Picture yourself crossing the desert of Tatooine. Temps of 100°F+ cause sweat to sting your eyes. You fantasize about throwing open the door of Mos Eisley Cantina…. The Cantina is filled with evil-, strange-, and odd-looking denizens quaffing sweet milkweed nectar, keenly aware of their “drinking buddies” who have long names with ominous adjectives – robber, thieves, hawk, hunter, assassin, killer, blood, spider, dragon, lion, fire, etc. The thirst and gluttony provide thinly veiled cover as willing trysts and unabashed lust abound side-by-side with unspeakable acts of carnage in this open-air cantina along the Rio Grande.” Las Cruces member Jim Von Loh regales us with science, fiction, botany, and amazing images. Article begins on page 9.
The Newsletter of the Native Plant Society of New Mexico
October-December 2020, Vol. 45 No. 4. 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 November 25, 2020. Articles and high-resolution artwork supporting NPSNM’s mission are welcomed and can be sent to the editor, Margaret Ménache, npsnmnewsletter [at] gmail.com.

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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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From the President

_by Tom Stewart_

As I write this in August, the Native Plant Society of New Mexico has just turned 44 years old! Can you believe it? We were joined in 1976 by Colorado and Arizona forming their own Societies, Texas in 1985, and the movement has continued to this day with the majority of states and many countries following suit. Though early, we were not the first: the California Native Plant Society began in 1965. Earlier yet was the UK’s Wild Flower Society, which was founded in about 1886.

The venerable New England Wild Flower Society recently changed its name, stating that “in 2019 we are ready for a name that is better aligned with our mission.” Now it is the Native Plant Trust, recognizing that the issues go far beyond love for wildflowers. Most of our groups are involved with, or at least advocate for, conservation, botanical and ecological research, and education. We recognize the essential connection of native plants with insects, wildlife, fungi, geology, invasive species, climate, and agriculture.

It is amazing what can be done by a volunteer, non-profit organization. Our members working at the chapter and state levels are priceless, but we can’t always cover all the bases as well as we would like. You may ask why isn’t the Native Plant Society doing this or that. Well then, realize that you have the power to do something about this or that. Add your abilities to our Society’s efforts by volunteering locally or with the state organization.

The biennial NPSNM elections are upon us. Most members see this as a formality that comes and goes. But if you think our organization can or should be more than it is, gain new energy and flavor, serve the environment and the public better, consider taking a leap: Run for office! I am honored to be the 18th president of this great organization, following in the footsteps of eight other men and nine women. But I am the first to be facing a third two-year term. Without a candidate for vice president I was wondering about our future when the honorable Vic Crane, treasurer of the Las Cruces chapter, took up the VP challenge. Please join us in ensuring a great future for NPSNM with your votes, ideas and other contributions.

Another important subject: Several members forego paper copies of the newsletter and rely on the electronic version we post to the website. That is just one reason we send out notifications about each issue becoming available, and we provide other important news in occasional mass emailings to members. Unfortunately, these are being blocked, filtered, or screened out by many people’s email services or computers as “spam.” To avoid being left out, especially if you don’t remember receiving any email from us yet this year, please establish the following email address as a known contact or friend on your computer, email server, or both: ask.npsnm@gmail.com@vrmailer3.com. Thank you!

❖

by Tom Stewart

Join me in congratulating the winner of our quilt, Yolanda Rubio May! In the image to the left, Yolanda is pictured with her husband Jeff holding the beautiful quilt made by our very own member, Jane Huisingh.

Thank you to all who bought tickets and supported the Otero chapter in this way. We missed having the annual conference but we are so looking forward to seeing everyone next year...AND Jane has already offered to make another quilt for that conference!

❖

by Jen Gruger, Otero Chapter

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Conservation Corner

by Rachel Jankowitz, NPSNM Conservation Committee Chair

Great American Outdoors Act
In a big win for public lands, bipartisan majorities in both houses of Congress have passed the GAOA, and President Trump signed it into law on August 4, 2020. The Act has two main provisions: it establishes a fund to support deferred maintenance projects on federal lands, and it provides permanent funding for the Land and Water Conservation Fund. The GAOA was co-sponsored by all five New Mexico representatives in Washington.

For Fiscal Years 2021-2025, 50% of all federal revenues from the development of oil, gas, coal, or alternative or renewable energy on federal lands and waters shall be deposited into the new fund, up to a cap of $1.9 billion for any fiscal year. The fund must be used for priority deferred-maintenance projects by the National Park Service, the Forest Service, the U.S. Fish and Wildlife Service, the Bureau of Land Management, and the Bureau of Indian Education. The Government Accountability Office must report on the effect of the fund in reducing the backlog of projects for each of the specified agencies.

The $6.5 billion earmarked specifically to the 419 national park units promises to make a significant dent in the $12 billion maintenance backlog identified by the NPS. The GAOA is expected to create more than 108,000 new jobs to repair park infrastructure, including access roads and bridges in adjacent communities.

GAOA also guarantees $900 million per year in perpetuity for the Land and Water Conservation Fund. The LWCF was established in 1965 with an authorization level of that amount, but in most years Congress has appropriated less than half of the full authorization.

The LWCF has been used for three general purposes. First, it has been the principal source of monies for land acquisition for outdoor recreation by federal agencies. Second, the LWCF authorizes a matching grant program to assist states in recreational planning, acquiring recreational lands and waters, and developing outdoor recreational facilities such as state parks and local sports fields. Third, LWCF has been used to fund other federal programs with natural resource-related purposes, such as the Forest Legacy program of the Forest Service and grants under the Cooperative Endangered Species Conservation Fund of the Fish and Wildlife Service.

State List Amended
A newly approved rule change will better protect an additional ten plant species in danger of extinction in New Mexico. On July 9, Energy, Minerals and Natural Resources Department Cabinet Secretary Sarah Cottrell Propst approved an amendment to the New Mexico Endangered Plant Species List and Collection Permits rule (19.21.2 NMAC), which adds ten plant species to the state endangered plant list. The rule prohibits protected endangered plant species from being collected, removed, transported, exported, processed for sale, or offered for sale unless a valid permit for specific scientific purposes is issued by the state forester.

This effort follows years of research by the Forestry Division’s Endangered Plant Program and other rare plant scientists across the state. The additions took nearly two years to complete and involved public comment and input from numerous stakeholders, including NPSNM.

“While climate change is the primary threat to extinction of our endangered plants, this law provides an additional level of protection by prohibiting collection of some of our rarest plants,” said Daniela Roth, Forestry Division Endangered Plant Program Manager. “Adding new plants to the state list should encourage land managers to provide better protection.”
The ten species added to the state list of endangered plants due to their rarity and documented threats are *Townsendia gypsumophila* (Gypsum Townsend's aster); *Sclerocactus cloverae* (Clover's cactus); *Scrophularia macrantha* (Mimbres figwort); *Castilleja tomentosa* (tomentose paintbrush); *Penstemon metcalfei* (Metcalfe's beardtongue); *Cymopterus spellenbergii* (Spellenberg's springparsley); *Linum allredii* (Allred's flax); *Agalinis calycina* (Leoncita false-foxglove); *Hexalectris colemanii* (Coleman's coralroot); and *Castilleja ornata* (Swale paintbrush).

The amendment also delists *Mammilaria wrightii var. wilcoxii* cactus, which turns out to be more common and widespread than previously thought. These changes have resulted in a total of 45 species listed as endangered in the state. The names of three other species already on the New Mexico State Endangered Plant List are changed to reflect current classifications, and the overall text of the rule is clarified to better reflect the law’s intent.

The complete rule amendments and Statement of Reasons can be found on the EMNRD Forestry Division website at [http://www.emnrd.state.nm.us/SFD/](http://www.emnrd.state.nm.us/SFD/). The rule amendments went into effect upon publication in the New Mexico Register on July 28.

**Gila River Diversion Update**

As reported in the NM Political Report:

After 25 years, $16 million dollars, and missing a key deadline, the Gila River Diversion proposal is now effectively dead. The Interstate Stream Commission voted 7-2 [in June 2020](https://www.demingheadlight.com/story/news/local/2019/07/18/new-mexico-gila-river-diversion-plan-dam-crop-farming/1735165001/) against supplying funding needed to complete an environmental impact statement required for the project.

It is possible that the project could be revived in the future. But now, this threat to NM’s last free-flowing river, and the ecosystem it supports, has been defeated. For more information about potential negative consequences to native plants if the Gila were diverted, see the NPSNM and Gila chapter comments submitted to the Bureau of Reclamation in July 2018 at [https://www.npsnm.org/conservation/npsnm-actions/](https://www.npsnm.org/conservation/npsnm-actions/).

At the Asombro Institute for Science Education, we’ve asked thousands of students of all ages to look closely, touch, and smell creosote bush (*Larrea tridentata*), the most common native shrub at our Chihuahuan Desert Nature Park and all around Las Cruces. Many students tell us, “This smells like rain!” but fewer than 10% are able to tell us the name of the plant. Once we teach them the name (and that actually, rain smells like creosote bush, not the other way around!), many students are delighted to report back that they now see and recognize creosote bush near their homes and schools.

We are always looking for fun, effective ways to teach students of all ages about the desert. We host full-day field trips to our Chihuahuan Desert Nature Park for about 1,500 students each year. With the support of the NPSNM, we’ve also developed hands-on lessons about plants to bring to classrooms and schoolyards, bypassing some of the logistical and cost barriers to bringing students out to the desert.

In 2019, we wanted to develop another tool to help people learn about native plants, this time focused on the many children who visit the Chihuahuan Desert Nature Park with their families. Our goal was to create a Native Plant Scavenger Hunt with plant identification signs and an accompanying booklet. Thanks to a grant from the NPSNM, we moved this project from dream to reality in 2019!

We chose the ten most common and recognizable plants along the ADA-accessible Desert Experience Mini-Trail at the Chihuahuan Desert Nature Park: black-spined prickly pear cactus, claret cup hedgehog cactus, creosote bush, desert zinnia, fishhook barrel cactus, honey mesquite, mariola, ocotillo, tarbush, and tree cholla.

Asombro staff designed plant identification signs for each plant with the scientific name, English common name, Spanish common name, and one adaptation for surviving in the desert. As I’m sure many of you recognize, settling on one common name was sometimes difficult! Asombro’s Board member and Jornada Experimental Range scientist Justin Van Zee played...
Chapter Activities & Events

For further information on upcoming events, notify the contact person listed, or visit the chapter’s web page: First 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. As we go to press, Covid-19 restrictions remain in place and many in-person events have migrated online. Remember if you do meet with your fellow society members that you should wear a mask and observe social distancing. On the positive side, many chapters are now using online meeting platforms and recording sessions, which they are making accessible to the general public. The home page of the NPSNM website has a number of interesting talks you can “attend.”

Albuquerque

Monthly meetings are normally the first Wednesday of the month at 7:00 pm, currently online via Zoom. Meeting links are distributed to chapter members via e-mail prior to the meeting. For more information on programs and/or registration for an upcoming Zoom meeting, contact Jim McGrath at sedges [at] swcp.com or 505-697-1287 or Diane Stevenson at distevenson331 [at] hotmail.com.

No 2020 field trips are scheduled due to the pandemic. Plant lists are available for hikes on your own on the Albuquerque Chapter page of NPSNM.org.

Oct 7 Meeting. “Ancient and Traditional Lifeways.” Archaeologist and Cultural Specialist Mary Weahkee demonstrates how Native Americans of past centuries created clothing with plant fibers from plants like yucca.

Nov 4 Meeting. “The New Mexico Rare Plant Conservation Strategy.” State botanist Daniela Roth presents an overview of the strategy which is focused on 235 rare and endangered plant species in NM. The goal is to protect and conserve these species and their habitats through collaborative partnerships between stakeholders and interested parties. The strategy includes the designation of 133 Important Plant Areas in New Mexico.

Dec Meeting. Date, time, venue and/or virtual conditions TBD.

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)

Meetings are currently being held online with Zoom on third Fridays at 7:00 pm. We will send an invitation and link to Gila Chapter members. Anyone else who is interested may email us at gilanative [at] gmail.com and request an invitation. In lieu of hikes and field trips, we are posting notices of where interesting plants may be found on our website (www.gilanps.org/events/field-trips/) and Facebook page (Gila Native Plant Society).

Oct 16 Meeting. “Reflections on a Plant Inventory of Gila Cliff Dwellings National Monument (2013-2020),” presenters William (Bill) Norris, Kelly Kindscher, Russ Kleinman, Richard Felger and Patrice Mutchnick. They will report findings from their study of the flora of the Gila Cliff Dwellings National Monument, including the discovery of 500 vascular plant and 100+ moss and liverwort species. They will also discuss a mystery: 90 vascular plant species documented previously at the Gila Cliff Dwellings have eluded the presenters to date despite eight years of intense field work. Finally, the presenters will describe their plans to complete this floristic inventory in 2021 and how the results of this study have been, and will be, used by educators, conservationists and biologists.

Nov 20 Meeting. “Ferns of the Gila,” presenter Russ Kleinman. Russ will discuss unique characteristics of ferns and what it takes to survive as a fern in the Gila. We’ll then take a look at many of the 37 species of ferns known from the Gila and learn how to tell them apart. See you there!

Las Cruces

Meetings are usually the second or third Wednesdays (unless otherwise noted) at 7:00 pm in the NMSU Herbarium, Biology Annex on NMSU campus. Field Trips are usually on the Sunday following the Wednesday meeting; most last into the afternoon. None are scheduled for the next three months at this time. Contact: Carolyn Gressitt, 575/523-8413. Leave a message so we can get back to you.

Oct 14 Meeting. “New Guinea: The island with the richest flora in the world” Zoom talk by Zachary Rogers, curator of the NMSU Herbarium and author. Sign-in details will be announced a few days prior to the meeting or contact Carolyn Gressitt. Check the NPSNM website for updates.
Otero (Alamogordo)
For workshop and field trip details, contact Elva Osterreich, echoofthedesert [at] gmail.com, 575/443-4408, or Jennifer Gru-ger, npsnmotero [at] gmail.com, 505/710-2924. 
Oct 10  Hike. We follow social distancing guidelines. Please bring a mask and distance yourself from folks who do not live in the same household as you! Three Rivers Petroglyph Site plant identification with Joan Price. The petroglyphs at Three Rivers, dating back to about 900–1400 AD, were created by Jor-nada Mogollon people who used stone tools to remove the dark patina on the exterior of the rock. More than 21,000 glyphs of birds, humans, animals, fish, insects and plants, as well as nu-merous geometric and abstract designs, are scattered over 50 acres of New Mexico's northern Chihuahuan Desert. Meet at the intersection of highways 54 & 70 in Tularosa in the parking area on the north side of the Y at 7:30 am to carpool. Entrance to the site is $5/car. It takes about half an hour to get there.
Nov 7  Meeting. Follow-up presentation on the Three Rivers Petroglyph Site and the plants, people and environment with Joan Price. Meet at the Universalist Universal Fellowship in Al-amogordo at 10:30 am, 1010 16th St.
Dec  No events scheduled.

Santa Fe
Meetings are third Wednesdays at 6:30 pm at Christ Lutheran Church, 1701 Arroyo Chamiso (in the triangle of Old Pecos Trail, St Michael’s Dr., and Arroyo Chamiso). For more information, check the NPSNM website. Meetings and talks are free and open to all.

Taos
Meetings are usually third Wednesdays at 6:00 pm in Kit Carson Electric Cooperative boardroom, 118 Cruz Alta Rd. How-ever, those meetings remain suspended. We will be scheduling webinars (which will be recorded and posted on our YouTube channel) and hope to host small group outdoor events which we will announce by email to members and post on social me-dia. Check the NPSNM website or our Facebook page (search for “Native Plant Society New Mexico Taos Chapter”) for up-dates. Contact: TaosNPS (at) gmail.com, or phone Jan Marten-son at 575-751-0511. Videos of past meetings can be found at https://tinyurl.com/TaosNPSvideos

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SNaPP Native Plant Demonstration Garden: A Low Water, Low Maintenance Landscape for the Future

by Pam Wolfe

The Santa Fe Native Plant Project (SNaPP) is a certification and public education program of the Santa Fe Extension Master Gardeners. Its mission is to promote the use of native plants in the local landscape. Its goal is to create gardens that use native and xeric plants to attract and provide food and shelter for wildlife, including birds, butterflies, bees, and insects. A recent renovation at the County Extension Office provided an opportunity to do just that in juxtaposition with several other Master Gardener demonstration gardens at the County Fairgrounds.

The SNaPP team designed a landscape plan for an area (11’ x 45’) south of the County Extension Office. The trees, shrubs, grasses, and forbs will be native to New Mexico and the Southwest. Candidate plants are rated as having “low” or “very low” water requirements. Final selections will be based on low maintenance requirements, and of course, availability. A final plan and plant list are available on our webpage (https://www.sfemg.org/snapp-native-plant-demonstration-garden).

Our objectives are to reinforce information presented in the SNaPP curriculum with practical examples, to allow hands-on experience for Master Gardeners and interns, and to offer a vibrant setting for educating the public. The plot was planted in a cover crop of hairy vetch and winter rye for the past two winters. We planned to begin planting in April 2020, but due to restrictions on group activities we have postponed initial planting and added annual buckwheat as a summer cover crop to support pollinators. Several volunteers contributed to data collection of visits by beneficial insects.

Christina Selby on Wildflowers

by Kathleen Hall, Albuquerque Chapter

Christina Selby wants people to slow down and notice the wildflowers of New Mexico. The NPS Santa Fe Chapter member and naturalist has written a wildflower hikes trail guide to encourage hikers to appreciate their beauty, and also to take notice of what they have to say about their habitats. “Landscapes are changing. Wildflowers tell a really great story about climate change.”

She’s been a speaker at NPS chapter meetings in Santa Fe and Taos. She was scheduled to speak at the 2020 NPS conference and will hopefully be on the program for 2021. She welcomes invitations from other chapters. If you can’t see her somewhere, then you can certainly read her her articles and books. Most recently she has had articles in the May and July 2020 issues of New Mexico Magazine.

Selby’s background in ecology and environmental education led her to New Mexico almost 20 years ago, where she settled with her family and founded Earth Care, a Santa Fe organization that engages youth to take a leadership role in addressing issues of community and environmental sustainability. Six years ago, ready for a change that would give her
Milkweed Cantina del Rio: Will Trade Nectar for Long, Strong, Hairy Legs

by Jim Von Loh, Las Cruces Chapter

Picture yourself crossing the desert of Tatooine. Temps of 100°F+ cause sweat to sting your eyes and you struggle to focus your mirrorless camera lens as sweat drips onto the view screen. Your “targets” sway to-and-fro in the hot wind, quickly hide under leaves, drop into the grass, are forced away by aerial assault of competitors, and/or disappear in flight. You fantasize about throwing open the door of Mos Eisley Cantina (“Wretched Hive of Scum and Villainy,” O-W Kenobi 1977), to become immersed by a tune bouncing through your brain cells: https://www.youtube.com/watch?v=JaPf-MRKITg. The Cantina is filled with evil-, strange-, and odd-looking denizens quaffing sweet milkweed nectar, keenly aware of their “drinking buddies” who have long names with ominous adjectives – robber, thieves, hawk, hunter, assassin, killer, blood, spider, dragon, lion, fire, etc. The thirst and gluttony provide thinly veiled cover, as willing trysts and unabashed lust abound side-by-side with unspeakable acts of carnage in this open-air cantina along the Rio Grande.

Now, picture yourself biking along the Rio Grande Trail west of Mesilla and Las Cruces and stopping to photograph insects attracted to milkweed patches and stands. It’s still hot and windy, you’re sweating with eyes burning, and it’s impossible to see the sweat-encrusted view screen.

Two milkweed species have simple and effective strategies for attracting many insect species and individuals (including a subset of pollinators), which are: 1) grow in dense herbaceous stands (western whorled milkweed) or in mats of vines over tall willow shrubs (climbing milkweed); 2) produce showy, white-to-purplish flowers; and 3) supply copious, sweet nectar.

Location of milkweed pollinia, translators, and corpusculum relative to the stigmatic slit and easily observed stigmatic disc. Source: E.M. Armstrong 2002.

Milkweed pollination is complicated: 1) pollen is stored in pollinium (flattened, elongated sacs within the anther) containing up to 200 pollen grains; 2) two pollinia, each connected...
Recognizing Members

The NPSNM would like to thank all members who have made monetary contributions above their regular dues. This list, which covers December 1, 2019 through August 15, 2020, includes those who sent in extra contributions with their memberships. It doesn’t recognize the other financial contributions people make throughout the year or the contributions of cooperation and energy from the wonderful members of this volunteer organization. The NPSNM thanks all of you for your support, whatever form it takes.

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Tom Stewart

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The NPSNM would like to thank all who have contributed to the Jack & Martha Carter Conservation Fund from December 1, 2019 through August 15, 2020. This fund was created to assist the NPSNM in maintaining a balanced budget while continuing to increase the funds available for conservation research and educational grants to individuals and organizations. It is a long-term endowment fund and your contributions enable the NPSNM to expand its support of programs, research, and education for those involved in the study of native plants. Every dollar we receive is important and we deeply appreciate your support.

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Interested in Applying for a Grant?

Applicants may send in their proposals any time of the year until December 31. Guidelines for applying and an application form may be found on the website. It is important for applicants to follow these guidelines so the proposals are consistent for the review process. The proposals are studied by the statewide members of the NPSNM Board and voted on at the winter Board Meeting, usually at the end of January.

The Carter Conservation Fund awards for grants are sent in February, while gifts in support of the regional herbaria are sent later in spring or early summer. The Carter Fund also finances an award to a Conservation Champion, chosen by the chapter hosting the statewide annual conference and presented to the individual at the conference banquet.

The money available for grants each year comes from donations during the previous twelve months and from any earnings on our investments. The Board has typically awarded grants to ten or more projects per year, with grants limited to $1500 each. The Board will increase the potential award to $2000 this coming year. However, they have also decided that if there is a strong proposal with a greater impact for conservation they will consider a larger award but fewer grants for that year.

The NPSNM Policies in Effect document lays down criteria for awarding the grants, management of the fund, and establishes responsibilities for the awardees. The bylaws of the organization and the policies in effect are available for viewing by anyone on our website under Chapters/Statewide Organization.
Learning about Native Plants, Continued from page 5

a big role in checking the accuracy of the signs. Three native
Spanish speakers from northern Mexico, New Mexico, and
Arizona assisted with the Spanish common names.

In addition to the signs, we created a Plant Scavenger Hunt
Journal which is available in the free literature box at the Chi-
huahuan Desert Nature Park. Participants are encouraged to
find each plant and sign along the trail and fill in missing infor-
mation about the plant in their journal (e.g., a missing desert
adaptation). There is also a space
to draw a specified part of the
plant. We’ve found that drawing
helps children make careful ob-
servations and focus on key fea-
tures that will help them identify
the plant in the future.

Once the journal is complete, children send it to the
Asombro Institute for Science Education, and they then receive
a prize package. We also send back the Plant Scavenger Hunt
Journal, so they can use it to identify native plants on future
walks in the desert.

In November 2019, we pilot tested the scavenger hunt with
visitors who came to the Nature Park one Saturday morning.
Although the project was originally intended for children, it
was quickly apparent that it was an effective learning tool for
visitors of all ages. In addition to families working on the Scav-
enger Hunt together, we also saw teenagers and senior citizens
learning about native plants using the new tool.

Our favorite scene was watching two children working on
the Scavenger Hunt with their grandmother. While walking
between signs, the children asked their grandmother to quiz
them on identifying the plants they were passing. When they
came to a creosote bush, they had no trouble recognizing this
widespread, fascinating shrub of the desert!

We are extremely grateful for the grant from the Carter
Conservation Fund of the NPSNM. Together, we are going to
increase native plant knowledge for visitors to the Chihuahuan
Desert Nature Park for many years to come.

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Native Plant Society of New Mexico Election of Officers 2020

The Society elects its officers every two years according to our bylaws. As announced in the July newsletter, nominations were closed on August 31. You may still nominate yourself or other member you choose and solicit additional votes on your own. Use the ballot printed below for mail-in. For email voting, list your chosen candidates, type your full name and chapter (or “unaffiliated”) at the bottom, and send to ask.npsnm@gmail.com. Your vote must be received by November 30, 2020.

Slate of Candidates

President: Tom Stewart, Albuquerque Chapter, incumbent of 4 years
Background in cell and microbiology; worked as environmental scientist at Sandia National Laboratories.

Vice President: Vic Crane, Las Cruces Chapter
Las Cruces NPSNM Treasurer and Chair of the Committee to Maintain and Restore the Native Plant Garden at the Organ Mountain Desert National Monument Visitors Center; former President of Friends of Mesilla Valley Bosque State Park (6 yrs); volunteer with the Friends of Organ Mountain Desert Peaks National Monument.

Membership Secretary/Archivist: Barbara Fix, Santa Fe Chapter, incumbent of 4 years

Recording Secretary: Jane Kruse, Gila Chapter, incumbent of 2 years
Retired clinical pharmacist, mother of three adult children.

Treasurer: Anne Curley, Santa Fe Chapter, incumbent of 2 years
Bookkeeper, horticultural therapist, nonprofit business manager, retired to NM after a lifetime in Chicago. Now a plant geek, composter, and beekeeper; excited and challenged by climate, soil, and plants of NM.

NPSNM 2020 Election Ballot

(make up to two copies for family memberships)

I (sign name) _______________________________ of the ________________ chapter
choose the following members to serve in the designated offices for the next two years. (Write in alternative candidates if desired.)

Current Office: Candidate Write-In Candidate

President: Tom Stewart ( ) _______________________________ ( )
Vice President: Vic Crane ( ) _______________________________ ( )
Membership Sec./Archivist: Barbara Fix ( ) _______________________________ ( )
Recording Secretary: Jane Kruse ( ) _______________________________ ( )
Treasurer: Anne Curley ( ) _______________________________ ( )

Send ballots to NPSNM, PO Box 35388, Albuquerque, NM 87176, or email your votes to ask.npsnm [at] gmail.com.
Milkweed Cantina, continued from page 9

to a corpusculum by thread-like translators comprise a polli-
narium (reminds me of golden-colored saddle bags or the pan-
niers carried by pack mules); and 3) to pollinate another flower, the pollinarian must be physically removed from the anthers by an insect large enough to insert its leg into a stigmatic slit (located between anthers), draw its leg upward to exit the slit, and in the process, snag the translator(s) on leg hairs, bristles, spines, or hooks, thus withdrawing the pollen sacs, 4) for potential transfer to one of two ovaries of another flower (located below the anthers).

The reproductive success of this involved pollination process is milkweed follicles filled with wind-distributed seeds.

Using a mirrorless digital camera, I have documented insects nectaring on milkweed flowers from 2019 to date in 2020. Included were individuals with sufficient size, strength, leg length, and with one-to-many pollinia attached to bristles and hairs. Species documented included: 6 butterflies, 1 moth, 1 beetle, at least 7 bees, and at least 10 wasps (some bees and wasps could not be identified to species).

For reference, the smallest effective body size/leg length to extract the pollinarian is in the range of the honey bee. Available literature describes observations of honey bees trapped in the stigmatic slit by a leg. The bee may die outright, is subject to predation, or may break the leg off to escape (I observed a few that struggled to pull away from the flowers, as well as other, smaller insects).

To achieve pollination, the pollinarian extraction process must be repeated while an insect nectars on a recipient flower, leaving a pollinium in an ovary. Although I cannot prove which species actually transferred pollinium based on simple digital camera techniques, likely milkweed pollinators, of the 25+ probable pollinator species digitally documented, are scoliid (flower) and spider wasps, honey bees, and large bee species. Whoever was responsible, many follicles were produced on both milkweed species during the 2019/2020 growing seasons!
The generous financial support from so many NPSNM members and friends of the flora of New Mexico will make it possible for the Board to approve more funding for workshops throughout the state, additional basic research on a variety of critical plant taxa, continued support for the state's major herbaria, and hopefully for the development and support of more early education programs from K–12 in New Mexico schools.

Use the form provided below, or contribute through PayPal on the website, www.npsnm.org. Every contributed dollar is being used to protect the flora of New Mexico well into the future.

~Jack & Martha Carter

Contributions to the Jack & Martha Carter Conservation Fund

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~Jack & Martha Carter
A fan of all wildflowers, but especially of sunflowers like these she photographed at La Garita, Christina Selby has used her Carter Conservation Fund Grants to further her work on a documentary of the Pecos sunflower. Read about her work on page 8.

Jim Von Loh explains milkweed pollination (Western Whorled Milkweed (Asclepias subverticillata (Gray) Vail) above and Climbing Milkweed (Funastrum cynanchoides (Decne.) Schultr.) left. Read more on page 9.

Stephanie Bestelmeyer reports: "During school closures due to COVID-19, more children than ever visited the Nature Park with their families, learning about native plants with the help of the Plant Scavenger Hunt."

Learn what the Asombro Institute has been doing with their Carter Conservation Fund Grant on page 5!

NPSM website: www.npsnm.org

Milkweed and pollinators.
Images: Jim Von Loh.