



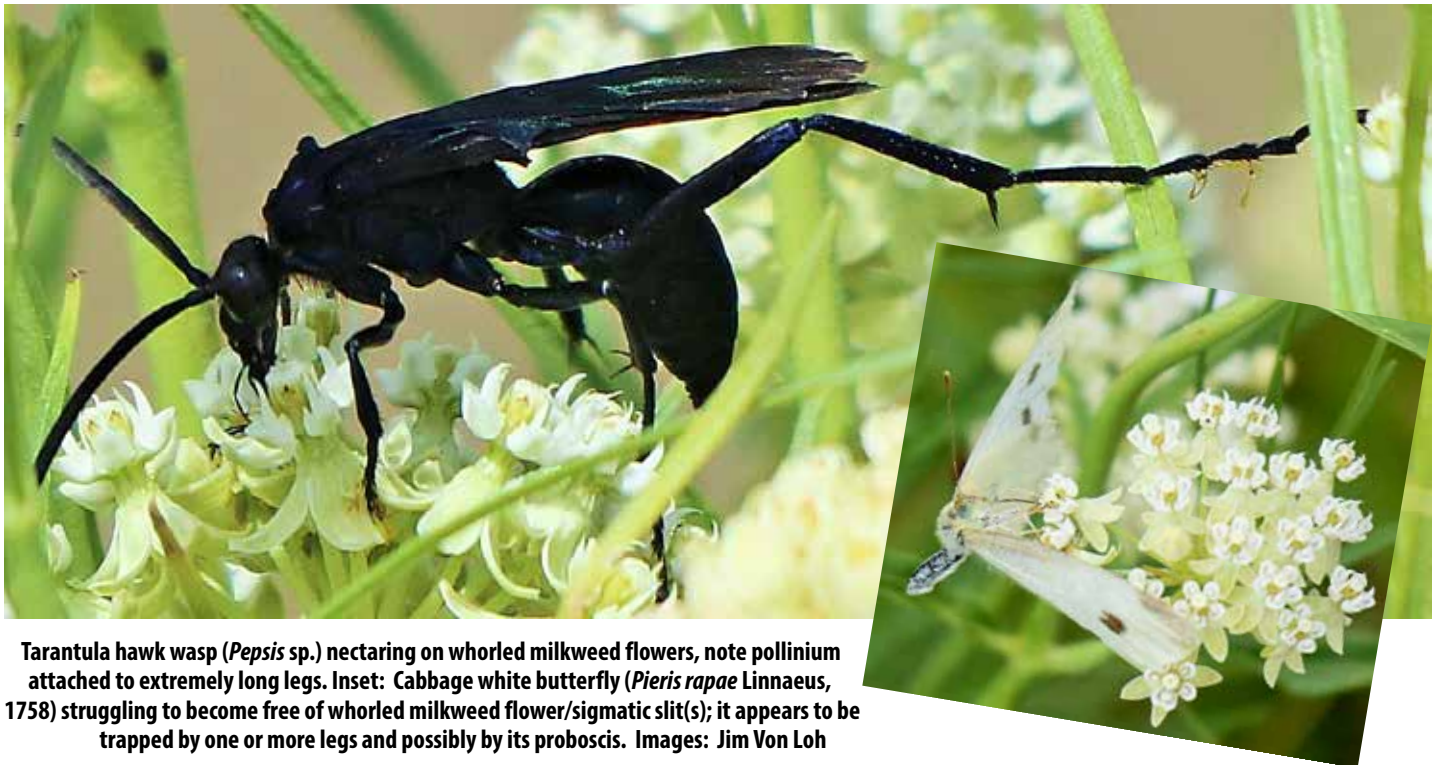
# NEWSLETTER

of the

## NATIVE PLANT SOCIETY OF NEW MEXICO

OCTOBER, NOVEMBER, DECEMBER 2020

VOL. XXXXV NO. 4



Tarantula hawk wasp (*Pepsis* sp.) nectaring on whorled milkweed flowers, note pollinium attached to extremely long legs. Inset: Cabbage white butterfly (*Pieris rapae* Linnaeus, 1758) struggling to become free of whorled milkweed flower/sigmatic slit(s); it appears to be trapped by one or more legs and possibly by its proboscis. Images: Jim Von Loh

“Picture yourself crossing the desert of Tatoonie. Temps of 100F+ cause sweat to sting your eyes .... You fantasize about throwing open the door of Mos Easley 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.

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### 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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**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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You can always find current and past issues of the NPSNM newsletters online: [www.npsnm.org/newsletters/](http://www.npsnm.org/newsletters/)

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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! ❖



## And the Winner Is...

by Jen Gruger, Otero Chapter

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! ❖

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## Conservation Corner

by Rachel Jankowitz, NPSNM Conservation Committee Chair



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### 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."

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The ten species added to the state list of endangered plants due to their rarity and documented threats are *Townsendia gypsophila* (Gypsum Townsend's aster); *Sclerocactus cloverae* (Clover's cactus); *Scrophularia macrantha* (Mimbres figwort); *Castilleja tomentosa* (tomentose paintbrush); *Penstemon metcalfei* (Metcalf'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 *Mammillaria 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/>. The rule amendments went into effect upon publication in the New Mexico Register



View from a flight over the Gila River in Grant County, NM on May 11, 2019. Algernon D'Amassa/Sun-News (<https://www.demingheadlight.com/story/news/local/2019/07/18/new-mexico-gila-river-diversion-plan-dam-crop-farming/1735165001/>)

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] 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 for 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/>. ❖

## Learning About Native Plants at the Chihuahuan Desert Nature Park

by Stephanie Bestelmeyer

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

Continued page 12

## 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](http://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](mailto:sedges[at]swcp.com) or 505-697-1287 or Diane Stevenson at [dirstevenson331 \[at\] hotmail.com](mailto:dirstevenson331[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](mailto: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](mailto: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/](http://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.

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## Otero (Alamogordo)

For workshop and field trip details, contact Elva Osterreich, echoofthedesert [at] gmail.com, 575/443-4408, or Jennifer Gruger, 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 Jornada 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 numerous 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 Alamogordo 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. However, 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 media. Check the NPSNM website or our Facebook page (search for "Native Plant Society New Mexico Taos Chapter") for updates. Contact: TaosNPS (at) gmail.com, or phone Jan Martenson at 575-751-0511. Videos of past meetings can be found at <https://tinyurl.com/TaosNPSvideos> ❖



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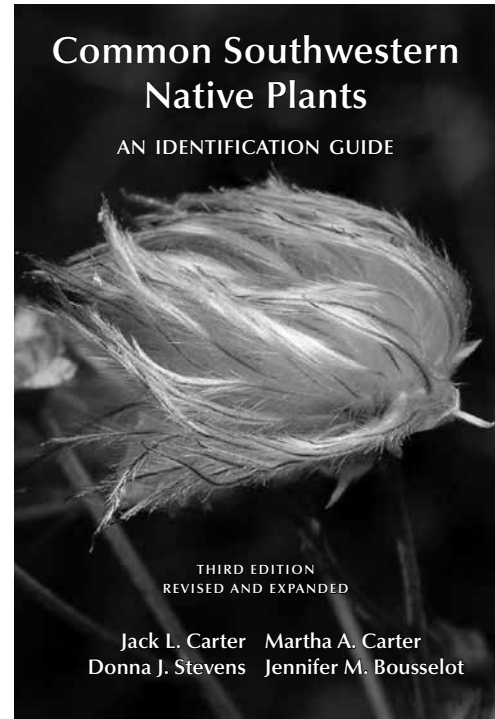
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## SNaPP Native Plant Demonstration Garden: A Low Water, Low Maintenance Landscape for the Future

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.



*Bombus sp.* foraging in hairy vetch. Photo: Pam Wolfe

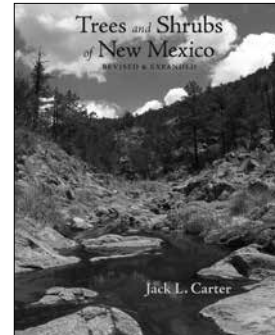
The SNaPP Demonstration Garden will complement the demonstration gardens at the County Extension Office campus. We expect to begin planting the plot in May, 2021. In June, July, and August volunteers will continue to monitor the abundance of beneficial insects following a protocol designed by Dr. Ashley Bennett, former Small Urban Farm IPM Specialist, Department of Extension Plant Sciences, NMSU. ❖

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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.

## 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





Winsor Trail. Photo: Christina Selby

more time with her two young sons, she became a freelance conservation photographer and writer.

That was also when she participated in the Crested Butte Wildflower Festival and noticed a sub-genre of trip guides, the wildflower hike. By 2018 she had a freshly signed contract for the *Best Wildflower Hikes New Mexico*, and a full-on drought that suppressed blooms and delayed her work. Finally, a year of plentiful winter moisture and perfectly-timed spring rains gave her the window she needed to complete a volume of 40-plus hikes with accompanying photos. The guide was published on the first day of spring this year.

Another ongoing project that's close to fruition is *Saving Beauty*, a film documenting work to conserve the Pecos



Photo: Christina Selby

Sunflower (*Helianthus paradoxus*), federally listed as Threatened, in its disappearing wetland habitat in Santa Rosa, NM. Selby thanks the Native Plant Society of NM (Jack & Martha Carter Conservation Fund, Pecos Sunflower Storytelling, Exhibit, and Film Project 2019, 2020) for helping to fund this film, scheduled for release soon. An article by Selby on the Pecos Sunflower project may be read in the August 2020 issue of the *New Mexico Magazine*.

She hopes her wildflower hikes guide will inspire people to join her in observing the climate change story as told by native plants. She is developing a long term project on the impacts of climate change on the Southern Rocky Mountains, and invites interested persons to contact her: Christina [at] christinamselby.com. Her website is filled with examples of her beautiful photographs and details of her many projects. ❖

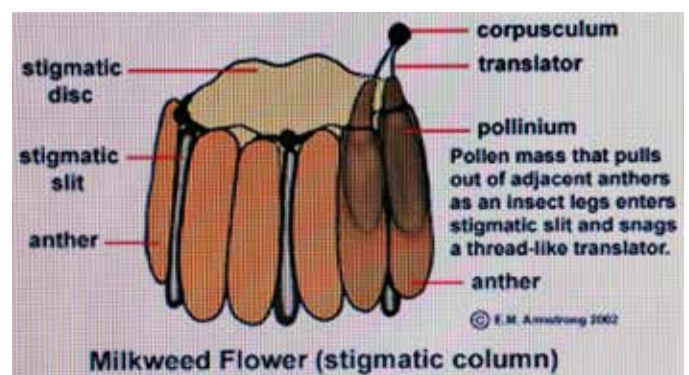
## Milkweed Cantina del Rio: Will Trade Nectar for Long, Strong, Hairy Legs

by Jim Von Loh, Las Cruces Chapter

Picture yourself crossing the desert of Tatoonie. Temps of 100F+ 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

Continued page 14

## 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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Cam Duncan

Harold & Susan Margolis

(Axle Canyon Ecological Preserve)

**When you renew your membership this year, consider renewing at the next level. The IRS is permitting a temporary suspension of limits on charitable contributions made during calendar year 2020. (<https://www.irs.gov/charities-non-profits/charitable-organizations/charitable-contribution-deductions>).**

## Carter Conservation Fund Donors

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.

### Jack & Martha Carter Conservation Fund

Marcia Andre  
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 Janice & John Bever  
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 Taos Chapter NPSNM  
 Keller Suberkropp  
 Susan Williams  
 Eleanor Wootten

### 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 Chihuahuan Desert Nature Park. Participants are encouraged to find each plant and sign along the trail and fill in missing information 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 observations and focus on key features 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 Scavenger 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  
NPSNM President 2014–2016. Landscape manager after retiring from the practice of law (JD, 1971, Stanford Law School).
- 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 pollinarium (reminds me of golden-colored saddle bags or the panniers carried by pack mules); and 3) to pollinate another flower, the pollinarium 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).



**Many pollinium attached by translators to the legs of Mexican scoliid wasp (*Scolia mexicana* Saussure, 1858) while foraging for whorled milkweed nectar. Image: Jim Von Loh**

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



**Climbing Milkweed mature follicle and emerging wind-distributed seeds. Image: Jim Von Loh**

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 pollinarium 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).



**Western honey bee (*Apis mellifera* Linnaeus, 1758) nectaring on whorled milkweed flowers, note pollinium attached to relatively short legs. Image: Jim Von Loh**

To achieve pollination, the pollinia 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!



**Western honey bee (*Apis mellifera* Linnaeus, 1758) nectaring on whorled milkweed flowers, note pollinium attached to relatively short legs. Image: Jim Von Loh**



**Wildflower poster:** 22"×34", \$8 (nonmembers, \$10)  
**Cactus poster:** 18"×24", \$5 (nonmembers, \$8)



**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 and as a water conservation measure. Members benefit from chapter meetings, field trips, publications, plant and seed exchanges, and educational forums. The Society has also produced a New Mexico wildflower poster by artist Niki Threlkeld and a cactus poster designed by Lisa Mandelkern. These can be ordered from our poster chair—check out <http://www.npsnm.org/posters/>

## Contributions to the Jack & Martha Carter Conservation Fund

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](http://www.npsnm.org). Every contributed dollar is being used to protect the flora of New Mexico well into the future.

~Jack & Martha Carter

### NPSNM Membership Application

Name(s) \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_

E-Mail/Fax \_\_\_\_\_

*I (we) wish to affiliate with the checked chapter:  
 (Please check only one)*

- |  |   |
|--|---|
| <input type="checkbox"/> Albuquerque   | <input type="checkbox"/> Otero (Alamogordo) |
| <input type="checkbox"/> El Paso, TX   | <input type="checkbox"/> Santa Fe           |
| <input type="checkbox"/> Gila (Silver City)                                  | <input type="checkbox"/> Taos               |
| <input type="checkbox"/> Las Cruces  | <input type="checkbox"/> No affiliation     |
| <input type="checkbox"/> <i>I am interested in forming a new chapter in:</i> |   |

#### Annual Dues:

- |  |       |
|--|-------|
| <input type="checkbox"/> Individual                          | \$ 30 |
| <input type="checkbox"/> Household                           | 45    |
| <input type="checkbox"/> Friend of the Society               | 60    |
| <input type="checkbox"/> Sponsor                             | 125   |
| <input type="checkbox"/> Patron                              | 250   |
| <input type="checkbox"/> Life Member                         | 1,000 |
| <input type="checkbox"/> Teacher (PK-12)/Youth (thru 26 yrs) | 20    |

**Additional Contribution:** \$ \_\_\_\_\_

**Total:** \$ \_\_\_\_\_

*Remember that 25% of contributions are returned annually to the individual chapters!*

**Make your check payable to  
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 and send to**

**Membership Secretary  
 PO Box 35388, Albuquerque NM 87176**

### JACK & MARTHA CARTER CONSERVATION FUND DONATION FORM

**Yes! I would like to help New Mexico's flora!** Enclosed is my contribution of \$ \_\_\_\_\_

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All contributions are tax-deductible as provided under the law.

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of the

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**[www.npsnm.org](http://www.npsnm.org)**



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.

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

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."



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.



Milkweed and pollinators. Images: Jim Von Loh.