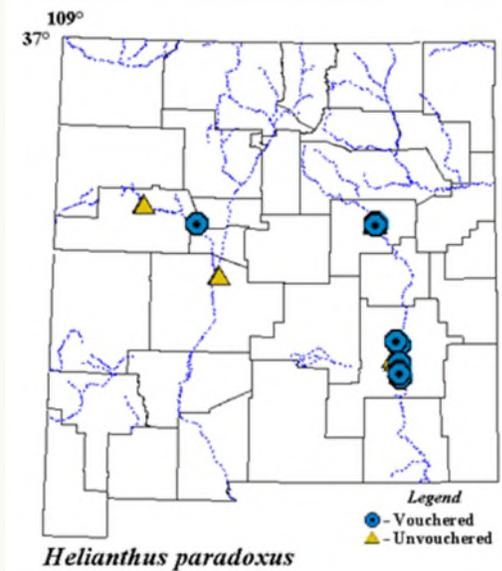


Figure 2. Locations of Pecos sunflower in New Mexico (New Mexico Rare Plant Technical Council 1999).

# PROGRAM UPDATES

## Science and Adaptive Management Update

Provided by Catherine Murphy, Science Coordinator

As the Collaborative Program progresses in its mission, it aims to provide scientifically sound recommendations for adaptive



management. To do so, it must look to the past to document lessons learned and formulate a plan for the future. This can feel a bit like speeding down the highway while looking in the rearview mirror. Now is not the time to set the cruise control! In the present moment, of course, decisions must be made in the face of a rapidly changing environment and the uncertainty it brings. Being prepared means having the right tools, being resourceful, and being open to change. Resourcefulness and flexibility can facilitate finding solutions, even when none seem apparent. Sometimes the answer can be found by removing the impractical approaches and seeing what remains. In other situations, moving forward might require abandoning old ways of thinking entirely. If the past year has taught us anything, it's that finding inspiration in the familiar is a challenge, if not a cul-de-sac for creativity.

So how do we motivate ourselves to think outside of an increasingly shrinking box? We can start by freeing up brain space to make room for new ideas. One way to do so is through accurate, comprehensive documentation of past efforts. Acknowledgment of past discoveries does not mean relegating them to a shelf to collect dust, however. It entails reorganizing, modernizing and examining old findings in a new light and with new tools. If "institutional knowledge" is the foundation on which progress is built, then it deserves

regular inspection and maintenance. As Marie Kondo teaches us, only by decluttering can we find those items that "spark joy."

The Collaborative Program has made great strides in getting its house in order. The process laid out in the new Science and Adaptive Management Plan ensures proper upkeep of knowledge and provides the flexibility needed for adaptive learning. The Long-Term Plan, which is guided by the science objectives, serves as a roadmap for the future and helps with scenario development. With these plans in place, the Collaborative Program can now focus on stocking its metaphorical tool box with everything needed to prepare for an uncertain future. In that tool box, the Adaptive Management Relational Database (AMRDB) is a veritable Swiss Army knife.

The AMRDB is a clearinghouse for scientific findings, a tool for tracking progress, and a framework for connecting the past to the future. By organizing and classifying past and current findings in the AMRDB, the Collaborative Program can create informational pathways that lead to new questions and inform management. At the center of this relational database is the Project Bank, a catalog of the ongoing and proposed activities that address the Collaborative Program's goals. Linkages from the Project Bank to other elements of the AMRDB, such as the science objectives, critical uncertainties, and management actions, allow users to examine the activities within a broader scientific context, increasing their original value. Additionally, by tracking the status of and compiling findings from research activities, the AMRDB encourages and creates a space for updating our ecological understanding of the Middle Rio Grande and its listed species. Documenting and crediting this adaptive learning will enable the Collaborative Program to focus all of its attention on the road ahead with both hands on the wheel.

# ADMINISTRATIVE UPDATES

## Administrative Announcements

### 2021 Addendum to the 2008 MOA

The 2021 Addendum extends the 2008 Memorandum of Agreement (MOA) by one year, during which time the MRGESCP will draft a new MOA. All signatories should review and sign the 2021 Addendum to indicate their agreement with the one-year extension and commitment to continuing as a MRGESCP signatory by May 15, 2021.

### Draft FY20 Annual Report MRGESCP Review Period

The Fiscal Year 2020 (FY20) Annual Report will be ready for review by the MRGESCP on June 23, 2021. Reviews are due July 21, 2021. The revised draft FY20 Annual Report will be up for approval at the July 28<sup>th</sup> Executive Committee meeting.

## Recent Publications

Demonstration of a Multiple Drift Net for Aquatic Organisms. Porter MD, Kennedy S, Sechrist J. (2021). *Croatian Journal of Fisheries*, 79, 25-32. <https://rb.gy/hqafjr>

Differential Effects of a Catastrophic Wildfire on Downstream Fish Assemblages in an Aridland River. Reale JK, Archdeacon TP, Gonzales EJ, Dudley RK, Turner TF, Dahm CN. (2021). *Aquatic Biology*. <https://rb.gy/zfhtwr>

Genetic Monitoring of the Rio Grande Silvery Minnow: Genetic Status of Wild and Captive Stocks in 2020. Osborne MJ, Turner TF. (2021). Report prepared for U.S. Bureau of Reclamation. <https://rb.gy/ksh6uc>



## Welcome Sarah Hendrickson!

Join us in welcoming Sarah Hendrickson, the new Senior Water Resource Scientist with Albuquerque Bernalillo County Water Utility Authority (ABCWUA)! Sarah will serve as the ABCWUA alternate representative on the Executive Committee.



# UPCOMING DATES AND DEADLINES

## UPCOMING MEETINGS

Science and Adaptive  
Management Committee  
May 27, 2021  
8:00 AM–12:00 PM

Science and Adaptive  
Management Committee  
June 24, 2021  
8:00 AM–12:00 PM

Science and Adaptive  
Management Committee  
July 22, 2021  
8:00 AM–12:00 PM

Executive Committee  
July 28, 2021  
9:00 AM–12:00 PM

## PROGRAM DEADLINES

Sign the 2021 Addendum to the  
2008 MOA  
May 15, 2021

Draft FY20 Annual Report  
MRGESCP Review Period  
June 23–July 21, 2021



The information in this newsletter should not be attributed to the MRGESCP or its Executive Committee, but to the organization from which it was submitted.

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*Photo: Scenic view of the Rio Grande Nature Center; Photo Credit: Mike Marcus*