

# **Native Plant Society of New Mexico**

## **may-june 1980 newsletter**

VOLUME I, NO. 3

### CALENDAR OF EVENTS

- June 18: Santa Fe Chapter Meeting. Bill Isaacs of the State Heritage Program will discuss rare plants of the Santa Fe area and has promised us a field trip for the following weekend. 7:30 p.m., St. John's College, Room 118 of the Laboratory Building.
- June 21: Albuquerque Chapter to host an all day field trip starting at New Mexico Cactus Research Center on River Road in Belen (meet 9:00 a.m.), followed by an afternoon visit to Priest Canyon in the Manzanos.
- June 23-30: 1980 Regional Conference of the National Audubon Society (Southwest Region) at Ghost Ranch, Abiquiu, New Mexico.
- July 16: Santa Fe Chapter Meeting. Helen Cannon will speak on Geobotany and is also planning to lead us on a field trip.
- July 19: 9:00 a.m. Albuquerque Chapter field trip to Castletter Park, site of a new chapter project and public demonstration garden of native plants (See Chapter Activities for more information).
- July 26-28: Symposium on Endangered Plants, Ashland, Oregon.
- August 16: 10:30 a.m. First Annual Statewide Meeting of the Native Plant Society of New Mexico. Fourth of July Canyon on the east side of the Manzanos. Albuquerque Chapter to host the event. Field trip with Bill Isaacs and mid-day, potluck meal.
- August 20: Regularly scheduled meeting of the Santa Fe Chapter will not be held; members are urged to attend statewide meeting, August 16th, 4th of July Canyon.
- September 17: Santa Fe Chapter Meeting. Native Plant Landscaping Workshop conducted by Agua Fria Nursery and Plants of the Southwest, 7:30 p.m.
- October 15: Santa Fe Chapter Meeting. Michael Moore will return to show us the rest of his slides on native plants used for medicinal purposes.

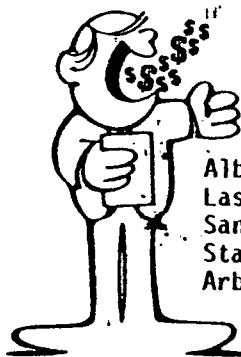
Note: Plant Instructors Bill Isaacs, Phyllis Hughes and Michael Moore have invited NPS members to attend weekend field trips offered through the summer months. At least one field trip is planned for nearly every weekend this summer. Contact the instructor of your choice for meeting place and time.

## CHAPTER ACTIVITIES

**Santa Fe:** The annual Santa Fe chapter plant sale held May 10th brought in \$468 and 8 new memberships. Our thanks to a hard-working Plant Sale Committee for an outstanding job at organizing the event, advertising, and helping out during the day. Special appreciation goes to our contributing vendors: Plants of the Southwest, Aqua Fria Nursery, Jack's Mini Roses of Belen, Cerrillos Nursery, Native Landscapes, Herbs & Spices, Susan Martin, Rainbow Rabbit T-shirts, Carol Kurth, Nick Evangelos and Dean Haggard.

**Albuquerque:** The Albuquerque chapter plant sale held May 3rd made \$387. Albuquerque is planning its first chapter project, a 4-5 acre park of fenced land in the Sandia Heights subdivision (near the Sandia tram parking area), where native plants will be demonstrated and labelled. The chapter will have an exhibit at the New Mexico State Fair this summer and plans to put these plants into the garden after its over. Sandia developers have expressed willingness to maintain the garden and publish a brochure about it for visitors.

The Albuquerque chapter plans no speakers for the summer months, but will be concentrating on field trips. On Saturday, June 21st, meet at 9:00 a.m. at the New Mexico Cactus Research Center on River Road in Belen for a tour led by Horst Kuenstler, followed by a visit to Priest Canyon in the Monzanos. On July 19th they're going to Castletter Park on Sandia Pueblo land, the site of a demonstration garden of native plants to be developed as a chapter project. For more information, contact Judith Phillips at 262-1785.



MONEY TALK

### FINANCIAL REPORT

Albuquerque Chapter:	\$387 +
Las Cruces Chapter:	\$132
Santa Fe Chapter:	\$500.52
State Account:	\$372.51
Arboretum Account:	

Being determined

One third of the current funds in our new, statewide account will be transferred to the Santa Fe account in compensation for past appropriations given to statewide activities. Las Cruces and Albuquerque chapters will receive a one-third return on all membership dues collected for 1980, and will receive these monies at the end of the calendar year.

**Las Cruces:** Contact chapter president, Bob Reeves, at 646-3021 or 523-1806 for summer schedule of field trips and meetings.

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### THE LOS LUNAS CONNECTION

The Los Lunas Plant Materials Center located south of Albuquerque is operated by the Soil Conservation Service in conjunction with the NMSU Agricultural Experiment Station. It is probably the most important research facility in New Mexico studying the application of native plants for landscaping and other uses.

Under contract with the New Mexico State Highway Department, the PMC has released several varieties of native trees, shrubs and wildflowers for highway beautification and stabilization. Other uses under consideration at the Center include range improvement and erosion control; improved windbreaks, and minespoil reclamation.

Once a problem has been identified, the PMC (with the help of SCS field offices) collects plants for evaluation. Some of the criteria for collection include production, seedling vigor, disease resistance and erosion control potential. After being planted in the field and observed for several seasons, the collection of "accession" having the greatest hope for solving the problem is then propagated. The accession is named and given to commercial seed producers and nurserymen for increasing. To date over 140 accessions have been developed; and in 1977 this accounted for over \$22 million in income to growers and nurserymen.

Plant breeding is always a slow, time-consuming process, taking an average of 15-20 years to release a new variety. 27 varieties of trees, shrubs, grasses and forbs for conservation problems have been released from the Los Lunas PMC, making a valuable contribution for future generations to come.

## NATIVE PLANTS, INC.

One of the largest growers of native plants in the entire southwest region is Native Plants, Inc., located in Salt Lake City, Utah. This year Native Plants will be producing over 2 million plants in their patented Tubepak container. The Tubepak was specially designed for revegetation work on dry, sandy sites. Each pack contains six cells or tublings which can be disassembled quickly and made ready-to-plant. Vertical corrugations keep the roots from entwining, and when the roots reach the bottom of the cell they are automatically "air-pruned", encouraging lateral root growth. These containers are relatively expensive (30¢/pack), but they can be reused if cleaned.

Native Plants, Inc. also offers a complete line of seed materials and has a list of over 400 people in the field collecting seed for them. Seminars are offered periodically to train interested people in proper seed collecting techniques.

The company has been very successful propagating aspens, willows and cottonwoods from seed, which proves to be more economical and requires less greenhouse space than cuttings. Aspens from seed, they predict, will replace field-dug plants because they can get 100% seed germination and the young plants grow as much as 6 feet in the first year after transplanting, greatly out-performing field transplants. Native Plants is also probably the only nursery successful in growing Mahonia repens (Creeping Oregon Grape) from seed, a low-growing ground cover that occurs on dry, rocky hillsides throughout the southwest.

Plant Resources Institute, a not-for-profit research subsidiary of Native Plants, Inc. also leads the way in tissue culturing of natives. Tissue culture specialist Caroline Sluis is now working on:

1) A grant from the University of Arizona to propagate five species of threatened and endangered cacti and are now growing 5,000 specimens of each of the following:

- Pediocactus paradingi  
P. papyracanthus  
P. bradyi  
P. sileri  
P. peeblesianus var. fickeisenii



Creeping Oregon Grape  
Mahonia repens



Four-wing Saltbush  
Atriplex canescens

2) A study to demonstrate the economic feasibility of producing a revegetation species from tissue culture for the Four Corners states. Atriplex canescens (4-wing saltbush), which grows well from cuttings, was selected for its wide range and multiple uses as well. The Highway Department in Colorado plants it near ski basins to reduce highway glare and it also has been used on disturbed sites in the Four Corners area.

3) Tissue culture of johoba females. They are presently growing 10 different genomes, one from every major growing area of the southwest including California.

4) A day-neutral strawberry, var. Fort Laramie, in hopes of increasing its market availability. In the near future there may also be tissue-cultured grapes for Utah growers.

New offices and tissue culture lab are located in Research Park at the University of Utah, Salt Lake City. For more information or if you'd like to obtain their 1980 Plant & Seed Catalog, write to Native Plants, Inc., 360 Wakara Way, Salt Lake City, Utah 84108.

## ASSOCIATION OF WESTERN NATIVE PLANT SOCIETIES

Representatives of native plant societies of the western United States meeting under the sponsorship of the State Arboretum of Utah and the Utah Native Plant Society have formed the Association of Western Native Plant Societies. The Association's purposes are to endorse the purposes and goals of the individual societies regarding the promotion of public knowledge and awareness of native plants. The Association also proposes to facilitate the exchange of information and cooperative action among native plant societies and to formulate and publicize consensus views on acts affecting the native flora. Membership in the Association is only at the society level, although subscription to its quarterly informational newsletter will be available to individuals.

Projects which the Association plans to monitor include:

- the federal Highway Beautification program "Operation Wildflower";
- the MX Missile program;
- Interior and Agriculture Department policies on wildlands and revegetation of mine spoils;
- feral animal removal;
- adaptation of landscaping to drought conditions in anticipation of restricted water availability in the western U.S.; and
- development and increased availability of suitable native plants for cultivation in various horticultural situations and climatic conditions in the west.



*Prunus virginiana*

For more information, contact:

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ASSOCIATION OF WESTERN NATIVE PLANT SOCIETIES  
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An International Conference on Systematic and Evolutionary Biology held in Vancouver, BC, the week of July 17th will be followed by a Symposium on Endangered Plants in Ashland, Oregon, July 26-28, 1980.

### SO WHAT DOES THE MX MISSILE HAVE TO DO WITH RARE PLANTS?

Potential deployment sites in Nevada include 134 BLM wilderness study areas; more than 100 nationally recognized "areas of critical environmental concern", 6 Forest Service wilderness study areas, 5 federal and state wildlife refuges, and 2 proposed national parks.

The Northern Nevada Native Plant Society has tentatively identified some 117 candidate threatened or endangered plant species close to potential MX sites, including 75 that might be directly affected and 42 more that could be indirectly affected.

In Utah, about 20 candidate rare plants are expected to be affected; however, these numbers are qualified. In neither state, especially in western Utah, is botanical knowledge sufficient. Moreover, time pressures are likely to be too severe for adequate studies for environmental impact statement purposes.

Water, of course, is another important consideration. Nevada considers ground water overdraft likely, and this is illegal under state law; but there are fears that federal authorities can pre-empt state law.

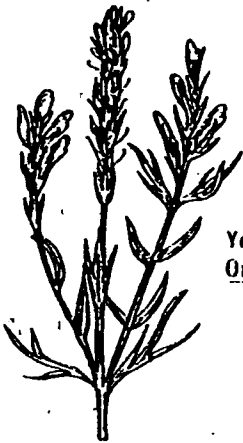
As for rare plants, the Air Force says unavoidable impacts can be coped with by transplanting techniques and provision of an artificial water supply.

## CORRECTIONS

Our apologies for the following error printed in the January/February newsletter:

- Penstemon, Mimulus, Castilleja and Orthocarpus plus Pedicularis are all in the Scrophulariaceae, NOT Ranunculaceae.
- Pedicularis is commonly Lousewort.

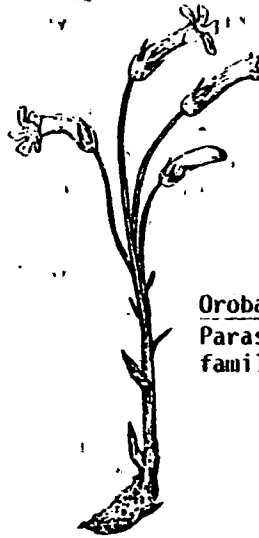
Since the NPS newsletter is put together by novices, any guidance from competent botanists is appreciated. Send your newsletter suggestions to: The Editors, c/o Rt. 4, Puesta del Sol, Santa Fe, New Mexico 87501.



Yellow Owlclover  
*Orthocarpus luteus*



*Pedicularis parryi*  
Parry lousewort



*Orobanché fasciculata*  
Parasitic plant of the broom-rape family, Orobanchaceae

## LICHENS

Craig Jones, research lichenologist at Bandelier National Monument speaking at a recent chapter meeting of the Native Plant Society of New Mexico, gave us these insights into his unique field of study:

Lichens exist in a symbiotic relationship between a fungus and an algae, acting as a single plant. The thallus of a lichen functions much like a leaf (transpiring, photosynthesizing, etc.) and when examined in cross-section looks a lot like a leaf. Lichens sometimes look like mosses, but mosses are more highly evolved and they aren't genetically related.

Identifying lichens is no easy task, even for a trained lichenologist. First you need to know its thallus type, (Crustose, placoid, squamulose, umbilicate, folios or fruticose forms), the shape of its asci or fruiting body, and its internal structure (i.e. how many and what type of spores). If there is a lower cortex involved, there are additional features (hair-like structures) to note and you may have to run some chemical tests to delineate the species. Thin layer chromatography is being used to distinguish lichens and identify new species.

All lichens in the southwest are the crustose-type, yet it is impossible to identify most of them even in a laboratory, and an estimated 50 percent that exist in New Mexico aren't even named.

There are no good field guides available on lichens, though Craig recommends a book titled "How to Know the Lichens" by Mason E. Hale (1969). Unfortunately, this book doesn't cover the crustose species at all, but it does describe the foliose and fruticose forms and contains many excellent photographs. Craig is putting together a bibliography of more than 4,000 reference citations from the period 1959-79, most in obscure, foreign journals that aren't even available.

The study of lichens is likely to have increased scientific interest in the coming years due to numerous potential uses:

1) Oosnic acid from the genus Oosnia (abundant in New Mexico) is being studied in the USSR and Scandinavian countries for cancer prevention.

2) Oosnia is also sensitive to air pollution and can be used as an indicator of radiation level.

3) A food source for elk, deer, caribou and even people (Clydonia, Oosnia).

4) As a nesting material for hummingbirds (Oosnia).

5) Natural dyes for litmus paper and fabrics.

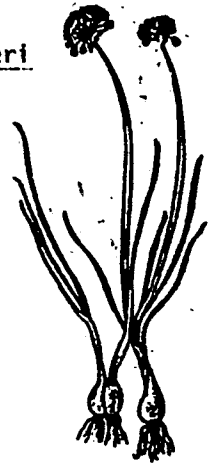
**Newsletter Closing Date:** Editorial contributions to this bi-monthly newsletter should be submitted before the end of the month preceding publication (Example: the closing date for the September/October issue is August 31st). Send observations of interest or any chapter news to Carol Dimeff, Editor, Rt. 4, Puesta del Sol, Santa Fe, New Mexico 87501

**Advertising Policy:** The Native Plant Society of New Mexico accepts classified ads from nurseries, landscape contractors and other business interests promoting the use or enjoyment of native plants. Advertising costs a minimal \$12/year/square inch or \$2 per issue.

#### CONSERVATION COMMITTEE

A Conservation Committee of the Native Plant Society of New Mexico has been organized under the leadership of our corresponding secretary, Fairley Barnes. Regular meetings will not be held, but communications will be maintained by telephone and mail. The Conservation Committee currently is addressing the BLM New Mexico Wilderness Review and Intensive Inventory, and is developing a statement to be submitted during the 90-day comment period. If you would like to serve on this committee, or if you have any ideas regarding the direction it should take, contact Fairley Barnes at 1975 Camino Durasnillo, Los Alamos, NM 87544, 662-5910.

Allium geyeri  
Wild onion



#### WILD ONIONS GOOD TO EAT

Onions belong to the genus Allium and are closely related to lillies. Allium is particularly diversified in the arid West and in southwest Asia, and it contributes many showy species for rock gardens.

In the wild they're easy to spot since they all smell like onions or garlic, but some taste better than others. As for the particular species in your area, the only way to tell if it has good flavor is to try it. Generally, the earlier you dig, the better the flavor. By the time hot weather arrives, the flavor may be too strong.

Parboiling onions in hot water or sauteeing in herb butter helps make the wild ones more palatable. Dig the entire plant, then trim the roots, stemplate and leaves. Drop the bulbs into simmering water and cook until tender. None of the wild onion species are poisonous.

## BOARD MEETING

The Board of Directors of the Native Plant Society of New Mexico met June 4th to revise the Society's By-Laws and establish some policy procedures. A portion of the Board has been designated as an Executive Council to aid and advise the Statewide Coordinator. A Policy Advisory Committee has also been established; this committee is divided into two subcommittees: Conservation and Education. The Conservation Committee will help the Corresponding Secretary in developing position statements, particularly when controversial legislative measures need action. Any member of the NPS may serve on either committee, and anyone wanting a voice on important issues should get involved.



Another decision made by the Board was to start an annual statewide meeting. These meetings will be held at various locations around the State and will be coordinated by a different chapter each year. Suggestions for meeting places included:

- Fourth of July Canyon, Manzanos
- Oliver Lee State Park (near Alamogordo)
- Bear Mountain Guest Ranch/Pino Altos Mountains
- Sitting Bull Falls (near Carlsbad)

Because of its central location, the Fourth of July Canyon was selected as the site of our first annual meeting to be held Saturday, August 16th. There will be a field trip starting 10:30 a.m. led by Bill Isaacs followed by a mid-day potluck meal.

Due to increasing costs of printing the statewide newsletter (which the Santa Fe Chapter has been financing in the past), membership will be increased next year to \$8 for individuals and \$10 for families.

## NATURESCAPE

NATURESCAPE is a new magazine, dedicated to low-maintenance alternatives in professional landscapes. It is written for landscape architects and designers, highway engineers, park and recreation officials, maintenance contractors, land planners and others looking for low-maintenance/energy-efficient products and services.

Future issues of NatureScape will cover:

- How to profit from a low maintenance concept.
- Where to obtain energy-efficient products and services.
- Where to obtain the best in low-maintenance plants and materials.
- Successful case histories of commercial and residential establishment of low maintenance or natural areas in the landscape.
- Technical information on how to adapt low or no maintenance landscaping concepts to commercial, residential or institutional application.
- Timely interviews by leading architects and land planners on the subject.

For more information write to:

The NatureScape Magazine  
P. O. Box 440  
202 West Main Street  
St. Charles, IL 60174

## STAFF

Inquiries regarding membership or activities in the Native Plant Society of New Mexico can be address to:

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-Carol Dimeff, Editor  
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471-8158 (eves)

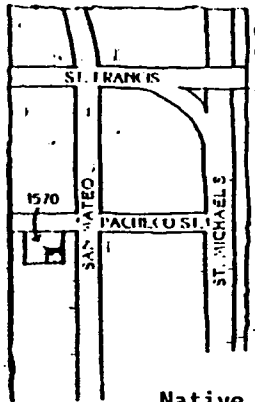
-Beverley Spears, Program Committee  
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988-5497 or 982-4926

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*Iris missouriensis*