

Native Plant Society of New Mexico

NEWSLETTER

January-March 2001

Volume XXVI Number 1

Meet Bob Sivinski

This is the first of a 2-part conversation with NPSNM's new President. Bob is a botanist with the New Mexico Forestry Division, past President of the Santa Fe chapter and past Vice President of NPSNM. A member since 1990, he is also Curatorial Associate of the UNM herbarium.



Newsletter: *Bob, you're following a pretty strong leader – Jack Carter. How did your term as Vice President help prepare you for the job? And what did you learn from Jack about how to do this job?*

Bob: It was a real pleasure working with Jack. He took on some tough issues and saw them through to final resolution. Jack's dream of a larger and more active NPSNM is a legacy that I hope to build upon and pass on to the next President. *(Cont'd Page 2)*

Taos Chapter to Host Annual Meeting in 2001

Mark your calendars: August 17th, 18th and 19th are the dates for the next state meeting, which will also celebrate the 25th anniversary of our Society.

The Taos Chapter, which is hosting the event, selected "*Earth, Air, Fire & Water: An Elemental Look at Taos County*" as the theme, and an exciting roster of speakers is being firmed up covering a wide range of topics, including both prehistoric and contemporary looks at the region's flora and fauna, lessons learned after the Los Alamos fires, and the lore of the *acequias*. The keynote speaker, to be announced in a later issue, is "someone very special," says Sally Wasowski, one of the organizers. "I'd describe him as a combination of Luther Burbank, Billy Graham, and Will Rogers."

The meeting will be held at the picturesque and recently remodeled Kachina Lodge, within easy walking distance to the historic town plaza.

INSIDE

Las Cruces Highlights
Natives Go to School
Mistletoes of New Mexico
Gardening Tips Circa 1908
Aquatic Carnivores
A Born-Again Book
And much more

A Conversation with Bob Sivinski Cont'd

Bob: Jack taught me that an effective NPSNM has an organized mission and has fun pursuing it. Hey, we're all volunteers here. Camaraderie and learning are the best rewards.

Newsletter: *What are your priorities for NPSNM?*

Bob: I want to create more opportunities for involvement and improve communication. The enthusiastic response for the two recent plant taxonomy workshops we conducted showed me there's a real demand for group activities with an educational theme. This year, we'll offer three different workshops on cactus identification, plant illustration, and butterfly/plant relationships. We're lucky to have so many talented members who are willing to teach their skills to other members. Beyond that, we need newsletter and website contributions, landscaping guides, demonstration gardens, artwork and photographs for new posters, administrative innovations, and a Society sponsored email listserver. I want members to feel free to come forward with their ideas.

Newsletter: *We have strong chapters and weak chapters in the Society. How do you plan to revitalize the weak ones and improve the strong ones?*

Bob: Most of our chapters are active and strong. On the other hand, our Carlsbad Chapter has so few members that they're unable to initiate and sustain any activities. I believe that all our chapters could benefit from shared activities with other local groups such as garden clubs, or hikers and bird watchers. Interests overlap and new members can be found in these groups. I will encourage more of this joint activity and communication.

Newsletter: *As with any organization, only a small percentage of our members are active, and an even smaller number are interested in taking on leadership roles.*

Bob: You're right. The efforts of a small percentage of our members make it possible for everyone to enjoy the benefits of our Society. I feel very strongly that every member has an obligation to

occasionally contribute something more than the minimum annual dues. We need their enthusiasm and participation. All we can do is offer opportunities for involvement and personal growth or commitment to something important.

Newsletter: *From a botanical perspective, what in your opinion is the greatest problem facing New Mexico? And how can NPSNM help?*

Bob: Botanical literacy and respect for natural plant communities are definitely on the decline in New Mexico. Most people can instantly recognize several hundred commercial trademarks or logos (Coca-Cola, Xerox, JiffyLube, etc.), but cannot name more than one or two native plants in their own area.

Botany and plant ecology are rarely given sufficient emphasis in our public schools, and some botanical curricula at our universities are becoming less available or too technically specialized. The sad result is fewer people are being trained in classical plant systematics and regional floristics. These are essential disciplines for distinguishing between plant species and discovering where and how they survive and flourish. NPSNM must try to dispel this apathy and encourage continued academic and amateur studies of native plants.

Newsletter: *Great, but how do we do that?*

Bob: There are many ways. For instance, we can start in our own front and backyards. One of our best forms of outreach is to use natives in our own home gardens. Native gardeners are often inspired to study their subjects in their native habitats, and pass the information on to others.

But native gardening is just part of what we should be doing as a nonprofit organization with an educational purpose. We need to make botanical information available to children and adults and support our botanical institutions. This requires trained teachers, up-to-date botanical literature, and curated herbaria. Without these, you may soon find yourself on a native plant society field trip with no members present who can correctly identify the plants. Scary!

Part Two of this conversation will be in the April-May-June issue of the NPSNM Newsletter.

POINT...COUNTERPOINT

"Put (pesticides) in a landfill dump. Or you may bury them 18 inches deep in a level, isolated spot. You may put them in your trash."

*Gardening Merit Badge Manual
Boy Scouts of America*

"Children should not be handling pesticides or their containers. All pesticides are poisons, and children are especially sensitive to pesticide exposure."

*National Coalition Against
the Misuse of Pesticides*

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 NPSNM. Manuscripts and artwork are welcome and should be submitted to the editor:

*POBox 607, Arroyo Seco NM 87514
andrzej@laplaza.org*

Deadline for next issue is Mar. 1st, 2001

Membership in the NPSNM is open to anyone supporting our goals, i.e., promoting a greater appreciation of native plants and their environment, and to 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. In addition, a wide selection of books dealing with plants, landscaping, and other environmental issues is available at discount prices. The Society has also produced two New Mexico wildflower posters by artist Niki Threlkeld which can be ordered by contacting our Poster Chair or Book Sales representative.

NPSNM Membership Application

Name(s) _____

Address _____

City _____ State _____ Zip _____

Telephone _____

E-Mail/Fax _____

I (we) wish to affiliate with the checked chapter

- Albuquerque
 Carlsbad
 Gila (Silver City)
 Las Cruces
 Otero
 Sacramento Mts (Ruidoso)
 San Juan (Farmington)
 Santa Fe
 Taos

I am interested in forming a new chapter in

Annual Dues:

Individual or family.....	\$20.00
Friend of the Society.....	\$30.00
Supporting Member.....	\$50.00
Sponsor.....	\$100.00
Benefactor.....	\$500.00
Life Member.....	\$1,000.00
Limited Income Family, Senior (65 & over) and Students.....	\$12.00

Endowment contribution \$ _____

Total \$ _____

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

**Membership Secretary
P.O.Box 2364, Las Cruces NM 88004**

The Un-Common Bladderwort

Jane Mygatt, UNM Herbarium

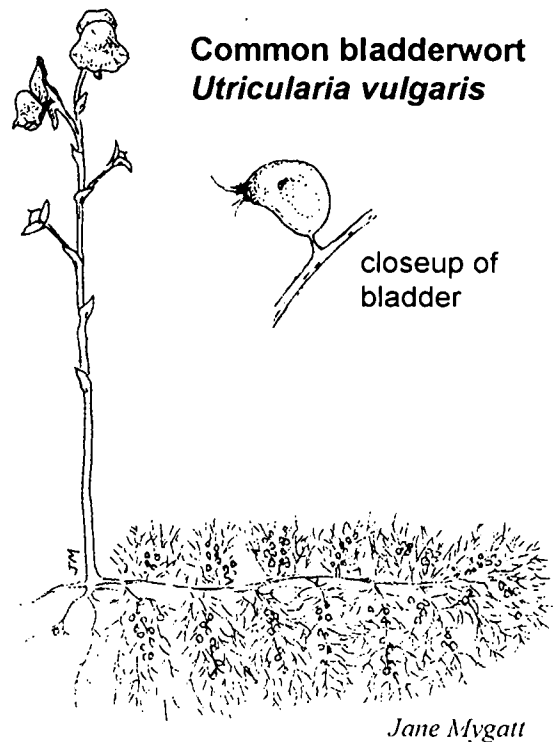
In the hidden realm of shallow pools and tranquil streams dwells an ogre of the plant kingdom. Armed with an underwater flotilla of pear-shaped bladders or “utricle,” it engulfs myriad unsuspecting minute passers by. This ogre, the common bladderwort *Utricularia vulgaris* has evolved an ingenious adaptation to survive in a nitrogen-deficient environment.

A member of the bladderwort family (Lentibulariaceae), the common bladderwort is a rootless (some say ruthless) perennial aquatic herb and the only native carnivorous plant in our State. The generic name, *Utricularia*, is derived from “utricle”, the Latin diminutive of “bag”. The numerous small bladders are modified hollow leaves with sensitive bristles on “trap-door” entrances. When the primary prey (Lilliputian crustaceans and insect larvae) trigger the bristles, the door opens inward, expanding the bladder. The force of this expansion sucks the prey in and the trap door shuts within 1/35th of a second. The prey then dies and its decaying remains are digested.

An unoccupied trap is somewhat flattened and curves inward because of water tension. Water pressure is lower inside the bladder than in the surrounding water. After the trap has been triggered, it can take 30 minutes for the excess water to pass to the exterior of the bladder, restoring the water tension and resetting the trap. A single plant may have hundreds of tiny bladders attached to submerged leaves by short slender stalks. These bladders measure just a few millimeters wide.

Being aquatic and devoid of roots would pose nutritional problems if it were not for the numerous bladders digesting a nitrogen-rich supply of aquatic animals. Biologists are uncertain whether digestion occurs through enzymes secreted by the bladders or by bacterial breakdown. It is presumed that the decomposed nutrients are absorbed through the cells of the bladders.

In July, attractive flowers rise completely above water level, effecting insect pollination. The yellow bilabiate flowers resemble those of the figwort family (Scrophulariaceae) from which the bladderworts are derived. The capsules bear num-



erous small seeds and germination takes place in the water.

Methods of capturing prey reach some of the greatest heights of specialization in bladderworts. A carnivorous lifestyle is present in more than 500 species of flowering plants worldwide, all bearing modified leaf structures for the capture and digestion of animal prey. Our fascination with these botanical ogres increases as we learn more about their unusual tactics in nature’s “Little Shop of Horrors”.



AGUA FRIA NURSERY
Specializing in Native Plants
& Perennials

1409 Agua Fria, Santa Fe 87501
505-983-4831
505-983-3593 FAX
aguafrianr@aol.com
www.aguafrianursery.com



Blossoms
GARDEN CENTER

Dan 'Vish' & Claudia 'Uma' Miller

118 STATE RD. 240 505-758-1330
P.O. BOX 2500 RANCHOS DE TAOS, NM 87557

BOARD OF DIRECTORS

President	Robert Sivinski 438-9690 bsivinski@state.nm.us
Vice-President	Joe Duft 443-6026 jduft@totacc.com
Recording Sec'y	Robert Hilton 587-1609 silverkey@juno.com
Membership Sec'y	John Freyermuth 523-8413 jfreyerm@lib.nmsu.edu
Treasurer	Don Tribble 585-9017 gecko@netmdc.com

CHAPTER REPRESENTATIVES

Albuquerque/Deb Swetnam	994-3747 swetnam@rrhs.k12.nm.us
Carlsbad/Dean Riccer	887-5292 dwricker@caverns.com
Gila/Jack Carter	388-9221 jmcarter@zianet.com
Las Cruces/Lisa Mandelkern	526-0917 lisamand@zianet.com
Otero/Chris Baker	434-9291 ravensnest@zianet.com
Sacramento Mts/Bob Lanik	378-8292 adobe@trailnet.com
San Juan/D' Arline Crawford	330-7499 pud3630@yahoo.com
Santa Fe/Babs Peck	466-1348 twopecks@aol.com
Taos/Judy Lister	776-1183 glister@newmex.com

Book Sales	Lisa Johnston 748-1046 cityhall@artesia.net
Poster Chair	Mary Whitmore 454-0683 whitmore@newmexico.com
T-Shirt Sales	Lisa Mandelkern 526-0917 lisamand@zianet.com
Web Site Editor	Jane Mygatt 277-3781 jmygatt@unm.edu
Newsletter Editor	Andy Wasowski 776-1498 andrzej@laplaza.org FAX 505-776-1499

Membership Dues and Changes of Address should be sent to:

Membership Secretary NPSNM
P.O.Box 2364, Las Cruces NM 88004

Editorial

Ah, the joys of being an editor!

After the last issue came out, I received three letters from members who felt that I was being "political" by running the George W. Bush quote in the Point/Counterpoint feature and the "environmentalists and communists" quote (page 7) attributed to former Texas State Representative, Billy Williamson.

First, let me say that from the first issue I put out, I made it clear that I welcome comments (pro and con) and suggestions on how to make this publication — and my editorship — better.

As to the letters, my response is simply that I do not consider those quotes to be so much political as environmental in nature. I will never use this newsletter to confront campaign finance reforms, foreign affairs, or other clearly political issues.

But, as members of NPSNM, we are concerned with saving endangered species, conserving water, eliminating toxic chemicals from our landscapes, and saving habitats for threatened wildlife. *We express these concerns in our by-laws.* To me, that makes us environmentalists — although one letter did refer to "tree-huggers" in a somewhat derogatory manner.

The basic question is: Should our environmental concerns stop at native plants? Julia Butterfly Hill, the young activist who lived in a redwood treehouse for two years to save it from the loggers, said, "I believe that all environmental social justice issues are connected."

I happen to agree. So, in past issues, this newsletter has touched on over-population, media coverage of environmental stories, and health hazards related to the use of glyphosate. To date, no one has objected to these features.

So — how do you feel? Would you rather have these pages devoted entirely to NPSNM activities and native plant features? If so, let's hear from you. If you agree with my point of view, let's hear from you, too. At the very least, we may finally get a lively "Letters to the Editor" column going.

And, by the way, I really did try to balance the quotes. While the one from Bush was clearly from a Republican, the other quote was not. Billy Williamson was a Democrat. *ARW*

Chapter Activities & Events

ALBUQUERQUE

Held at the Albuquerque Garden Center (except December), 10120 Lomas NE at 7:30 p.m.

Jan. 4th: An introduction to the newly created Valles Caldera National Preserve (aka the Baca Ranch) given by Denise McCaig, Assistant Director of Wilderness Management, SW Region, US Forest Service.

Feb 1: "What is Your Zone?" a look at climate and plant associations in Albuquerque presented by David Cristiani, landscape architect, Quercus Southwest.

March 1: "Immortal Shrubbery: the Sand Shinnery," presented by Roger Peterson, retired ecologist and botanist.

GILA (Silver City)

Meetings 7 p.m. in Harlan Hall, WNMU Campus

Jan 19: "Forest Restoration in Southwestern Ponderosa Pine Forests." Todd Schulke, Restoration Coordinator, SW Center for Biological Diversity.

Feb 16: "Invasive Plants of Maude's Canyon Study Area." Kathleen Whiteman, senior at WNMU.

Mar 16: "Floristic and Historical Perspectives on the White Sands Missile Range." Dave Anderson, WSMR ecologist.

LAS CRUCES

Programs and Meetings are at Southwest Environmental Center, 1494 S. Solano Dr.

Jan: No programs scheduled

Feb 14: Business Meeting at 7:00 p.m.

Mar 14: Program TBA

Mar 17: Saturday Field Trip to the Robledo Mountains. Lisa Mandelkern (526-0917) will be the leader. Meet at the Fairacres Post Office parking lot at 10:00 a.m.

OTERO

Jan: No Programs Scheduled

Feb 17th: Cleanup Party at Desert Foothills Park. Meet there at 8 a.m. Bring necessary tools.

March 17th: Japanese buffet dinner at the Hendzels' home (58 Rodeo) at 5:30 p.m. Theme: "Buddhists, beaches and blossoms." If there's an overflow crowd, we'll have a repeat on April 1st, same time, same place. No need to bring anything.

SACRAMENTO MTS (Ruidoso)

Jan 20: "Noxious Weeds" Slide show given by John Conner

Feb 24: "Forest Management" Slide show given by Bill Hornsby and Sharon Paul.

March 24: Field Trip to Gold Canyon Arizona for hiking and visiting with chapter members Jean and Charles Whitmer.

Grant Proposal: The Chapter has requested funds from the NPSNM Board for an educational landscaping project for Nob Hill Early Childhood Center in Ruidoso. The Ruidoso School District will match any funds received.

SAN JUAN (Farmington area)

No scheduled programs. For updated information on chapter activities, contact Nancy Dunning at 334-0196.

SANTA FE

Meetings held 3rd Wednesday of the month at 7:30 p.m. at St. John's College, Evans Science Bldg, Room 122.

Jan 17: "How Plants Got Their Names and The People Who Named Them." Bob Sivinski, botanist and New NPSNM President.

Feb 21: "Ted Turner's 400,000 acre Armendaris Ranch." Roger Peterson, botanist, environmentalist and retired professor.

Mar 21: "The Raton Mesa Complex: From Sand-lilies to Orchids to Saxifrages." John Robertson, photographer and self-taught botanist.

TAOS

Meets 2nd Wednesday evening of most months at San Geronimo Lodge, 1101 Witt Rd, Taos, at 7 p.m.

Jan. No Programs Scheduled

Feb. 14: "Native American Medicinal Herbs" Richard DeerTrack and Leah Shinbach

March 14: "From Mammoth Steaks to the Big Whopper: Environmental Change and Subsistence Adaptation in the Taos Valley" Skip Miller, author, potter, and historian.

MONEY MATTERS

On January 1st Don Tribble assumes duties as Treasurer of NPSNM. All checks that relate to Society business should go to him at:
79 Papago Rd
Alamogordo NM 88310

Hoe Hoe Hoe!

A man wrote to his son, who was in prison for bank robbery. "Well, Son," he wrote, "it's time to get out the hoe and get the garden ready for spring planting. I hope my poor old back is up to the job."

The son quickly wrote back, "Dad, whatever you do, don't dig up the garden! That's where the money is hidden!"

The very next day five carloads of police arrived at the garden and spent all day digging it up. Finding nothing, they left.

When the man wrote to his son describing this strange incident, his son responded, "Okay, Dad, *now* you can plant."

Thank You!

Getting this newsletter out takes many people, and among those deserving of a very big thanks are the proofreaders who catch all the typos, grammatical boo-boos, and lapses in logic and/or technical info. I couldn't do this job without the help of:

Jackie Tamas (*Taos*)
 Carolyn Gressitt (*Las Cruces*)
 Jack and Martha Carter (*Gila*)
 Jane Mygatt (*Albuquerque*)
 Sally Wasowski (*Taos*)

Also, special thanks go to Carolyn Gressitt and John Freyermuth for mailing out the newsletter each quarter and all that this entails.

"A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community."

Aldo Leopold, *Sand County Almanac*



NATIVE PLANTS GO TO SCHOOL

"The future of the environment depends on involving children as early as possible in growing and appreciating plants, yet the worst-landscaped institutions in this country are the public schools."

*Katy Moss Warner, General Manager,
Walt Disney World Horticulture Division*

Think kids are more savvy about nature than grown-ups? Think again. Educators, environmentalists, and parents agree that our youngsters are out of touch with the natural world. They get most of their exposure to nature vicariously, through TV and in school books. There's little or no hands-on exposure, and as a result children view a meadow or woodland as being as alien as the dark side of the moon. In Ms. Warner's speech, she pointed to a solution, one that more and more schools seem to be adopting. All over the country, parents, teachers, and interested members of the community are going to PTAs and school administrations to request permission to install environmentally sound landscapes on the school property. And they're getting support

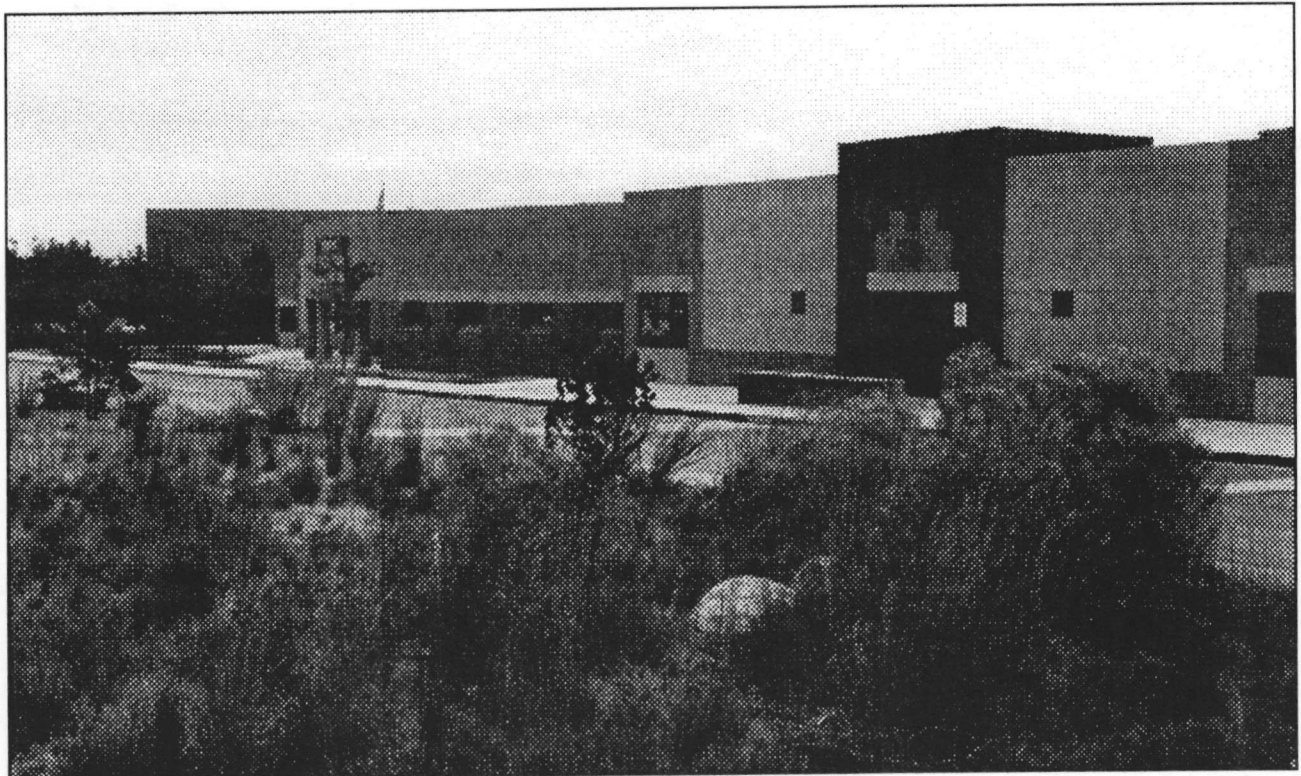
from many resources, including The National Wildlife Federation's Schoolyard Habitat Program, The Audubon Society's School Sanctuary Program and, yes, local native plant societies.

School Gardens Across the Country

San Dieguito High School near San Diego adopted a native chaparral landscape in 1990, thanks to the efforts of science teacher, Jerry Trust, and his students. And while Trust has moved on to another school, students continue to maintain the gardens and take pride in the school's colorful look. In Odessa, Texas, two teachers, Glenda McDowell and Barbara Starnes, divided the courtyard at Permian High School into four distinct habitats of the Chihuahuan Desert, and made installation and maintenance a part of their students' science curriculum. And throughout the upper Midwest, many schools are installing prairie landscapes. After visiting a number of these gardens, we learned that *the key to a successful and long-lived native garden is strong administrative support.*

And here in New Mexico...

A few years ago, Dean Ricer (Carlsbad Chapter) was asked by the then principal of Sunset Elementary in Carlsbad to help design a garden appropriate to the region. His plan was accepted, but the principal soon after transferred to another



Double Eagle Elementary School in Albuquerque

school and the garden project went dormant.

Today, the new principal, Rita McCracken, told us she is very interested in resurrecting the native garden, and has a five year plan to see it through to completion. "I have several goals," she said. "One is to recognize our desert locale and make the garden environmentally friendly. It must conserve water. Secondly, I want to expose our kids to native plants."

"Administration attitude is vital to this kind of project," says Ricer. "If nobody in the school cares, it won't get done."

Things are definitely getting done in Albuquerque because, several years ago, the school district set a policy of establishing native landscapes around new schools and upgrading the grounds of older schools with water conserving vegetation. Double Eagle Elementary was given the native treatment three years ago. The district assigned the task to landscape architects, Morrow, Reardan and Wilkenson. "The district insisted on a low maintenance plan," said partner Dennis Wilkenson, "so we installed a lawn of blue grama and '609' buffalo-grass. It gets mowed just twice a season and uses very little water." Also in the landscape are alligator juniper, piñon, chamisa and saltbush, giving the school grounds a nice sense of place.

Wilkenson said his firm is currently working with other schools in Albuquerque, as well as Santa Fe High School which is currently undergoing a major face-lift.

In 1998, Las Cruces High School designed and installed a xeriscape garden on their campus. According to Carrie Hernandez, Vocational Agriculture/Horticulture Instructor at the school, the garden was the idea of the principal, Mark Harts-horne, who saw that the City of Las Cruces was re-vamping a number of municipal areas and turning them into suitable landscapes for their arid climate.

He consulted Randy Farmer, owner of The Greenhouse nursery, and architect Randy Newby, both LCHS parents. They came up with a design that incorporated approximately 60 percent natives of the Southwest, with the rest being desert plants from other parts of the world. The native plant palette includes: chamisa, honey mesquite, pink muhly, sotol, prickly pear, ocotillo, hesperaloe, tree yucca, and a hybrid desert willow. Well-adapted non-natives include: cotoneaster, peppertree, and Indian

hawthorn. The installation was undertaken by over 400 parents and students on one Saturday.

Community feedback has been very positive, says Ms. Hernandez. "Besides beautifying what was once a 'dead corner' of the campus, the xeriscape garden is now an important part of the school's environmental sciences curriculum, and gives juniors and seniors the opportunity to take what they learn by working with the garden and acquire credits in agronomy and horticulture at Doña Ana Community College and New Mexico State University. More than 600 students are in the agriculture/horticulture classes at Las Cruces High School.

Outreach

Is there a school in your community that could use your chapter's help in establishing a native landscape? This kind of project is a wonderful form of community outreach; it draws positive attention to NPSNM and your chapter, and fulfills the educational and environmental goals of our organization.

And, of course, the finished garden provides the youngsters with an up-close and personal look at nature — the indigenous plants of the area and the wildlife that are attracted to it.

Andy Wasowski

HANDS ON!

"The lack of rootedness in the natural world is connected to our move indoors. Now there is no need to go outdoors; nature is not viewed as entertainment. When you have no TV you are forced to look elsewhere. In the past, to a large extent, this was found in the natural world. TV and videos, even at school, are no substitutes for the direct experience of going out and collecting a leaf, butterflies or rocks. At Morton, all our environmental programs require the participants to be outdoors -- to make firsthand discoveries. In the act of discovery, a bond is made with nature."

*Craig Johnson, Director of Education
Morton Arboretum in Chicago*

Las Cruces Meeting Rated Big Success!



One hundred and thirty participants came to Las Cruces for the 2000 Annual Meeting, September 29th through October 1st and discovered a full agenda of activities, lectures, and fun. The conference theme was, "Working for a better understanding of the Chihuahuan Desert," and the slate of speakers delivered on that promise big time.

David Lee Anderson emceed the presentations and kept everything moving on time and with good humor. Friday's presenters were: Laura Foster Huenneke speaking on "Endangered Desert Diversity," Debra Peters on "Landscape Processes and the Recovery of Desert Grasslands," Stephanie Bestelmeyer on "K-12 Environmental Science Education on the US-Mexico Border Program," Bruce C. Thompson explaining how a federal government program is integrating satellite imaging and ground truth surveys, and David Lee Anderson covering the vascular flora of White Sands Missile Range.

Saturday began with Walter G. Clifford explaining "Why creosotebush *Larrea tridentata* is 'El Gubenedor' in the Chihuahuan Desert." Then came Luis Florez on the National Park Service's efforts on behalf of Southern Shortgrass Prairie Exotic Plant Management; Mary Alice Root on "Birds of the Chihuahuan Desert," illustrated with beautiful slides provided by Dale and Marian Zimmerman;

Kevin Bixby on the Southwest Environmental Center's plans for Mesilla Valley Bosque Park; Carolyn Dodson and David L. Bleakly discussing T.D.A. Cockerell and his influence on New Mexico botany; and Edward Sullivan's beautiful slide presentation on "Protecting New Mexico's Natural Heritage."

The afternoon session was a panel discussion and Q&A on landscaping in the Las Cruces area. It was open to the general public and was very well-attended. Moderated by Greg Magee, the panelists were: Judith Phillips, Jackye Meinecke, Terry Peterson, John White, Sally Wasowski, and Wynn Anderson. The session was so successful that it went on for close to two hours and would have lasted longer if Greg had not wrapped it up to save time for Rolston St. Hilaire and his presentation on "Computer-aided residential landscape design."

Saturday evening's Mexican buffet was "muy delicioso!" and followed the humorous keynote address by Richard Spellenberg, "Charles Wright and the Native Plant Society of New Mexico." Jack and Martha Carter were honored with a Lifetime NPSNM Membership, and presented with a "Heroes of the Environment" plaque and \$500 donation from Thomas H. Wootten of the T&E corporation for their environmental (*cont'd on back page*)


"The earth is precious to God, and to harm the earth is to heap contempt on its Creator." *Chief Seattle, 1854*



Taos Herb Co.

The Natural Products People

Mon-Fri 9am to 6pm, Sat 9am to 5:00pm
 in Cruz Alta Shopping Center 758-1991
 800-353-1991



WaterWise Landscapes, Inc.

Drought Tolerant Perennials, Herbs, and Natives
 Design, Installation, and Maintenance

J. Hunter Ten Broeck Albuquerque, N.M. 87107
 505-344-7508




The Best Selection of Natural & Gourmet Foods in Taos

623 Paseo del Pueblo Norte * 758-1148

We may be in Arizona, but

WE GROW NEW MEXICO NATIVES

10020 W. Glendale Ave
 Glendale AZ 85307
 Toll Free 800-840-8509
 Fax 623-247-6354



BERNARDO BEACH
 native and climate-adapted plants
 for beautiful easy care gardens
 that attract songbirds,
 hummingbirds, and butterflies

from our backyard to yours

3729 Arno Street NE
 in Albuquerque
 open daily March through October
 winter hours by appointment

345-6248

HELP WANTED

We're looking for help at the Albuquerque outlet of *Bernardo Beach Native Plant Farm*. While some experience with native plants is helpful, a desire to learn and help patrons make appropriate planting choices for their gardens is more important. For specifics, call Judith Phillips at **345-6248**

MISTLETOES of NEW MEXICO & THE SOUTHWEST

Martha Carter

The last time you ventured into the forest to gather wood, cut a tree to decorate for Christmas, or just enjoy a quiet woodland walk, you may have observed masses of green plants growing on the evergreen trees, or spherical shapes in oaks, cottonwoods and sycamores along the arroyos. What you were seeing is a family of aerial, parasitic plants known as mistletoes, the Viscaceae.

Mistletoes are flowering plants that truly belong with the woody members of the division Anthophyta. The ones in the Southwest represent fewer than a dozen species of the approximately 1,300 species worldwide, with the vast majority occurring in tropical and subtropical regions.

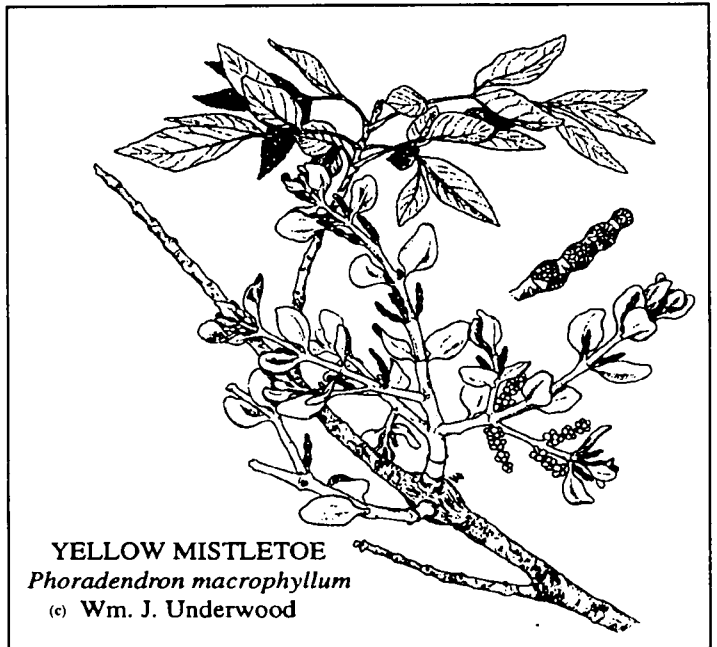
Local mistletoes

The two genera that do occur in New Mexico are the genus *Arceuthobium*, the dwarf mistletoes, and the genus *Phoradendron*, the large, more woody mistletoes. Their distribution is restricted to the occurrence of the host shrub or tree. That is, they seem to be host-specific, or at least host-preferential, based on their evolutionary history.

Dwarf mistletoes, such as *Arceuthobium divaricatum*, piñon pine dwarf mistletoe, have a distribution similar to *Pinus edulis*, piñon pine. Of the seventeen taxa of *Arceuthobium* in the United States, all but one are western, and six are endemic; that is, they are believed to be confined to the evergreen forests of the western U.S.

In New Mexico, the genus *Arceuthobium* is represented by six species: *A. apachecum*, parasitic on white pine *Pinus strobiformis*; *A. divaricatum*, parasitic on piñon pine *P. edulis*; *A. gillii*, parasitic on Chihuahua pine *P. leiophylla* var. *chihuahuana* and possibly ponderosa pine *P. ponderosa*; *A. vaginatum*, commonly confined to ponderosa pine, Arizona yellow pine *P. ponderosa* var. *arizonica*, and Apache pine, *P. engelmannii*; *A. douglasii*, parasitic on Douglas fir *Pseudotsuga menziesii*; and *A. microcarpum*, parasitic on Engelmann spruce *Picea engelmannii*. Likewise, yellow mistletoe *Phoradendron macrophyllum*, whose principal hosts are

cottonwoods *Populus*, willows *Salix*, and native sycamores *Platanus*, occurs in the same range of distribution as these hosts. Three species within the genus *Phoradendron* occur on Junipers: *P. juniperinum* and *P. capitellatum*, both carry the common name Juniper Mistletoe, and *P. bolleanum*, Narrow Leaf Mistletoe. The success of parasitic mistletoes is based on several evolutionary mechanisms: the viscosity of the seeds in both *Arceuthobium* and *Phoradendron*, the explosive characteristic of the



YELLOW MISTLETOE
Phoradendron macrophyllum
(c) Wm. J. Underwood

seeds of the dwarf mistletoes, and the genetic makeup that allows the growing parasitic plant to take nutrients from the vascular system of the host plant. Parasitic plants such as mistletoes grow by tapping a host's vascular tissue, much like a developing leaf or shoot does. The host plant cannot recognize the incursion as that of a parasite, so the mistletoe is accepted as another component of the plant.

Mistletoes have a genome (genetic code) that is different from the host, and do not behave according to the host's developmental rules. For instance, mistletoe leaves open their stomata much wider than the host and lose water faster than the leaves of the host. In this way, the parasite receives a disproportionate share of the nutrients carried in the sap of the host plant.

In the genus *Arceuthobium*, dwarf mistletoe, the leaves are reduced to scales or are absent, the stems are generally yellow-green, becoming brown or reddish purple with age, the berries are green to purple, compressed and explosive.

Speedy Seeds

The viscous seeds of the genus *Arceuthobium* are explosively expelled from the fruits in mid-summer to late fall, depending on the taxon involved. Velocities of these seeds have been measured at up to 90 feet per second for distances up to 50 feet. The sticky seeds readily adhere to the needles of coniferous trees and usually remain on them until the first rain lubricates the viscous coating and causes the seeds to slide down the needles to the twig, where germination takes place. In six to eight years, the plant will repeat the cycle, again dispersing the exploding, sticky seeds.

In the genus *Phoradendron* (from the Greek, meaning "tree-thief"), the leaves are usually foliaceous (leaflike in color and texture) on angiosperms, the stems are yellow-green to gray-green, sometimes orange or reddish purple with age, the berries white to pink, globose and not explosive.

The flowers bloom from late autumn to early winter in New Mexico. The fruit may take more than a year to mature, so flowers of the current year and mature fruit may be found on the same plant.

Berries of some species of *Phoradendron* are poisonous. The viscid layer surrounding the seed adheres to fruit-eating birds that subsequently

disperse them, often by rubbing the sticky seeds off on a different tree branch.

The species mentioned earlier, yellow mistletoe, has another common name: Christmas American mistletoe. It is traditionally used for holiday decorations both in Europe and North America. As the leaves fall in winter, growths of this mistletoe are evident as the familiar ball-shape we have come to associate with the Christmas season.

In ancient Gaul, Ireland and Britain, some members of this genus were worshipped by Druids, an order of priests. At certain times — probably at Midsummer Eve — the Druids harvested the mistletoe with a golden sickle and used it in rituals that involved the killing and burning of animals. These Druid rituals have been replaced by the newer and more sophisticated mythology of Christmas, and the mistletoe now plays a much gentler role; getting kissed under the mistletoe is as much a part of the holiday celebration as egg nog and presents.

References cited:

Carter, Jack L. 1997. *Trees and Shrubs of New Mexico*.

Moore, Randy; W. Dennis Clark, and Kingsley R. Stern, 1995, *Botany*.

U.S. Dept. of Agriculture, Hawksworth, Frank G., and Delbert Wiens, 1972. *Classification of Dwarf Mistletoes (Arceuthobium)*.



**Enchanted
GARDENS** LLC


For the Finest Garden Products

Native flowers 413 W. Griggs Ave.
Native trees & shrubs Las Cruces, NM 88005
Herbs and perennials 505-524-1886

The place for avid gardeners to meet!

SAN GERONIMO LODGE

1101 Witt Rd. Taos
505-751-3776





SANTA ANA

GARDEN CENTER

NATIVE PLANTS

<p>Retail sales</p> <p>157 Jemez Dam Rd. Bernalillo, NM 87124 (505) 867-1322</p>	<p>Wholesale</p> <p>2 Dove Rd. Bernalillo, NM 87124 (505) 867-1323</p>
---	---

Locally grown perennials,
shrubs, trees and seasonal
vegetables

Landscape Project Initiated For Sevilleta National Wildlife Refuge Visitors' Center

A brand new Visitors' Center is nearing completion at the Sevilleta Refuge, and in keeping with their conservation-through-education mission, plans have been made to install landscaping around the Center that will represent the biomes that merge on the Refuge.

To protect the integrity of the numerous long-term research projects undertaken there, much of the property is closed to visitors. Therefore, the landscaping around the visitors' center will be a mosaic of some of the refuge's special and inaccessible plant communities. In this way, visitors will come to understand why the preservation and study of this refuge is so important.

The Nature Conservancy has already funded the planning of interpretive exhibits for the interior of the Visitors' Center and the plotting of two nature trails. A fully accessible trail with interpretive signage will meander through the landscaping and go out to a vantage point that will give visitors a good idea of the extent of the Refuge.

Another unimproved trail loops southward down an arroyo into a typical Chihuahuan Desert habitat.

The planned interpretive exhibits describe the Sevilleta biomes as Great Basin-Colorado Plateau steppe-shrubland, Rocky Mountains foothills, Great Plains Shortgrass Prairie, Chihuahuan Desert, and Rio Grande riparian. The landscaping will include plant communities characteristic of these biomes, in some cases replicating as closely as possible actual plant communities on the Refuge.

Judith Phillips, author, landscape designer, and owner of Bernardo Beach native plant nursery, has volunteered to design the landscape, while Mindy Mayfield has been photographing plants and compiling a species list of plants around the Visitors' Center and along the trails as a reference for visitors.

While the Visitors' Center is expected to be completed early in 2001, the landscaping will be installed as nature and funding permit.

Any support the NPSNM, either as a group or from individual members, can give to this project would be greatly appreciated.

**"We will conserve only what
we love...
we will love only what we
understand...
and we will understand only
what we are taught."**

*Baba Dioum
African Conservationist*

State Seedling Program Offers Woody Plants at Bargain Prices

The New Mexico Forestry Division has a popular distribution program for woody plant seedlings at very low costs. Thirty-eight species of native plants are available to New Mexico landowners.

Tree species include piñon and ponderosa pines, Douglas and white firs, blue spruce, Gambel oak, desert willow, alder, willows, cottonwoods, etc. Native shrubs offered include Apache plume, four-wing saltbush, winterfat, three-leaf sumac, New Mexico forestiera, rabbitbrush, and many more.

Bareroot seedlings are sold in bundles of 25 with a minimum order of 50 plants. Containerized seedlings are sold in increments of 49 for 1-year old plants and 20 for 2-year old plants. To order, call the NM Forestry Division at 505-827-5830 or visit their web site at <http://www.nmforestry.com> before March 10, 2001.

Buy in bulk and share with your neighbors.

Book Reviews

Native Landscaping from El Paso to L.A.

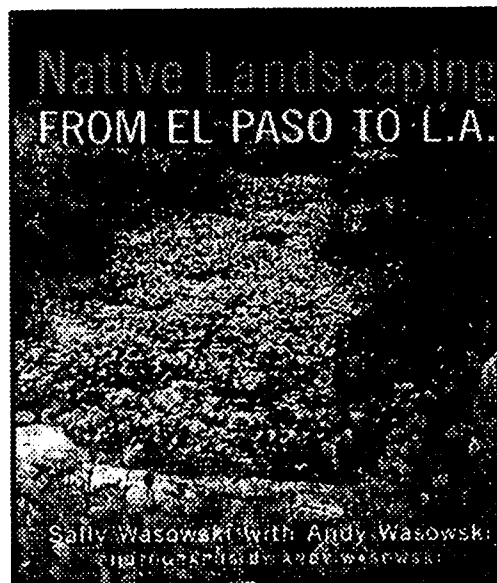
SALLY WASOWSKI with Andy Wasowski
Foreword by Dr. Robert Breunig
Contemporary Books, Chicago 2000
184 pages, 146 plant profiles, 8 theme garden
plans, color photos throughout
ISBN 0-8092-2511-5 \$22.95

The Wasowskis have made a good book better! First published in 1995 as *Native Gardens for Dry Climates*, the book was included in the American Horticultural Society's list of "The 75 Best Gardening Books of All Time." Despite such accolades, the timid publisher did not reprint this marvelous book after the first edition sold out, and it never really had a chance to show its potential in the Southwestern gardening market.

Persevering, the authors chose a more region-specific title, created new charts for bloom times and color, added a foreword by Dr. Robert Breunig, Executive Director of the Lady Bird Johnson Wildflower Center, and found a new publisher who brought the book out in deluxe paperback. Priced at \$22.95, this great reference is now affordable for every serious, water conscious gardener from Texas to southern California, including the southern half of New Mexico — although, frankly, the book has much to offer those of you who live in the northern half as well.

As with previous Wasowski books, this one is packed with helpful assistance on everything from garden design to plant selection to maintenance. Divided into two parts, the first section includes the immensely sensible envelope plan, which shows how existing native vegetation on an undeveloped site can be saved, so that the resultant structure looks as if it had been gently inserted into the natural landscape.

For those who, unfortunately, may be faced with a sterile, previously graded building site, as is the norm in most southwestern land developments, or who seek to re-landscape an existing residence, Sally shows how to restore your landscape to some



semblance of the natural. Finally, recognizing the need for more intimate and usable areas within our landscapes, Sally guides us through an enchanting variety of smaller courtyard gardens: a Moonlight Garden, a Songbird Garden, a Fragrance Garden, even a Curandera Garden. I wanted them all!

The second section is my personal cup of tea, being devoted to descriptions of over 150 commercially available Southwestern natives. The information is well researched, informative, and accompanied by Andy's exceptional photos. Included, among other relevant points about each plant, are the common and botanical names, native habitat and range and the regions where use is appropriate, soil, water and sun preferences, normal growing height and width, landscape and other values for the plant, and related species.

The book includes a series of "Indigenous Charts"— handy guides, by city, to the plants that are native to that particular region. Now someone living in El Paso-Las Cruces, Tucson, Phoenix, Las Vegas, Palm Springs or Los Angeles can zero in on the plants most appropriate to their area. These charts are organized by predominant landscape use such as trees, shady and sunny groundcovers, leafy evergreens, vines, succulent accents, etc, and are then followed by the new charts giving colors and bloom times.

While this book is available at your favorite bookstore, all NPSNM members are encouraged to order their copy from the book sales service in care of Lisa Johnston, e-mail cityhall@artesia.net.

Wynn Anderson

Conference 2000 cont'd

work outside NPSNM. The donation would go to the organization of the Carters' choice, and they not only chose NPSNM for the gift, but matched the amount. Thanks, Jack and Martha, not just for the money, but for your tireless efforts over the years.

Sunday morning was devoted to field trips to three locales. Terry Peterson and John Freyer-muth led a botanizing trip through the Bishop's Cap area, Greg Magee led a group on a mile and a half walk around Dripping Springs, and Wynn Anderson hosted a visit to the Chihuahuan Desert Gardens which he designed and oversees on the campus of the University of Texas at El Paso.

No report on this meeting would be complete without a "big thank you" to Lisa Mandelkern, and the members of the Las Cruces Chapter who gave of their time, talents, and ideas to make this a truly great meeting. Also, thanks to Terry Peterson and John Freyer-muth for compiling the information for this report. And a special thanks to Terry and his wife, Marlene, for hosting Friday night's party in his beautiful native garden.

DESIGN IDEAS FROM 1908

From an article on "The Natural Garden" from *The Craftsman* magazine, January 1908.

Making a garden is not unlike building a house, because the first thing to be considered is the creation of that indefinable feeling of restfulness and harmony which alone makes for permanence.

Therefore, in planning a garden that we mean to live with all our lives, it is best to let Nature alone just as far as possible, following her suggestions and helping her to carry out her plans by adjusting our own to them, rather than attempting to introduce a conventional element into the landscape.

No matter how well planned the house may be, the whole sense of home peace and comfort is gone if the garden is left to the mercy of the average gardener, whose chief ambition usually is to achieve trim walks, faultless flower-beds and neatly barbered shrubs, and whose appreciation of wild natural beauty is small.

The Native Plant Society of New Mexico
734 North Reymond St
Las Cruces NM 88005

Non-profit
Organization
U.S. Postage
PAID
Permit #946
Las Cruces, NM

RETURN SERVICE REQUESTED