

COMPLIMENTARY COPY

Native Plant Society of New Mexico *newsletter*

July/August, 1984

Volume IX, No. 4

Calendar

- July/Aug Glenn Niners will meet with the Albuquerque Chapter.
- July 8 Las Cruces Chapter plans a field trip to Cloudcroft. Meet at Pan Am Center at 8:00 a.m. Bring lunch and water.
- July 11 Las Cruces Chapter will have a plant identification meeting at 7:30 p.m. in Ag Bldg., NMSU. Bring your unknowns.
- July 15 Albuquerque Chapter will observe native plants in Fourth of July Canyon in the Manzano Mountains. Anyone interested in joining the group, meet in Johnson Gym parking lot at 8:30 a.m. Bring hat, water, lunch, etc. More information, call Jackie Farr (294-2178) or Walter Graf (877-6469).
- July 19 Southeast Chapter meets at Roswell Adult Center, 807 North Missouri, at 7:30 p.m. for a "show and tell" meeting to identify your plant specimens, fresh or dried.
- July 29 Otero/Lincoln Chapter plans a field trip. Members will take a picnic lunch to Bailey Canyon at 1:00 p.m. or be there at 2:00 p.m. for the tour down the canyon led by Paul Gordon. Mr. and Mrs. Gordon will be living in La Luz after his retirement on July 7.
- July 29 Santa Fe Chapter will meet at 7:30 a.m. in front of the P.E.R.A. Bldg. for a field trip to Hopewell Lake located in the Carson National Forest near Tierra Amarilla, N. M. Sierra Club members will be joining NPS members for the trip. Bring a lunch--and a jacket?
- August Some chapters are having field trips instead of regular meetings, dates somewhat dependent on the date of the NPS annual meeting. Call your chapter contact person for places and dates.
- Aug 11-12 NPS annual state meeting. Read about it on page 4.
- August 16 Southeast Chapter hosts Joe Strausser, wildlife enthusiast from Albuquerque, at Roswell Adult Center at 7:30 p.m. Joe's program will include some of his outstanding photography of native plants, birds and animals.

President's Message

The Native Plant Society of New Mexico has been very lucky to have the good fortune of good newsletter editors, both past and present. As many of you know, there is very little information available on gardening in our part of the country, especially concerning gardening with native plants. Our newsletter provides an excellent forum for news of people's experiences and some of the latest information available. All of this is done by volunteers, both writers and editors. This type of involvement is what keeps our organization the vital group it is.

If you should have any spare time, we can always use your help, not only on the newsletter, but on other matters as well. Thanks again to all of you who serve on the State Board, the Newsletter and as Chapter officers. Keep up the good work!

Ted Hodoba

As voting time nears we naturalist types tend to get hotter, to wind up tighter, to get more concerned than typical concerned citizens do.

The Native Plant Society of New Mexico has been certified by Internal Revenue Service as a non-profit, educational organization, 501 (c) (3). We are not certified as a political organization. The US Postal Service requires the IRS certification before granting, for a fee, non-profit organization mailing rates for the Newsletter.

In your articles and letters, feel free to address the issue(s) with passion if you feel it, with eloquence if you have it, but endorsement of or opposition to a party or candidate is forbidden by IRS and USPS regulations.

Please, see that what is involved is not making of editorial policy but simply a matter of complying with regulations.

George Finley

Chapter Reports

Albuquerque Chapter: It's summer again, a busy time for all of us, and the Albuquerque Chapter of the NPS is no exception. Our April plant sale at the Albuquerque Garden Center was a success, thanks to those who donated plants for sale and volunteered time at the booth.

At our May 2 meeting, State NPS President Ted Hodoba, New Mexico State University Research Assistant Lisa Johnston and Native Plants Design Consultant Judith Phillips led a panel discussion on landscaping with natives. A slide presentation and question and answer session made a very informative and enjoyable evening.

On May 6, Chapter members had a "work party" at Castetter Gardens at the base of the Sandia Peak Tramway. A great deal has already been accomplished at the gardens, and plans are well underway for developing the gardens' educational potential. Individual plants will be designated a number and a corresponding guidebook will tell visitors interesting facts about each.

Candy Kroft

Las Cruces Chapter: On May 6, members enjoyed a delightful field trip to City of Rocks State Park-- with many "plant stops" along the way.

On May 9, Tom Todson did a super job with his slide show of Costa Rica plants.

June 10, Soledad Canyon field trip was a happy experience for our members. Very dry conditions prevail there. However, the White Thorn was in full bloom and was deliciously aromatic.

June 13, Bob Reeves' slide program on hedgehog cactus was both informative and comprehensive. Paul Richmond's interesting addition to the meeting was a slide show of a wide variety of Pennsylvania plants.

Tom Wootten

Otero/Lincoln Chapter: On May 26, Tom and Eleanor Wootten from Las Cruces joined us as Jim Bowlin of the Alamogordo Parks and Recreation Department led us on a walk around the 80 acre site of the proposed new Alamogordo City Park. Bushes and trees were tagged both for preservation when the nature trail is installed and to call attention to especially interesting clumps of plants.

We were surprised to find three Acacia constricta in bloom and admired the size of the ocotillo and groups of Spanish daggers. Haystack cactus clumps were filled with glorious blooms.

Since the new park is in the thinking stage, Tom suggested that both the Otero Chapter and the Las Cruces Chapter schedule walks in the park at various times of the year to get a better feel for the existing plants at different times of the year. Planning is not yet far enough along to identify a site for the Bill Mayfield Memorial Park.

Jean Dodd -

Santa Fe Chapter: At the April meeting, Iris David and Dr. Roger Peterson presented a program on gypsum-tolerant and other spring flowers of Bitter Lake National Wildlife Refuge. Iris and Roger reported on their work at the Refuge and showed slides of the scenery and beautiful flora there, most of the plants gypsum-tolerant and a few of them requiring gypsum for development. In cooperation with the refuge management, Iris and Roger are studying the plant species in preparing for a study of the vegetational ecology; they plan to map the vegetation types of the Refuge for the 50th anniversary (in 1987) of the founding of the Refuge, when the vegetation was last mapped.

Dr. Don Lowrie in May presented a slide program, "Flowers of the Grand Teton National Park". The vast range of flowers (many the same as New Mexico's) gave us a better understanding how similar

terrain and environment can produce like flowers in various western states. We learned what type flowers to look for in certain types of environment and soil conditions, regardless of location.

Dr. Lowrie's program also pictured scenic high mountain views of the Grand Tetons and Jenny Lake.

The plant sale held on May 19 in front of the Museum of International Folk Art was a COMPLETE SELLOUT by 11:00 a.m.! Many thanks to all who contributed their plants, their time and their effort in making this Native Plant Sale such a success. LOOK FOR ANOTHER ONE IN OCTOBER--SAME PLACE!!

May 26, we had a field trip to Galisteo Creek area near Waldo Exit and Cerrillos. More desert plants than others were seen on this trip. Yucca, Osage orange, Russian olive and tamarisk were plentiful along the banks of Galisteo Creek and vegetation differed from that usually seen at a higher elevation closer to Santa Fe. Should anyone decide to take this trip, the No-See-Ums are plentiful in the area, and true to their style, you won't even know they've been around until the return trip home!

Dovie Thomas

Dovie's surname is Thomas instead of Taylor as listed in the last Newsletter. We regret the error-Ed.

Southeast Chapter: Our speaker for our May meeting failed to show.

On June 17, our members enjoyed a field trip to the Valley of Fires State Park at Carrizozo, taking the nature trail from the pavillion, observing sotol and yucca in bloom and numerous small animals. Some members then went on to Three Rivers Park to see the Indian petroglyphs. The desert willows were in bloom there and the cholla blooms were outstanding. Some members visited the Smokey Bear wildflower garden at Capitan on their way home.

Nina Eppley

Blackfoot Daisy Germination

By John C. Egbert

Two years ago (1982), Judith Phillips sent me some Blackfoot daisy seeds (Melampodium leucanthum). Finally, in early December, 1983, I planted these seeds one eighth inch deep in perlite in a plastic container that I had picked up from a catering service in Albuquerque. These plastic containers are approximately one and one-half inches deep. The lid is an equal depth. This entire translucent miniature greenhouse has a lid which closes or can be left open.

I moistened the seeds, once planted in the perlite, and placed this mixture in the refrigerator for two weeks. Then I put the mixture outside and allowed it to be in the shade but exposed to the daily temperature fluctuations with the lid closed for the next two weeks.

In early January, we received a snowstorm in Albuquerque and I threw snow on the seed bed and

left the top open. At this period, we had alternating freezing and thawing weather and I believe this freezing and thawing cracked the seed coat.

I then placed the seed tray on top of my hot water heater and within several days approximately 40% of the seeds germinated with the lid on.

Once the seeds were germinated, I put them under my grow lamp where I slowly lost them one at a time to damping off. I am not sure what I did wrong here but perhaps I can find out from other people how to keep these things alive once germinated.

I mentioned these notes simply because I had heard that this species has been very difficult for people to germinate and there may be some information here, particularly the freezing/thawing regime and the bottom heat in a moist but well drained medium, that will be helpful to other propagators.

Mark your calendars, the annual state-wide meeting of NPS-NM is trying to improve on last year's Capitan congregation and is planning lots of wonderful activities.

Naturally, there will be field trips, how-to sessions and other informative talks, along with a guest speaker Saturday evening. But the best part is always meeting the members and sharing experiences. Anyone who wishes to volunteer to help or to give a talk should contact Lisa or Iris, NPS-NM, P.O. Box 5917, Santa Fe, New Mexico 87501.

Lisa Johnston



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On Propagation

By Judith Phillips

As the flush of spring growth begins to harden under an early summer sun, both the time and cutting material are ripe for producing new plants from softwood cuttings. Successful rooting hinges upon maintaining a high enough relative humidity to allow cutting to callous and initiate roots without wilting or water logging the rooting medium.

Whether necessity is the mother of invention or this is a case of the spontaneous generation of a great idea, Lisa Johnston and Tom and Eleanor Wootten have a simple solution to the wilt or rot dilemma. A sheet of plastic draped like a tent over a vaporizer provides a clean, easy and low cost mist system. Humidity remains high but the rooting medium doesn't become soggy under a heavy handed mist nozzle.

Albuquerque Chapter's field trip on June 1, 2 and 3, led by Myra McCormick of Bear Mountain Guest Ranch at Silver City, was very successful and enjoyable.

Myra outdid herself, taking us to the Botanical Garden at City of Rocks State Park, the Tres Hermanas area, the Florida area, the Gila River area and the Cat Walk near Glenwood.

We saw specimens of at least 100 wildflowers, cacti, shrubs and trees. Many species were in bloom and many were only found in certain areas. Some of the unusual plants we saw were in both fruit and flower.

We saw many Mimosa branseria and a few Acacia constricta in bloom. On the Cat Walk, we saw Penstemon psuedo speclabilis, Quereus rugosa and yellow columbine plus many wild grapes.

Myra was a wonderful guide and the trip was very worthwhile for our small group.

Jackie Farr

Dear Editors,

A Handbook of Rare and Endemic Plants of New Mexico has just been published and it will make a valuable addition to the library of every serious student of our flora.

It is the work of the New Mexico Native Plants Protection Advisory Committee--a group of distinguished scholars in the botanical field--but one which most of us probably never heard of.


The book treats 127 species of flowering plants, each accompanied by an excellent line drawing and a distribution map. The authoritative text includes not only a technical description but also similar species, habitat, threats to the taxon (if any), ownership of the land where the plants grow, what is being done to protect the species and much more. Of course, a lot of this information could be dug out of Martin and Hutchin's Flora, but here it is in a nutshell, accessible at a glance and with a picture.

As explained in the preface, some of the goals of this volume are 'to stimulate research and exploration' of our diverse flora and to 'enhance the chances for survival of our rare plant species', and we can only hope that it will succeed.

The Handbook is published by University of New Mexico Press and sells for \$12.95.

Walter Graf

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The Problem With Wild Seed

By James Borland

Sure, you want specifics about germinating wild seeds, not a lot of jazz. But here James Borland, Denver Botanic Gardens' chief propagator, puts first things first, discusses factors and problems in germinating wild seeds because, as in math, you need to understand the problem before attempting answers.

Native plant newsletters, rock garden and technical horticultural journals fill a great deal of space relating the problems and frustrations of germinating wild seed.

Although most of us would be delighted to attain any germination with every species planted, the precise details regarding all germination factors must be predictable to those whose livelihood depends on the seed in some way. Much research has determined that with any lot of wild seed, nay any seed, the precise factors involved in germinating that seed today will not be the same when attempting it next week.

The answer to the riddle why this is so lies within the fact that the seed is a physiologically living, breathing organism--subject to its past history, present environment and genetic makeup the same as any other living organism.

For instance, seed developed during an unusually dry season may have a tougher or thicker seedcoat which may inhibit imbibition.

Domesticated plants grown with tender loving attention to water and nutrient availability often produce easy to germinate seed, with dormancy factors eliminated or at least ameliorated. Some plants (e.g. Kochia scoparia, Salsola kali) simultaneously produce two distinctly different seeds which have different germination patterns.

Germination percentages generally decrease with age of the seed. However, seed of several Atriplex spp. should be allowed to after-ripen for several months before attempting germination. Seeds of Baileya multiradiata when wild collected from seed heads allowed to overwinter outdoors will exhibit a greater degree of dormancy than those fall collected and sown immediately or stored warm indoors. There is even a difference in germinability between ray flower and disc flower seeds.

Although harvesting seed too soon, before adequate ripening, is a common problem, 'green' harvested seed of Aquilegia caerulea will generally germinate more freely and quickly than seed from naturally opened capsules.

Seed storage conditions will vastly affect not only longevity but also germinability. High temperature storage is to be avoided at all costs. Low temperature or below freezing storage should be attempted only when seed moisture content is proper for that species. Properly dried seed in a moisture permeable packing placed in the modern frost-free freezer may result in excessive dehydration and seed death. The same package placed in an older moisture-laden refrigerator will result in seed rehydration and perhaps death or at least shortened longevity.

Seeds of moisture-loving or swamp plants and oily seeds (e.g. Quercus, Juglans) generally should never be allowed to dry out else they expire.

Instructions for germinating a species from the mountains of Montana will undoubtedly differ markedly from procedures needed to germinate that same species collected from New Mexico plains. Generally, some species seed from southern latitudes or lower elevations will not require as long a stratification period as that collected from northern latitudes or

higher elevations.

Seed sowers should be aware that in order for seed cold dormancy to be broken, the seed must be moist as well as subjected to temperatures between 34 degrees-41 degrees F. Subjecting seed to cold-moist conditions when there is no need to do so can reduce germinability.

Often germination temperatures are only vicariously reported. One lot of seed will generally display a small range of optimum germination temperatures with germination percentages falling off gradually as temperatures are increased or decreased. Repeated tests with many wild collected seed have shown that the fluctuating daytime temperatures for eight hours 20 degrees higher than night temperatures for 16 hours results in better and quicker germination than a constant temperature.

Another important germination factor is the presence or absence of light for germination. The best and most convenient artificial

source is fluorescent lamps. Although some seed's light requirement may be satisfied by minute quantities (footcandles) and duration (seconds), general recommendations for these seeds are exposures to 10 to 150 footcandles during the eight hour high temperature fluctuation period. Seeds requiring a dark period for germination often fail to germinate or germinate poorly under continuous light.

Reported germination instructions then are best used as a guide to methods and procedures to be used on your own seeds. For instance, there is often a direct correlation between germination procedures for Brickellia grandiflora and Brickellia (your species).

Remember, the seed you sow represents only a part of that species' adaptability to its site. That next year's crop of seed requires different conditions for germination suggests the ability of that species to adapt to environmental change.

We are proud to unveil the new NPS-NM logo based on your selection last fall. This logo will be on the masthead of the newsletter, our stationery and various things that identify us as the Native Plant Society of New Mexico. Watch for it.

Lisa Johnston

Dear Editor,

Do you know where I might possibly find container-grown alligator junipers and/or thistle poppy (*Argemone platyceras*)? I've checked with Plants of the SW, Bernardo Beach and Tom Wooten already.

Jim Meem
P.O. Box 2526, Santa Fe NM 87501

MEMBERSHIP APPLICATION

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Other Interested family members: _____

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____ 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.)?

And the nominees are...
Yes, it's that time again, time to step forward and be counted. NPS-NM needs you. We are accepting nominations for the state offices of:

President
Vice-President
Recording Secretary
Membership Secretary
Treasurer
Board Member (2)

Don't be shy, the hours aren't bad and the benefits are many. The Board meets three to four times a year to handle the business of NPS-NM and to improve the membership benefits. The Board is always looking for good ideas, so why not be a part?? Please send your nominations to:

NPS-NM Nominating Committee, P.O. Box 934, Los Lunas, NM 87031 before September 1, 1984. If you would like to know more about the duties of each office, contact an officer or drop a note to the Nominating Committee. Become an active part of NPS-NM.

Lisa Johnston

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