



NATIVE PLANT SOCIETY OF NEW MEXICO NEWSLETTER

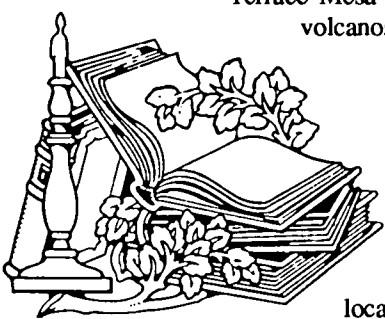
May/June 1997

Volume XXII Number 3

FLORA NEOMEXICANA: Watson's Forgotten Flora

by Robert Sivinski

While browsing through an antique book store, I came across what may have been the first local flora produced in the territory of New Mexico. It is the *Manual of the More Common Flowering Plants Growing Without Cultivation in Bernalillo County, New Mexico*. The author is J.R. Watson (Associate Professor in charge of the Department of Biology) and it was published in 1908 as Bulletin University of New Mexico, No. 49, Vol.3, No. 1 - seven years before Wooton and Standley published their *Flora of New Mexico*. I had never heard of this county flora, nor seen it cited in the botanical literature. The price was high, but my curiosity caused me to make the purchase. I walked out of the book store with Watson's forgotten flora under my arm and have since had a chance to study it during a leisurely evening.



Watson's preface explains the bulletin was prepared because there was no existing manual useful to teachers and others in the territory. He admits that many plants may have been overlooked during the hurried preparation of his key, but is confident he included the most common species. He apparently made many collections and acknowledges the use of former UNM President Herrick's personal herbarium. I have not seen any of these specimens at the present UNM Herbarium. Perhaps they are at NMSU since Watson expresses his gratitude to Professor Wooton for "help rendered him in the identification of some of the more puzzling species."

Watson's manual is 108 pages with preface, glossary, index, keys to orders, families, and species, and (for the period) fairly lengthy species descriptions. The text is rife with typographi-

cal errors - some even comical. For instance, the word 'genus' shows up once spelled as 'genius'. Only 354 species are treated, which by realistic estimate is only about one third of the Bernalillo County flora. He purposely excludes "the glumaceous division of the mono-cotyledons, i.e. grasses, sedges, etc... as they are difficult for beginners."

I grew up in Albuquerque, so his locality citations are familiar to me. He often botanized around town and cites collections at "about the campus", "arroyo north of Menaul School", or "ponds about the fair grounds". But the most frequent localities cited are from the Sandias (especially Bear and Tijeras Canyons), and the "Terrace Mesa" which I assume is the west-mesa below the volcanos. He also includes plant associations, but frequently refers to a stand of a dominant species as a 'society' (e.g. Aspen society, *Quercus gambelii* society). Common names for species are rarely used in this manual, but the ones he does include are surprisingly current. Only a few are new to me, such as pigmyweed for *Polygonum aviculare*. Some like candelabra (*Opuntia imbricata*) have simply gone out of local use.

To me, the most informative contribution of Watson's manual is the several introduced weeds that were not included in the list of common species. If Watson was in Albuquerque today he would not miss the dense stands of kochia (*Kochia scoparia*) along the streets and the Rio Grande bosque being invaded by Russian olive (*Elaeagnus angustifolia*), siberian elm (*Ulmus pumila*), yellow sweet clover (*Melilotus officinales*), and others. These species are not in his 1908 flora and must have become common within the last ninety years. He does have salt cedar (*Tamarix* sp.) in the manual, but only mentions it to be "commonly planted on the campus and in the town as a hedge plant." Present day gardeners will long for previous times when Watson says that dandelions (*Taraxicum officinale*) are "quite rare here ... a few on lawns and gardens in town." It is now ubiquitous throughout the urban and montane area.

J.R. Watson's Bernalillo County flora is not presently useful as a field guide. It is incomplete and the taxon names used in 1908 are now mostly different. Also there are numerous misidentifications in the manual. Yet Watson's flora was a bold first step for New Mexico floristics and he deserves a lot credit for his effort. It is easy to criticize. It is hard to be first. I can imagine the difficulties he faced with no herbarium, no previous manuals of the area, and slow communications with other botanists. Watson's contribution to New Mexico botany should not be forgotten.

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BOOK REVIEW by Jack Carter

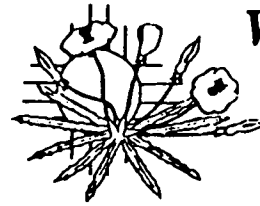
Lost Landscapes and Failed Economies: The Search for a Value of Place by Thomas Michael Power. 1996. xiii + 304 pp. 45 figures, 9 tables. ISBN 155963-368-9. \$29.95. (cloth). Island Press, Box 7, Covelo, CA 95428.

In recent years I find myself becoming restless each time an environmentalist, rancher, miner or logger rises to tell their heart-breaking story of how the land and/or the people on that land are being robbed and literally cheated out of their birthright by some group of people in our devious society. The impassioned fervor and almost religious rhetoric of these folks has caused me to turn my back on such sad tales and to go in search of scientific and economic information that can provide pragmatic answers to real questions. This is especially true as we seek accurate information concerning the extractive model, including mining, timbering and cattle raising, and the survival of small western communities.

Thomas Michael Powers has taken an important step in the right direction. The power of this relatively small book is in the

figures, tables, chapter end notes and references. Not to discredit and belittle the rhetoric, which is well above average, but it is the facts and the original research data that caused me to return to each chapter, reread it, then review the supporting evidence.

Since Powers is an economist, the most important lessons taught are in the field of economics. However, the economics taught are small town survival, local values and the establishing of proce-



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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

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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 May 10.

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dures for listening to the community. The author is obviously a good listener, he has traveled throughout the western states and he knows the history of small town growth, development and death.

An old axiom that should be discarded by towns and cities of all sizes, as well as families, educational institutions and businesses, is that quantity improves quality. It just isn't true and it probably never has been. Also, the related idea that growth cures all economic problems simply hasn't worked for the smaller communities. When community leaders, city councillors, or members of the business community are going to improve the economy through increased numbers of nearly everything, the public should be extremely skeptical. The data are clear; paving more streets, adding more stop lights, digging more city wells, developing larger landfills, increasing tourism, attracting more industry and people do not rate very high on the list of wants among most people in rural communities. The values of most of these folks simply do not center on "big is beautiful."

Another point that became extremely clear as I read those chapters pertaining to timbering, mining and cattle raising is, if you love your offspring encourage them to stay clear of these industries. There are economic highs and lows in these three industries, but the trends over the last several decades have been down. The future only looks bright for those individuals with very specialized training in these fields. Also, in spite of what we are sometimes led to believe, these three industries continue to provide a smaller and smaller portion of the total economy in the western states. The long term protection of the lands utilized by these industries is our best assurance that our towns will continue to have a balanced economic future.

Finally, Powers sends the very clear message that the economics of the West is drastically changing. The vast majority of those moving to the western states have a far different agenda than those who arrived 50 or more years ago. Today we are demanding fewer goods and more services. Small businesses are continuing to be created. The trends towards environmental quality are continuing to be expanded as people move to more rural settings. As I read the author's predictions for changes in our future I was reminded of the statement by Aldo Leopold in *A Sand County Almanac*. "By and large, our present problem is one of attitudes and implements. We are remodelling the Alhambra with a steam-shovel, and are proud of our yardage. We shall hardly relinquish the shovel, which after all has many good points, but we are in need of gentler and more objective criteria for its successful use."

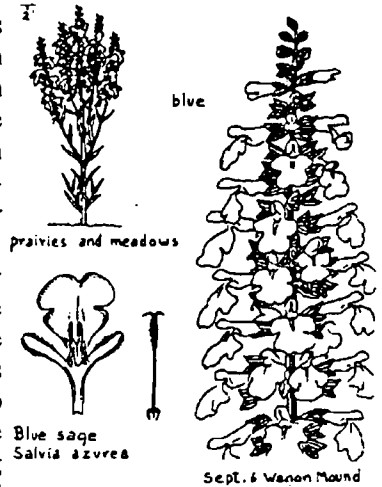
This is an important book that I predict will get a great deal of attention. It is not only going to have an impact on the economics of the western states and the nation, but it will bring fresh insights into our politics, community attitudes and personal values.

Attracting Hummingbirds to Your Garden

by Greg Magee

The key to enticing hummingbirds to your home or garden is to provide a diverse habitat. This means creating a variety of conditions in your garden - from open, sunny areas to dense cover with shade, so that hummingbirds have different levels to feed and rest. In other words, plant taller trees, medium-sized shrubs, and low flowers and grasses. An integral part of any hummingbird habitat is water. Even though hummingbirds get most of the water they need to drink from nectar in flowers, they need places to bathe. A mister is a good way to provide for this need - hummingbirds love to fly through the spray of moisture.

Many different plants attract hummingbirds. Although red tubular flowers often contain the most nectar, these are not the only type of flowers from which hummingbirds like to feed. In selecting specific plants, remember that native species will perform best in your garden because they are most adapted to the climate and soils of your area. Again, the key is diversity - provide plants with different blooming times so that there will be a continual source of nectar throughout the growing season. The following selected



plants attract hummingbirds. Remember that New Mexico has a diverse climate and environment. Choose plants adapted to your specific locale. Consult your local nursery if you have any questions about the hardiness or cultural requirements of specific plants.


Almost any tree will be good for hummingbirds to use as a perch, but Desert Willow (*Chilopsis linearis*) is especially good for the warmer parts of the state since they also produce flowers on which hummingbirds feed. Among shrubs, Desert Honeysuckle (*Anisicanthus thurberi*) and Smooth Bouvardia (*Bouvardia glaberrima*) are excellent choices. Other preferred shrubs include Mountain Sage (*Salvia regla*), Coral Bean (*Erythrina flabelliformis*), and Yellow Bells (*Tecoma stans*). Although native to west Texas, Red Yucca (*Hesperaloe parviflora*), and Autumn Sage (*Salvia greggi*) perform well in many parts of New Mexico and provide nectar. A plethora of wildflowers are available for your hummingbird garden. Beardtongues (*Penstemon sp.*) are a large genus of plants with many species that hummingbirds cannot resist. Additional preferred choices include Columbine (*Aquilegia sp.*), Hummingbird Trumpet (*Zauschneria latifolia*), Desert Four O'clock (*Mirabilis multiflora*), Scarlet Mint (*Stachys coccinea*), Beebalm (*Monarda menthifolia*), Desert Skyrocket (*Ipomopsis aggregata*), and Indian Paintbrush (*Castilleja sp.*). Lets not overlook classic desert plants like Ocotillo (*Fouquieria splendens*) and Century Plant (*Agave parryi*) whose flowers are frequented by hummingbirds.

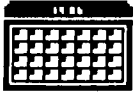
With a little thought and planning, your garden can become a sanctuary for hummingbirds. Remember, hummingbirds also need insects in their diet, so resist using pesticides or other chemicals in your garden. Not only would this remove an important food source, but it could also poison the birds and other wildlife. In addition, remember hummingbirds also need wild habitat so please purchase nursery propagated plants and resist digging plants from the wild.

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CALENDAR

LAS CRUCES

- May 14 "Las Cruces Nature Park" by Paul Hyder, 7:30 pm
SW Environmental Center, 1494 S. Solano
- May 18 Field trip to Salinas Peak, 7am, Kmart Hwy 70
- June 11 "Camino del Diablo" by Dave Richman, 7:30 SWEC
- June 15 Field trip to Lake Valley, 7am, Kmart Hwy 70
- June 21 Garden tour

OTERO

- May 3 Preparation for plant sale at Pat Nott's. 2 pm
- May 10 Plant Sale, Garden Center, 10th & Oregon, Alamogordo
- June 6-7 Field Trip to Black Range

GILA

- May 18 Mineral Creek field trip. 8 am, s. parking lot
WNMU Fine Arts Bldg.
- June 15 Field trip to N. Percha Creek. 8 am, s. parking lot
WNMU Fine Arts Bldg.

ALBUQUERQUE

- May 1 "Plant Communities of the Rio Grande Bosque" by C. Crawford. 7:30 Albuquerque Garden Center, 10120 Lomas
- May 3 Field Trip to Corrales Bosque. Lucy Beals, 275-7211
- June 5 Field trip to San Antonio Oxbow. Lucy, 275-7211

SANTA FE

- June 25 "Butterflies" by Steve Cary, 7 pm, Mesa Public Library.
Los Alamos
- June 28 Los Alamos Butterfly Count. 9 am, Burnt Mesa Hwy 4,
Bandelier National Monument



CHAPTER REPORTS

Las Cruces-Paul & Betty Shelford

Our guest speaker for the March 12th meeting was Charles Gault, a science teacher in the Las Cruces Public Schools. He was born in Carlsbad. His lifelong interest in Agaves and Yuccas has made him a well-respected expert in these plants. Through a collection of slides which he photographed, extending from Southern California to the Big Bend Area of Texas, he told us many fascinating aspects these plant groups. Two plants are considered indicators of the Chihuahua Desert in which we live: Sotol and Agave Lechuguilla. The Agave Lechuguilla grows only in limestone soil and is found no further north than Tortugas Mountain adjacent to Las Cruces.

Thirty members took part in the field trip on March 16th, led by Tim McKimmie to Bishop's Cap Mountain southeast of Las Cruces. Charles Gault is an expert on native plants in the Bishop's Cap area and for those fortunate enough to be with him during this trip, it was as a continuation of his talk in the previous meeting. John Freyermuth recorded 54 separate species belonging to 27 different plant families. He noted 11 species in the cactus family, 8 composites and 8 species of Agavaceae of which 4 were members of the Agave genus: *Agave glomeruliflora*, *Agave gracilipes*, *Agave lechuguilla*, and *Agave neomexicana*. There were seven flowering species observed: Littleleaf Sumac, Purple Bladderpod, Claret Cup Cactus, Green-flowered Hedgehog Cactus, Rattlesnake Weed, Feathered Peabush and False Pennyroyal. Mr. Galt also identified samples of crinoids, brachiopods and other fossils common to the limestone formations of Bishops Cap.

Albuquerque - Leta Porter

John White, Bernalillo County Extension Horticulture Agent, spoke at our February meeting on Buffalo Grass-Friend or Foe?". Buffalo grass is presently getting a lot of publicity as a result of the water conservation movement. A discussion of this grass and other alternative grasses can be found in "A Field Guide to the Grasses of New Mexico" by Kelly W. Allred. Buffalo grass got its name because it was found growing in the areas where the buffalo roamed.

but one must buy seeds developed for the area where it will be planted. An excellent source of seeds for New Mexico is Curtis and Curtis Company located in Clovis, NM. Seeds should be planted in the summer or early fall. Buffalo grass needs warm weather to germinate. Seeds cost approximately \$9.00 per pound. Seeds can be pushed into the ground with a roller, raked into the soil or broadcast and then lightly covered with dirt. Buffalo grass can also be purchased in turfs marketed as Prairie or 609 Sod. The squares of sod should be cut into two inch by two inch squares and planted one foot apart. The plugs of sod should be planted slightly below ground level in a small amount of compost. Never use any kind of animal manure when planting sod. Buffalo grass is a sod-former, but it doesn't make a heavy turf. It will spread and fill in, but will remain an open type grass. Its root system is relatively shallow, ranging from 6-10 inches deep. It lends itself well to the southwestern landscape. It prefers a clay or loam soil which is not too sandy. It will survive in climates which receive as little as 10 inches of rainfall per year. Buffalo grass has blades which are bluish-green in color. It can be mixed well with Blue Grama grass which is the state grass of New Mexico. It is not highly invasive and can be easily pulled when it gets into flower beds. It has the quickest regenerative power of all grasses. Within one week of the end of a drought, it will turn green again. It is sensitive to herbicides and mowing. It's best to refrain from mowing and should never be mowed too short. It has a low need for nitrogen and should only be fertilized once each year, if at all. Buffalo grass needs a light watering every 21 days during the dry seasons. White grubs will sometimes infest buffalo grass. These pests should be controlled with beneficial nematodes which are mixed with water and sprayed onto the grass either early in the morning or late at night.

Tom Ellis, Assistant Superintendent, City of Albuquerque Park Management Division, spoke at our March meeting on "Shrubs and Trees for City Landscapes". He discussed the recently enacted Albuquerque Pollen Control Ordinance which goes into effect on August 1, 1997. This ordinance proclaims certain designated trees a public nuisance and health problem and prohibits their sale within the city of Albuquerque. It further requires the mayor to conduct pollen-counting and sampling and to provide public education.



CHAPTER REPORTS

Otero-Jean Dodd

15 February we had a pot luck at the home of Pat & Len Hendzel up in the canyon above LaLuz with about 60 people attending. The occasion was to reminisce and show slides by Len and John Stockert of the research trip taken in late Oct. 1996 with Dr. Spellenberg of NMSU to collect samples of oaks. Back in the lab the samples will be sorted out, identified, and mounted for the Herbarium collection. Dr. Spellenberg plans to do a much needed book of his study of the oaks of the Sierra Madre in Mexico. Graduate students are selected to go on these trips and those who went in 1996 came to the potluck as did Dr. Spellenberg's wife, Naida Zucker who is a lizard specialist at NMSU.

The trip was a 9 day, 2,100 mile trip into Mexico. Going through the dry Chihuahuan Desert they passed through rangeland farming areas that produce chilies, peanuts, and maize. The first night was spent in Paaral. We saw quite a few pictures in the slide show of people eating. They remembered what they had in each place, always accompanied by bottled beer. Can't trust the water. Several pictures showed unusually tall prickly pear.

Several nights were spent in Durango which has a population of 400,000. Passing over the Divide going over to the Barranca they were 40-50 miles from the ocean in the Sierra Madre Occidental. Some of the group split off and went to Mazatlan on the ocean shore. At El Salto, out of Durango, the population is 18-19,000 and the chief industry is logging. The Barranca is a beautiful place with a number of mountain ranges. Good birding. Maize is grown on very steep mountain sides. The 40" of rain a year promotes the growth of bromeliads-plants that live off the air. Cereus cactus were tall and thin. A flock of green parrots went by. Part of the group spent several nights at a hotel on the Tropic of Cancer. The rest of the group stayed at cabanas in the village of El Palmito.

On the way back from Mazatlan, 25 miles from the ocean, we came to Concordia, an old, old town founded in 1523. There is a very large, ancient church in the Plaza. The scene took one back 3-400 years as old Mexico was. At harvesting time they store the maize shocks in the trees to keep them safe from the animals. Back to Durango-outside of the City is a toll road which costs \$30-\$40. On the way back about 30 miles south of Juarez they stopped to admire the white sand dunes.

HIKING THE "A" TRAIL by John Stockert

For the past three years the Otero Chapter of the Native Plant Society has sponsored an annual guided tour along a particular trail that requires hiking skills and connects the West Side Road (Forest Road 90) with the base of the Sacramento Mountains in the Alamogordo area. Beginning at High Rolls and initially heading south, FR 90 is primarily a gravelled road that winds for 30 miles in and out of the canyon on the west and southwest slopes of the Sacramento Mountains and ends on the Timberon Road. It provides access to at least 8 trails, not counting others that intersect with those just mentioned. The previous two excursions had taken adventurers down the difficult Dog Canyon and Caballero Canyon trails. This year the easier "A" Trail was selected. Near its lower end it passes near the large white-washed "A" on the hillside east of Alamogordo.

In order to drive as a group to the trailhead we met at the High Rolls grocery store as we have done on earlier tours. From the

grocery store two of us drove seven miles over a winding road which was sometimes rough and muddy from recent, still existing snow in places. We turned off FR 90 onto an unsigned primitive road that took us quickly to the unsigned trailhead. It is recognized by a metal barricade used to prevent access by standard-size vehicles.

Once on the trail we passed junctions with (1) two trails, T-5573 and T-5574, leading into Dry Canyon; (2) the proposed Hells Hole Trail, T 219 that threads around to superlative vistas from a high ridge; (3) the primitive trailhead for an unofficial and often very difficult trail that leads to Hersberger Peak, the highest point in the area; (4) and an existing well-used path that heads around the western base of Ortega Peak for nearly a mile in the general direction of the Space Museum to a stock watering facility.

A highlight of the trip was watching at least half a dozen deer make their way across a nearby slope! The weather was great so we quickly shed our light jackets. The route was well worn and often rocky, varying from relatively level to a 30% grade (downhill, unfortunately!); in other words steep steep and heavily eroded in places. Jeeps used this "road" many years ago when it was in much better shape. It is still labeled as such on some topographical maps. ATV's and other trail vehicles are now using it in increasing numbers; we passed two motorcycles coming up the trail. The historic path, easiest of the four east/west trails in the area is obviously being used more and more. John noticed that trail wear/erosion has increased significantly since 1992.

Wildflowers were just beginning to show. A small, ground-hugging, somewhat rosette shaped *Astragalus* sp. was common on several eroded slopes adjacent to the trail at higher elevations. At lower elevations a few yellow-flowered Bladderpods (*Lesquerella* sp) were noted. Elevations varied from 7,300' where our hike began to 7,400' on the crest 250 feet below Ortega Peak, to 4,600 at the lower trailhead; a 2,800 foot difference. Most of us felt the significant elevation change by the time we reached the lower trailhead!

We passed a young family of four on their way up and a German national from Holloman AFB whose goal was the summit of Ortega Peak. Views from this somewhat flat and rectangular summit are some of the most superlative when compared to such panoramas from other high points between the West Side Road and Alamogordo. We learned that the young man achieved his goal after he caught up with our group and walked with us awhile. Lunch was enjoyed at a former cattle watering site on the shoulder of Ortega Peak overlooking a nice view of the distant Tularosa Basin and a deep narrow canyon just below us!

T 119 (the Forest Service number for the "A" Trail) is easy to follow. However the lack of signs at the two critical path junctions could lead first-time users onto routes/directions not intended. At the conclusion of the hike, Mary Yanalcan picked us all up in her van and delivered us to our cars/homes.



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NEWS AND NOTES

The 1997 Annual Meeting will be held in Gallup September 12-13-14. Our Saturday field trips will include a choice of trips to the Navajo Reservation, Zuni Mountains and El Morro with pre- and post-meeting options to El Malpais, Continental Divide and Chaco Canyon. Our evening speakers will include a Navajo Herbalist and an illustrated lecture from Bill Dunmire and Gail Tierney discussing their new book about the flora of the Four Corners Area. The meeting coordinators include Mary Goodman, Mary Whitmore, Terry Peterson, and Babs Peck. The Gallup area organizers are: members of the Plateau Science Society and NPS members Audrey Schuurmann, Gallup, and Loline Hathaway, Ya-Ta-Hey. Dr. Hathaway is the Director of the Navajo Zoo and Botanic Garden, Window Rock, Arizona; she will be coordinating the trips onto the Navajo Reservation and our tour of the mine reclamation site.

Excerpted from "Native Plant News", a new monthly bulletin for Members and Cooperators of the Native Plant Conservation Initiative (NM-NPS is a cooperator). Use their e-mail address to send for a copy of the new brochure, "Wild Wealth: The Riches of Native Plants" (native_plant@nps.gov) or try out the NPCI website: <http://www.aqd.nps.gov/natnet/npci> for grant information, summary of completed projects, feature articles, kids corner, working groups information, resource listing, outreach activities, news desk, and employment resources. They will again sponsor the "Celebrating Wildflowers" campaign which will be launched with National Wildlife Week, May 18-24. Contact Margaret Sotham, NPCI outreach coordinator if you have events you wish to publicize through the webpage and the Wild Hot Line at (202) 208-4620 or e-mail margaret_sotham@nps.gov.

Interested in herbal plants? The Herb Society of America, Inc. would like to hear from you. They are offering grants to persons interested in scientific, academic or artistic investigations - including the establishment of private and public herb gardens for education and demonstrations purposes. Contact them at: HSA, 9019 Kirtland Chardon Road, Kirtland, Ohio 44094; or phone: (216) 256-0514, or fax (216) 256-0541.

The Native Plant Conservation Directory is available from Center for Plant Conservation for \$18 (includes shipping and handling). It includes federal and non-federal natural resources personnel plus native plant laws, regulations and lists. For more information or to order, write CPC, Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166.

submitted by Mary Whitmore, president, NPSNM

The Ortiz Mountains — a New Land Grant (Mine reclaimed, SFBG benefits)

by Art Montana

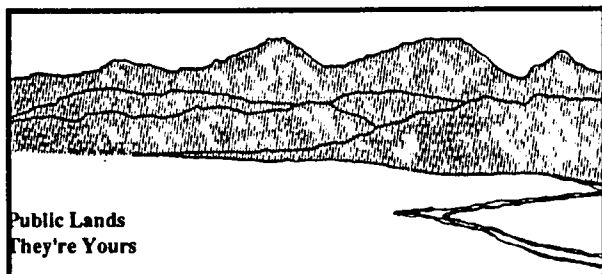
The Ortiz Mountains lie about 20 miles south of Santa Fe and contain mineral deposits, including disseminated gold. They are the result of intense volcanic activity beginning roughly 30 million years ago. This area has played a prominent historical role, being the heart of the oldest mining district in the United States. Silver mining began in the Cerrillos Hills in 1601, also the location of the first western gold rush — 1828, preceding that in California by 20 years. At the turn of the Century, Thomas Edison attempted to establish a mill to extract gold in the Ortiz, but later abandoned the project.

An open-pit gold mine near Cunningham Creek on the Santa Fe side of the Ortiz Mountains operated during the first half of the 1980's, resulting in an array of serious environmental problems. This preceded the 1993 New Mexico Mining Act, which would have precluded these difficulties. The property changed hands, and a grass-roots organization, The Friends of Santa Fe County (FSFC), brought suit in Federal Court to force the mining companies to reclaim the area. An out-of-court settlement resulted in a truly remarkable reclamation project, currently underway, by the present owners, Barrick Gold Corporation, as well as revocation of plans to mine gold on the south side of these mountains.

As part of this settlement, the new owners designated about 1350 acres of pristine land, including the highest summits of the Ortiz, to be donated to an organization determined by them and FSFC. The Santa Fe Botanical Garden (SFBG) was selected. SFBG has close ties with the Santa Fe Community College. Many members of our Society have taken botanical courses and memorable field trips through the Community College with Bill Isaacs. I mention Bill because as most of you folks who live in the Santa Fe area are aware, he died in January of this year, and he was an important and dedicated member of the SFBG. It was his commitment to education as well as to the study and preservation of native plants and animals that prompted us to select SFBG to receive the land. Bill was very enthusiastic about the potential of the land for preservation and research. It is heavily forested with Juniper, Pinon, Ponderosa, Douglas Fir, White Fir, and other trees and an unadulterated assemblage of native flowering plants. The elevation ranges from about 7000 to 8900 feet. It is bordered on the west by the Ball Ranch and on the South by the Lloyd Ranch, both large properties with stiff conservation easements attached.

Barrick Gold Corp. is providing a parking lot and a mile-long easement corridor through the remainder of their land to access the property. They will also provide funds to establish signs and a loop trail through the property, the location and nature of which will be determined by SFBG. SFBG had interacted with the Native Plant Society of New Mexico at all levels, and they will continue to seek our participation, collectively and individually, to ensure that this remarkable tract is utilized to the fullest benefit.

Art Montana is Professor Emeritus of Geochemistry and former Chairman of the Department of Earth & Space Sciences at UCLA. He is Chairman of the New Mexico Mining Commission and a consultant on environmental and mining issues.



To All New Mexican Botanists:

NEW MEXICO RARE PLANT TECHNICAL COUNCIL

You are invited to be counted as a founding member of the New Mexico Rare Plant Technical Council by attending the initial meeting on 6 June 1997 at the University of New Mexico in Albuquerque. The purpose of this council is to assemble member contributions of technical information on New Mexico's rare plant species (distributions, habitat requirements, taxonomic questions, threats, etc.). The information and advice obtained from council members will be distributed to government agencies and other interested organizations to help enhance understanding of specific rare plants. To accomplish this, we need those people most familiar with our rare species to be in attendance - especially agency biologists, botanical researchers and consultants, and the authors/editors/users of rare plant lists.

The primary focus for this initial meeting is to discuss the various rare and endangered plant lists presently being used in New Mexico. The federal, state, and Navajo Nation endangered plant lists all have a statutory basis and respective bureaucratic requirements. These agencies need active support and want solid technical advice from botanists. Several more-inclusive, policy-based or informational lists are being taken seriously by federal and state agencies and are becoming influential in management and conservation decisions. The U.S. Fish and Wildlife Service "Species of Concern" list, NM Forestry Division "Sensitive" and "Review" lists, NM Natural Heritage Program plant elements, Forest Service "Sensitive" list, Bureau of Land Management "Sensitive" list, and others limited to smaller areas (e.g. Sacramento Mountains) are in common use. These lists influence one another, but also are inconsistent and may need some reconciliation. So bring your field experience, ideas on research needs, and suggestions for improving the various lists. Blow the dust off those rare plant research or agency reports that never got distributed to anyone and bring them along. If you are the keeper of a rare plant list, please bring enough copies to share with everyone (40?). We also would appreciate hearing a short presentation (5-10 minutes) on the criteria for inclusion of taxa on your list and how the list was intended to be used by government agencies and the public.

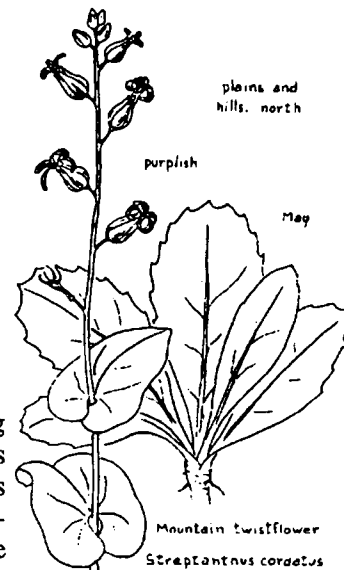
The initial meeting will begin at 8:30 am in the conference room (Rm 163B) of the Biology Department - Castetter Hall. Paid parking (\$1.50/day) is available in several lots on Yale Blvd. just south of Central Ave. Bring your lunch so we can continue working in smaller groups during a brief lunch break. Hopefully, we can accomplish our organizational business during a short period after lunch. At a minimum, we need to elect a Chairperson and Secretary, schedule a time and place for the next meeting, and determine the methods and responsibilities for dispersing contributed reports, salient literature, and the minutes of each meeting. For further information:

Bob Sivinski, NM Forestry Division, (505) 827-7865

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

HIKING ACCESS TO THE SACRAMENTOS BY Jean Dodd

One day people started noticing that the face of the Sacramentos had acquired a new scar, homes were being built and no trespassing signs were put up where once there were old time hiking trails. People realized we had a problem so they banded together in a temporary group called the Foothills Protection Association. So far they have attended an organizational meeting, an Otero County Planning Meeting, and a City Commission Meeting. The Forest Service has developed an overall hiking plan, including Rails to Trails, for the area and is now working on obtaining access easements as you would a water or utility easement. If anyone has experience with this process and could give helpful suggestions about how to proceed, please contact Jean Dodd at 1302 Canyon Road, Alamogordo, N.M. 88310. 434-3041.




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Demonstration Gardens for Native Plants

The following places are open to the public and have labeled plantings of native plants (some include drought-tolerant non-native plants)

Alamogordo Area

White Sands National Monument

Abiquiu

1. Ghost Ranch headquarters, small garden area
2. Ghost Ranch Museum, native animal zoo and small garden

Albuquerque

1. Elena Gallegos Park
2. Xeriscape Garden at Osuna and Wyoming
3. N.M. Natural History Museum
4. Tijeras State Park
5. Sandia Peak, 1/2 mile walk
6. Rio Grande State Park and Nature Center
7. Rio Grande Botanic Park (especially Chihuahuan desert plants)
8. Wildlife West Nature Park, Edgewood



Artesia

City Hall xeriscape garden

Carlsbad

1. Living Desert State Park
2. Carlsbad Caverns National Park
3. Guadalupe Mountains National Park

El Paso

Centennial Museum - UTEP
Wilderness Park Museum - Transmountain Rd.

Grants

El Malpais Visitors Center, outdoor display gardens, photographs and herbarium collection

Las Cruces

1. Fabian Garcia Science Center at NMSU, display gardens; two small native plant beds between parking lot and road
2. NM Museum of Natural History, Mesilla Valley Mall
3. Dripping Spring Natural Area (BLM) - ten miles east of town small garden between parking area and visitors center
4. Sierra Vista Growers garden - La Union

Las Vegas

1. Las Vegas Wildlife Refuge display of native grasses inside the visitors center
2. Santa Fe National Forest Ranger Station, 1609 7th Street arboretum of native and non-native trees
3. Salmon Nursery and Raspberry Ranch in La Cueva (20 miles north of Las Vegas on Highway 518). Demonstration gardens adjacent to historic mill and the General Store - natives and drought tolerant non-natives

Santa Fe

1. Santa Fe Community College, Santa Fe Botanical Gardens Four demonstration gardens of native plants at entrance to main buildings and courtyard: plants suitable to different exposures, each bed with a different local rock type: metamorphic, volcanic, limestone and sandstone.
2. Santa Fe Botanical Garden's Leonora Curtin Natural History Area, one mile north of the La Cienega exit on the west frontage road
3. Museum of International Folk Art - trail around north side of building: trees, shrubs and flowers.
4. Santa Fe Greenhouses, 2909 Rufina Street: demonstration gardens of native and non-native plants; commercial sales.
5. Plants of the Southwest, on Agua Fria Road just west of city limits Demonstration gardens and commercial sales of native seeds and established native plants
6. Agua Fria Nursery, 1409 Agua Fria (3/4 mile west of St. Francis Dr.) The Penningtons have a large number of native plants for sale and on display.

Pecos

Pecos National Historic Park, area between parking lot and Visitors Center

Raton

1. Capulin National Monument, two trails adjacent to the Visitors Center
2. Sugarite State Park, 6 miles NE of Raton, established hiking trails

Silver City

1. Native Plant Garden at WNMU Museum
2. Cactus Garden at City of Rocks
3. Nature Conservancy areas a) Gila Box and b) Mimbres River

Socorro

1. NM Institute of Mining and Technology, several areas on campus
2. Bosque del Apache National Wildlife Refuge, Areas around the Visitors Center and adjacent to the parking lots planned by Judith Phillips and planted by NPS volunteers; trees, shrubs and flowers

corrections and additions welcomed