

Editor's Note:

This issue is packed with articles, activities, and great photos.

We're trying something different for the activities and field trip layout – the Albuquerque Chapter Meeting Calendar is separate from the Field Trip Calendar. We hope you like it!

There are many fun spring and early summer volunteer activities you can get involved in through our chapter of the Native Plant Society of New Mexico, NPSNM.

The Yerba Mansa Project Bosque Restoration Field Day needs volunteers on May 5th from 9am to noon. Dara Saville wrote about the history of the project, which includes funding from NPSNM. Check out the article and the website: http://yerbamansaproject.org/

Enjoy! Diane Stevenson

Cover Photo © George O. Miller



Timber Peak Trail field trip on Magdalena Ridge Photo by George Miller

Great Volunteer ActivitiesSpring 2018

Following are some fun events the Albuquerque Chapter of the Native Plant Society of New Mexico will be participating in. If you're interested in helping promote our mission and have a good time visiting with other members and the public, please contact the outreach coordinator, Bettie Hines, hines.bettie "at" gmail.com, 505-298-8408

Sunday, April 22, 10am-4pm Earth Day-La Montanita, Nob Hill Coop

Saturday, April 28, 10am-2pmDesert Oasis Teaching Garden Plant
Sale-Albuquerque Academy

Friday, May 11, 10am-2pm National Public Gardens Day-Albuquerque Bio Park

Saturday, May 12 & Sunday, May 13 Time TBA

Herbfest- Rio Grande Nature Center

Saturday, June 2, 9am-2pm Butterfly Education and Awareness Day-Plant World

Saturday, June 16, Time TBA
Bee City USA-Albuquerque Open Space
Center

3/15/18 **President's Message**

We approach spring with anticipation. I keep eyeing the roadsides and medians for the first wildflowers – inevitably the introduced mustards, but they're welcome harbingers. I check my backyard habitat gardens daily for the first green shoots from the herbaceous perennials and buds on the bushes. And of course, watching the weather patterns and hoping for enough rain to generate a good spring bloom.



Hoodoo Trail, Ojito Wilderness Photo © George O. Miller

Check your calendar! With twenty field trips planned this year, we'll have plenty of opportunities



Ojito Wilderness Hoodoo Trail Photo © George O. Miller

to get up close and personal to our native flora across the state. We have overnights to explore the Pecos Wilderness and White Sands, extended day-long trips to the Magdalena Mountains, Quebradas Backcountry Scenic Byway, Bosque Del Apache National Wildlife Refuge, and Cerrillos Hills State Park. Half-day trips will take us to the Sandia foothills east and west and to the Crest, Ojito Wilderness hoodoos, Tent Rocks National Monument, San Ysidro for rare cacti, and the Rio Grande Nature Center for a garden tour.

We look forward to a busy spring for placing our table and displays at Earth Day celebrations, the Bee City USA festival, Herbfest, Valle de Oro, and other upcoming events. Join the volunteers at the table for a fun day visiting with friends and telling folks about native plants.

It's time to get started in our backyard habitat gardens, tidying up, refreshing the old and planting the new, and enjoying the birds, bees, and butterflies attracted to our backyard oasis.

George Miller

An Interview with the Winner of the Native Plant Society of New Mexico 2018 Science Teacher Award

By Charlie Jackson

The Native Plant Society of New Mexico recently awarded Mary Erwin of Albuquerque's Wilson Middle School the 2018 Science Teacher Award. Tom Stewart and I presented the award to Ms. Erwin after school on Wednesday, March 7.

The obviously proud and enthusiastic Principal Teise Reiser led us to Ms. Erwin's science room where we presented her with the award. Ms. Erwin then gave Tom and me a tour of the rather large 'Wildcat Blooms School Garden' that Ms. Erwin and many students have cultivated and maintained the past few years. It includes crop rows, raised beds with PVC hoops, drip irrigation, compost bins, an orchard and a pond. It even has a Monarch Waystation! There are ramadas, benches, paths, planters, bird houses and shade structures throughout. And this means it's also a generally cool student hangout spot.

I was so struck by it all I decided to interview Mary Erwin to find out a little more about Ms. Erwin, what they've been up to at Wilson Middle School, and why.



Tom Stewart (L) presenting 2018 Science Teacher Award to Mary Erwin at Wilson Middle School
Photo © Charlie Jackson

Charlie -- The Wildcat Blooms School Garden is very impressive! When was the garden started? The fruit trees along the fences appear to already be fairly well established too. Were they among the first things to go in?

Mary – We began cultivating this area about eight years ago. The first year we assessed our area. What were the needs and wants? We determined that we wanted to grow food for our community and the area is very exposed so we needed to create places where the soil could cool down a bit and buffer the winds. We planted our first tree the following year and the others the next year.

Charlie -- When we were there you told us about the fruit trees having been deliberately planted close to the fences so that some branches and fruit would eventually hang out over the sidewalk. Because Wilson Middle School is located in what you said is the part of Bernalillo County with the highest poverty rate, you knew that this would also have to be a garden for the wider community, including the homeless that would probably pick peaches if and when that time came.

The morning you were told that you guys had been cleaned out of peaches you exclaimed, "We need more trees!"



Monarch Waystation sign to right in garden overview.

Photo © Charlie Jackson

This is incredible. Can you please say a little more about this? And being a rare thing in both Albuquerque and New Mexico, can you also tell us when that peach (and apricot?) harvest occurred?

Mary – Our community is desperately in need of fresh food. Families in deep poverty rarely have reliable transportation and often have

other mobility issues. This means that getting to fresh fruits and vegetables is very difficult. There are smokeshops in one block in every direction from our school, but no place nearby where kids can buy an apple!? We have two each of the following trees: peach, plum, apple, apricot and cherry. Our two peach trees ripen at different times-one we pick is available around July 4th while the other produces later in September. We usually have peaches to make peach cobbler for our Back-to-school Night in September.

Charlie -- You also described the community in which Wilson is situated as super urbanized, saying it's a lot like LA. Well, LA has a fascinating and very fraught history with urban community gardens, which the remarkable 2008 documentary "The Garden" so clearly shows us. When you were talking, I couldn't help but wonder if this and other stories and struggles like it were prominent in your mind when you started at Wilson and started the garden project.

Mary – Actually, I did my Master's thesis at UNM about school gardens. As a teacher, I think gardens are ideal way to incorporate all areas of the curriculum using a unique environment. I try to refer to it as our

outdoor classroom. As a community member and parent (and now grandparent) I think it is a great way for us all to be responsible to the needs of our community.

Charlie – Maintaining a garden in Albuquerque is no small thing, especially one this big. But keeping it going through the summer must be very challenging. You set up a formal application process for students to apply to be farmers during the summer so that they can earn some money and help their families and keep things growing until school is back in session. Can you tell us something more about this? How many students have typically applied?

Mary – If you drive by Eastern and San Pedro in the mornings during the summer, you will usually see a group of 5-10 kids and grown-ups watering, weeding and harvesting. We have a GoFundMe page set up to raise money to pay these dedicated kids or people



Checking out winter plantings – coffee cans house plant stems for solitary bee habitat

Photo © Charlie Jackson

make donations to SWOP in the name of Wildcat Blooms. They toil in the hot sun all summer long and don't get paid until just as school starts. Most kids use this money to buy school clothes and other items that their family might not otherwise be able to afford. I usually have around 20-30 kids apply but can only afford to hire about 5-10, depending on how much money gets donated. I want these urbanized kids to know that there are careers where they can get paid to work giving back to the community by growing food.

Charlie – You told Tom and me that you started out in Stephenville, TX and that your family later moved to Austin. Stephenville has its own close relation to agriculture and is home to Tarleton State University. Later, when a mentor at UNM told you to bring what you already know to the teaching environment that was agriculture in some form or other. What did that look like at first? Is your work at Wilson a result of that, the next phase or its full realization? What more would you like to happen there and what would you need for that to take place?

Mary – I was slogging along teaching and not feeling particularly successful. Not really a bad teacher, but not really a great one either when I took a class from Dr. Quincy Spurlin at UNM. This class focused on Earth Science and because of my background coming from a farming and ranching family, I excelled. She really



Overview of the garden

Photo © Charlie Jackson

encouraged me to let this knowledge become part of how I teach. I have been very fortunate to work for principals who have recognized that learning needs to happen in different ways and places. This coincided with ever tighter restrictions on taking field trips, so I focused on ways to create a field trip on campus. Gardens are a really great way to do this!

Charlie – Some of the shade structures in the garden are quite impressive. And, as it turns out, Fidelity Investments and their community outreach was partially responsible for those. You had insisted that your students be involved in

the construction of those structures even though Fidelity initially resisted that idea. I feel like there is a big story there, but maybe you could just give us some sense of how that played out, and, even better, what kind of advocate the students at Wilson have in you.

Mary – Fidelity Investments have been a community partner at Wilson for several years and we are so grateful for their support. This entire 1/2 acre garden has been built shovel by shovel by students. We have witnessed surprisingly little vandalism because students 'own' this area and the larger community watches out to make sure nothing happens to this jewel. The one time we had some serious vandalism, I helped students come to see vandals as a type of garden pest. Sure we could use extreme measures, but would we then really want to be there? If we spray chemicals all over our food, do we then want to eat that? If we put up razor wire and motion cameras, is it still a peaceful garden? It is my notion that our community is strong and vibrant, with a diversity of cultures not seen to this degree anywhere else in Albuquerque, maybe even in New Mexico. In nature, all systems are stronger when they have greater diversity. I'm here to tell you, the kids are really all right. They are curious and they want to help others in need - just like you and me.

Charlie – As you probably already know, the Native Plant Society of New Mexico is spread far and wide. It seems to me that many people will be eager to help in some way after learning more about you and your students. Perhaps you could tell us some things that we haven't covered yet. For instance, you have many parts of the garden dedicated to many things, from guilds to pollinators to cold crops. What additions to the Wildcat Blooms School Garden might help in the future? What would help more students take advantage of that unique spot?

Mary – This garden is a great way for us all to explore how to responsibly grow plants in an arid environment. Our Edible Urban Forest is planted using some permaculture-type principles. We have a couple of guilds but I would dearly like to add another one. For that we could use another tree. Our walnut tree didn't take to too well, so maybe a different nut tree? I have tried a couple of times to figure out a way to irrigate our fruit trees. Right now, we hand water all of them. This is stressful for the trees (and me!) so any help with getting a permanent solution to that problem would be a huge help. I have a dream of someday adding a small solar pump for the pond and I confess, this pond is not something that I know much about, so I always look for advice!

Charlie – Finally, after having focused almost entirely on the school garden, is there anything else you would like to mention regarding Wilson Middle School and its students? As a science teacher who has been doing some very unique things with a very unique group of students, your perspective on these things is also almost certainly just as equally unique.

Mary – I am so grateful to the Native Plant Society for recognizing my/our work! This garden is truly unique in size and scope. To my knowledge, there is no other garden quite like it anywhere in Albuquerque and probably in the New Mexico. I always confess that my love of gardening comes from my love of good food. I do not sentimentalize about farming and ranching - it is hard and sometimes dangerous work. The people who do it for a living deserve our respect and gratitude. I live for those days when my students dig up potatoes - the wonder on their faces is worth more than the vexing teacher evaluation system. When I explain to a child that the blossoms on the peach tree will later turn into peaches if they get pollinated by the hard working bees and they hold that flower in newfound wonder, it is worth everything.



Fruit trees and view from the corner of the Wildcat Blooms School Garden
Photo © Charlie Jackson

New Mexico Species Roundup

Sego and Mariposa Lilies: Five Calochortus species

Calochortus is Greek for beautiful herb

George Miller

Of the 60 to 70 species of this delightful little lily from Canada to Central America, only 5 grow in New Mexico. But not to be disappointed. We regularly find these beauties on field trips to the Sandias, Manzanos, Valles Caldera, and the Cuba badlands. The sight of one on the trailside or bursting through the parched cracked soil of the badlands and deserts always brings you to your knees. As though in awe of their unabashed beauty.

Nuttall's Sego Lily, Calochortus nuttallii

This little jewel reaches 12-inches tall and looks like it should be in a formal garden instead of the arid badlands, scrublands, and foothills of northern New Mexico and the Bootheel in the southwest corner of New Mexico. Look for 1–4 blooms on stems to 12-inches tall. Flowers have white petals and often a maroon crescent band above the hairy, yellow base.



Nuttall's Sego Lily

Gunnison's Mariposa Lily, Calochortus gunnisonii

Look or this dainty lily in open exposures from foothills to mixed conifer and subalpine forests in the northern half of the state. Erect 8–20-inch tall stems sprout from a bulb with 1–3 white to purple flowers, each with yellow hairs and often a purple band in the throat. Favorable conditions can produce mass blooming. White flowers are the most

common and widespread in the Sandia and Manzano Mountains. Purple specimens grow in the Valles Caldera, and the yellow var. *perpulcher* is endemic to the Sangre de Cristo Mountains.







Winding Mariposa Lily, Calochortus flexuosus

At home in the desert hills and creosote and sagebrush scrub of the northwest and southwest corners of New Mexico, this lily has distinctive sprawling, flexible stems reaching 16-inches long. The flower has pinkish-white petals with a hairy orange zone surrounded by yellow, and a purple

blotch at base.





Winding Mariposa Lily

Golden Mariposa Lily, Calochortus aureus



With butter-yellow petals and a maroon mid-band, this colorful lily dots the sandy, rocky desert scrublands of northwest New Mexico. Flat, blade-like leaves surround the 12-inch stem crowned with a bouquet that looks like a place setting of gold cups waiting for a tea party to begin.

Creative Commons photo by Jerry Friedman



Doubting Mariposa Lily, Calochortus ambiguus

Scattered in the western counties of New Mexico (especially around Silver City), this lily resembles the Nuttall's Sego Lily in its range, but has light-purple to whitish-gray flowers with a maroon crescent band lined with numerous yellow hairs, and maroon spots at the base of the petals.

Creative Commons photo by Bill Bouton

Yerba Mansa Project Enters Its Fourth Field Season

By Dara Saville, February 2018

The Yerba Mansa Project is a community service project intended to create awareness about native medicinal plants with threatened habitats and to take restorative action. It is an all-volunteer endeavor focusing on active restoration work, educational outreach, and uniting the community through our shared love for the Bosque.

The project is supported by the City of Albuquerque Open Space, Albuquerque Herbalism, Public Lands Interpretive Association, the Sierra Club Albuquerque Chapter, Plant Healer Magazine, Native Plant Society of New Mexico, and many other partners.

We invite you to join us at our <u>Bosque Restoration Field Day</u>
Saturday May 5, 2018, 9:00 am to 12:00 noon
Please RSVP for details to <u>dara@YerbaMansaProject.org</u>
http://yerbamansaproject.org/

Project History

The City of Albuquerque Open Space accepted our initial proposal to embark on the Yerba Mansa Project beginning in late 2014. Over the winter of 2014-2015, we conducted many site visits throughout the Middle Rio Grande Valley Bosque. We had three goals:

- 1. To evaluate the remaining stands of Yerba Mansa (Anemopsis californica)
- 2. To observe the plant's habitat requirements
- **3.** To identify areas suitable for native plant restoration (including Yerba Mansa) in the Albuquerque area.

Spring 2015: - We began restoration work at our selected adoption site along Tingley Drive, south of Central Ave. We recorded GPS data points for over 1,000 Ravenna Grass (Saccharum ravennae) plants. We removed hundreds of these invasive non-native plants and prevented hundreds more from reseeding. We also reintroduced native Yerba Mansa (Anemopsis



Yerba Mansa Project Field Crew members receive training on how to remove Ravenna Grass

Photo © Dara Saville

californica) by planting two new colonies. We provided many hours of free- and low-cost educational programs for children and adults about medicinal plants and the ecological importance of native plant habitats in our area.

2016: We focused on maintaining plantings, continuing Ravenna Grass removal, reseeding the area with native grasses and herbs, offering more free and low cost educational events, and launching the **Plants of the Middle Rio Grande Bosque Field Guide Youth Project**.

2017 - Yerba Mansa Project's third field season: This included recording GPS data for new Ravenna Grass growth (**supported through our NPSNM grant – thank you!**), removing large stands of remaining Ravenna Grass because they displace native Coyote Willows, continuing reseeding work, and maintaining expanding Yerba Mansa plantings. We also further developed our youth educational programs with Amy Biehl High School, Chinook Spirit Children's Academy, South Valley Academy Middle School, and the homeschool community.



The 2017 field season Yerba Mansa Project statistics:

- 1300+ hours of volunteer service in the Bosque
- Removed 1,000+ Ravenna Grass plants
- Reseeded over 8,000 square feet of bare ground
- Held 35 free educational classes and events for adults and school classrooms
- Began posting Plants of the Middle Rio Grande Bosque
 Field Guide researched by youth started posting on
 iNaturalist, a searchable guide available at no cost online
 and via a free mobile phone app.

Yerba Mansa Project crew member removes mature Ravenna Grass Photo © Dara Saville

Our Coming 2018 Field Season: We will be active in both restoration work and educational programs. After a site visit with restoration consultants Jim McGrath and Brian Hanson, we finalized this year's goals.

On the 2018 agenda:

- Removing the last bastion of mature Ravenna Grass on our site
- Begin removing young Ravenna plants newly sprouted from the existing seed bank
- With *your* support and pending approval by Open Space, we hope to plant a large area of bare ground with native shrubs

The Yerba Mansa Project will continue free educational programs for public and school classrooms. Many **free community programs** planned for the first half of 2018 include classroom programs and field

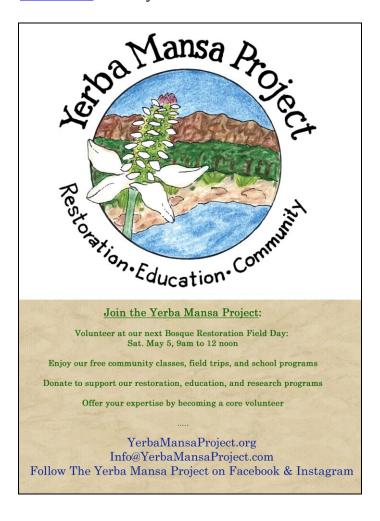
trips offered through UNM Department of Geography and Environmental Studies, Habitat for Humanity, Bernalillo County Open Space, the City of Albuquerque Open Space, and others. The South Valley Academy will participate in our Plants of the Middle Rio Grande Bosque Field Guide by researching, adding entries to the online guide, and taking advantage of the Public Lands Interpretive Association transportation grant to come to our restoration site for field classes on medicinal plants and natural history of the Bosque.

Teachers and educators may apply for this grant and field education programs on our website. We will continue GPS data collection and monitoring of Ravenna Grass populations, established native plant recovery, and replanting or reseeding efforts.

Visit us online at http://yerbamansaproject.org/ for more information.

Join The Yerba Mansa Project: We Rely on Community Involvement

- Volunteer at our next Bosque Restoration Field Day: Saturday May 5, 9am to 12 noon, RSVP to dara@YerbaMansaProject.org
- Enjoy a <u>Medicinal Plant Walk</u> with Yerba Mansa Project Director, Dara Saville, sponsored by Bernalillo County Open Space: Sunday May 6, 1pm at Ojito de San Antonio
- <u>Donate</u> to support our volunteer restoration work and free educational programs
- Get our semi-annual <u>newsletter</u> and stay in touch



PLANT PROFILE

Blue Flax (Linum lewisii)

By Carolyn Dodson

Sky-blue saucer-shaped flowers wave in the breeze atop slender unbranched stems. Dark veins line the five delicate petals of the inch-wide flowers. The two-foot-tall stems bear narrow leaves and loose flower clusters. Stands of blue flax are splendid morning sights, but by afternoon the petals have fallen to the ground. Blue flax blooms in early summer in dry mountain meadows.

Medicinal Properties

Flax seeds contain prussic acid, a substance with medicinal properties. Native Americans incorporated blue flax seeds in their medicine kits, and European flax has long been known to have curative powers. In the eighth century no less an authority than Charlemagne decreed that flax seeds should be consumed in order to maintain good health.



Blue Flax *Linum lewisii* Photo © George O. Miller

Commercial Flax



When Meriwether Lewis, leader of the Lewis and Clark Expedition encountered blue flax he recognized that "the bark of the stem is thick and strong." Indeed, pre-Columbian Native Americans used blue flax fiber for weaving and making fishing lines.

Commercial flax, a close relative of blue flax, is one of our most important domestic plants, developed from wild plants by some of the world's earliest farmers. By now it has become extinct in the wild and is found only in cultivation. Linseed oil extracted from the seeds is an ingredient in paints, linoleum, and printing ink. The strong durable stem fibers are now used for linens and fine writing paper.

Blue Flax *Linum lewisii* with insect Photo © George O. Miller

Linnaeus' Clock Garden

Carl Linnaeus, noting the habit of some species to flower regularly from early morning to late afternoon and others to open for only a few hours each day, always at the same time, conceived the idea of a floral clock. He designed a garden of thirteen Swedish plants arranged in order of flowering time. Starting at 3 a.m. the bindweed opens, and at 10 p.m. the morning glory closes. By noting which flowers were open and which were closed at a particular hour, a surprisingly good approximation of the time could be made.



Blue Flax *Linum lewisii* Photo © George O. Miller

Citizen Science Native Gardening

By Diane Stevenson, 3/16/2018

Only a few years after earning my Associates
Degree in horticulture, I realized I was an ecologist
and native plant grower. I first had to experience
the pesticide applications, perennially new plant
varieties (pun intended,) and the accompanying
reduction in insect life in the garden first. I have
read *Horticulture Magazine* on and off for three
decades; dropping my subscription when all they
discussed were yearly introductions of "new" plant
species worthless to insects, English gardens, and
how easy it was to replace a lawn by putting
cardboard down to kill the grass – something the
invasive exotic Bermuda grass prevalent in the
southern United States just laughs at. And keeps
growing.

Don't get me wrong. I think English gardens are pretty, but at no time in my life will I ever have a staff to maintain a garden other than the four of us:

me, my husband, myself, and I. English gardens belong in England, like Bermuda grass belongs on southern football fields and landfill covers where its aggressive growth and toughness are an asset. Not in my garden.

I have been pleased to read more and more recent articles in *Horticulture Magazine* focused on native plants and ecological science. The January/February 2018 issue has articles on native plants in public gardens, climate change, and the importance of nature in our lives for our well being (psychology is science that doesn't always involve robots.)

The current issue, March/April 2018, has an article on how you can be a Citizen Scientist (that's me!) and participate on the Great Sunflower Project; developed to establish a pollinator population

baseline in North America. It's the science – an opportunity to participate in a science project as a Citizen Scientist, albeit growing 'Lemon Queen' sunflower cultivars and not our local native species like the perennial Maximillion Sunflower, *Helianthus maximiliani*, and other great landscape sunflower-like composite flowers. The full page color photos of male and female long-horned bees covered with pollen are amazing!

So check out recent editions of *Horticulture Magazine* in your local library to save money and resources and do a little Citizen Science for your native plant garden and your community.

http://www.hortmag.com/



Primula rusbyi

Photo © George O. Miller

Etcetera

NMSU Noxious weed list 040109 - pdf address

http://www.nmda.nmsu.edu/wp-content/uploads/2012/01/weed_memo_list.pdf

The Albuquerque Wildlife Federation has volunteer activities too: http://abq.nmwildlife.org/

Xerces article:

What to do While Waiting Out Winter

This article features Olivia Carril's book:

https://xerces.org/2018/03/05/what-to-do-while-waiting-out-winter/

A great article about why not to plant Bradford and other Callery pears:

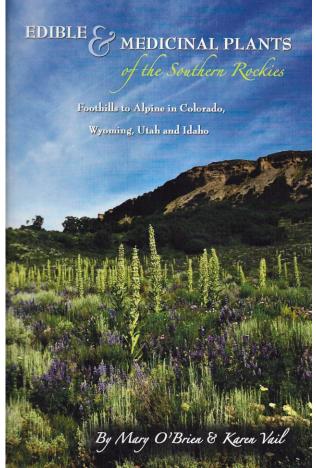
http://www.dasnr.okstate.edu/news/premier-news/pretty-problems-from-bradford-pear-trees

Edible & Medicinal Plants of the Southern Rockies: Foothills to Alpine in Colorado, Wyoming, Utah and Idaho

By Mary O'Brien & Karen Vail Leaning Tree Tales, 2015 \$28.95 at www.steamboatbooks.com/book/9781937862930

Book Review by George Miller

Every peaceful-looking meadow harbors its secrets, some sweet, some deadly. Innocent looking plants have pretty faces but turn fatal if consumed. Others advertise with seductive colors and aromas to entice visitors to drop in. But they all have hidden agendas perfected over the millennia. Humans once knew them all and depended on them for food, medicine, and everyday useful objects. Now we need a book to identify them, and then sometimes it's guesswork.



This full-fledged field guide describes 130 edible, poisonous, and useful plants of the southern Rockies with intriguing detail. It combines close-up photos of the flower, fruit, leaves, and whole plant with taxonomic descriptions to make identification more reliable. But the descriptions go way beyond leaf and flower shapes.

Each flower is placed in a cultural and environmental context with medicinal uses, gardening applications, and pollinator information. Notes give primers on how to tell a plant's medicinal effects by its taste, historical recipes, plant preparation techniques, how scientific names describe a plant's characteristics, plant adaptations, and co-evolution with insects. If you want to know more about a plant than its arbitrary name, these pages will introduce you to the plant's behavior and personality that make them our most interesting neighbors.

NATIVE PLANT SOCIETY OF NEW MEXICO ALBUQUERQUE CHAPTER 2018 MEETINGS CALENDAR

Scheduled monthly meetings are normally the first Wednesday of every month at 7 pm in the New Mexico Museum of Natural History, 1801 Mountain Road NW, Albuquerque, NM 87104. For more information on programs, contact Jim McGrath at 286-8745 or sedges "at" swcp.com.

April 4, 2018 - Meeting

"Living with Native Plants." Michael Eustacio Chavez, a native New Mexican, whose ancestry dates to 1600, tells about how native plants were used when he was growing up on what is now Sevilleta National Wildlife Refuge. Some plants were medicinal and/or edible while others were used for tool making and many other uses.

May 2, 2018 - Meeting

"Native Plant Islands and Other Plant Propagation Projects by Santa Ana Native Plants (Santa Ana Nursery)." Santa Ana Native Plants manager Mike Halverson discusses mass propagation for reclamation purposes on National Park unit lands. These strategies vary depending upon conditions, but one such situation involves the development of native plant islands, which allow reclamation of ground above a possible archaeological ruin to insure the ruin is not disturbed in any way.

June 6, 2018 - Meeting

"Insects (You Never Heard of) on Native Plants (You Know So Well)." Dr. Carol Sutherland, Extension Entomologist at New Mexico State University and State Entomologist, New Mexico Department of Agriculture, has identified thousands of New Mexico's insects for multitudes of clients all over the state. She takes us on a 'virtual field trip' around our ecologically and botanically diverse state to sample some odd-ball creatures and often unique plant-insect interactions you may encounter. Superficially, some relationships look rather benign while others appear destructive; some are not easily detected. But, in the end, it's all about survival -- and it may not be what it seems. Determining just the names of some insects can open a fascinating look into the interactions insects can have with plants -- more complicated than you might expect.

July 11, 2018 - Meeting

"Can Agriculture and Conservation Co-Exist? What the Term "Organic" Actually Protects." We all hear that we should buy organic food to protect the environment. But as the organic sector grows with larger farms, what is really required to be organic? Organic farmer Monica Pless will discuss what is required of farms to be certified organic, and what that means for native plants, pollinators and soil health. Monica managed farms in New England and Missouri, one known for having the greatest diversity of native pollinators in the state, and used many techniques to reduce runoff, reseed native prairie plants, include perennial buffers, and incorporate livestock and cover cropping into her soil health program. She will discuss what some of the buzzwords mean, what questions to pose to a producer to understand their practices, and will describe some techniques used by farmers and ranchers to grow in concert with the land.

ALBUQUERQUE CHAPTER 2018 MEETINGS CALENDAR, continued

August 1, 2018 - Meeting

"New Mexico Bats and Their Bacteria: Landscape Complexity and Plant Diversity as Drivers." Post-doctoral UNM Biologist Ara Winter tells us about how changes in the bacteria populations on bats are driven by the bats' local habitat. The bacteria populations in bats are dependent on the degree of landscape and plant diversity complexity. The need to protect local and regional native habitats is highlighted.

September 2018 - No monthly meeting.

September 6-9, 2018 - Annual Meeting of the Native Plant Society of New Mexico in Silver City, New Mexico.

October 3, 2018 - Meeting

"Hummingbirds: Past, Present and Future." Dr. Christopher Witt, UNM Associate Professor of Biology and Director and Curator of Birds at the Museum of Southwestern Biology at UNM, will discuss the evolutionary history of hummingbirds and the present-day ecology of hummingbirds, including those species that occur in New Mexico. He will also discuss the effects of climate warming on hummingbirds in the future.

November 7, 2018 - Meeting

"Frere Arsene Brouard - New Mexico's Forgotten Botanist." College of Santa Fe Professor Emeritus David Johnson will discuss the botanical life of Brother Gerfroy Arsène Brouard. Brother Arsène belonged to a Catholic teaching order and was an internationally known botanical



collector 100 years ago but now is little-known outside circles of academic botany. He arrived in New Mexico in 1926 with 30 years of botanical experience in France, Mexico, Cuba, and several areas of the United States with his botanical reputation well established. In short, he contributed more than 40,000 plant specimens to herbaria around the world, including 10,000 from northern New Mexico. Hundreds of his specimens were new to science and 24 new species were named for him.

December 1 or 8, 2018 - Annual holiday potluck and officers election. Saturday, 11am-2 pm. Pam McBride's House, 5409 9th St. NW. Pam will provide some vegetarian posole. Everyone bring a dish to share. From I-25 going north, take the Comanche/Griegos exit. Go west to 4th street, turn right, go to the next traffic light at Douglas MacArthur and turn left. Go to 9th street and turn north. Our driveway is just past a small dirt road, Juanita Lane, on the left. The house is straight back. Park on 9th street and walk in.

NATIVE PLANT SOCIETY OF NEW MEXICO – ALBUQUERQUE CHAPTER 2018 FIELD TRIP CALENDAR

Meeting places for field trips (**codes A through H**) are described in detail at the end of the schedule. Field trip participants should bring water, hat, sunscreen, snacks or lunch, rain gear and appropriate clothing to deal with poor weather conditions.

Some <u>field trips</u> may be announced with only 1 week to a month notice. Spring field trips depend upon good winter and spring precipitation; therefore, such field trips may be scheduled when we know wildflowers will be present.

Please be aware that all field trip participants must sign the NPSNM liability release form before departure. Leaders should have forms available on site for those who have not signed one previously this year.

For more field trip information, contact Carol Conoboy at: <u>Carolconoboy "at" gmail.com</u> or 505-897-3530.

- April 7. Saturday Field Trip. "A Walking Tour with Michael Eustacio Chavez at Sevilleta National Wildlife Refyge (NWR)" 10:00 a.m. to 12:00 Noon. Michael points out plants and their uses. Meet at "G" at 8:45 arrive at Sevilleta NWR parking lot at 10:00 am.
- **April 14. Saturday Field Trip. Bosque del Apache National Wildlife Refuge**. Leader: Tom Stewart. Tour the Desert Arboretum to see its impressive plantings of numerous cacti, succulent, and other Chihuahuan Desert plant species. Afterwards, continue with an optional hike on the canyon trail south of the visitors' center. Meet at "G" at 8:00 am in Albuquerque, or at about 9:30 am at the Desert Arboretum.
- April 15. Sunday Field Trip: "Grama Grass Cactus and Native Plant Potpourri." Leader Jim McGrath. We will try to find this exceedingly difficult cactus in the hills west of San Ysidro. We will also see what else is blooming. Bring lunch. Meet at "G" at 8:00 am. Depart at 2:00 pm or so to return to ABQ about 3:00.
- **April 21. Saturday Field Trip. "Quebradas Scenic Byway."** Leaders Lenore Goodell and Doris Eng. This is an all day field trip that will involve much driving on the Quebradas scenic byway with several short stops to explore different habitats: dunes, rock outcrops, and arroyos. Meet at "G" at 8:00 am. Return to Albuquerque late (6:00 or 7:00 pm).
- **April 29. Sunday Field Trip. "U-Mound at Copper/Tramway."**Leader: Tom Stewart. Meet at 9:00 am at the eastern end of Copper NE in Albuquerque. We will circle and walk part way up a miniature mountain in the Sandia Foothills.
- **May 4. Friday Workshop. "Native Plant Island Workshop."** 10:00 am Noon. Santa Ana Native Plants manager Mike Halverson demonstrates the art of land reclamation through the development of native plant islands. Santa Ana Native Plants (Santa Ana Nursery), 140 Ranchitos Road, Bernalillo, NM 87004. Car poolers meet at "**G**" at 9:20 am.

ALBUQUERQUE CHAPTER 2018 FIELD TRIP CALENDAR, continued

May 12. Saturday Field Trip. "Rio Grande Nature Center Stroll." Enjoy the festivities and speakers at the annual Nature Center Herbfest. Meet at 9:00 am in the parking lot for a tour of the native plant demonstration garden, and continue down the bosque trail to enjoy local trees and shrubs. Our chapter will have a table, so stop by and stay a while to chat with the visitors.

May 19. Field Trip. "Cerrillos Hills State Park". Leader Kerry Calhoun. The park features 1,100 years of mining history as well as beautiful views of the Sandia, Ortiz, and Sangre de Cristo mountain ranges. Our focus will be on the native flora of the region with a plant list with photos provided by Amigos de Cerrillos Hills State Park. (http://www.cerrilloshills.org/). The hike is approximately 3 miles long and the total elevation gain is 748 feet. Meet at "A" at 8:00 am.

June 9 Field Trip. "Ojito Wilderness Hoodoo Trail." Leader Lenore Goodell. 8 am-4 pm. Hike is about 1 mile round trip. Bring day pack, water, hat, sunglasses, sunscreen, snacks, and lunch. Meet at US 550 and Sprint Blvd. at Home Depot west of Bernalillo (NW corner of parking lot) at 8:00 am.

June 23. "Whitfield Wildlife Conservation Area." Ted Hodaba and Don Heinze, leaders. ABQ Meeting place "G" at 8:00 am. Car pool to "H" at 8:30 am in Los Lunas. Proceed to Whitfield about 15 miles away. It will be an easy 1.5 mile hike on level ground. The preserve has restored farmland into ponds, wetlands, fields, and native plant gardens. We will focus on native plants in the area. Bring water, lunch, broad brim hats, and sunscreen. Bathrooms available at the visitor center.

FIELD TRIP MEETING PLACES

- **A.** SW corner of Smith's parking lot at Tramway and Central.
- **B.** NE corner of Wal-Mart parking lot on the east side of Coors about 0.25 miles north of I-40.
- **C.** Albertson's parking lot at Tramway and Academy. Park along east wall.
- D. Far North Shopping Center at San Mateo and Academy. Park near Wienerschnitzel.
- **E. Placitas**. Parking lot of grocery store in Homesteads Village Shopping Center. Directions: I-25 north from ABQ to exit 242 (second exit at Bernalillo). Turn right and go east on Hwy 165 for approx. 5 miles to shopping center in Placitas on left. To car pool to Placitas, meet at "**D**" (Far North Shopping Center site).
- **F.** Michael Emery Trailhead Parking Lot. Go east to the end of Spain Road (east of Tramway). At "T" intersection turn right and go 0.1 mile and turn left into parking lot.
- **G.** Saver's parking lot on Carlisle on NE side of Carlisle/Menaul intersection. Park behind Mattress Firm in SW corner of lot.
- **H. Los Lunas**. SW corner of Home Depot parking lot by the tool sheds. <u>Directions</u>: From ABQ drive south on I-25 to Exit 203. Head east through 2 traffic lights. Home Depot is on left.

Trees, Storms, Etcetera

Trees & Stormwater

http://treesandstormwater.org/

"The natural solution is the best solution: Trees intercept rainfall and help increase infiltration and the ability of soil to store water. By retaining water in their canopy – even for a short time – trees can disperse precipitation over a longer time period and reduce velocity of the water when it does fall."

New Tool Helps Cities Use Trees for Stormwater Management OKI, US Forest Service and Partners Launch Site to Help Decision Makers

http://www.sustainablecitynetwork.com/topic channels/public works/article 0b678b32-11c5-11e8-ae35-af57266e8238.html#.WoWfb2YGL5o.twitter

Articles, photos, and news submissions for the Albuquerque chapter NPSNM Spring Newsletter should be submitted via e-mail to Diane Stevenson by Monday, June 18th, 2018 (distevenson331 "at" hotmail.com). Any mistakes you see in this newsletter are mine. *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
- Receive a 10% discount at Santa Ana Garden Center

NPSNM Albuquerque Chapter Current Board of Directors – 2017

President: George Miller
Vice President: Tom Stewart
Program: Jim McGrath
Secretary: Dara Saville
Outgoing Treasurer: Gary Runyan
Incoming Treasurer: Debbie Conger
Field Trip Coordinator: Carol Conoboy
State Board Rep.: Bettie Hines
Membership: Ann-Marie Yaroslaski
Newsletter Editor: Diane Stevenson
Community Outreach: Pam McBride
Conservation: Sue Small
Educational Outreach: Pam McBride

Core Group (essential volunteers)

Books: Carolyn Dodson, retiring
New Books: Vacant
Garden Center Chair: Irene Scotillo
Communications: Gary Hoe
Hospitality: Doris Eng
Invasive Weeds Rep.: Don Heinze
Publicity: Charlie Jackson
Habitat Gardening: Virginia Burris
Refreshments: Penny Hoe