

Native Plant Society of New Mexico ***newsletter***

VOLUME VI. NO. 2

MARCH - APRIL 1981

TO JOIN THE NATIVE PLANT SOCIETY:

Dues are \$6 per year, or \$8 for families; or \$4 for students or seniors. Write to Dorothy DeWitt, 1414 Old Pecos Trail, Santa Fe, New Mexico 87501.

NON-MEMBERS:

This newsletter comes to you with our hope that you will consider joining the Native Plant Society, a group active in the enjoyment, study, use, and protection of New Mexico's flora.

CALENDAR

- March 12 Las Cruces Chapter meets ("on second Thursdays") in Room 156, Agriculture Bldg., NMSU, 7:30 p.m.
- March 18 Santa Fe Chapter meets ("on third Wednesdays") in Room 122, Laboratory Bldg., St. John's College; 7:30 p.m. Don Sylvester will speak on native grasses.
- March 18 Albuquerque Chapter meets ("on third Wednesdays") in Room 34, Monte Vista Christian Church, 3501 Campus Blvd. NE; 7:30 p.m.
- April 9 Las Cruces Chapter meets (see March 12 above for time and place)
- April 15 Albuquerque Chapter meets (see March 18 above for time and place)
- April 15 Santa Fe Chapter meets (see March 18 above for time and place)
- April 11-12 2nd Annual Statewide Meeting at Bear Mountain Guest Ranch, Silver City, NM. See article this issue for details.
- May 2 Plant Sale at the Albuquerque Garden Center, 9 a.m. to 5 p.m. The theme this year is Native Plants.
- May 9 Santa Fe Chapter's Annual Spring Plant Sale, The Institute on American Indian Arts, 9 a.m. to 5 p.m..

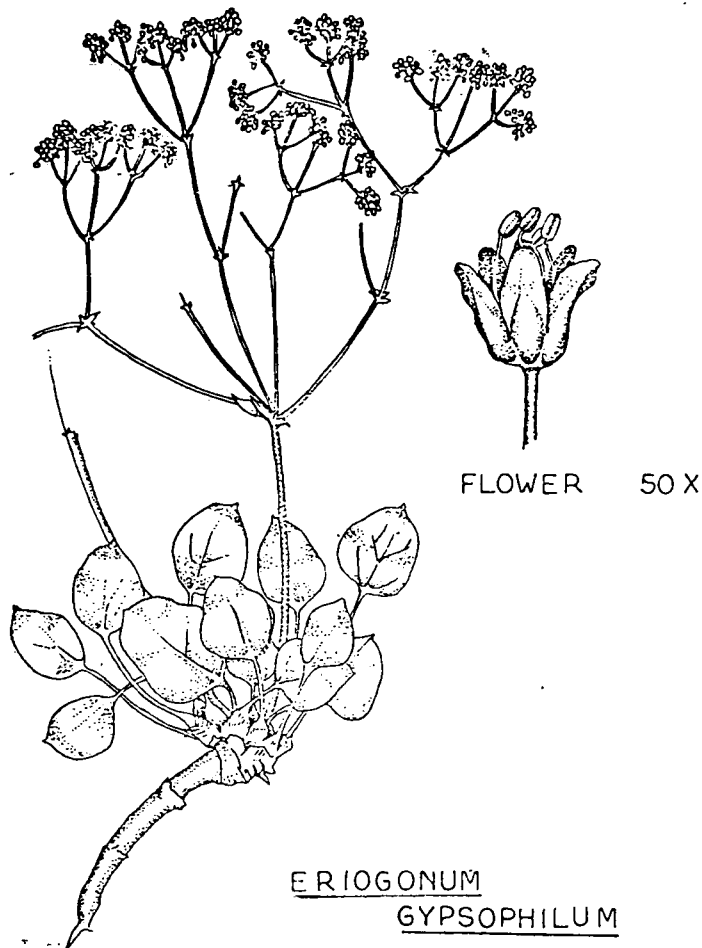
TWO MORE NEW MEXICO PLANTS NAMED
THREATENED AND ENDANGERED

The Fish & Wildlife Service has determined that gypsum wild buckwheat (Eriogonum gypsophilum) is a Threatened Species and is likely to become an Endangered species throughout all or most of its range.

Gypsum wild buckwheat was first collected by Wooten and Standley in 1909 on a hill southwest of Lakewood, New Mexico. This member of the knotweed family (Polygonaceae) is a small, erect, herbaceous perennial, which measures about eight inches high and is restricted to gypsum soils. This plant's entire range is limited to a 0.2 square mile area (130 acres) in the Seven Rivers Hills of Eddy County at elevations from 3,290 to 3,450 feet. The Critical Habitat area is public land administered by the Bureau of Land Management. This area is semi-arid with an average annual precipitation of 14 inches. The continued existence of this plant and the fragile habitat in which it occurs are being threatened by off-road vehicles, grazing, and by the Brantley Dam Project, particularly if proper protection planning for the plant does not continue to occur.

The stability of the gypsum may be affected very near the reservoir, as it has on the east side of Lake McMillan where slumping of gypsum bluffs has occurred. If this occurs, up to several hundred plants out of a total estimated population of 2,800 might be affected by new patterns of erosion and changes in microhabitat.

Water and Power Resources personnel believe Eriogonum gypsophilum can probably exist with the Brantley Dam Project and they have noted that the plant's well being has been included in the project's planning process. They believe that the problems of slumping and the salt cedar fringe can be dealt with so as to insure the continued existence of the plant. The Water and Power Resources Service also notes that the Brantley Dam has been relocated downstream of its



original location and is now 2 miles south-southeast of the closest Eriogonum gypsophilum population.

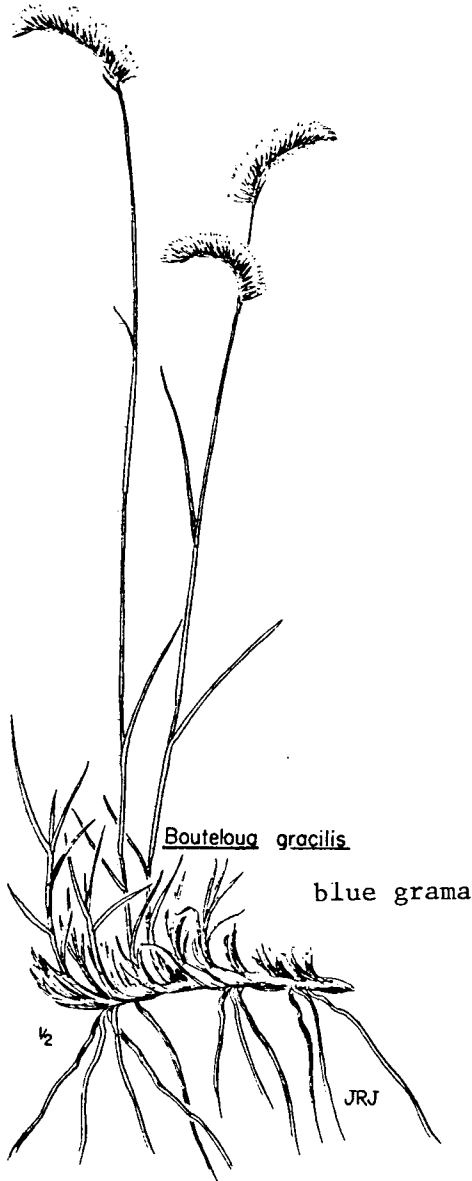
As a follow-up to the article by Iris David and Roger Peterson in the last Newsletter (Jan - Feb, 1981) on Todsen's pennyroyal, the Fish & Wildlife Service has now formally declared it to be an Endangered Species. It is endemic to loose, gravelly limestone slopes in the San Andres Mountains of New Mexico.

The populations occur on public lands administered by the U.S. Army. The combined area of its two known populations is approximately 3000 square meters and the number of surviving plants is estimated at 750.

The remoteness of Hedeoma todsenii's population and the restricted nature of the White Sands Missile Range affords the species considerable protection. Yet, its fragile habitat and the small number of known populations and individuals which comprise them combine to

leave the species particularly vulnerable and in need of protection.

Both of these plant species are currently being studied to determine their critical habitats, and how best to protect the habitats and preserve the species.



The 2nd JORNADA MOGOLLON CONFERENCE will be hosted by the Agency for Conservation Archaeology at Eastern New Mexico University, Portales, NM. The conference is open to all interested persons and will be held on March 13th and 14th, 1981, on the campus of Eastern New Mexico University.

Registration begins Thursday evening, March 12. For further information call Colleen Beck, (505) 562-2254.

NATURALISTS MUST TREAD LIGHTLY

Two reports appeared in a recent US Fish & Wildlife Endangered Species Technical Bulletin which pointed out that heavy hiker traffic can endanger rare plant species. Here are the cases mentioned:

"A successful public meeting and the support of local community leaders contributed to the speedy adoption of a final rule listing mountain golden heather (Hudsonia montana) as a Threatened species and designated its Critical Habitat in North Carolina's Pisgah National Forest.

In a way, Hudsonia's problems seem to symbolize a great irony in today's natural resource conservation - an ever increasing crush of outdoor admirers who threaten to smother fragile natural areas with their love.

Support for legal protection for the species began with the County. The State of North Carolina also gave its support. A climbing group suggested it might be able to assist by publicizing the need for protecting the plant in its newsletter. Furthermore, the Outward Bound program which runs a rock climbing school on leased land near the Critical Habitat, volunteered to assist in monitoring the plant.

It is gratifying to see that sometimes in the turbulent world of Endangered Species, County, State, and National policy can indeed coincide. Now the real work of insuring a piece of the rock for this tiny wilderness creature can begin."

In the second case, a member of the carnation family, the silverling (Paronychia argyrocoma var. albimontana) is threatened by heavy hiker traffic, overcollecting for scientific purposes, a highly restricted range, and small population size.

Because collecting is such a threat and the plants occur in open, exposed areas

near hiking trails, the Service feels that designation of Critical Habitat would not be in the best interest of the species, but would in fact place the species in greater jeopardy."

It is interesting to see how these plant protection problems are dealt with throughout the U.S. Here in New Mexico where the plant communities are slow to grow and re-colonize disturbed areas we can do well to watch where we place our hiking boots, also.



Pulsatilla patens

pasque flower
flowers lavender
blooms in early spring

NATIVE PLANT SOCIETY ADDRESSES

State Coordinator: Fairley Barnes
P.O. Box 5917
Santa Fe, NM
87502
662-5910(home)
667-4933(office)

Santa Fe Chapter: Anna Deardorff
P.O. Box 5917
Santa Fe, NM
87502
983-8363(home)
827-5531(office)

Albuquerque Chapter: Judy Phillips
P.O. Box 395
Tome, NM 87060
262-1785 (M,W,TH)

Las Cruces Chapter: Bob Reeves
475 La Colonia
Las Cruces, NM 88001
646-1799(office)

Newsletter: Anna Deardorff
P.O. Box 5917
Santa Fe, NM 87502

SANTA FE CHAPTER

January Meeting Highlights

Mrs. Lennie Kellahin shared her slides of wildflowers with a record crowd of Santa Fe Chapter members and others. One of her favorite spots in New Mexico for camping and fishing is Canyon Lake, off the Chama Highway; and late June is a good time for photographing wildflowers there, she told us.

Mrs. Kellahin has successfully transplanted the following species:

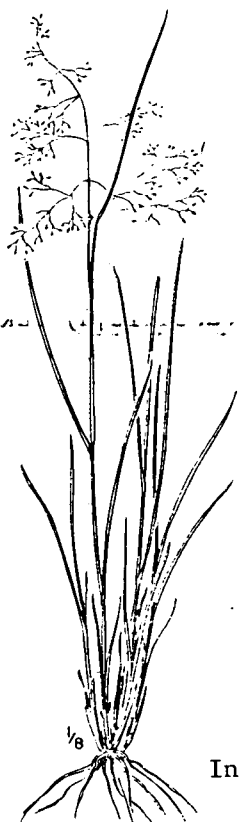
- wild larkspur (Delphinium)
- iris - transplants easily anytime, even while flowering
- toadflax (Linaria)
- mallows (Sphaeralcea)
- phlox - dig very early in spring, before blooming
- wild verbena
- creeping Oregon grape (Mahonia repens)
- cacti - easy, but only off of private lands
- paintbrush (Castilleja) take some soil as well as the plants growing around it. It's a root parasite.
- columbines (Aquilegia)
- bee plant (Cleome)
- gayfeather (Liatris)
- prairie zinnia
- yarrows (Achillea)
- shooting stars (Dodacatheon) prefers a cool, moist habitat.

Mrs. Kellahin passed out two pages of tips on growing wildflowers for your own yard, emphasizing the secret to transplanting wildflowers is to keep them moist and covered during hot, sunny days. Jason Kellahin, a lawyer, provided the audience with copies of the state statutes (Article 8, sec. 76-8-1 through 4) regarding Protection of Native New Mexico Plants. For a free copy of these handouts write or call NPS Santa Fe Recording Secretary Carol Dimeff, Rt. 4, Puesta del Sol, Santa Fe 87501, phone 827-5182 or 471-8158.

WILDFLOWER ASSOCIATION OUTINGS

Call Judy Nickell, Albuquerque, for meeting time and place.

- March 21 Sat. Sunset Canyon, Sandia's
March 23 Mon. city greenhouse, Arroyo del Oso
April 18 Sat. Pine Flats for pasqueflower



Indian ricegrass

Oryzopsis hymenoides

SEX AND THE SINGLE PLANT

by Roger Peterson

(This is the first of two articles on sexuality in plants.)

Give... and ye shall receive. That is the sexual philosophy of bacteria, some snails, and most plants: hermaphro-

ditic plants that have male and female organs within single "perfect" flowers, like sunflower, rose, and lily, and monoecious plants that have male and female flowers on one individual, like ragweed, oak, and spruce. Shifts between these groups can occur; for instance, Gambel oak is normally monoecious and spring-flowering, but if a late frost destroys the unisexual flowers, a summer crop of hermaphroditic flowers can be produced (Tucker *et al*, 1980, Amer. J. Bot. 67).

Not that all who are bisexually equipped take advantage of their outcrossing abilities. Some of our perfect-flowered grasses and legumes, for instance, are 98 to 100 % self-fertilized. Their pollen often fertilizes ovules within a single flower before it even opens to the outside world. For a seed planning to colonize a new volcanic island, or even a newly abandoned field, that is apt to be the winning policy: produce a plant capable of self-fertilization because other plants of the species and pollinating animals may not be there.

Other bisexual plants disdain self-fertilization as incestuous. In ponderosa pine, for instance, clouds of yellow pollen may cover female surfaces of the producing tree but rarely fertilize the ovules. Similarly in evening primroses self-fertilization is unusual. The various lupine species, though having perfect flowers, vary from about 10 to 80 % self-fertilization. There can be variation within species: 15 samples populations of our wild rye (Elymus canadensis) varied from 75 to 100 % self-fertilization. Self-fertilization rates are clearly under genetic control. Natural selection of genetic variants can be swift: for instance, self-sterile individuals of a hummingbird-pollinated species will leave no progeny (their genotype, if dominant, will be wiped out) where hummingbirds have disappeared.

In the next Newsletter, Roger Peterson will tell readers about dioecious plants.

PLANT NEW MEXICO NATIVE TREES

1981 Tree Seedling Program

Application forms for the 1981 New Mexico Tree Seedling Program are now available from the State Forestry Division, P.O. Box 2167, Santa Fe, New Mexico 87503. The program provides seedlings to landowners at a very reasonable cost, but the seedlings must be used for conservation purposes, i.e. erosion control, reforestation, windbreaks, and wildlife habitat. These trees may also be planted for Christmas trees.

There are two types of seedlings available, bareroot deciduous and containerized conifer(evergreen). Species of deciduous trees available are: green ash, hackberry, Lombardy poplar, native plum, narrow leaf cottonwood, Russian olive, and skunkbush sumac. All of these are very well suited for windbreak plantings. Hackberry and green ash are very adaptable to the southern half of New Mexico.

Coniferous species still available are Douglas fir, ponderosa pine and white fir. Unfortunately, the two species that are adapted to southern New Mexico the Arizona cypress and Austrian pine, have already sold out.

To be eligible for this program landowners must have at least two acres and the trees may neither be planted as ornamentals nor resold as living trees. A minimum of 100 bareroot seedlings @ \$23.00/100 must be purchased, in multiples of 50 per species. Coniferous species come in plastic "containers" with a minimum purchase of 98 @ \$42.00/98, in multiples of 49/species.

For more information call the Santa Fe office of the State Forestry Division, (505) 827-3182.

TRUST FOR PUBLIC LAND ANNOUNCES

LOCAL OFFICE

The Trust for Public Land has established a New Mexico office in Santa Fe. This private organization devotes itself to saving land in both rural and urban areas, preserving open space and natural scenes.

Unlike The Nature Conservancy, which sometimes retains natural areas for management, TPL always turns its acquisitions over to governmental agencies. Urban parks and access routes to existing national parks and forests have been specialties of the group.

For information contact Phil Wallin at 988-7403 in Santa Fe.



Hilaria jamesii

galleta grass

ALL MEMBERS TO MEET IN SILVER CITY

The Second Annual statewide meeting will be held at Bear Mountain Guest Ranch outside Silver City, the weekend of April 11.

Here's the schedule:

SATURDAY: pot luck lunch.

SATURDAY AFTERNOON: home landscaping and native plants with Anna and David Deardorff, Santa Fe.

SUNDAY MORNING: field trips with our hostess Myra McCormick.

Accommodations are available at the ranch but prior arrangements must be made with owner Myra McCormick (see classified ads). Self-contained campers may use the parking lot at the ranch. Wilderness type campgrounds are about two miles away in the Gila National Forest. Campers who wish to eat meals at the ranch (especially Friday night) should make prior arrangements with Myra.

To find the ranch from Silver City: take Highway 180 towards Glenwood (Florence Street). Turn right on Alabama Street. Drive 3.4 miles. After the first cattle guard, turn left to Bear Mountain Guest Ranch.

Spring storms are a possibility, spring wildflowers a certainty! See you on April 11!

NEW MEMBERS

The following people have joined the Native Plant Society in recent weeks: Catherine Ferguson, Timothy McAvinchey, Danita Rask, Nancy Daniel, SANTA FE; Reggie Fletcher,, ALBUQUERQUE; Vorsila Bohrer, PORTALES; Larry McKnight, Dorothy Hoard, LOS ALAMOS; Katherine Skaggs, GLENWOOD; Colleen Danley, ALAMOGORDO.

NPS BYLAWS REVISED

The Board of Directors has (finally!) finished a new set of bylaws. We are sending each chapter president a copy and ask that the acceptance of these bylaws be debated and voted upon at chapter meetings over the next two months.

Any member can send us a postcard and ask for his/her own copy of the bylaws. Address it to Fairley Barnes, P.O. Box 5917, Santa Fe, NM 87502.

Melissa Savage did most of the work on this major revision and prodded the rest of us into giving comments and ideas - so we all owe Melissa a warm thankyou.

- Fairley Barnes

ALBUQUERQUE FIRM PRESERVING HISTORIC MAN-MADE LANDSCAPES

Morrow and Worley, Landscape Architecture and Urban Design, Albuquerque, is recording and studying New Mexican gardens, fountains, public squares, courtyards, which represent a unique cultural expression of their time.

They have distributed forms requesting help from citizens in locating these historic landscapes around the state. If you know of a garden or other manmade landscape feature constructed before 1945 which you feel merits restoration, preservation, or even just documentation, please contact Registry of Historic Landscapes, c/o Morrow and Worley, Landscape Architecture/Urban Design, 119 Industrial Avenue NE, Albuquerque, NM 87107, phone (505) 345-6631.

AGUA FRIA NURSERY

Specializing in perennials and
native plants
Philip and Bob Pennington
1409 Agua Fria
Santa Fe, New Mexico 87501
983-4831

BEAR MOUNTAIN GUEST RANCH

Guided wildflower tours
Myra McCormick
Silver City, N.M. 88061
(505) 538-2538

LAS CHAMISAS

Distributors of native plants
Specializing in shrubs and
ground covers
East Meadowlark Lane, Corrales

NATIVE PLANTS OF SANTA FE

--LANDSCAPERS

Complete services, Design,
Consultation, Site work and
Planting
Specializing in drought-tolerant
plants and low-maintenance
landscapes
Sam Sutton 982-4769

PLANTS OF THE SOUTHWEST

Wildflowers--native grasses--
vegetables

Cut your water bills while
creating colorful meadows,
rugged lawns, and fresh organic
vegetables.

Write for free 1981 seed
catalogue.

Dept. 1, 1570 Pacheco St.,
Santa Fe, New Mexico 87501

Native Plant Society of New Mexico
P.O. Box 5917
Santa Fe, New Mexico 87502

BULK RATE
POSTAGE
PAID
Santa Fe
New Mexico 87501
PERMIT NO. 98