

NATIVE PLANT SOCIETY OF NEW MEXICO NEWSLETTER

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THE GILA NATIONAL FOREST: A NATIONAL TREASURE

A Preview of the 1995 Native Plant Society of New Mexico Annual Meeting

"We abuse the land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect. " Aldo Leopold

From the time the ancient Mimbreños abandoned the cliff dwellings above the Gila River valley in the 12th century until the establishment of the Gila National Forest, the Aldo Leopold Wilderness, and the Gila Cliff Dwellings National Monument, this vast and diverse landscape has been under discussion. Just how can and should humankind best make use of it. Every private group now seems to have a plan that best suits their aims and objectives. Today the Gila

National Forest (GNF) is a perfect model for Garrett Hardin's famous article,"The Tragedy of the Commons."

Present day archeologists speculate that the ancient ones could no longer support their agricultural needs with the limited available rainfall and moved on to a more dependable supply of moisture. However, this was only after they had left a valuable legacy of Mimbres Classic Culture (A.D. 950-1100) art and artifacts; designs that continue to influence our way of life in southwestern New Mexico. In fact, the

many questions about their disappearance continue to provide areas for scientific study today.

I have characterized the controversy surrounding the GNF as having qualities similar to a tornado with strong winds and emo-

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tions swirling around the U.S. Forest Service and their charge to conserve, protect, and manage these public lands. Every concerned group wants a say in the use or non-use of the "Commons." Each time the political picture changes, a new emphasis is placed on the question of use and answers seem to come too slowly for everyone concerned. There seems to always be too little light and too much heat.

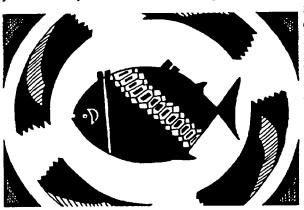
Among all of the varied activities of the NPSNM, the Annual Meeting provides the single best opportunity to share in the educational process. Through face to face discussions, lectures, and

field trips we will share our knowledge, skills and values concerning the long term future of the GNF. With this meeting, our shared values and bioethical beliefs will bring us together. This kind of gathering is basic to the mission of the NPSNM.

Especially this year our Annual Meeting will provide an opportunity for us to come together in a setting that demands our attention. Through shared experiences we will examine the history and present condition of

the GNF. More importantly, this gathering will allow us to develop our plan for the future of the Forest and to better articulate what we want to see it become. Like all Americans, it is our responsibility to see that this biologic treasure is protected. However, because we have greater collective knowledge of the flora and ecology of New Mexico and an ethical sense of responsibility to protect the biodiversity of both New Mexico and the Gila National Forest, our role as an organization is greatly expanded.

One final suggestion. As we prepare for this important meeting we would encourage the membership to read or reread one (or all three) of the following works: Aldo Leopold's, Sand County Almanac (1949) which Rene Dubos called, "the Holy Writ of American



Conservation"; Aldo Leopold's, "The Conservation Ethic", which was an address presented in Las Cruces, NM at the 1933 annual meeting of the Southwest Division of the American Association for the Advancement of Science and published in the October, 1933 issue of the *Journal of Forestry*; or finally, Garrett Hardin's, "The Tragedy of the Commons", which was published in *Science*, Volume 162, pages 1243-1248, in 1968. The film by the same name will be shown on Friday afternoon on the campus of WNMU during the Annual Meeting.

Information describing the full schedule of events for this meeting are included in this issue of the NPSNM *Newsletter* along with registration materials. If you have questions please contact Jack Carter, P. O. Box 1244, Silver City, NM 88062 or call (505) 388-9221.





The
Newsletter is
published six times per
year by the Native Plant Society of New Mexico. The Society is
composed of professional and amateur botanists and others with an interest in the flora of
New Mexico.

Articles from the Newsletter may be reprinted if fully cited to author and attributed to the Newsletter

Membership in the Native Plant Society of New Mexico is open to anyone supporting our goals. We are dedicated to promoting a greater appreciation of native plants and their environment, and to the preservation of endangered species.

OFFICERS

Members benefit from chapter meetings, field trips, publications, plant and seed exchanges, and educational forums. A wide selection of books is available at discount. The society has also produced two New Mexico wildflower posters by artist Niki Threlkeld. Contact our Poster Chair or Book Sales representative for more information. Call chapter contacts for further info.

We encourage the use of suitable native plants in landscaping to preserve the state's unique character and as a water conservation measure.

Advertising Schedule
Approved advertisements will cost \$40 per year.

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Schedule of Membership Fees

Dues are \$10.00 annually for individuals or families. "Friends of the Society" include organizations, businesses, and individuals, whose dues of \$25.00 or more provide support for long range goals. To join us, send your dues to Membership Secretary, 10800 Griffith Park Drive, Albuquerque, NM 87122

Newsletter Contributions

Please direct all contributions for the newsletter to Tim McKimmie, editor. See address below or email to tmckimmi@lib.nmsu.edu

Deadline for the next newsletter is August 1.

DOAD	$\mathbf{p} \mathbf{n} \mathbf{n} \mathbf{r}$	DIDE	CTORS

Mimi Unbby

President	Mimi Hubby	903-1030		
	525 Camino C	525 Camino Cabra, Santa Fe 87501		
Vice-President	Jean Dodd	434-3041		
	1302 Canyon R	oad, Alamogordo 88310		
Recording Secretary	Jean Heflin	890-4164		
•		16 Link NW, Alb. 87120		
Membership Secretar	ry Virginia Scott	293-7387		
10800 Griffith Park Dr., Albuquerque				
Treasurer	Babs Peck	466-1348		
	1 Herrada Terrace, Santa Fe 87505			
Editor/Publications C	Chair Tim McKimmie	524-0401		
	1105 Circle D	r., Las Cruces 88005		
Conservation Chair	Greg Magee	525-9424		
	1845 Mesilla H	ills Dr. Las Cruces 88005		
DIRECTO	RS AT LARGE			
Karen Lightfoot	343-9265 615 Mission	St. NE, Albuquerque 87107		
Mary Whitmore	454-0683 HC31-Box 12	20, Las Vegas 87701		
Jack Carter	388-9221 POB 1244, S	Silver City 88062		
Don Tribble	585-9017 79 Papago Ro	i, Alamogordo, 88310		
Mary Helen Brunt	885-4532 2907 W. Colf	fax, Carlsbad 88220		
SOCIETY CORI	RESPONDENCE:			
Our main address is	s: NPSNM, POB 5917, San	ta Fe NM 87502-5917		
See above for mer	nbership and newsletter con	rrespondence.		

Book Sales: Lisa Johnston 748-1046 1802 West Grand, Artesia 88210 Poster Chair: Ellen Wilde 982-1406 110 Calle Pinonero, Santa Fe 87505

CHAPTER CONTACTS

	CHAFTER CON	IACIS
Albuque	rque	
	Ted Hodoba	864-0614
	Lu Bennett	897-7461
Las Cruc	ces	
	Alice Anderson	523-5179
	Tom Wootten	522-8068
Otero		
	Jean Dodd	434-3041
	Don Tribble	585-9017
Santa Fe	;	
	Bob Sivinski	982-0616
	Nancy Daniel	988-9141
Gila	•	
	Martha Carter	388-9221
	Veronique Baxter	538-8530
Carlsbac	i	
	Mark Rosacker	885-6117
	Mary Helen Brunt	885-4532

BUFFALO GOURD

(Cucurbita foetidissima)

by Bill Dunmire and Gail Tierney

With triangular leaves and giant yellow flowers in summer, this remarkable spreading perennial vine is unmistakable. As the season progresses its softball-size fruits turn from striped green to golden.

Finally, the vine shrivels and dies, leaving bleached gourds on the ground, and below the surface a man-size fleshy taproot that may weigh up to 150 pounds after many years of growth.

Throughout New Mexico buffalo gourd grows, in disturbed sandy places such as along rural roadsides and arroyos. It often thrives near fences, where it gets some protection from trampling and a bit of extra water.

One early account suggests that the ripe gourds were used as rattles in Pueblo dances, but a craftswoman at Tesuque Pueblo disagrees, saying that the skin is too thin and the gourd doesn't dry properly. Our own experiments seem to confirm her observations. Rather it's the bottle gourd (*Laqenaria siceraria*), introduced into the prehistoric Southwest from Mesoamerica at an early date, that was and still is the main implement for ceremonial rattles.

Buffalo gourd seeds have been recovered from Anasazi and even more ancient archaeological sites. Both the seeds and the blossoms probably were eaten in early days, but definitely not the other plant

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parts, for they contain cucurbitacins, foulsmelling chemicals and perhaps the bitterest natural substances known to mankind.

Besides being noxious to humans and livestock, cucurbitacins have the peculiar quality of compulsively attracting certain species of insects and repelling others. Pueblo Indians along the Rio Grande seem to have learned of the latter effect early on. A Cochiti elder describes crushing the gourd in water and sprinkling the liquid on squash plants in his garden to repel squash bugs. At Sandia, tribal elder Felipe Lauriano recalls that in his youth the gourd and leaves were cut and placed in all four corners of pueblo homes to keep out

insects. The ground roots once were used in sleeping quarters at Santo Domingo to get rid of bedbugs.

Buffalo gourd has been used for human medicine, too. Not many years ago Isleta Puebloans boiled the roots to extract a liquid used in treating chest pains, and the roots ground fine and mixed with water served as a laxative at some of the northern pueblos. At Zuni the seeds and flowers have been mixed with saliva to reduce swellings.

The gourds also contain saponin, an agent that produces soapy lather. Thus, they have been used for cleaning purposes over the years by many American Indians and other rural desert-dwelling

people throughout the Southwest. At Sandia Pueblo gourd chunks were once rubbed on clothes as a kind of soap, and at Cochiti the spheres were cut in half for scrubbing pots and dishes. It's likely that at one time or another people from all the pueblos along the Rio Grande found ways to use the root or gourd of this plant as a useful detergent.

(The above article, slightly modified, is excerpted from Wild Plants of the Pueblo Province: Exploring Ancient and Enduring Uses, by NPSNM members Bill Dunmire and Gail Tierney. This 292 page book, recently published by the Museum of New Mexico Press, is filled with color photos and line drawings plus maps and is now available at local bookstores for \$19.95 paperback, \$29.95 clothbound or through NPSNM Book Sales at members' discount price of \$16.00 for the soft cover.)

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OTERO

July 15 Meet at Cloudcroft Forest Service lot, 10 am, to help make plant list for Rails to Trails.

July 29 Potluck at Claypools

August 5 Osha trail, just below Cloudcroft. 10 am at trailhead.

August 17-19 Otero County Fair booth.

August 18-20 NPSNM Annual Meeting, Silver City

Sept. 2-4 Cottonwood Festival

ALBUQUERQUE

August 12-13 Annual Native Plant Sale August 18-20 NPSNM Annual Meeting, Silver City

GILA

July 16 Field Trip to Black Canyon in Black Range. WNMU Fine Arts Lot, 8 am

August 18-20 NPSNM Annual Meeting, Silver City

LAS CRUCES

July 12 "Biology of Snakes" by Paul Hyder. 7:30 pm. SW Environ mental Center, 1494 S. Solano

July 15-16 Camping trip to Springtime-Luna Campground Call chapter contacts for information

August 9 General Discussion, at SW Environmental Center. 7:30 pm August 18-20 NPSNM Annual Meeting, Silver City

SANTA FE

July 7 Slides of local birds at Randall Davey Audubon Center by Jim Karo. 7:30 pm

July 8 Mt. Music Ranch in Gallinas Canyon and Fern Hill Herb/ Wildflower Farm, Montezuma. 8 am PERA lot (across from Capitol on Old Santa Fe Trail), or 9 am Old Roundhouse, Las Vegas

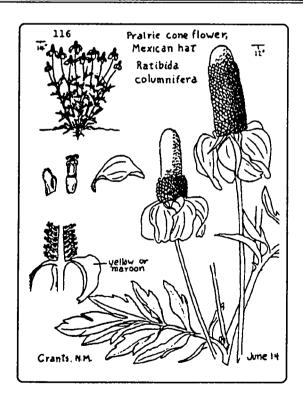
July 12 Preview of butterflies by Steve Cary. 7:30 pm, Randall Davey
Audubon Center

July 16 4th Annual Santa Fe Butterfly Count. 8 am PERA

July 29 Field trip to Rio Arriba County. 8 am PERA

August 5 Trip to La Cueva/Jemez Springs. 8 am PERA or 9:30 am La Cueva general store

August 18-20 NPSNM Annual Meeting, Silver City



Many thanks to Robert Dewitt Ivey for permission to use his wonderful drawings from Flowering Plants of New Mexico, second edition, in our Newsletter.

Report From Gila Chapter

Excitement is growing concerning the Annual Meeting in Silver City 18-20 August. Final committees have been formed and are working to ensure our guests enjoy themselves in the southwestern corner of New Mexico and benefit from the discussions and renewing of friendships among native plant fans.

The theme of this meeting will be the Gila National Forest: A National Treasure with the Saturday Field Trip taking us 45 miles through the Gila National Forest, to an overlook of the Aldo Leopold Wilderness and to the Gila Cliff Dwelling National Monument for lunch. Forest Service interpreters will be on hand to answer questions at the Visitor Center. During the trip up through the Forest, frequent stops are planned for close inspections of the flora, fauna, archeology and geology. There will be a guide for each van and we plan to stagger the departure times and stops so that we are not all in one place at one time. Refer in this issue of the Newsletter for further information, schedules and reservation forms.

The Holiday Motor Hotel on east Highway 180 will be headquarters for the Meeting. Arrangements have been made for room rates to NPSNM members. The NPS rate is \$40.00 for up to four persons. Call early and be sure to mention the NPS. You can guarantee the reservation with a credit card. With the exception of Friday afternoon programs on Western New Mexico University campus, the Field Trip on Saturday and the Continental Breakfast at Frank & Joyce Knaus' all activities will center around the Holiday.



CHAPTER REPORTS

Las Cruces-Paul & Betty Shelford

At our April 12th meeting Dr. Craig Lidell, an entomologist on the faculty of NMSU spoke on the topic of Global Warming. There is good evidence of the fact that it is taking place. The planet has always been changing. The all-important question is whether or not this is a cyclical change, as it has in the past, or is this part of a long-term overall change that will affect the earth for thousands of years to come? If it is long-term, the continents will shrink as the rise of the oceans inundate low-lying shorelines. One striking effect of this situation is that this is one area where big industry is watching with just as much concern as environmentalists.

On April 23rd, Tom Wootten led a field trip to Webb Gap in the north Franklin Mountains. Eleven members enjoyed a multitude of wild flowers spread through an unusual stand of blooming Lechuguilla. Some thirty-nine native plants were identified while listening to the song of a Scott's Oriole seeking a mate. The Golden Poppies were no longer in bloom; but we did find the smaller and more delicate Yellow Flax. We were introduced to the white Cochenial on Prickly Pear Cactus; when squeezed, this insect yields a dark red liquid which was once used as a dye. We also saw a fat little creature which was identified as a Lover' Grasshopper.

In our meeting of May 10th, Alice Anderson gave us a general introduction of plant taxonomy. This was followed by introductions to four plant families. Jennifer Atchley spoke on the Willow Family of which there are 500 species, including the Quaking Aspen and 40 different species of Cottonwoods. Christine Ruetzel introduced the Mint Family characterized by their square stems. There are some 3,000 species in 170 genera. Lisa Mandelkern spoke of the Pea or Legume Family characterized by their seed pods found on our native Honey Mesquite and the New Mexico Bird of Paradise. Greg McGee introduced the widely divergent Aster Family which includes some 19,000 species of sunflowers, along with vegetables such as lettuce and artichoke. Following the introductions, Greg McGee showed a collection of slides illustrating many of the subject plants.

On May 14th, Herb Ruetzel led twelve members on a field trip to Picacho Peak, just northwest of Las Cruces. There was no trail. Three hardy members scrambled up a scree of loose rock to reach the peak while the others watched from the slope. There were ten different shrubs identified in a wash on the way up. The only wildflower seen was a purple Desert or Rock Hibiscus also known as Pale Face.

Otero-Jean Dodd

In early Nov. of 1994 Otero somehow picked exactly the right day for our trip to White Sands Missle Range. We had excellent guides-David Anderson of Land Management, Gretchen Norman an environmental person for Cortez III, and Debbie Bingham of Public Affairs who gave us historical background. We turned onto the range about midway up the hill to the St.Augustine Pass where the '94 burn was 29 and 30 of June. The road we took bordered the burn so we could compare the burned side and the untouched side. On the burned side it was like wading through wildflowers not to mention the quantity of grasses and cacti. Dave said fire stimulates cactus. Both the yucca and the mesquite flourish after a fire. Some

poppy plants were the usual yellow-orange color. Other plants had white petals and still others were pink. Lots of short,upright onions, Allium Kunthii; Desert Lupine, Lupinus concinnus; two kinds of Tackstem; Deer Vetch; Echinocactus scheeri; Delphinium Wootonii; miniature wooly star, Eriastrum diffusum; N.M. hedgehog in bloom.

There is an herbarium at the main post. WSMR hires students from NMSU every summer to run a check on how the land is changing. The field herbarium was developed to help the students identify plants on site. For our last stop we went back to the highway, headed east,re entered the Base to see the very rocky place they call the WSMR Cactus Belt.. Dave and Gretchen had checked all this out the day before and their prize cactus-the Sanberg pinchusionwas not yet in bloom. This is the only place they know this cactus exists. When we arrived, it was blooming! There were small flowers at the top of each cactus in shades of pink or peach. There are 18 species of cacti in that small area. One note about noxious weeds. Along hwy 70 and in the median the most plentiful plant is the African rue (*Peganum harmala*).

As background information about our trip May 13, see Bob Sivinski's article on gypsophilous plants Mar./Apr. '94. We have seen indicator plants that he mentionned in many places including the Monument-Gyp Coldenia (Tequilia hispidissima), Calylophus hartwegii-yellow evening primrose growing along the roadside at the Monument, Gyp nama False Clappia-Pseudoclappia arenaria, sand verbena-Abronia angustifolia of the 4 o'clock family: There are two varieties of sand verbena listed in "A Checklist of the Plants of White Sands Monument" corrugata and integrifolia. These little 50¢ books are available at the Visitors Center, one for plants, one for birds, and one for mammals, reptiles, amphibians, and arthropods. Another familiar plant is the Poliomintha incana of the Mint Family-. It was interesting to see this in various locations in the dunes especially at our last stop when they were buried way up on the stems by the sand. It adapts well to being partially buried. In the same area-not far from the road, we saw an enormous pedestal or plant stand 30-35' high holding up a Rhus trilobata, Lemonade bush. The stand is crude plaster of Paris that feels quite hard to the touch. The dunes have moved on leaving it behind.

Gila-Martha Carter

The 21 May field trip to the southern Florida Mountains south of Deming was attended by 18 members and guests. The west-facing slopes were alive with late spring plants. Observed in flower or in fruit were: Ocotillo (Fouquieria splendens), Hop Tree (Ptelea trifoliata), Golden Poppy or Mexican Poppy (Eschscholzia mexicana), Little-leaf sumac (Rhus microphylla) and Trixis (Trixis californica).





1995 NPSNM Annual Meeting

Gila Native Plant Society Silver City, NM 18 - 20 August 1995



The annual meeting of the Native Plant Society of New Mexico will be held in Silver City. The theme of this meeting will be, The Gila National Forest: A National Treasure. The annual meeting will also provide an opportunity for the membership and friends of the NPSNM to become better acquainted with the flora of southwestern New Mexico, consider the history and future of the Forest, and participate in conducting the business of the Society.

The agenda is as follows:

Friday, 18 August:: 1:00 - 5:00 p.m. Registration: Holiday Motor Hotel, 3420 E. Hwy 180

Optional Activities: Continuous slide show, WNMU campus

Film: "The Tragedy of The Commons", WNMU Campus

Visit WNMU Herbarium Visit WNMU Museum

Tour Downtown Silver City Historical District

5:30 - 7:00 p.m. Reception, Cash Bar with hors d'oeuvres - Holiday Motor Hotel

Book Sale, Silent Auction and Raffle begins

7:30 - 9:00 p.m. Panel Discussion: "The Gila National Forest: Past, Present and Future"

Holiday Motor Hotel

9:00 p.m. Refreshments and Social Hour Holiday Motor Hotel

Saturday, 19 Auust: 8:00 - 8:30 a.m. Field Trip Departure - Gila National Forest and Gila Cliff Dwellings National

Monument. Holiday Motor Hotel

11:30-12:30 Lunch and Discussion at Gila Cliff Dwellings 3:30-5:30 p.m. NPSNM Board Meeting, Holiday Motor Hotel

5:00-6:30 p.m. Cash Bar, Book Sale and Silent Auction, Holiday Motor Hotel

6:30 p.m. Silent Auction ends.

7:00 p.m. Banquet.Holiday Motor Hotel

8:00 p.m. Guest Speaker: Mr. Richard Bodner, New Mexico Endowment for the Humanities,

Title: "Aldo Leopold: Valuing the Wild"

Sunday, 20 August: 7:00 - 10:00 a.m. Continental Breakfast hosted by Joyce and Frank Knaus, 2 Crescent Drive,

Silver City.

The Silent Auction/Raffle Committee is requesting the assistance of other NPSNM Chapters in supplying items for the Silent Auction Friday and Saturday evenings. It has been traditional to have an auction of donated items to help with the costs of financing the annual meeting. Books, plants (native, of course), arts and crafts and other items of value would be appropriate. Our members will be giving items and soliciting the local merchants for services and/or contributions. We live in a "veritable garden" of artistic talent, so bring extra dollars for this important event. Viewing, bidding and sale of raffle tickets will begin Friday at the reception and end Saturday before the banquet. Contact Martha Carter, P. O. Box 1244, Silver City, NM 88062, 1-(505)-388-9221 to contribute and arrange transportation of items to Silver City if you are not planning to attend. THANKS!

ACCOMMODATIONS

The Holiday Motor Hotel will be the official headquarters for the NPSNM Annual Meeting. Registration, reception, field trip departures, silent auction, book sale, and banquet will all take place at this location. A reduced rate of \$40.00 is offered to the participants who register at the Holiday Motor Hotel before August 1. You may wish to make arrangements to stay elsewhere. Since this is a busy season in the Silver City area, reservations should be made as soon as possible.

The Holiday Motor Hotel is located at 3420 E. Hwy. 180, Silver City, NM 88061. 1-(505)-538-3711 or 1-800-828-8291.

For other lodging or camping and RV information call the Silver City/Grant County Chamber of Commerce, 1-800-548-9378 or write to Silver City/Grant County Chamber of Commerce, 1103 N. Hudson, Silver City, NM 88061.

Reservations are recommended at all lodging facilities in the area.

To reach Silver City from I-25, take NM 152, exit 63 (Hillsboro)17 miles south of Truth or Consequences. Enjoy high desert views and Emory Pass for 68 miles. At Central, take US 180 eight miles to Silver City. This total route will take 2 hours minimum.

Or you may choose to avoid Emory Pass and continue south on I-25 to exit 41 (Hatch). Take NM 26 for 49 miles to just north of Deming and US 180 north to Silver City. The time is about the same, 2 hours.



REGISTRATION FORM 1995 NPSNM ANNUAL MEETING

Please print clearly:		
Name(s):		
Address:		
Phone:		
Preregistration by August 1	people x \$35.00 per person	\$
Late registration, August 10	people x \$40.00 per person	\$
(Registration fee includes Friday reception a	and hors d'oeuvres, Saturday field	trip and lunch, and banquet.)
Return registration form and payment to:	Linda Keehfuss, 1050 Langstroth Drive Silver City, NM 88061	

Make checks payable to Gila Native Plant Society

Meat and vegetarian meals will be available at both lunch and banquet.

Wild Plants of the Pueblo Province

by William W. Dunmire and Gail D. Tierney Museum of New Mexico Press, Santa Fe, 1995

Book Review by Tim McKimmie

This work was written from an ethnobotanical standpoint and discusses plants used by Native Americans in New Mexico. An introductory section details the history of human movement in the Four Corners area and the ways that geography and plant availability determined where settlements occurred. This section contains more than 80 pages of anthropological lore and photographs that will provide a good introduction for those wanting

information about the region and its early peoples. Margin notes lead from here to plant descriptions in the main section of the work. References are also included.

The work is specific to four national and state monuments in New Mexico: Bandelier and Petroglyph National Monuments, and Coronado and Jemez State Monuments. It will therefore be a very useful companion for travelers and hikers visiting these areas. Since many of the plants occur elsewhere it may be useful in other places in the Four Corners area as well.

The main section of the book profiles more than 60 plants that are commonly found today in the Pueblos of northwest New Mexico. These are grouped into Trees, Shrubs, Grasses, and Herbaceous Plants and within these headings by plant family. Each entry includes both common and scientific name. Some of the entries are for a general group, e.g., *Eriogonum*, rather than individual species. Most entries include both a line drawing and a color photograph. These are of excellent quality as are the maps and illustrations found elsewhere in the book. Entries range from

2-4 pages. Each includes a brief description of the plant, its flowering season, habitat, and locations where it might be found, e.g., Bandelier. Since botanical descriptions are brief, other sources

may sometimes need to be consulted for plant identification. A narrative description of the historical and present day uses of each plant includes culinary, medicinal, and nutritional uses; cultural, cosmetic, dyes and ceremonial uses; tools, instruments, and crafts; and uses for construction and weapons. Following this section of the work is an annotated list of approximately 300 plant species known to have been used by the Pueblo peoples. In this table plants are listed alphabetically including the specific uses by Pueblo and citations to

literature.

The last section of the book describes the history of ethnobotanic activities in New Mexico and modifications of the landscape in recent times. The book includes more than 125 references and an index. Attractive and nicely bound, this work will interest native plant enthusiasts.

Arizona NPS Annual Meeting

The Arizona Native Plant Society will hold its annual meeting in Safford, AZ Sept. 30 and Oct. 1, 1995. Planned talks include prehistoric agriculture and use of native plants, Pinaleno's Mtns.(including Mt. Graham) fire history and forestry issues, and exotic plants. Camping will be available at Roper Lake State Park. Field trips include Gila Box National Riparian Conservation Area, Tripp Canyon in the Pinalenos, and a watercourse rehab project on San Simon Wash. For more information and registration call (520) 378-1169.

The Native Plant Society of New Mexico 1105 Circle Drive Las Cruces, New Mexico 88005

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