

# GILA NATIVE PLANT SOCIETY

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October 2018

Vol 8 No 4

Helen Shoup, Editor

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## Bulletin 2018: Quarter 4

This quarterly Bulletin of the Gila Native Plant Society of Silver City, New Mexico, provides the latest communications between the society and the members.

It is delivered via your email unless you request otherwise. The online version allows color photos and for a lower cost (essentially free for GNPS). The Bulletin will continue to be available on the [GNPS website](#).

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## The Conference for NPSNM for 2018

The Native Plant Society of New Mexico (NPSNM) annual conference, hosted this year in Silver City by our chapter on September 7-9, received many congratulations for a job well done! More than 200 people attended!

### Comments

Betty Spence was behind the registration/check-in and information desk for 3 days

and said she heard these comments, among others:

"It was great - we learned how to make a salve out of a native plant."

"There is a lot more to plant specimen mounting than I thought."

"We were having so much fun exploring the plants at Saddle Rock we didn't want to leave." [Meanwhile, spouses were pacing the floor at the Global Resource Center and asking when the field trip would return.]

"Cherry Creek is amazingly lush - so many flowers along the stream."

"Our field trip leader at City of Rocks was a wonderful guide and storyteller."

"So it rained a little during the reception [at Gomez Pavilion]; that double rainbow was amazing!"

"This sort of thing is why I come to these conferences." [Heard at the Mimbres Culture Heritage Site]

"This conference is so well organized." [Betty knew the things that went wrong, but it was nice to hear.]

### **Talk and Bio**

The [website](#) includes Jack Carter's banquet speech and Angela Flanders' bio so you can easily read or print either one. Angela Flanders was chosen as the 2018 recipient of the Jack and Martha Carter Native Plant Conservation Award.



Martha and Jack Carter give the award to Angela Flanders as Bill Norris looks over it.

It also has many pictures from the field trips and workshops, all labeled so you know the group involved.

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## Meetings for This Quarter

All programs are free and open to the public. Meetings are usually the third Friday of the month at 7:00 pm at WNMU's Harlan Hall from September through May, unless otherwise specified. Refreshments follow the program.

Activity updates and further details are posted on the [website](#). You will also receive an email reminder before the date of each meeting

### October Meeting

**When:** Friday, October 19, 2018

**Where:** 7:00 pm at WNMU's Harlan Hall (on 12th Street)

**Topic:** Know the Trees: A Workshop

In this program, Richard, Russ, and Bill will give tips on tree identification both here and elsewhere. This program will be a one-hour, hands-on workshop in that attendees will be provided with numerous fresh leafy stems to examine as the presenters review basic leafy shoot structure and tree identification strategies. **Note:** If you have one, please bring a 10X hand-lens with you to this program. (Lens available for online purchase at [amazon.com](https://www.amazon.com))

**Presenters:** Richard Felger, Russ Kleinman and William (Bill) Norris

Richard Felger has been a biologist since childhood. He received his PhD at the University of Arizona. Subsequently he was on the faculty of the University of Colorado and then Senior Curator of Botany at the Los Angeles County Museum of Natural History. Returning to Tucson (the Desert Museum and the University of Arizona), he continued research in deserts worldwide and has published widely in fields of botany, ethnobiology, and new arid-land food crops. He has been active in international conservation, including pioneer conservation of sea turtles. Richard is a researcher with the University of Arizona Herbarium and lives in Silver City with his wife Silke Schneider and their many animals and plants.

Retiring early from a career in surgery to devote his energies to botanical exploration, Russ Kleinman was instrumental in creating the website [www.gilaflora.com](http://www.gilaflora.com), an invaluable archive of photographs and information on the vascular plants of the Gila Wilderness. He continues to explore and add to the website. He is currently teaching a class in Taxonomy in the WNMU Biology Department.

William (Bill) Norris is Professor of Biology at WNMU (since 2001), where he teaches numerous botany courses as well as ecology and ornithology. Bill enjoys collaborating with other botanists on research projects that include monographic studies of sedges (*Carex*), forest monitoring in Iowa's Paleozoic Plateau, and floristic studies of native vegetation remnants in both Iowa and New Mexico.

**Special:** The winning ticket in the raffle for the Eli Sorenson quilt and the photos [for 2nd and 3rd place (see above)] will be drawn.

## November Meeting

**When:** GNPS Presentation - November 16, 2018

**Where:** 7:00 pm at WNMU's Harlan Hall (on 12th Street)

**Topic: Ollas. Ancient Irrigation - Past, Present, and Future**

Olla irrigation has been present for thousands of years. Just how old is this technology is difficult to determine. Ancient documentation from various cultures spread across several continents proves that clay pot irrigation has been one of the most successful, long lasting irrigation methods ever. Chinese texts that are well over 2000 years old mention clay pot irrigation. The Romans used ollas. Olla irrigation can be found today in the Middle East, India, and Central and South America. It's clear that olla irrigation has been used successfully across the planet; this begs the question, how does it work? What is the science behind the function? How can it be used now, here in the Southwest to conserve water, restore ecological habitats, and successfully grow food?

**Presenter:** George Farmer

## December Picnic/Holiday Party

**When:** Sunday, December 16, 2018, from Noon to 3:00 pm

**Where:** The Commons (the Volunteer Center)

**Description:** It will be the usual pot luck; bring a dish, your own plates, glasses, and utensils. The club will provide the customary pork roast and iced tea with a hot water heater for tea and coffee. Beer and/or wine are allowed, but you must bring it.

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## Pollination and Pollinators for Native Plants

**By Keller Suberkropp**

## **Purpose**

Sexual reproduction in plants gives rise to seeds. For this to occur, male sex cells must move to the female sex cells and fuse (fertilization). Male sex cells are carried in pollen grains produced by plants. Pollination is the movement of pollen grains from the male structures in a flower to the female structure in that flower (self pollination) or to a wide variety of flowers of that species (cross pollination).

## **The problem is – plants don't move!**

In cross pollination, the pollen must be carried from one plant to another by some force other than the plant. Plants have developed a number of adaptations to encourage this process and successfully reproduce.

## **How pollen travels**

Some plants use the wind to carry pollen between plants. These include many grass species, tree species, and gymnosperms (pines and junipers). Because the likelihood of success is low, these plants produce lots and lots of pollen. The large quantity of pollen in the air at certain times of the year can also lead to seasonal allergies in people.

For aquatic plants, pollen may be carried by the water in which they live.

The majority of flowering plants (ca. 75%) depend on animals – called pollinators – to move pollen. These pollinators are more efficient than either wind or water so these plants produce smaller amounts of pollen.

## **Pollinators**

The traits of flowers such as shape, size, color, odor, and time of bloom serve to attract different pollinators. In all cases, the pollinator's purpose is not to help the plant reproduce but to obtain food. The plant therefore produces large amounts of sweet nectar and, for some pollinators, protein rich pollen as food to attract them.

## **Bees**

Bees are considered the most important group of pollinators since female bees

collect both nectar and pollen as food for their offspring. Bees are covered with hairs that trap pollen so they accidentally transfer large quantities of pollen from flower to flower. There are more than 4,000 species of native bees in the US. Most are solitary, some are social, living in colonies. There are also the social European honey bees used by beekeepers. Since bees can see in the ultraviolet range, they may seek out blue flowers. Some flowers have a bullseye visible in the ultraviolet and a landing platform to attract bees.



Bee

## **Wasps**

Unlike bees, many wasps are smooth bodied and do not collect large quantities of pollen so they are relatively minor pollinators. Some wasps use nectar from shallow flowers as they do not have the long tongues that can reach deep nectaries.

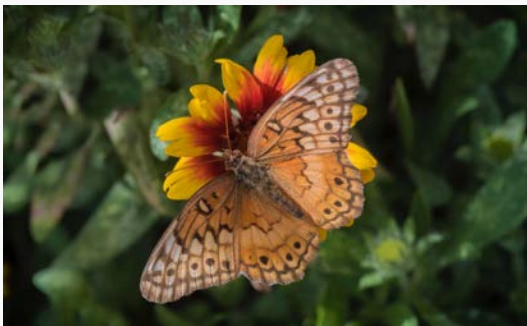




Wasp

### **Butterflies and Moths**

Although butterflies are the most conspicuous, they are not the most important pollinators. They consume nectar only and do not feed on or gather pollen. They have very long tongues that allow them to penetrate deeply into nectaries of flowers and may avoid having pollen stick to their bodies. Moths are generally similar to butterflies as pollinators, but the nocturnal habit of some species allows them to visit night blooming flowers and pollinate them. Night blooming flowers are typically white and produce much nectar and strong scents.



Butterfly



Moth

### **Flies and Beetles**



Both of these very large groups of insects contain important pollinators. Both primarily visit flowers to consume nectar. Most do not appear to be attracted to flowers with specific adaptations but generally visit primitive flowers to obtain nectar and in the process may carry pollen from one flower to another. However, an interesting flower adaptation is to be red colored and produce volatile compounds found in decaying meat (carrion) so as to attract certain species of flies and beetles. You rarely find these flowers in florists' arrangements.



Fly



Beetle

### **Hummingbirds**

Flowers adapted for hummingbirds are generally red, with a long floral tube. They are nectar rich but are not aromatic as the birds do not smell.



Hummingbird

### **Bats**

Night blooming flowers that are white, nectar rich and aromatic are visited by certain species of bats.

### **For more information**

Mader, E.; Shepard, M.; Vaughan, M.; Black, S. H.; LeBuhn, G. Attracting Native Pollinators. 2011. Storey Publishing. The Xerces Society Guide

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## **Quilt Raffle Continues... Until October Meeting**

So buy your tickets to win!

Here is the quilt created on silk by Elli Sorensen:



It has 44 native plants hand-painted on silk - can you name them all? It is approximately 6'6" x 3'8" in size.

This raffle will have the quilt as the grand prize, and it will be given away at the

October 2018 meeting. We also have second- and third-place winners:



This 2nd Place Winner is Rothrock's Basketflower (*Plectocephalus rothrockii*), a photograph taken by Elroy Limmer and float-mounted on metal. It is approximately 11"x14" in size.





This beautiful picture is a signed original poster by Jim Brandenburg from his book *Chased by the Light*. Framed and matted, it is approximately 19" x 25" in size.

The tickets will cost \$5 each or 5 tickets for \$20, so we hope to sell a lot of tickets! The tickets will be available at the next meeting - and the drawing!

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## Silva Creek Botanical Garden Report

By Elroy Limmer, Garden Chairman

The Garden continues to become more mature and look like the garden I envisioned 5 years ago. Thanks to all that have helped make the Garden look so great. Everyone who visited during the conference was impressed with what we have accomplished in the last 4 years. Several other chapters are working to develop gardens, but from what I heard they are just getting started. We live in a

very unique community, and I was told by several from other Chapters that they wished they could get folks to volunteer like they do in Silver City. So far this year there has been well over 350 volunteer hours put into the Garden.

A big thanks to John Pecoroni for doing all of the mowing this year with his own mower. His mowing and trimming really adds to the great look we have.

If you haven't been to the Garden lately, we now have nearly every species labeled, so it is much easier for everyone to know what they are looking at. This was accomplished by the expertise of Angela Flanders and Betsy Kaido who first identified and then made sure that all of the wording was correct before they were ordered and printed. Thanks Angela and Dee Rae for getting the 42 new labels installed. This really helps make everyone's visit more enjoyable.

Thanks to Jane Spinti's insistence, she and others removed a non-native phlox that took up a lot of space. Jane purchased and install natives in its place, so no sharp-eyed visitor from some other Chapter could find fault with our garden.

I haven't mentioned all the rest of you that have dutifully showed up every time I call a work day. Your help has been wonderful! As most of you know, weeds are always a garden problem, but with everyone's help we are keeping them in check. The huge mulch pile we had is shrinking rapidly, thanks to all of the mulching and re-mulching we have had to do this season. Unfortunately, the one heavy rain storm washed some of it down Silva Creek.

Many of our out-of-town guests wanted me to thank all the volunteers who are making the Garden a showplace: see the photos below.

















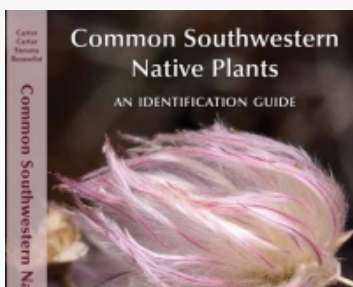


Hope to see you in the Garden!

Elroy, Garden Chairman

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## Quarter 4 Book: Common Southwest Native Plants: An Identification Guide



***Common Southwestern Native Plants: An Identification Guide***, 3rd Edition, Revised and Expanded

Carter, J; Carter, M; Stevens, D; Bousselot, J  
Published 2018 by Colorado Native Plant Society  
Paperback; 278 pages, color photos throughout

Combining scientific information and lyrical expression, the authors bring together 128 woody plants and 64 herbaceous flowering plants common to the Southwest. As a pictorial guide for those wishing to learn more about the flora, this

book provides a starting point for learning to identify common native plants along trails and byways, as well as plants suitable for landscaping.

Using a combination of color photographs, written descriptions and stunning botanical illustrations, this book offers valuable insight into the world of native plants. Included are medicinal uses, plants to attract wildlife, and Spanish common names. Detailed technical and nontechnical descriptions, distribution and habitat information, and conservation considerations provide important tools for those wishing to go further with plant identification. Also included are biographical sketches of influential early botanists as well as big-tree records of many of the species.

**Availability:** It is available on the GNPS website. It is \$25 plus \$3.73 shipping, for a total of **\$28.73**.

1. Click the [website](#), scroll down to the book, and click **Add to Cart**.
2. Scroll back up the top right of the page, and click **View Cart**.  
**Result:** The Cart page appears.
3. Click **Paypal** button at the bottom left.  
**Result:** The Paypal login page appears.
4. Log into Paypal and pay \$28.73 for the book through Paypal.

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## Programs from Last Quarter

A description of the programs from last quarter follows:

### July Field Trip

On Sunday, July 15, 2018, Hanna Blood led the group to Sheep Corral in the Pinos Altos Range. They used a high-clearance vehicle where needed but it was generally a moderate hike, under the shade of conifers and Gambel's oak.

### August Field Trip

On Sunday, August 19, 2018, Hanna Blood took the group to the Fort Bayard Preserve to see what plants the rains brought out. It was beautiful! They hiked up the east fork of Stevens creek, found lots of understory plants on the benches under the gray oaks and alligator junipers. Then they meandered up a sandy flat wash filled with a great mix of riparian and grassland plants. It was a great hike.











### September Field Trip

On Sunday, September 16, 2018, the group took the last field trip for the year. They went to Ira Canyon near the Gila River in the Burro Mounains. It was a moderate hike, relatively flat, with some walking on sand. They saw Thurber's desert honeysuckle (*Anisacanthus thurberi*), Wright's beebrush (*Aloysia wrightii*), and littleleaf mulberry (*Morus microphylla*).



Desert Honeysuckle

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**Our mailing address is:**

PO Box 457  
Silver City, NM 88062

The Gila Native Plant Society is committed

- To promote education, research, and appreciation of the native flora of the Southwest
- To encourage the preservation of rare and endangered plant species
- To support the use of suitable native plants in landscaping