Newsletter

Native Plant Society of New Mexico

January/February, 1986 Volume XI, No. 1

Calendar

Jan-- Otero Chapter members have been asked to form a work party on a weekend of suitable weather to transplant grasses from the airport vicinity to a hillside in the 80 acre native plant park. The hillside was disturbed during the construction of a shelter to prevent erosion.

Jan 15 Santa Fe Chapter members will meet at St. John's College, Lab Bldg. at 7:30 p.m. Program will be announced.

Jan 16 Chaves County Chapter members will meet in the ENMMC Medical Staff Lounge at 7:30 p.m. to hear Dr. Jerry Ainsworth discuss herbal medicine.

Feb 12 Las Cruces Chapter members will meet at 7:30 p.m. in room 190, Ag Bldg., NMSU. Program will be a tribute to Darwin. This is his birthday as well as Lincoln's. A number of members will participate by giving a short profile of individual botanists who were prominent in this area historically or whose names are listed in the botanical names of many local plants. This will be followed by a planning session for the year's program.

Feb 19 Santa Fe Chapter members will meet at St. John's College, Lab Bldg., at 7:30 p.m. Program will be announced.

Feb 23 Otero Chapter members will enjoy a slide show.

President's Message

Another year is upon us and with it, the changing of the board. The Presidency passes from Ted Hodoba to me. Many thanks Ted, for your years of fine leadership. Also a note of thanks to the outgoing board members, Frances Szeman amd Iris David, whose terms of office have expired, but not their enthusiasm. Also, a huge thank you to George and Myrtle Finley, the retiring newsletter editors. The newsletter is the heartline of the Society and the Finleys have provided many insights as editors. Welcome to the returning and new board members, I look forward to working with all of you.

The Society has been busy, chapters are planning speakers and field trips for the new year. Plans are already underway for the 1986 annual meeting in Grants. We hope to schedule several trips to the various different areas. NPS-NM now offers books to our members at a discount price. This is a great way to increase your library and to also benefit NPS. We also have T-shirts with the NPS logo. Our slide collection is growing and is available to chapters and members for programs. The fledgling Lea County chapter is forming with Linda Owen as chapter coordinator.

Please let us know what you would like to see NPS-NM do. We are ready to start planning for long term projects and goals. Let's make this a year for natives!

Lisa Johnston

Editors' Swan Song

How do you say goodbye to a job?

1. With a sense of achievement that one more obstacle to a comprehensive loafing program has been removed?
2. With thanks, if you could give it without sounding mawkish, to the many who have helped the cause?
3. With dignity you ain't got?
4. With relief, knowing there's Susan Wachter, ready to be the new editor of the Newsletter?
5. With realization that it's been a great ego trip and you feel good about that?

Answer: All of the above.

This issue, our parting shot as Newsletter editors, turns out to be the Judith Phillips Special Edition. And that's ending on a high note.

Y'all write,
George

When you read this,
My job is done.
It has been work,
It has been fun.

It's been two years
I won't forget,
Nor the new friends
That I have met.

Now it's Goodbye,
But 'fore I go
There's something I
Want you to know:

Your kindly words,
Your gracious aid
Have made this job
For me well-paid.

Adios, Amigos.

Myrtle

Chapter Reports

Las Cruces Chapter: Our November potluck dinner had a good attendance. We all left the meeting stuffed with delicious food. Our group has now shed its leaves and gone dormant until February 12.

Tom Wootten

Santa Fe Chapter: Our October field trip near Camel Rock was led by Dr. Don Lowrie. We found some Perky Sue still blooming in the arroyos but most of the other plants--penstemon, paperflower, chia sage, rabbit brush, snakeweed, rock jasmine and Indian paintbrush were in their winter stage. Many burrows of kangaroo rats were seen.

In November Charles Mann, nursery manager of Plants of the Southwest, was our guest. He spoke on procedure and methods of propagation of native plants. Included in his list was the Austrian Copper rose, also known as La Rosa de Castilla, an orange-yellow rose which blooms prolifically in and around Santa Fe in June. This rose is believed to have been brought to Santa Fe by the early Spanish settlers. At the end of an interesting discussion, Mr. Mann gave us each material on propagating herbaceous perennials, shrubs and trees. We also received from him a list of sources for obscure seeds:

- Native Plants of Sand, Utah
- Plants of the Southwest in Santa Fe
- Maver Rare Seed Co.
  Box 18754
  Seattle, WA 98118

Dovie Thomas

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1986 NPSNM OFFICERS

President--Lisa Johnston
Vice-President--Tom Wootten
Recording Secretary--Dovie Thomas
Treasurer--Jean Dodd
Membership Secretary--Judith Phillips
Board Members choices inconclusive at press time

Plants Are Our Existence

By William W. Fuller

Nearly everyone is aware of the role the Soil Conservation Service plays in conserving our soil and water and other natural resources. However, many people are unaware of the importance of native plants to one subdivision of the SCS, the Plant Materials Centers. In fact, most people are not even aware that Plant Materials Centers (PMC's) exist; and if they are aware of them, they generally think that they are some type of state experiment station.

There are 24 Plant Materials Centers scattered across the United States. Each PMC covers an area of responsibility delineated by Major Land Resource Areas (MLRA's). These are areas with similar soils and climate. Since MIRA's do not follow state boundaries, a PMC normally covers parts of several states. New Mexico has a PMC located in Los Lunas which services West Texas, New Mexico, Eastern Colorado, Southeastern Utah and Eastern and Northern Arizona.

The purpose of a PMC is to select native plants which will solve a conservation problem, test them, and then release them as new varieties to commercial seed producers. This is a quick, easy description for a long and complicated process. The process starts with a problem which is brought to the attention of the PMC by an Advisory Committee made up of representatives from each state serviced.

After deciding that the problem could be solved by a specific type of plant, the Committee recommends that a collection effort take place. Instructions are sent out to SCS field offices in the serviced area to collect either seed or vegetative samples of the desired plant. Efforts are made to collect plants which show the most desirable characteristics. The location of each collection site is carefully recorded so that as each collection comes into the PMC a permanent file on that collection can be initiated. Each collection is termed an accession. As many as 200--300 accessions of a plant may be collected.

At the New Mexico Plant Materials Center, the collected accessions are started in a greenhouse and then transplanted to the field. This insures that a plant gets an even start and also insures that plants from very small amounts of seed can be checked. Over a period of three to five years these accessions are evaluated and the poorest are dropped each year from further consideration. At the end of this initial evaluation period, enough seed from two to four of the best accessions is raised to move these accessions into an advanced testing period which lasts from three to five years. During this period, seed is normally sent to adjoining PMC's to see how widely adapted the accessions are. After the first two to five years, it normally becomes apparent that one or two accessions are superior to the others and larger seed increase blocks are planted at the PMC.

At the end of the advanced evaluation period, enough seed is available of the one or two accessions to make field plantings throughout the adapted area of the plant. Field plantings are generally on private land and the seed is provided by the SCS. The cooperating landowner generally buys sufficient seed of the commercial variety and plants it at the same time so the new accession and the commercial

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standard can be compared side by side. Field plantings are big enough so that they can be treated under the cooperator's normal operating methods. The field planting stage of evaluation also lasts from three to five years. By the end of this field planting period, enough information has been gathered to determine if the new "variety" is better than the standard variety available on the market. If it is better, a release committee made up of scientists who have worked with the plant gives it a name and the plant is formally released as a new variety.

During the final evaluation years, as it becomes apparent that the new variety will probably be released, the PMC plants a Breeder's Seed increase block. This results in sufficient seed being available for commercial seed growers after the plant is formally released. All of the Breeder's Seed is handled through the State Crop Improvement Association to maintain purity and quality standards.

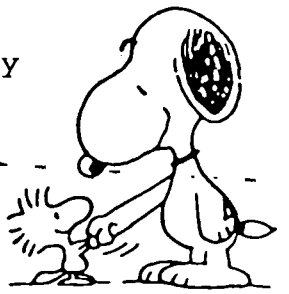
Over the years, the Plant Materials Center at Los Lunas has released more new varieties than any other PMC in the country. In the past five years, seven new varieties have been added to the commercial market. 'Hachita' blue grama, 'Niner' sideoats grama, and 'Salado' alkali sacaton were grasses released for improved rangeland or erosion control on minelands, roadsides and other critical areas. 'Autumn Amber' skunkbush sumac, a low growing shrub whose leaves turn bright red in the fall, was released for erosion control and beautification. 'Cedar' Palmer penstemon, which has bright pink flower stalks over three feet tall, was developed for erosion control, wildlife and beautification. 'Hatch' winterfat was released for range seeding and erosion control, and 'Tierra' bladdersenna, a shrub with bright yellow flowers which can attain 15 feet in height, was released for erosion control, landscaping and windbreaks. All told, the Los Lunas PMC has released 24 varieties of plants over the years.

You can see from the above description that native plants are indeed essential for the Plant Material's section of the Soil Conservation Service to function. If you have not visited the PMC in Los Lunas, please do so when the opportunity permits. The Center usually has a Field Day in late summer each year. Watch for it and plan to come and see what the next new variety will be.

Dr. Fuller is New Mexico Plant Materials Specialist for the Soil Conservation Service.

WELCOME TO NATIVE PLANT SOCIETY

Albuquerque,
Dennis and Dorothy Domrzalski
Peter Sproul
Las Cruces,
Barbara Bowser
Santa Fe,
Edwin and Joyce Van Den Bark
Tucumcari
Julie Goldman



What's In A Name?

By Judith Phillips

Perhaps it was the realization that early botanical explorers potted their finds in cow bladders (demanding dedication on the part of the men and utter sacrifice on the part of the cows) that precipitated this new interest of mine in the men behind the plant names. Latinized forms of the names of the men who "discovered" them hardly describe the plants they designate, especially since, in most cases, the plants were well-known and used by locals for centuries before the intrepid travelers happened upon them. Menodora scabra is nutritous forage with rough textured leaves. Rhus microphylla is a small-leafed sumac. I've seen etchings of John Charles Fremont and neither the cottonwood nor the barberry looks a thing like him. The ultimate irony may be the poor Buckthorn, Rhamnus smithii, named for B. H. Smith who stumbled across it in Pagosa Springs. At least his name wasn't John.

After reading about the adventures of a few of these botanical noblemen, I am willing to concede a bit. Maybe they deserve immortality for the frostbite and broken bones they suffered bringing their treasures into the bright lights of "HORTICULTURE". I thought a series of short biographies of some of these men (alas, the women were left at home to answer the mail, anonymously document the discoveries and keep a candle burning--those were primitive times) would be an interesting addition to our newsletter. So I'll start with John Charles Fremont (since I've already taken his name in vain) and invite all curious souls to continue a la venosa. Personally, I wonder about Wislizenus...and who was Fendler...and what about Wooten (not Tom, the one with one t).

John Charles Fremont (1813-1890)

Born in Savannah, Georgia, January 21, 1813, John Charles Fremont was the son of a French emigre and a descendent of George Washington on his mother's side. An intelligent and charming youth, he used his talents and lineage to overcome the poverty that resulted from his father's early death. His life seems to be marked with several recurring themes: The patronage of wealthy and famous men, a love of learning and curiosity about the world, and the impulsive assumption that everything will turn out all right in the end.

His love of mathematics and Greek and Latin literature were tempered by a love of the untamed natural world. Although he excelled in his studies, he was dismissed from college a few months before graduation for "habitual irregularity and incorrigible negligence", which Fremont saw as a choice of priorities. He was out living life, exploring the countryside in the company of a pretty girl and her brothers, instead of at his desk reading about it. Joel Poinsett (statesman and semi-pro botanist whose name commonly eclipses Euphorbia pulcherrima when it comes to the Christmas flower) was Fremont's first notable patron. At loose ends after the abrupt termination of his formal education, Fremont accepted the position of language tutor aboard a navy ship bound for South America. Upon his return, Poinsett, then Secretary of War, commissioned Fremont as a second lieutenant in the U.S. Topographical Corps and assistant to the explorer Jean Nicolas Nicollet. His first expedition West in 1837-39 was a railroad

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survey, his purpose to explore and map the Louisiana Purchase in the company of Nicollet and German botanist, Charles Geyer.

In 1841 Fremont married Jessie Benton, daughter of the senator from Missouri, another of Fremont's patrons. Within a few months he left the comforts of home on his second expedition, leading a mapping and survey party to Wyoming along the Oregon Trail and Platte River. It was during this adventure in May through September of 1842 that he became friends with Kit Carson, hiring him as a guide. The association proved to be an enduring one.

From May 1843 through August 1844 he led his third expedition to Oregon, through the Great Basin detouring into California (since they were so close), returning through New Mexico. Again Kit Carson was guide. The trek through the Sierras in winter was a tortuous one. Bodies and morale were revitalized at John Sutter's California empire. This salutory beginning was the source of many of Fremont's personal, professional and financial problems--problems that plagued him for fifty years. Ultimately the expedition resulted in the conquest of California by the United States. Caught in a private war between Brigadier General Phillip Kearny and Commodore R. F. Stockton, Fremont, after careful deliberation in which conscience superseded politics, sided with Stockton as having precedence in command. Kearny, a titan scorned, filed charges of mutiny against Fremont. The 1848 general court martial proceedings resulted in a military verdict of guilty while Fremont enjoyed a flood of popular support. Glowing accounts of his courage, honesty and-western— — — adventures filled the newspapers. John Charles Fremont became a 19th century media darling, and true to form, he escaped West.

Fremont's fourth expedition in 1848 was his first privately financed survey, his purpose to find a workable railroad pass across the Rockies. The necessity of a winter expedition in high mountains, and possibly the reliance upon an unfamiliar guide, resulted in the loss of ten men on a journey that took Fremont through Taos to Albuquerque, then south and west through the Gila to Tucson and back to California. This venture left him with a sense of personal defeat, saddened by the loss of life and unsuccessful in his survey effort, but with substantial land holdings in the gold-rich mountains east of Monterrey. His family joined him in San Francisco. He concentrated on developing Mariposa Ranch, and in 1850-51 Fremont served as Senator for the new state of California.

The wealth that resulted from his gold rush activities at Mariposa Ranch helped to finance Fremont's fifth and final expedition. Proving the legality of his land holdings and satisfying his conviction that a transcontinental railroad was possile and profitable consumed Fremont's time and money. September 1853 through May 1854 he successfully crossed the southern Rockies.

Two years later, backed by the likes of Washington Irving, Ralph Waldo Emerson, William Cullen Bryant and Horace Greeley, Fremont emerged as the Republican, anti-slavery candidate for President of the United States, running against James Buchanan. Campaign mudslinging that makes modern day politics seem refereed by Emily Post left Fremont the loser--gladly.

During the Civil War he was reinstated in the military and out-Lincolned Lincoln by impulsively emancipating the slaves under his jurisdiction before the official proclamation. In 1864 Fremont was again drafted for the Presidential race by a splinter group of Republicans with

(continued on last page)

Xeriscape - The New Word in Landscaping

By Pam Dwiggins

Maintaining beautiful landscapes is important to most home and business owners, so is reducing water and energy costs. Guidelines for achieving both simultaneously have now been brought together in a new program called "Xeriscape", stemming from the Greek word "xero" meaning dry. City water departments and concerned action groups around the country have been adopting the program in an effort to educate citizens in methods of conserving water and energy through creative landscaping practices.

Water shortages are not indigenous to the southwestern United States alone. Rapid population growth has created water demands that exceed the amount of water that can be treated and distributed even in areas of the country where reserves are adequate; and eliminating wasteful water usage makes good sense for all regions of the country.

Estimates show that between 40 to 60 percent of summer water usage is dedicated to landscape maintenance. Waste can be eliminated by adapting these basic Xeriscaping principles into landscaping practices:

--use of more effective and efficient irrigation systems and watering methods. To prevent excessive evaporation, water only in early morning or late evening hours. By using drip irrigation systems, less water is lost to evaporation and wind, and if used correctly, wasteful puddling and run-off can be eliminated. Soil basins around the base of plants help hold water where it's needed most.

--soil preparations to condition the soil and increase its ability to retain water. Clay soil has a low water holding capacity because its particles are tiny and tightly spaced, impeding the flow of water to the plant root systems. These soils can be loosened by working sandy loam topsoil or organic materials into the ground. These materials are composed of larger, looser particles that help the water percolate down to root systems and retain it, preventing run-off and waste.

--use of mulch also helps soil retain water. Materials such as gravel, straw, and bark chips applied in a three to four inch layer on the soil surface will not only reduce evaporation but will also inhibit weed growth, reserving water for desired plants.

--Use of low water demanding plant materials. Native trees, shrubs, grasses and wildflowers are good choices because they are adapted to the natural rainfall of the area and require less supplemental watering once they are well established. Other varieties of non-native, water-efficient plant materials are available at local nurseries. A common concern is that a Xeriscape will have an arid, desert appearance. Not so, all of these plants provide a variety of color, texture, size, and adaptations that can be easily utilized into beautiful, lush, creative landscape settings.

Water savings up to 60 percent have been reported for established lawns that are predominantly Xeriscaped. Thirty percent savings are reported from homeowners who have practiced only marginal Xeriscape techniques. Participants have been delighted with both the savings and the appearance of their landscapes.

Involved groups help spread the word in such ways as planting public demonstration gardens, sponsoring city-wide Xeriscaping contests, providing additional information on specific maintenance techniques and

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Why Leaves Change Color

Tree leaves change color because of complex chemical formulas, according to Dr. Fred Widemoyer, horticulturist for the NMSU Cooperative Extension Service. Depending on the content of iron, magnesium, phosphorous and sodium in the tree sap and the acidity of chemicals in leaves, trees may turn to amber, gold, red, orange or just fade from green to brown. The sap of scarlet oaks, red maples and sumacs, for instance is slightly acid, so the leaves usually are bright red. On the other hand, some ash trees growing in alkaline conditions may be quite purple-blue.

Frost is not the reason for the change in leaf color, Widmoyer says. As the days become shorter and the nights become longer, a chemical change occurs in the tree, and hormones are released which cause a restriction of sap to the leaf. As these processes continue, chlorophyll (green pigments) is not as plentiful, and the base color begins to manifest itself.

Frost causes death of the leaves, so instead of gorgeous colors, browns and tans are exhibited, says the horticulturist. The leaves, during the period of maturation, produce a corky layer at the base of the petiole (leaf stem) which reduces movement into the leaf. Ultimately the leaf drops.

Excerpted from an NMSU Information Bulletin.

Some of the fact sheets available to you from the Clearinghouse, National Wildflower Research Center, 2600 FM 973 North, Austin TX 78725 are:

Gardening and Landscaping with Wildflowers

Sources of Native Plants/Seed, Resource People and Organizations

Wildflower Bibliography

The staff there would appreciate hearing from you with information on seed sources, research people and wildflowers that flourish in your area.

MEMBERSHIP APPLICATION

Name _____

Address _____

_____

Phone No. _____

Other interested family members:

_____

_____

_____

Please enclose your check payable to:

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

Annual Dues:

___Individual & Family	$8.00
___Friend of the Society	$25.00

Please send a gift membership and card to:

_____

_____

_____

_____

To better serve our membership, please check areas of particular interest.

Conservation:
___Endangered species, Habitats
___Restoring abused areas
___Water conservation
___Propagation ___Seed Collection

Landscaping: ___Residential
___Civic ___Commercial ___Highway

Special Uses: ___Food ___Fiber
___Medicinal ___Dyes
___Photography ___Field Trips
___Ethnobotany ___Paleobotany
___Growing for resale
___Informal classes
___Newsletter ___Youth projects
___Organize new chapter
___Membership drive
___Other (please specify)

How would you describe your level of expertise? What areas would you be willing to help with?

Are you a member of an organization with related purposes (Garden Club, NM Wildflower Association, etc.)?

What's In A Name, continued

broad popular support. He withdrew from the race feeling that retaining Lincoln during wartime was in the best interest of his country.

Continually plagued by financial difficulties, in 1870 he sold his diminished interest in Mariposa to invest in a railroad scheme and lost everything.

Rutherford B. Hayes appointed Fremont territorial governor of Arizona, which he gratefully accepted as a means of supporting his wife and family. In April of 1890, he received a military pension as Major General, and his family at last secure, Fremont died July 13, 1890.

More at home in the uncharted West than in the political mazes he fell into, Fremont's curiosity and concern for his country resulted in this lengthy and convoluted resume. His biographers ignored any botanical interest he may have had. Historically he is famous as a politician and military man, two roles he assumed out of necessity or duty rather than desire. Historically he is a man among men. Maybe Wislizenus is more a man among plants....

Xeriscape, the new word, continued

recommending species of low water usage plants suited for a Xeriscape landscape.

The program was originated by the Denver Water Department and has since spread nationwide to other states including California, Nevada, Oregon, New Mexico, and Texas in the west, and reaching to New York and Florida in the east. Ken Ball heads up the Denver program and if you would like more information on how you or your community can become involved, write to him at:

Conservation Program
Denver Water Department
P.O. Box 80254
Denver, CO 80254

Pam Dwiggins is a research botanist at National Wildflower Research Center. Article is reprinted from Wildflower.

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