

Awesome Opuntias

by Joseph Pearl
Reprinted from "Southwest Trees and Turf" 3:12(9), 1998.

Enough of the negative talk of these great landscape plants, let me tell you some of the assets of the *Opuntia* genus. What a great plant to use for a security hedge, a unique specimen plant and/or a wildlife habitat. For a low- or no-maintenance landscape, the *Opuntia* is the perfect plant. There are so many options available, that all one needs to do is take some time and research what type of cholla or prickly pear is most desired.

The flowering of the prickly pear is unequalled in the desert. The Engelmann's prickly pear, with its vivid orange blooms, is a true spectacle. The bunny ears, with its profusion of yellow blooms, is up there in ornamental values as well. After flowering, the plants develop fruits called tunas. They can be used in making jams and jellies or even eaten raw. The pads of some -plants are also used as a food source for both people and animals.

As for the wildlife that are attracted to this genus, I do not know where to start. Perhaps the cactus wren, who has found residence in the cholla is a good place to begin. What about the prickly pear, that provides sustenance for the collared peccary, A.K.A. javelina? These two are just the tip of the iceberg of the wild critters that depend the *Opuntia* genus.

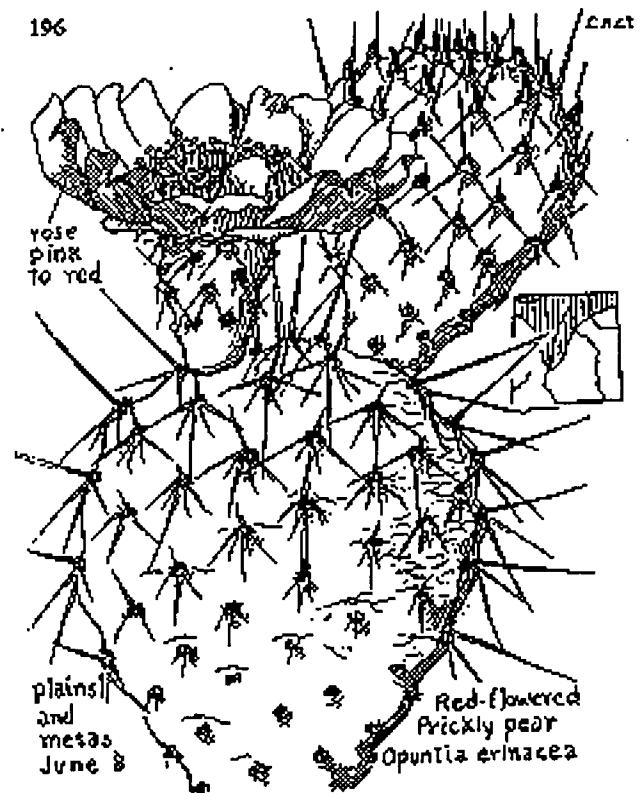
As far as where these plants can be found growing in the deserts, look in Arizona, New Mexico, Mexico, California, Utah, Baja California, and Texas. They can be found growing at elevations as high as 6,000 feet down to sea level. They grow in areas that will make you scratch your head and wonder how they manage to survive.

When planting in the landscape, allow room for them to grow. No irrigation is needed once they are established, but a good drink every now and then is helpful. Although they are true desert dwellers, one must still remember that when using them in a landscape, some water will be required. The more they are watered, the larger they will get. Certainly not rocket science.

No matter how one looks at these plants, they are great to use in the landscape. Moderation should be used, but there are many varieties that can enhance a native landscape. Take some time before planting, and decide which ones will look the best. Remember to choose your planting location with caution and enjoy a plant that gets little positive recognition.

Inside....

Annual Meeting Registration and Information



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

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. Original 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. We encourage the use of suitable native plants in landscaping to preserve the 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 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 local information.

Advertising Schedule

Approved advertisements will cost \$50 per year.

Membership Fees

Dues are \$12.00 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, NPSNM, POB 5917, Santa Fe, NM 87502-5917

Newsletter Contributions

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

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SOCIETY CORRESPONDENCE: Our main address is: NPSNM, POB 5917, Santa Fe NM 87502-5917. See above for membership and newsletter correspondence.

NEW MEXICO GARDENER'S GUIDE:

The What, When, How & Why of Gardening in New Mexico
by Judith Phillips

Book Review by Greg Magee

When Judith Phillips first told me she was writing a gardening book that did not focus on native plants, I was a little surprised and somewhat skeptical. Was one of the heroines of the natural gardening movement jumping ship? After reading her new book, the answer is a resounding no! Although this book may appear on the surface to be a departure from her previous work, what better person to influence a larger audience on gardening in New Mexico than Judith Phillips. Even though many of the plants discussed in this book are not even native to North America, a significant number are New Mexico natives. I'm sure this number would have been significantly less if someone else had written this book (which would have been the case, had she not accepted the offer from the publisher).

Individual plant descriptions are the heart of this well designed, easy to read book. Over 170 individual plants or genera are highlighted, and color photographs are shown for each in the 'Photographic Gallery' at the center of the book. Plants are grouped into eleven chapters - Annuals and Biennials; Bulbs, Corms, and Rhizomes; Cacti and Succulents; Ground Covers; Ornamental Grasses; Perennials; Roses; Shrubs; Trees; Turfgrasses; and Vines. Individual entries run the gamut of New Mexico horticulture, from Lilacs and Fruit Trees to Mexican Buckeye and Desert Marigold. In some cases, entire genera are highlighted instead of just one species, for example - Century Plant (Agave species) or Native Roses (Rosa species). This is great way to discuss several related species under one entry. Each entry begins with a general description of the plant followed by a discussion of 'When, Where, and How to Plant'. 'Advice for Care' is given for each plant and related 'Species, Cultivars, or Varieties' are mentioned under a separate sub-heading. Finally 'Regional Considerations' are given for plants that that are more or less suited to, or require a different approach in different regions of our diverse state. This last heading is probably one of the most important elements of the book, and could have been expanded upon and emphasized more for certain plants.

In addition to the plant descriptions, useful general information on gardening in New Mexico is given at the beginning and end of the book. The introduction is beautifully written, setting the stage for gardening in the unique environment of New Mexico. The discussions on our diverse landforms, climates, and soils emphasize the need to choose plants that are well adapted to the specific environments of individual gardens, an important concept in a state that encompasses everything from arid, hot deserts to moist, cool mountains. I particularly enjoyed the 'Resources' section of the book with climatic data from around the state and the Cold Hardiness and Heat Zone Maps modified for New Mexico.

Conservation Works and Days

by Grace Mason

—Chapter members will attend twelve regional hearings over the state through March 25. Bureau of Land Management asks for comment on draft N.M. Standards for Public Land Health and Guidelines for Livestock Grazing. Contact your chapter's conservation person; your local BLM field office; or Grace Mason, State Conservation Chairperson, Telephone 505-982-0695 or E-mail gmasonsfnm@earthlink.net for more information.

—Legislature Watch . . . A bill passed the House on February 18 to put the State Parks under supervision of the executive branch (governor). In debate the mission of the State Parks seemed devalued to tourism and its economic impact. Is this the only mission NPS members see for the Parks? Do some of our State Parks provide unique natural sites for recreation and education in New Mexico? . . . The NM InterState Stream Commission and the State Engineer presented a desperate plea for staff funding. Adjudication of water rights has been a sharp bottleneck and should be increased in scope from 2% or so to 51% for effective planning. Generally, reliable in-depth information on water resources is sparse or discontinuous.

—After the BLM hearings, USDA Natural Resources Conservation Service has a National Range and Pasture Handbook (190-VI 12/20/97) awaiting inspection at your local office. Close study of the handbook and its case studies gives a picture of today's baselines in land management. The Service assists private land owners and, in specific circumstances, assists Federal managers of public land through soil and water conservation districts.

—Your conservation chairperson now can be reached via E-mail. Use the address gmasonsfnm@earthlink.net to check in and tell the news in your bioregion.

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CALENDAR

OTERO

April 10 Field trip to Orogrande. 9 am at Holiday Inn Express, Alamogordo

April 17 Rails to Trails Grande View Trail

May 8 Plant Sale at Alamogordo Garden Center, 10th and Oregon.

June 25-27 Field/Camping trip to Capitan area.

ALBUQUERQUE

April 1 "Sevilleta LTER" by David Lightfoot. 7:30 pm Albuquerque Garden Center, 10120 Lomas.

April 24 Garden Fair 9am to 4pm. Abq. Garden Center

May 6 "Integrated Pest Management for Natives" by Gary Smith. 7:30 pm Albuquerque Garden Center

May 8 Field Trip to Placitas

May 22 Field Trip to Sevilleta

June 5 Pot Luck

LAS CRUCES

April 14 "Native Plants in Autumn and Winter" by Lisa Mandelkern. 7:30 SW Environmental Center, 1494 S. Solano

April 18 Field Trip to Hueco Tanks. Pan Am Center 8 am

May 2 Field Trip to Tenuco Mountain. 8 am Hwy 70 Kmart

May 12 "The Tropical Rainforest" by Bruce Calhoun 7:30 SW Environmental Center

May 16 Field Trip to Tortugas Mtn. 8 am Pan Am Lot

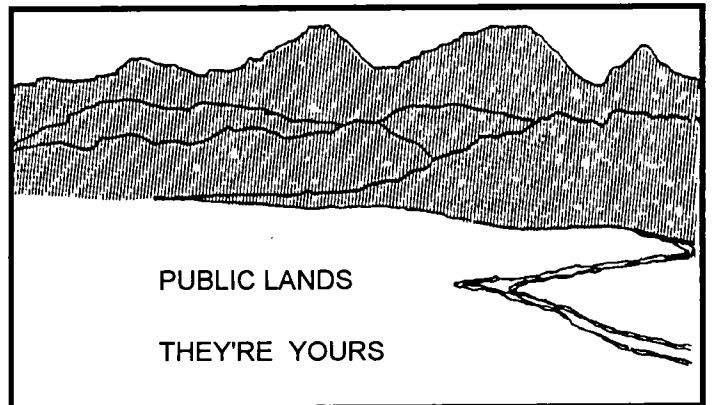
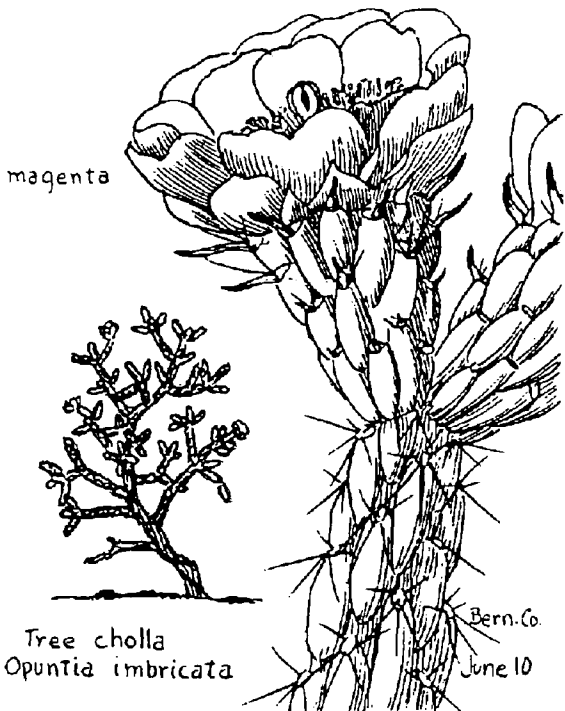
May 22 Garden Tour to be announced

June 9 "Oddities and Anomalies" by Bob Reeves. 7:30 SW Environmental Center

June 13 Field Trip to Sacramento Mtns. 7am Hwy 70 Kmart

GILA

April 16 "Xeriscapes for Southwest New Mexico" by Greg Magee



CHAPTER REPORTS



Gila-Martha Carter

Otero - Jean Dodd

Membership chairman and treasurer, Bill Baldwin, reported two new memberships and 30 renewing members.

Martha Carter, President, reported that a revised booklet, "Native Plants for Lawns and Gardens of Southwest New Mexico" is ready for publication. Jack Carter, President, NPS-NM, encouraged GNPS chapter members to become involved with the state organization and invited interested persons to the NPS-NM Board of Directors meeting 13-14 February at the Sevilleta Wildlife Refuge.

The January 15 program speaker, Dr. Mary Dowse of the Geology Department, WNMU, spoke of the interrelationships of geology and plant life. Major points of her slide and lecture presentation were: Geology is basic to plant development; soil is the interface of plants and geology; nutrients provided by decomposition of rocks is vital to plant growth; rock particles retain moisture and slow erosion so that seedlings can take hold. Dr. Dowse demonstrated these basic concepts with slides of volcanic regions in Mexico, Italy and Central America where fine-grained soils are rich in nutrients that are easily absorbed by plants, contrasted with Newfoundland serpentine that has no calcium, sodium or potassium and will not support plant life.

Through a short review of geologic history, she brought the audience up closer to the rock and mineral formations in the Silver City area, the granite and metamorphic rock formed 1.4 billion years ago when the area was at the edge of the continent. Approximately 320 million years ago, plants evolved and stabilized the soils. Plants flourished, took in large quantities of CO₂, thus cooling the environment. Large numbers of fossils in the area give evidence that this area was covered by an inland sea 200 million years ago, the atmosphere was warm and plants and animals flourished. Sixty million years ago, volcanic activity released magma carrying the silver, gold and iron deposits that give Silver City its name. The City of Rocks, a New Mexico State Park located 35 miles southeast of the area is welded tuft (granite), hot volcanic ash which cooled and hardened and has been eroding into the shapes we observe today.

Hosts for social following the program were Diane and Bill Armstrong.

Sat., Feb. 13 Jennifer Atchley of the World Wildlife Fund spoke to the Otero Chapter about the present goals of this the largest environmental group which is now studying the Chihuahuan - desert where we live, Other groups have been studying pieces of this desert for some time including Dr. Spellenberg of NMSU, Some of our members have been going down with him to study oaks in Mexico. In fact our next gathering in March will be to hear about the 1998 trip. Jennifer said they have been identifying problems and will move to looking at solutions working with local groups already familiar with the area, It is heartening to hear about people cooperating in groups to solve problems

In 1998 the Nature Conservancy received a grant from NASA to identify areas of high conservation value in the Chihuahuan Desert both in the USA and Mexico. In collaboration with the World Wildlife Fund and the N.M, Natural Heritage Program of UNM they will employ high resolution satellite imagery to develop landcover maps of the Chihuahuan Desert Analyses of these maps will show desert features important for biodiversity. The maps will be validated with on ground surveys, Areas like White Sands Missile Range have been studied for some time. From these studies they will determine species loss and how eco-regions are imperiled, Did you know there are 44 species of daleas on Ft. Bliss?

Some species like the Organ Evening Primrose are suffering from over collection. She mentioned the well publicized blooming of the gold poppies if conditions are right in the spring. In the El Paso area near the desert Museum these yellow poppies cover the landscape. Evidently these blooming poppies keep going on toward Tucson along the interstate. This points out one of the hazards of studies on a certain day, If conditions are not just right -rainfall and temperature-there will be no spectacular bloom. A few odds and ends-At 6,000' in Big Bend the oak woodlands are the most diverse. The largest colony of prairie dogs is in the Chihuahuan Desert, They enrich the grasslands. There are 103 species of reptiles in the Chihuahuan Desert, There are 30 species of bats there. A Rio Grande Consortium has been formed to restore the Rio Grande. If you take the El Paso Times, the degraded state of the once mighty river is in the news all the time.

The Chihuahuan Desert has more species of birds, mammals, butterflies, and reptiles than any other desert in North America. 116 ecoregions have been identified in this one desert so the task set forth is enormous. After understanding the problems the solutions will come next- what are the solutions? Our many thanks to Jennifer Atchley for coming with all of her slides.



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CHAPTER REPORTS

Chapter Report Albuquerque - Virginia Burris

Beth Herschman presented our January program. Her subject was New Mexico Japanese Gardens. Beth showed slides of effective and ineffective Japanese schemes and suggested native specimens to use in Japanese inspired landscape designs. She gave an overview of the basic design elements of a Japanese garden, including plants, features, rocks, and water. Beth is a landscape designer and serves as treasurer for our group. Her talk was enjoyed by all. Our first field trip of the year on January 9th was to the home of George Duda, a retired commercial forester and present Extension Agent, who has a collection of New Mexico conifers. Most of his specimens were rescued from the paths of bulldozers as logging roads were built. After 15 years of collecting, he now has a sample of all of the conifers that grow in Northern New Mexico. After the fascinating tour attended by 35 members, George and his wife treated the group to snacks and a tour of their home. Our February meeting was well attended and featured something a little different. Sidney Ash gave a presentation on fossil plants in the age of Dinosaurs. There are many sites in New Mexico that contain plant fossils from this era, and Dr. Ash had slides and hands-on samples for his talk. Dr. Ash had an impressive career as a geologist. He was born in Albuquerque, received his Bachelors and Masters degrees in Geology from UNM, and then earned a Ph.D. from the University of Reading in England. He worked 10 years for the U.S. Geological Survey in Albuquerque, taught Geology in Nebraska, Kansas and Utah for 32 years and retired in 1997. He now serves as an Adjunct Professor at UNM and the NM Museum of Natural History and Science. He has published over 100 articles on fossil plants and has two fossil plants named in his honor. The Age of Dinosaurs (the Mesozoic) was important in the history of plant evolution. During that time, plants moved from the least complex (monocots) to the most complex (dicots), from seedless reproduction to seed reproduction, and to the domination of the flowering plants. The continents had a different arrangement at this time, and the U.S. was much closer to the Equator (where central Mexico is now located). So the climate in New Mexico was much warmer and wetter. Plants that are well represented in the fossil record in New Mexico include ferns, the horsetails, Cycads, the now extinct Bennettitales, Ginko, and the Conifers. There were many interesting questions and comments following Dr. Ash's talk and the group had a chance to handle the fossil specimens he had brought.

Santa Fe Chapter

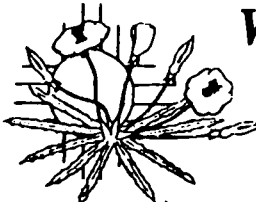
Santa Fe Chapter came together in regular meeting October 21. Barbara Fix, chapter chairperson, quickly conducted business. Bob Sivinski and our guest, Carolyn Dodson, from Albuquerque, reported on events at the Annual Meeting for 1998 which was held in Amarillo, Texas. Roger Peterson indicated his wish to remain as conservation contact for the chapter among his other interests and listed riparian-habitat and noxious weeds (leafy spurge!) concerns in Northern New Mexico. Roger introduced UNM Associate Professor Carolyn Dodson, and Carolyn drew us at once into the world of New Mexico wildflowers. Her close photos were brilliantly projected through transparencies onto the large screen. Carolyn's crisp explanations made sensible transitions, We looked at plants, not particularly from the standpoint of phylogenetic characters, but as they can be classified by floral syndromes which make cross-pollination widely possible. We noted the random careers of beetles in the early floral arrangement of normative magnolia flowers, and then we were off into a New Mexican wonderland. We saw the intriguing ways plants inform their pollinators: bees, butterflies, moths, hummingbirds, bats and flies, so that they are rewarded with nectar should they follow directions! We noted a group with generalist floral syndromes who allow a good many pollinating visitors. Our odyssey was complete with the acquaintance of flowering plants whose pollen is carried by wind alone to reach receptive stigmas. Bees like yellow, blue, and ultraviolet colors; they require landing places on the flower and lines or honey guides to lure them to the nectar or pollen. Lupine flowers bloom from below upward on their inflorescences; as the lower flowers grow in seed, their petals = purple and are unattractive to bees; the fresh blue flowers above are a bee's delight, Pollen sticks to hairs and combs pack the pollen in "baskets" or sacs on the bee. A bee in a mountain meadow will forage from only one species among a sea of various wildflowers. Bees like flowers which open in the daytime. Butterflies use a long tubular proboscis to take nectar. They like pink. The wild onion, buckwheats, and monarda are treats to them. We saw that a butterfly may coil- its proboscis when at rest. Butterflies, too, like the daytime. Moths rely on scent and can hover. The flowers they prefer may be delicate, as penstemon and monarda and columbine and four-o'clocks and evening primrose. They like flowers which open at night, are heavily scented and are white. Hummingbirds such as the rufus, which flies to Mexico for winter, must stop to drink nectar every few days and establish a territory for the time being. We saw the rufus in a meadow of scarlet gilia, Scarlet penstemon, scarlet morning glory, ocotillo-red, tubular flowers with no scent are favorites, Hummingbirds will hover, the flower's stamens reach out, and the flower itself is more substantial and thick and leathery to withstand the hummingbird's stout bill. The generalist syndrome is used by the sego lily, coneflowers, many composites, and flowers of the carrot family. Everything is made very available Flowers with these syndromes are found, there there are not many pollinators, as in the arctic. Wind pollinates flowers. Those flowers lose their petals and have lots of stamens. There are separate male and female plants. These flowers are not visually spectacular, as, for example, plantain and artemisia, and we often do not notice them. Flies must work diligently to follow the flower's patterned cues, find the nectar, and pollinate properly. The yellow moccasin of the orchid family does not reward with nectar but draws insects intricately through the blossom by odor. The calypso orchid has neither nectar, odor nor pollen to attract, but native bees follow the plant's markings through a labyrinth until, after a day or so, individual bees learn there is no reward and do not return; then another naive bee arrives. Death camas are pollinated by flies, but small insects rob nectar. The gentian family protects against small insects and ants and only allows large insects to pollinate. Some plants may allow ants to feed when ants protect the plant against other insects. Hummingbirds require sucrose rather than glucose and need much nectar. Different insects need different nectar; flowers provide what is appropriate for the pollinator. Botanists can tell you the pollinator of a plant from knowledge of its nectar. There was a hush as though we did not want to frighten away the busy bees and other pollinators or let time fade each flower. We left quietly into a dark night of gentle rain.

March 1, 1999 **CHAPTER REPORT - LAS CRUCES - John R. Freyermuth**

The Las Cruces Chapter held its annual potluck dinner on Wednesday evening, November 4, 1998, at the Southwest Environmental Center. A good time was had by all, the food was delicious, and there were few leftovers taken home. Our chapter's annual planning meeting for the 1999 calendar year was held on Wednesday, December 2, 1998, at the Southwest Environmental Center. In attendance were Alice Anderson, Dave Anderson, Bob Reeves, Greg Magee, Terry Peterson, Carolyn Gressitt, Herb & Christine Ruetzel, Mary Ann Kosan, Lisa Mandelkern, and John Freyermuth. A proposal for a new meeting format was adopted. Per the new format, business meetings will begin at 7:00 P.M., and the speaker's program will begin promptly at 7:45 P.M. If business matters are not completed within the first 45 minutes, then they may be wrapped up after the speaker's program. Members or guests who are concerned only with the speaker's program may choose to skip the business portion of the meeting if that is their wish. Furthermore, a guest speaker can expect to begin promptly at 7:45 P.M. This new format will be followed for the duration of 1999, and then reconsidered for Y2K activities. Another change adopted for 1999 will be the addition of 3 more field trips, two in the spring and one in the fall. In addition, it was decided that some field trips will be geared for those who do not care to hike, while other field trips will be planned as hikes of varying difficulty. These changes should afford the opportunity for more individuals to attend and enjoy field trips.

Elections of chapter officers were held at the conclusion of the December planning meeting. John Freyermuth asked to be relieved of the duties of chapter president after a 2-year stint. Lisa Mandelkern graciously accepted the responsibilities of chapter president for a second time! Lisa was also chapter president in 1995 and 1996. Greg Magee agreed to chair meetings should Lisa not be present. With the consent of those present, John Freyermuth agreed to take over the writing of chapter reports for meetings, field trips and other chapter activities. Will Beattie will continue as the chapter's highway cleanup coordinator. Herb Ruetzel will continue as the treasurer, and Christine Ruetzel will continue as the public information officer. Terry Peterson will chair the new special projects committee, a very important job! Lisa Mandelkern will retain the responsibilities of the chapter's sales of books, posters and T-shirts. Two positions, the chapter's conservation and membership chairs, still remained in doubt or unfilled at the conclusion of the December meeting. Lisa Mandelkern called an extraordinary meeting of local officers for Saturday, February 20, 1999. In attendance were Lisa Mandelkern, John Freyermuth, Greg Magee, Christine Ruetzel, Herb Ruetzel, Terry Peterson, and Alice Anderson.

This meeting was necessitated by events of the previous weekend's State NPSNM Board Meeting held at Sevilleta Wildlife Refuge. Las Cruces chapter members Terry Peterson and John Freyermuth had received special invitations from State NPSNM President Jack Carter to attend the meeting at Sevilleta, and both attended. Some issues resolved at the 2-hour extraordinary chapter board meeting were (1) the review of a new liability release form to be used at field trips and other chapter activities; (2) the formation of an acting temporary conservation committee made up of John Freyermuth, Alice Anderson, and Tim McKimmie, which will attend a BLM meeting on proposals for new state grazing regulations to be held in Las Cruces on March 17, 1999; (3) the information for an annual report form to be filled out at the March 10th chapter meeting and sent to Santa Fe; (4) the formation of a local committee for the planning of the state's annual meeting in Las Cruces for the year 2000; (5) resolutions concerning local inventories and sales of posters, books, and T-shirts; (6) the resolution of membership problems (John Freyermuth volunteered to be chapter membership chair and to help resolve some of the problems by becoming more proactive with the State membership chair); (7) sending photographs (Herb Ruetzel) to Barbara Weintraub in Santa Fe for the State's display board; and (8) all the remaining issues discussed at the Sevilleta Meeting. Copies of the agenda for the State Board Meeting, plus a written report and commentary by John Freyermuth, were distributed to those present at the extraordinary chapter meeting of Saturday, February 20, 1999. On Saturday, Feb. 27, five members picked up trash and litter from alongside State Highway 478 about 4 miles south of Mesilla Park, NM. The State Highway Department has erected 2 signs acknowledging the Native Plant Society of New Mexico in helping to keep a mile stretch of this highway periodically free from litter. While the publicity is welcome and beneficial to the Native Plant Society, it has been difficult to get more than a core of 6 or 7 individuals to help in the actual cleanup. There is a possibility that we will discontinue our involvement in the Highway Cleanup Program in the near future unless more help in the form of physical work is provided from the local chapter's membership. This issue will be discussed at future chapter meetings.



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To the editor:

Accountability of the Board of Directors to the NPSNM members has been inadequate. I mentioned accountability twice at the Feb. 1997 planning session, again at the Feb. 1998 planning session, and in the summer of 1998 to then vice-president (now president) Jack Carter. So far nothing has changed. At its Sept. 1997 meeting the Board voted to submit its minutes and the Treasurer's report to the newsletter for publication. I am told that Mr. Carter mentioned publishing the minutes and the treasurer's report at the Feb. 1999 Board meeting. No minutes or Treasurer's reports have been published.

Recently, some notes from Board meetings have been published but these notes are not minutes. I hope the new recording secretary will be told what minutes are, and will be instructed to submit minutes to the newsletter before the next publication deadline.

Minutes should include:

- 1) date, time, and place of meeting
- 2) presiding officer,
- 3) list of Board members present,
- 4) list of Board members absent
- 5) summary of reports from officers and committees and the names of the persons submitting the reports,
- 6) list of committees failing to report,
- 7) description of all official acts of the Board, including:
 - a) whether the item is a new or old business item,
 - b) the specific proposal,
 - c) names of the persons submitting or assisting with the proposal, and whether these persons are Board members, other NPS members or non-members
 - d) funds requested
 - e) disposition of the proposal: amended, rejected, tabled, approved, or other action,
 - f) if the proposal is approved, the amount of funds appropriated and the names of persons appointed to carry out the proposal,
 - g) the Board's vote, including either the statement that the vote was unanimous or a list of Board members voting for and against the proposal,
- 8) date, time, and place of next meeting,

If the Board takes official action between regular meetings, these acts should also be published in the newsletter. A timely, accurate, and complete description of Board actions is essential for cohesiveness of the NPS. To function effectively, we must have communication between the Board and the members.

Treasurer's reports have also not been published in the newsletter. (I checked back to Nov-Dec 1992.) The Board notes in the Jan-Feb-Mar 1999 newsletter state that the interim financial report was "very healthy" and that "expenses exceed(ed) income this year." Neither the endowment fund nor the conservation fund were mentioned. That's not a Treasurer's report. A Treasurer's report should include beginning balance, ending balance, total income, and total expenses, as well as information detailed enough to permit the average member to determine where our money comes from and where it goes. I hope that new leadership will bring accountability to the Board.

Sincerely,
Alice Anderson

Editors note:

The difficulty with getting the board meeting notes into the Newsletter has been twofold. Firstly, getting an electronic copy. Until recently minutes were typed and often not of high enough quality to be scanned. Secondly, while the board did vote to summarize the minutes in the Newsletter, it did not vote on who would do the summary. As often happens, no one has stepped forward to take this on. Further, it is unclear whether the board intends to publish the entire minutes or a summary. With a web page perhaps the entire minutes could be made available there, with a summary (including Ms. Anderson's essential points above) in the Newsletter. I agree with Ms. Anderson's assertions that the board should be more accountable to the members both with board actions and availability of minutes. Further, it is important that a treasurer's report be available to members. With more than \$50,000 in the treasury, members may have an interest in how these funds are dispersed. I trust that the board will once again take up these important matters.

NPSNM - EDITORIAL - THE STATE OF THE WORLD and the WORLDWATCH INSTIUTE

by Jack Carter

In the last issue of the Newsletter (Volume XXIII, Number 6) I encouraged all of us to examine those major problems confronting life on planet Earth through the eyes of the ecosystem ecologist and to consider the multitude of variables that surround each of these problems. We all intrinsically recognize that solving the larger problems confronting humankind are tied to a better understanding of the flora, fauna, energy, water, soils, climate, etc. At the same time it is extremely difficult to get a handle on the really tough problems we face, and to develop a personal paradigm that will allow us to see the larger picture. Most of us understand that if we do not develop a more complete picture of these larger problems by studying all the variables, we tend to develop solutions that are not adequate and set the stage for only creating larger and more difficult problems.

Over more than fifty years, in my search for people, institutions and research organizations that have a sound understanding of problem-solving on a larger scale, and that have published high quality materials worth my consideration, I would place the Worldwatch Institute at the top of my list. Under the leadership of Lester Brown, who must be considered one of the most far reaching thinkers of our time, the Institute has consistently brought together the most talented of scholars and writers, including the best scientists, economists and world leaders, along with the support of the leading philanthropic organizations, to produce a body of information that provides a perspective that must be given our careful consideration.

No sooner had I delivered my January editorial to Tim McKimmie, editor, when I received two recent publications from Worldwatch. First came *State of the World, 1999*, which is an annual publication that tackles the most difficult anticipated problems of the period. This being the millennial edition resulted in the authors stepping back and taking a larger view of what the future holds, both good and bad, as we examine economic systems, energy systems, forest products, oceans, feeding a world of nine billion people, and several other major problems. The article of greatest interest to me was titled, "Appreciating the Benefits of Plant Biodiversity" by John Tuxill. By bringing together the history of the evolution of the flowering plants since the end of the Cretaceous period, through the evolution of *Homo sapiens*, our knowledge today of threatened plant species, the rate at which potential food and medicinal plants are being annihilated, and how invasive species are crowding out the native flora, I was reminded over and over how important the work of the NPSNM is to the conservation of the native flora and the biologic and economic future of humankind in New Mexico.

A few days later, as part of my membership package, I received a second publication titled *Life Out of Bounds. Bioinvasion in a Borderless World* by Chris Bright, which is part of the Worldwatch Environmental Alert Series. Before reading this book I thought I had a pretty good understanding of the severity of the noxious weed problem and the damage done to our native flora by exotic species. However, the quality and quantity of the historical and scientific information provided in this volume, in describing this problem throughout the planet was overpowering. Anyone who thinks that just bringing a few attractive plants for your garden home from across any of our state or international borders presents no serious threats to our native species and ecosystems should read this book. Individuals, horticulturalists, federal agency staff members, and botanical garden and commercial greenhouse operators who feel the mixing of a few genes in a non-native species, in order to produce a more attractive or robust species, is not a serious threat to our native flora, should examine the long-term records of these activities. One comes away from reading this important study convinced that the native flora and fauna in the place where we live, New Mexico, is a treasure that must be protected from all intruders.

I highly recommend the reading of the publications of the Worldwatch Institute to all those who have a serious interest in conservation and the development of a sustainable society.

References:

Bright, Chris. *Life Out of Bounds. Bioinvasion in a Borderless World 1998*. The Worldwatch Environmental Alert Series. Worldwatch Institute. W. W. Norton & Company.

Brown, Lester R., et al. *State of the World, 1999*. 1999. Worldwatch Institute. W. W. Norton & Company.

Mark your Calendar!!
NM NPS ANNUAL MEETING
“Wetland and Riparian Plant Communities of Central New Mexico”
August 26,27,28, 29 1999

Plan to attend! Four days of Speakers, Tours, Workshops and Fun. Friday night BBQ at Wildlife West with Cowboy Band and Bird Show; Saturday night Banquet & Speaker. Bring craft items, plants, books etc. for silent auction.

Meeting to be held at Howard Johnsons Conference Center, 15 Hotel Circle, Albuquerque, NM (North of the Eubank exit off 140). Participants are responsible for making their own accommodation arrangements.

Accommodations: **Howard Johnson**, (505) 296-4852

Single Room \$49

Double/Triple/Quad \$53

Nearby Facilities: The Owl restaurant, JB's Restaurant

There are two RV Parks, both off Central Ave. At exit 167 from I-40 (call for directions):

KOA Kampground at 12400 Skyline Rd. NE, Ph. 296-2729; .

Best Western at 12999 Central Ave. NE. Ph. 298-7426

Annual Meeting Schedule of Events:

Thursday, Aug 26

12:30 p.m. to 1:00 p.m. Registration and Check in.

5:30 p.m. Informal Social Gathering TBA

Friday, Aug 27

7:30 a.m. to 10:00 a.m. Registration & Check in.

8:00 a.m. to 10:00 a.m. Board Meetings, Local Group meetings.
Set up Exhibits & Silent Auction.

10:00 a.m. to 12:00 n. Workshops.

1:00 p.m. to 4:00 p.m. Presentation of Selected Papers

4:30 p.m. Edgewood Wildlife Park Tour & BBQ

Keynote Speaker: TBD

Saturday, Aug. 28

8:30 a.m. to 9:00a.m. Registration & Check in.

9:00 a.m. to 12:00 n. Presentation of Papers

12:30 p.m. to 2:30 p.m. Cooking Wild Workshop

1:30 p.m. to 5:00 p.m. Short, self-directed tours to Botanical Garden, Rose Garden, Nature Center, Xeriscape Garden.

(Carpooling sign-up sheets at registration.)

6:30 p.m. to 7:30 p.m. Reception & Silent Auction for donated gifts (Cash Bar)

7:30 p.m. Banquet and Plenary Speaker

Sunday, Aug. 29

8:00 a.m. to 2:00 p.m. Longer tours: Manzano Mts; Jemez Mountains; Santa Fe Riparian Area of Botanic Garden. (Carpooling sign-up sheet provided at Registration & Banquet)

Scheduled Workshops:

Plant Identification Workshop, Leaders: DeWitt Ivey & Jack Carter.

Friday 10:00 a.m. to 12:00 n.

On any botany field trip the following questions are common:

- “Hey, do you know the name of this plant?”
- “How can I tell if this plant is native or introduced?”
- “Would this plant grow in my yard?”
- “What life zone are we in?”

This two hour workshop is designed to help each individual become their own teacher, to better understand and make use of the floristic literature available to New Mexicans, and to develop the skills required to identify the flora that surrounds them. Above all, the leaders want the participants to have fun working with the plants that are a part of their daily lives. Participants should bring the books they currently use to identify the flora where they live and plant specimens they wish to identify. (Both leaders are authors of plant identification books, which will be for sale at the book table.) The leaders will also provide several plant species for the participants to identify during the workshop. It should be fun. (Limit: 24, no charge)

Cooking Wild Workshop of Soup to Nuts presented by the Otero N.P.S. Chapter

This workshop will cover harvesting, preparation, and sampling of wild edibles. The wild edibles will include cattails, mesquite bean, nuts, cactus, herbs, Yucca, greens, berries, and more. The recipes are collected in a small cookbook made by the group of hand-made paper, and are available for a small donation. A paper-making demonstration will show how the cookbooks are made. Following the hour and one-half program will be wild edible sampling from the recipes in the cookbook as well as door prizes. The Cooking Wild group presented the program at the Texas/New Mexico State N.P.S. Meeting in 1996 and to the New Mexico State Garden Club in 1998. This was such a hit that we asked them to do it again, for us. The Otero N.P.S. Chapter hosts an annual wild edible potluck for its members. (Limit: 40, \$25 per person)
Other Workshops and Tours will be described in the next issue.

Registration Form

(Please Print)

Name _____

Name _____

Please use names as you wish them to appear on your name tag.)

Address _____

City _____ State _____ Zip _____

Phone: _____ E-Mail _____

Advance registration fee for members: \$15/ person or \$20 /couple.

Non-member advance registration: \$27/person or \$32/couple.

(Additional \$5/person for registration after July 15.)

Number _____ Cost: _____

I will attend the following:

Friday night BBQ	\$13	Per person	Number _____	Cost: _____
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Saturday night Banquet	\$21	Per person	Number _____	Cost: _____
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Cooking Wild Workshop (Limit 40 people)	\$25/ person		Number _____	Cost: _____
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Total Costs _____

Please cut off Form and mail payment to NPS by July 15, 1999
c/o Albuquerque Garden Center, 10120 Lomas Blvd., NE, Albuquerque, NM 87112

Terry Peterson joins editorial staff

Terry Peterson of the Las Cruces chapter of the NPSNM will join the *Newsletter* editorial staff beginning in April. Terry has been a member of the NPSNM for several years and is an active gardener. His experiments with plant propagation could help elucidate the conditions under which plants may grow most favorably. Terry is retired from his position as mathematician at White Sands.

Terry will help the NPSNM in two ways. He has already begun to work on the design of our web page. His skills are obvious and he has many new ideas to share. He brings a natural talent for design which is important in organizing a web page. Secondly, Terry will work with Tim McKimmie on *Newsletter* layout and content. The ability to work with both the web page and the newsletter is important since there is a strong link between these two publications and much of what we publish in one will be used in the other.



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