

NATIVE PLANT SOCIETY OF NEW MEXICO
June 1979 Newsletter

June 20th meeting - Ralph Fisher of Silver City will share his slides of mushrooms and unusual New Mexico wildflowers (including two oddities, a double poppy and white thistle) on Wednesday, June 20th, at 7:30 p.m. in Room 118 of the Laboratory Building, St. John's College, Santa Fe.

July meeting - Two films from the Brooklyn Botanic Garden will be shown: "Pruning Practices" and "Nature's Colors", a short introduction to the craft of dyeing with plants.

Report on Santa Fe Native Plant Sale

Under fair skies and the trees of the Institute of American Indian Art, the Santa Fe chapter's Annual Plant Sale earned \$647 for the Society. Thanks especially to Mr. James Meem, Beverley Spears, Rubye Mullins and Kay Bell for their efforts and also the participating vendors: Aqua Fria Nursery, Cerrillos Nursery, Grassland Resources, Dean Haggard, The Herb Shop, Jack's Mini Roses, Plants of the Southwest, Valerie Walsh and the Future Farmers of America.

May Meeting Report

After a report on the results of the Santa Fe Native Plant Sale was given by our president, David Deardorff, a discussion began as to whether we should set the date of the sale a little later next year, when more plants are in bloom. It was pointed out that if we wait until June, many gardens have already been planted.

Since autumn is best for flowering perennials and for planting too, a second alternative was discussed to hold another sale in the fall. A motion was made that the NPS sponsor a sale in September, which would allow enough time for magazines to be notified two months in advance. James Meem offered to help organize this sale and write letters to *The New Mexican* and *The Santa Fean*. Joanne Shapiro volunteered to do a drawing for a new poster for the sale.

News & Notes

Michael Moore offers "Herb Tools III", July 16-August 4 (Monday through Saturday). This intensive course will cover medicinal herbs, homeopathy, chiropractic medicine and American Indian herb uses. Teaching with Michael will be Dr. Karl Robinson, M.D., Dr. Paul and Phoebe Hummel and O'Shinnah. For more information, call 982-1265.

* * * * *

Medicinal Plants of the Mountain West by Michael Moore, Museum of New Mexico Press, will be available this month. The manual covers all practical aspects of herb identification, harvest and preparation. Michael will be happy to identify your unknown native plants at his shop in Santa Fe, 204 Jefferson (Guadalupe) St.

Briefs from Endangered Species Technical Bulletin

The Texas wild rice (Zizania texana), which historically occurred only in the spring-fed San Marcos River System of Hays County, Texas, is now restricted to a small portion of that original range. Efforts to reestablish the plant have been frustrated because nutria eat the transplants literally overnight. It is hoped that a nutria trapping campaign has improved the chances of survival for this spring's transplants.

* * * * *

The Hunt Institute for Botanical Documentation is preparing a Register which will account for specialists and research projects in systematic botany. Included will be computerized lists of specialists in threatened and endangered plant species, lists of specialists by plant taxa, and lists of specialists by geographic areas. Only U. S. Threatened and Endangered species are covered.

The first printed edition of the Register will be published in the spring of 1980. To receive a copy write to Hunt Institute, Attention Register, Carnegie Mellon University, Pittsburgh, PA 15213. The Endangered Species Technical Bulletin is published monthly by the U. S. Fish and Wildlife Service, Department of the Interior, Washington, D. C. 20240.

* * * * *

New Members

Membership in the Native Plant Society of New Mexico is growing rapidly at this time. Names and addresses of new members since December 1978 will be printed in next month's newsletter to supplement our roster which was printed last November.

Of special interest is the membership of Herbert Kobayoshi and family. He writes, "I have been a member of the Hawaiian Botanical Society (1967-present), also a group dedicated to the preservation of native plants, so my interest in the southern New Mexico flora is very keen."

We're enclosing a copy of our new membership application form in this newsletter. Please pass it along to anyone you think might be interested in the work of our Society.

Mushrooms

The editors would like to receive a report from the mushroom fraction of the NPS. At least in the northern part of the state, it has been uncommonly wet and, therefore, we suspect favorable to fungi. How about it, fungus aficionados?

Sex in Flowers: Form and Pollinator

Have you noticed how flowers "fit" their pollinators? The intriguing variety and form of showy wildflowers is perpetuated by their success in attracting animal pollinators. When we examine a flower we see that many of its structural and behavioral characteristics are related to its mode of life.

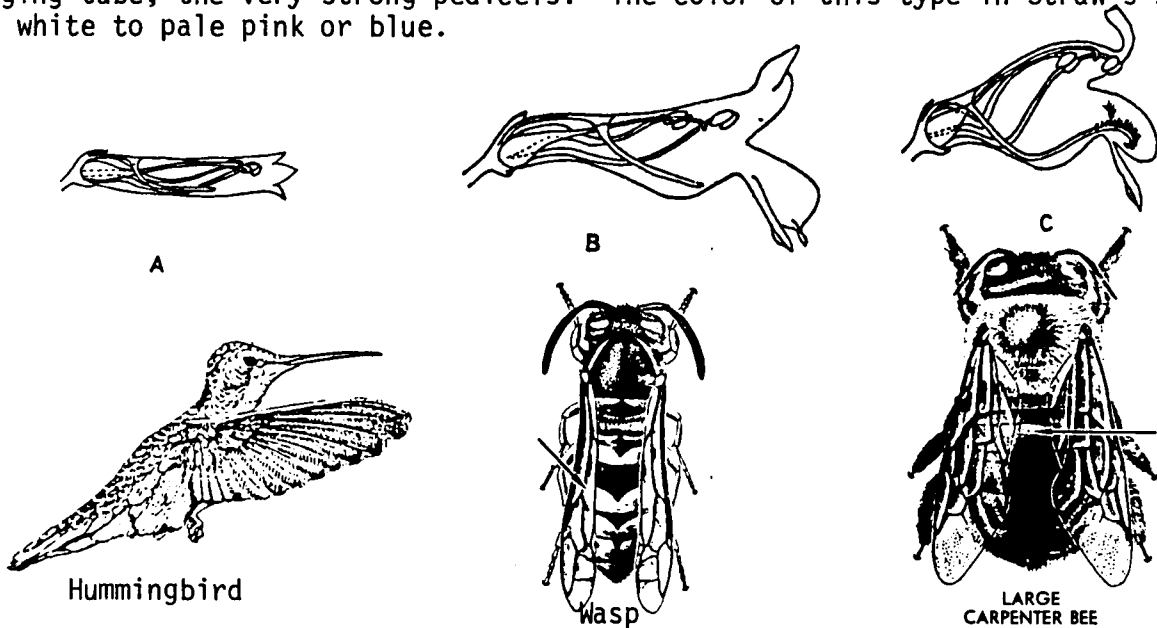
Sex in Flowers, continued

Widespread at nearly all elevations, the Penstemons, or beardtongues, are conspicuous herbs or small shrubs with showy flowers which bloom in spring and early summer in the desert, later at higher elevations. The scarlet, pink, blue or purple floral tubes are their most striking features, and this tube varies in size and shape, as well as color, from one species to another, in response to animal pollinators such as bees, wasps and hummingbirds.

Richard Straw has studied California Penstemons and their pollination. Figures A, B and C below come from his work. They represent three Penstemons which have counterparts with respect to form here in the southwest. Type A is pollinated by hummingbirds probing with their bills, as they hover before the flower. Note the cylindric floral tube, no lip and flexible pedicels. They are red, for birds see red most clearly.

Type B is pollinated by flower-visiting wasps which crawl inside the flowers to collect both nectar and pollen. Note the slightly bulging throat to accommodate the insect's body, and the strong pedicels. The color of Straw's original species with this type of corolla was bluish Purple.

Type C is pollinated by large bees which crawl inside the corolla. Note the bulging tube, the very strong pedicels. The color of this type in Straw's study was white to pale pink or blue.



The temptation is irresistible to place our New Mexican penstemons into one of the three flower form categories. Certainly the scarlet bugler, Penstemon barbatus, is a hummingbird flower. Penstemon pseudospectabilis resembles the wasp flower, and P. jamesii, the striped, lavender species which is blooming now in pinyon-juniper country of northern New Mexico is a bee flower.

Straw has suggested that, in his particular area of study, the wasp-type flower which is "in-between" the other two flower types in size and shape, arose from hybridization between the Types A and C. He suggests that the wasps keyed in

Sex in Flowers, continued

on this intermediate shape and thus perpetuated it. Whether this is true or not, certainly the evolution of the flower has been the primary factor in the success of our flowering plants.

The Pollination of Flowers, Proctor and Yeo, Taplinger Publishing Co., New York, New York, 1972 (about \$15), 418 pages, is a modern, comprehensive study of flower pollination. The Story of Pollination, B. J. D. Meeuse, Ronald Press Co., New York, New York, 1961, is a less exhaustive but charming, exuberant account of flower pollination.

Lanceleaf Cottonwood

smoothbark cottonwood (or poplar)

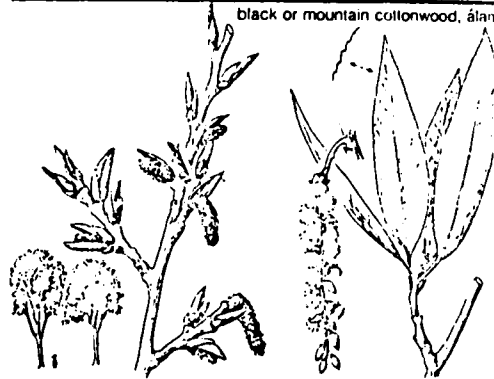


Populus acuminata Willow family (Salicaceae)

Range: Our whole range (scattered); w. to CA, n. to Can. Along streams, 4,500' - 8,500'.

Narrowleaf Cottonwood

black or mountain cottonwood, álamo

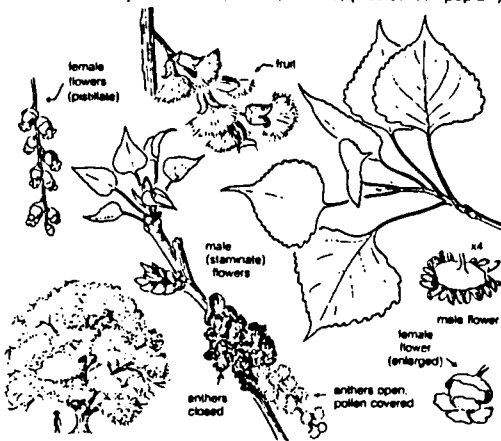


Populus angustifolia Willow family (Salicaceae)

Range: Our whole range, w. to NV; n. to Can.; s. to Mex. Streambanks & valleys, 4,000' - 8,000'.

Fremont Cottonwood

common or valley cottonwood; álamo, alamillo; (also called "poplar")

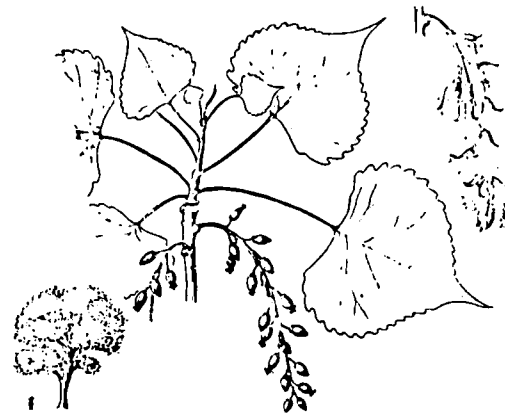


Populus fremontii Willow family (Salicaceae)

Range: Our whole range, w. to CA; e. to OK; s. to Mex. River valleys & riverbanks, 2,500' - 7,000'.

Plains Cottonwood

Sargents cottonwood, plains poplar, whitewood, álamo



Populus sargentii Willow family (Salicaceae)

Range: nw NM, e. CO, w. TX, n. to Can., e. to OK & KS. Streambanks & moist places, 3,500' - 9,000'.

Illustration Credits - Drawings of the cottonwoods are by Jeanne R. Janish, reprinted from Shrubs and Trees of the Southwest Uplands, by Francis H. Elmore, Southwest Parks and Monuments Association, Box 1562, Globe, Arizona 85501.

NATIVE PLANT SOCIETY OF NEW MEXICO
Membership Application

The Native Plant Society of New Mexico is a non-profit organization dedicated to promoting public interest in native plants and to the preservation of endangered species. This organization is open to anyone who shares that interest. The Society is active in studying and mapping the distribution of plants and in encouraging the use of natives in landscaping, especially as a water conservation measure. As a member you will have the opportunity to learn more about the native plants of New Mexico, their unique habitats and ecological relationships. If you wish, you may share your knowledge and thereby increase the awareness of others. Field trips, seminars and programs are being planned to encourage appreciation and enjoyment of our native flora.

The Society's work is voluntary and completely supported by membership dues and gifts. These, of course, are tax deductible.

Membership Schedule

	Per Year
Individual	\$6.00
Family	\$8.00
Students & Senior Citizens	\$4.00

Please check the following list to indicate your field(s) of interest and possible willingness to assist. Address your check to the Native Plant Society of New Mexico c/o Rt. 4, Puesta del Sol, Santa Fe, New Mexico 87501.

- | | |
|---|--|
| <input type="checkbox"/> Gardening with native plants
<input type="checkbox"/> Conservation/Ecology
<input type="checkbox"/> Rare or endangered plants
<input type="checkbox"/> Leading a field trip
<input type="checkbox"/> Forming a local chapter | <input type="checkbox"/> Newsletters (writing articles, monthly mailings, etc.)
<input type="checkbox"/> Program planning
<input type="checkbox"/> Photography, slide collection
<input type="checkbox"/> Membership
<input type="checkbox"/> Other, please state: _____ |
|---|--|

NAME: _____ PHONE: _____

ADDRESS: _____
 Street City State Zip

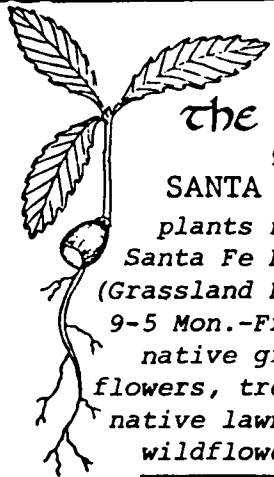
Classified Ads

BEAR MOUNTAIN GUEST RANCH
Guided wildflower tours.

Myra McCormick
Silver City, N.M. 88061
Phone: (505) 538-2538

AGUA FRIA NURSERY
Specializing in perennials
and native plants.

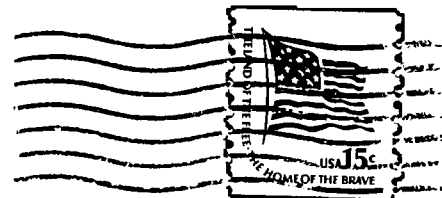
Philip and Bob Pennington
1409 Aqua Fria
Santa Fe, New Mexico 87501
Phone: (505) 983-4831



plants of
the southwest
983-1538
SANTA FE LOCATION!
plants now available at
Santa Fe Railroad Yards
(Grassland Resources Bldg.)
9-5 Mon.-Fri. 9-12 Sat.
native grasses, wild-
flowers, trees & shrubs
native lawn grasses &
wildflower mixes

the nursery location is also
open, 8-5 Mon.-Sat., in Cerrillos

NATIVE PLANT SOCIETY OF NEW MEXICO
Rt. 4, Puesta del Sol
Santa Fe, New Mexico 87501



MARIPOSA-LILY, 2/5 X

