

GILA NATIVE PLANT SOCIETY

A CHAPTER OF THE NATIVE PLANT SOCIETY OF NEW MEXICO



BULLETIN

APRIL, MAY, JUNE 2011

EDITOR: CHARLES HAINES

PROGRAMS

All programs are free and open to the public. Meetings are usually the third Fridays at 7:00 pm at WNMU's Harlan Hall, with refreshments following the program.

Activity updates and further details will be posted on our website www.gilanps.org.

Friday, April 15, 7:00 pm, Room 100, Harlan Hall, WNMU Campus.

Mark Donnell, chief of anesthesia at Gila Regional Medical Center and researcher in the chemistry division of the WNMU Natural Sciences Department, will present a program on "*Medicinal Plants of New Mexico.*" A Silver City resident for the past 17 years, Mark has extensive experience in the fields of chemistry and biology in addition to his training in neurosurgery and anesthesiology.

Friday, May 20, 7:00 pm, Room 100, Harlan Hall, WNMU Campus.

John Dunne-Brady will give a talk entitled "*Eponyms: Plants Named in Honor of People.*"

John describes himself as an herbalist, botanist, author, mathematician, and herbarium technician.

FIELD TRIPS

Hikers meet at 8:00 am in the south parking lot of WNMU's Fine Arts Theatre the morning of the hike to arrange for carpooling. Participants must sign a release-of-liability form at that time and will receive a list of native plants in the hiking area.

Bring water, lunch, a hat, sunscreen, and good hiking shoes. For more information, call Deming Gustafson, 575-388-5192. Destinations may be changed because of weather conditions. For updates, go to www.gilanps.org.

April 17, 2011. C-Bar Ranch Road, 32 miles south of Silver City off route 90.

Expect to see an unusual example of diversity in Alligator Juniper (*Juniperus deppeana*). With this winter's snow in the area, we may be surprised by blooming *Carpochaete bigelowii* (Bigelow's Bristlehead) and *Berberis* or *Mahonia haematocarpa* (Red Barberry or Algerita).

This is a lightly forested area with several wide washes nearby. It will be easy to see lots of early bloomers.

May 15th, 2011. A trek in Hoodoo Canyon, a western drainage of the Southern Burro Mountains.

This area offers increasingly unusual varieties of lower-elevation vegetation. We will see and discuss an unusual variety of mistletoe, *Phoradenron hawksworthii* (Hawksworth's Mistletoe) and, for the more energetic among you, a rare outcrop of *Ericameria cuneata* var. *spathulata* (Cliff Goldenbush), distantly related to Rabbitbrush/Chamisa.

June 15, 2011. A hike into Deadman Canyon, back into the shade of the Ponderosa along a portion of the Continental Divide National Scenic Trail and just below Jack's Peak.

In this area, south of the Tyrone Mine, we will see handsome stands of Manzanita (*Arctostaphylos pungens*). Individuals are very likely to discover many genuses and species to add to their lists.

ANNOUNCEMENTS

2011 PLANT SALE

Our sale in 2010 was a great one!

All of you who ordered plants at the pre-sale on March 12th are reminded to pick up your orders at Penny Park on Earth Day, Friday, April 22nd. We will have additional plants for sale at the park on April 23rd.

Pam Bryant & Betsy Kaido

THANKS DEBBIE AND JERRY

It's hard to put into words the gratitude that the Gila Native Plant Society owes to Debbie & Jerry Bird. They are moving to Tucson. We will really miss them!

Debbie has served on the GNPS Board for more than two years, as secretary and then as treasurer; Ron Groves will now be taking over as treasurer for the GNPS. Debbie has been a voice of reason at those times when it is in short supply. She has also been an energetic member of the GNPS Thursday Hiking Group. Jerry has guided the fledgling bird watching group on numerous field trips and helped many along in the pursuit of one more "new one."

We know that Debbie has had trouble with the cold winters in Silver City; this last cold period (well below zero in many places) may have been the last straw.

Thanks for all the good times! We wish you two all the best and hope we keep in touch!

REPORTS

On Friday, January 21st, Donovan Bailey, Associate Professor of Botany at New Mexico State University, spoke to us about the impacts of human translocation on the evolutionary history of the *Leucaena* genus (*Fabaceae*).

The *Leucaena*, which spreads from Texas to Peru (22 species) has been introduced in many places in the world as a supplemental (sometimes major) food crop. It often grows into trees and can be rather weedy, but, because it is quite valuable as a food crop and as market produce in some areas (Southern Mexico was featured), it is tolerated, even though many people have trouble with its taste.

In Australia, where it is not generally used as a food crop, it is very valuable as cattle feed. Even though it is invasive in more humid climates, it is controllable in drier places like Australia.

***Leucaena*, which is dated to over 6,000 years ago, started out, like maize (corn), as a wild herb. Then, like corn, it was spread by human translocation; this led to the extensive hybridization of the genus. Unlike corn, however, this "bean" plant can be difficult to control and highly invasive.**

On Friday, February 18th, George Farmer, the proprietor of Axle Canyon Preserve, west of Silver City, spoke to us about some aspects of the process of reestablishing the natural environmental conditions of that area.

His emphasis was on the difficult process of reconstitution of the transformed soils of the area to their more native state. This, of course, is a vital topic for those among us who are gardeners and landscapers.

Many of the factors which caused the problems in the first place are fairly well known to many of the audience. Among the worst of those problems have been diversion of water resources for other specific uses or purposes, the felling of whole forests to create grazing land, allowance of non-native plant species to intrude and overwhelm native species.

George concentrated on informing us about the process of reconstituting depleted soils – a hard process. You have to begin by knowing the precise composition of your current soils, then understand "what should live between the soil particles" – the vital organisms that help to create healthy soil. He also warns that some organic matter can foul the food web. Watch out what fertilizers and mulch you use.

He then gave us details on some of the important organisms and their functions. They are protozoa, nematodes, orthopods and earthworms. The last of these has over 7,000 species in 700 genera.

Thanks very much, George, for all the extremely valuable tips and information!

On Friday, March 18th, John O'Loughlin, the Noxious Weed Coordinator for the Southwestern New Mexico Cooperative Weed Management Area of Grant and Hidalgo Counties told us about cooperative weed management practices in the area.

He explained that he works with many other agencies within New Mexico and even with parts of eastern Arizona. All of the money for their operations and studies comes from grants. Among those operations are the development of GIS maps that pinpoint the locations of all of the noxious weed infestations that are of concern in our area, as well as all of New Mexico. A major part of Mr. O' Loughlin's job is to do intensive ground surveys to locate the infestations.

Among the weeds of most concern are, in order of severity: Yellow Star Thistle, Malta Star Thistle, African Rue, Spotted Knapweed, Hoary Cress and Poison Hemlock. You might have others in mind from your own experience, but these are the worst.

John spoke of the more effective ways to deal with these species including digging up and poisoning. Some of them resist the methods because of very deep tap roots. Others are so intensive that only crop planting to replace them will accomplish the purpose over a considerable stretch of time.

For brochures that list specifics for each species, call 575-388-1559.

On March 11th, the Board of Directors met in a special session to consider a grant request from Bill Norris for specific work to be completed at the Dale Zimmerman Herbarium of WNMU.

The grant seeks money for the purchase of a new desktop computer for the Herbarium and to hire and train a technician to enter information about 2,000+ species that has not yet been entered into the existing plants database.

We are happy to report that the Board approved the request in the amount of \$3,300.00 and that our own Angela Flanders has agreed to undertake the task of the data entry.

SPECIAL FEATURE

Gardening in A Dry Climate - Judith Phillips Adapted by Martha Carter

6 great tips on how to create a successful, water-wise garden

In the garden, as in life, change is inevitable. Population growth and added new square miles of pavement and rooftops have created heat islands and have changed the way rain and snow soak into the soil. Although there are wonderfully wet interludes in the region's pervasive aridity, the hard fact is that even in small communities we are using much more water than falls in a good year. Luckily, we can easily use less water in our gardens with excellent results. Here are a few drops of water-related wisdom to start your growing season.

"The garden is a grand teacher. It teaches patience and careful watchfulness; it teaches industry and thrift; above all it teaches entire trust." On Gardening, Gertrude Jekyll, 1843-1932.

1. Prune for a purpose: When you venture out into your garden, shears in hand, have a clear purpose in mind. Too much pruning can stimulate a growth surge that takes more water to support. Many plants require very little pruning to look their best. Think of the shaping of plants and all manner of garden cleanup as a writing assignment. Your mission is to eliminate the extraneous, erase whatever obscures the best of what each plant has to offer. Pruning should emphasize each plant's unique form, not impose some arbitrary geometry that obscures it. By removing defoliated stems and superfluous interior branches, you may be able to give an overgrown shrub new life as a small specimen tree. When other options are not feasible, take a deep breath, declare the giant redundant and give it a new life as firewood!

2. Choose wisely: Experimenting with new plants is one of the great joys of gardening. Learn to filter new information through topographic lenses. Full sun in the East or Midwest is partial shade in the Southwest. For the hottest parts of your garden, seek out local natives and plants from climates and elevations similar to yours: plants adapted to intense sunlight, low humidity, and dramatic swings in temperature day to night and season to season. To reduce moisture loss, try xeric plants, which tend to be compact in shape and mature at smaller sizes, a plus in urban gardens. They usually have smaller leaves and more limber stems, giving them more resilience in the wind—an advantage in wide-open spaces. Wildflowers native to high deserts are often brilliantly colored to attract pollinators and are pleasantly aromatic to deter pests. Make your garden a masterpiece of plants adapted to our climate and soils.

3. Timing is Everything: Ever have a transplant languish, even when it's location should be perfect, and you took great care in easing it into place? Some plants are heat-loving and need warm soil to root into. Plants native to low desert and Mediterranean areas get off to a faster start if they are planted during warm weather. Waiting until the nighttime low temperatures are consistently above 50 degrees will improve germination of warm season grasses such as buffalo grass and blue grama, heat-adapted wildflowers and transplants of desert willow, desert zinnia, lavender, rosemary and other perennial culinary herbs. Other plants need

to establish roots before the soil and air become too hot. These natives of higher elevations and more temperate climates — such as aspens, fruit trees and evergreens — benefit from being planted in early autumn or once the coldest part of winter is over.

4. Don't Cultivate Weeds: Weeds soak up water that more desirable plants could be using, yet many gardeners expend considerable energy cultivating the very plants they are trying to eliminate. Tilling, hoeing or pulling weeds that have grown more than a few inches high aerates the soil, exposes new weed seed to light and makes conditions perfect for the next generation of pest plants to establish themselves. Annual weeds are seasonal. Winter weeds, such as mustard, and warm-weather weeds, such as ragweed, are easy to displace by controlling how water is applied and using deep mulches. Don't till unless you are sowing seeds. When you transplant individual plants be generous and loosen the soil well in an area three to five times as large as root balls of the new plants. To keep weeds from invading, apply a mulch of shredded bark or fine stone at least 3 inches deep around plants. Use drip irrigation to keep the soil adequately moist under the mulch only in the places where desirable plants have access to it. Avoid cultivating and unwittingly encouraging weeds.

5. Gardening for Life: Mindfully observing the ebb and flow of life among your plants, you can determine when the population of potential pests has grown large enough that you need to intervene, and when the web of life you have been cultivating can balance itself. Spring is the time to establish the pattern. If rabbits are your prolific neighbors, your plants often need protecting by wrapping them in wire clothes or using a nontoxic repellent until they grow large enough and root deeply enough to outgrow a bit of wildlife browsing. The number of aphids always booms in spring, but early in the season you can wash aphids off with soapy water until parasitic insects and birds arrive to take over. Watering only enough to keep plants healthy, but not so much that you constantly force soft growth, is one of the best ways to keep insect pests in check.

6. Water Purposefully: Using water well is the crux of all gardening success in the high deserts. Combine plants so that you can tend different areas of the garden independently. You might locate your vegetable garden and fruit trees in a wind-sheltered spot where you can capture as much rainfall as possible in a cistern to distribute it throughout the growing season. Trees that grow large enough to provide a shade canopy need ground cover and bordering plants supported with drip irrigation so that as the tree matures it has pockets of moist soil to extend its roots into, in time sharing water with most of the plants in the garden. Automatic time-operated drip systems can save water, but they are only efficient as the programmer (you) that drives them. As plants become established, watering cycles should be less frequent and of longer duration so that moisture penetrates the soil to maintain deep roots.