

NEWSLETTER

of the

NATIVE PLANT SOCIETY OF NEW MEXICO

JULY, AUGUST, SEPTEMBER 2022

VOL. XXXXVII NO. 3

Springtime in the northern Chihuahuan Desert habitats lifts people's spirits as they begin viewing and photographing iconic wildflowers and associated insects. A familiar and favorite tall shrub of the rose family, Apache plume (Fallugia paradoxa (D.Don) Endl.) flowered in late April through May. It is found in arroyos, canyons, boulder-strewn slopes, and in extensive urban landscape plantings. This important native plant supports insects and spring-migrating butterfly individuals and species.



Above: Beautiful, large, white Apache plume flower, observed 4/18/22 and immediately host to an unidentified beetle.

Left: Apache plume post-flowering plumose styles on multiple achenes (observed 04/29/20).

Images: Jim Von Loh, Las Cruces Chapter

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The Newsletter of the Native Plant Society of New Mexico

July–September 2022, Vol. 47 No. 3. This newsletter is published quarterly by the Native Plant Society of New Mexico (PO Box 35388, Albuquerque, NM 87176) and is free to members. The NPSNM, a nonprofit organization, is composed of professional and amateur botanists and others with an interest in the flora of New Mexico. Original articles from the newsletter may be reprinted if attributed to the author and to this newsletter. Views expressed are the opinions of the individual authors and not necessarily those of NPSNM.

The next submission deadline is August 25, 2022. Articles and high-resolution artwork supporting NPSNM's mission are welcomed and can be sent to the editor, Margaret Ménache, *npsnmnewsletter [at] gmail.com*.

Mission The Native Plant Society of New Mexico (NPSNM) is a non-profit organization that strives to educate the public about native plants by promoting knowledge of plant identification, ecology, and uses; fostering plant conservation and the preservation of natural habitats; supporting botanical research; and encouraging the appropriate use of native plants to conserve water, land, and wildlife.

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Membership in the NPSNM is open to anyone supporting our goals of promoting a greater appreciation of native plants and their environment and the preservation of endangered species. We encourage the use of suitable native plants in landscaping to preserve our state's unique character, to conserve water, and as a part of the regional ecosystem in support of native pollinators and other fauna. Members benefit from chapter presentations, field trips, plant and seed exchanges/sales, discounts on publications, a statewide conference, and a network of knowledgeable plant enthusiasts.

Joining is easy through our website, www.npsnm.org, or by mailing your contact information, local chapter preference (if any), and dues to our main address (NPSNM, PO Box 35388, Albuquerque NM 87176). Yearly dues and donations are tax deductible at \$30 regular individual, \$45 household, \$60 friend of the Society, and \$20 for youth (through 26 years) or PK-12 teacher. Higher supporting levels can be found on our website. *

Changed Your Email Address?

Please notify Lindsey Kirchhevel, NPSNM Membership Coordinator: npsnmmembership [at] gmail.com

If you received this newsletter as a hard copy but would prefer it online only, please notify ask.npsnm [at] npsnm.org.

Missed an Issue?

You can always find current and past issues of the NPSNM newsletters online: www.npsnm.org/newsletters/

Legacy: What we leave behind, we give to the future

NPSNM encourages members to consider including NPSNM in their wills.

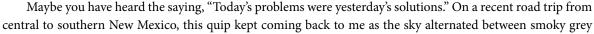
For further information, contact us at ask.npsnm [at] npsnm.org

NPSNM is a 501(c3) tax-exempt organization

From the President

by Tom Stewart

As New Mexico faces one of its worst fire seasons on record, we offer our heartfelt wishes for the safety of all our members. The NPSNM has always advocated safe and scientifically based forestry and will fully support restoration of the land and its residents in whatever ways we can.





and the beautiful, clear blue we are used to, depending on whether or not the nearest mountain range was suffering from an uncontrolled fire. Most of us now accept that wildfires, though historically frequent, have become more intense and catastrophic as a century or more of diligent fire suppression has led to crowded trees and hazardous fuel buildup.

Treating our forests as though they were simply timber factories was "yesterday's" solution to the perceived needs of industry and society, ignoring the reality that forests are complex systems. Now a popular solution is to reintroduce fire, prescribing controlled burns, and a campaign of thinning out trees and understory vegetation. The leftovers, known as "slash," of these operations by U.S. Forest Service contractors can be masticated (chopped, shredded) and scattered to slowly return it to the soil. Or they can be disposed of in large burn piles - the quick and dirty method, sometimes the most readily available. During the 2019 forest management revision process, former New Mexico Forestry botanist, Daniela Roth, and the Native Plant Society of New Mexico both urged Santa Fe National Forest to employ the mastication method whenever practical.

It has come to light that the 2022 Calf Fire resulted from a large burn pile that concealed hot coals for months. It eventually merged with the Hermit's Peak Fire that resulted from another "controlled" burn, to form the largest fire in our state's history. We mourn in disbelief at such tragic destruction. While the reintroduction of fire to National Forests is reasonable on its face, bouncing from one extreme solution to another to correct past mistakes is clearly a recipe for disaster. A reasonable solution deserves the adjective extreme when it is carried out under extreme circumstances, as if on automatic pilot. It was said that all established criteria for the burns were within acceptable limits, but a strong wind came up. Oh. In a year like this. Go figure.



Black Fire smoke plume envelops the Organ Mountains east of Las Cruces on 19 May 2022 Image: Jim Von Loh

Fire in New Mexico

by Various Authors

To live in New Mexico is to live with fire. As the drought has deepened, we have become accustomed to public space closures and, on a more personal level, water restrictions and fireworks prohibitions. But this spring has brought us to a new low. Tom's impassioned president's letter above combined with images and thoughts from Las Cruces' Jim Von Loh pushed me to ask our regular contributors to send in their thoughts and experiences. This "article" is a compendium of the responses I received.

Conservation Corner

by Rachel Jankowitz, NPSNM Conservation Committee Chair

Book Review: Gymnosperms of the United States and Canada



This book would be a wonderful addition to any shelf of field guides. It is not new (published 2010), but was recently brought to my attention. A Google search turned up several regional guides to conifers, and one two-volume global encyclopedia, but nothing else that covers this particular group of plants over the area of North America north of Mexico. The author is Elray S. Nixon, a Professor Emeritus at Stephen F. Austin University in Texas, with illustrations by Bruce Lyndon Cunningham.

So, what is a gymnosperm? Literally the name means "naked seed," so called because the seeds are not enclosed by a fruit. In addition to conifer trees and shrubs, the plants in this book also belong to the ephedra, sago palm and ginkgo divisions. One hundred fifteen



www.plantsofthesouthwest.com

Native Seeds and Plants— Grasses, Wildflowers, Shrubs, Trees—Veggies too

6680 4th St NW, Albuquerque 505.344.8830 3095 Agua Fria St, Santa Fe 505.438.8888 species are covered, the largest proportion of them in the genus *Pinus*.

No space is wasted here. The cover, introduction and glossary are all profusely illustrated. Even the north arrow on the range maps is a custom design, looking something like a pinecone. The book is printed with excellent color saturation on high quality heavy paper stock. The cover has flaps to help keep your place.

The dichotomous keys to the taxa are based strictly on mutually exclusive characteristics. Species descriptions each occupy a single paragraph on a separate page from the color plates. Each species gets a full page of exuberant illustration, showing features at a range of scales from leaf cross-sections, through pollen and seed cones, to bark texture and growth form. Extra seeds are scattered around the page to fill any remaining white space.

At the back of the book you will find indexes to common and scientific names, plus several pages advertising other products available from Mr. Cunningham. These include not only the expected two-dimensional note-cards, prints, posters and books, but also carved wood picture frames, crucifixes, plaques and even doors. The book, and other items, can be ordered from https://forester-artist.com/.

Chaco Comments

NPSNM submitted comments to the Bureau of Land Management in April, supporting a mining and leasing withdrawal of lands surrounding Chaco Culture National Historical Park. The BLM has proposed to withdraw more than 351,000 acres of public lands from new leasing for the next 20 years. In announcing the proposal, President Biden stated that its purpose is to protect Chaco Canyon and the greater connected landscape, and to ensure that public land management better reflects the sacred sites, stories, and cultural resources in the region.

Chaco culture refers to a network of archaeological sites in northwestern New Mexico which preserves outstanding elements of a vast pre-Columbian cultural complex that dominated much of what is now the southwestern United States from the mid-9th to early 13th centuries. The sites were linked by an elaborate system of carefully engineered and constructed roads, many of which can still be traced.

Native plant communities were part of this cultural landscape. The large timbers for "Great House" construction were transported huge distances from the Chuska and Zuni mountain ranges. The Chacoans grew corn as a staple, but other local plants were surely relied on for food (e.g. biscuit-root, wild onions, pinon nuts), fuel, fiber, medicines and dyes, and supported wildlife that supplied protein to their diet.

A 2017 Natural Resource Condition Assessment of CCNHP, administered by the National Park Service, found that the resources of significant concern were vegetation health, from the impacts of ozone, and the acoustic environment, due to reduction in listening area. Weed impacts were reported as unknown, there being no recent data. Oil and gas drilling is known to produce adverse impacts on vegetation through generation of dust, direct habitat removal, weed introduction, and increases in atmospheric ozone concentration and nitrogen deposition.

Rare plants will also benefit from the minerals withdrawal. The proposed project area does not have much overlap with Important Plant Areas (IPAs) identified in the NM Rare Plant Conservation Strategy, but it is centrally located between the Bisti Oil Field, Nageezi Badlands, Borrego Pass, and Fallen Timber Ridge IPAs. Conserved or improved habitat will benefit rare plant species by allowing for reproductive connectivity and better resilience to climate change.

Inspiration

https://www.audubon.org/news/these-delightful-photos-highlight-how-native-plants-support-birds

Here is an opportunity to appreciate some of the top submissions for the Plants for Birds category of the 2021 Audubon Photography Awards and learn more about the highlighted plants in the captions. These delightful photos draw attention to the dazzling combination of birds and the native plants that support them. Launched in 2019, the Plants for Birds category of the Audubon Photography Awards aims to put just as much emphasis on the flora as the fauna in each shot.

Audubon is working across the U.S. to make native plants the first choice for planting in our communities. Their network of chapters, centers, sanctuaries, and state offices are pursuing policy changes across the landscape - from the local to the federal level - to raise awareness about the importance of native plants, make native plants more available to consumers, and encourage the use of native plants everywhere across the country.



The Election That Wasn't

by Tom Stewart, NPSNM President

We mentioned in the last issue that we are due for an election of statewide officers. Terms of office are two years, with all five positions expiring the end of this year. We hoped that we could introduce you to the candidates in this issue to begin the required 30 days opportunity for members to vote by postal mail or email. That would allow the officers-elect to attend the summer meeting of the current board to begin orientation. But alas, as of late May, we have no candidates and that is worrisome.

Here is a little secret: the NPSNM board of directors hardly ever discusses particular plants, uses scientific terms, or passes judgements. Instead, they share the pleasure of giving out grants and awards, hearing what each other's chapters are doing, talking about improving our organization and keeping it financially sound. In short, anyone who cares about our mission is welcome on the team.

Four out of the five elected officers have said their time is up, and will have served from four to six years each by December. Our wonderful recording secretary, Jan Kruse (Gila) is staying for one more term. But Treasurer, Vice President, President, and Archivist need successors. Job descriptions are available on request. We would all like an effective, happy transition, so please look deep into yourself and consider your associates as well. Then let us know how you or a friend might serve this organization that has served New Mexico and its flora for 36 years. Send to: ask.npsnm [at] npsnm.org. �

Rewilding: a Concept whose Time has Come

by Margaret Ménache, Albuquerque Chapter

Rewilding is a concept whose time has come. While it is often a large-scale conservation effort that works to improve ecosystem health through actions that might include the protection or reintroduction of apex predators (not something you probably really want in your back yard), Richard and Annette Rubin describe their rewilding efforts as a gentle adventure in listening to the land and working to plant with it, rather than to impose their horticultural preferences upon it.

Their 2021 book, Homescape Rewilding, is published by Taosbased Nighthawk Press. Richard and Annette are committed to having their books (this is the second in a series that will likely include at least one more book) be of benefit to the local community in several ways. Of course, they hope the information will be helpful; it is also important to them that the profits from the sales be given to organizations like the Carter Conservation Fund of the

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Chapter Activities & Events

For further information on upcoming events, notify the contact person listed, or visit the chapter's web page: Go to www.npsnm.org; click on Chapters; then select the chapter. Hikers should always bring plenty of water, hat, sun protection, lunch and/or snacks, field guides, and wear sturdy shoes, suitable for rough, uneven ground. Please check with your chapter for any Covid-19 restrictions they are encouraging or requiring and for any restrictions the event venues might require. Fire is causing many changes or outright cancellations to scheduled field trips. Please check with your chapter to be sure you know the current status of any event listed here.

Albuquerque

Monthly meetings are normally the first Wednesday of the month at 7:00 pm. These will be hybrid meetings at the UNM Continuing Ed Building, Room C, 1634 University Blvd. NE. Please observe UNM's Covid-19 requirements. Meeting links are distributed to chapter members via email prior to the meeting. For more information and/or a Zoom link, contact Sara Keeney at skeeney [at] swcp.com, 505-379-3392, or check the Albuquerque Chapter page of NPSNM.org.

Jul 6 Meeting. "Protecting New Mexico's Last Wild River." Allyson Siwik, Executive Director of the Gila Resources Information Project: Flowing out of America's first Wilderness Area, the Gila River is New Mexico's last major undammed river. Seven threatened or endangered animal species are supported by the Gila's cottonwood-willow-sycamore forests. Given its outstanding natural, cultural and recreational values, the Gila River is proposed for long-term protection under the Wild & Scenic Rivers Act. Allyson will describe work by conservationists to defeat four proposals to dam or divert the Gila. How can we maintain and improve the health of the Gila River's riparian ecosystem?

Aug 5-7 State Conference, hosted by Albuquerque Chapter: "A Land Ethic for Seven Generations."

Sep 7 Meeting. "What's new at Albuquerque's Botanic Garden?" BioPark staff will present a panel discussion of active conservation projects. Panelists will include: Maria Thomas, BioPark Curator of Plants; Jason Schaller, BioPark Curator of Entomology; Clayton Meredith, Species Survival Officer for Plants; and Anna Walker, Species Survival Officer for Invertebrate Pollinators. They will discuss a broad range of topics that tie together local conservation work and partner agencies the BioPark is involved with. BioPark staff hope to encourage volunteers to help with monitoring, seed collecting, and ongoing restoration projects. Fingers crossed for a live demonstration: Jason is often able to bring some cool bugs for show and tell.

El Paso

Meetings are usually at St. Alban's Episcopal Church, 1810 Elm Street (Elm at Wheeling, off Piedras). Programs are second Thursdays at 7:00 pm. Coffee social at 6:30 unless otherwise noted. All events free unless a fee is specified. Nonmembers welcome. Info: John White, 575/640-7555; jmwhite [at] utep.edu.

Gila (Silver City)

Monthly evening programs will resume in October. Meanwhile, videos of our spring programs, including Russ Kleinman's recent presentation on penstemons, are available online at the chapter website: www.gilanps.org/events/programs. Field trips will be

planned as fire conditions allow. Check our website at gilanps.org/events/field-trips/.

Jul 30-31 Booth at Mimbres Hummingbird Festival

GNPS will sell books, answer questions and promote membership. In addition, we will present our Native Pollinators/Host Plant program on both days of the festival.

Sep 10 10:00 am to 2:00 pm. Annual Native Plant Sale.

Join us in the parking lot on the corner of Pope and 12th Streets, across from Gough Park. Six southwestern native plant vendors to sell their plants directly to the public.

Las Cruces

All forthcoming presentations will occur via Zoom at 7:00 pm on the second Wednesday of the month. Zoom links will be provided by email and on the NPSNM website before each presentation. Non-members email szygint4 [at] hotmail.com for Zoom link.

Jul 13 Meeting. Zoom Presentation: 7:00 pm. ""Soil ecology and the distribution of native plants: Notes from the underground." Dr. Steve Loring earned a Ph.D. from Michigan State University studying the systematics and ecology of soil insects. He came to New Mexico State University in 1984 to work on the Jornada Basin LTER project. He joined the Agricultural Experiment Station System and retired in 2021 as AES Associate Director..

Jul 16 Field Trip: TBD.

Aug 10 Meeting. Zoom Presentation: 7:00 pm. TBD.

Sep 14 Meeting. Zoom Presentation: 7:00 pm. "Perceptions of drylands and rangelands as wastelands: what it means for natural resource management, land use, and policy responses to climate change." Dr. Brandon Bestelmeyer, Research Leader of the USDA-ARS Jornada Experimental Range in Las Cruces, NM. The Jornada research unit links site-based research on ecological processes, innovative livestock production systems, and ecosystem restoration with national and global research on land monitoring and decision support tools. Dr. Bestelmeyer's personal research focuses on ecosystem tipping points and strategies to promote resilience and restoration in rangeland ecosystems.

Sep 17 Field Trip: TBD.

Otero (Alamogordo)

For workshop and field trip details, contact Elva Osterreich, echoofthedesert [at] gmail.com, 575-443-4408, or Jennifer Gruger, jengruger [at] gmail.com, 505-710-2924. More information will be available by the beginning of each month.

Jul 23 Field Trip, Cloudcroft, Visit a fairy garden (or nearby mountain trail if the forest is open) followed by a presentation with Eric Metzler, moth master of the white sands.

Aug 27 Field Trip. Apache Nature Trail. A 0.5 mile lightly trafficked loop trail near Cloudcroft that features a great forest setting. Good for all skill levels. The trail is primarily used for walking,

Sep 22-25 Booth at Otero County Fair offering books for sale and information. Volunteers welcome! Please contact Jennifer to sign up to help by taking a shift at the booth..

Santa Fe

We plan to resume in person meetings on the second Tuesdays of the month at Christ Church, 1701 Arroyo Chamiso, in October. For more information check the NPSNM website. For outdoor activities the chapter has a microphone for presenters and wireless ear pieces for participants to listen while maintaining social distancing when necessary. Events are free and open to all.

Jul 2 9:30 am-1:00 pm. Hike. Join Christina Selby, author of Best Wildflower Hikes of New Mexico, on the Borrego Trail to discover why this is one of her favorite trails. We will take a leisurely 3.4 miles walk over to Tesuque Creek and back. Bring a lunch to enjoy by the creek. Anyone willing to carpool (encouraged) can meet at the parking area opposite the Chamisa trail head at 9:15 am. Please RSVP to Sylvan Kaufman, sylvan.kaufman [at] gmail.com or 410-310-0160. Limited to 15 people.

Jul 23 9:00 am-1:00 pm. Walk. Chick Keller will lead us on a walk to discover what's blooming at the Santa Fe Ski Basin. Hopefully the monsoon rains will bring abundant flowers this summer! Bring a lunch if you'd like to picnic after the walk. Park at the Santa Fe Ski Basin.

Sep 3-4 Volunteers needed for the Santa Fe Chapter table at Las Golondrinas Fiesta de los Niños with an activity for kids and information for them and their parents. Please call or email sylvan. kaufman [at] gmail.com, 410-310-0160, if you can help staff the table and/or organize activities.

Sep 17 10:00 am-11:00 am. Garden Tour at Santa Fe Botanical Garden. Join Santa Fe Botanical Garden's Head Gardener Linda Churchill for a tour of native plants that grow in Piñon Juniper Woodlands and the basics of how to care for your Piñon Juniper woodland. Please RSVP to Sylvan Kaufman, sylvan.kaufman [at] gmail.com or 410-310-0160. Limited to 20 people.

Taos

Unless noted otherwise on the website, meetings will be held on the last Wednesday of the month at 6:00 pm in the Kit Carson Electric Cooperative boardroom, 118 Cruz Alta Rd. Videos of past meetings can be found at https://tinyurl.com/TaosNPSvideos. For updates, check the Taos page on the NPSNM website, our Facebook page (search for "Native Plant Society New Mexico Taos Chapter"), the Taos News Calendar, email TaosNPS [at] gmail. com, or phone Jan Martenson at 575-751-0511. If you're on our mailing list you will get notifications by email. *

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A Land Ethic for Seven Generations

by Carol Conoboy, President, Albuquerque Chapter

Climate is changing our perspectives and we are adapting to drought. It is time to get out and join old friends and welcome new ones in Albuquerque for our NPSNM State Conference. This will be an in-person conference with social distancing. Changing some field trips may be necessary; back-up plans are in the works. The banquet will take place at the Indian Pueblo Cultural Center. We are lucky to have environmental journalist and correspondent Laura Paskus as our banquet speaker. I'm sure many of you have watched her interviews and coverage of climate change on the NMPBS program, New Mexico in Focus.

From the first planning committee meeting, we knew that we wanted to have multiple perspectives to broaden the conversation, understand recent findings, and present pragmatic solutions for the future. Speakers will address how to nurture greater respect for nature and the land ethic we need for future generations. Presentations, hands-on workshops, field experiences, and a focus on educating others will enable us to take home new ideas to develop in our communities.

We have found the words of Nelson Henderson, "The true meaning of life is to plant trees under whose shade you do not expect to sit," to summarize our hopes for this conference. The quote encourages us to think more about future generations and less about the ephemeral.





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Fire in NM, Continued from page 3

I can only speak for myself and use my observations on the current wildfire outbreaks and their effect on the psyche as I carry on in the Las Cruces area. A shift in wind direction May 19th carried the smoke plume southward from the Black Fire, burning in the Gila Mountains environs. The thick, grayish-white plume created an ethereal effect over the Organ Mountains just after sunrise, which provided for moody, atmospheric photographic opportunities while teaching a beautiful-yet-harsh lesson of perspective.

The Black Fire, as of May 24, 2022, had a burn area over 155,000 acres: https://nmfireinfo.com. To me, it's impossible to comprehend the direct fire effects or to understand the future of "recovery" for all inhabitants (human and biotic) and natural processes. How does one view these effects within the context of the other wildfires that have occurred statewide this spring?

Because of last summer's prolific plant growth, many plant communities now have high cover of recent plant litter in addition to remains from prior drought years. Combine this potential fuel source with the volatile compounds produced by several native plant species, add in the near constant wind we experience, and you immediately understand how easily fire could be introduced and spread. I think about these factors when I see an irrigation ditch being burned to clear dead plants and trash, burning to reduce cover by tamarisk and willows on the Rio Grande banks, or the possibility of dry/volatile vegetation meeting the hot exhaust pipe of a vehicle, or a cigarette butt crushed on a trail (how many are tossed into the adjacent vegetation?).

But, I will not complain because every day I can select a local trail and go hiking to collect images of flowers, pollinators, butterflies, sunrises/sets, whatever is interesting to me. I can share my experiences online with friends and groups of like-minded people. Everyone is anxious for adequate rainfall to quell the wildfires, provide some relief to the affected inhabitants, and to support another cycle of vegetation/wildlife response to the moisture.

Jim Von Loh, Las Cruces Chapter

Our Taos chapter is being affected by the fires. Some of our favorite wildflower areas may already be burning (Santa Barbara, Agua Piedra, Agua Sarca), while others are in the line of the fires if they aren't stopped (Taos Ski Valley trails, including Williams Lake, Bull-of-the Woods and others). With all of the Carson Forest closed, there are only a few lower-elevation spots where we can hike or see native plants. Any natives in the Ponderosa Pine zone and higher are restricted due to the active fires, fear of spotting 1-2 miles ahead of the fireline, or are being protected from new fires with the complete closure of national forest land.

The landscape in north-central NM will certainly be changed after these fires. As those in the Gila and Los Alamos areas know too well, it takes years and decades for a fire scar to heal. I think these northern fires were primarily crown fires, so there is hope that the soil has not been sterilized from heat and that the native seed bank can emerge to rebuild the layers of our forests.

Mary Adams, Taos Chapter Wildflower Walks Committee Co-Chair

An addendum to Mary's comments: Our spring wildflower appearances have already taken a hit from the drought. What we saw on walks in April and May were mostly few, far between, and stunted, except for the claret cup and scarlet hedgehog cacti which were as glorious as ever.

Jan Martensen, Taos Chapter President

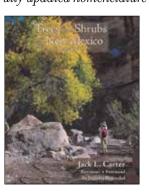
The Albuquerque chapter has not experienced any physical impact from the state's wildfires – only a field trip schedule disrupted by the protective closures of Cibola National Forest and Albuquerque City and Bernalillo County Open Spaces. As we must have learned during COVID shutdowns – if not before – being in nature is not only pleasing to the senses, it is necessary for the well-being of the human psyche. The devastating losses experienced by so many people, in Ruidoso, in the Mora Valley, and elsewhere, are grievous of themselves. They also serve as a dramatic reminder of how our total well-being is directly connected to a healthy condition of our natural environment, and we all continue to live with another "fire" – our drought, which is an on-going threat to our animals, plants and water.

Lee Regan, Albuquerque Chapter

Brand-New 2020 Edition

Trees and Shrubs of New Mexico

by Jack L. Carter
Fully updated nomenclature



Available January 2021 Order your copy through www.gilanps.org

While there, browse through our excellent selection of guides for plant and pollinator identification, native-plant landscaping, aridland gardening, and more!



The Gila Native Plant Society is committed to promoting the education, research, and appreciation of the native flora of the southwest; encouraging the preservation of rare and

endangered plant species; and supporting the use of suitable native plants in landscaping.

Native Plant Society of New Mexico

2022 Annual Conference

A Land Ethic for Seven Generations

Friday, August 5 to Sunday, August 7



UNM

Continuing

Education

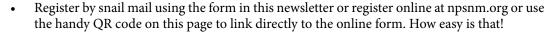
Albuquerque

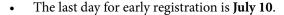
Populus deltoides spp. wislizeni. Photo: George Miller

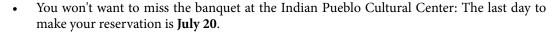
The true meaning of life is to plant trees under whose shade you do not expect to sit.

Nelson Henderson









- Please review the conference agenda so you don't miss something you'd like to attend. There are always unavoidable late changes.
- The Friday morning talk from 11:30-12:15 will be A Tale of Three Rivers, Dr. Mary Harner. As interconnected systems, rivers reflect landscape modifications and are influenced profoundly by human activities and ecological change. Featuring examples from the Platte River in Nebraska and Middle Rio Grande and Gila River in New Mexico, this work shares science and stories about rivers that connect us.



Conference Location: Registration and presentations will take place at the University of New Mexico Continuing Education Building, 1634 University Blvd. NE, Albuquerque 87131.

Accommodations: Home2 Suites by Hilton, 1660 University Blvd. 505-242-0002

Home2 Suites gives a discount to attendees of conferences at the Continuing Ed Building. To reserve rooms at the discounted rate, use the link below and enter your desired stay dates. These rates have limited availability, so we suggest you make your reservations ASAP. Several hotels are already full in August due to postponed events because of Covid-19. https://www.hilton.com/en/book/reservation/deeplink/?ctyhocn=ABQDUHT&corporateCode=560056353

2022 Annual Conference Program—Native Plant Society of New Mexico Albuquerque Chapter, Albuquerque, New Mexico

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1:00–3:00 pm NPSNM Board Meeting

Friday, August 5

FRIDAY MORNING

8:00 am–4:00 pm	Check-in/Registration, UNM Continuing Education Building					
9:00-9:30 am	Welcome & Opening Remarks Carol Conoboy, President of the Albuquerque Chapter					
9:30-10:30 am	Meynote Presentation: Climate Change and Long-term Ecological Research at Sevilleta					
	Marcy Litvak					
10:30-10:45 am	Break					
10:45-11:30 am	Botanically-Based Environmental Education for Land Health and Human Health Dara Sa	ville				
11:30 am-12:15 pm	A Tale of Three Rivers Mary Harner					

FRIDAY AFTERNOON

12:15-1:30 pm	Lunch			
1:30-2:15 pm	Alpine systems Hannah Marx			
2:15-2:45 pm	Tracking the Wild on an Ephemeral Sandbank Lenore Goodell			
2:45-3:00 pm	Break			
3:00-3:20 pm	Nature's Internet: How Trees Talk to Each Other in a Healthy Forest			
	Suzanne Simard Ted Talk video			
3:20-4:20 pm	Student Poster Presentations			
5:00-7:00 pm	Reception at Carol and John Conoboy's house. 203 El Camino Verde, Corrales			
7:00 pm	Dinner on your own			

Saturday, August 6

SATURDAY MORNING

Field Trips and Workshops

Field trip selections are based on locations of natural or scenic interest, length, and difficulty. Stated lengths of trails are round trip. NOTE: Some trips may be substituted with a similar or alternative destination. Remember to wear appropriate shoes and a hat and bring plenty of water, sunscreen, snacks, and hiking poles where needed.

Saturday field trips, leaving from UNM Continuing Education at 8:00 am, return by noon, unless otherwise indicated. Carpooling is encouraged. Special requirements are noted for specific destinations. TH = trailhead. Field trips or workshops marked with an asterisk (*) indicate a companion event related to a presentation.

FT 1 Carlito Springs Open Space, Tijeras

Hiking distance & difficulty: easy/moderate, ca. 3 miles.

Carlito Springs is a historical resort with newly renovated buildings and a spring-fed garden area. The field trip will be a circuit route, climbing moderately from the parking lot on a wooded trail along a creek bed. The wellmaintained return trail will circle down a sunnier hillside.

FT 2 Milne Open Space, Cedar Crest

Hiking distance & difficulty: easy, ca. 2 miles.

A lower elevation field trip on the east side of the Sandia Mountains; examining an open field, a narrow ravine, a meadow, and a lightly wooded forest trail.

FT3 Petroglyph National Monument — Mesa Prieta

Hiking distance & difficulty: moderate, 3 miles.

At the edge of Albuquerque's westside residential development, follow a hilly gravel track to the base of the lava escarpment, then return through a sandy arroyo and slight uphill climb back to the TH. NOTE: This is NOT a hike for viewing petroglyphs, but offers an interesting array of plants, views, and some impacts of urban development.

*FT 4 Rio Grande Oxbow

Hiking distance & difficulty: easy, ca. 2 miles.

West side of the river, exploring the unique habitat of a drain and the sandbank left after the 2019 flood. The new land was rapidly colonized by a variety of flowering plants. NOTE: participants on this field trip should have sunscreen, insect repellent, and footwear appropriate for possibly wet areas, such as sneakers or boat shoes.

FT 5 Rio Grande Nature Center State Park

Hiking distance & difficulty: easy, 1-2 miles.

Tour of the native plants garden and access trail to the bosque and Rio Grande. Ponds at the visitor's center offer bird and turtle viewing.

FT 6 Sandia Mountain Natural History Education Center

Hiking distance & difficulty: easy, 1 mile.

Orientation and tour of the environmental education facility in Cibola National Forest, on the east side of the Sandia Mountains, visited by classes from Albuquerque Public Schools and other groups. Followed by a flower walk of the grounds and a short trail to an overlook of the East Mountain setting.

FT 7 Sandia Mountains (west) foothills

Hiking distance & difficulty: easy/moderate, 1.5-3 miles depending on participants' desires and route chosen.

The best location will be chosen based on actual conditions that week. Easily accessed from Tramway Blvd., some modest uphill walking reveals a diversity of high desert flora grading into piñon-juniper and wonderful views.

FT 8 Sandia Mountains, (east) at the Cienega TH

Hiking distance & difficulty: moderate, 3 miles.

Trail is through a meadow and woods from a picnic area and a gradual climb along a dry, wooded creek. Access to parking area on left side of Sandia Crest Road (Hwy 236). NOTE: Parking requires a Digital Day Pass, Interagency Recreation Pass, or Golden Age Pass. For information, see: https://www.fs.usda.gov/main/cibola/passes-permits/ recreation.

FT9 UNM Herbarium

Driving distance: ½ mile. **Hiking distance & difficulty:** easy, less than 1 mile (from parking area). **Limit:** 15.

Tour of New Mexico's largest herbarium at the Museum of Southwest Biology, 302 Yale Blvd NE, CERIA Building (Bldg. 83).

*FT10 Yerba Mansa Project area (bosque from Tingley Beach)

Hiking distance & difficulty: easy, 1 mile (or less).

A leisurely stroll in the Project's restoration site in a wildlife management area near Tingley Beach discussing and examining medicinal and edible plants with a focus on community-based stewardship in the Rio Grande bosque.

WS 1 Design for Wildlife: How to Create your Refuge Leader: Judith Phillips

Time: 9:00-11:30 Location: UNM Continuing Ed Building Limit: 8

How do you design spaces that are appealing to both wildlife and the people who live there? We'll walk through the basic steps in creating habitat either from a blank slate/no landscape or within existing gardens. Registered participants will receive resources in advance by email for preparation needed to get the most from the workshop.

WS 2 Seed Paper Leader: Hollis Moore

Time: 9:30-11:30 Location: UNM Continuing Ed Building, SW Patio Limit: 8. Cost: \$10

The seed paper workshop teaches participants how to make sheets of recycled paper embedded with native seeds. Not only are the seed papers beautiful living artworks, but they also make an excellent mulch for germinating seeds.

WS 3 The Edible Prickly Pear Leaders: Penny and Gary Hoe

Time: 9:00-10:30 Location: UNM Continuing Ed Building Limit: 15.

The Opuntia cacti commonly called "prickly pears" are a versatile, nourishing, and tasty source of food. But how do you get past their formidable spiny defenses to prepare fruits or pads for eating? What nutrients does the prickly pear provide? How can the fruits, the juice, and the pads be used in a variety of recipes? Steps, utensils useful in harvesting and preparation, and recipes will be shared.

WS 4 Growing cacti from seed Leader: Ralph Peters

Time: 9:00-11:30 Location: Breezeway UNM Continuing Ed Building

Germinating and rearing cacti from seed is a satisfying way to reduce depletion of these fascinating native plants in the wild and to obtain species that are not always available commercially. The A to Z of the hobby, with a demonstration, practice, materials, and methods.

SATURDAY AFTERNOON

Noon-1:15 pm	Lunch on site at UNM Continuing Education Building					
1:15-2:15 pm	Keynote presentation: Diné Bih Nanise Arnold Clifford					
2:15-3:00 pm	The Trifecta Crisis and Natural Climate Solutions A.T. Cole					
3:00-3:45 pm	How to Love a Mesquite Hollis Moore					
3:45-4:00 pm	Break. Silent Auction closes at 4:00.					
4:00-4:45 pm	Ecology of Sandia HS Pond and Teaching It Forward Jason Roback					
4:45-4:55 pm	Closing remarks Tom Stewart					
5:00-5:30 pm	Pick up silent auction items					
6:30 pm	Banquet at the Indian Pueblo Cultural Center Silver and Turquoise Rooms					
	Guest Speaker: Laura Paskus					

Sunday, August 7

*FT11 Sandia High School Gardens

Location: 7801 Candelaria Rd, NE, Albuquerque. Hiking distance & difficulty: easy. Limit: 20.

Tour the pond and greenhouse at Sandia High School and view the many species of native plants that Jason has collected and planted and the creatures that call it home.

FT 12 Sandia Mountains (east)

Hiking distance & difficulty: easy/moderate, ca. 3 miles. Elevation: up to 10,600'

NOTE: persons with breathing problems may find this difficult regardless of terrain. Trails are Conifer to Spruce-Fir-Aspen forests and high elevation meadows. We will select from the best alternative destinations. Lunches and rain gear are recommended because mountain field trips may last beyond noontime when thunderclouds develop. If there are signs of an impending storm, the field trip will be terminated.

More Challenging

FT 13 Crest Trail to North Sandia Peak

Hiking distance & difficulty: moderate, 4 miles. Elevation: 10,200 – 10,600'

Starting from the Crest House parking lot at the end of Hwy 236, heading north on the Crest Trail to a short spur trail leading to North Peak, then returning. There should be many flowers, a medallion tree, and possibly migrating ladybugs as well as outstanding views. Bring a lunch.

Heading East/South

FT 14 Manzanita Mountains woodland

Driving distance: About 45 minutes from Albuquerque. **Hiking distance & difficulty:** easy/moderate, ca. 2-4 miles. **Limit:** 10. The Manzanita Mountains are low wooded hills with some meadow areas and dry ravines, south of Tijeras. The location will be chosen based on actual conditions that day.

Heading North

FT 15 Las Huertas Creek, Placitas, NM

Hiking distance & difficulty: easy, 1-2 miles. Limit: 10.

Stopping at places along the only flowing stream in the Sandia Mountains, ending at a picnic area. NOTE: This field trip will meet at the Placitas, NM Post Office; an SUV or high-clearance vehicle is required for the final portion of a very rough road.

FT 16 Pueblo of Santa Ana bosque restoration

Hiking distance & difficulty: easy, 1-2 miles

Featuring an oral presentation by Santa Ana Restoration Division manager, Nathan Schroeder, and tour of the Rio Grande bosque highlighting some of the Pueblo's past ecological projects, techniques used in management of tribal resources, and challenges for the future.

Heading Northwest

FT 17 Ojito Wilderness — Seismosaurus Trail

Driving distance: This field trip will meet at the Home Depot on Hwy 550 west of Bernalillo, NM (in the northwest corner of the parking lot) at 9:00 AM. Hiking distance & difficulty: easy/moderate, 2.5 miles.

The Ojito Wilderness features expansive views of dramatic mesas and dry grasslands incised by arroyos. It is accessed from Cabezon Road (a rough dirt road, but suitable for sedans), just east of San Ysidro, NM. We might spot petroglyphs or reptiles and stop to have lunch.

Heading South

FT 18 Manzano Mountains: Red Canyon

Driving distance: About 1.5-hour drive from Albuquerque, southwest from the village of Manzano (road continues on to Mountainair for those headed south). Hiking distance & difficulty: moderate, 2-3 miles.

Several habitats on the lower portion of the mostly wooded Red Canyon Trail Besides flower observations, this trip will include a discussion of the geology of the Manzano Mountains and rocks along the trail.

FT 19 San Lorenzo Canyon

Driving distance: About 60 miles south of Albuquerque off I-25, on the southern boundary of Sevilleta NWR. NOTE: the unpaved road that approaches the canyon (3.4 miles) includes a sandy wash best suited to SUV and 4-wheel drive vehicles. Hiking distance & difficulty: moderate, ca. 3 miles.

A unique desert canyon that has picturesque rock formations and, usually, a couple of small seeps. Wildflowers may be observed along the approach to the canyon and within the canyon itself. Entrance to the canyon requires a short scramble around a massive boulder.

FT 20 Whitfield Wildlife Conservation Area, Belen, NM

Driving distance: About 40 minutes south of Albuquerque. Hiking distance & difficulty: easy, ca. 2 miles.

Perimeter loop with some side detours on flat former pastures and wet meadows; the site also features a cactus garden as well as a pond that attracts birds. (https://www.valenciaswcd.org/whitfield-wildlife-conservation-area/)

WS 5 Successful Germination of Native Plants Facilitator: Peggy Wells

Time: 10:00 am-noon Location: Growing Awareness Urban Farm. Map will be provided to participants. Limit: 10.

This workshop will offer a presentation explaining how some native plants increase their survival rates by delaying germination. Then, participants may practice some of the treatments that growers use to encourage these "difficult" seeds to sprout. Supplies provided.

*WS 6 Herbal Essentials Facilitator: Dara Saville — 9:00 am-noon

Time: 9:00 am-noon. Location: Private Medicine Garden near Pueblo Cultural Center. Map will be provided to participants. Limit: 10. Cost: \$25. Prepayment instructions will be provided on acceptance into workshop.

A hands-on workshop to engage the senses in herbal food, beverages, and medicine. Explore a wide variety of ways to prepare herbs for pleasure, nutritive, and healing applications. Recipes will depend on what plants are available. We will process the plant material, make the recipes, and sample our creations together on the shaded patio in my medicine garden. Participants will take home samples of all the products that we do not consume during class.

A Land Ethic for Seven Generations 2022 NPSNM STATE CONFERENCE REGISTRATION FORM

Please send a separate form for each attendee

Name			NPSNM Chapter				
Address			City	State Zip			
E-mail Address		Home Phone		Mobile Phone			
Included in conference fee : Snacks during conference breaks, Friday & Saturday lunches, Friday evening reception (appetizers & drinks).							
Fri & Sat lunch	es. Please select (one: vegetarian	_ meat glu	ten free			
Saturday banquet (\$30) includes your choice of one of the following entrees plus two sides, salad, dessert, and coffee, tea, or water. There will be a cash bar.							
Number of guests who will be attending with you (\$30/guest): Number of meals: Blue corn fried chicken Brown sugar & mustard roasted pork Marinated heirloom cauliflower steak							
Field Trip/Workshop Preferences (<i>Please register early; space is limited.</i>) Use numbers/letters listed for field trips/workshops:							
Saturday 8/6	8:00 am-noon	1st Choice 2nd	Choice	3rd Choice			
Sunday 8/7	starts 8 am	1st Choice 2nd	Choice	3rd Choice			
Registration [Date	NPSNM Member	r Non-Member				
On or Before Ju	uly 10	\$100	\$120				
After July 10 *		\$130	\$150				
Saturday banq	uet per person**	\$30	\$30	TOTAL DUE \$			

For questions, contact Carol Conoboy (505) 897-3530 or carolconoboy [at] gmail.com or Pam McBride (505) 343-9472 or ebotpam [at] swcp.com.

Register and pay online at www.npsnm.org

or

Send form(s) with check (payable to NPSNM/Albuquerque Chapter) to:
Pam McBride
5409 9th St. NW
Albuquerque, NM 87107

A silent auction has become a traditional highlight of each year's NPSNM state conference.

The Albuquerque chapter invites you to donate items that might be of interest to other members.

To offer an item, please contact

Janet Mura — jimjanetmura [at] gmail.com (201) 952-3653

^{*} Registrations received after July 28 will not include lunches.

^{**} No banquet registrations accepted after July 20.

Sunflower Scholarship

by Janet Herbst, Albuquerque Chapter



It is our responsibility to become informed and involved regarding climate change and its pace, to consider strategies moving into the future. The fires devastating our state this spring underline the critical need to care for our environment.

The 2022 NPSNM Annual Conference promises to be one of the best places to start, or continue, your learn-

ing. It will offer a wide-ranging selection of educational and inspirational presentations by notable experts in their fields of research, restoration, teaching, and mentoring. Citizen scientists will share years of observations that document succession and change.

In addition to platform presentations and hands-on workshops and field trips, the conference offers an opportunity for university students and others to present posters on in-progress, innovative work. The Sunflower Scholarship provides financial support for such students. Although the deadline for applications closed on July 1, we encourage you to contact us with your ideas at www.npsnm.org/conference-scholarship/.

The NPSNM is pleased to offer the Sunflower Scholarship, through the generosity of our members. Because science education was dear to Jack Carter's heart, we are delighted to be able to move forward with this sort of educational outreach. Should you wish to support our work, we request that you make your donations to the Jack and Martha Carter Conservation Fund.

Make your decision now to attend the 2022 Annual Conference with its many learning opportunities. The Albuquerque Chapter planning committee looks forward to welcoming old friends, and greeting new acquaintances. ❖



Rewilding, Continued from page 5

NPSNM and to the Aldo Leopold Foundation. They encourage people to buy their books directly from Nighthawk Press or local bookstores. Finally, and important for those who will be attending the Annual Conference in August, they have donated a signed copy of this book to the silent auction. Don't forget to bid on it!

I spent an enjoyable hour chatting with Richard and Annette about their experiences. If you want a how-to, step-by-step instruction book, this is not the book for you. Reading this book, as I said to the couple, is like having a conversation with an old friend. It rambles a bit, the way a conversation really does. I could easily imagine myself sitting on their porch and Richard would be saying, "oh and look over there, that's where we did this." Their low-key and personal writing style works well. And, if you want practical suggestions, the final chapter of the book addresses the perils, pitfalls, and joys of rewilding and possible mechanisms for protecting your rewilded property legally.

As Richard said of the book, "It's really a combination of philosophical thinking, the practical experience, and being 'down home'. Small scale. Accessible." Thanks to his involvement with the Leopold house in Tres Piedras and the library they are putting together there, Richard has read a lot of Leopold and thought much about putting Leopold's words into practice. "You know, Leopold really challenged the biblical dominion-of-the-earth concept. He believed that conservation was not proceeding because we don't treat the land—which means everything: the biosphere, the ecosphere—as community. And that's where he developed the concept of the land ethic. So, I think it's good to be open to the variety of growing things. Trees, plants, animals. Fauna that can come in so that's very much the fun exploring those topics." And, a teaser for the Rubins' next book – it has a lot to do with Leopold's Tres Piedras home, during and after the Leopolds' time there.

The Rubins' Taos home is a former alfalfa field that they have lovingly and gently replanted in their rewilding experiment. They planted some Austrian pines and added some blue spruce and then moved on to one each of the thirteen conifers identified as native to Taos County according to Jack Carter. Details of their tree planting adventures, including the role of non-natives in the landscape, are the topic of Chapter 2.

Their interests in all things plant goes back many years. Annette told me a story of planting an organic garden in a south Florida school yard where she was teaching... in the early 1990s. Although none of the children from that class became gardeners, Annette is still in touch with a few of them on facebook. More recently she has devoted some of her efforts to seed saving to share with friends and neighbors. Ever interested in teaching and encouraging others, she told me, "With this book, we just wanted people to know that when you start to feel discouraged by the massive issues of climate change, there are things you can do in your own back yard. And, every tree you plant makes a difference."

Native Plant Society of New Mexico

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of the

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Native Plant Society of New Mexico

2022 Annual Conference

A Land Ethic for Seven Generations

August 5-7, Albuquerque

Early registration ends on July 10th. For the quickest registration ever, use the QR code on p. 9 to go directly to the online form!

You will definitely want to check out the silent auction!

Right: From *Homescape Rewilding* (review on p. 5), stalks of blue corn against the fence that provides bee habitat. Image: Richard and Annette Rubin.



Above: Dick Masterson Original Studio Art Pottery, Utilitarian pot with hand-carved lid. A Santa Fe potter for nearly 50 in high demand and is years, Masterson's work was always in high demand and is greatly coveted in the decade since his death.



Read what NPSNM members are saying about the fires in NM. Articles on p. 3.

A view of the Black Fire taken from I-25 between TorC and Las Cruces on June 4. Image: Elva Osterreich.