New Mexico Native Plant Day

_A fascinating (and tasty) affair_

August 30 was designated 2008 New Mexico Native Plant Day by Governor Richardson. Chapters around the state celebrated with special events. Some are reported here and on pages 4-5.

**Otero Chapter savors native plants**
By Helgi Osterreich

The Otero Chapter of NPSNM and Oliver Lee Memorial State Park put on several activities at the park. A tour of native plant identification and uses was led by Charles Wood, park ranger and NPSNM member. We also saw the devastation of the creek bed which resulted from our heavy rainfall at the end of July. At the time, the wooden walkway which enabled people to walk up the creek was being repaired following the 2006 flood damage. It is now totally gone. The riparian trail is also totally gone. It will take many years for the creek to recover, and for the park to rebuild the trail.

Otero Chapter members provided refreshments using native plants. These included Amaranth Zucchini Bread, Algerita Pie, Brisket with Juniper Berries, Mesquite Jelly, Yucca Blossom Quiche, and Nopalito Casserole. All the food was gone in about half an hour!

We also signed up new member families and sold books. Entomologist and NPSNM member Eric Metzler spoke about “The Importance of Pollinators.” Ranger Wood did a program at the

(Continued on page 4)
This will be my last contribution to the president's column. It has been a good two years and has gone by all too swiftly. There are so many things I wanted to do and didn't, but in rounding up all the records for our archives, I find there have been many good things done. Perhaps the most important was establishing the administrative coordinator position, which Sandra Lynn so ably fills. I have worked to improve the financial position for the chapters and improve communication between chapter presidents and with the state organization. I am very gratified to see that the slate of officers for the next two-year term is excellent and strong. All the best to them.

NPSNM has taken positions on several issues important to plants in our state. We have created the Jack and Martha Carter Conservation Fund to expand our ability to support herbaria, researchers, educators, and conservation efforts across the state. We have diversified our investments by purchasing mutual funds as well as traditional CDs. It will be interesting to see which earn the larger return.

Thanks to Steve Robertson, our treasurer, for ironing out many wrinkles in our financial situation, especially some of our problems with the IRS. Also thanks to Tom Antonio, who has taken on several important tasks. With Sandra Lynn's help, we put on a very successful two-day workshop on grass identification. To our surprise many of the participants were from government agencies, which is evidence of our ability to contribute to the larger community. We will plan several more such workshops.

I was gratified to see all the chapter activities for Native Plant Day August 30. This is an excellent way to get our message out and to increase membership.

I appreciate Jim Nellessen's outstanding leadership last year in the rescue of plants along the highway near Carlsbad. It was an example of how NPSNM can work with others in mutually beneficial projects. There have been many other efforts, and I thank all those who gave their time and talent to them.

In retirement I hope to continue to work on NPSNM projects. Some of us are putting together a photographic show to be displayed in the state capitol with the pictures to be donated to individual senate offices after the show. Any suggestions, contributions, or help would be greatly appreciated. All the best to you and be sure to get out and enjoy our splendid native plants.

Jercinovic Fire Fund to Replace Losses

A large fire in the Manzano Mountains this summer has taken the home of long-time active NPSNM members Gene and Betty Jercinovic. While they have insurance for replacement of the structure, they have none for the contents. Gene was able to save his plant collection, extensive plant library, and microscope, but their loss is truly staggering.

NPSNM President Chick Keller of Los Alamos said, “As one who lost his home (and much of the contents) to fire, I can attest to the extreme hardship this event has caused the Jercinovic's. Therefore, with Board approval, I am establishing an NPSNM fund to assist them in getting back on their feet. I urge you all to consider a generous contribution to this fund.”

Checks can be made out to “NPSNM Jercinovic Fire Fund” and should be sent to Treasurer Steve Robertson at: HC74 Box 21862, El Prado, NM 87529.
This NEWSLETTER is published quarterly by the Native Plant Society of New Mexico, a nonprofit organization, and is free to members. The NPSNM 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.

Manuscripts and artwork are welcome and should be submitted to the editor, Renée West at:

keywestern@hotmail.com OR:
1105 Ocotillo Canyon Dr., Carlsbad NM 88220

Next Deadline is Dec. 1, 2008

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. A wide selection of books dealing with plants, landscaping, and other environmental issues are available at discount prices. The Society has also produced two New Mexico wildflower posters by artist Niki Threlkeld and a cactus poster designed by Lisa Mandelkern. These can be ordered from our Poster Chair or Book Sales representative.

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Website editor: Lolly Jones

NPSNM Membership Application

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E-Mail/Fax ________________________________

I (we) wish to affiliate with the checked chapter:

__ Albuquerque
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__ Gila (Silver City)
__ Las Cruces
__ Otero
__ San Juan (Farmington)
__ Santa Fe
__ Taos

I am interested in forming a new chapter in _______________________

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Endowment contribution $_____ Total $__________

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Two NPSNM positions available, see page 16:
Website Editor
Newsletter Editor
Native Plant Day

Chihuahuan Desert Garden entitled “Xeriscaping a Desert Garden,” giving advice, plant lists, and demonstrations on how to create a beautiful garden which conserves water while preserving our natural habitats.

From Wetlands to Wildflowers in Santa Fe
By Cristina M. Salvador

Two strikingly different environments, both nourished by the waters flowing from the Sangre de Cristo Mountains: a wetland preserve and an alpine meadow. The variation of habitats around Santa Fe harbor a diverse native flora, apt for viewing, examining, and celebrating late summer species.

Leonora Curtin Wetland Preserve

A crisp and sunny morning greeted naturalist Nancy Daniel and her group of hikers as they began exploring the Leonora Curtin Wetland Preserve. In anticipation of observing many native species, she quickly pointed out how the preserve acknowledges the useful roles of non-natives in maintaining healthy riparian habitat, such as the tall Russian olives (Elaeagnus angustifolia), which provide a shady canopy above the trail along with the Rio Grande cottonwoods (Populus deltoides ssp. wislizeni). Viewable from the trail was an impressive flowering display of the medicinal species, yerba-mansa (Anemopsis californica), western yarrow (Achillea millefolium), and of course, chamisa (Ericameria nauseosa).

Nancy pointed out that many think chamisa is the guilty party behind allergy suffering this time of year. However its pollen is delivered by insects and not wind. The true culprit, she explained, is the nonnative kochia (Kochia scoparia), which flowers and releases pollen into the wind during the same period. Growing side by side, two sunflowers were identified: Helianthus annuus and H. nuttallii. Near the pond everyone looked up between the tall cattails leaves (Typha latifolia) as she distinguished between the male flowers (higher on the spike) from the female flowers directly lower on the spike. A wealth of knowledge, Nancy also commented that cattail pollen can be used as edible flour!

The walk continued to drier land just up the path a few hundred yards away. In this area the group observed several different species of cacti and soapweed yucca (Yucca glauca). Water, being an important resource, is diverted and conserved using bales of hay as retaining walls benefiting newly planted native species for habitat restoration.

Lesser rattlesnake plantain (Goodyera repens), an orchid, at Santa Fe Ski Basin.

Photo by Carol Johnson

Santa Fe Ski Basin

Later in the day and higher in the sky (elevation 10,500 ft!), the base of the ski lift was a perfect starting point for the afternoon walk through alpine meadows led by George Cox with assistance from Thomas Antonio and Chick Keller. Typically, at this time of year one would expect the prime flowering time of many species to be past; however, the group was pleasantly surprised to find some late bloomers.

Three species of gentians in full flower were certainly the highlight of the trip.

“The largest, the fringed gentian (Gentianopsis crinita), was spectacular, with its deep, dark blue petals with fringed edges,” George observed. “The Parry's gentian (Gentiana parryi), somewhat smaller, had barrel-shaped corollas with deep blue tips. Flowers of the still-smaller dwarf gentian (Gentianella amarella) were very pale blue, but still a delight to look at.

“Also of note were the several species of native orchids, most of which were past their flowering
(Continued from page 4)

Native Plant Day

prime. Two bog orchids—green and purple (**Platanthera aquilonis** and **P. purpurascens**)—were found along streams, but most of their small green flowers were fading. The few spotted coral-root orchids (**Corallorhiza maculata**) we found in the dense forest were in fruit only. We saw several good-sized patches of the green rattlesnake plantain (**Goodyera oblongifolia**), with its green basal leaves sharply net-veined with white. It was also past flowering. One of our group members spotted a solitary plant of the lesser rattlesnake plantain (**Goodyera repens**), shorter than its green cousin and differing in having unmarked leaves. Best of all, it was in full bloom, with dainty white flowers covered on the outside by dense white hairs. This is another species I had not seen at the ski area, which just goes to prove that revisiting an area as rich in species as the ski basin will almost always reveal some surprises.”

As flowering times shift, species disperse, and precipitation patterns change, plenty of new discoveries await. Much appreciation goes to the Santa Fe Chapter for sponsoring these events, and to the Santa Fe Botanical Garden. And to the participants, whose enthusiasm made Native Plant Day in New Mexico a big success.
Every year the Native Plant Society of New Mexico gives away thousands of its dollars. These funds are distributed as grants to organizations and individuals who submit applications for projects. The Board of Directors studies the applications and decides which ones to fund. In effect, the NPSNM provides the wherewithal for other organizations to help carry out its native plants mission: research, education, appropriate use, and conservation.

In January 2008 the board granted $1,000 to the Upper Gila Watershed Alliance (UGWA) located in Gila. UGWA describes itself as “a non-profit watershed protection and conservation organization working to promote the long-term health of the Upper Gila Watershed and its communities of life.”

Those communities of life are at issue in the current hard work taking place in the offices and conference rooms of the national forests. The national forests are trying to decide which roads will continue to be open to motor vehicles, such as off-road vehicles (ORVs), and which ones won’t. This decision-making is vitally important to native plants and their habitats. (For a full discussion of the effects of ORVs on native vegetation, please see Donna Stevens’ paper posted on our website at http://npsnm.unm.edu/. A link on the home page will take you to the position paper.)

So conservation organizations like UGWA want to provide as much input as possible to what is called “travel management” planning in the national forests. The NPSNM grant to UGWA is intended to help the organization provide expert input to the Gila National Forest by contracting for the professional geographic information services of Kurt Menke, whose firm is called Bird’s Eye View.

The Forest Service has access to a large body of information about the public lands it oversees, including maps, aerial photographs, and ecological data about sensitive habitats, such as riparian and nesting areas. As Menke explains it, his work enables a small conservation organization like UGWA to gain access to the same complex geographic information. When an organization contracts for his services, he can provide maps designed to show exactly what they want to know, and he can provide spreadsheets with information about forest roads by route numbers.

Menke and Stevens say that the process of his work for this grant project has two phases. The first phase was examining the existing forest road system. The project now awaits the Gila National Forest’s own draft proposal for a new road network for vehicular use. Developing that draft proposal has taken longer than expected, but when it does come out, the second phase of the project will begin—a public comment period. UGWA wants to be ready with its own detailed information in order to critique the Forest Service draft and provide input on behalf of wildlife.


Photo by Donna Stevens
Research & Education
Funding by Native Plant Society of NM
Examples of Activities 1998 - 2008

- Funding for University Herbaria:
  - New Mexico State University
  - University of New Mexico
  - Western New Mexico University
  - University of Texas - El Paso
  - San Juan College

- Nob Hill Early Childhood Education:
  Native Plant Landscaping
- Environmental Science Curriculum
  Development at the Chihuahuan Desert Nature Park

- Floristic Inventory of Vermejo Park Ranch
- Grass Workshops Throughout the State
- Wildflower Posters Distributed to New Mexico Schools
- Publication of a Native Plant Guide:
  Chihuahuan Desert Gardens
- Financial Support to the NM Rare Plant Technical Council

One has begun to know the meaning of life when you plant shade trees under which you know full well you will never sit.

Ellen Trueblood, "Truth in Words"

Jack & Martha Carter Conservation Fund of New Mexico

Native Plant Society of New Mexico

Jack L. & Martha A. Carter Conservation Fund Donation Form

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Dedicated to Promoting the Conservation of the Native Flora of New Mexico

**MISSION**

The Native Plant Society of New Mexico was founded in 1976 to promote the conservation of the native flora, and to encourage the appropriate use of native plants throughout New Mexico. The Society encourages the use of native plants in landscaping as a water conservation measure, for the improvement of wildlife habitat, and because native plants are integral to the environment of the Southwest.

In the past decade, through a small grants program, the NPSNM has supported limited research and education activities in New Mexico schools, universities and other non-profit organizations. The board has provided funding for more than forty research, education and landscaping grants.

**Why Establish an Endowment Fund?**

Protecting planet Earth into the future will be extremely difficult. In the next thirty to forty-five years, New Mexico’s population is projected to double, and there are few prospects for slowing this rate of growth. At the same time, if New Mexico is to protect the flora and fauna that attract people to this place, education and research must be expanded. Support is needed from a wide range of individuals and organizations.

*An endowment fund is a long-term investment into the future.*

For the NPSNM to maintain a balanced budget and be able to award grants to individuals and organizations, there is the need for a long-term fund that will provide considerably more funds for the future than are currently available.

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

**Short & Long-Term Plans**

The development of an endowment fund is a long-term operation that must start small, with plans for future growth. The NPSNM will initiate this endowment fund, while maintaining the annual operating budget at approximately the same level, and will continue to support the present level of grant funding. This means the current dues structure will continue to support the present operations.

**The Carter Conservation Fund Socks Funding Above Dues Structure**

Our plan calls for 50% of the income from investments in the Conservation Fund to be used to support research and education grants. The remainder will stay in the fund. This plan is directed toward today and the future, it is a means of protecting our small part of planet Earth for future generations.

**Jack L. & Martha A. Carter Conservation Fund**

Jack & Martha Carter
LIFELONG CONSERVATIONISTS

This fund honors twenty years of service contributed by Jack and Martha Carter to conserving the flora of New Mexico. They became participating members of the NPSNM several years before moving from Colorado to New Mexico. With their arrival in the state, they demonstrated enthusiasm for protecting the flora by actively participating in board meetings, field trips, lectures and annual meetings. As early members of the Gila Chapter, they joined with a group of willing workers to elevate a small chapter into one of the most successful in the state.

They have held a wide number of offices at the state and local levels and have never lost their sense of responsibility for protecting New Mexico’s native flora. The Carters have a clear understanding of the path they want to see the NPSNM follow:

*To educate every citizen to recognize that the green plant holds the future of all life on Earth and must be protected.*
Chapter Activities & Events

Albuquerque
All meetings are first Wednesdays at 7 pm in the multi-purpose room of the Museum of Natural History, 1801 Mountain Rd. NW. For further information contact Pam McBride, 343-9472, ebotpam@msn.com; or Jim McGrath, 286-8745, sedges@swcp.com.

October 1 talk—“Gymnosperm Cones” by Don Heinze, who will show his extensive gymnosperm cone collection, which includes more than 30 specimens of pine cones including species of Pinus, Picea, Tsuga, and Pseudotsuga. Cones were collected from sea level to 10,000 feet, from the Oregon Coast to Austin, and from San Diego to Red Lodge, MT. Each cone has a story.

October 4 walk—Conifer cone collecting in the Sandia Mountains with Don Heinze. Join us for a hike and to collect cones, if you wish, for holiday decorations. We will look in pinyon-juniper, ponderosa pine, Douglas fir and Engelmann’s spruce life zones. Meet in Smith’s parking lot at Carlisle and Menaul at 9 am to car pool.

November 5 talk—“The Field Guide to the Plants and Animals of the Middle Rio Grande Bosque” by Dr. Tim Lowrey, professor of biology and curator of the UNM Herbarium. The new field guide will definitely be available by the time of this talk!

December 6 potluck—Christmas potluck brunch, 11 am at Frances Robertson’s house. Directions will be announced at the November meeting or in e-mails and cards.

El Paso
All programs are second Thursdays at 7 pm at El Paso Garden Center, 3105 Grant. All society events are free unless otherwise noted. Non-members are always welcome.

Gila (Silver City)
All programs and hikes are free and open to the public. Meetings are third Fridays at 7 pm at WNMU’s Harlan Hall, with refreshments following the program. Hikers meet at 8 am in south parking lot of WNMU Fine Arts Theatre the morning of the hike to arrange carpooling. Participants must sign a release-of-liability form at that time, and will receive a list of native plants in the hiking area. For more information, call Deming Gustafson, 575-388-5192. For hikes, bring water, food, hat, sunscreen, hiking shoes.

October 16-17 symposium—Second annual Natural History of the Gila Symposium will be October 16 (1-5 pm) and October 17 (9 am - 5 pm) in the Global Resource Center at Western New Mexico University in Silver City. Keynote speaker will be nationally renowned fire ecologist Tom Swetnam. Other presentations will focus on various natural history topics relevant to southwestern New Mexico. The public is welcome. For more information, contact Bill Norris (575-538-6625, norrisw@wnmu.edu), or Donna Stevens (donnastevens@aznex.net).

October 17 talk—Tom Jervis from Santa Fe will speak about William Gambel, a noted naturalist whose name is associated with many plants and birds in the West (Gambel’s oak and Gambel’s quail). Joint meeting between the Gila Native Plant Society and the Southwestern New Mexico Audubon Society. Jervis, a retired educator and research scientist, is president of the board of Audubon New Mexico. He is working on a documentation of the life of Gambel, who spent time in New Mexico in the mid-19th century. During that period he made a number of scientific collections of plants and animals that even today represent the first examples of their species described by western science.

November 21 talk—Presentation by Gila Conservation Education Center on the Native Plants Trunk. The trunk contains six different activities designed for different grade levels (2-6) with the idea that it could be seen by students many times during their primary education. Curricula for the GCEC trunk program have been prepared following “place-based” education techniques and State Teaching Performance Standards and Benchmarks. Trunks are available on birds, wolves, fire safety, geology, forestry, solar energy, and Gila River natural and cultural history.

December holiday gathering—Details to be worked out at a later date.

(Continued on page 10)
Chapter Activities & Events

Las Cruces
Meetings and programs are Wednesdays at 7 pm in the conference room of the Social Center at the University Terrace Good Samaritan Village, 3011 Buena Vida Circle, Las Cruces. (On the right, while traveling east on Buena Vida from Telshor.) Field trips are Saturdays. Where and when vary; check each listing. Most field trips extend into the afternoon. Bring lunch, water, sun protection, plant field guides, and wear good walking shoes. Participants must sign a release of liability form. Children must be accompanied by their parents. Programs and field trips are free, and non-members are always welcome. Contacts: president Ray Bowers 575-541-1877; vice-president Carolyn Gressitt 575-523-8413; state rep. Al Krueger 575-532-1036.

October 8 talk—Dr. Lou Bender will talk about what plants deer eat.

October 11 walk—We will be going to the Organ Mountains to see what deer eat, and other plants. Meet at east end of the Rio Grande Bank parking lot at the corner of University and Telshor, at 8 am to carpool.

October 22 planning meeting for 2009—In the Conference Room of the Social Center at the University Terrace Good Samaritan Village at 5 pm.

November 12 talk—Lillis Urban will talk about either her studies of slime molds or members of the mustard family.

November 15 walk—To be announced, 8 am.

December—No meeting.

January 7 meeting—Sharing nature images from 2008, with refreshments.

Otero (Alamogordo)
For field trip information, contact Eric Metzler, metzlere@msu.edu, 575-443-6250; or William Herndon, laluzlobo@gmail.com, 575-437-2555. Information should be available by the beginning of each month.

October 18 walk—Field trip to Grandview Trail in High Rolls. Meet at K-Mart parking lot at the White Sands Mall at 9 am. Bring snacks, hiking boots, and rain gear, if necessary.

November 1 annual meeting and potluck—We will meet at noon, at Beth Anne and John Gordon’s house on Lower Cottonwood Canyon Rd. More detailed information will be sent out before the meeting.

December 3 talk—“All Things Macro” with wonderful photos by Bob Barber. Meet at the Unitarian Universalist Fellowship Hall, 1010 16th Street, Alamogordo, at 7 pm.

San Juan (Farmington)
Meetings are third Thursdays at 7 pm at San Juan Community College. For more information call Les Lundquist at 505-326-7194.

Santa Fe
Meetings are third Wednesdays at 7 pm at College of Santa Fe, 1600 St. Michael's Dr., Luke Hall, Room 303. For more information, contact Tom Antonio, tantonio@csf.edu, 505-473-6465; or Carol Johnson, gcjohnson@comcast.net, 505-466-1303.

Taos
Meetings are second Wednesdays at 7 pm at San Geronimo Lodge. For more information on field trips and other activities, contact David Witt, 575-758-0619, or davidlwitt@cybermesa.com. Check web link for this chapter to get updates. Chapter members will get e-mail or USPS mail notification.

October 8 talk—Professor Sylvia Rains Dennis, coordinator for Cultural & Ecological Sustainability Education at UNM-Taos, will give a presentation discussing the rich biodiversity of the Taos region.

November 12 talk—Paul Bryan Jones, certified arborist and adjunct professor at UNM-Taos, offers tips and techniques for winterizing our trees and other plants.

No meetings December through February.

For gardening books:

http://npsnm.unm.edu/books.html
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I read with interest the survey results by Sandra Lynn on the front page of the summer 2008 newsletter [the high interest in gardening] and thought this might be a good time to contribute some knowledge I’ve gained during the past 6 years while establishing and maintaining a xeric plant demonstration research garden at New Mexico State University's Agricultural Science Center at Farmington. The xeric garden was split into four different quadrants and at least one specimen of more than 100 perennials was planted in each quadrant. Most species were planted in 2002 and irrigated uniformly for establishment until late summer of 2003. Then water treatments were initiated and each quadrant received a different level of weekly irrigation.

There were two objectives of this project: to provide a showcase of drought-tolerant plants, many of them New Mexico natives, that may have potential for use in urban landscapes of the Four Corners region; and to determine the approximate amount of water required by each species to maintain an acceptable landscape quality at our site, with its average annual precipitation depth of about 8 inches. We've developed plant and irrigation scheduling recommendations for home and municipal water-conserving landscapes in northwestern New Mexico.

**Planting Procedures:**
All plants were transplanted directly into pre-irrigated, sandy loam soil from small (2-4 inch pot) seedlings. Holes were dug to about twice as deep and at least 4 times the area of the potted plant. The soil dug from the hole was pulverized thoroughly by hand and returned to the hole. Then a hole about the same size as the potted plant’s root ball was dug by hand in the center of the pulverized soil. No amendments were added to the native soil. The plant (including all soil and roots) was removed from the pot and placed in the hole so that the soil surfaces (pot and field) were about equal (not planted too deep or too shallow). Some roots of transplants that had begun growing circularly in the

(Continued on page 15)
A Halloween treat...

**Vampire Wildflowers of Bosque del Apache**

By Bob Merkel

There's quite a variety of parasitic or semi-parasitic plants in various parts of New Mexico, some growing in the Bosque del Apache National Wildlife Refuge. Most belong to four particular plant families: the dodders (Cuscutaceae), the mistletoes (Viscaceae), the broomrapes (Orobanchaceae), and the figworts (Scrophulariaceae). All of them derive some or all of their nourishment by sucking it up from (perhaps misnamed) “host” plants.

**Dodders:** In years when conditions are right, dodder plants germinate and start growing their yellowish stems (which, of course, is true only for some years in New Mexico for practically every plant that has to grow from seed). Those stems, if they're lucky, quickly come in contact with some other plant such as a clover. They're not very particular so long as the other plant is alive. The stems produce rootlike short branches called haustoria, which literally burrow into the prospective host's stems. Soon the dodder seedling's roots die off, the yellow stems branch and grow, and it comes to depend entirely on the host for all its needs. Later in the growing season dodders flower (though inconspicuously; maybe the plants are shy?) and eventually produce seeds that get scattered for the next good year. Often you see tangled mats of yellowish threadlike stems covering other plants near roadsides. That's it; that's dodder.

**Mistletoes:** Everyone recognizes mistletoe when it’s being sold at Christmastime, right? But did you know that that’s only one of around a dozen different kinds that grow right here in New Mexico? Better believe it. There's a whole group of them, genus *Arceuthobium* (there's a mouthful!), called dwarf mistletoes. They all grow on different kinds of conifer trees, like pinyon pines, ponderosas, blue spruce, and Douglas fir, but not on junipers. Each species is a specialist on one or sometimes a few closely related host trees.

Junipers and hardwood trees are parasitized by the other mistletoe genus, *Phoradendron*. Those plants are easier to find. A lot of the Bosque del Apache cottonwoods are hosts to *P. flavescens*. Wherever there are oak trees, such as the scrub live oaks (*Quercus turbinella*) seen in some canyons, *P. macrophyllum*, the oak mistletoe, can be found too. These two mistletoes look very much alike and either one could be used to kiss under at Christmastime. However, remember that you want a plant with lots of those waxy whitish berries because by rights you must remove a berry after each kiss and . . . no more kisses when the berries are gone.

In winter and spring, the persistent dark green mistletoe clumps are easy to see in cottonwood trees along the refuge’s tour loop road, especially to the north on the Farm Loop. By summer they’re harder to spot among the full-grown cottonwood leaves they’re but still there. The juniper mistletoe, *P. juniperinum*, has very small scale-type leaves so is a lot harder to see.

**Figworts:** This family (Scrophulariaceae)

(Continued on page 14)
Vampire Wildflowers

includes a lot of showy flowers like penstemon, paintbrush, and mullein. The paintbrushes, in particular, are known to rely in part on nourishment from surrounding plants, perhaps grasses. Consequently they often fail to grow properly when transplanted without their neighbors.

Broomrapes: I've left the broomrape family for last because in a way it's the most interesting. The family name, Orobanchaceae, means “vetch strangler,” referring to a European species that parasitizes vetches (in the pea family). These plants are somewhat like the Indian pipe that grows in the woods back East, in that only the flower stalks emerge above ground.

Two species seem to feed on wild tarragon (Artemisia dracunculus) plants that thrive along Solitary Arroyo at the Canyon Trail. Other common and odoriferous Artemisias include big sagebrush and wormwood, which also are reported as broomrape hosts. The clusters of individual flowers I photographed last spring are of the species Orobanche fasciculata and constitute a great example of problems with ‘common’ names for plants. In one book it’s called fascicled broomrape. In another it’s cancer root (because it’s been used as a medication for fighting that dread disease). In still another it’s clustered broomrape.

The second kind, Cooper broomrape (O. cooperi) also blooms in spring or, maybe, opportunistically when there’s a lot of rain. Other common names include desert broomrape and burroweed strangler. Many tightly packed purple-and-yellow flowers grow along a short, stout stalk. On the day I took pictures of O. fasciculata, only dried flower stalks of O. cooperi were visible along the arroyo.

These two species, it turns out, are described as edible raw or cooked (no, I haven't tried them). Furthermore, the fascicled species has reportedly been used by Native Americans as a medicinal for wound dressings and, powdered, to treat hemorrhoids. Remarkable, the things you can find on a stroll through the desert.
((Continued from page 12))

**Xeric Gardening Tips**

pot were teased out straight before planting. After packing soil lightly around the roots of each transplant, a small amount (1 pint) of water was added to help settle the soil for good root contact. A berm of soil was built around each transplant to form a water-holding basin about 3-4 times the diameter of the plant. Plants were irrigated with 1 to 4 pints of water (depending on size) about every other day for a few weeks to insure a strong foothold. As new top growth appeared, irrigation frequency was decreased to about once per week but the volume of water added per irrigation was increased to about ½ to 1 gallon. We achieved greater than 95% success rate of establishment.

Based on this experience, along with that obtained while establishing a xeriscape at home, I suggest the following considerations for success:

Unless the soil is extremely poor (tight clay, saline or sodic, highly acidic or alkaline, etc.), there is no need to amend the soil with peat moss, potting soil, compost, etc. This does not simulate the natural environment of most NM native plants.

Care must be taken to not over-irrigate. Plant roots need to breathe. Watering too often may be the top cause of failure in establishing native plants.

Native plants grow in relatively infertile soil. Excessive fertilization (especially N) should be avoided. The plants growing in NMSU’s garden have never been fertilized.

Patience is key. Native perennials spend their first months (or years) establishing a sustainable root system. Above-ground growth may be slow (or seemingly non-existent) for quite some time. Don’t give up – dividends will be paid, eventually.

**Some of the NM native plants in the garden:**

These species exhibited near acceptable quality with no supplemental irrigation:

- *Amelanchier utahensis* (Utah serviceberry)–large shrub to small tree
- *Artemisia tridentata* (big sage)–intermediate to large shrub
- *Berberis fremontii* (Fremont barberry)–prickly-leaved shrub/

**Berlandiera lyrata** (chocolate flower)–yellow-flowered small perennial

**Cercocarpus montanus** (mountain mahogany)–shrub/small tree

**Chamaebatiaria millefolium** (fernbrush)–medium to large shrub (possibly not native to NM)

**Chilopsis linearis** (willow-leaf catalpa, desert willow)–small tree (possibly not native to SJ County)

**Chrysothamnus nauseosus** (rubber rabbitbrush)–medium to large shrub

**Cowania mexicana** (cliffrose)–shrub

**Eriogonum jamesii** (Jame’s buckwheat)–small shrub

**Fallugia paradoxa** (Apache plume)–medium to large shrub

**Forestiera neomexicana** (New Mexico privet)–small tree

**Juniperus scopulorum** (Rocky Mountain juniper)–medium to large tree

**Krascheninnikovia lanata** (winterfat)–shrub

**Nolina microcarpa** (beargrass)–yucca-like perennial

**Oryzopsis hymenoides** (Indian ricegrass)–grass

**Parthenium incanum** (mariola)–small shrub

**Penstemon ‘abuelitas’** (abuelita penstemon)–perennial

**Penstemon ambiguus** (bush or sand penstemon)–perennial shrub

**Penstemon angustifolia** (narrowleaf penstemon)–small perennial

**Penstemon palmeri** (Palmer penstemon)–perennial

**Peraphyllum ramosissimum** (wild crabapple)–shrub/small tree

**Prunus besseyi** (western sand cherry)–shrub (possibly not native to NM)

**Rhus trilobata** (3-leaf sumac)–large shrub

**Robinia neomexicana** (New Mexico locust)–small tree

**Yucca baccata** (banana yucca)–succulent-like large perennial

**Yucca elata** (soaptree yucca)–succulent-like large perennial

These species have stayed alive with no irrigation but have exhibited more growth and better quality with some supplemental irrigation (above 8 inches of annual precip.): **Artemisia frigida** (fringed sage)

**Asclepias tuberosa** (butterfly weed)

**Helianthus maximiliani** (Maximilian sunflower) – large flowering perennial

**Mirabilis multiflora** (giant four o’clock)

**Ribes aureum** (golden current)–shrub

**Salvia pinguifolia** (rock sage)–small shrub (possibly not native to SJ County)

**Sporobolus wrightii** (sacaton)

**Zinnia grandiflora** (desert zinnia)–small, spreading perennial

These species needed some irrigation for survival:

**Calylophus berlandieri** (Berlandieri sundrops)–small to medium perennial

**Gaillardia aristata** (blanket flower)–small/medium perennial

**Liatris punctata** (dotted gayfeather)–small perennial

**Oenothera caespitosa** (tufted evening primrose)–small perennial

**Penstemon barbatus** (scarlet bugler)–small but tall perennial

**Penstemon eatonii** (firecracker penstemon)–small to medium perennial

**Penstemon pinifolius** (pineleaf penstemon)–small perennial

**Penstemon strictus** (Rocky Mountain penstemon)–small to medium
Website and Newsletter editorships—

**Key NPSNM positions available**

Two important Native Plant Society of New Mexico positions are now open for interested applicants: Website Editor and Newsletter Editor. The current holders of these positions, Lolly Jones and Renée West, are moving on to positions on the board of directors. They have both been in the positions for several years, so it’s probably a good time for some new faces (and brains!) on the job.

The candidate for Website Editor must possess knowledge of HTML (Hypertext Markup Language) and routine FTP (file transfer protocol). The job involves posting articles, newsletters, business documents, events and photos to website; working with officers, administrative coordinator, newsletter editor and chapter representatives to keep website information current; monitoring proper functioning of the website; and interacting with UNM website personnel as needed. A creative flair with graphics is desired.

The candidate for Newsletter Editor must have an eye for detail and have knowledge of composition and page layout. It’s important to be good with spelling and grammar. The editor balances new material and regularly scheduled items. Duties include maintaining contact with advertisers and billing for ads. The newsletter is published four times a year.

Each position is paid a $500 annual honorarium. Both involve working independently, but with input and cooperation from throughout the society. They can be accomplished from any location with a computer and internet access. Both require reporting and attendance at society board meetings.

If you are interested in applying for either position, please send your resume to: Tom Antonio, PO Box 782, Cerrillos, NM 87010.

For more information on the positions, contact Lolly or Renée (see page 5 for emails and phone numbers).