

**NATIVE PLANT SOCIETY OF NEW MEXICO
ALBUQUERQUE CHAPTER**

NEWSLETTER

WINTER 2022

President's Message

Seasons Greeting to All!

The Albuquerque Open Space Visitor Center was a great venue for our December Meeting and Potluck. The meeting room and kitchen could easily accommodate our 30 people with social distancing. Because we share a purpose with Open Space, the room was available without charge during Open Space hours.

We decided to include nametags and Lee's flower photos taken in 2021, a great ice breaker. What a jovial, diverse group! All came, joined in the Annual Meeting and elected the slate of officers, including Loraine Glueck, who offered to fill the Outreach Event Coordinator (aka 'tabling') position.

George Miller and Tom Stewart put together a slide identification competition so mixed groups of people could identify as many flowers, trees and shrubs as possible. *Green elephant* prizes were available for the group/s identifying the most plants. This prompted people to meet others new to them.



Then we began the potluck and people took the wonderful food outside to eat. We sat at outdoor tables and in small groups on that beautiful day. There was a vigor and jubilant enthusiasm about the future. As people talked with each other, I could feel a new generation of members rising to preserve native plants.

We all shared the clean-up time, even with a kitchen mouse chewing holes in the plastic bags in the trash can! The remaining prizes disappeared, and we headed for home.

Loraine texted me later and volunteered to fill the Publicity position as well. Thank you Loraine!

This reminded me that the state meeting is approaching in August, and we will need many volunteers. Why not volunteer now as a Christmas present for us all.

May 2022 be a good year for all.

Carol Conoboy



All photos this page were from
the December 2021 Meeting
© Diane Stevenson

COVER PHOTO

November scene: Rio Grande Gorge at White Rock, New Mexico, view from east side of the river.

© Lee Regan, 11/4/2021



Townsendia exscapa, Early Easterdaisy, Placitas foothills, April 6, 2021.
Ivey, 5th ed. page 128

Photo © Lenore Goodell

Editor's Note

Saturday, December 4, 2021 was a gorgeous day at the Albuquerque Open Space Visitor Center. Blue skies and open fields beckoned the few public visitors not joining our Albuquerque Chapter December meeting and officer elections. We opened the outside doors of the meeting room for fresh air; Craig and I brought a picnic lunch to enjoy outside. I encourage all of you to get outdoors daily throughout the year.

I wish you all a Healthy Happy New Year!

Diane Stevenson

READING THE LOCAL NEWSPAPER

The Albuquerque Journal has a Friday weekly feature called, *Earthweek: Diary of a Changing World*, by Steve Newman. The December 31, 2021 version was called, "2021 Year in Review". One tidbit about our changing world: "A midsummer heat wave across parts of the North Atlantic caused enough of Greenland's ice cap to melt in a single day to submerge the entire state of Florida beneath 2 inches of water."

I subscribe to the digital version (we get the print version of the Sunday Albuquerque Journal delivered for the comics!) Check it out! If you do not subscribe, your nearby Albuquerque public library has copies of the newspaper.

Another regular statistic in the Albuquerque Journal is precipitation: rain, snow, (and virga)
Here are statistics from November 30, 2021:

11/29/21 precipitation:	0.00"	
November to date precipitation:	0.12"	Not much!!!
Normal month to date (MTD) precipitation:	0.55"	
Year to date (YTD) precipitation:	5.30"	
Normal YTD precipitation:	8.29"	



Save the Date
August 5 - 7, 2022

Annual Conference in Albuquerque, New Mexico

“A Land Ethic for Seven Generations”

Speakers Friday and Saturday

Workshops and Field Trips Saturday morning and Sunday

Saturday Banquet at Indian Pueblo Cultural Center

**Join the Albuquerque Chapter in preparing to host
The New Mexico Native Plant Society Annual Conference**

Look for more details in Spring 2022

PUTTING TEETH INTO STATE LAW TO PROTECT NM ENDANGERED PLANTS

By Jim McGrath, Conservation Committee

NPSNM – Albuquerque Chapter

December 22, 2021

In November 2021 the state Energy, Minerals and Natural Resources Department (EMNRD) – Forestry Division proposed a change in the state law governing state listed endangered plants. The current state law only prohibits “removal of endangered plants with the intent to possess, transport, export, sell, or offer for sale.” The threat to survival of these endangered plants has little to do with removal for sale or for growing the plants in someone’s yard. The real threat is simply the destruction of the plants by activities associated with oil and gas, mining, road building, building new homes, wood cutting, etc. In short, the current law is toothless in protecting New Mexico endangered plants.

The proposed change in state law now includes a revised definition of “take” to include the terms “remove, harm, kill, destroy” in describing prohibitive acts pertaining to state endangered plant species. “Taking does not include the incidental removal, harm, killing or destruction of endangered plants resulting from agricultural practices or removal, harm, killing, destruction, possession or transport by tribal members for religious purposes” (19.21.2 NMAC, proposed amendment November 2021).

The revised law now includes an “incidental take permitting system” (Roth 2021). A permit would be required if a “take” cannot be avoided. Obtaining a permit to “take” state endangered plants (all federally listed plants in NM are also listed state endangered) would be an involved process that includes documentation of the need for a “take”, conservation efforts to compensate for the “take”, an analysis of the effect of the “take” upon the species, and a report documenting the completion of the conservation efforts (Roth 2021). The revised law would apply to ALL lands (including federal and private lands) in the state except tribal lands.

I worked for 15 years (2000-2015) conducting rare plant surveys in NM. Most of my work was in the oil and gas fields of NW NM. During those surveys I found the federally endangered Mancos milkvetch (*Astragalus humillimus*), the federally threatened Mesa Verde cactus (*Sclerocactus mesae-verdae*) and the state endangered Aztec gilia (*Aliciella formosa*). The fact is that the oil and gas activities in the San Juan Basin threaten the existence of these species. Construction of roads, well pads, pipelines, and compressor stations will not only destroy these rare plants, but also their habitat.



Sclerocactus mesae-verdae, Mesa Verde cactus

Photo © George O. Miller

One thing I learned while performing those rare plant surveys is that oil and gas companies do not like any kind of delay on their projects. Thus, the effect of the new, but lengthy, incidental permitting process would be to encourage the oil and gas companies to re-locate their proposed projects to avoid the permitting process. In this way the new permitting process will encourage the avoidance of any “take”, thereby minimizing destruction of endangered plant populations.

The need for additional protection of New Mexico state endangered plants is particularly important in the light of climate change, the prolonged drought that persists here in NM, and the projected continuation of drought and increasingly high temperatures in NM. Recent studies by professional botanists employed by the State of New Mexico, the Federal Bureau of Land Management (BLM) and the Navajo Nation have shown a decline in populations of those very same endangered plants that I personally found while surveying for NM rare plants. For example, BLM botanists in 2019 reported that the Aztec gilia has declined by approximately 85% “both since early monitoring efforts by New Mexico state botanists in the 1990’s, and recent monitoring efforts by the BLM” (Bansbach et al. 2019). Significant decline in Mancos milkvetch populations have been reported by Roth (2020) and Talkington (2019). Roth (2020) reported drastic reductions in Mancos milkvetch populations on a BLM ACEC since the mid-1980s. Roth noted multiple disturbances in the ACEC that likely have contributed to the decline in Mancos milkvetch populations,” including illegal wood cutting, active oil and gas development, activities associated with powerline and transmission tower maintenance, and invasive species.” In short, the need to give teeth to a toothless law governing state endangered plant species is very clear and well documented.

A public hearing on the rule change was held on November 10, 2021. A final decision by the Department Secretary is expected soon.

ACKNOWLEDGMENTS

The author extends many thanks to EMNRD- Forestry Division Endangered Plant Program Coordinator Daniela Roth for clarifying and explaining the proposed rule change, reviewing this document for accuracy and completeness, and for suggesting minor changes to the document.

LITERATURE CITED

- Bansbach, L., M. Bacigalupa, M. Beitner, N. Redecker, and Z. Davidson. 2019. 2019 Monitoring Report: Aztec gilia (*Aliciella formosa*), Farmington Field Office New Mexico. New Mexico Bureau of Land Management, Santa Fe, NM.
- Roth, D. 2020. Status Report: Mancos milkvetch (*Astragalus humillimus*), BLM Hogback ACEC. EMNRD-Forestry Division for the USFWS, R2, Albuquerque, NM.
- Roth, D. (EMNRD – Forestry Division, Endangered Plant Program Coordinator). 2021. Personal communication.
- Talkington, N. 2019. Mancos Milkvetch (*Astragalus humillimus*): Status Assessment and Monitoring Report, December 2019. Navajo Natural Heritage Program, Navajo Nation Department of Fish and Wildlife, Window Rock, AZ.

A Photographer's Walk through the Placitas Foothills

Photographer: Lenore Goodell - © All photos in this article

Notes: Diane Stevenson

Photo to right is *Streptanthus cordatus*, Mountain Twistflower, a member of the Brassicaceae or Mustard Family, 4/6/2021.

Learn more at *Ivey, 5th ed. Page 203.

When I first glanced at Lenore's photo, I thought it was a penstemon. I looked it up in Robert Dewitt Ivey's Plants of New Mexico, 5th Edition (*Ivey, 5th ed.) to learn Latin and common Family names, since that is how Lenore orders any plant lists she com-

poses. Families often have similar characteristics, helping one identify them. The coolest thing about looking up this flower is Mr. Ivey did not list the Placitas foothills as a place he located them.



At left is a notable display of blooming *Penstemon ambiguous*, Sand or Bush Penstemon, Scrophulariaceae / Snapdragon Family. This photo was taken June 5, 2021, along Tramway Road Northeast in spite of dry conditions. (Ivey, 5th Ed. page 433)



Streptanthus longirostris, Long-beak twistflower, Brassicaceae/ Mustard Family, Ivey V. 205
Photo taken June 4, 2021.

Of course, one should always be living in the moment, when looking at flowers. There are other neighbors enjoying the Placitas Open Space.

Remember Aretha Franklin's advice: R-E-S-P-E-C-T Allow ample time and space for the other communities we live with. This does not look like a venomous snake to me.

Do *you* what kind of snake this beautiful creature is? Please send me an e-mail with more information to distevenson331 [at] hotmail [dot] com.



Many thanks Lenore for your photos and contributions though you were injured and unable to photograph this summer!

Best wishes for a continuing recovery!

Diane

ONGOING New Mexico DROUGHT: Water Your Trees!

Diane Stevenson

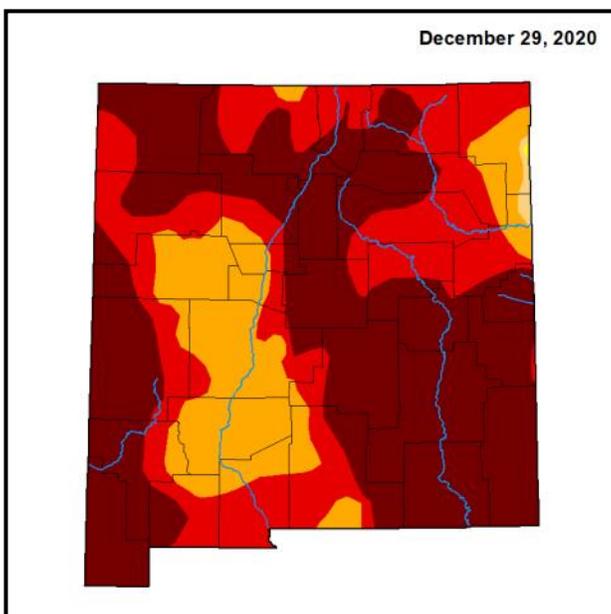
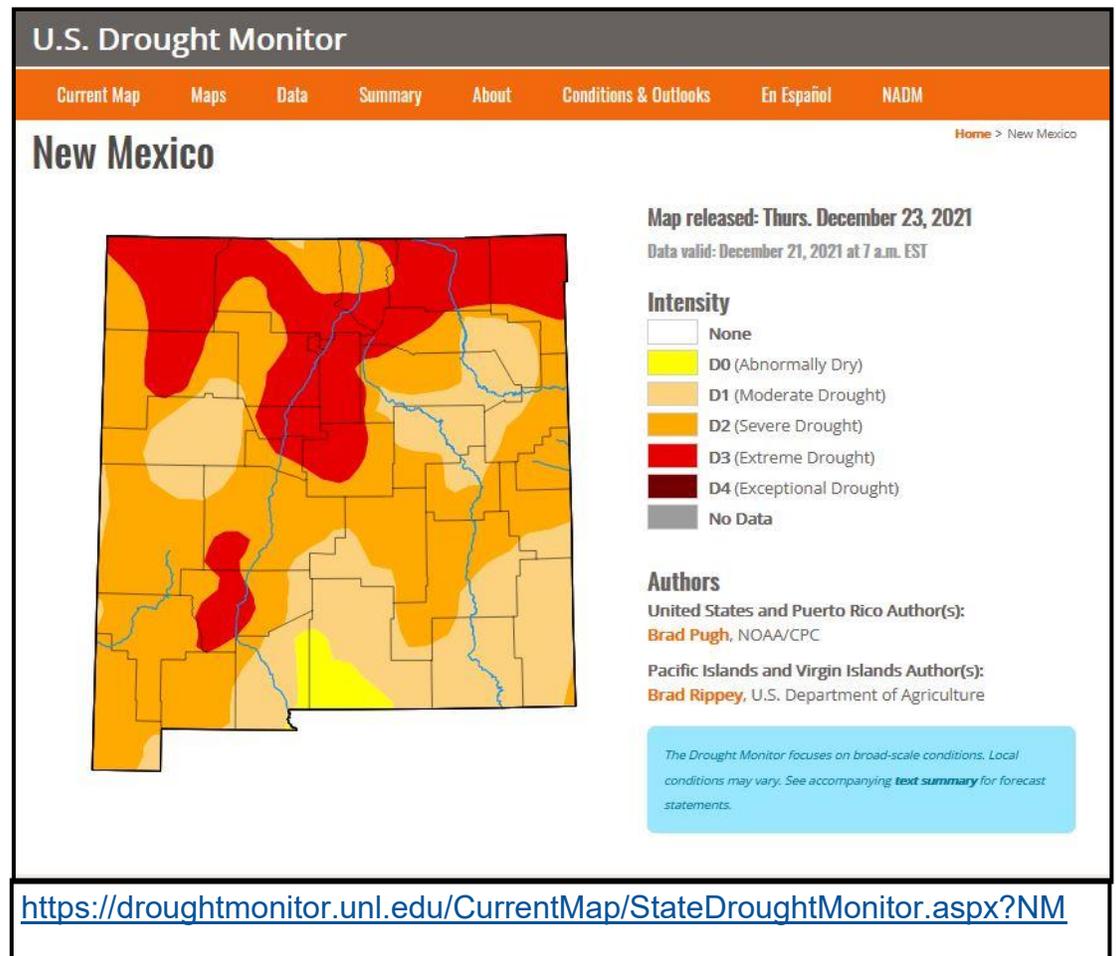
We are in an ongoing drought, still going strong since before the word pandemic became a regular part of our vocabulary. As a certifiable (*Where can I get certification???*) tree-hugger and tree steward, I have been watering my trees this fall and early winter when the weather is warm enough to use a watering can or hose.

Just how bad is the drought are we in, you ask? I looked it up. I knew the drought was bad before the pandemic made everyone forget there are other things going on.

The graphic at right shows Albuquerque to be in **D3 (Extreme Drought)** as of December 23, 2021.

New Year's Eve, 12/31/2021, I got my first significant rain at my house in northeastern Albuquerque since that time.

A year ago, it was even worse as shown in the graphic below:



D3, or Extreme Drought, has Historically observed impacts according to the Drought Monitor website: "Livestock are suffering; producers are selling herds; feed costs are high' ..., Fire Danger is extreme, Irrigation allotments decrease, Vegetation and native trees are dying"

Wow! That looks *much* worse! And is my point. Our home landscape trees have been suffering for over TWO years, and must have regular supplemental water to thrive.

At left: Drought statistics for New Mexico one year ago, 12/29/2020, according to droughtmonitor.ul.edu

What is a conservation-minded land steward to do in an extreme drought?

Please do *something* to preserve your home's valuable trees and encourage your friends, family, and neighbors to do the same.

Here are a few water conservation ideas I practice:

- ◇ In warm weather, I use a rain barrel, free, thanks to my certified ABQ Backyard Refuge participation, plus other buckets & 35-gallon clean trash barrels. The water is used quickly. Long-term, I have plans for a larger cistern. Did you know a 1" rain on a 1,000 square foot roof or other impervious surface collects about 623 gallons of rainwater? This keeps runoff from picking up pollutants because it stays in my yard.
- ◇ When cleaning vegetables before cooking, I wash in 2 plastic sink tubs, also great for camping and washing summer home grown veggies, then carry the tubs outside and empty the dirty water in my landscape.
- ◇ When running my kitchen faucet to hand-wash dishes in hot water, I either fill a 1-gallon plastic pitcher or plastic sink tub until the water warms. I fill my outdoor bird waterers and water my garden; not a lot of water, but native plants are used to small slugs of precipitation.
- ◇ When I use a hose to water in my landscape, I assure there is no runoff by monitoring time & water volume. Personally. It's a great way to relax and observe wildlife attracted to my native plants. I would wash my car in my yard, thus getting two uses out of the same water, but the front is too full of natives.
- ◇ I add organic matter, generally in the form of compost & compostable plants to the garden. The soils on the Sandia Mountain pediment are high in minerals (rock) and very low in organic material necessary for any non-native plants and a few must-have natives. If you do not compost, try going to Soilutions, Inc. in the Albuquerque 's South Valley near the Valle de Oro National Wildlife Refuge. Soilutions has inexpensive bulk premium compost and mulches you can load in your truck or containers.
- ◇ I use my Ponderosa Pine needles to mulch veggies & plants, cooling summer's soil and avoiding weeds.
- ◇ **GROW NATIVE PLANTS** that prefer low water. George O. Miller and Judith Phillips, both members of the Albuquerque Chapter NPSNM have written numerous books on the many native and arid-adapted plants that thrive in Albuquerque and central New Mexico Avoid buying plants from big box and discount stores. You will save money and water in addition to having beautiful native plants.
- ◇ Go to NPSNM.org and download a pdf of our **Central New Mexico Gardens; a Plant Selection Guide** for plenty of native plants, pollinator benefits, etc. You may have met many of the contributors already!

DROUGHT INFORMATION WEBSITES

<https://www.drought.gov/states/new-mexico> NOAA, NIDIS (National Integrated Drought Information System)

<https://nm.water.usgs.gov/drought/> USGS New Mexico Drought Watch

<https://www.plantmaps.com/interactive-new-mexico-drought-monitor-map.php> New Mexico Drought Conditions Map 12/14/21

<https://www.nmdrought.state.nm.us/> New Mexico Governor's Drought Task force

<https://www.ose.state.nm.us/> Office of the State Engineer

The National Weather Service recorded rainfall for Albuquerque on 12/31/21 was 0.16". Gee, I thought we got more than that, but here is the data: <https://www.weather.gov/wrh/Climate?wfo=abq>

The December 2021 total precipitation, measured at the airport weather station, for Albuquerque was 0.20". Normal monthly precipitation is 0.53".

THREATENED *Eriogonum* MAY PREVENT MINE OPENING IN NEVADA

Tiehm's buckwheat, *Eriogonum tiehmii*, is threatened by a proposed Lithium mine in Nevada. Lithium is used to make batteries.

Here are two links from 2021:

<https://www.newscientist.com/article/2251905-rare-plant-may-prevent-the-first-lithium-quarry-in-the-us-from-opening/>

<https://biologicaldiversity.org/w/news/press-releases/tiehms-buckwheat-proposed-for-endangered-species-act-protection-2021-06-03/>

etcetera

From Albuquerque Journal Business Outlook APPLAUSE, Monday, November 1, 2021

CRAIG ALLEN, a longtime employee of the **U.S. Geological Survey** stationed at Banderlier National Monument, has received the **Distinguished Service Award**, the highest honor in the Department of the Interior. Allen was recognized for more than 35 years of federal service, sharing his expertise as a world-renowned authority on forest and landscape ecology. He established and led the Jemez Mountains Field Station, now called the New Mexico Landscapes Field Station, that continues to generate ecological data. His documentation of the Valles Caldera's unique landscape was crucial to establishing the area as a National Preserve in 2000. Banderlier is one of the most active and progressive resource-oriented units in the entire national park system. Allen retired this year, but continues to work as a volunteer at Banderlier.



ALLEN

CHECK THIS OUT - It's an educational podcast that is fun too - Thanks Jonathan!

"Yee-Haw! (Ponderosa Pine)" *Completely Arbotrary* podcast, by Casey Clapp & Alex Crowson's <https://anchor.fm/completely-arbotrary/episodes/Yee-Haw--Ponderosa-Pine-esahhh>, 18 March, 2021.

Need some winter reading?

"The Seed Keeper", Nov 19, 2021 week on Living on Earth (NPR, National Public Radio)

<https://loe.org/shows/segments.html?programID=21-P13-00047&segmentID=5>

Steve Kerwood interviews author Diane Wilson on her newest novel.

Web link from **The Herbal Academy's August 2015 article: *Botanical Families: How Herbs are Related*, by Agatha Noveille**

<https://theherbalacademy.com/botanical-families-how-herbs-are-related/>

NATIVE PLANT SOCIETY OF NEW MEXICO – ALBUQUERQUE CHAPTER

JANUARY—MARCH 2022

EVENT CALENDAR

Monthly Meetings are currently hosted on Zoom at 7:00 pm.

Please check e-mail , our website, and/or the Albuquerque Chapter facebook page for updates

January 3 Zoom Meeting: “Planting Your Yard to Support Pollinator-friendly Beauty in 2022”

George Miller, recently retired NPSNM-Albuquerque Chapter President will present from his recently published book, “Native Plant Gardening for Birds, Bees and Butterflies: Southwest.” With slides and stories he will explain the use of drought-tolerant, low-maintenance native plants to create a yard that is not just a showplace of three-season color, but also a life-sustaining habitat for the birds and insect pollinators displaced by our houses, businesses and roads.

February 2 Zoom Meeting: “The Ecology of Herbal Medicine” Local herbalist and native plant advocate, Dara Saville invites all to join this discussion on some of our region's most famous medicinal plants. We'll explore iconic local landscapes, key medicinal plants from those places, and species responses to environmental change. We will also look at what we can learn about medicinal uses of these plants as they play healing and balancing roles in their ecosystems and in our bodies. Moving through these themes, we will discuss *Juniperus monosperma* (juniper), *Sphaeralcea spp.* (globemallow), *Pedicularis spp.* (lousewort/betony), and *Populus deltoides wislizeni* (cottonwood). All of these are featured species in Dara's recently published book, *The Ecology of Herbal Medicine*.

March 2 Zoom Meeting: “A Journey Across the Southwest: Unveiling the Relationships of a Spiny Group of Desert Shrubs called *Glossopetalon*” Maya Allen, doctoral student at UNM will introduce us to a little known Chihuahuan Desert genus: *Glossopetalon*. These cryptic, intricately branched shrubs have been difficult to identify due to the lack of delineating morphological characteristics. In this talk we will transverse the range of *Glossopetalon*, learn the species and their identifiers, as well as uncover their newly discovered relationships as a result of Maya's analyses.

“I don't see the desert as barren at all; I see it as full and ripe. It doesn't need to be flattered with rain. It certainly needs rain, but it does with what it has, and creates amazing beauty.” **Joy Harjo**

Desert ecosystems harbor some of the most endangered species in the world. Their unique stressors have elicited captivating adaptations such as succulence, thorns, and shiny, waxy cuticles. A distinctive population of short, compact, scabrous shrubs were discovered in arid northern Arizona and their identity was questioned due to their unique morphology. The many morphological variations – no doubt due to the stressors encountered from the northern Chihuahuan deserts of New Mexico to the Mojave desert in Nevada- became a Master's research topic for Maya. She aimed to identify this northern Arizonian population as well as the species relationships within their hypothesized genus, *Glossopetalon*, an understudied group of angiosperm desert shrubs in the small family of conservation concern, the Crossosomataceae, found throughout the western United States and northern Mexico on limestone substrates.

**George Miller and Dara Saville are speaking at the
XERIC GARDEN CLUB of ALBUQUERQUE**

<http://www.xericgardenclub.org/>

The regular Xeric Garden Club meeting at the Albuquerque Garden Club Center (AGC), 10120 Lomas Blvd. NE, west of Eubank Blvd., starts with their business meeting at 9:00 a.m. January 8, 2022 Per the current AGC policy, every visitor needs to wear a mask while inside the building.

George Miller is speaking on January 8, 2022. His 10:00 a.m. presentation is titled “Creating Pollinator Friendly Landscapes”. George will also discuss his most recent book. The meeting will be on Zoom as well as in person, so check with the Xeric Garden Club website or member for their Zoom link.

Dara Saville will speak at the February 12, 2022 meeting at the Albuquerque Garden Club Center (AGC). Dara’s presentation is titled “The Ecology of Herbal Medicine”. Check with the Xeric Garden Club for her presentation time and other details.

Please submit articles, photos, and news submissions for the Albuquerque chapter NPSNM Spring Newsletter via e-mail to Diane Stevenson (distevenson331 [at] hotmail.com) by March 21, 2022. Thank you!

Become an NPSNM Member:

Join at <http://www.npsnm.org/membership/>

NPSNM is a non-profit organization dedicated to promoting the conservation of native New Mexico flora. The Society, and its local chapters, work to educate its members and promote the conservation of our native flora so future generations may enjoy our valuable resource.

Membership Benefits

Members benefit from regional chapter meetings, field trips, an annual meeting, and four issues of the state newsletter each year. Some chapters also hold plant sales and annual seed exchanges and offer discounts on a variety of books providing information on native plant identification and gardening with New Mexico native plants.

Additional benefits to members include discounts on New Mexico Wildflower and Cactus posters.

Albuquerque Chapter Benefits

Members who show a valid NPSNM membership card

Qualify for Plant World discounts without having to purchase a Plant World membership

Receive a 10% discount at Plants of the Southwest

Members only can join our Facebook group & find native plants!

NPSNM Albuquerque Chapter

Current Board of Directors – 2022

President: Carol Conoboy

Vice President: Tom Stewart

Program: Sara Keeney

Secretary: Dara Saville

Treasurer: Pam McBride

Field Trip Coordinator: Lee Regan

State Board Rep.: Judith Phillips

Membership: Ann-Marie Yaroslaski

Newsletter Editor: Diane Stevenson

Conservation: Sue Small

Outreach Event Coordinator:

Loraine Glueck

Core Group (essential volunteers)

Books: Lee Regan

Communications: Carmen Alexander

Publicity: Loraine Glueck

Hospitality and Refreshments:

Vacant

Invasive Weeds Rep.: Don Heinze