Native Plant Society of New Mexico

newsletter

VOLUME 4, NO. 5

SEPTEMBER-OCTOBER 1980

CALENDAR OF EVENTS

October 9	Las Cruces Chapter meeting. Bob Reeves will show more slides of native plants. Room 156, Agriculture Building, NMSU; 7:30 p.m.
October 11	Albuquerque Chapter meeting. A trip to Castetter Garden, proposed site of the native garden the Chapter is planning to put in, at the base of the tramway. Meet at 9 a.m. Saturday below the tram parking lot; anyone who tells the gateman he is meeting with the Society will not have to pay the entrance fee.
October 11-12	Association of Western Native Plant Societies fall meeting. Meet at 10 a.m. Saturday at Webster Auditorium, Desert Botanical Gardens, Papago Park, Phoenix, Arizona. Sunday's itinerary is a trip to Boyce Thompson Southwestern Arboretum. Santa Fe and Albuquerque Chapters expect to be represented. If interested contact Carol Dimeff, 471-8158 (home) or 827-5182 (office) in Santa Fe.
October 15	Santa Fe Chapter meeting. Michael Moore will return to show more slides of native plants used for medicinal purposes. Room 118 of the Laboratory Building, St. John's College; 7:30 p.m.
November 13	Las Cruces Chapter meeting. Charles Woerner will show slides of native plants. Room 156, Agriculture Building, NMSU; 7:30 p.m.
November 19	Albuquerque Chapter meeting. Probably to begin meeting at Albuquerque Garden Center; see "Chapter Activities."
November 19	Santa Fe Chapter meeting. Phyllis Hughes, botanical illustrator and archeologist, will describe Indian uses of plants for crafts, food, and ceremony. Laboratory 118, St. John's College; 7:30 p.m.
December 11-12	Second Inter-American Conference on Salinity and Water Management Technology. Fiesta Real Hotel, Juarez. Contact George A. O'Conner, Department of Agronomy, P.O. Box 3Q, NMSU, Las Cruces 88003.

GEOBOTANICAL PROSPECTING

"Geobotany" used to refer to the geographic distribution of plants, but more recently has come to mean the use of plant species as indicators of metal-rich soils. "Biogeobotany" is the laboratory analysis of minerals in trees and shrubs, where certain "pathfinder elements" may indicate a metal-rich soil.

Two types of plants have been shown to be tolerant of highly metalliferous soils. The first is capable of accumulating large amounts of metal in foliage without excessive harm to the plant. These plants die to the ground during dry or cold periods, thus removing a considerable part of the absorbed metal. Plants growing on top of metallic veins are often smaller or do not show usual colors.

The second type of tolerant plant, represented mostly by grasses, can grow in mineralized soils by preventing entry of toxic elements. The numbers of such plants increase in mineralized areas owing to lack of competition.

True indicator plants of any particular metal are rare. Therefore greater emphasis has been placed on recognition of atypical plant communities and bare areas in otherwise forested country as an aid to prospecting. Bare areas have been used to find lead in Norway and copper in the northern United States.

New indicator plants are being found, and botanists have even observed the evolution of new subspecies under the stress conditions of metal-rich soil.

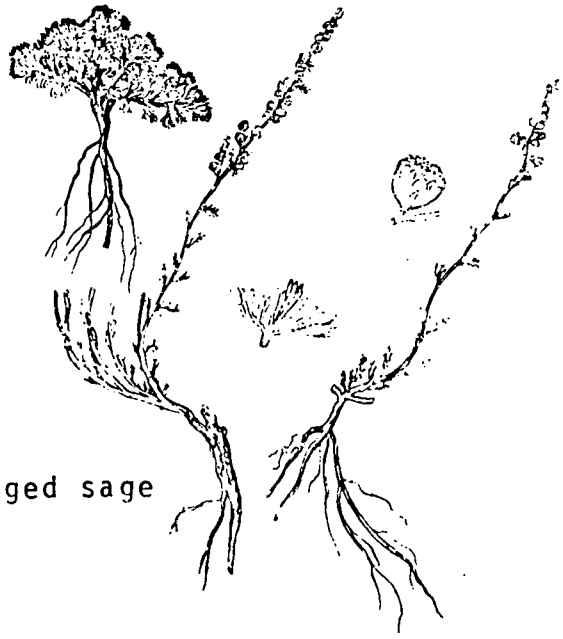
In our area several species of Astragalus are associated with selenium and uranium. Astragalus pattersonii actually requires large amounts of selenium, and occurs only in areas of measurable radioactivity. It has been used to locate uranium deposits from Utah to Texas.

For more information contact NPS-NM member Helen Cannon in Santa Fe.

GO NATIVE

"Culturally, ecologically, and economically sound" is how Larry Caudill of Albuquerque characterizes planting with natives. But there are plenty of cautions. For instance not all native species conserve water; a few even "pump" ground water. Others have long and bothersome pollen-dispersal periods.

In a talk for the Santa Fe Chapter Larry emphasized use of the right sites, especially to "harvest" those last drops of water running from canales and sidewalks and driveways. Gravel--best is 3/4" crushed gravel--is good both for erosion control and moisture retention.



Fringed sage

The many woody plants recommended include cliffrose (Cowania), a tall yellow-flowered shrub that does best in full sun and sandy soil; fringed sage (Artemisia frigida), a silvery ground cover that will spread on disturbed ground; and winterfat (Ceratoides lanata), a medium-height, attractive white-woolly shrub.

LANDSCAPING WORKSHOP

At a landscaping workshop conducted by Bob Pennington on September 20th, Santa Fe members learned pros and cons for many species.

Artemesia smittiana (silver mound) is a popular, low-growing shrub availabl at most nurseries, but our own A. frigida (fringed sage) looks a lot better here in winter.

Sometimes cultivated varieties do better under our conditions than native stock. This is true of both Gaillardia pulchella and G. aristata (firewheel). In general, cultivated varieties of gaillardia are more vigorous and better flowering. An outstanding example is G. aristata var. 'goblin,' which is a low-growing variety with unusually large flowers that last a long time.

Firewheel

Penstemons are sometimes criticized for their short blooming habit, but P. speciosus has a nice pink flower and long blooming period.

Cercocarpus montanus is much slower growing than C. ledifolius (curlleaf mountain mahogany), but its hardiness and well-balanced growth habit are desirable features.

Ratibida columnifera (prairie coneflower) looks lush in low areas or under drip irrigation. Oenothera pallida (evening primrose) looks great on a north-facing slope in filtered sun, producing huge white flowers. Our wild verbena, V. bipinnatifida, does better in full sun.

ANNUAL MEETING

The First Annual Meeting of the Native Plant Society was held very pleasantly in Fourth of July Canyon in the Manzanos Mountains on August 16th. Bill Isaacs led another animated, pell-mell field trip which worked its way through grasses, flowers, trees, butterflies, and a few stray birds, ending up with a mass of mushrooms which covered the picnic table. Little business was conducted, but a goodly amount of food was consumed and a happy mix of native plant lovers from Los Alamos, Santa Fe, Albuquerque, and nascent southern chapters were educated and entertained.

The fungi, ranging from sulphurous green to rufous and orange, included slippery jack (Suillus brevipes), velvet-stemmed collybia (Flammulina velutipes), yellow clitocybe (Tricholomopsis decora), Boletus subtomentosus, Clitocybe species, and wood-decaying polypores such as the Indian paint fungus (Echinodontium tinctorium) and Polyporus (Pycnoporus) cinnabarinus.

ENDANGERED SPECIES

Three more plant species--not cacti, this time--are proposed by the U.S. Fish & Wildlife Service for "endangered" or "threatened" status in New Mexico. One, Todsen's pennyroyal, is named for NPS-NM member Tom Todsen; it grows in the San Andres Range of Otero County. The others, McKittrick pennyroyal and gypsum wild buckwheat are also in the south, in Eddy County. Only a few hundred individuals of each species exist. All are faced with possible threats to their small areas of distribution.

Because listing as endangered or threatened can stop drilling or mining operations and other development in designated "critical habitat," the designation process is often subject to intense political pressures. So far only 5 of over 300 rare N.M. species have been listed.

DESIGNING A NATURAL LANDSCAPE
by Carol Dimeff

With increasing water rates throughout the Southwest, more homeowners are becoming interested in drought-tolerant, native plants for landscaping. The decision to use natives, however, does not eliminate the need for planning. Groups of plants are usually more effective than random distribution, except where very large areas are concerned.

Think the whole design through, considering both structural changes to the site as well as plant needs. A landscape architect or designer may be a worthwhile investment if many structural changes are desired. But creating a naturalistic landscape is often possible without the help of professionals.

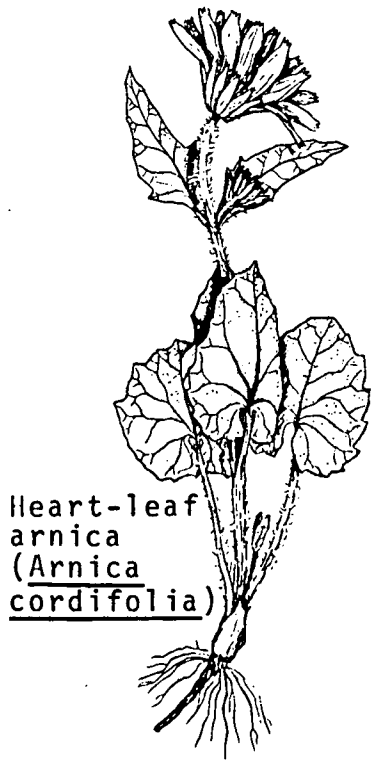
Be aware of microenvironments. Any building establishes microenvironments that suggest natural groupings of plants. For instance, the cool, moist conditions on the north side of a house is often a good place to group montane species. Many flowering plants do better in full sunlight, and for this reason should not be planted here. Deciduous trees are good for the southern and westerly exposure because they shade the house in summer while letting sunlight pass through in winter.

Determine the functional purposes desired in your landscape design. Selecting appropriate plants for a windbreak can help reduce energy consumption. A hedge of trees or shrubs can also reduce noise from a busy street and create privacy. The NM State Forestry Division makes tree seedlings available at low cost if used for windbreaks, erosion control and/or wildlife habitat. (More information on this program will be provided later.)

Keep in mind the future growth of plantings. You can draw dotted lines on your plan to show the ultimate size of each species. Forgo the "instant" effect of dense plantings since overcrowding will lead to problems even pruning cannot remedy.

Finally, unify your building and landscape design to your site and existing vegetation. A mixture of native grasses common to the area is nice and can be combined with seeds of perennial wildflowers for seasonal color. Refer to the August 1979 issue of this newsletter for simple instructions on how to seed with native grasses.

Consider the characteristics of your soil. Is there enough to complete the job? If it is lacking in either quantity or quality, good topsoil can be delivered at relatively low cost. An important consideration to any soil is drainage. Heavy, clay soils and/or grades can be manipulated to avoid drainage problems.



Heart-leaf arnica (Arnica cordifolia)

Mulch is the key to erosion control until the roots become well-established. Mulch not only prevents the scouring action of rain but also retains moisture, moderates temperatures of the surface layer (lessening frost damage), suppresses weeds and improves the soil. Pine needles, grass clippings, sawdust, straw, woodchips, leaves, bark and compost are all fine mulching materials.

Maximize the water available on site. Terracing is a very effective way to catch runoff and stabilize deep-cut arroyos or a steep slope. A curved mound varying in height from 6 to 30 inches can act as a terrace to contain melting snow and heavy rain and also creates rhythm to the land. Excess water can be diverted to other areas by constructing a simple, rock canale. Water-loving plants are good under roof drains or in low areas.

CHAPTER ACTIVITIES

Albuquerque

Rusty Kologiski, Botanist for the U. S. Fish and Wildlife Service, spoke to the Albuquerque Chapter meeting September 17th on how plants get listed as threatened or endangered. A lively discussion regarding T&E cacti and other plants followed.

The Albuquerque Chapter usually meets on the third Wednesday of every month. In October, however, their regular meeting will be substituted with a field trip Saturday, October 11th, 9 a.m., to Castetter Garden, where a demonstration of native plants sponsored by the Chapter and Sandia Peak Tramway is being planned.

In November the Chapter will probably begin meeting at the Albuquerque Garden Center, 10120 Lomas Blvd., NE (7:30 p.m.) For more information, contact:

Judith Phillips, Pres.
P. O. Box 395
Tome, New Mexico 87060
262-1785 (M, W or Th)

Santa Fe

"Landscaping with Native Plants" was the theme for September's activities. Larry Caudill from Los Chamisas in Albuquerque showed us his slides and offered advise on the soil conditions and cultural requirements for many of our native shrubs. (See story on page 2).

The following Saturday Bob Pennington led us on a field trip around Santa Fe to look at some examples of landscaping with native plants. We were given alot of good ideas on drip irrigation, soil preparation and the proper exposure for various species. The group also examined the nursery stock and demonstration gardens at Agua Fria Nursery and Plants of the Southwest.

The Santa Fe Chapter meets regularly on the third Wednesday of the month at St. John's College, Room 118 of the Laboratory Building, 7:30 p.m. For more information, call:

Phil Pennington, Pres.
945 Canyon Road
Santa Fe, New Mexico 87501
988-3142 (home)
983-4831 (Agua Fria Nursery)

Las Cruces

The Las Cruces Chapter has had an active summer with field trips. In August they visited the Cloudcroft/Ruidosa area. They also took a couple of trips to Solidad Canyon at the base of the Organ Mountains.

The Las Cruces Chapter meets regularly on the second Thursday of every month in Room 156 of the Ag & Home Economics Building at NMSU, 7:30 p.m. Their meetings usually consist of identification and/or keying of specimens brought in by members, followed by an informal slide presentation. In October, chapter president Bob Reeves will show some more of his slide collection. Mr. Charles A. Woerner will share his slides in November.

For more information contact:

Bob Reeves, Pres.
475 La Colonia
Las Cruces, New Mexico 88001
646-3021

Southcentral Chapter

The Southcentral Chapter is not meeting regularly yet, but is signing up several new members and is contemplating a field trip for early November. Anyone living in the Carlsbad, Roswell, Alamogordo, Tularosa or Ruidoso areas may contact:

Bill Mayfield, Pres.
Star Route
Bent, New Mexico 88314
671-4617

The Las Cruces Chapter was entertained at Bill's home in Bent during a recent field trip to this area. Bill has offered his hospitality to any group or individuals with an interest in native plants. A wide diversity of plants can be seen on Bill's property.

ELECTIONS

State-wide positions to be filled by annual election are State Coordinator, Treasurer, and Corresponding Secretary. A nominating committee will present a slate in the next Newsletter. If you are interested in being nominated or if you wish to nominate some consenting adult, contact Bob Reeves or Judy Phillips (addresses above) or Beverly Spears, 645 East Palace Av., Santa Fe 87501; tel. 982-4926.

BLM

The Bureau of Land Management has decided to treble the area of its proposed "outstanding natural area" in the Mescalero Sands of Chaves County, to about 6500 acres. The Native Plant Society joined other conservation groups in supporting better protection for this area of two-foot tall oak "forest" and dune vegetation.

Other recent Bureau decisions are to protect San Simon Canyon (in San Juan County) with a management plan under ACEC ("area of critical environmental concern") designation, and to limit oil-and-gas exploration near the Big Hatchet Mountains (Hidalgo County) with boundaries acceptable to most conservationists --and we hope to most desert bighorns.

The Bureau has just published a Public Land Recreation Map of New Mexico. It shows public land ownership more clearly than do previous foldable public lands maps, and shows the Bureau's six developed recreation areas. It's available @ $1 at the BLM state office in Santa Fe, one floor above the downtown post office, where more detailed maps and various free handouts are also on hand. There are also BLM offices in Albuquerque, Las Cruces, Roswell, Socorro, Farmington, Taos, and Carlsbad.

Persons wishing to follow BLM affairs--which have tremendous impact on 13,000,000 acres of New Mexican flora--should ask for the monthly Adviser (free). September's issue is mostly devoted to how the Bureau is again becoming cozy with its rancher clients, after 1979's grazing-management battles. But it also includes, by an unusual and gracious gesture, a Sierra Club protest over policy changes that are pleasing the ranchers.

SEXISM AND COTTONWOODS

In 1969 Albuquerque enacted its "Cottonwood Ordinance," declaring female trees to be a menace and requiring their removal in most zoning categories. Sale, display, and distribution of female cottonwoods was banned.

The perceived menace was cotton, believed to be a fire hazard.

At Mayor Rusk's request in 1978, Larry Caudill of the city's Environmental Health Department studied the alleged problem. Recently he gave a copy of his 20-page research report to NPS-NM.

Fire danger turned out to be near zero: were accumulations of cotton to ignite, the "cold flash" fire would be gone too soon to spread to other fuels that would be around at cotton time, late May and early June.

Larry found pollen from male poplars to be a significant problem. Thus the ordinance "is adverse to the health and welfare" of those who are allergic; with pistillate trees forbidden more staminate ones were being planted. He recommended repeal.

Furthermore, how could folks get along without a vigorous cottonwood population? According to the report's historical review, one recipe for a contraceptive calls for a decoction from poplar bark and mule kidney. And perhaps we'll come again to the situation when New Mexicans who tired of their winter diets looked forward to spring's young green cottonwood pods.

Those pods are legal again in Albuquerque. Repeal by a unanimous City Council followed quickly after submission of the report.

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CNPS POLICY STATEMENT

The following Policy on Revegetation and Landscaping was adopted by the Board of Directors of the California Native Plant Society, June 7, 1980:

1) The introduction of species not normally occurring in an area alters the aesthetic and historic quality of that area, and may change ecological relationships among species.

2) The continued existence of native species, and especially of those endemic to special areas, may be threatened by the introduction of non-native species, which sometimes prove highly invasive.

3) Abrupt changes in the vegetation type of an area may be detrimental to the ecological balance of an even wider area.

4) Therefore, the California Native Plant Society adopts the following policy:

Those who do landscaping and revegetation, especially of public lands and natural areas in non-urban settings, should use only locally native species in an effort to restore original vegetation or to develop species assemblages consistent with surrounding native vegetation.

VEGETATION MAPS

Native plants grow in communities. These are construed to belong to some finite number of associations or community types, which can be surveyed to produce vegetation maps. Such maps seem essential if one wishes to learn either the flora or the ecology of a region.

New Mexico has been mapped repeatedly, not so much for what plant communities are here as for what communities were here, or what communities would be here if man and livestock stood aside.

Probably the most useful, certainly the most colorful pocket-map of New Mexico vegetation is a 1978 product of the N.M. Interagency Range Committee chaired by G. B. Donart of NMSU. It includes mistakes and dubious interpretations, but also a lot of useful detail on 90 different associations. It is free from the Soil Conservation Service, P.O. Box 2007, Albuquerque 87103. Ask for Donart's map of Potential Natural Vegetation in either 19 x 25" or 8½ x 11" size.

Donart's replaces the standard den-wall decoration, NMSU's 1957 Vegetative Type Map of New Mexico. This 38 x 42" map is frustratingly inexact for field use.

We'll look at other maps next issue.

NEWS AND NOTES

It's not too late to order William Martin's A Flora of New Mexico, all 3000 pages, at a 20 percent wholesaler's discount. The price should come to about $130 plus postage for the two volumes. Contact Carol Dimeff, Rt. 4, Puesta del Sol, Santa Fe 87501; tel. 471-8158.

Newsletter: let's use it! Articles, news items, questions, suggestions, and complaints should go to the Editor, NPS-NM Newsletter, P.O. Box 5917, Santa Fe 87502. Or how about verse? sketches? native-plant recipes? editorials?

Reference materials acquired by the Santa Fe Chapter will be housed in 'Lab' 118 at St. John's College, where a dissecting microscope (belonging to the College), a small plant-identification library and smaller herbarium, and a collection of conservation documents (belonging to N.M. Natural History Institute) are also available for members' use. Contact Roger Peterson on campus ('Lab' 107) or call him at home, 983-7559.

MEMBERSHIP

Native Plant Society dues are $6 per year for individuals, $8 for families, and $4 for students and seniors. Dues paid now carry through 1981. Write to Dorothy DeWitt, 1414 Old Pecos Trail, Santa Fe 87501.

Classified Ads

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