

THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 8; Number 1

February 1985

WHAT'S GOING ON?

February 19-22 Public Hearings on Nuclear Waste Repository EA's. Call collect (614) 424-4235 to make reservations to speak.
Tuesday 2/19 Monticello - High School (4:00-9:00 p.m.)
Wednesday 2/20 Moab - Knight Elementary School (4:00-9:00 p.m.)
Friday 2/22 SLC - Hotel Utah (2:00-9:00 p.m.)

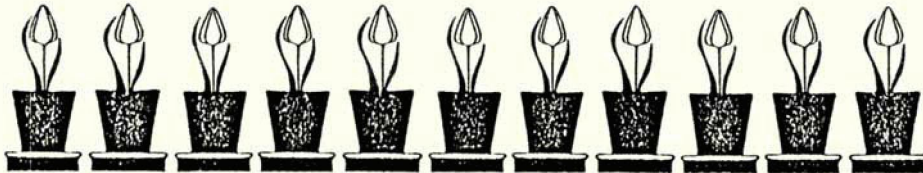
February 20 Darwin's Voyage. State Arboretum of Utah Winter Garden
Wednesday Lecture Series. Presented by Dr. Robert K. Vickery.
7:00 p.m. Room 323, Olpin Student Union Building, University of Utah. No charge. For further information, call 581-5322.

February 22 UNPS Rare and Endangered Plant Workshop. This annual
Friday meeting will be held at the BYU Herbarium in Provo. The
All Day day long meeting will include discussion of the status
of rare plants throughout the State, presentations of
1984 field season data, and reports on rare plant programs
of both Federal and State Government. For further information
call Duane Atwood in Provo, 377-5780.

February 23 Vegetative Propagation by Cuttings. State Arboretum of
Saturday Utah Propagation Workshop. State Arboretum Center.
9:00 a.m.- University of Utah. \$3.00 (\$2.50 for Guild members).
11:00 a.m. Make reservations before February 15. Call 581-5322.

February 23 Utah Nature Study Society Annual Nature Workshop.
Saturday Sugarhouse Garden Center. \$3.50. Make reservations
9:00 a.m.- by February 20. For further information, call Colleen
2:00 p.m. Jaussi, 572-5514.

February 28 UNPS Salt Lake Chapter Meeting. "Endangered Plants of
Thursday Utah" by Larry England, U.S. Fish and Wildlife Service.
7:30 p.m. Larry is a member of the Endangered Species Team. He
has the current information on our endangered Utah
natives. Come see and hear about some truly rare,
but beautiful plants. Room 125, Highland High School.



- February 28 Salt Lake Tribune Spring Home and Garden Festival.
-March 3 Salt Palace.
- March 2 Bald Eagle Field Trip to East/Echo/Henefer Area.
Saturday Utah Audubon Society. Meet at Sugarhouse Garden Center.
9:00 a.m. For further information, call Andy White, 581-0486.
- March 4 "Contemporary American Indian Tribes of the Colorado
Monday Plateau", by Dr. Floyd O'Neil. Utah Museum of Natural
7:30 p.m. History, Colorado Plateau Lecture Series. Fine Arts
 Auditorium, University of Utah. \$2.50.
- March 11 Proposed Listing of Jones Cycladenia (Cycladenia
Saturday jonesii) comments due today! Send your comments to:
 Regional Director, U.S. Fish and Wildlife Service,
 P.O. Box 25486, Denver Federal Center, Denver,
 Colorado 80225.
- March 11 "Life on the River: Tales of a Riverrunner", by Ken
Monday "Seldom Seen" Sleight. Utah Museum of Natural History,
7:30 p.m. Colorado Plateau Lecture Series. Fine Arts Auditorium,
 University of Utah. \$2.50.
- March 16 Budding and Grafting. A State Arboretum of Utah
Saturday Propagation Workshop. Arboretum Center, University of
9:00 a.m.- Utah. \$3.00 (\$2.50 for Guild members). Call for
11:00 a.m. reservations before March 8.
- March 18 "The Land, the Air and the Water", by Philip Fradkin
Monday Utah Museum of Natural History, Colorado Plateau Lecture
7:30 p.m. Series. Fine Arts Auditorium, University of Utah. \$2.50.
- March 20 "Gardens of the British Isles", by William A. Varga.
Wednesday State Arboretum of Utah Winter Garden Lecture Series.
7:00 p.m. Room 323, Olpin Student Union Building, University of
 Utah. For further information, call 581-5322.
- March 23 Seed Propagation and Seedling Culture. A State Arboretum
Saturday of Utah Propagation Workshop. Arboretum Center,
9:00 a.m.- University of Utah. \$3.00 (\$2.50 for Guild members).
11:00 a.m. Call for reservations before March 15.
- March 28 UNPS Salt Lake Chapter Meeting. "Make the Picture Match
Thursday the Memories" by Marv Poulson. Marv, a professional,
7:30 p.m. nationally published photographer, will concentrate on
 simple and inexpensive techniques for making the
 photograph match the memory of the wildflower in the
 field. Room 125, Highland High School.

UTAH NATIVE PLANT SOCIETY
1984 ANNUAL REPORT

Board of Directors - 1985

Duane Atwood - Rare and Endangered Plant Committee Co-chair
Anthony Frates - Conservation Committee Chair
Sherel Goodrich - Rare and Endangered Plant Committee Co-chair
Glen Halliday - Photography Committee Chair
Jennifer Harrington - Seed Committee Chair
Alyce M. Hreha - Field Trip Committee Chair
Kathy Mutz - Membership Committee Chair
Betsy Neeley - Cache Valley Chapter President
Dave Okleberry - Vice President/President Elect
Richard Page - President
Pam Poulson - Chairman of the Board and Newsletter Committee Chair
Jeanette Schmidt - Secretary
John and Leila Shultz
June Sullivan - Treasurer
Kaye Thorne
Bill Wagner - Horticulture Committee Chair
Dave Wallace - President, Salt Lake Chapter
Janet Williams

Annual Board of Directors Meeting
January 17, 1985

COMMITTEE REPORTS

AMONG THE WILDFLOWERS

Alyce M. Hreha - Field Trip Committee Chair, 1984

The Utah Native Plant Society offered several interesting and educational field trips during 1984. At the May 12th Field Trip to Lone Peak State Nursery, where Manager, Dave Grierson led a tour of the facility and explained the nursery's contribution to native plantings in the state, attendance was poor due to lack of publicity. After this problem was corrected, the remainder of the trips were well attended by our members, their families and friends.



Since July, when I took over as field trip coordinator, the Society has sponsored three trips to floristic areas in the Wasatch and Uinta Mountains. On July 28, 1984, Alpine Wildflowers at Snowbird was led by Leila and John Shultz from the top of the Snowbird Tram. Dr. Stan Welsh led the annual trip to look at the Wildflowers in Albion Basin on August 4th. We finished off the season with a Mushroom Hunt and Feast led by Dr. Frank Anderson to the

AMONG THE WILDFLOWERS CONTINUED

Uinta Mountains on August 25, 1984.

I would like to offer our membership a greater variety of trips to choose from this year. My goal is to schedule trips to floristic areas in other parts of the state where we can observe, learn and enjoy the diversity of Utah's native flora.

We had a successful field season and I'm looking forward to perpetuating this trend in 1985. I would like to thank all of the trip leaders for their time and effort in making these trips possible.

SOME WORDS ABOUT WORDS

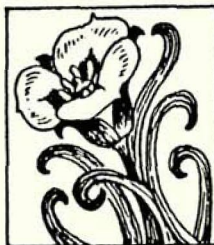
Kathy Mutz - Newsletter Committee Chair, 1984

Nine issues of the newsletter (Volume 7) were published in 1984. Articles included an events calendar, conservation issues, landscape design, gardening with natives, wildflower reports, book reviews, chapter meeting and field trip reports and committee events.

The newsletter could have been better used to address state society business, e.g., nomination of the board members and solicitation of committee coordinators.

A word processor simplified text preparation. (If a future editor does not have access to a word processor, UNPS should consider renting time at the U of U Library.) The 1984 issues were, however, noticeably lacking in graphics. Three printers were used throughout the year. Although not perfect, Snappy Print (100 South, SLC) proved most reliable and willing to provide quick service on a last minute basis.

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Bulk rate mailing with our non-profit permit was started with the last two issues. The process is not difficult and requires about the same time as first class mailing. Sorting takes longer but licking stamps is eliminated. Each piece is currently 4.5 cents with an absolute minimum of 200 pieces. Mail must be taken to the main office on Redwood Road.

GROW YOUR OWN

Deb Callister - Horticulture Committee Chair, 1984

I. Plant Sale

A. Revenue: \$1,219.83

1. Plants
2. Seeds

B. Reasons for success

1. Publicity (Newspaper, Radio)
2. Community Support
 - a. Local Nurseries - more donors
 - b. Increased interest in Natives
3. Seed Sale increases
 - a. Guaranteed seeds (tested)
 - b. Wildflower mixes
4. Informative Sales Staff
5. Excellent Location (Millcreek Gardens)
6. Planting and Cultural Information (handouts)

C. Plant labels (UNPS Logo)

1. Inaccessible for 1984 plant sale due to bomb scare (stored at Arboretum Office, U of U)

II. Newsletter

A. Completed design article series

B. Horticultural notes

III. Promotion of Natives

A. Local

1. Highway Department (UDOT)
2. Development Agency of Salt Lake City and Murray City

B. Statewide: Wildflower Presentation for the Utah League of Cities and Towns

IV. Developed Plant and Seed Sale Procedural Format

V. Suggestions for 1985

A. Newsletter - Emphasis on plant groups in the landscape

1. Groundcovers
2. Shrubs
3. Trees
4. Wildflowers
5. Native Grasses

GROW YOUR OWN CONTINUED

- B. Update plant and seed sale procedural format
- C. Develop society library
 - 1. Location (State Arboretum Library?)
 - 2. Annual development budget
 - 3. Slide File
 - 4. Compile information about seed collection, propagation, planting, culture and care of natives

WILDFLOWER WATCHDOGS

Tony Frates - Conservation Committee Chair, 1984

Conservation Committee activities in 1984 were varied and hopefully productive. Watchdog or monitoring/review activities were not as substantial as compared to 1983, as efforts were mainly concentrated in following the Land Law Review Commission activities. Comments submitted in response to BLM's Utah Statewide Wilderness Environmental Impact Statement resulted in the inclusion of many "sensitive" plant species for consideration in the subsequently issued scoping document. The Sierra Club asked for information in connection with the Grand Resource Area Proposed Management Plan Final Environmental Impact statement and information with respect to rare plant species was approved and the final EIS was reviewed along with the Sierra Club's appeal.

**DRAFT
EIS:**

Contact with the Nature Conservancy was maintained at various points throughout the year. Early in the year, an endorsement letter of various Forest Service RNA's was completed.

Contact with Kevin Carter of the Division of State Lands and Forestry was also maintained and future planning and strategy considered.

Fish and Wildlife Service proposed listing and other actions were monitored and comments made as appropriate. The main thrust of 1984 Conservation Committee activities centered around the Utah Land Review Commission. The first activity was initiated in early April and continued throughout the year. a close liaison was established with the commission coordinator. Commission meetings were attended and issue documents were reviewed. a substantial amount of correspondence mainly in the form of comments to issue documents was required. The advice of the Environmental Defense Counsel was solicited and received concerning Section 6 language. Research into existing Utah statutes was conducted. A statement was made at an oral hearing in September, preceded by a meeting with the resource committee of the commission and conversations with the committee chairman. Proposed language was drafted and re-drafted and various state government employees were contacted in the process. Language proposed was eventually accepted by the commission. The bill containing the proposed language is currently in the legislature.

WILDFLOWER WATCHDOGS CONTINUED

Also during 1984 a document entitled "Guidelines for Responding to Proposed Land Disturbing, Management or Protective Actions by Government Agencies" was drafted and will be used as a reference in future conservation and committee work.

SEEDS FOR THOUGHT

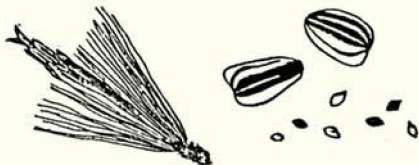
Janet Williams - Seed Committee Chair, 1984

This past year, in an effort to assure greater germination success with native seeds, although not strictly required to by the Utah Seed Act, the Seed Committee elected to purchase tested seed of known viability from wholesalers of native seeds, in this case, Native Plants, Inc.. It was repackaged by us in small amounts and sold under the UNPS stamp with a label describing characters, habitat and propagation techniques. A large chart with pictures also outlined features such as color, height, flowering season, etc. for available species. Photos provided by Liz Neese were most helpful. We chose a dozen species to pioneer this effort, and at the Plant Sale we sold 135 packages of this seed at a dollar a package.

In addition, due to the generosity of Deb Cox-Callister of NPI, we were able to buy Rocky Mountain and Great Basin flower mixtures at \$60 a pound.

Seed already on hand, gathered and donated to the Society was sold at a bargain price of 25 cents a package. 40 packages were sold. We also gave a pack of this seed free with every \$1.00 package purchased.

Handouts were given to buyers describing proper propagation techniques. Care was taken to emphasize to buyers that native seed, in nearly all cases, should be planted in the Fall to assure success. We are very hopeful that buyers this year will have a positive experience with our seed and will return for more next year.



Our gross proceeds from the seed portion of the seed and plant sale were about \$490.00. From that amount we had to pay for the seed purchased, but a good quantity is still available, and when sold is clear profit. This seed can be sold for at least another year without losing much viability.

After the sale, the remaining seed from previous years was made available free to the membership.

Ideas:

1. Seed packages from this point on need to be dated with the year of collection.
2. The Utah Seed Act does not prohibit selling seed without germination tests if other labeling particulars are complied with, so consideration should be given to encouraging collecting by members to acquire otherwise unavailable species or to fill requests.

SEEDS FOR THOUGHT CONTINUED

3. A photography field trip to an abundant area would be an excellent precursor to a later collecting trip to the same area to involve members in this process.
 4. Known collectors could be asked to watch for and collect specific species.
- My thanks to members of the Seed Committee for their help this year.

AS RARE AS HEN'S TEETH

Duane Atwood and Sherel Goodrich
Endangered Species Committee Co-chairs

Activities

1. Inventory of ca. 10,000 acres of potential habitat for listed and sensitive species.
2. Established monitoring studies on several listed and sensitive species.
3. Prepared data for Fish and Wildlife Service on new listing for several plant taxa.
4. Provided data to National Forests on sensitive species in their area of responsibility.
5. Field review of numerous projects on the National Forest with potential impacts to sensitive species.
6. Named several new taxa that qualify for candidate status.

federal register

7. Attended public hearing on proposed listing of Asclepias welshii.
8. Wrote supporting letters for final listing action for Asclepias welshii.
9. Organized and conducted annual T/E plant meeting for Utah.

JANUARY SALT LAKE CHAPTER MEETING

Made for Each Other: Clark's Nutcracker and White Bark Pine
Kathy Mutz

On Thursday evening, January 24th, Dr. Ron Lanner of Utah State University discussed the mutualistic relationship between two of our natives, a pine and a seed eating bird.



The White Bark Pine (*Pinus albicaulis*) is a 5 needled, soft pine of the subgenus Strobus. Its principal distribution is the Northern Rockies from the Wyoming Range north to British Columbia and Alberta, and the Sierra Nevada and Cascade Ranges with a few outliers, e.g. the Ruby Mountains of Nevada. It is generally a high elevation species (8,500-10,000 feet) although on harsh sites it can be found down to 4,800 feet. Seed of this pine are wingless, similar in size and shape to piñon nuts.

Clark's Nutcracker is a member of the Crow and Jay family. It is a resident of our area depending almost exclusively on a diet of pine nuts.

Dr. Lanner told a marvelous tale of the complementary habits of this bird and tree. White Bark Pines bear their cones in a generally upright pattern on the tops of trees. Each large, fatty seed is borne beneath a thin, brittle cone scale. Nutcrackers are able to easily break the scales to reveal a tasty meal. While up in the tree (or occasionally on the ground) the bird takes seeds into its mouth and stores up to 200 of them in a throat pouch. The bird then flies a few feet to over 13 miles away to bury its cache, a few seed at a time. The Nutcrackers often cache on windswept ridgetops, cliffs and knolls, but are also observed burying their food supply in forests on north facing slopes.

Throughout the winter and until a fresh crop is available in the summer, the birds locate their caches through environmental cues. The birds remember their position relative to large and small objects on the ground. Hidden in a variety of sites, the birds have an accessible supply through the winter and a fresh frozen supply as they follow the summer snow melt. It is estimated that each bird caches about 100,000 seeds in about 30,000 separate locations--all about one inch below the ground. Only about 50% of these seeds are metabolically required by the birds.

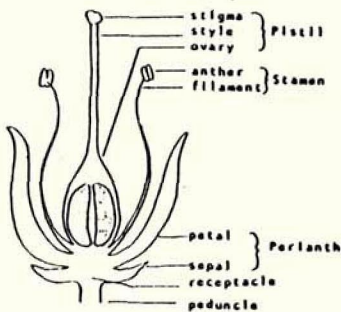
Does this sound like a White Bark Pine reforestation project? The scenario seems ideal for bird and tree alike. White Bark Pine are often found in stressful environments--semi-arid areas and alpine or high mountain areas. The combination of large seed size and careful planting provide adequate conditions for germination in barren areas which would preclude establishment of most tiny seeded pines. The seeds will also germinate and survive (often in 3-seeded clumps) in shaded areas leading to climax communities of White Bark Pine and Engelmann Spruce.

SALT LAKE CHAPTER CONTINUED

Other Jays and wingless fruited pines participate in a similar mutualistic relationship, but Clark's Nutcracker and the White Bark Pine are exceptionally well suited for the relationship. Other food caching Jays (Pinyon, Scrub and Stellar) are not exclusively dependent on pine seed for their food supply. On the other hand, they are not master gardeners like Clark's Nutcracker. They are smaller, weaker fliers (shorter caching range), have weaker bills and are without the throat pouch shopping bag. Isn't it amazing what Mother Nature can arrange given a few thousand years for evolution?

ADD A LITTLE CLASS!

Two classes of interest are being offered through the Division of Continuing Education at the University of Utah. Beginning the last week in March with Spring quarter are "Introduction to Utah Wildflowers" and "Residential Landscape Design."



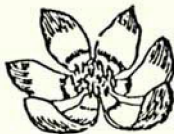
Intended for the wildflower lover with no previous knowledge of botany or ecology, "Introduction to Utah Wildflowers" takes a nontechnical look at Utah's diverse wildflower geography and some conspicuous wildflower families. The class meets Tuesday evenings beginning March 26, from 7:15 to 9:30 p.m. and includes two, all day Saturday Field Trips. The course is taught by Pam Poulson, Assistant to the Director of the State Arboretum of Utah. Cost for the course is \$50.00 noncredit, or is available for 3 hours University credit. (Help Wanted: Teaching Assistant. Pay: Free tuition! Call Pam, 581-5322).

"Residential Landscape Design" is a concentrated course for the homeowner. The hands-on workshop meets at the Holladay Library, Tuesday evenings beginning March 26, from 7:00 to 9:00 p.m.. Each participant will develop a landscape plan for their own property. Six guest lecturers will discuss basic design, site inventory and analysis, plant selection and plan implementation. Workshop coordinator, Mike Kelly, is past president of the Utah Chapter of the American Society of Landscape Architects. Cost for the class is \$60.00 per person or \$75.00 per couple noncredit, or is available for 1 hour University credit.

Course Numbers:

Introduction to Utah Wildflowers--Recreation and Leisure 385RA-1
Residential Landscape Design--Recreation and Leisure 194R-4

Register through D.C.E. at 581-6461, or for further information, call 581-5322.



ARBORETUM GOES TO OREGON!--May 23-27

Malheur Field Station has been selected for the first State Arboretum five day field trip. The trip will be conducted by Dr. Leroy Wullstein, University of Utah Biology Professor and Dr. Betty Wullstein, Curator of Education, State Arboretum of Utah. Malheur Field Station is located 32 miles south of Burns, Oregon and enjoys a climate characteristic of this high desert country. The station is on the western edge of the Malheur National Wildlife Refuge, the oldest and one of the largest refuges in the U.S.



Many resources contribute to nearly unmatched opportunities for field study. Many species of high desert plants are expected to be in full bloom. a total of 280 species of birds and 51 species of mammals have been recorded. The remarkable assemblage of plant and animal species and the diverse geology of Malheur attract visitors from all over the world.

Price for the trip is \$330.00 and includes transportation, meals and lodging. A \$100.00 deposit is required before March 11. Early registration is encouraged because of limited class size. For further information, call Dr. Betty Wullstein, 581-5322 or 581-4938.

Members are encouraged to submit original articles to the Sego Lily Newsletter. Please state if articles have been published elsewhere and need permission of the publisher. Drawings with or without articles are also welcome. The editor reserves the right to edit as needed and to select suitable articles for publication.

The Sego Lily is published nine times a year. Deadline for submission of articles is the 10th of each month preceding publication.

UNPS Sego Lily
c/o Pam Poulson
3631 South Carolyn Street
Salt Lake City UT 84106

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(annual membership from date of receipt of fee)

New Member Renewal Gift

Name _____

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If Gift, from: _____

Please send a complimentary copy of the Sego Lily Newsletter to the above.

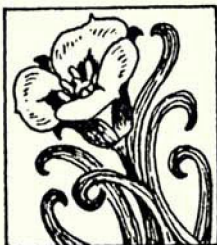
Check membership category desired:

<input type="checkbox"/> Individual.....\$8.00	<input type="checkbox"/> Student/Senior.....\$4.00
<input type="checkbox"/> Family.....\$12.00	<input type="checkbox"/> Life.....\$250.00
<input type="checkbox"/> Supporting.....\$25.00	<input type="checkbox"/> Corporate.....\$25.00

or greater

Please enclose check made payable to Utah Native Plant Society and send to:

June Sullivan, Treasurer, 717 South 900 East, Salt Lake City, Utah
84102.



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 8; Number 2

March 1985

WHAT'S GOING ON?

- March 25
Monday
7:00 p.m.
- Public Comment Meeting. The State of Utah Air Conservation Committee is holding a public meeting to receive public comment on their draft Visibility Protection Plan. Attend and speak up! Salt Lake City Council Chambers, Room 301 SLC/County Building. Also meetings in Moab, Cedar City, Richfield and Vernal. For further information, call National Parks & Conservation Association, 532-4796
- March 27
Wednesday
6:30 p.m.
- UNPS EXECUTIVE BOARD MEETING - State BLM Office, 3rd South and State Street Building, Director's Office, 4th Floor. State Chapter Officers, Committee Chairs. Interested Membership welcome. Agenda: Endangered Plants Recovery Projects, Chapter Funding, and others.
- March 28
Thursday
7:30 p.m.
- UNPS Salt Lake Chapter Meeting. "Make the Picture Match the Memories" by Marv Poulson. Marv, a professional, nationally published photographer, will concentrate on simple and inexpensive techniques for making the photograph match the memory of the wildflower in the field. Room 107, Highland High School.
- April 1
Anytime
- Wildflower Hotline. Begins. Reporting timely tips on where to see the best bloomin' displays in Utah. Call anytime, 24 hours a day, 7 days a week from April 1 through October 31, 581-4969.
- April 17
Wednesday
7:00 p.m.
- The Dallas Botanical Garden, The State Arboretum of Utah Winter Garden Lecture Series. Room 323, Olpin Student Union Building, University of Utah.

April 25
Thursday
7:30

UNPS Salt Lake Chapter Meeting. "State Arboretum of Utah, Red Butte Site Development", W. Richard Hildreth, Director and Mary Pat Matheson, Conservatory Manager. We'll hear the official word on the development of a comprehensive Botanical Garden for Utah, in the natural setting at the mouth of Red Butte Canyon. Room 125, Highland High School.

May 1
Wednesday

The Abandoned Mine Technology and Design Reclamation Workshop. Hosted by the University of Wyoming. To be held in Casper, Wyoming. For further information, call Kathy Mutz, 538-5340.

May 6
Monday
5:30 p.m.

Rose Care: Mulching, Fertilizing and Pruning. State Arboretum of Utah Spring Workshop. Larry Sagors, USU Extension, W. Richard Hildreth, Arboretum and Mary Pat Matheson, Arboretum. State Arboretum Center. Call 581-5322 for reservations (\$3.00).

May 13
Monday
5:30 p.m.

Pruning Trees and Shrubs. State Arboretum of Utah Spring Workshop. Larry Sagors, USU Extension, W. Richard Hildreth, Arboretum and Mary Pat Matheson, Arboretum. State Arboretum Center. Call 581-5322 for reservations (\$3.00).

May 18
Saturday
9:00 a.m.-
3:00 p.m.

Plant Sale. State Arboretum of Utah 6th Annual Plant Sale and Green Spree. Unusual plants for house, green house and garden. Will be many native plants for sale this year, including some flowering perennials. UNPS will provide a display, question answerers and membership drive. If you snooze, you lose!

June 8-
June 9
Saturday-
Sunday
All Day

Utah Basin and Range Seminar, 1985. This seminar, sponsored by the Utah Audubon Society, provides participants an opportunity to learn about the Great Basin environment, which comprises much of western Utah. Primitive camping at Simpson Springs BLM Campground. Cost is \$20. For registration or further information, call Rick Van Wagenen at 467-5758.

Anytime

Birdline. Call 530-1299 for the latest hot bird sightings in Utah.

NOTICE!

The first official wildflower blooming in Utah as reported to the State Arboretum of Utah's Wildflower Hotline, was reported on February 19. Victor Jackson, Chief Naturalist at Zion National Park called to say that he had spotted Sand Buttercup (Ranunculus juniperinus) beside snowbanks on the Canyon Overlook Trail. Spring is coming! To keep up to date on what's blooming where and when in Utah, call the Wildflower Hotline at 581-4969.



NEWS AND NOTES

Annual Utah T/E Plant Workshop
Brigham Young University Herbarium
February 22, 1985

The Annual Threatened and Endangered Plant Conference was held at the B.Y.U. on February 22. It was an all day conference, sponsored by the Utah Native Plant Society and attended by representatives from the Fish and Wildlife Service, the Forest Service, B.L.M., State Division of Lands, State Division of Oil Gas and Mining, the Nature Conservancy, The Rocky Mountain Natural Heritage Task Force, Utah State University, Brigham Young University, The State Arboretum of Utah and UNPS members and interested others.

The Endangered Species Committee of the Utah Native Plant Society is currently engaged in cataloging and recording endangered species and their habitats (often overlooked). The Utah Native Plant Society is dedicated to the proposition of protecting plants from man's encroachment and ultimate extinction. This is the ultimate purpose of these annual conferences. Out of them comes the official Utah recommendations to the U.S. Fish and Wildlife Service regarding actions of T/E plant species.

Following is a compilation of listed and proposed plants as recognized by the U.S. Fish and Wildlife Service.

Federally Listed and Proposed Endangered (E) and Threatened (T) Plant Species in Utah As of January 1985:

Dwarf Bear Poppy	<u>Arctomecon humilis</u>	E
Purple-spined Hedgehog Cactus	<u>Echinocereus engelmannii</u> var. <u>purpureus</u>	E
Spineless Hedgehog Cactus	<u>Echinocereus triglochidiatus</u> var. <u>inermis</u>	E
Siler Cactus	<u>Pediocactus sileri</u>	E
Clay Phacelia	<u>Phacelia argillacea</u>	E
Wright Fishhook Cactus	<u>Sclerocactus wrightiae</u>	E
Uinta Basin Hookless Cactus	<u>Sclerocactus glaucus</u>	E
Rydberg Milkvetch	<u>Astragalus perianus</u>	T

T/E WORKSHOP CONTINUED

Proposed

Heliotrope Milkvetch	<u>Astragalus limnocharis</u> var. <u>montii</u> (Syn.= <u>A. montii</u>)	E
Maguire Primrose	<u>Primula maquirei</u>	T
Last Chance Townsendia	<u>Townsendia aprica</u>	E
Welsh's Milkweed	<u>Asclepias welshii</u>	E
June Sucker	<u>Chasmistes liorus</u>	E
Maguire Daisy	<u>Erigeron maquirei</u> var. <u>maquirei</u>	E
Jones Cycladenia	<u>Cycladenia humilis</u> var. <u>jonesii</u>	E

Species Under Review

The following list is of those Utah plant taxa currently under review for listing as threatened or endangered, as recommended by the UNPS 1985 Endangered Plant Conference:

Category 1: Plants for which sufficient data exist for listing.

Category 2: Plants which are probably appropriate for listing, but have not yet achieved officially listed status or for which sufficient data to be used in the listing process is not yet available. Many species have been placed in this category after already being under review as a category 1. This was done to allow application for funding for further study into these plants.

Category 3: Plants which are no longer being considered as candidate for the listing process, though they may be rare, site specific, endemic or potentially threatened in the future.

Category 3A: Plants for which there is evidence of extinction. If rediscovered, would demand top priority.

Category 3B: Plants for which there is some taxonomic question. More taxonomic research is required to determine this plant as a separate taxon.

Category 3C: Plants that have been proven to be more abundant or widespread than was previously believed and or those that are not subject to any identifiable threat.

F: The 1984 UNPS Conference suggested that these species receive priority funding for additional field work.

*: Possibly extinct.

T/E WORKSHOP CONTINUED

<u>Taxon</u>	<u>Current Federal Review Status</u>	<u>Recommended Change by UNPS 1984/85 Conference</u>	<u>Known Counties of Occurrence</u>
Arabis sp./SP.NOV.INED.	2	3/3B	Uinta
Asclepias cutleri	2	-/2	San Juan, Emery
A. welshii (listing package under review)	1	-	Kane
Astragalus ampullarius	2	-/2	Kane, Washington
A. barnebyi	2	-/3C	Garfield, Wayne
A. cronquistii	2	-/2	San Juan
A. desereticus	2	-/2	Sanpete, Utah
A. equisolensis (funded for status report)	-	-/1	Uinta
A. hamiltonii	1	-/2	Uinta
A. harrisonii (F)	2	-/2	Wayne
A. iselyi	1	-/3C	Grand, San Juan
A. lentiginosus ursinus (*F)	1	-/2	Iron
A. montii (listing package under review)	1	-	Sanpete, Sevier
A. lutosus	2	3/3C	Uinta, Wasatch, Utah
A. sabulosus (F)	2	-/2	Grand
A. striatiflorus	2	-/2	Washington, Kane
A. subcinereus basalticus	2	-/2	Sevier, Emery
A. uncialis	2	-/2	Millard
Castilleja aquariensis (funded for status report)	2	-/2	Garfield, Wayne
C. revealii	1	-/2	Garfield, Iron
Cirsium virginensis (F)	2	-/2	Washington
Coryphantha missouriensis	2	-/2	Garfield, Kane
marstonii (F)			
Cryptantha barnebyi (in process)	1	-	Uinta
C. compacta	1	-/2	Millard
C. creutzfeldtii	(add)	2/2	Emery, Carbon
C. elata	2	-/3C	Grand
C. jonesiana	2	3/3C	Emery
C. ochroleuca (F)	1	-	Garfield
Cuscuta warneri (*)	2	-/2	Millard (?)
Cycladenia humilis jonesii (listing package under review)	1	-	Emery, Grand, Kane
Cymopterus beckii (F)	2	-/2	Wayne
C. higginsii	1	-/2	Kane
C. minimus (F)	1	-/2	Iron
Dalea epica	2	-/2	Kane, San Juan
Draba maguirei burkei	2	-/2	Box Elder, Weber
Epilobium nevadense	2	-/2	Washington, Millard
Erigeron cronquistii	1	-/2	Cache
E. kachinensis (F)	2	-/2	San Juan
E. maguirei maguirei (listing package under review)	1	-	Wayne, Emery
E. maguirei harrisonii (F) (add)		2/2	Wayne

I/E WORKSHOP CONTINUED

<i>E. mancus</i>	2	-/2	Grand, San Juan
<i>E. proselyticus</i>	1	-/3C	Iron, Kane
<i>E. sionis</i>	2	-/2	Washington
<i>E. untermannii</i> (F)	(add)	2/2	Duchesne
<i>Eriogonum ammophillum</i>	1	-	Millard
(listing package under review)			
<i>E. aretiodes</i>	1	-/2	Garfield
<i>E. corymbosum cronquistii</i>	2	-/2	Garfield
<i>E. corymbosum humivagans</i>	2	-/2	San Juan
<i>E. lancifolium</i>	2	-/3B	Carbon, Emery
<i>E. brevicaule loganum</i>	2	-/3C	Cache, Morgan
			Rich
<i>E. natum</i>	1	-/3C	Millard
<i>E. smithii</i>	1	-/2	Emery
<i>E. soredium</i>	2	-/2	Beaver
<i>Festuca dasyclada</i>	2	-/2	Emery, Wasatch
<i>Frasera gypsicola</i> (range extension - new to Utah F)	1	-/2	Millard
<i>Gaillardia flava</i>	2	-/2	Emery, Grand
<i>Gilia caespitosa</i> (proposed F)	1	-	Wayne
<i>Glaucocarpon suffrutescens</i>	1	-	Uinta
(listing package under review)			
<i>Hackelia ibapensis</i>	2	-/2	?
<i>Hedysarum occidentale canone</i>	1	-/2	Carbon, Emery
<i>Heterotheca jonesii</i>	2	-/2	Washington
			Garfield, Kane
			Emery
<i>Hymenoxys depressa</i>	2	-/2	Garfield, Sanpete,
<i>H. helenioides</i>	2	-/2	Sevier, Emery
			Duchesne
<i>Lepidium barnebyanum</i>	1	-	
(listing package under review)			
<i>L. montanum neesae</i>	2	-/2	Garfield
<i>L. montanum stellae</i>	2	-/2	Kane
<i>L. ostleri</i>	1	-/2	Beaver
<i>Lesquerella tumulosa</i>	1	-/2	Kane
<i>Lomatium latilobum</i>	2	-/2	Grand, San Juan
<i>Mentzelia argillosa</i>	(add)	2/2	Sanpete, Sevier
<i>Musineon lineare</i>	2	-/2	Cache
<i>Najas caespitosus</i> (*F)	2	-/2	Sevier
<i>Oenothera acutissima</i>	2	-/2	Daggett, Uinta
<i>Opuntia basilaris woodburyi</i>	2	3B/3B	Washington
<i>Pediocactus despainii</i> (funded for status report)	2	-/1	Emery
<i>P. winklerii</i> (funded for status report)	2	-/1	Wayne
<i>Penstemon scariosus</i>	1	-	Uinta
albifluvis (listing package under review)			
<i>P. atwoodii</i>	2	-/2	Garfield, Kane
<i>P. bracteatus</i>	1	-/2	Garfield
<i>P. compactus</i>	2	-/2	Cache
<i>P. cocinnus</i>	2	-/2	Beaver, Millard,
			Iron
<i>P. flowersii</i>	(add)	2/2	Uinta, Duchesne
<i>P. goodrichii</i>	2	-/2	Uinta, Duchesne

T/E WORKSHOP CONTINUED

<i>P. grahamii</i>	1	-/1	Uinta
<i>P. leptanthus</i>	2	-/2	Sanpete
<i>P. nanus</i>	2	-/3C	Millard, Beaver
<i>P. parvus</i>	(add)	2/3C	Garfield, Wayne
			Piute
<i>P. tidestromii</i>	2	-/2	Sanpete, Juab
<i>P. wardii</i>	2	-/2	Sevier, Sanpete
<i>Phacelia indecora</i>	2	-/3B	Sanpete, Wayne
			Emery
			Cache
<i>Primula maguirei</i> (listing package under review)	1	-	
<i>Psoralea epipsila</i>	1	-/2	Kane
<i>P. parienis</i>	2	-/2	Garfield, Kane
<i>Psorothamnus polyadenius jonesii</i>	2	-/2	Emery
<i>Ranunculus acriformis aestivalis</i> (status report funded)	2	-/1	Garfield, Sanpete
<i>Schoenocrambe barnebyi</i> (status report funded)	2	-/1	Emery
<i>Sclerocactus pubispinus</i> (S. spinosior = S. pubispinus spinosior)	(add)	2/3C	Sevier, Beaver, Juab, Tooele, Millard
			Washington
<i>Selaginella utahensis</i>	2	-/2	San Juan
<i>Senecio dimorphophyllus intermedius</i>	2	-/2	
<i>Silene petersonii minor</i> (to be combined with <i>S. petersonii petersonii</i>)	1	-/3B	Garfield, Iron
<i>Silene petersonii petersonii</i>	2	-/2	Sanpete, Garfield
<i>Sphaeralcea caespitosa</i>	2	-/2	Millard, Beaver
<i>S. psoraloides</i>	2	-/2	Wayne, Emery
<i>Sphaeromeria ruthiae</i>	2	-/2	Washington
<i>Talinum validulum</i>	2	-/2	Emery
<i>Thelypodopsis argillacea</i>	1	-/1	Uinta
<i>Townsendia aprica</i> (proposed)	1	-	Sevier, Emery
<i>Trifolium andersonii friscanum</i>	1	-/2	Beaver, Millard
<i>Xylorhiza cronquistii</i>	2	-/2	Kane

Recommended Additions for consideration:

<i>Astragalus holmgreniorum</i>	(add)	-/2	Washington
<i>Atriplex canescens gigantea</i>	(add)	-/2	Juab
<i>Cirsium owenbyi</i>	(add)	-/2	Daggett
<i>Penstemon ammophillum</i>	(add)	-/2	Washington, Garfield
			San Juan
<i>P. navahoa</i>	(add)	-/2	
<i>Physaria acutifolia purpurea</i>	(add)	-/2	Grand
<i>Sphaeralcea leptophylla janeae</i>	(add)	-/2	San Juan, Wayne, Garfield
<i>Thelasperma subnudum alpinum</i>	(add)	-/2	Wayne

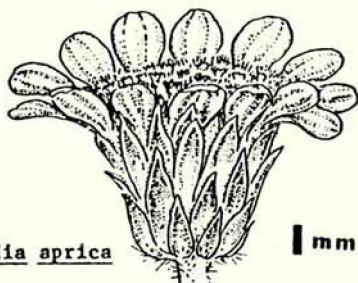
The threatened and endangered species program has produced an awareness of plants, and has spawned the formation of the UNPS Endangered Plant Committee and this Conference. The Utah Native Plant Society is powerful and can and should function actively in the conservation of plants in Utah. Our work is just beginning.

FEBRUARY SALT LAKE CHAPTER MEETING

Endangered Plants of Utah

Dave Wallace

The Salt Lake Chapter met for their monthly meeting at Highland High School on February 28. In conjunction with the Endangered Plant Symposium held at B.Y.U. on February 22, Larry England of the Fish and Wildlife Service treated us to an informal review of Utah's endangered plants, along with plenty of color slides and some frank discussion.



Townsendia aprica

Most of the endangered plants in Utah are endemic species which have recently adapted to special soil types and conditions. For example, a number are found only in selenium containing soils or in oil shale soils. This contrasts with the situation in California or the Eastern States, where endangered plants tend to be the last remnants of more widespread and older species. A Utah example of this type of plant is the beautiful Maguire's Primrose (Primula maguirei), now found only in a few locations in lower Logan Canyon.

Utah has 8 species on the Federal Threatened and endangered Species List:

SPECIES

COMMON NAME

Astragalus perianus

Rydburg Milkvetch

Arctomecon humilis

Bearclaw Poppy

Pediocactus sileri

Siler Cactus

Sclerocactus wrightii

Wright's Fishhook Cactus

Sclerocactus glaucus

Uinta Basin Hookless Cactus

Echinocereus engelmannii

Purple Hedgehog Cactus

var. purpureus

Echinocereus triglochidiatus

Spineless Hedgehog Cactus

var. inermis

Phacelia argillacea

Clay Phacelia

UNPS FEBRUARY MEETING CONTINUED

In addition, there are 6 more plant species proposed for listing:

<u>Astragalus montii</u>	Heliotrope Milkvetch
<u>Asclepias welshii</u>	Welsh's Milkweed
<u>Primula maguirei</u>	Maguire's Primrose
<u>Townsendia aprica</u>	Last Chance Townsendia
<u>Erigeron maguirei</u> var. <u>maguirei</u>	Maguire's Daisy
<u>Cycladenia humilis</u> var. <u>jonesii</u>	Jones Cycladenia

These plants are all rare (there are only 5 known individuals of Erigeron maguirei var. maguirei) and they are all faced with imminent threats of extinction. Some are over coal deposits or oil shale, and others are threatened by roads or grazing. Recreational off-road vehicle (ORV) use is a real problem with some of the plants. Besides threats from development, motorcycle races have been run right through the Bearclaw Poppy stand near St. George (this is probably Utah's most endangered plant), and Welsh's Milkweed is found only on the Coral Pink Sand Dunes, an area actually set aside for ORV use. The most shameful threat of all is, ironically, from plant lovers themselves--all the listed Cactus species are threatened by commercial and private collection.

The solution???

Education is the only way to prevent more species from extinction, according to Tony Frates, Conservation Committee Chair. The Endangered Species Act is stronger now and has more support than ever, and the Federal government is committed to protect these plants and their environment, but people must become more educated about the problem.

We as individuals can help by continuing to support the Utah Native Plant Society and its efforts for conservation. Help save a plant today! Call Tony Frates at 532-1922 and become actively involved in the Conservation Committee!

FROM THE MULCH PILE
RARE REWARDS FOR RARE NATIVES
by Tony Frates

The American Horticultural Society (AHS) is offering rewards for the rediscovery of U.S. native plant species that have been classified by the U.S. Fish and Wildlife Service (USFWS) as potentially extinct. Officially dubbed the Wildflower Rediscovery Project, the rewards are being funded by sales of AHS's calendars depicting rare plant species.

Three Utah natives are on the list being distributed by AHS, including:

Astragalus lenticinuosus var. ursinus (Bear Valley Milkvetch)
Cuscuta warneri (Warner's Dodder)
Najas caespitosa (Fish Lake Naiad)

RARE REWARDS CONTINUED

The reward offer is not limited to species in the "may be extinct" category, however. Newly discovered populations that will help preserve rare species, varieties or subspecies also qualify. Some Utah natives are so rare that a discovery of any new population would automatically operate to greatly enhance the species' chances of survival (e.g. Phacelia argillacea and Erigeron maguirei var. maguirei).

In order to qualify, the following conditions must be observed:

1. No part of the plant species can be removed (even for an herbarium specimen).
2. No disturbance can exist in the immediate area of discovery.
3. A professional taxonomist must verify the finds. His/her verification must be accepted by the USFWS or by a "national" conservation organization.

An individual may be rewarded up to \$100. Non-profit organizations may receive up to \$250 if a member or "friend" first discovers a population of plant thought to be extinct. To claim the reward, a minimum of three photographs showing species and its habitat, along with information concerning location and population demographics must be sent to:

American Horticultural Society
Wildflower Rediscovery Project
P.O. Box 0105
Mount Vernon VA 22121

The Utah Native Plant Society encourages all of its members and friends to search (carefully) for Utah rare plant populations. Report any finds to the Rare and Endangered Plants Committee directly or via this newsletter.

A WILDFLOWER "DETOUR" by Barbara Halliday

If the sight of a Bur Buttercup in full bloom--all 3/8 inch of it--just doesn't satisfy your yearning for Spring Wildflower blossoms, the best solution this time of year may be to head south--even beyond Utah's borders. A trip down Interstate Highway 15 from the Utah/Arizona border to Las Vegas, Nevada in late March or April can take you to some rewarding, if less well known wildflower displays.

Soon after leaving Utah, I-15 begins its descent of the Virgin River Canyon and the roadside flora reflects the lower elevation (2,200 feet)--Barrel Cactus (Ferocactus acanthodes) can be seen on the south facing ledges and Joshua Trees (Yucca brevifolia) appear, perhaps already displaying their creamy white blossom spikes. Midway through the canyon, Arizona has provided a roadside rest (and BLM Campground) which is also easy access to this area from the freeway. By turning right onto a gravel road at this exit you can explore the side canyons

WILDFLOWER DETOUR CONTINUED

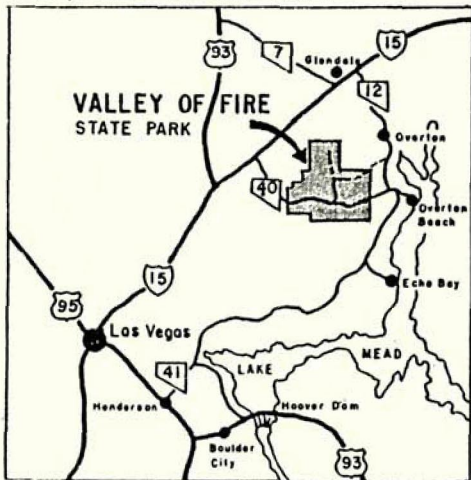
(Cedar Wash)--we've found this to be a good area for early bloomers.

If weather conditions have conspired to create a good desert blooming year, the sandy roadsides just east of Littlefield, Arizona should provide a fine display of large white Evening Primroses (Denothera deltoides) and Pink Sand Verbena (Abronia villosa). Don't miss the opportunity to stop and see Art Coombe's Cactus Gardens at the "Desert Botanical Garden" in Littlefield. Everyone welcome (whether there's anyone home or not)!

Near Mesquite we've found Denothera brevipes, a small yellow Evening Primrose; the Desert Gold Poppy (Eschscholtzia glyptosperma) and a showy deep purple Phacelia (Phacelia crenulata).

Instead of following I-15 on to Las Vegas, you can find outstanding display of early spring desert wildflowers by turning off on State Highway 12, making a detour through Overton, Nevada, the Valley of Fire State Park and the North Shore Road by Lake Mead--this route will bring you out at Henderson, Nevada--about 13 miles south of Las Vegas.

Overton is worth a stop to visit the "Lost City Museum" which houses a large collection of artifacts from two prehistoric groups who inhabited the Valley of Fire--the Basketmakers and later, the Anasazi Pueblo farmers. The Museum's exhibits will give you an appreciation of how these earlier people utilized the native plants of the area.



Valley of Fire State Park lies a few miles south of Overton and the protection it provides to plant and animal life is quite evident, for once within the park boundaries, wildflower blossoms become more and more prevalent. In mid-March to mid-April we've found showy displays of both the large White Dune Primrose (Denothera deltoides) and the Yellow Desert Primrose (Denothera primiveris). Dr. Edmund Jaeger in his Desert Wild Flowers says "primiveris" means "first-spring" and to winter bound wildflowers seekers this is indeed a "first spring" worth traveling south to find!

This park has several good paved roads leading to petroglyphs, a display of petrified wood logs and the vivid eroded sandstone formations that give the park its name. The Phacelia fremontii, a large blue "fiddleneck" Phacelia, various Astragalus species, Sand Verbena (Abronia villosa) and splashes of magenta pink from the tiny but prolific Purple Mat (Nama demissum) should greet you along these roads.

At Valley of Fire Park you've descended to approximately 1200 feet elevation and are almost approaching the "low desert" zone. The plant community here is dominated by the widely spaced Creosote Bush (Larrea divaricata), Burro Bush

WILDFLOWER DETOUR CONTINUED

(Franseria dumosa) and White Brittle Bush (Encelia farinosa). In summer, daily temperatures will usually exceed 100 degrees and can reach 130 degrees, but in March and April it's more apt to be 75. Beavertail and Cholla Cactus (Opuntia ssp.) are common and by mid-April some Beavertail as well as the Brittle Bush should be in bloom.

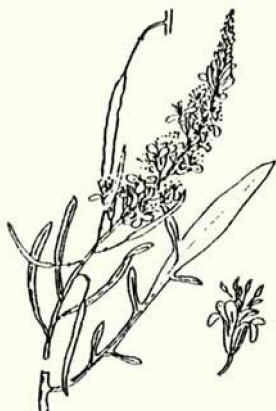
You could return to I-15 from the Park by another state highway (40) but the far more scenic route is to follow the North Shore Road which parallels the northern edge of Lake Mead for about 40 miles. This area is within the Lake Mead National Recreation Area and along the road are several accesses to the lake as well as a lovely desert oasis where you can enjoy the sight (and feel!) of a warm spring-fed lake. Palm trees and Tamarix have taken advantage of the water source here. The lake used to shelter desert pupfish, but unfortunately vandals planted non-native tropical fish which took over the territory.

Much of the area along the North Shore Road "sparkles" from exposed gypsum deposits. We've found an unusual and very lovely low-growing Blazing Star (Mentzelia tricuspis) in these gypsum washes. You can also find the stunning Yellow Desert Poppy (Arctomecon californica), a close relative of the endangered White Bearclaw Poppy found near St. George, Utah. Between early March and early May you should also find fine displays of Prince's Plume (Stanleya pinnata), Indigo Bush, an eye-popping giant Sunflower (Enceliopsis argophylla), Desert Larkspur (Delphinium parishii), and in good years, a carpet of yellow provided by the Desert Dandelion (Malacothrix glabrata).

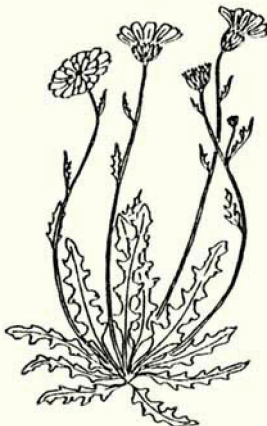
Taking this "detour" enroute to Las Vegas would add about 32 miles to your trip, but I warn you that it could add hours to your travel time if you become intrigued by the attractions along the way. However, these will be hours well spent if you find Spring blossoming weeks before she will reach northern Utah!

Helpful guides to take along:

Desert Wildflowers, by Edmund C. Jaeger
Desert Plants of Utah, USU Extension Service
Sunset Travel Guide to Nevada, Lane Publishers



Stanleya pinnata



Malacothrix

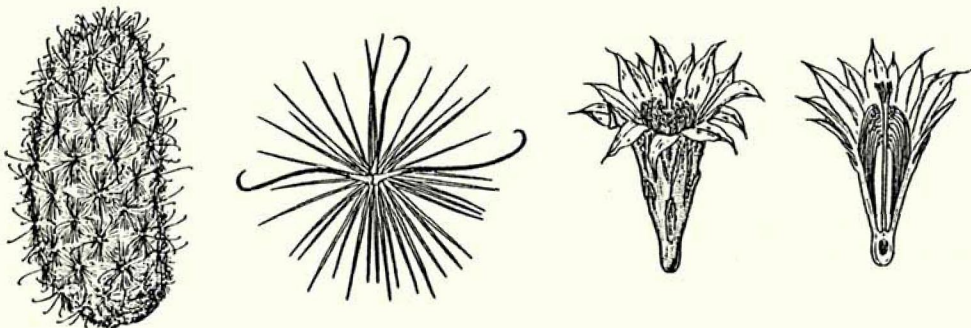


Abronia

WHEN UTAH'S CACTI BLOOM:
A LONE MAMMILLARIA
by Marv Poulson

Early spring in Utah's little corner of the Mojave Desert in Southern Washington County brings the first breaths of warmth to awaken desert life. Cacti have a reputation for early rising and one of the earliest is our only native Mammillaria cactus.

As a hot desert species, Mammillaria tetrancistra grows in Utah at the northern extreme of its Mojave Desert range. Generally favoring rocky and sandy soils, these plants can be found in the valleys and hills around St. George, on the flanks of the Beaver Dam Mountains in southwestern Washington County, as well as in the Virgin Mountains across the stateline in Arizona.



At first sight, the M. tetrancistra is easily recognized with its erect, usually single stemmed habit and persistent red fruits which leave scars on the tubercles below the top of the plant. The common name of Fishhook Cactus comes from the 1-4 sharp, hooked central spines spreading from each areole which also sports a dense cluster of 30-46 radial spines that form a net with neighboring spines to nearly obscure the stem. The rose-pink to purple flowers emerge below the top of the stem on "old" growth tubercles in late March or early April and set their distinctive red, fleshy fruit by May.

Henry Englemann of the Missouri Botanic Garden first described Mammillaria tetrancistra in 1852 from collections made by Dr. Charles C. Parry during 1849 and 1850 in Southern California. The known distribution of the species was extended into Utah when Dr. Parry found it growing near St. George in 1874.

For further information take a look at Lyman Benson's book The Cacti of the United States and Canada, published by Stanford University Press in 1982, or check-out Dr. Welsh's "Utah Flora: Cactaceae" article in the January 1984 issue of Great Basin Naturalist. Benson's book is loaded with photographs and illustrations, but either of these references will be useful for field identification.

COMING NEXT MONTH

Wildflower Seeds From Utah Native Plant Society

Learn the latest techniques of Wildflower propagation from seed. Also, a complete listing of seed available through the Utah Native Plant Society-- over 55 species!

WELCOME NEW MEMBERS

UNPS activities in the last month, including the Tribune Home and Garden Show (where we won a blue ribbon for our display) and increased advertising and getting the word out in general, have produced a wave of new memberships. We would like to welcome new members:

Carleton Detar - Salt Lake City
Steven Elam - Murray
Warren G. Eyre - Pleasant Grove
Pat Hardin - Salt Lake City
A. Ty Harrison - Sandy
June S. Isenberg - Salt Lake City
Karen Marshall - West Valley City
John and Bonnie Mitchell - Sandy
Dr. and Mrs. Stan Mulaik - Salt Lake City

We now have over 200 members across the United States!

Members are encouraged to submit original articles to the Sego Lily Newsletter. Please state if articles have been published elsewhere and need permission of the publisher. Drawings with or without articles are also welcome. The editor reserves the right to edit as needed and to select suitable articles for publication.

The Sego Lily is published nine times a year. Copyright Utah Native Plant Society, 1985. Deadline for submission of articles is the 10th of each month of publication.

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c/o Pam Poulson
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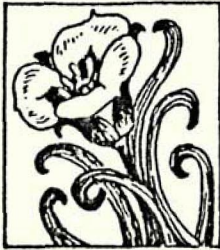
() Please send a complimentary copy of the Sego Lily Newsletter to the above.

Check membership category desired:

() Individual.....\$8.00	() Student/Senior.....\$4.00
() Family.....\$12.00	() Life.....\$250.00
() Supporting.....\$25.00	() Corporate.....\$25.00

or greater

Please enclose check made payable to Utah Native Plant Society and send to:
June Sullivan, Treasurer, 717 South 800 East, Salt Lake City, Utah
84102.



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 8; Number 3

April 1985

WHAT'S GOING ON?

April 24
Wednesday
6:30 p.m.

UNPS EXECUTIVE BOARD MEETING - State BLM Office, 3rd South and State Street Building, Director's Office, 4th Floor. State Chapter Officers, Committee Chairs. Interested Membership welcome.

April 25
Thursday
7:30 p.m.

UNPS Salt Lake Chapter Meeting. "Utah's Best Kept Secret: The State Arboretum at Red Butte". by Dick Hildreth, Director and Mary Pat Matheson, Conservatory Manager. Come and see what's really going on in the mouth of Red Butte Canyon--Utah's own Botanical Garden! Room 125, Highland High School.

April 25
Thursday
6:30 p.m.

UNPS Cache Valley Chapter Organizational Meeting. Join UNPS members in the Cache Valley area to organize a new Chapter! Pot Luck Dinner and friendly conversation. John and Leila Shultz' home at 623 Canyon Road, Logan. For further information, call Kate Dwire, 753-6436 or Wayne Padgett, 753-3854.

May 1
Wednesday

The Abandoned Mine Technology and Design Reclamation Workshop. Hosted by the University of Wyoming. To be held in Casper, Wyoming. For further information, call Kathy Mutz, 538-5340.

May 4
Saturday
Tentative

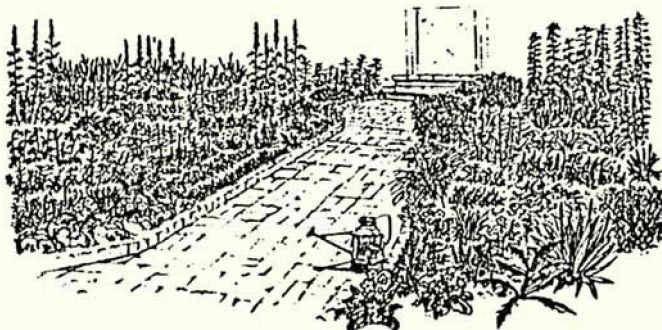
Endangered Bear Claw Poppy Field Trip. An informal field trip, organized by the Salt Lake Chapter to see the most endangered of Utah's wildflowers in bloom near St. George. Make arrangements for a weekend trip on short notice and/or carpooling with Pam Poulson, 581-5322 (days) or Dave Wallace, 466-2719 (eves).

May 6
Monday
5:30 p.m.

Rose Care: Mulching, Fertilizing and Pruning. State Arboretum of Utah Spring Workshop. Larry Sagers, USU Extension, W. Richard Hildreth, Arboretum and Mary Pat Matheson, Arboretum. State Arboretum Center. Call 581-5322 for reservations (\$3.00).

May 11
Saturday
9:00 a.m.-
2:00 p.m.

Perennial Workshop. State Arboretum of Utah Brownbag Workshop. Learn techniques and advantages of Perennial Gardening through hands-on experience. Gardening attire and brownbag lunch recommended. State Arboretum Center. Call 581-5322 for reservations (\$3.00).



May 13
Monday
5:30 p.m.

Pruning Trees and Shrubs. State Arboretum of Utah Spring Workshop. Larry Sagers, USU Extension, W. Richard Hildreth, Arboretum and Mary Pat Matheson, Arboretum. State Arboretum Center. Call 581-5322 for reservations (\$3.00).

May 18
Saturday
9:00 a.m.-
3:00 p.m.

Plant Sale. State Arboretum of Utah 6th Annual Plant Sale and Green Spree. Unusual plants for house, green house and garden. Will be many native plants for sale this year, including some flowering perennials. UNPS will provide a display, question answers and membership drive. If you snooze, you lose!

June 8-
June 9
Saturday-
Sunday
All Day

Utah Basin and Range Seminar, 1985. This seminar, sponsored by the Utah Audubon Society, provides participants an opportunity to learn about the Great Basin environment, which comprises much of western Utah. Primitive camping at Simpson Springs BLM Campground. Cost is \$20. For registration or further information, call Rick Van Wagenen at 467-5758.

Anytime

Birdline. Call 530-1299 for the latest hot bird sightings in Utah.

Anytime

Wildflower Hotline. Reporting timely tips on where to see the best bloomin' displays in Utah. Call anytime, 24 hours a day, 7 days a week from April 1 through October 31, 581-4969.

UNPS SALT LAKE CHAPTER MEETING - MARCH
MAKING THE PICTURE MATCH THE MEMORIES
by Janet Williams

A large group (over 50) of amateur photographers and wildflower enthusiasts gathered Thursday, March 28 at Highland High to hear Marv Poulson on "Making the Picture Match the Memories." The large response to the topic and speaker indicates a widespread interest in photographing wildflowers in the field. Many non-members were drawn to the meeting by a free advertisement that appeared in local newspapers and was broadcast by a few radio stations.

Marv emphasized that while our minds can imagine and filter out what we don't want to see, film will reproduce everything present, giving attention equally to whatever is there. A key element in a good photo is to edit the image and focus on the field of view you want to record, filtering out the rest. There is a need to control, or at least utilize, various aspects of the subject and setting. Marv discussed these as composition, background, depth-of-field, perspective, scale, lighting and motion.

Composition is how you frame your picture for clear identification or for desired effect. Balance it so it's pleasant to your own eye, remembering that odd numbers are usually more appealing. Perhaps you will decide to take several shots, coming in closer each time, one of the plant in its larger habitat, then the entire plant, and then move in for close-ups. This helps you get to know your subject and you can take a better picture if you do.

Care must be taken so the background doesn't overpower the subject. Crouch down or have a partner cast a shadow, or use a dark colored cloth or hat to produce a shadow.

Selectively focus. You can adjust the f-stop and focus to purposely throw the background and/or foreground out of focus. A 35 mm camera is a great convenience because you can see what you're going to get before you shoot, and can choose your depth of field appropriately.

Try a variety of angles and choose the most effective point of view.

It may be important to have a secondary element in the photo to indicate scale. Contrive it if necessary, and use a natural element like a blade of grass or pine needles to show relative size.

To augment lighting, try a white card or aluminum foil wrapped around a flat piece of cardboard to throw light where needed by reflection. Or use a cloth background to give further control.

A tripod is a great aid and considered necessary to eliminate "trembling hands" at slow shutter settings. It's also a boon after setting up your shot while you wait for the right conditions--a cloud to pass, a bee to land or the wind to die down. If you don't have a tripod, use a beanbag or sandbag, rocks, wood, vegetation, the ground or the toe of your shoe, and a self timer or cable release. You can also use subject crutches or braces to control motion of the subject

UNPS Monthly Meeting Continued

caused by wind. Use a clamp or forked branch to brace the subject against movement. Or you can set up some kind of a wind break. Marv emphasized that you should use what you have at hand. "If it's complicated or expensive, there's probably a better way to do it anyway," he said. He noted that while the temptation is to be equipment oriented, what you do with what you've got is more important.

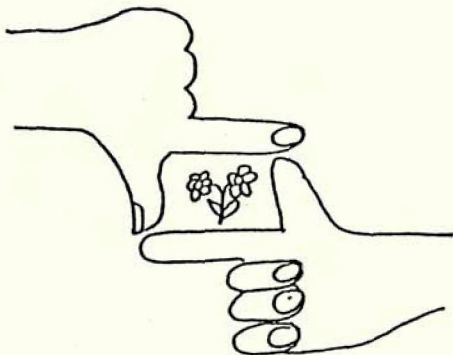
Keep a log in the field of what you photograph, even if you can't identify it. Include the location, circumstances, setting, camera settings, etc..

Practice, experiment, contrive, don't burden yourself with things you're not going to use, and have fun with it. Look through the viewfinder without film and experiment. "If it looks good to you, as far as I'm concerned, it's right," said Marv.

He followed his discussion with a slide show presentation of wildflower shots which demonstrated the principles he had outlined. The appreciative audience responded with lots of questions and comments.

WILDFLOWER PHOTOGRAPHY IN UTAH SUMMING IT UP!

by Glen Halliday



As Barbara and I head into our last few months as Utah Residents--before retirement--it is appropriate to share our experiences. They are just that, our experiences. We are amateurs--both in photography and in our knowledge of the plant life. But being amateurs, we go where we want, when we want; and we have the privilege of limiting our hunt. We go for the beautiful, or unusual--ignoring that which may be valid subjects for the professional. We thank the professionals, they are essential; but we are thankful for being amateurs. We'd hate to think of our experiences as work in any way.

1. What equipment is needed?

When we hike, we carry a 35mm single lens reflex camera--one set up for scenery (wide-angle lens) and one for close-up (macro lens) photography. The cameras are compatible for backup purposes. We carry at least one extra lens (a moderate telephoto), extension tubes and bellows extension for closer close-ups, at least one electronic flash unit, and a small tripod. Of course we carry spare batteries, an extra PC cord, and film. All is packed in a daypack--fitted with foam.

Wildflower Photography in Utah Continued

For more extensive trips--by car--we carry two of everything plus a heavier tripod. This is a little extravagant--but better than driving 1,000 miles and losing good shots because of equipment problems.

2. What about notes and guide books?

It is essential that one takes good notes--both about the picture (magnification, exposure, etc.) and about the subject. The best notebook is a bound book; however, it's awkward to carry so we generally use a pocket-sized spiral-bound memo book.

For guides, we carry Floras of the area in the car. Sometimes we carry handbooks on the trail. Generally though, we rely on our notes and the photos themselves for detailed identification. This is not the recommended practice, however; one should identify in the field while it's in front of you. A wrinkle we've recently used is taking notes via a microcassette recorder. It's much faster than writing, but a little chancy in case anything goes awry.

3. Hints for Photos?

Always take at least two views--one of the plant as a whole and one close-up of the flower (or seed, or whatever you're after). It is often wise to take more; some of our best are series of three or four shots of increasing closeness. If anything is especially interesting or diagnostic--take and illustrative photo of that part.

Get close--especially to the flowers. Little is duller than a shot where the subject is a minuscule part of the picture.

Learn to use electronic flash. This is almost required. Many plants grow in shady areas where one cannot get enough light otherwise. Days are often cloudy with the same result. Breezes become anything but gentle as soon as one sets up a camera, and the plants bob back and forth too quickly for normal exposures. Finally, for close-ups--with magnification at 1/2 lifesize or closer, sunlight is rarely enough for handheld exposures.

Shoot 'em when you see 'em. Don't assume there'll be better specimens ahead, or that they can be taken on the way back. We've lost many potentially good shots that way.

Be extravagant on use of film. Take multiple shots, bracketing exposures when lighting is tricky, and getting different views of a flower. Take shots both with sunlight and flash. If you take more pictures, you'll get more winners.

Watch subject composition, and especially watch the background. It helps to "cultivate" the area if needed, eliminating extraneous blades of grass or whatever. Sometimes Mother Nature requires a little help in artful placement of a rock or piece of bark, etc..

4. Where to go, when?

Fortunately, one does not need much guidance here. Utah has an abundance of places and times for wildflower hunting. But, wherever one goes, places along the way are likely to be as interesting as the destination. If in a car, stop frequently and explore the area--it is amazing what is near roadsides but cannot be seen from the car.

Wildflower Photography in Utah Continued

I'll close this article by remembering a few special places, times, and flowers we've enjoyed and photographed in Utah.

The Fairy Slipper Orchid (Calypso bulbosa) at Moon Lake and Christmas Meadows in the Uintahs--late Spring or early Summer.

Great populations of Easter Bells or Dogtooth Violet (Erythronium grandiflorum) from lower Millcreek Canyon near Salt Lake City to Bald Mountain Pass in the Uintahs, as soon as the snow melts.

Large mounds of Claret Cup Cactus (Echinocereus triglochidiatus) near Rockville in mid-Spring.

Brilliant, almost fluorescent, displays of Early Indian Paintbrush (Castilleja chromosa) among the sagebrush south and west of Salt Lake Valley, in early Spring.

Also, its cliff hanging relative, the Slickrock Paintbrush (Castilleja scabrida) on the sandstones of Zion National Park.

Finally, the magnificent groupings of the White Columbine (Aquilegia coerulea) in our mountains in mid-Summer.

Obviously, this is not an exhaustive list, but it should be enough to make you get out your camera gear, get it all ready and tested and start planning your Spring and Summer trips and hikes!

WILDFLOWER WATCH

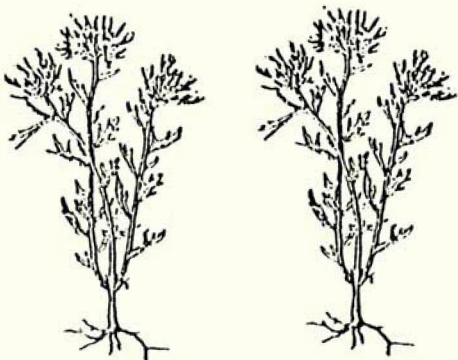
by Pam Poulson

In the southwest portion of Utah, the Joshua Trees (Yucca brevifolia) are finished; however, two other Yuccas are going strong. Spanish Bayonet (Yucca angustissima) and Mohave Yucca (Yucca baccata) are just coming into bloom. So are the Pricklypear Cacti (Opuntia basilaris). As you wander between these larger plants, look for smaller wildflowers: Woolly Daisy (Eriophyllum ssp.) both in white and yellow, Desert Marigold (Baileya multiradiata), Pink Sand Verbena (Abronia villosa), Desert Globemallow (Sphaeralcea ssp.), Desert Evening Primrose (Oenothera ssp.), Annual Monkeyflower (Mimulus parryi), Scorpionweed (Phacelia ssp.), Desert Chichory (Rafinesquia neomexicana), Indian Paintbrush (Castilleja ssp.), Pepperweed (Lepidium ssp.), Phlox (phlox ssp.), and Pink Bentstem Mariposa or Segó Lily (Calochortus flexuosus). Keep your eyes open for the spectacular Purple Torch Cactus (Echinocereus engelmannii) and an early Claret Cup Cactus or two (Echinocereus triglochidiatus).

Zion National Park is a veritable garden. Visitorship is slow right now, so a visit would be pleasant and unharried. Look for Wallflower (Erysimum ssp.), Creeping Oregon Grape (Mahonia repens), Early Mustard (Draba ssp.), Miner's Lettuce (Montia perfoliata), Desert Phlox (Phlox ssp.), Wild Parsley (Cymopterus ssp. and Lomatium ssp.), Utah Penstemon (Penstemon utahensis),

Wildflower Watch Continued

Indian Paintbrush (Castilleja ssp.), Prince's Plume (Stanleya pinnata), Globemallow (Sphaeralcea ssp.), Fleabane Daisy (Erigeron ssp.), Purple Torch Cactus (Echinocereus engelmannii), Claret Cup Cactus (Echinocereus triglochidiatus), Utah Serviceberry (Amelanchier utahensis), Pepperweed (Lepidium ssp.), Milkvetch (Astragalus ssp.), and Blackbrush (Coleogyne ramosissima). Look in the hanging gardens for Shooting Stars (Dodecatheon pulchellum).



The Canyonlands portion of the state is a couple of weeks behind Dixie. Look for Indian Paintbrush (Castilleja ssp.), Yellow Cat's Eye (Cryptantha confertifolia), Early Mustard (Physaria newberryi), Hairy Evening Primrose (Oenothera trichocalyx), Filaree (Erodium cicutarium), Fremont Barberrry (Mahonia fremontii), and Cliffrose (Cowania mexicana). Milkvetches (Astragalus ssp.) are so dense in some places along the road, that they form a carpet of solid purple. Yellow Bee Plants (Cleome lutea) and Larkspur (Delphinium ssp.) are just barely coming on.

The Uinta Basin and the Great Basin usually have about the same wildflowers and blooming season. Both are just entering Spring blossoming, but the Uinta received more precipitation this past winter and consequently has a little bit better wildflower blooming to report. Look for Milkvetch (Astragalus ssp.) and White Evening Primrose (Oenothera caespitosa). Stay tuned within the next month for Sego Lily (Calochortus nuttallii), Larkspur (Delphinium spp.), Globemallow (Sphaeralcea ssp.), Fleabane Daisy (Erigeron ssp.), Indian Paintbrush (Castilleja ssp.), White Sand Verbena (Abronia fragrans), and Scorpionweed (Phacelia ssp.).

Along the Wasatch Front, a good indicator for the beginning of mountain wildflower season is to watch for the blossoming of Apricot trees (Prunus ssp.). As the Apricots bloom, wildflowers are coming into bloom at foothill elevations and at the mouths of canyons. Look in canyon mouths and foothills below 6000'. In the Scrub Oak (Quercus gambellii) and Pinyon/Juniper (Pinus monophylla/Juniperus osteosperma) zones, look for Creeping Oregon Grape (Mahonia repens), Dogtooth Violet (Erythronium grandiflorum), Forget-me-nots (Wackelia ssp.), Woodland Star (Lithophragma ssp.), Spring Beauty (Claytonia lanceolata), Wild Parsley (Cymopterus ssp. and Lomatium ssp.), Yellow Bells (Fritillaria pudica), Arrowleaf Balsamroot (Balsamorhiza sagittata), Senecio (Senecio ssp.), Waterleaf (Hydrophyllum ssp.), Foothill Death Camas (Zygadenus paniculatus), Wild Sweet Pea (Lathyrus ssp.), and Milkvetch (Astragalus ssp.). If you are very lucky, you may find Steer's Head (Dicentra uniflora) among the Sagebrush (Artemisia ssp.).



Wildflower Watch Continued

Higher up the mountain along the melting snowbanks, look for Dogtooth Violet (Erythronium grandiflorum), Spring Beauty (Claytonia lanceolata), Indian Potato (Orogenia linearifolia), and Snow Buttercup (Ranunculus jovis).
Wildflower Watch Continued

In the canyons, the native Maples, Box Elders (both Acer spp.), Cottonwoods (Populus spp.) and Willows (Salix spp.) have put out their inconspicuous flowers. Within the next two weeks, some of the more showy trees and shrubs will be blooming. Look then for Golden Currant (Ribes aureum), Red Osier Dogwood (Cornus stolonifera), Serviceberry (Amelanchier alnifolia), Chokecherry (Prunus virginiana var melanocantha), and Mountain Ninebark (Physocarpus spp.).

If you have hayfever now, blame it on the blooming of wind pollinated trees in the landscapes. Maple (Acer spp.), Ash (Fraxinus spp.), Willow (Salix spp.), Birch (Betula spp.), and Oaks (Quercus spp.). Hang in there, it's almost over. Then we'll find out if we are allergic to grass pollen as well!

UTAH NATIVES FROM SEED

by Jennifer Harrington

Landscaping your yard with natives can be frustrating. Although many native plants are becoming available at the local nurseries and through the mail, many more that would seem to be good landscape prospects are not available. The solution? Try growing them from seed. The Utah Native Plant Society offers seeds for sale.

About half of our seed is collected from the wild by members. The other half has been purchased from wholesale growers. Seeds are supplied in 3" x 5" packets of at least 50 seeds, unless otherwise noted. Following is an availability list/order blank for your convenience.

<u>Quantity</u>	<u>Botanical Name</u>	<u>Common Name</u>
_____	<u>Agoseris</u> spp.	Mountain Dandelion
_____	<u>Alisma</u> spp.	Water Plantain
_____	<u>Allium accuminatum</u>	Wild Onion
_____	<u>Allium geyeri</u>	Wild Onion
_____	<u>Amelanchier alnifolia</u>	Serviceberry
_____	<u>Anemone</u> spp.	Windflower
_____	<u>Aquilegia coerulea</u>	Blue Columbine
_____	<u>Arnica</u> spp.	Arnica
_____	<u>Artemisia papposa</u>	Fuzzy Sagebrush
_____	<u>Astragalus asclepiodea</u>	Milkweed Milkvetch
_____	<u>Astragalus bisulcatus</u>	Royal Milkvetch
_____	<u>Astragalus hamiltonii</u>	Hamilton's Milkvetch
_____	<u>Astragalus racemosus</u>	Milkvetch
_____	<u>Astragalus saurinus</u>	Dinosaur Milkvetch
_____	<u>Atriplex corrugata</u>	Saltbrush

Utah Natives from Seed Continued

_____	<i>Baileya multiradiata</i>	Desert Marigold
_____	<i>Balsamorhiza sagittata</i>	Arrowleaf Balsamroot
_____	<i>Caulanthus crassicaulis</i>	Thickstem Wild Cabbage
_____	<i>Cercocarpus ledifolius</i>	Curleaf Mountain Mahogany
_____	<i>Chaenactis douglasii</i>	Douglas Dusty Maiden
_____	<i>Chaenactis scaposa</i>	Dusty Maiden
_____	<i>Clematis hirsutissima</i>	Vase Flower
_____	<i>Clematis orientalis</i> (exotic)	Golden Virgin's Bower
_____	<i>Cleome serrulata</i>	Rocky Mountain Beeplant
_____	<i>Cryptantha breviflora</i>	Little Cat's Eye
_____	<i>Ephedra viridis</i>	Green Mormon Tea
_____	<i>Eschscholtzia californica</i>	California Poppy
_____	<i>Fallugia paradoxa</i>	Apache-plume
_____	<i>Gaillardia pinnatifida</i>	Blanket Flower
_____	<i>Gaillardia aristata</i>	Blanket Flower
_____	<i>Geum triflorum</i>	Prairie Smoke
_____	<i>Hedysarum boreale</i>	Northern Sweetvetch
_____	<i>Helianthella microcephala</i>	Lesser Royal Conehead
_____	<i>Linum lewisii</i>	Blue Flax
_____	<i>Lomatium dissectum</i>	Biscuitroot
_____	<i>Lupinus</i> ssp.	Lupine
_____	<i>Lupinus caudatus</i>	Tailcup Lupine
_____	<i>Oenothera hookeri</i>	Yellow Evening Primrose
_____	<i>Oenothera pallida</i>	White Evening Primrose
_____	<i>Penstemon cyananthus</i>	Wasatch Penstemon
_____	<i>Penstemon leonardii</i>	Penstemon
_____	<i>Penstemon moffattii</i>	Penstemon
_____	<i>Penstemon mueronatus</i>	Penstemon
_____	<i>Penstemon palmeri</i>	Palmer Penstemon
_____	<i>Penstemon platyphyllus</i>	Penstemon
_____	<i>Penstemon rydbergii</i>	Penstemon
_____	<i>Penstemon subglaber</i>	Penstemon
_____	<i>Phacelia campanularia</i>	Annual Blue Bells
_____	<i>Polygonum bistortoides</i>	American Bistort
_____	<i>Prunella vulgaris</i>	Self Heal
_____	<i>Purshia tridentata</i>	Bitterbrush
_____	<i>Rosa woodsii</i>	Woods Rose
_____	<i>Rudbeckia hirta</i>	Black-eyed Susan
_____	<i>Sphaeralcea coccinea</i>	Scarlet Globemallow
_____	<i>Sphaeralcea parviflora</i>	Small Flowered Globemallow
_____	<i>Stanleya albescens</i>	Princes Plume
_____	<i>Townsendia florifer</i>	Townsendia

Utah Natives from Seed Continued

Send one dollar (\$1.00) for each seed packet (check or money order) and self-addressed, stamped envelope to:

Jennifer Harrington
480 F Street
Salt Lake City UT 84103

Allow 4 weeks for delivery. Quantities are limited so we cannot guarantee orders.

How to Grow Your Native Plants from Seeds



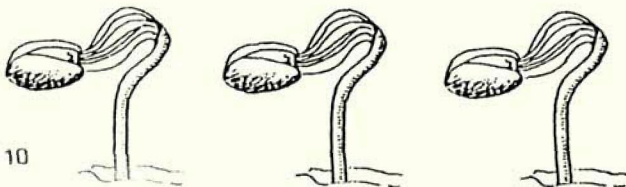
Now, a little information on how to have success with your wildflower seeds. For best success, sow them outdoors in the fall or, start them indoors in peat pots. Many wildflower seedlings do not like to be transplanted. The peat pot would be planted directly in the ground.

Step 1: Prepare the seed bed with a hoe and spade or with a rototiller for large areas. For most climates, work the soil to a depth of 5-6 inches; in dry climates (15" of annual precipitation or less) till only to a depth of three inches (this typifies most of Utah's Valleys). This will allow the sub-surface moisture to move upward in the soil via capillary action.

Step 2: Broadcast the seed evenly and press it firmly into the soil. Extremely small seed may be hand mixed with sand to ensure even distribution. Use a roller for large areas or just walk over the small seed plantings. Cover the seed no deeper than twice its diameter with soil. Mulch may be placed on top to a depth of 1/4 inch. It should be finely ground and weed free, ie. peat moss, or soil conditioner made from finely ground bark. This will protect the seed from wind and wildlife and will also help to keep the seed evenly moist.

Note: Each wildflower requires varying length of time to germinate. In general, the annuals germinate readily and will bloom the first year. Perennials may require longer to germinate and one or two years before producing flowers.

Step 3: Water the area thoroughly with a light gentle spray. Keep the area evenly moist, not wet, until the seedlings reach approximately three inches tall. The water applications should become less frequent as the plant matures. Once established, an occasional deep watering is all that will be required during long dry periods. Natural precipitation will be sufficient for many of the drought tolerant (desert) species. Over watering will promote leggy growth at the expense of blossoms.



Utah Natives from Seed Continued

Step 4: To keep competition from crowding the wildflower seedlings, weed out undesirable plants as they emerge. Be sure to recognize the difference between the weeds and the wildflowers to keep from weeding out the wrong ones.

Note: Steep slopes may be seeded with wildflowers for erosion control. Till the soil to the depth described above, if possible. Cover the slope with a single layer of rocks, between 1-2 inches in diameter. The wildflower seed may be broadcast directly into the rock area. The rocks help hold the seed in place, retain moisture, and protect the seed as it establishes. Water thoroughly using a gentle spray and proceed as described in step 3.

Step 5: Enjoy one of nature's finest gifts!

Note: Certain seeds require cold periods of varying lengths before they will germinate. To overcome this dormancy factor, two methods exist. In cold winter climates, like most of Utah, seed planted late in the Fall will be cold stratified naturally during the Winter months. When the soil warms up in the Spring, the seed will germinate.

Cold stratification may also be accomplished inside the refrigerator (not freezer!) Inside a plastic bag, place a mixture of barely damp peat moss, soil conditioner and perlite. Straight peat moss or soil conditioner will work, however, the former mixture is preferable. There should only be enough moisture in the organic material to squeeze out one drop of water maximum with your hand. Mix into the bag the seed which requires cold stratification. Close the bag with a tie or knot (or use zip-lock bags) and place in the bottom drawer of the refrigerator for the length of time described on the package (usually 4-6 weeks).

Open the bag every few weeks to allow some oxygen to get into the bag. If the seeds have started sprouting in the bag, it's time to get them planted (not all seeds will do this). If not, keep them in the refrigerator for the duration described on the packet. Time the stratification period so its completion is in the Spring after all danger of frost has passed (usually May 1 in most of Utah). At this time the seeds may be sown directly into the prepared bed. If it is too early to plant outside, the plants may be started indoors.

Good luck with your seeds!



GROWING YOUR OWN

WITH A LITTLE HELP FROM THE SISKIYOU RARE PLANT NURSERY

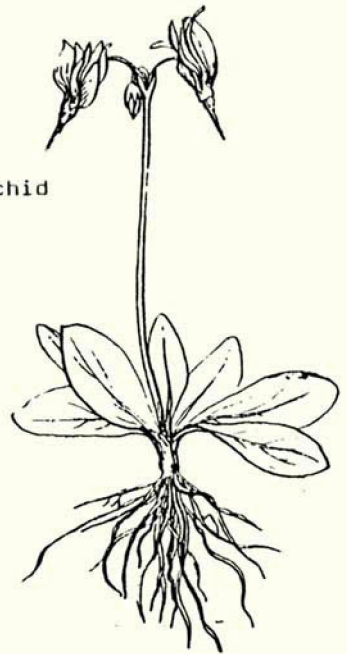
by Kathy Mutz

The Siskiyou Rare Plant Nursery of Medford, Oregon, is a storehouse of incredible plants. Proprietors of the 22 year old establishment are J. Cobb Colley and Baldassare Mineo. The nursery retails only plants, specializing in "alpines and other dwarf, hardy plants for the woodland and rock garden". Plants range in price from \$1.50 to \$22.50 for Frost's dwarf birch (Betula alba) ("to see it is to want it") with most plants in the \$2-\$4 range. The nursery grows natives of the West and exotics from throughout the world.

Several Utah Natives are available through Siskiyou that are available nowhere else, short of collecting. Their plants have the advantage over collected plants of being raised in captivity and are undoubtedly a better bet. Some of the hard to find Utah Natives are:

Antennaria microphylla - Pussytoes
Calypto bulbosa - Fairy Slipper Orchid
Clintonia uniflora - Clintonia Lily
Dodecatheon alpinum - Alpine Shooting Star
Epipactis gigantea - Giant Helleborine Orchid
Erigeron compositus - Lavender Fleabane
Gentiana calycosa - Blue Gentian
Goodyera oblongifolia - Rattlesnake Plantain Orchid
Kalmia polifolia - Bog Laurel
Leucocrinum montanum - Sand Lily
Lewisia rediviva - Bitterroot
Linnaea borealis - Twinflower
Mimulus cardinalis - Cardinal Monkeyflower
Mimulus lewisii - Pink Monkeyflower
Penstemon caespitosus - Creeping Penstemon
Petrophytum caespitosum - Rose Mat
Silene acaulis - Moss Campion
Viola adunca - Blue Violet

Adiantum capillus-veneris - Maidenhair Fern
Adiantum pedatum - Five-fingered Fern
Asplenium trichomanes - Maidenhair Spleenwort
Athyrium distentifolium - Alpine Fern
Chelanthus gracillima - Lipfern
Chelanthus siliquosa - Lipfern
Cryptogramma crispa - Parsley Fern
Cystopteris fragilis - Fern
Pityrogramma triangularis - Gold Back Fern



As you can tell by the list, they definitely specialize in alpine and scree loving species. Of course, many others of their plants are natives of the Northwestern States.

The catalog is organized into several sections including: Native Alpine Plants of the Pacific Northwest; Dwarf Conifers (over 50 taxa); Alpine, Rock and Woodland Plants; Bog Plants and Hardy Ferns. Hundreds of taxa in this sparsely illustrated catalog (drawings by Mineo) are listed alphabetically by their

Growing Your Own Continued

scientific name with an index of common names at the end. Brief descriptions of each taxon are a reasonable substitute for the lack of photos/drawings. Exciting descriptions include mature dimensions, habit, color, flowering season, foliage, ease of cultivation and other features important to the specialty garden. Comments on plants preferred and/or tolerated habitats and coded classification for sun, substrata condition and watering requirements help guide the novice.

The experience of the proprietors is offered through special easy-to-grow collections and several lists for "special purposes plants" (e.g. "Silver and Grey Foliaged Plants" and "Plants for Rock Garden Peat Beds"). The nursery also sells a variety of books on growing specialty plants.

Minimum orders of \$15 are shipped in Spring (March, April and May) and Autumn only and are guaranteed to arrive in good health. (No guarantee for successful growth). For a copy of their inspiring catalog, contact the Nursery:

Siskiyou Rare Plant Nursery
2825 Cummings Road
Medford, Oregon 97501
(503) 772-6846

WHEN UTAH'S CACTUS BLOOM
THE HEDGEHOGS ARE BLOOMING, THE HEDGEHOGS ARE BLOOMING
by Marv Poulson

Throughout Utah's rocky foothill and desert county, the warm lengthening days of May bring a burst of scarlet, magenta and purple tucked among the sun warmed rocks. These neat bunches of colorful brilliance roll forth across the state from their early beginnings our corner of the Mojave Desert in Washington County, eventually to be found gleaming in every part of the state by mid month. These rock loving early bloomers are some of our most prominent cactus which are affectionately called "hedgehog cactus" as their latin genus name suggests -- Echinocereus.



Echinocereus species in Utah are of two groups. The Echinocereus englemannii complex or "purple torches" reach their northern limits in central Utah while the Echinocereus triglochidiatus complex or "claret cups" occur in a much broader range. Generally, both groups favor rocky and sandy soils on the slopes of foothills and canyons.

Distinguishing between the two groups is quite easy when you have had the fortune to see them. The E. englemannii varieties with their magenta to purple flowers all tend to be much more up-right, fewer stemmed with longer straight needles than the scarlet, cup-shaped flowered and ground hugging, clumping, mounding and multistemmed E. triglochidiatus varieties.

UNPS Sego Lily
c/o Pam Poulson
3631 South Carolyn Street
Salt Lake City UT 84106

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Members are encouraged to submit original articles to the Sego Lily Newsletter. Please state if articles have been published elsewhere and need permission of the publisher. Drawings with or without articles are also welcome. The editor reserves the right to edit as needed and to select suitable articles for publication.

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MEMBERSHIP APPLICATION

(annual membership from date of receipt of fee)

() New Member () Renewal () Gift

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() Please send a complimentary copy of the Sego Lily Newsletter to the above.

Check membership category desired:

- | | |
|----------------------------|-------------------------------|
| () Individual.....\$8.00 | () Student/Senior.....\$4.00 |
| () Family.....\$12.00 | () Life.....\$250.00 |
| () Supporting.....\$25.00 | () Corporate.....\$25.00 |
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Please enclose check made payable to Utah Native Plant Society and send to:

June Sullivan, Treasurer, 717 South 800 East, Salt Lake City, Utah 84102.



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 8; Number 4

May/June 1985

WHAT'S GOING ON?

July 13 Field Trip: Wildflowers of the Uintas. Meet at the Kamas Ranger Saturday District Office in Kamas. Cool off with a leisurely stroll through the wildflowers. Call Alyce Hreha for reservations or further information, 484-4255.

July 17 Arboretum Tree Walk. "New Trees for Utah Landscapes" with Dick Wednesday Hildreth, Director of the State Arboretum of Utah. Meet on 7:00 p.m. the steps of the Museum of Natural History, University of Utah.

July 18 Arboretum Brown Bag Tour. Repeat of above. meet on the steps Thursday of the Museum of Natural History, University of Utah. For 12:00noon further information, call 581-5322.

August 3 Utah Audubon Society First Saturday. Wildflowers in Albion Saturday Basin with Pam Poulson. Meet at 9:45 at the Sugarhouse Garden 10:30 Center if you want to car pool or meet at 10:30 at the mouth of Little Cottonwood Canyon. For further information call Mary Noonan, 582-5454.

August 22 Mushrooms of Utah. SLC monthly meeting. Familiarize yourself Thursday with Utah's fungal flora just before we hit the woods to collect. 7:30p.m. Our favorite fungus fanatic, Frank Anderson, will be our guest speaker. Meeting place to be announced. For further information call Dave Wallace, 466-2719.

August 24 Mushrooms of the Uintas Field Trip. Our big annual event. An all day field trip mushrooming in the Uintas, topped by a picnic feast. For further information, call Alyce Hreha, 484-4255.

Coming Field Trips!!
Wildflowers of Albion Basin - Early August
Seed Collecting in the Wasatch - Early September
Annual Native Plant Sale - Mid September

Statewide Annual Meeting - Late September

Anytime Wildflower Hotline. Reporting timely tips on where to see the best bloomin' displays in Utah. Call anytime, 24 hours a day, 7 days a week through October 31. Phone number (801) 581-5322.

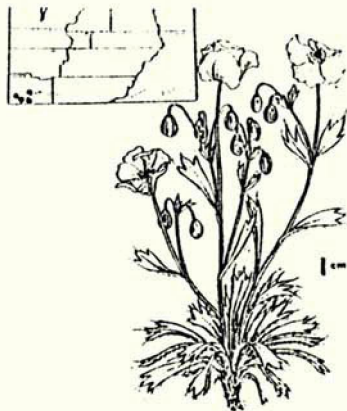
BEARCLAWS AND MOTORCYCLES - A FIRSTHAND LOOK
by Dave Wallace

The UNPS sponsored field trip on May 4, to visit the rare Bearclaw Poppy (*Arctomecon humilis*) in bloom was quite a success. A number of people from the St. George area came out to learn more about their own endangered plant, an encouraging sign of local support. We even signed up a new member on the spot!

We met Kevin Carter from the State Division of Lands at the Bloomington exit on Saturday morning, and he led us to the monitoring site a few miles away.

The Poppy only grows on the Moenkopi formation just south of St. George. These gypsum hills also are the favorite habitat of local motorcycle riders, and the growing population and development of the area are putting additional pressure on the plant.

The first thing the group saw as we arrived at the site was the vandalized sign which declared the local area closed to off road travel. Kevin had a collection of damaged signs in the back of his pickup; quite a testimonial to the animosity of those who resent restrictions on their riding area.



The plant grows in small clumps about 10 inches high, but it is easy to spot because of its abundant white flowers. They luminesce in the sun, making the poppies stand out like light bulbs against the grey soil of the desert. This is especially striking at the monitoring site because of the contrast against the red soil which is there.

The gypsum content of the soil is so high the ground sparkles in the sunlight from tiny crystals on the surface. The Poppy's adaptation to this extreme environment has also resulted in another threat. It seems as if there is interest in commercially mining gypsum beds on which the plant grows.

Kevin pointed out some tiny seedlings for us. They weren't even a quarter of an inch across, but you could still see the fingerlike leaves with tiny spines that give the Bearclaw Poppy its name. An extra bonus in visiting the site was seeing the other desert plants in bloom, such as Indigo Bush and Brigham Tea.

The Poppy seems to favor the ridge tops, where wide swaths have been cut through it by motorcyclists (who also like ridges). The ridgetop also gives a panoramic view of the proposed site of St. George's new airport, which may become the Poppy's new neighbor.

After the tour some of us stayed and helped Kevin replace several of the vandalized signs, and a few of us visited the Poppy population just south of Bloomington. The area there is even more impacted by vehicles, but there were still a number of plants surviving between the motorcycle trails (this area is also posted against off road travel).

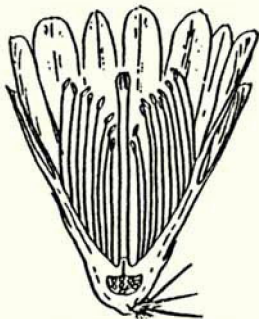
BEARCLAWS CONTINUED

It was a pleasurable experience seeing this beautiful little plant and in doing something to help it. We should continue this field trip as an annual event to stimulate local interest and understanding, to help repair vandalism, and it gives us a good excuse to spend a weekend enjoying the Spring wildflowers in Southwestern Utah.

Special thanks to Kevin Carter, Tony Frates, and especially to Hal McMurrin of St. George who arranged the local turnout on short notice.

ENDANGERED PLANT BULLETIN

by Tony Frates



A threatened and endangered species survey to determine the location and population of the Uinta Basin Hookless Cactus (Sclerocactus glaucus), a type of little barrel cactus, was conducted by the Bureau of Land Management. 14 people searched over 7,300 acres of land on Myton Bench in the Vernal BLM District south of Roosevelt. The project was directed by Jean Nitschke-Sinclair between April 29 and May 10 to determine areas where petroleum, tar sands, gilsonite, oil shale, and other development may or may not be allowed.

The group found approximately 3,500 specimens. That may sound like quite a few, but remember, this study covered 7,300 acres. That's less than 2 cacti per acre!

LANDSCAPING WITH NATIVES

by Jo Stolhand

How to screen from view the rust clunker in your neighbor's yard, make a leaky faucet an asset, and landscape your home with eye pleasing native plants were some of the topics Alyce Hreha discussed at the May meeting of the Salt Lake Chapter of the Utah Native Plant Society. Landscaping with native plants is becoming more popular as native plants become more available and as conservation-minded gardeners find that these plants are better adapted to the local climate and require less maintenance and water.

But, before you call in a backhoe to rip out your Lilac bushes, Pyracanthas, and rose garden, Alyce cautions you should have a plan. Many of the native plants will fit into an already established garden. First make a scale drawing of your lot with house, drives, garage, etc., then draw in the flower beds, bushes and trees. you should consider the following before you rush out to make your first purchase: 1) height, spread and growth form of selected plants, 2) color and texture of flowers, fruits and leaves, 3) the use of the plant (ie. shade, screen

LANDSCAPING WITH NATIVES CONTINUED

or hedge), and 4) the light and water requirements.

If you like colors in the pink and white range, these may make a nice addition to your garden: Fireweed, Veronica, Penstemon, Lupine, Columbine, Geranium and Phlox. For those who favor blues there are Penstemon, Campanulas, Mertensia, Lupine, Aster, Jacob's Ladder and Blue Flax. Fall colors (yellow, red and orange) are exhibited in Columbines, Globemallow, Geum, Monkeyflower, Buttercups and Potentilla.

In splashes of color or the traditional rows, native flowers enliven the landscape. Screen those eyesores with Serviceberry or Honeysuckle. Plant a Monkeyflower by the leaky watertap, some ferns under the Aspen, but beware the spreading Yarrow and the run-away Blue Flax!

Editor's Note: Don't forget that wildflowers will attract wildlife to your yard too!

USING UTAH NATIVE PLANTS IN THE LANDSCAPE

by W. Richard Hildreth

The rich and diverse flora of the Intermountain region offers a broad palette from which potential ornamental landscape materials can be chosen. Plants endemic to desert, riparian, foothill, montane and alpine habitats can be selected with desirable landscape design qualities. Using natives in the landscape does not imply creation of a "wild, unkempt" garden. The visual impact of a landscape incorporating natives in its design can be as pleasing as any design with more traditional exotic species. The only limiting factor may be the desire and the creativity of the designer.

Following is a selected list of Utah native trees and shrubs valuable for landscaping purposes:

Narrow-leaved Evergreen Trees

- White Fir (Abies concolor) - dense, conical; 60-120'; silver green; soft pointed needles.
- Alpine Fir (Abies lasiocarpa) - spirelike; 60-120'; green; soft blunt short needles.
- Engelmann Spruce (Picea engelmannii) - narrow pyramidal; 60-120'; dark green; fine needles.
- Blue Spruce (Picea pungens) - pyramidal to 90'; waxy blue green needles.
- Lodgepole Pine (Pinus contorta) - rounded pyramidal; slender trunk; 60-100'; 2-needle, short twisted, light green.
- Pinyon Pine (Pinus edulis or Pinus monophylla) - rounded, bushy; 15-35'; short yellow-green needles; edible nuts; drought tolerant.
- Limber Pine (Pinus flexilis) - rounded; 25-50'; 5 needle.
- Ponderosa Pine (Pinus ponderosa) - broad, round-topped, stately; 45-180'; long, yellow-green needles in bundles of 3.
- Douglas Fir (Pseudotsuga menziesii) - pyramidal; symmetrical to 130'; blue green, short fat needles.

UTAH NATIVE PLANTS IN THE LANDSCAPE CONTINUED

Utah Juniper (Juniperus osteosperma) - dense, rounded single to multiple stemmed; 8-20'; drought tolerant.

Rocky Mountain Juniper (Juniperus scopulorum) - graceful, symmetrical, pyramidal to rounded; 20-50'.

Broad-leaved Evergreen Trees

Mountain Mahogany (Cercocarpus ledifolius) - irregular, open, stiff shrub; 8-40'; drought tolerant; needs sunny exposure.

Canyon Live Oak (Quercus turbinella) - dense shrub to 20'; holly like gray-green leaves; marginally hardy in northern Utah.

Deciduous Trees

Rocky Mountain Maple (Acer glabrum) - rounded shrub; 6-30'; thin pale green, 3" leaves turning yellow to orange in autumn.

Bigtooth Maple (Acer grandidentatum) - rounded shrub to 40'; often forms thickets by suckers; thick dark green leaves turning brilliant colors in autumn.

Thinleaf Alder (Alnus incana) - rounded shrub to 30'; forms clumps by suckers.

Serviceberry (Amelanchier ssp.) - shrub to 25'; rounded leaves turning orange in autumn; fragrant white flowers; dark blue edible fruit.

Western Water Birch (Betula occidentalis) - open crowned shrub to 35'; forms clumps by suckers; thin peeling bark, shiny and copper-burgundy colored; leaves turn golden in autumn; resistant to bronze birch borer.

Netleaf Hackberry (Celtis reticulata) - rounded shrub to 30'; rough leathery yellow green leaves, turning yellow in autumn; bark ridged; drought tolerant.

Western Redbud (Cercis occidentalis) - shrub to 25'; bright pink pea-like flowers along the stems before the leaves; persistent pod; medium, heartshaped leaves; marginally hardy in northern Utah.

Douglas Hawthorn (Crataegus douglasii) - shrub 6-35'; forms thickets by suckers; fragrant white flowers followed by purple-black fruit; thorns.

Dixie White Ash (Fraxinus velutina) dense, rounded to 40'; rapid growing; shiny dark green compound leaf; yellow fall color; abundant winged fruit; resistant to Lilac Borer; drought tolerant.

Narrowleaf Cottonwood (Populus angustifolia) pyramidal when young, irregular in age; 40-70'; narrow 3" leaves, yellow in autumn; rapid growing.

Fremont Cottonwood (Populus fremontii) - broad, arching to 70'; heavy trunk; female tree produces cottony fruit; becomes very large; roots need lots of room.

Quaking Aspen (Populus tremuloides) - 20-90'; forms groves by suckers; fluttering leaves turning vibrant yellow to bronze in autumn; bark cream to green-white; suckers can be a nuisance; collected specimens susceptible to Aspen leaf blight (black leaves); container grown stock (from seed!) less susceptible.

Chokecherry (Prunus virginiana var. malanocarpa) shrub to 30'; forms thickets by suckers; glossy dark green leaves turning red-brown in autumn; showy clusters of white flowers, followed by edible black fruit.

Gambell Oak (Quercus gambellii) shrub 9-40'; forms thickets by suckers; lobed leaves turn golden brown in autumn.

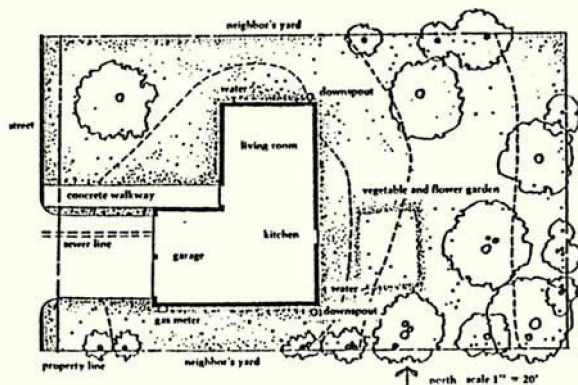
UTAH NATIVE PLANTS IN THE LANDSCAPE CONTINUED

Evergreen Shrubs and Groundcovers

- Creeping Oregon Grape (Mahonia repens) 1-3' tall by 4-6' spread; holly like leaves, turning red-purple in autumn; yellow flowers in clusters; black fruit; sun or shade.
- Mountain Lilac (Ceanothus velutinus) - 3-9' tall, 3-12' spread; resinous aromatic dark green leaves; fragrant white flower clusters.
- Mormon Tea (Ephedra viridis) coarse, broom-like to 3' tall; 2-4' spread; bright yellow-green stems; leaves inconspicuous.
- Dwarf Mountain Juniper (Juniperus communis) spreading to 3' tall and 10 feet across; sharp leaves; shade tolerant.
- Mountain Lover (Pachystima myrsinites) creeping to 1-3' tall and 3-4' across; fine boxwood-like leaves; fruits and flowers inconspicuous; shade tolerant.

Deciduous Shrubs and Groundcovers

- Oldman Sage (Artemisia filifolia) billowy; 3-6'; silver-gray fine foliage; branches wave in the wind.
- Fringed Sage (Artemisia frigida) mounded; 6-18" tall, up to 3' across; silver-grey foliage.
- Big Sage (Artemisia tridentata) aromatic; twiggy, 3-12'; grey-green leaves.
- Fourwing Saltbrush (Atriplex canescens) tough, spreading to 6' tall and 6' wide; grey-green dense foliage; interesting papery fruit; alkali tolerant; drought tolerant.
- Red Osier Dogwood (Cornus stolonifera) dense, rounded; 4-15'; forming thickets by suckers; 3" leaves turn colorful reddish-purple in autumn; winter bark a bright red; flowers small white in clusters; fruit white; sun or shade (bark redder with more sun).
- Cliffrose (Cowania mexicana) 3-10'; semi-evergreen; stiff; small grey-green leaves; white-yellow flowers; plumed fruit; drought tolerant.
- Singleleaf Ash (Fraxinus anomalous) rounded; twiggy; 3-10' tall; leaves single, rounded; drought tolerant
- Bitterbrush (Purshia tridentata) 2-9'; irregular, twiggy; grey-green, 3 lobed triangular leaves; yellow flowers.
- Smooth sumac (Rhus glabra) erect with few branches; 3-9'; compound leaves with 7-30 leaflets turning scarlet in autumn; fruit red.
- Blue Elderberry (Sambucus caerulea) 6-18'; single to multiple, thick pithy stems; compound leaves; flowers white in large flat topped clusters; fruit blue, edible.
- Mountain Ash (Sorbus scopulina) multistemmed; 3-18'; compound leaves turning orange-red in autumn; fruit showy red-orange in clusters; shade tolerant.



CREEPING OREGON GRAPE

by Charlotte T. Minor, Flagstaff Horticultural Institute

Creeping Oregon Grape or Barberry (*Mahonia repens*) is a creeping, low growing shrub in the Barberry Family. It is found in coniferous forests and is widely distributed in the wet from Wyoming to British Columbia, south to New Mexico and California. The plant is reported to grow in all Arizona counties except Mojave, [in all of Utah counties] at elevations of 4,000 to 8,500 feet.

Oregon Grape is an evergreen, with glossy dark green leaves. The leaves have wavy margins with bristle-tipped edges, and have been described as holly-like in appearance. The flowers form in clusters, are bright yellow and have a pleasant fragrance. They are followed by small edible, dark blue berries.

The name Oregon Grape is reported to have originated from settlers who used the berries extensively while traveling over the Oregon Trail. The entire plant was considered to be useful by Indians and early settlers: the roots for a tea to cure coughs, for kidney problems and to wash wounds. The roots and bark were used for ulcers, consumption and rheumatism, and to make a yellow dye. The leaves were chewed for acne, the berries were used for wine, jellies, pies and to flavor meats. The alkaloid, berberine, extracted from barberry bark is a medicinally useful tonic.



Oregon Grape is becoming a popular groundcover in the landscape, and the staff has been impressed by its growth and beautiful red and purple fall color change. The plant grows to a maximum of about 15 inches tall and spreads by creeping stems. It will grow in full sun, partial shade or full shade on any slope, and works well to hold soil on steep slopes. It needs occasional water while getting established, but should require only two to three deep waterings per year in May or June and again in the fall if it is dry. Occasional pruning will help direct growth, but it is not essential.

SO LONG...SORRY TO SEE YOU GO!

Glen and Barbara Halliday have fulfilled their lifelong dream and retired to Oregon. Glen was UNPS Treasurer for many years, and was our current Photography Committee Chair. Barbara served UNPS as Chairman of the Board, State and Chapter President and Newsletter Committee Chair. We will certainly miss their friendship and activity in our local chapter. We wish them a happy retirement among the native plants of Oregon. No doubt, they'll find many wildflower lovers there as well!

FOREST FARM NURSERY - ANOTHER SOURCE FOR NATIVE PLANTS
by Ken Grundmann

The April 1985 Sego Lily mentions that the Siskiyou Rare Plant Nursery as a good source for native plants that may be of interest to Utah gardeners. An additional source for native plants that provides excellent selection and service is Forest Farm Nursery in Oregon. Forest Farm has a number of Utah plants listed in their catalog and Ray and Peg Prag are always interested in acquiring new plant materials and ideas. They will even custom grow plants for you in quantities of 25 or more, if you let them know at least a year ahead.

Their plants are available in tubling size and priced from \$1.75 to \$3.95. The following is a partial list of Utah native plants available through Forest Farm:

- Abies concolor - White Fir
- Abies lasiocarpa - Subalpine Fir
- Acer glabrum - Rocky Mountain Maple
- A. grandidentatum - Bigtooth Maple
- Agastache urticifolia - Giant Hyssop
- Alnus incana - Mountain Alder
- Amelanchier alnifolia - Serviceberry
- Aquilegia caerulea - Rocky Mountain Columbine
- A. chrysantha - Golden Columbine
- A. formosa - Red Columbine
- Arctostaphylos nevadensis - Nevada Manzanita
- A. patula - Greenleaf Manzanita
- A. uva-ursi - Kinnik-Kinnik
- Asclepias tuberosa - Butterfly Flower

- Ceanothus fendleri - Fendlerbush
- C. velutinus - Wild Lilac
- Celtis reticulata - Netleaf Hackberry
- Cercocarpus ledifolius - Curlleaf Mountain Mahogany
- C. intricatus - Littleleaf Mountain Mahogany
- C. montanus - Alderleaf Mountain Mahogany
- Clematis ligusticifolia - Western Virgin's Bower
- Cornus stolonifera - Red Osier Dogwood
- Cowania mexicana - Cliffrose
- Crataegus douglasii - Western Black Hawthorn

- Ephedra viridis - Mormon Tea
- Eriogonum umbellatum - Sulphur Flower Buckwheat

- Fallugia paradoxa - Apache Plume

- Juniperus communis - Common Mountain Juniper

- Kalmia polifolia - Alpine Bog Laurel

- Lobelia cardinalis - Cardinal Flower
- Lonicera involucrata - Twinberry
- L. utahensis - Utah Honeysuckle

- Mahonia repens - Creeping Oregon Grape
- Mimulus cardinalis - Scarlet Monkeyflower

FOREST FARM CONTINUED

M. guttatus - Yellow Monkeyflower
Penstemon angustifolius - Skyblue Penstemon
P. strictus - Penstemon
Philadelphus lewisii - Western Mock Orange
Physocarpus malvaceus - Mountain Ninebark
Picea engelmannii - Engelmann Spruce
P. pungens - Blue Spruce
Pinus contorta var. latifolia - Lodgepole Pine
P. flexilis - Limber Pine
P. ponderosa - Ponderosa Pine
Populus tremuloides - Aspen
Potentilla fruticosa - Cinquefoil
Prunus virginiana - Chokecherry
Pseudotsuga menziesii - Douglas Fir
Purshia tridentata - Bitterbrush

Rhus glabra - Smooth Sumac
R. trilobata - Squawbush
Ribes aureum - Golden Currant
R. cereum - Currant
Rosa nutkana - Nutka Rose
R. woodsii - Woods Rose
Rubus parviflorus - Thimbleberry

Sambucus caerulea - Blue Elderberry
Shepherdia argentea - Silver Buffaloberry
Sorbus scopulina - Mountain Ash

The Forest Farm catalog has loads of information on planting, maintenance, attracting birds and butterflies, and other interesting native plant info. The catalog is free, and once you are on their mailing list, you receive yearly updates. Write for your Forest Farm catalog, and start your native landscape plans!

Forest Farm Nursery
990 Tetherow Road
Williams OR 97544

WILDFLOWER WATCH

by Pam Poulson

At elevations below 6,500 feet, the wildflower display is over until August. To see wildflowers from now through July, head for the mountains anywhere in the state.

Although snow still caps some peaks above 10,000 feet, most campgrounds and trails are open. Call area rangers of State Parks, National Parks B.L.M. and Forest Service for road conditions. The Millcreek Canyon Road remains closed to

WILDFLOWER WATCH CONTINUED

cars above Maple Grove Picnic area due to washout (it has been closed for two years now!), but is fine for a walk or a bicycle ride.

Some sure bets for good displays easily reached by passenger car are along the Logan to Bear Lake road, the canyons of the Wasatch Front, Mirror Lake road out of Kamas, Cascade Springs and the Alpine Loop road above American Fork and Provo, the Nebo loop road above Nephi, Skyline Drive road above Manti, Bryce Canyon National Park, Cedar Breaks National Monument, the Boulder to Torrey road (now paved all the way across), the LaSal Mountain loop road near Moab, and Lehman Caves National Monument in the Wheeler Peak Scenic Area, just over the boarder into Nevada.

Of course even more wildflowers can be seen at a leisurely walking pace just off the road and along hiking trails. Some Wasatch hiking trails that offer above average wildflower displays at this time are: Mill B North Fork, Mineral Fork, Butler Fork, Mill D, Silver Fork to Honeycomb Cliffs, Lake Solitude, Twin Lakes to Lake Mary and Brighton Lake.

In wet areas and along streams look for:

Monkshood (Aconitum columbianum)
Marsh Marigold (Caltha leptosepala)
Elephant Head (Pedicularis groenlandica)
Shooting Star (Dodecatheon ssp.)
Monkeyflowers (Mimulus ssp.)
White Bog Orchid (Habenaria dilatata)
Cow Parsnip (Heracleum lanatum)
Bluebells (Mertensia ssp.)
Parry's Primrose (Primula parryi)
Thimbleberry (Rubus parviflorus)
Veronica (Veronica ssp.)
Red Twig Dogwood (Cornus stolonifera)
Mountain Ninebark (Physocarpus ssp.)
Elderberry (Sambucus ssp.)
Utah Honeysuckle (Lonicera ssp.)

Some Glacier Lilies (Erythronium grandiflorum) and Spring Beauties (Claytonia lanceolata) can still be found at higher elevations near melting snowbanks, and don't miss the native Yellow Pond Lilies (Nuphar polysepalum) to be found in Utah only on shallow lakes of the Uintas.

In drier meadows, among rocks and on south facing slopes look for:

Wild Rose (Rosa woodsii)
Larkspur (Delphinium ssp.)
Lupine (Lupinus ssp.)
Showy Goldeneye (Viguiera multiflora)
Indian Paintbrush (Castilleja ssp.)
Cinquefoil (Potentilla ssp.)
Western Coneflower (Rudbeckia occidentalis)
Yarrow (Achillea millefolium)
Senecios (Senecio ssp.)

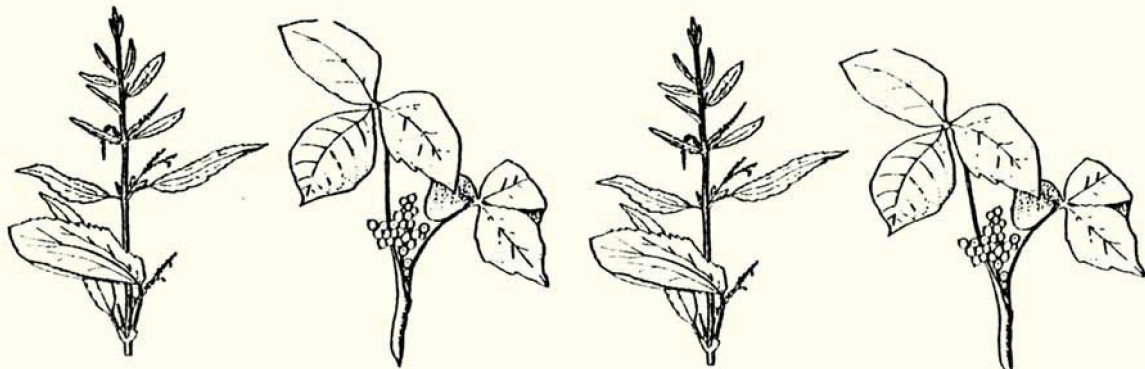
Mules Ears (Wyethia amplexicaulis)
Mountain Death Camas (Zygadenus elegans)
Pearly Everlasting (Anaphalis margaritacea)
Asters (Aster ssp.)
Daisies (Erigeron ssp.)
Sulphurflower Buckwheat (Eriogonum umbellatum)
Wild Geraniums (Geranium ssp.)
Currants (Ribes ssp.)
Golden Aster (Heterotheca villosa)
Thistles (Cirsium ssp.)
Yellow Violet (Viola nuttallii)
Giant Hyssop (Agastache urticifolia)
Scarlet Gilia (Gilia aggregata)
Groundsel (Senecio ssp.)
Fireweed (Epilobium angustifolium)

Along the edges of the woods and just under the trees in the shade, look for:

Wild Clematis (Clematis columbiana)
Parrot Beak (Pedicularis racemosum)
True Bluebells (Campanula rotundifolia)
Coral Root Orchid (Corallorhiza maculata)
Tiny Saxifrages (Mitella stenopetala)
White Buckwheat (Eriogonum heracleoides)
False Solomon's Seal (Smilacina racemosa)
Wild Lily of the Valley (Smilacina stellata)
Mountain Hollyhock (Illiamna rivularis)
Jacobs Ladder (Polemonium ssp.)

This is the easiest time of the year to get a good close look at Bristlecone Pine Trees (Pinus longaeva), the world's oldest living plants. Look for them above 8,500 feet at: Bryce Canyon National Park, Cedar Breaks National Monument, the Stansbury Mountains, the Deep Creek Mountains, and in the Wheeler Peak Scenic Area near Lehman Caves National Monument, just over the boarder into Nevada.

Editor's Note: Keep your eyes tuned for Stinging Nettle (Urtica ssp.) and Poison Ivy (Rhus radicans). I've seen many of both this year!!!



WHEN UTAH'S CACTUS BLOOM - THE BLOOMING LAST GASP
by Marv Poulson

May and June are considered to be Utah's "Cactus" months, with brilliant displays to be found throughout the state. The "bloomers" seem to move north with the advancing season, until the last splashes of magenta, pink, yellow and cream fade into seed-making for another year.

So where do you find Cactus blooming in July?

The answer of course is that you will find them where you find them, but a few clues may help. To begin with, altitude is in our favor since the cooler, later season not only postpones and prolongs the blooming season, but also provides a more comfortable climate for eager plant people. When seeking blooming Cactus, generally sunny, dryer, well drained flats or slopes represent likely habitat.

Previous July Cactus Sightings (within or near Utah)

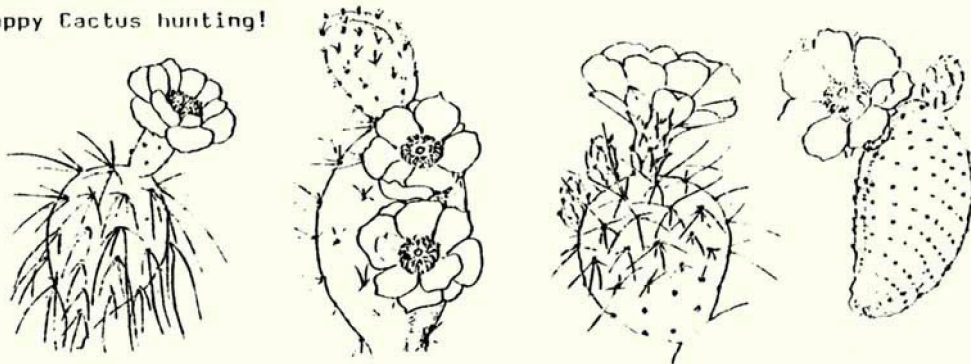
Location	Species
Eastern end of Uinta Mtns.	<u>Opuntia fragilis</u>
	<u>O. polyacantha</u>
Tavaputs Divide (No. of I-70)	<u>Pediocactus simpsonii</u>
Unitas So. slope, N. of Duchesene	<u>Opuntia fragilis</u>
Deep Creek Mtns.	<u>Opuntia polyacantha</u>
Henry Mtns.	<u>Opuntia polyacantha</u>
	<u>Echinocereous englemannii</u>
Raft River Mtns.	<u>Opuntia polyacantha</u>
Grand Teton National Park	<u>Opuntia fragilis</u>
Snake Range, Wheeler Peak, E. Nev.	<u>Pediocactus simpsonii</u>

There is a theoretical possibility that you could find Echinocactus polycephalus in extreme southern Utah where it was once collected but has not been seen since 1911. This late blooming (August), larger size barrel Cactus forms tight richly green clusters of stems, with yellow or pink tinged flowers.

This list doesn't include areas you may be lucky enough to see a late blooming Cactus in that others have yet to enjoy. Make a note of when, where and what you find. It could help round out our list of late bloomers.

For Cactus identification in the field two particularly straightforward references are available. Lyman Benson's book The Cacti of the United States and Canada, published by Stanford University Press in 1962 is the most comprehensive and illustrated treatment. Dr. Stan Welsh's "Utah Flora: Cactaceae" article in the January 1984 issue of Great Basin Naturalist offers a very current and "Utah specific" field key.

Happy Cactus hunting!



1985 UNPS OFFICERS

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State President Elect/Vice President - Dave Okelberry
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Field Trip Committee Chair - Alyce Hreha

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Dave Wallace
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Kaye Thorne

Salt Lake Chapter President - Dave Wallace
Salt Lake Chapter Secretary - Karen Milne

Cache Valley Chapter Contact - Kate Dwire

WANTED: PHOTOGRAPHY COMMITTEE CHAIR

With the Hallidays moving to Oregon, UNPS is left short a Photography Committee Chair for the remainder of 1985. Requirements are an interest in Photography and about 2 hours a month of UNPS Photography Committee activity. Anyone interested, call Pam Poulson at 581-5322 (days).

Members are encouraged to submit original articles to the Sego Lily Newsletter. Please state if articles have been published elsewhere and need permission of the publisher. Drawings with or without articles are also welcome. The editor reserves the right to edit as needed and to select suitable articles for publication.

The Sego Lily is published nine times a year. Copyright Utah Native Plant Society, 1985. Deadline for submission of articles is the 10th of each month of publication.

UNPS Sego Lily
c/o Pam Poulson
3631 South Carolyn Street
Salt Lake City UT 84106

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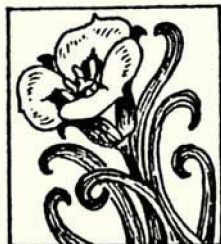
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Please enclose check made payable to Utah Native Plant Society and send to:

June Sullivan, Treasurer, 717 South 800 East, Salt Lake City, Utah
84102.



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 8; Number 5

July/August 1985

WHAT'S GOING ON?

August 21 UNPS Board of Directors Meeting. All members of the Board of
Wednesday Directors Members and interested others invited. State B.L.M.
6:30 p.m. Office, Suite 400, CSB Building, 300 South State. For further
information, call Dick Page, 255-7769.

August 21 State Arboretum of Utah Tree Walk. "The New Arboretum at Red
Wednesday Butte" If you were not able to attend the UNPS meeting at
7:00 p.m. Red Butte, here's another chance. Guest Guide: Mary Pat
Matheson, Conservatory Manager. Free and open to the Public.
For further information or directions, call the State Arboretum
of Utah, 581-5322.

August 22 State Arboretum of Utah Brown Bag Tour. An abbreviated lunch-
Thursday time version of the above. Free and open to the Public. For
12:00noon further information or directions, call the State Arboretum of
Utah, 581-5322.

August 22 Mushrooms of Utah. SLC monthly meeting. Familiarize yourself
Thursday with Utah's fungal flora just before we hit the woods to collect.
7:00 p.m. Our favorite fungus fanatic, Frank Anderson, will be our guest
speaker. Meet in room 323, Olpin Student Union Building, Uni-
versity of Utah. NOTE THE EARLIER MEETING TIME. For further
information or directions, call Pam at 581-5322.

August 24 Mushrooms of the Uintas Field Trip. Our big annual event. An
Saturday all day field trip mushrooming in the Uintas, topped by a picnic
8:00 a.m. feast. Dr. Frank Anderson will be our guest Guide. Meet at the
- 6:00p.m. Regency Theater/K-Mart parking lot on Parley's Way for
carpooling. Bring your dinner/lunch, stove, banquet table and
any other items you may need for a feast. Free and open to the
Public. For further information, call Dave Okelberry, 968-6190.

August 28 Utah Wilderness Dedication. The inauguration of 12 new
Wednesday Wilderness Areas in Utah. Meet Jake Garn, Jim Hansen, Howard
10:00a.m. Nielson and R. Max Peterson, Chief, U.S. Forest Service. Mirror
Lake Campground, 27 miles from Kamas. Refreshments. Free and
to the Public. For further information or carpooling call the
Utah Wilderness Association, 359-1337.

August 31 Tracy Aviary Nature Fair. To promote interest in nature.
Sept. 1 Nature Photographers, nature and bird related clubs will also
Saturday be represented. Bird Show and good times. For further inform-
Sunday ation, call Grenville Roles or Steve Chindgren, 528-2193.

Sept. 18 State Arboretum of Utah Tree Walk. The Final Tree Walk of the
Wednesday Year. "Conifers: Miniatures to Giants". Guest Guide, W. Richard
7:00 p.m. Hildreth, Director. Meet on the steps of the Museum of Natural
History, University of Utah. Free and open to the Public. For
further information, call the State Arboretum of Utah, 581-5322.

Sept. 19 State Arboretum of Utah Brown Bag Tour. An abbreviated lunch-
Thursday time repeat of above. Free and open to the Public. For further
12:00noon information, call the State Arboretum of Utah, 581-5322.

Sept. 21 Utah Native Plant Society Annual Plant Sale. Our big annual
Saturday fund raiser. Buy those hard-to-get native plants and seeds at
9:00 a.m. fantastic prices! Autumn is the best time to plant trees,
-3:00p.m. shrubs and perennials. Hosted by Millcreek Gardens Nursery,
3500 South 900 East. Be there early for best selection. For
further information, call Bill Wagner, 943-8711.

Sept. 26 Utah Native Plant Society Annual State Meeting. Our annual
Thursday Get-Together and Social. This year's special attraction will
7:00 p.m. be a multi-media wildflower extravaganza by Marv Poulson,
"Surrounded by Color". Refreshments. Prizes. Brief business
meeting and ratification of the Board of Directors. Room 323,
Olpin Student Union Building, University of Utah. Free and open
to the Public. For further information call Dick Page, 255-7769.

Anytime State Arboretum of Utah Wildflower Hotline. Reporting timely
tips on where to see the best wildflower and Autumn leaf
displays in Utah. Call anytime, 24 hours a day, 7 days a week
through October 31. Phone number (801) 581-4969.

Members are encouraged to submit original articles to the Segó Lily Newsletter. Please state if articles have been published elsewhere and need permission of the publisher. Drawings with or without articles are also welcome. The editor reserves the right to edit as needed and to select suitable articles for publication.

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WHAT'S UP UP IN CACHE VALLEY?

by Wayne Padgett

The Cache Valley Chapter of the Utah Native Plant Society has been reorganized and is off to a great start. We had about 20 people at our May meeting and potluck and a great turnout for the Primula maguirei fieldtrip up Logan Canyon on May 25.

On July 27 we hiked the trail around Tony Grove Lake enjoying the beautiful Summer Wildflower display, followed by a picnic and discussion of the surrounding area. The Bridgerland Audubon Society has put together a hiking tour guide for Tony Grove Lake and we encourage all our Society members to visit this area and check the new guide out. They did a wonderful job. Our next meeting will be in September and we will announce the date, time and program in a future issue of The Sego Lily.

Hope to see you all there!

NATIVE PLANT LANDSCAPE TOUR

by Alyce Hreha

On Sunday afternoon, June 23rd, Utah Native Plant Society members toured two very different native plant landscapes. At Bill Wagner's house in Holliday, we saw the results of over ten years of incorporating natives into his design. Bill has created a natural looking landscape around his home very similar to what you would find in the mountains near Salt Lake City. He has used several native tree and shrub species such as Lodgepole Pine (Pinus contorta), Douglas Fir (Pseudotsuga menziesii), Quaking Aspen (Populus tremuloides), Chokecherry (Prunus virginiana), Serviceberry (Amelanchier ssp.) and Sumac (Rhus glabra) as the overstory in his design with Common Juniper (Juniperus communis), Mountain Lover (Pachystima myrsinites) and Creeping Oregon Grape (Mahonia repens) planted under them. Accent plants include: Columbine, Astilbe, Primroses, Bluebells, Penstemon, Blue Flax, Gallardia and Coreopsis. Even though the temperature that afternoon approached 100 degrees, we felt cool standing in the shade created by his native landscape.

Kay and John Allen have created quite a different effect by using drought tolerant natives around their home. After a brief tour of their new solar home, we looked at the beginning stages of their landscape project. They have planted species such as Squawbush (Rhus trilobata), Apache Plume (Fallugia paradoxa), Bitterbrush (Purshia tridentata), Sagebrush (Artemisia ssp.), Rabbit Brush (Chrysothamnus nauseosus), Sand Cherries (Prunus besseyi) and Native Cacti in their front yard. By gradually decreasing the amount of water to these plants from planting time until they became established, they will require little or no supplemental watering even throughout the hot Summer months. John told us that he intends to plant Buffalo Grass lawn in the backyard because it requires less water than the more popular lawn varieties.

The contrast in temperatures, plant selections and landscape designs at the two houses on the tour was very interesting. The afternoon was enjoyable for the members who attended and we would like to thank the Wagners and the Allens for their hospitality.

WEDDLE NATIVE GARDENS - THE BEST KEPT SECRET IN GRAND JUNCTION
by Pam Poulson

We've had a great response and interest shown on our series of articles regarding native plant sources. Another great nursery source of well grown, healthy native plant stock is Weddle Native Gardens, in Palisade, Colorado (just outside Grand Junction.) Charlie Weddle is a world renown plant propagator who specializes in Columbines (Aquilegia ssp.) and Texas Tulips (Eustomia ssp. - unfortunately, not winter hardy here.) Many other natives are available at Weddle Gardens that are not available any place else. The best way to purchase your stock is to take a weekend ride over to Grand Junction (in early May for best selection.) Mail orders are welcome, but don't expect prompt service.

A personal visit is well worth it. Mr. Weddle and his staff are delightful and informative to talk with, and they are overjoyed to give you the grand tour and tell you about all the plants they have tried--including Sego Lily (Calochortus nuttallii.) Weddle Gardens grows most of their stock from seed, with only a few of the more difficult woody species from cuttings. Send for a catalog of plants available. There are no prices in the catalog, but prices range from \$1.00 on up.

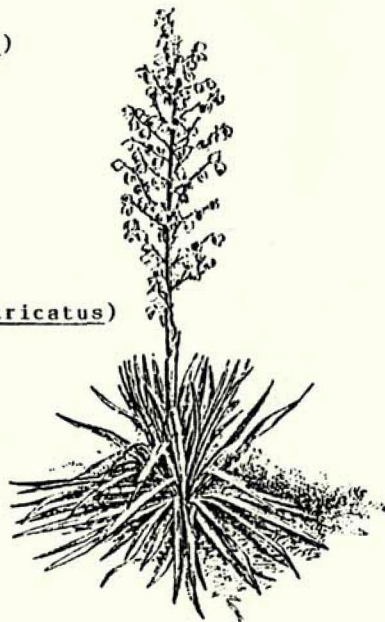
Weddle's carries the old standby trees, shrubs, ground covers and perennials as well as some more unusual items. Some of the more unusual or harder to come by plants found on their list include:

Deciduous Shrubs

- Mountain Alder (Alnus incana)
- True Mountain Mahogany (Cercocarpus montanus)
- Apache Plume (Fallugia paradoxa)
- Dwarf Smooth Sumac (Rhus glabra cismontana)
- Squawbush (Rhus trilobata)
- Golden Currant (Ribes aureum)
- Blue Elderberry (Sambucus caerulea)
- Mountain Snowberry (Symphoricarpus oreophilus)

Evergreens

- Nevada Manzanita (Arctostaphylos nevadensis)
- Greenleaf Manzanita (A. patula)
- Big Sage (artemisia tridentata tridentata)
- Sage (A. tridentata vaseyana)
- Wyoming Sage (A. tridentata wyomingensis)
- Four Wing Saltbrush (Atriplex canescens)
- Shadscale Saltbrush (A. confertifolia)
- Littleleaf Mountain Mahogany (Cercocarpus intricatus)
- Curly Leaf Mountain Mahogany (C. ledifolius)
- Fernbush (Chamaebatiara millefolium)
- Rabbitbrush (Chrysothamnus nauseosus)
- Cliffrose (Cowania mexicana)
- Mormon Tea (Ephedra viridis)
- Pinyon Pine (Pinus edulis)
- Bitterbrush (Purshia tridentata)
- Snakeweed (Xanthocephalum sarothae)
- Banana Yucca (Yucca baccata)
- Spanish Bayonet (Y. elata)
- Great Plains Yucca (Y. glauca)



WEDDLE NATIVE GARDENS CONTINUED

Ground Covers

Fringed Sage (artemisia frigida)
Castle Valley Clover (Atriplex cuneata)

Wildflowers/Forbs

Desert Marigold (Baileya multiradiata)
Indian Paintbrush (Castilleja ssp.)
Western Virgins Bower (Clematis ligusticifolia)
Fireweed (Epilobium angustifolium)
Northern Sweetvetch (Hedysarum boreale)
Tansy Aster (macheranthera tanacetifolia)
Desert Daisy (M. zylorrhiza)
Colorado Four o'clock (Mirabilis multiflora)
Tufted Evening Primrose (Oenothera caespitosa)
Alpine Penstemon (Penstemon alpinus)
Mat Penstemon (P. teucroides)
Paper Flower (Psilostrophe bakerii)
Goldenrod (Solidago canadensis)
Scarlet Globemallow (Sphaeralcea coccinea)
Prince's Plume (Stanleya pinnata)
Showy Goldeneye (Viguiera multiflora)



"Go native. Grow native, with Weddle's!!!"

Weddle Native Gardens
3589 G Road
Palisade, Colorado 81526
(303) 464-5549

BOOK REVIEW FROM THE NORTHERN NEVADA NATIVE PLANT SOCIETY NEWSLETTER

Wilson, William H. W., Landscaping with Wildflowers and Native Plants, Ortho Books, a Division of Chevron Chemical Company, 742 Bancroft Way, Menlo Park, California, 1984, 96 pp., \$5.95.

This 96 page book offers a broad spectrum of general information about almost every kind of natural garden imaginable. Many specialists throughout the country were consulted in the preparation of this worthwhile book. Fourteen major plant communities in the United States and southern Canada are defined and a few examples of suitable plants for each of these are listed. Planting and maintenance is discussed under each of the various communities. Beautiful colored photographs illustrate the many possibilities of creating a natural landscape. The chapter on growing native plants describes in detail how to collect and store seed, and explains sowing and germinating it. Other propagation methods are also discussed. Useful list of reference books, and sources of native plants and seeds are listed.

THE NEW ARBORETUM AT RED BUTTE

by Pam Poulson

On June 27, UNPS members picnicked and toured the State Arboretum of Utah's new site at Red Butte. We had a little trouble getting through the gates at Fort Douglas, but once we had all arrived at the site, we began an early meeting with a pleasant picnic beside Red Butte Creek.

Mary Pat Matheson, Conservatory Manager was our Guest Guide. We toured the "developed" areas of the site, complete with 300 conifer plantings, paths, arched bridges, waterfalls, and contoured ponds. (Unfortunately, due to a leaky dam, the ponds had been emptied.) Mary Pat showed us color renderings and told us of the future plans of development of the site, complete with various gardens, an amphitheater, a conservatory (an acre under glass,) and a building for administration, classrooms, meeting rooms, a 30,000 volume library and perhaps even a giftshop and restaurant. We learned that if we're anxious for an instant Botanical Garden like appearance, we'll have to come up with a quick \$15 million or so. The total site development is privately funded. Private funds come when they come, and the outlook for completion ranges from 10 to 15 years.

We also ventured into some of the more primitive areas of the Arboretum site-- those areas that will be kept as natural as possible. We saw a fantastic natural Oak arbor and simple paths through forested areas. We checked out the 50 year old log cabin on the site that will someday be refurbished into a Nature Center with classrooms (and maybe a meeting place for the UNPS?)

The evening was pleasant and enjoyable, and members are invited to visit the Arboretum at Red Butte anytime. Plant checklists and simple site maps are available at the Arboretum office. The site is open Monday through Saturday from 9:00 a.m. to 4:00 p.m., with guided tours on Wednesdays 10:00 a.m. to 12:00 noon. For guided tours by appointment, contact Dr. Betty Wullstein, 581-4938.

SUMMER IS GONE - AN ABBREVIATED WILDFLOWER WATCH

by Pam Poulson

Our Summer was hot this year and made for an early, quick flash of color. Almost everywhere you go now, wildflowers are hard to come by. Most of them have shriveled and seeded.

If you feel a little itch in the old hayfever tubes right now, don't be surprised, this is the other allergy season, complete with blooming Ragweed (Ambrosia ssp.), Rabbitbrush (Chrysothamnus nauseosus) and Sagebrush (Artemisia ssp.), some of the best pollen spreaders there are.

Don't blame Goldenrod (Solidago ssp.), Thistles (Cirsium ssp.) and Sunflowers (Helianthus annuus) our harbingers of Fall for your hayfever. Seasonal allergies should mostly be blamed on wind pollinated plants. That pollen has to be flying on the air to get into your respiratory system!

There are two delightful plants that are blooming in the mountains now. Take a quick trip to the Uintas to see Blue Gentian (Gentiana calycosa) and Crown Stonecrop (Sedum rhodanthum), then grab a sweater, sit back and watch the Fall color come to the leaves. Hope for a long Indian Summer!

UINTA MOUNTAINS WILDFLOWER FIELD TRIP

by Alyce Hreha

On Saturday, July 13th, the UNPS sponsored a wildflower field trip to the Uintas. The group met at the Kamas Ranger Station where the group leader, Alyce Hreha gave a short introduction. Car-pools were assigned and we were off. We drove up Highway 150 out of Kamas towards the Wasatch National Forest in the Uinta Mountains.

At our first stop, we spent some time looking at flowers that are commonly associated with Sagebrush (artemisia tridentata) flats. We were able to find Wild Onion (Allium ssp.), Daisies (Erigeron and Aster ssp.), Indian Paintbrush (Castilleja ssp.), Cinquefoils (Potentilla ssp.), and Beardtongues (Penstemon ssp.)

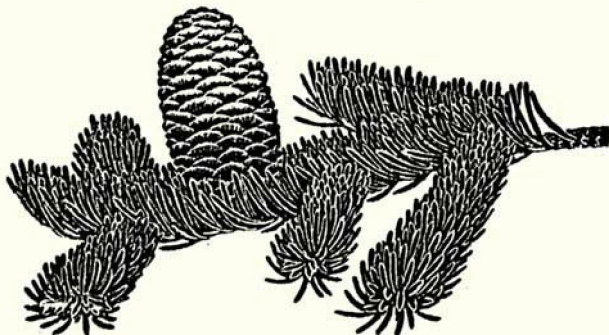
Somewhere between our first and second stop (near the Provo River), our group got split up. After a search party was dispatched (from each group) to locate the rest of the group, we each ate our lunches with hopes of rejoining the other end of the car-pool caravan. When the search parties returned empty handed, each group decided to resume our wildflower tours and look at flowers along the Provo River. We found Western Bog Orchid (Habenaria dilatata), Monkshood (Aconitum columbianum), Windflower (Anemone ssp.), Buttercup (Ranunculus ssp.), Alpine Pine Drops (Pyrola ssp.), Veronica (Veronica ssp.), and Wild Strawberry (Fragaria vesca)

Our third stop was at a vast meadow near the summit, covered with a spectrum of Wildflowers. Here we looked at Elephant Head (Pedicularis groenlandica), Shooting Star (Dodecatheon ssp.), Marsh Marigold (Caltha leptosepala), and Western Bistort (Polygonum bistortoides).

At the summit we saw Gordon's Ivesia (Ivesia gordonii), Spring Beauty (Claytonia lanceolata), Glacier Lily (Erythronium grandiflorum) in fruit, Diamond Leaf Saxifrage (Saxifraga rhomboidea) and Wild Candytuft (Thlaspi montanum).

On our return trip to Kamas, we stopped by Lilly Lake to see and photograph the Western Yellow Pond Lily (Nuphar polysepalum), a special treat.

Both groups, although separated, enjoyed much the same field trip!



UNPS Sego Lily
c/o Pam Poulson
3631 South Carolyn Street
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| () Family.....\$12.00 | () Life.....\$250.00 |
| () Supporting.....\$25.00 | () Corporate.....\$25.00
or greater |

Please enclose check made payable to Utah Native Plant Society and send to:

June Sullivan, Treasurer, 717 South 800 East, Salt Lake City, Utah
84102.



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 8; Number 6

September 1985

WHAT'S GOING ON?

Tuesdays

October 1 -
December 3

10:00 a.m. -
12:45 p.m.

State Arboretum of Utah Docent Training Course. Come learn to be a decent docent for the Arboretum. Cost of the course \$10.00. For further information, contact Dr. Betty Wullstein, 581-4938.

Monday

October 7
7:30 p.m.

Annual Cotton Natural History Lecture. "In the Track of the Grizzly" by Frank Craighead. \$5.00. Kingsbury Hall, University of Utah. For further information, call Terry Tempest Williams, 581-6927.

Saturday

October 12
9:00 a.m. -
12:45 p.m.

"Harvest Potpourri". An Autumncraft Workshop offered by the State Arboretum of Utah. Hands on! Potpourris, Flower growing and flower drying. \$10.00. Pre-registration required. Call 581-5322.

Wednesday

October 16
7:00 p.m.

State Arboretum of Utah Garden Lecture Series. "Forests of the Great Basin Sky Islands" by Dr. Ron Lanner, Professor of Forestry, Utah State University. Free. Room 323, Olpin Student Union Building, University of Utah. For further information, call 581-5322.

Wednesday

October 23
8:30 a.m. -
5:00 p.m.

State Arboretum of Utah Workshop. "Cultivating" A Horticultural Therapy Workshop. Learn to use horticulture as a therapeutic tool. \$40.00. For further information, call Dr. Betty Wullstein, 581-4938.

Thursday

October 24
7:30 - 9:30 p.m.

UNPS Monthly Meeting. To be announced.

Thursday

November 21
7:30 p.m.

UNPS Salt Lake Chapter Monthly Meeting. "UFO Night" Share your slides of wildflowers with the group. Wildflowers trees and other plants from anyplace in the world are welcome. Unidentified Flowering Objects are especially welcome! Our most popular meeting of the year. Room 323, Olpin Student Union Building, University of Utah. For further information, call Pam, 581-5322.

FIFTH ANNUAL NATIVE PLANT SALE
by Pam Poulson

The fifth annual Native Plant Sale held Saturday, September 21, 1985 was a big success! We sold a total of \$1285.50 in plant materials, (\$204.10 in seeds!) Our only expense was the UNPS plant labels, and they were well worth it. The proceeds of the sale will go to continue UNPS programs.

Under the direction of Bill Wagner, Horticulture Committee Chairman, we were able to get participation of more volunteers and plant donators than ever before. Thanks to Kathy Mutz, Publicity and Membership Committee Chairwoman, publicity was well covered, with radio and a feature article in each newspaper. Jennifer Harrington, Seed Committee Chairwoman, and the seed committee members made sure there was ample supply for our popular "seed department."

We would like to thank all of those who participated as volunteers for their time and efforts. Payment and identification of volunteers were official UNPS caps!

We would also like to thank the plant donators, who this year were very generous:

Millcreek Gardens Nursery
Wasatch Shadows Nursery
Mitchell's Nursery
Valley Nursery (Ogden)
Glover's Nursery
Bland's Nursery
Native Plants Inc.
Dick Page
Marv and Pam Poulson

A special thanks goes to Millcreek Gardens Nursery for hosting the sale.

THANKS AGAIN, EVERYONE!!!



A vast array of mostly nourishing news has accumulated in this year's pile to date.

MORE LISTED SPECIES: After some five years since the listing of the last rare Utah native plant species, three more have been officially added to the federal list as follows:

<u>Species</u>	<u>Designation</u>	<u>Effective Date</u>
<u>Townsendia aprica</u>	Threatened	9-20-85
<u>Primula maguirei</u>	Threatened	9-20-85
<u>Erigeron maguirei var. maguirei</u>	Endangered	10-7-85

The familiar number eight (number of Utah plant species listed under the Endangered Species Act) is now eleven and that number should increase again soon. Two other species were also proposed for listing last year (Asclepias welshii and Cycladenia humilis var jonesii) and a final determination should be made soon especially in connection with the latter species.

JUNE SUCKER? A rare new plant species from Utah Lake? the Utah Native Fish Society probably appreciated the listing of Chasmistes liorus as a proposed species in the March 1985 edition of the Sego Lily, but don't expect to find it in any native flora guides.

LEGISLATION PAST (PASSED): Quietly winding its way through the state legislative jungle was a bill enacted into law as the "Land Conservation Easement Act." Contained in Title 57 (Real Estate) of the Utah Code, conservation easements now have a statutory basis in Utah. The Nature Conservancy (TNC) was the spark behind the bill. According to Dave Livermore of TNC, the state's Division of Wildlife Resources was instrumental in achieving passage of the bill. Without actually acquiring title to property, a conservation easement can provide an organization with the means to conserve an area that otherwise might be lost to development. The law specifically provides that a qualified 501(c)(3) organization may require a conservation easement. The Utah Native Plant Society can therefore acquire and hold such easements.

LEGISLATION PRESENT: Every three years the Endangered Species Act of 1973 must be reauthorized and appropriations made so that the endangered species program administered by the U.S. Fish and Wildlife Service may continue. Amendments may be made to any part of the act during the reauthorization process. By October 1, 1986, bills must be passed by both the House and Senate, reconciled, passed again and the final bill signed by the President.

The House bill provides for increased funding for state cooperative agreements, listing and law enforcement. It also supposedly contains an amendment to provide category 1 plant species with the same protection as officially proposed species. Other plant species strengthening amendments have been proposed by various groups but probably will not be included in the

final bill.

LEGISLATION FUTURE: The Energy, Natural Resources and Agriculture Interim Committee of the State Legislature is continuing its study of the LAND LAW ACT which was proposed in the last legislative session. Action on the bill was deferred pending additional study even though a commission appointed by then Governor Matheson painstakingly put together the bill initially. After the committee completes its review it is anticipated that the bill will once again be presented in the next session.

If passed, the bill would among other things give the Division of State Lands and Forestry the authority to manage plant species and enable the state to enter into a cooperative agreement with the federal government under the Endangered Species Act of 1973. A heritage program might also eventually evolve. During a public hearing in July, UNPS provided written comments along with an oral statement. Joel Tuhy of the Nature Conservancy also commented and made a statement.



NO LITTLE EFFORT: Located west of St. George in the Beaver Dam Wash, the Lytle Ranch has been utilized as an outdoor museum for thirty years. To prevent possible development of the ranch when it was offered for sale, the Nature Conservancy stepped in and acquired the property in a joint agreement with BYU provided that sufficient funds are raised so that the property can be purchased back from TNC. TNC apparently acquired the property in 1984 and the joint agreement with BYU required that funds be raised within a one year time frame. An endowment of \$550,000 is being sought.

UNPS board members Elizabeth Neese and Stan Welsh supported the purchase of the property. Dr. Welsh was appointed chairman of the committee responsible for fund raising. The property includes the listed Echinocereus engelmannii var. purpureus.

CLAY PHACELIA: Only one of Utah's eleven listed species has a completed, approved recovery plan. Signed off in 1982, a fairly simple recovery plan for the Clay Phacelia (Phacelia argillacea) provided for an expenditure of \$500.00 in fiscal year 1982 for protective measures. Additional amounts for subsequent activities were also provided for. To date however, not a single dollar has been expended in accordance with the plan. While recovery plans tremendously help to provide information and guidance even without funding, it is extremely unfortunate that funding hasn't been authorized to accomplish the very thing that the act is intended to accomplish.

The Salt Lake Office of the U.S. Fish and Wildlife Service is now

MULCH PILE CONTINUED

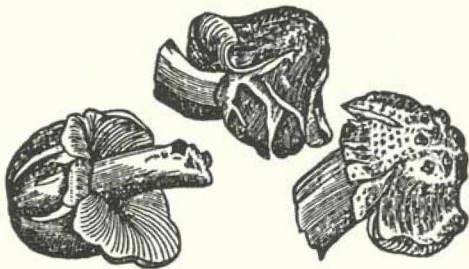
responsible for this recovery plan. Larry England indicates that funds will be requested for the impending fiscal year and that he will do everything possible to see at least some money is spent on the plan.

BEAR RIVER: Leila Shultz and Wayne Padgett have been active in monitoring proposed development by the Utah Division of Water Resources. The proposal at this stage is at its infancy. While no rare plants are known from the area potentially threatened, the importance of wetlands and the existence of habitat for species at the limits of their ranges will more than sustain the concern of plant conservationists.

AUDUBON ARTICLE: In the July issue of *Audubon*, some curious comments were made in an article entitled "The Hazardous Life of Our Rarest Plants." The article state: "One Utah Botanist found fifty-five new plants in that states's alpine and deserts habitats. Many of the new species are distributed of course, in adjacent regions--penstemons, sunflowers, cacti, mustards, artemesias, vetches, asters, a verbena, a thistle, a forget-me-not. A total of eighty species have been named since 1970 when Utah research got rolling." True??

MUSHROOMS OF UTAH: SLC CHAPTER MEETING AND FIELD TRIP FOR AUGUST by Dave Wallace

We can remember 1985 as the year without mushrooms. Everything was all set for our annual mushroom meeting and field trip with Dr. Frank Anderson, but Mother Nature had other plans. This particular week has always been very good, but this summer it hadn't rained for several weeks and the mushrooms simply were not there.



The good news is that we weren't about to let a minor problem like that spoil our fun! So many people showed up (157 of us!) for the August 22 presentation and orientation meeting at the University of Utah that we had to move to a larger room, and although the trip was announced as postponed, everyone in attendance still wanted to go on a field trip.

Once we got settled in the new room we enjoyed Dr. Anderson's excellent slides while he entertained us with his commentary. We learned about interesting things like Artillery Mushrooms and Dead Man's Fingers, and of course, the dreaded LBMs--little brown mushrooms. (Frank says he tries to step on LBMs before anyone asks him to identify them.)

Since many people were there because of their interest in eating

MUSHROOMS CONTINUED

mushrooms, Dr. Anderson had a few words of warning. In addition to some sobering tales of mushroom poisoning, he offered this advice:

1. There are no reliable tests to determine which mushrooms are safe. You must be certain of your identification.
2. Don't eat white mushrooms, even if you think they are a safe species. The consequences of getting a deadly Amanita are too great to risk.

After the program we made some quick plans for a revised autumn wildflower field trip, and took names in case the mushroom conditions changed. We met as originally planned on Saturday and formed carpools for the trip to the mountains along the Mirror Lake Road out of Kamas. With Dave Wallace leading the way in his old VW Van, there weren't any problems in keeping the group together!

The first stop was near the Yellow Pine Campground, where we found a surprising number of plants. Some were well past the flowering stage, but with Alyce Hreha's help we were able to identify most of them. We even found some dried up puffball mushrooms! The people on the trip were interested and unhurried, so we were able to take the time to discuss natural history and to identify trees and shrubs as we went.

We ate lunch at the Upper Provo River Falls, and then went up to Bald Mountain Pass, where we saw Stonecrop (Sedum), Lousewort (Pedicularis) and Pussytoes (Antennaria) still in bloom. On the way down we stopped at Lilly Lake and found a few more late summer flowers. Pleated Gentian (Gentiana) and Harebells (Campanula) were there, and we found Wild Strawberry (Fragaria) in fruit.

The great turnout for these activities is an indication of the many interested people around who want to support programs like ours. In addition to Dr. Anderson's contribution, we can thank some good promotional activities and an article in the newspaper for spreading the word. We're looking forward to doing this again next year, but with mushrooms! Mark your calendar for the annual UNPS Mushroom Hunt and Feast on Saturday, August 23, 1986!

A FEW WORDS FROM THE SALT LAKE CHAPTER

by Dave Wallace

As most of you have probably noticed, we have changed our meeting place again. Before 1985 we had been meeting at the State Arboretum of Utah Conference Room, but we had to find a new location because of our growing numbers and conflicts with others who shared the room.

In January we began having our local meetings at Highland High School. Highland is centrally located and easy to get to, and it seemed like a good choice. Once a few problems with the room assignment were straightened out,

A FEW WORDS CONTINUED

things seemed to go fairly well, but there were still a few problems. The school wasn't available June through August, and the room rental fees were straining our chapter's meager funds.

We are now meeting in the University of Utah Student Union Building because the State Arboretum of Utah is sharing their classroom with us (room 323). The price is right, but there have been some questions regarding parking and access. I certainly understand the reason for concern. It always seems strange to me that a commuter college like the U of U has gone out of their way to make trouble for people who drive. Since many of us may not be familiar with the University campus, I thought I would explain how to get around and the easiest way to get to the new UNPS meeting place.

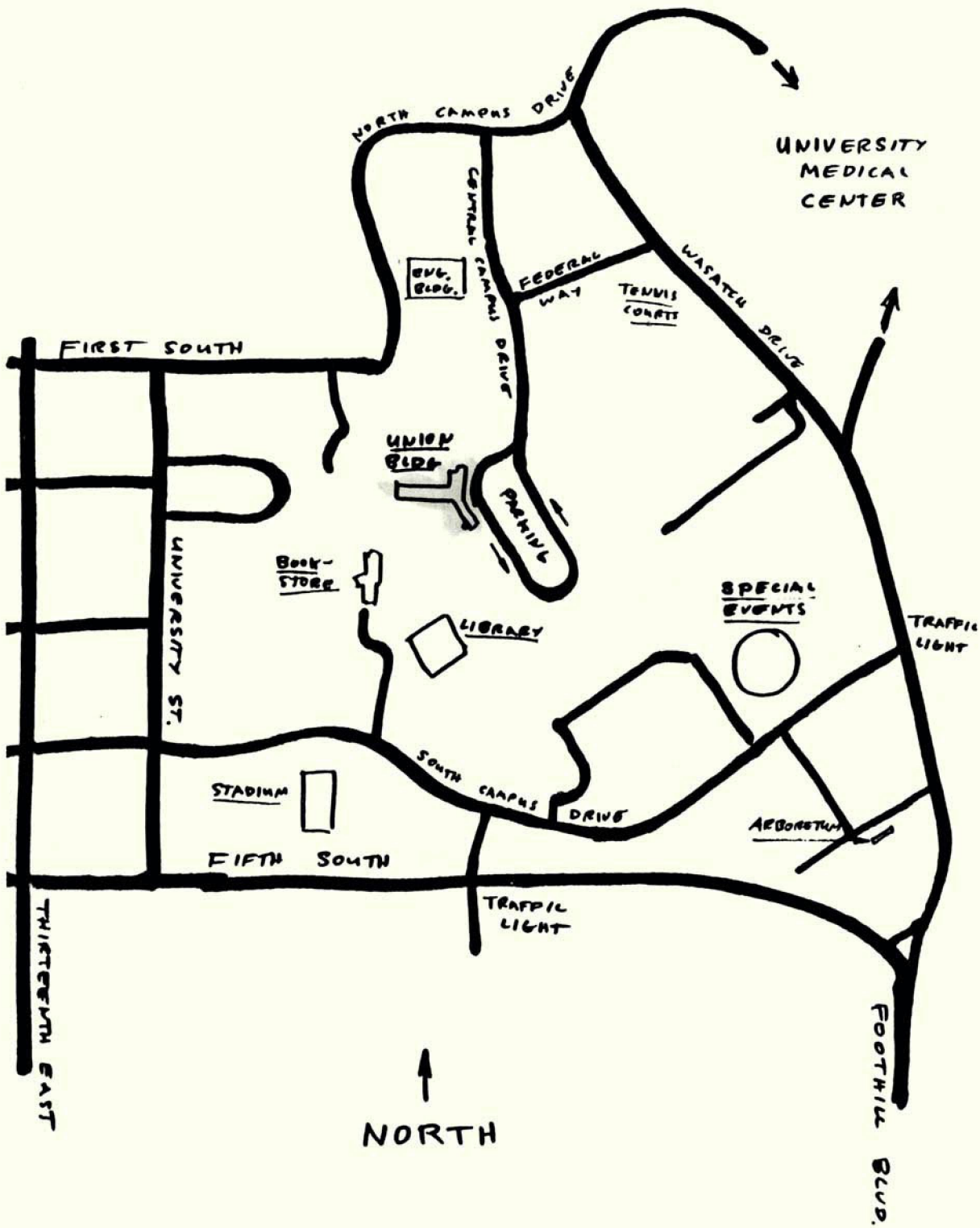
Parking: Parking regulations are not enforced after 6:00 p.m., so you can park just about anywhere you want. Anywhere is free game except parking spaces that are marked as parking for specific individuals. The lot in front (east) of the Union Building usually has room, and you can park there for free in the pay section. However, it wouldn't be a bad idea to come early on nights when there are major events on campus (such as a big basketball game or a concert at the Special Events Center). Stroll around campus or come into the Union and quaff a few rootbeers or grab an ice cream cone!

Access: Some road changes a couple of years ago wiped out the last easy route to the Union Building, so it is out of the way in spite of its central location. The most direct route is to drive east on First South past the fraternity houses and follow the road as it jogs around the Engineering Building (big black glass building) parking lot. The first right turn (south) just above that parking lot will take you straight to the Union. Other routes into campus are by way of Thirteenth East, Fifth South or Foothill Boulevard (see map.)

Don't let parking and access keep you away from our great Salt Lake Chapter Meetings. If you have any other questions on navigating the campus, call Pam at 581-5322.

PROMOTE AND SUPPORT UNPS! BUY OFFICIAL UNPS CAPS!
by Bill Wagner

Be known as a member of the Utah Native Plant Society. Buy and wear one of our great new baseball caps. They come in blue, red or green and are decorated with a custom designed Utah Penstemon illustration and the words Utah Native Plant Society on the white front panel. The intent of the caps is for UNPS exposure, not for fund raising, so the caps are for sale at cost. The caps will be available at all Salt Lake Chapter Meetings at \$3.00 for members or \$3.50 for non-members.



UNIVERSITY
MEDICAL
CENTER

NORTH CAMPUS DRIVE

FIRST SOUTH

UNIVERSITY ST.

Bldg.
Bldg.

CENTRAL CAMPUS DRIVE

FEDERAL
WAY

TENNIS
COURTS

WASATCH DRIVE

UNION
BLDG.

PARKING

Book-
STORE

LIBRARY

SPECIAL
EVENTS

TRAFFIC
LIGHT

SOUTH CAMPUS
DRIVE

STADIUM

ARBORETUM

FIFTH SOUTH

TRAFFIC
LIGHT

NORTH

FOOTHILL BLVD.

THIRTIETH EAST

AUTUMN LEAF WATCH

by Pam Poulson

Our rainbow spectrum of wildflowers has passed and the colors for September and early October are gold, bronze and red. Fall seemed to arrive abruptly with Labor Day and the cooler night temperatures brought on Autumn leaf color change. The hot, dry summer will probably mean more subdued colors than usual, but the moderate temperatures of a long Indian Summer that have been predicted should prolong the display.

Leaves are changing on the foothills and canyon bottoms. The reds we see there are the Bigtooth Maple (Acer grandidentatum) and the native Sumacs (Rhus spp.). The golds are of Box Elder (Acer negundo) and Narrowleaf Cottonwood (Populus angustifolia). These colors contrast well with the Gambel Oaks (Quercus gambellii) that are as of yet still green, but should be turning golden brown within the next two weeks.

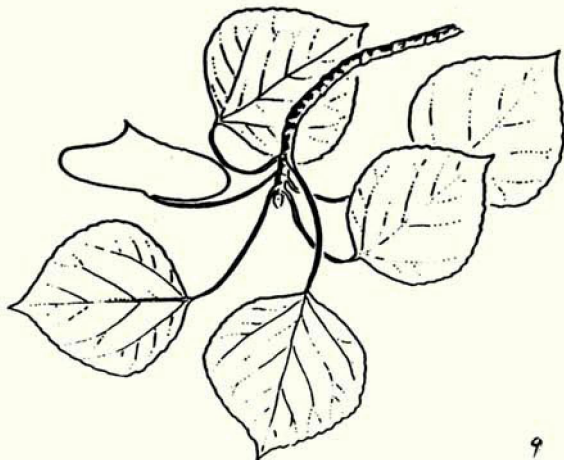
Watch higher up for the gold of the Quaking Aspen (Populus tremuloides). The hues of Autumn Aspen, from yellow through gold, bronze and even red form a beautiful fluttering contrast to the dark, unmoving conifers.

Spectacular fall color displays can be found throughout the state. Watch out for snow wherever you go. Call area rangers for road and weather conditions. Most campgrounds are open and campsites are free, but water has been turned off for the winter in some campgrounds.

Monte Cristo up Ogden Canyon has been nominated as one of the prettiest places in the Wasatch National Forest. The leaf color is powerful and the views of Ogden, Brigham City and Salt Lake Valley are overwhelming.

Perhaps some more easily accessible spots in the Wasatch Forest are: the Ward Canyon side of Bountiful Peak, the Mirror Lake Road and any of the canyons along the Wasatch Front.

Try the Red Cloud Loop in the Ashley National Forest. Starting from Vernal, this loop goes up into the Uintas on a paved road to the ridge and comes down Taylor Mountain on a dirt road. The Aspens are spectacular, mixed with conifers and Big Sage (Artemisia tridentata)



Uinta National Forest offers a broad spectrum of drives: Squaw Peak Trail, a dirt road out of Provo Canyon is 11 miles long running through golden Aspen. The road emerges to an overlook of Utah Valley. The old standby of the Alpine Loop Road is spectacular and paved, but on weekends is often bumper to bumper and crowded. Try some other less congested areas: Hobblecreek Canyon to Diamond Fork, the Nebo Loop Road from Payson to Nephi and the Daniels Canyon to the westside Strawberry Reservoir Road.

The Manti-Lasal National Forest boasts the Skyline Drive in central Utah and the Lasal Mountain Loop in southeastern Utah. The Skyline Drive runs along the mountain ridge from Tucker Rest Area near Soldier Summit to Mayfield Canyon. The Fairview to Huntington road provides easy access to the Skyline Drive and other areas of Autumn color.

The Lasal Mountain Loop Road isn't really a local secret. Running out of Moab, the Loop is famous across the country for its extra tall Aspens and the unique location of 13,000' mountains in the middle of redrock desert. A special hideaway is Warner Lake, for prize winning photos of Bald Peaks and gold Aspen reflected in the smooth surface of the lake.

A favorite place for Aspen gold is in the Dixie National Forest around Brianhead and Cedar Breaks National Monument. Aspen color ranges more into the bronzes and reds and together with the stark white trunks contrasts dramatically with the black volcanic boulders. Take the ride from Brianhead to Panquitch Lake for a dazzling display.

Toward the middle of October and even into November, check out the Golden Cottonwoods (Populus fremontii) of the Redrock deserts. Canyonlands and Zion National Park are excellent places for this.

WE ARE NOT ALONE: NATIVE PLANT SOCIETIES ACROSS THE COUNTRY
from The Columbine, Operation Wildflower Newsletter, March 1985 of the
National Council of State Garden Clubs

The oldest native plant society in America is the Native Plant Society of Oregon, founded about 25 years ago, which now has eight chapters throughout the state and over 600 members. Native plant societies are found in nearly all of our states with a number of chapters under the umbrella of the state organizations. They are often associated with a college or university.

The objectives of the societies are native plant conservation, especially the preservation of rare and endangered species; the education of members and the public in plant conservation and bringing together of professional botanists, biologists and amateur wildflower enthusiasts to their mutual benefit. Some of the societies are well established with large budgets, while others are still struggling to become better organized.

Many of the members are professional biologists and botanists connected with a college or university and are doing research on certain plants. Others are cataloging rare and endangered species; working through legislation to preserve wilderness areas and public lands; conducting classes and workshops on native plants; research (published in papers or book forms by the college or university press) and exchanging information with other organizations. There are frequent field trips to study special plants or plant habitats, and several societies conduct an annual seed exchange.

Most of the societies publish a newsletter. The frequency of the issues during the year is determined by the society. The newsletters contain a calendar of events; reports or research; pending legislation; news items regarding individuals and plants; book reviews etc..

Following is a list of Native Plant Societies across the U.S.. They are listed in alphabetical order by state. The list is too lengthy to include addresses, but if you are interested in contacting one of these societies, call Pam at 581-5322 for further information.

Alabama Wildflower Society (5 chapters)
South Alabama Botanical and Horticultural Society
Alaska Native Plant Society
Arkansas Native Plant Society
Arizona Native Plant Society
California Botanical Society
California Native Plant Society (25 chapters)
Southern California Botanists
Colorado Native Plant Society (3 chapters)
Connecticut Botanical Society
New England Wildflower Society, Inc. (Connecticut)
Botanical Society of Washington D.C.
Florida Native Plant Society (11 chapters)
Pensacola Wildflower Society
Georgia Botanical Society
Hawaiian Botanical Society
Idaho Native Plant Society
Southern Illinois Native Plant Society
Prairie Preserve of Ogle County, Inc. (Illinois)
Kansas Wildflower Society
Louisiana Native Plant Society
Acadiana Native Plant Society
Josselyn Botanical Society (Maine)
Wild Gardens of Acadia (Maine)
New England Botanical Club (Massachusetts)
New England Wildflower Society, Inc. (Massachusetts)
Michigan Botanical Club
Minnesota Native Plant Society
Mississippi Native Plant Society
Missouri Native Plant Society
Northern Nevada Native Plant Society
New England Wildflower Society, Inc. (New Hampshire)
Native Plant Society of New Mexico
Niagra Frontier Botanical Society (New York)
Syracuse Botanical Club (New York)
Torrey Botanical Club (New York)
North Carolina Botanic Garden
North Carolina Wildflower Preservation Society
Western Carolina Botanical Club
Cincinnati Wildflower Preservation Society
Ohio Native Plant Society (2 chapters)
Native Plant Society of Oregon (8 chapters)

Berry Botanic Garden (Oregon)
Bowman's Hill State Wildflower Preserve (Pennsylvania)
Muhlenberg Botanical Society (Pennsylvania)
Pennsylvania Native Plant Society
Philadelphia Botanical Club
New England Botanical Club (Rhode Island)
New England Wildflower Society, Inc. (Rhode Island)
Tennessee Native Plant Society
National Wildflower Research Center (Texas)
Native Plant Society of Texas (3 chapters)
Corpus Christi Botanical Society, Inc. (Texas)
New England Wildflower Society, Inc. (Vermont)
New England Botanical Club (Vermont)
Vermont Botanical and Bird Club
Virginia Academy of Science
Virginia Wildflower Preservation
Washington Native Plant Society
West Virginia Native Plant Society
Botanical Club of Wisconsin
Wyoming Native Plant Society

WELCOME NEW MEMBERS!

Summer has always been one of our big periods of receiving new memberships. We welcome these new members:

Lisa McClanahan - Salt Lake City
John and Bernice Pfeiffer - Sandy
Billie Keele - Bountiful
Chuck and Kittie Wright - Centerville
Leo and Mary Dahl - Sandy
Micheal and Angelica Sheffield - Delta
Scott Imber - Salt Lake

The Utah Native Plant Society is nine years old and now has 165 members and two chapters: Salt Lake Chapter and Cache Valley Chapter. Utah Valley now has enough members to also start their own chapter. If anyone in Utah Valley is interested in spearheading such an endeavor, contact Pam Poulson, 581-5322, and she'll be happy to tell you how easy it is to do!

1985 UNPS OFFICERS

Chairman of the Board - Pam Poulson
State President - Dick Page
State President Elect/Vice President - Dave Okelberry
State Treasurer - June Sullivan
State Secretary - Jeanette Schmidt

Horticulture Committee Chair - Bill Wagner
Endangered Species Committee Chair - Duane Atwood & Sherel Goodrich
Conservation Committee Chair - Tony Frates
Photography Committee Chair - Open
Seed Committee Chair - Jennifer Harrington
Newsletter Committee Chair - Pam Poulson
Membership/Publicity Chair - Kathy Mutz
Field Trip Committee Chair - Alyce Hreha

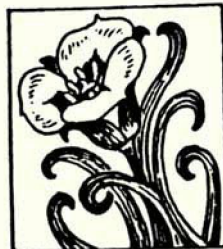
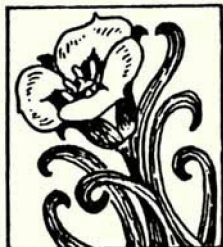
Board of Directors
All Committee Chairs
Janet Williams
Ruth Henson
Dave Wallace
John and Leila Shultz
Kaye Thorne
Wayne Padgett

Salt Lake Chapter President - Dave Wallace
Salt Lake Chapter Secretary - Karen Milne

Cache Valley Chapter President - Wayne Padgett

Members are encouraged to submit original articles to the Sego Lily Newsletter. Please state if articles have been published elsewhere and need permission of the publisher. Drawings with or without articles are also welcome. The editor reserves the right to edit as needed and to select suitable articles for publication.

The Sego Lily is published nine times a year. Copyright Utah Native Plant Society, 1985. Deadline for submission of articles is the 10th of each month of publication.



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City/State/Zip _____ Phone _____

If Gift, from: _____

() Please send a complimentary copy of the Sego Lily Newsletter to the above.

Check membership category desired:

- | | |
|----------------------------|-------------------------------|
| () Individual.....\$8.00 | () Student/Senior.....\$4.00 |
| () Family.....\$12.00 | () Life.....\$250.00 |
| () Supporting.....\$25.00 | () Corporate.....\$25.00 |
| | or greater |

Please enclose check made payable to Utah Native Plant Society and send to:
June Sullivan, Treasurer, 717 South 800 East, Salt Lake City, Utah
84112.



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 8; Number 7

October/November 1985

WHAT'S GOING ON?

Wednesday
November 13
7:00 p.m.

"Western Rare Plants," Logan Chapter Meeting. Guest speakers, John and Leila Shultz. Open slide show and discussion. Bring your slides of rare plants. Room 105 new Natural Resources Building, Utah State University.

Tuesday
November 19
All Day

Central Utah Project Special Ballot. Make yourselves heard regarding the Central Utah Project. Please vote at your usual polling place.

Wednesday
November 20
7:00 p.m.

Forests of the World. Celebrate the International Year of the Forest with the State Arboretum of Utah Winter Garden Lecture Series. "Rebirth of a Forest: Mount Saint Helens Rises from the Ashes." Dr. James MacMahon, Chairman, Department of Botany, Utah State University. Room 323 Student Union Building, University of Utah. Free and open to the public. For further information call 581-5322.

Thursday
November 21
7:30 p.m.

Annual U.F.O. Night. Utah Native Plant Society Salt Lake Chapter Meeting. A week early this month to avoid Thanksgiving. Bring your slides, photos and maps of wildflowers you encountered this year. Unidentified Flowering Objects are welcome--someone will know what it is! Our most popular meeting of the year. Room 323, Student Union Building, University of Utah.

Thursday
November 28

Thanksgiving. Remember the Mayflower: State Flower of Massachusetts (No kidding!)

Saturday
9:00 a.m. -
12:30 p.m., OR
1:00 p.m. -
4:30 p.m.

Arboretum Wreath Workshop. Join the Arboretum for Holiday Wreath making workshop. Choose either morning or afternoon sessions. Cost: \$15.00 per wreath. Call the Arboretum for reservations, 581-5322. A popular workshop so don't delay!

SEVENTH ANNUAL UTAH NATIVE PLANT SOCIETY MEETING
by Dick Page, State President

UNPS members and their guests met in the Olpin Student Union Building, University of Utah campus on September 26, for ratification of the 1986 Board of Directors and a delightful program. 1985 Committee Chairs in attendance gave brief reports of Committee activities.

"Surrounded by Color," a 35 mm color slide show with background music, achieved greater than anticipated expectations. Marv and Pam Poulson's photographs of Utah's native flora, with many species shown while flowering or in their distinctive stages, was just what the 60+ attendees were looking for. A second showing later in the evening for plant identification of species shown indicated unusual interest. Congratulations to Marv and Pam for providing these excellent photos and letting us enjoy a few breathtaking moments viewing Utah native flora.

Some of the attendees will remember the evening a little longer because of the "native plant door prize" they took home with them. Those fortunate enough to have their name "drawn out of Ty Harrison's hat" during the evening selected a potted Utah native plant of ball cap of their choice. Thanks to Ty for conducting this fun part of the meeting.

Another highlight of the evening was awarding "Sustained Superior Service Award" to Pam Poulson. Pam has given extraordinary sustained service to UNPS since shortly after its inception and well deserves the recognition.

To continue providing these excellent experiences, our members ratified persons nominated for the 1986 Board of Directors. Those selected to serve include:

Dave Okelberry	Duane Atwood
Dave Wallace	Sherel Goodrich
Alyce Hreha	Pam Poulson
Jennifer Harrington	Dick Page
Pat Harding	Janet Williams
Karen Milne	Kay Thorne
Tony Frates	John Shultz
Kathy Mutz	Leila Shultz

Thanks to Jo Stoland for supervising the Board nominations segment of the meeting.

The meeting was rounded out with Committee Chairpersons reports. Those who were available to make their reports included:

Alyce Hreha	Field Trip
Tony Frates	Conservation
Pam Poulson	Newsletter
Bill Wagner	Horticulture
Jennifer Harrington	Seed

Wayne Padgett, President of the recently organized Logan Chapter was welcomed into the organization. Wayne gave a brief report of activities in

ANNUAL MEETING CONTINUED

Logan. The Logan Chapter will be moving ahead with some fine programs in their area this year also.

UNPS has now achieved a new and improved threshold of performance which past directors have been paving the way for. This year's Board of Directors have generously shared their talents and assumed responsibility for their assigned action admirably. This and the many unmentioned services performed by other UNPS members and non-members have made this year outstanding!

WHAT ARE THOSE COMMITTEES WE KEEP HEARING ABOUT?

by Pam Poulson

With the ratification of our 1986 Board of Directors on September 26, we have ratified a group of people that have indicated they are willing to serve as "administrators" of the Utah Native Plant Society. From this group of people, An Executive Board and Committee Chairperson will be drawn.

The Executive Board - The Executive Board is composed of the State Officers, including: President, Vice President/President-Elect, Secretary, Treasurer and all chapter Presidents. This Board functions as a "mini" Board of Directors. This is the heart of the Society. The business, property and affairs of the Society are managed by the Executive Board. This Board annually reviews committees and creates new committees or dismisses committees that are either inactive or have completed their functions. The Executive Committee also appoints Committee Chairmanships.

The Horticulture Committee - The purpose of the Horticulture Committee is to promote education in the use of native plants for landscaping. This is mostly done through our annual plant and seed sale. The Horticulture Committee selects the date and the site for the sale in September. Committee members coordinate with nurseries for support personnel, donations and pricing. They encourage members to grow quality stock for the sale. They produce culture and care handouts. To get involved with the Horticulture Committee, contact Bill Wagner, Committee Chair.

The Seed Committee - As a result of the popularity of growing wildflowers from seed, the Seed Committee grew out of the Horticulture Committee. The purpose, again, is to promote education in the use of native plants for landscaping. The Seed Committee establishes guidelines for the procurement and/or seed collecting. Committee members collect, clean and package seed. They produce culture and care handouts. To get involved with the Seed Committee, contact Jennifer Harrington, Committee Chair.

The Membership Committee - The purpose of the Membership Committee is to develop and maintain a current list of active, inactive and potential members of the Society. Also, a vital function is to encourage inactive and potential members to become active and to solicit new members. To get involved with the

COMMITTEES CONTINUED

Membership Committee, contact Kathy Mutz, Committee Chair.

The Publicity Committee - The purpose of the Publicity Committee is to publicize the existence, purpose and activities of the Society; and to raise funds to support general UNPS and committee projects. To get involved with the Publicity Committee, contact either Kathy Mutz or Pam Poulson, Committee Co-chairs.

The Conservation Committee - The purpose of the Conservation Committee is to promote programs and systems which will assist in the appreciation, preservation and conservation of the native plants and plant communities of Utah and the Intermountain area. Probably the most active function of committee members is written response on behalf of the Society to calls for public comment on actions of environmental concern. To get involved with the Conservation Committee, contact Tony Frates, Committee Chair.

The Endangered Species Committee - The purpose of the Endangered Species Committee is to assist in the identification, inventory, preservation and conservation of endangered Utah plant species. The committee sponsors an annual Endangered Species Conference wherein recommendations for federal action are developed. These become the official Utah recommendations submitted to the U.S. Fish and Wildlife Service. To get involved with the Endangered Species Committee, contact Duane Atwood or Sherel Goodrich, Committee Co-chairs.

The Field Trip Committee - The purpose of the Field Trip Committee is to develop and conduct educational field trips. These field trips have been held mostly during the summer months, both in the evenings and on weekends. To get involved with the Field Trip Committee, contact Alyce Hreha, Committee Chair.

The Photography Committee - The purpose of the Photography Committee is to promote and educate in the art of plant photography and to develop a Society photograph file of Utah native plants. Photographs from the Society file are used in educational displays and presentations. The Chairmanship of this committee is currently open. If you are interested in becoming the Photography Committee Chair, contact Pam Poulson, Chairman of the Board or Dick Page, President.

The Nominating Committee - The purpose of the Nominating Committee is to provide nominations for members of the Board of Directors at the annual meeting of the Society. Committee members are designated by the Executive Board. To get involved with the Nominating Committee, contact Pam Poulson, Chairman of the Board or Dick Page, President.

The Newsletter Committee - The purpose of the Newsletter Committee is to edit and produce the Society Newsletter, "The Segó Lily." "The Segó Lily" is produced nine times annually and committee members consist of reporters, writers, editors, copiers, collators and mailers. To get involved with the Newsletter Committee, contact Pam Poulson, Committee Chair.

That's the function of the current committees in a nutshell. If you find one of them of interest or think we have need of additional or more specialized committees, contact Dick Page, President. Get involved!

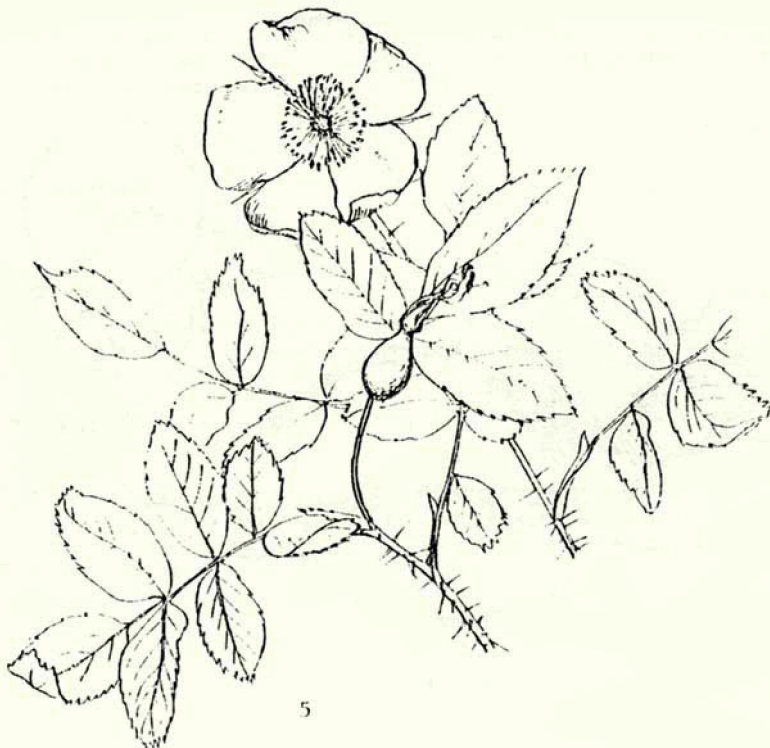
A PRAIRIE RENAISSANCE-SALT LAKE CHAPTER OCTOBER MEETING
by A.M. Boyack

The tall grass prairies are being rediscovered. Ty Harrison, noted teacher and ecologist ably described their disappearance and renaissance in his slide presentation at our October chapter meeting. He told of the encouraging efforts of the plains states, particularly Nebraska, in preserving areas for regrowth of native grasses and wildflowers.

His slides illustrated the subtle beauty of these wild native prairies, the shoulder high grass and the profusion of wildflowers. Many of these plants could easily be adapted to garden landscaping in Utah such as the buffalo grass, little blue stem grass and wildflowers such as the pink gay feather and prairie fringed orchid.

Nebraska has designated the first week in October as "Prairie Appreciation Week." Teachers, ecologists and amateurs, with the encouragement of the State University, have had a tremendous success in raising the public awareness of their "prairie heritage" in the past five years, particularly among school children.

Ty Harrison will speak to us again in January. He will speak then on the restoration of native flora in the Wasatch Front Communities. (Perhaps the UNPS should consider the possibilities of a "Great Basin Appreciation Week" or a "Colorado Plateau Appreciation Week" or a "Rocky Mountain Appreciation Week" in Utah.)



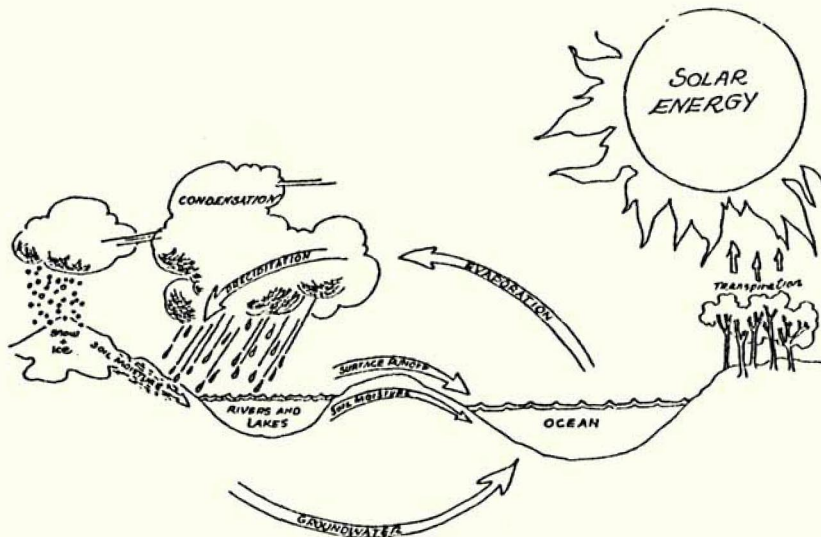
NATIVE PLANT LANDSCAPING AND THE CENTRAL UTAH PROJECT
by Dave Wallace

Landscaping with native plants has always been a favorite topic with UNPS members. Meetings and field trips which feature native plant cultivation are always popular, and the annual plant sale is our most successful fund raising activity. There are undoubtedly many obvious reasons to grow native, but how many people have thought about the indirect benefits to society?

On November 19 voters in twelve Utah counties will be deciding whether to accept a debt of 1/2 Billion dollars to continue construction on the Bonneville Unit of the Central Utah Project. This water project has its share of critics for any number of reasons, but few people have been saying much about the justification for it.

The CUP has so many faults it is hard to resist attacking it for legal, ethical, economic and environmental reasons, especially with an abundance of alternative water sources, but do we need more water at all? Let's look at the facts from the State Review of the Bonneville Unit, and apply a little common sense and our knowledge of native plants:

The primary justification for this unit of the CUP is to accommodate the increased population in Salt Lake County around the turn of the century. These growth projections show an increase to nearly one million people. While the growth of this magnitude is not guaranteed to actually occur, government officials feel obligated to prepare for it. (Sat Lake City growth is not a significant factor. The city has adequate water until past the year 2000 even with the development of the northwest quadrant.



CENTRAL UTAH PROJECT CONTINUED

When these growth projections are factored with water use rates, the result seems to indicate CUP water is needed, but if we investigate these water use rates we can come to another conclusion. It seems as if these projections are based on the current use rate of 242 gallons per person per day, the highest water consumption of any major metropolitan area in the west. A reduction in this use rate by about 30% (to water use levels of Los Angeles, Oakland, San Diego or Tucson) would totally eliminate the need for CUP water in Salt Lake County.

How can we go about reducing water demand? Conservation and the increased use of native plants in landscaping should be all that is needed. We need to reduce the amount of water used on lawns and gardens to about 1/3 of the amount currently used, since up to 50% of all municipal water is now used for those purposes. Reducing lot size could do the job, since every 1000 square feet of lot requires 5,900 gallons of water per year. Another and more desirable method would be to use native plants:

Salt Lake County has a semiarid climate, but present landscaping practices could hardly be less appropriate. A much more thoughtful choice would be to look into the foothills for native plants we can adapt for cultivation. These plants do wonderfully with just a little supplemental watering. (We warn people that the native they buy at our plant sales may grow so vigorously with regular watering that they are difficult to control!)

Bluegrass lawns consume tremendous quantities of water, up to one gallon per square foot each week, but there are native grasses that can be used. Many need supplemental watering less than once a month, and some don't need it at all once they are established. (Ask Pam Poulson about her Buffalo Grass lawn.) In fact, the water-guzzling Bluegrass can be quite drought resistant if proper soil preparations are made. It goes dormant and turns brown in the summer, but this doesn't matter unless you care what the neighbors think.

Trees and shrubs use less water than lawns, and they can provide cooling (reduced water evaporation) shade. Evergreens are especially adapted to conserving water, and many of our native shrubs do not require any irrigation once they are established.

Improved irrigation and cultivation practices also help with water conservation. Measuring water applications, watering only when the plants show a need, and spot watering are all good methods. Proper soil preparation promotes deeper root development so plants can tolerate longer periods without water.

We are in the position to make a choice for the future. We can pay the price in increased taxes, water rates and environmental damage for the privilege of having large Bluegrass lawns for our expanding population, or we can modify our attitudes and adapt to lower water usage rates. Our government leaders may deny our resolve to do with anything "less" than the status quo, but as native plant lovers imagine how much more we would really have.

Note: Data for this article was obtained primarily from the State Review of the Bonneville Unit Central Utah Project of December 1984, and from comments by the National Wildlife Federation included in it. Information on semiarid landscaping was obtained from Landscape for Water Conservation, published by the city of Aurora, Colorado.

BLOOMING HIGHWAYS

from an article in the Wall Street Journal by Allen Lacy, 10/2/85
submitted by Ken Grundmann

Driving north on Route 340 from Virginia into the easternmost corner of West Virginia recently, I was so startled that a few miles up the road I turned the car around and headed back into Virginia to make certain that I'd seen what I thought I saw. The character of the roadside vegetation changes at the state line. In this part of West Virginia, the verges of the highway are closely mowed and wildflowers common, right up to the fence rows, where brambles and volunteer mulberry and ailanthus trees slug it out for dominance. Cross over into Virginia, and the wildflowers begin, abruptly and dramatically.

Everywhere [in Virginia] I was struck by how lovely the roadside wildflowers were this year, despite the drought. Native wildflowers and European escapees from Colonial gardens both graced the roadway landscape with beauty and delight.

I had, however, misunderstood what I had seen. I had thought that the wildflowers were especially lovely this year in the states along the eastern seaboard through some trick of nature. What was really the case was the Commonwealth of Virginia was deliberately managing the right of way in its highway system in order to encourage the growth of a wide variety of highly attractive flora. Virginia, it seemed clear, was following the lead of Texas, whose Department of Highways and Public Transportation has since the 1930s planted so many wildflowers along its roadsides that they are now estimated to cover one million acres.

When I got back home, I rang up Richmond to find out what was going on and quickly found myself chatting with R.L. Hundley, an environmental engineer with the state highway department, who was enthusiastic about his job and proud that the wildflowers begin at the Virginia border.



BLOOMING HIGHWAYS CONTINUED

According to Mr. Hundley, the policies that are responsible for the glories of his state's roadsides were initiated in the middle 1970s in cooperation with the Virginia Federation of Garden Clubs. At the outset of a program called "Operation Wildflower," club members undertook to plant seeds in half acre plots along selected highways, the state then becoming responsible for a program of maintenance designed to ensure the spread of wildflowers from one place to another.

"Partly it's just a matter of timing, partly of leaving things alone," he explained. The general policy is to cut the grass short only at the immediate edge of the pavement, in a mowed strip four to six feet wide. Beyond that, the rest of the right of way receives the least attention possible.

The result of these enlightened policies goes beyond providing human beings with beautiful plants to enjoy from late spring to early fall as they zip along the interstates in disregard to the posted 55 miles per hour. A habitat has been created that offers shelter and food to birds and small mammals.

Back home from Virginia, driving along the highways of one of those states that favors grass over wildflowers, I feel a bit depressed. Shouldn't the Garden State Parkway look more like a garden, with some evening primroses and perennial sweet peas and Verbascums along its verges?

Senator Lloyd Bensten, a Texan well-accustomed to flowers on roadsides, introduced a bill in Congress two years ago to provide funds to landscape many of our highways with native flowers. The legislation has since languished in committee, but a key member of the senator's staff is optimistic about its chances of passing into law next year, an outcome that will gladden the hearts of all the flower loving drivers across our land.

HELP SAVE AMERICA'S ENDANGERED WILDFLOWERS ADVERTISEMENT

Many of America's most treasured wildflowers are threatened with extinction. In fact, experts estimate that one-tenth of the taxa native to the United States are in jeopardy. In Hawaii, 40 or even 50 percent of the native plants, all of which exist nowhere else in the world, share this status. About 240 plants in this country are extinct or feared extinct; another 450 are found only in dangerously small populations.

Help save our endangered wildflowers by purchasing the American Horticultural Society's 1986 Endangered Wildflowers Calendar. Funds raised from sales will be used to support conservation projects, including the Society's Wildflower Rediscovery Award Project.

Proceeds from sales of the calendar will enable AHS--a national, non-profit organization for gardeners--to award up to \$250 to non-profit

ENDANGERED WILDFLOWERS CALENDAR CONTINUED

organizations whose members first provide confidential information specifying the location of any plant thought by conservation authorities to be extinct. Individuals who make these discoveries will also be eligible for rewards of up to \$100. For a list of plants thought to be extinct, please send a self-addressed, stamped (39 cents), business size envelope to Wildflower Rediscovery Project, AHS, P.O. Box 0105, Mount Vernon, VA 22121.

The attractive wall calendar (8 1/2 by 23 inches when open) features beautiful color photographs of endangered plants from all over the United States. Each photograph is accompanied by a discussion of the taxon and the factors that cause it to be threatened. Calendars are \$6.95 each. To order, send your name, address and check payable to the American Horticultural Society to:

Endangered Wildflowers Calendar
American Horticultural Society
P.O. Box 0105
Mount Vernon VA 22121



REMEMBER THE MAYFLOWER!

adapted from State Flowers by Anne Ophelia Dowden

"The Mayflower (Epigaea repens) shall be the state flower or floral emblem of the commonwealth of Massachusetts....1918, 1953"

The law goes on to state the penalties to be imposed on anyone who pulls up the plant, penalties especially severe "if a person does any of the aforesaid acts while in disguise or secretly in the nighttime." Now the Mayflower or Trailing Arbutus is on the national list of Protected Wild Plants, and federal authority backs up the quaint state law.

Mayflower grows from Newfoundland to Florida and west to Kentucky, but is chiefly associated with New England. There it has been the beloved herald of Spring ever since the Pilgrims first found its winter worn leaves. One wonders why they called it the "mayflower," because it usually blooms in March or April, and in England Mayflower was the Hawthorn (Crataegus ssp.) tree, long used in pagan May Day ceremonies. The Pilgrims did not prophetically choose to travel in a ship called Mayflower; it was an English ship named for the English Hawthorn.

CLASSES FOR WINTER QUARTER FROM THE STATE ARBORETUM OF UTAH

The State Arboretum of Utah offers more Winter Quarter classes than ever before. Choose from a variety of topics, one sure to warm your winter fancy.

Register through the State Arboretum of Utah (581-5322) for: the 1986 Herb Growing Workshop.

The State Arboretum of Utah offers you the fourth year of their popular Herb Growing Workshop. The course will be offered in two parts this year: Lectures and hands-on Propagation Workshop. Loren Morey, Herb Specialist and Master Gardener, will present the lectures Fridays from 9:30-11:30 a.m.

January 10 - Twenty Herbs for Utah Gardens
January 17 - Propagation of Herbs
January 24 - The Herb Garden
January 31 - Harvesting and Preserving Herbs

Herb propagation will be taught at the State Arboretum Conservatory by Mary Pat Matheson, Conservatory Manager, on February 7, 14, 21 and 28. There will be three sections to choose from: 1) 9:00-10:30 a.m. 2) 10:30 a.m.-12:00 p.m. 3) 12:30-2:00 p.m., limited to five students in each section.

lectures only: \$30.00. Lectures and Propagation Workshop: \$50.00.

Register through the University of Utah Division of Continuing Education (581-6483) for the following:

Exotic Interiors
RL 194-6, 2 credit hours
RL 19-1 non-credit

Mary Pat Matheson, the State Arboretum's Conservatory Manager will teach this exciting class on interior landscapes. Class meets Tuesdays from 7:00-9:00 p.m. with two Saturday field trips on February 1 and March 1. You will learn plant families and their natural habitat, propagation techniques and growing beautiful plants under artificial conditions. Non credit fee: \$50.

Winter Botany
Biology 307RB-1, 2 credit hours
RL 385R-1, 2 credit hours
RL 38RA-1, non-credit

Would you like to be able to identify plants during their dormant period? Taught by UNPS member Alyce Hreha, the first hour of each class will be spent outside collecting specimens and the second hour will be spent indentifying using a key. Class meets on Wednesdays from 2:00-4:00 p.m.. Non-credit fee: \$50.

ARBORETUM CLASSES CONTINUED

Advanced Native Plant Identification

Biology 307RA-1, 2 credit hours

Biology 17R-1, non-credit

RL 385R-4, 2 hours credit

RL 38RA-4, non-credit

This class is designed for students who already know how to use a key to identify plants. Classes will meet on Tuesday evenings from 7:00-9:30 p.m.. A different specialist will teach each class and will focus on a different plant group such as Fungi or deciduous conifers. Non-credit fee: \$50.

For further information on any of the above classes, call the State Arboretum of Utah at 581-5322.

WELCOME NEW MEMBERS

Irene Oliekan, Salt Lake City
Chuck and Elaine Clark, Salt Lake City
Debra Noel, Salt Lake City
Dorothy C. Egan, Salt Lake City
Elaine McPhie, Salt Lake City
Linda Zwick, Salt Lake City
Thomas A. Kursar, Salt Lake City
Eileen Hardy, Salt Lake City
Lillyan Loomis, Salt Lake City
Helen R. Burnett, Salt Lake City

PROMOTE AND SUPPORT UNPS! BUY OFFICIAL UNPS CAPS!
by Bill Wagner

Be known as a member of the Utah Native Plant Society. Buy and wear one of our great new baseball caps. They come in blue, red or green and are decorated with a custom designed Utah Penstemon illustration and the words Utah Native Plant Society on the white front panel. The intent of the caps is for UNPS exposure, not for fund raising, so the caps are for sale at cost. The caps will be available at all Salt Lake Chapter Meetings at \$3.00 for members or \$3.50 for non-members.

1985 UNPS OFFICERS

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Dave Wallace
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Salt Lake Chapter Secretary - Karen Milne

Cache Valley Chapter President - Wayne Padgett

Members are encouraged to submit original articles to the Sego Lily Newsletter. Please state if articles have been published elsewhere and need permission of the publisher. Drawings with or without articles are also welcome. The editor reserves the right to edit as needed and to select suitable articles for publication.

The Sego Lily is published nine times a year. Copyright Utah Native Plant Society, 1985. Deadline for submission of articles is the 10th of each month of publication.



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c/o Pam Poulson
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MEMBERSHIP APPLICATION

(annual membership from date of receipt of fee)

() New Member () Renewal () Gift

Name _____

Street _____

City/State/Zip _____ Phone _____

If Gift, from: _____

() Please send a complimentary copy of the Sego Lily Newsletter to the above.

Check membership category desired:

- | | |
|----------------------------|-------------------------------|
| () Individual.....\$8.00 | () Student/Senior.....\$4.00 |
| () Family.....\$12.00 | () Life.....\$250.00 |
| () Supporting.....\$25.00 | () Corporate.....\$25.00 |
- or greater

Please enclose check made payable to Utah Native Plant Society and send to:

June Sullivan, Treasurer, 717 South 800 East, Salt Lake City, Utah
84102.



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 8; Number 8

December/January 1985/1986

WHAT'S GOING ON?

- Monday
January 6
7:30 p.m. Wandering in the Wasatch. Utah Museum of Natural History Wasatch Lecture Series. Guest Speaker: Kenneth Eble. Highland Highschool Auditorium. \$3.00.
- Tuesday
January 7
7:00-9:00 p.m. Advanced Native Plant Identification Class Begins. Expert Speakers each week through March. Division of Continuing Education, University of Utah. Coordinated by Kathy Mutz. For further information, call the State Arboretum of Utah, 581-5322.
- Wednesday
January 8
3:15-5:00 p.m. Winter Botany Class Begins. Winter plant identification. Division of Continuing Education, University of Utah. Taught by Alyce Hreha. For further information, call the State Arboretum of Utah, 581-5322.
- Wednesday
January 8
7:00-9:00 p.m. Environmental Education for Utah. Organizational meeting for all those interested in promoting Environmental Education in Utah's Public Schools. Room 323, Olpin Student Union Building, University of Utah. For further information, call Pam at the State Arboretum of Utah, 581-5322.
- Saturday
January 11
9:00 a.m. Audubon Second Saturday Field Trips. Birding in Red Butte Canyon. For further information, call Mary Noonan, 582-5454.
- Monday
January 13
7:30 p.m. Geology of the Wasatch Mountains. Utah Museum of Natural History Wasatch Lecture Series. Guest Speaker: Frank DeCourten. Highland Highschool Auditorium. \$3.00.
- Wednesday
January 15
7:00-9:00 p.m. Eastern Hardwoods in Native and Home Landscapes. The State Arboretum of Utah's Winter Lecture Series continues. Guest Speaker, Harrison Flint, Purdue University. Room 323 Olpin Student Union Building, University of Utah. For further information, call 581-5322.
- Thursday
January 16
6:30-9:00 p.m. Annual Board of Directors Meeting. Directors: for further information or reservations, call Dick Page, 524-3126 days 255-7769 evenings, before January 9.

- Monday
January 20
7:30 p.m. Earthquakes: Prospects and Perspectives. Utah Museum of Natural History Wasatch Lecture Series. Guest Speaker: Walter Joseph Arabasz. Highland Highschool Auditorium. \$3.00.
- Tuesday
January 21
8:00 p.m. Defending the Desert. Utah Audubon Monthly Meeting. Guest Speaker: Dick Carter. Sugarhouse Garden Center.
- Thursday
January 23
7:30-9:30 p.m. Wildflowers of Willowcreek and Dry Creek. Salt Lake Chapter Meeting for January. Guest Speaker: Ty Harrison. Room 323, Olpin Student Union Building, University of Utah. For further information, call Pam, 581-5322.
- Monday
January 27
7:30 p.m. Avalanche! Utah Museum of Natural History Wasatch Lecture Series. Guest Speaker: Sue A. Ferguson. Highland Highschool Auditorium. \$3.00.
- Monday
February 3
7:30 p.m. Water, Water, Everywhere? Utah Museum of Natural History Wasatch Front Lecture Series. Guest Speaker: Ted Arnow. Highland Highschool Auditorium. \$3.00.
- Monday
February 10
7:30 p.m. Dialogue: Planning for the Future. Utah Museum of Natural History Wasatch Lecture Series. Speakers: Alexis Kelner, David W. Adams, James R. Barnes, R. Thayne Robson and Ted Wilson. Highland Highschool Auditorium. \$3.00.
- Wednesday
February 19
6:30-8:30 p.m. Executive Committee Meeting. The first meeting of the year. Open to the membership. State Arboretum Conference Room. For further information, call Dave Okelberry, 539-6680 days, 968-6190 evenings.



NOVEMBER U.F.O. NIGHT - SALT LAKE CHAPTER MEETING
by Pam Poulson

Our annual U.F.O. (unidentified flowering objects) meeting was once again a great success. Over 20 people gathered to share photos and slides of wildflowers they had photographed from literally all over the world. From the Wasatch foothills and southern Utah, to California, Oregon and Costa Rica, the evening was a delight of wildflowers, familiar and unusual. Slides were accompanied with travel logs, legends, recipes and directions on where to go and when to see. Even though not many U.F.O.s were presented, our expert identifiers had no trouble, and an entertaining and educational time was had by all.

PROPAGATION FROM WILD SEED

reprinted from the Northern Nevada Native Plant Society Newsletter
with permission of the author, James Borland, Chief Propagator of
the Denver Botanic Garden

The seed propagation of native plants in general is very similar to the propagation of temperate zone native plants anywhere in the world. Temperate zone plants are subjected to more vagaries of weather and fill more ecological niches than either the plants of the tropics or colder arctic zones. Germination strategies are therefore more varied in temperate zone produced seed than for seed from higher or lower latitudes.

Crucial to the understanding [of germination factors] is the realization that the seed is a physiologically living, breathing, and adaptable organism. Like all living things, it is the product of its past history, present environment and genetic makeup. For example, it is not unusual for seed to have developed a thicker or tougher seedcoat in response to an unusually dry growing season. Conversely, domesticating a plant and paying particular attention to its water and nutritional needs will often result in the production of easily germinated seed, sometimes with the elimination, or at least the amelioration of dormancy factors. As if anticipating future problems with a conducive germination environment, several species (e.g. Kochia and Salsola) are capable of producing simultaneously, or over a season, two or more distinctly different seed types which require different environmental conditions for germination.

An inherent quality of seed is that its viability and thus germinability generally decline with storage time as the seed physiologically ages. Yet, seed of several Atriplex species [and other species] seems to defy this maxim by increasing in germinability with several months of dry storage or after-ripening. This period of after-ripening is necessary to allow the immature embryo to become physiologically mature and able to perceive the subsequent cool and moist period then necessary for germination.

Although we occasionally collect immature seed when it is realized that we won't be back this way again, we anticipate that it may not germinate and are not disappointed when it does not. However, "green" Aquilegia caerulea seed will generally germinate quicker without any pretreatment than will seed gathered from ripe capsules.

Seed storage conditions will vastly affect ultimate germinability. High temperatures are to be avoided at all costs. Chemical reactions, which are the driving force of all biology, accelerate with temperature, thus hastening the physiological aging process. Conversely, short exposures to high temperatures have promoted germination in seed of some desert plants. Equally important is seed moisture content. Combinations of high temperature and high seed moisture during storage seriously hasten death. Because seeds have the ability to lose or gain moisture from the air, properly dried seed in improperly sealed seed containers can either gain moisture in older moisture laden refrigerators or lose additional moisture in frost free models.

Many species produce seed with immature embryos which are ripened only by subjecting them to moistures and temperatures between 34-41 degrees F. Although it is not known exactly why the additional development occurs only under these conditions, one plausible theory advanced by some involves the greater

PROPAGATION CONTINUED

amount of oxygen which can be absorbed by water at lower temperatures. This "extra" oxygen may be necessary for certain pregermination reactions.

Stratification is the term most often used to explain the process of subjecting seeds to these moist and cool conditions. The term originally was used to describe the process of alternating layers of seed between layers of a moisture holding material such as peatmoss or sand. The container holding the moistened, layered, or stratified seed was then moved to an enclosure where the temperature was maintained at 34-41 degrees F. for the prescribed period for that species. A common misconception regarding stratification is thinking that only cold temperatures are necessary for conditioning the seed for germination. The seed must be moist. Subjecting seed to cold-moist conditions where 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 will collected seed have shown that having fluctuating temperatures--daytime for eight hours 20 degrees higher than night temperatures for 16 hours--results in better and quicker germination than a constant temperature.

[In a recent letter, Jim added, "It is not commonly known that this seed must be sown immediately after stratification. If it is allowed to dry out, it may either go dormant again, sometimes then requiring even more complex procedures to break dormancy, or die. Freezing is a pregermination procedure not described yet recommended by many, but apparently without much support. Since most biological activity ceases at below freezing temperatures, especially at temperatures commonly found in residential freezers, it is doubtful that these temperatures have any effect. The potential benefit of cracking recalcitrant seedcoats by freezing should occur in a matter of minutes. This benefit could be more conveniently accomplished through some other scarification procedure"] such as a quick whirl in the food processor!

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 requirements may be satisfied by minute quantities and duration of light, general recommendations for these seeds are exposures to 10-150 footcandles during the eight hour high temperature fluctuation period. Seed requiring a dark period for germination often fail to germinate or germinate poorly under continuous light.

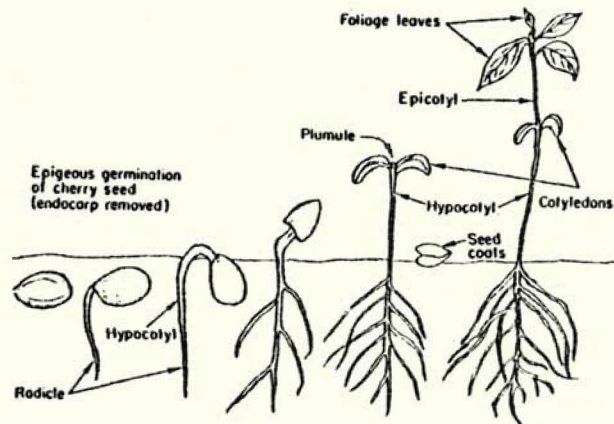
[Jim also wrote, "I've been using high light intensity 24 hours a day on Eriogonum seedlings and practically everything has produced wonderful blooming plants in my gardens this summer. This light is supplied through high pressure sodium vapor lamps that provide a maximum of 600 foot-candles of light. There are potentially two benefits to be derived from using this setup. One involves a 24 hour growing day and the other is the prevention of potential dormancy naturally imposed by the long night length in early spring when these seedlings are being grown. It is probable that young seedlings are unable to perceive daylength until some later maturation point and therefore the benefit of the 24 hour light is solely one of an extended growth period. All of these factors, plus temperature, interplay with growth and are little understood except for a

PROPAGATION CONTINUED

few economically important crops. So--we are guessing here, but it works. The question is one of degree. Am I putting in more energy than is required for the desired results of accelerating growth?"]

Replicating germination tests precisely is difficult without full control over the test environment. When seed lot, seed age, storage environment and germination test procedures are not fully reported, then expectations for similar results with your own seed often can be only wishful. Reported germination instructions, then, are best used as guides to the methods and procedures necessary to germinate your own seeds.

Remember, the seed you sow represents only a portion of the species' adaptability to its site. If ability to change is the name of the game, then it should not surprise us that next year's crop of seed may differ in its germination requirements.



STARTING WILDFLOWERS IN THE WINDOWSILL IN THE WINTER

by Pam Poulson

Last year at the end of January, I got cabin fever. The white sky and the white ground and the cold air just about more than I could stand. Wildflowers were as far away as they could possibly be, and I missed them. I started thinking of all the wildflower seeds I had collected and purchased throughout 1984 and the limited reading on propagation I had done, and decided to give it a try. Although my techniques were not as scientific as Jim Borland's, they were logical and successful. My logic was this: Where do the specific flowers grow? What conditions are required for them to stratify and germinate in their native habitats? (Continued on page 9)

ATTENTION UNPS MEMBERS!
by Kathy Mutz

As we begin a new year, with new officers and new committee coordinators we are making a renewed effort to provide the kind of activities and information desired by our rapidly growing membership. We would also like to enlist the aid of willing volunteers to serve on committees. The amount of time and effort required depends on the level of interest and abilities of the volunteers.

The following page contains a list of committees and specific activities associated with them. Please read through the following and check the appropriate columns corresponding to your interest. The sheet can be folded, stapled/taped and mailed to UNPS. We appreciate your help in defining the future activities of your society.

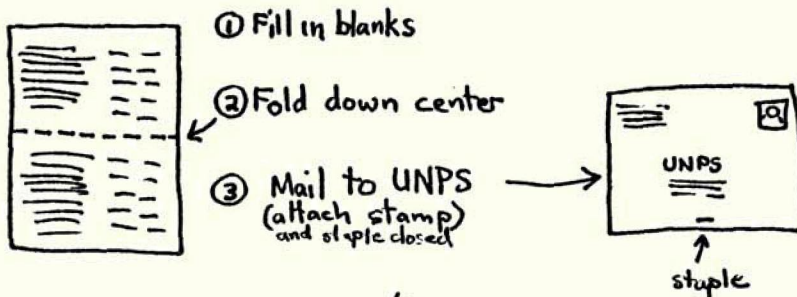
By the way, any other comments are encouraged. If present committees, functions or directions seem inappropriate or inadequate, we would like to know. Also, if an activity, involvement or committee is not currently offered by the Society, now is the time to contribute. Suggestions are always welcome!

YOU'VE BEEN DIGITIZED!
by Kathy Mutz

One more "bit of business": In computerizing our membership list, we are attempting to update, clean out and correct our mailing list. Take a quick look at your mailing label on this newsletter. You will see a three or four digit number on the first line of the address:

586
Susie Sunflower
1234 Cactus Cutoff
Birch Butte UT 84999

That number indicates what our records show as your membership expiration date in month and year. For example, Ms. Sunflower's membership expires the last day of May, 1986. Please let us know if this is correct, or if not, what the approximate date should be. There is a space on the following sheet to indicate this information. We don't want to terminate memberships improperly. Thanks.



Mailing Label Info: Correct
 Incorrect Correct expiration date

<u>Committee/Topic</u>	<u>Need more activity/info</u>	<u>Would like to volunteer</u>
Membership		
maintain mailing list	<u> </u>	<u> </u>
solicit corporate members	<u> </u>	<u> </u>
solicit individual members	<u> </u>	<u> </u>
Publicity		
posters	<u> </u>	<u> </u>
public service announcements	<u> </u>	<u> </u>
radio/newspaper interviews	<u> </u>	<u> </u>
mailings	<u> </u>	<u> </u>
Newsletter		
contribute articles	<u> </u>	<u> </u>
type/paste up	NA	<u> </u>
edit	NA	<u> </u>
art work	<u> </u>	<u> </u>
mailings	<u> </u>	<u> </u>
helper	<u> </u>	<u> </u>
Photography		
<u>Sego Lily</u> articles	<u> </u>	<u> </u>
education	<u> </u>	<u> </u>
slide file maintenance	<u> </u>	<u> </u>
field trips	<u> </u>	<u> </u>
Horticulture		
education	<u> </u>	<u> </u>
plant sale	<u> </u>	<u> </u>
planting projects	<u> </u>	<u> </u>
Conservation		
education	<u> </u>	<u> </u>
Federal/State agency review	<u> </u>	<u> </u>
field trips	<u> </u>	<u> </u>
conservation projects	<u> </u>	<u> </u>
Rare and Endangered Species		
education	<u> </u>	<u> </u>
maintain maps	<u> </u>	<u> </u>
annual meeting	<u> </u>	<u> </u>
coordinate with Conservation	<u> </u>	<u> </u>
Seed		
collections	<u> </u>	<u> </u>
packaging	<u> </u>	<u> </u>
sales	<u> </u>	<u> </u>
research	<u> </u>	<u> </u>
Field Trips		
arrangements/scheduling	<u> </u>	<u> </u>
lead	<u> </u>	<u> </u>
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c/o State Arboretum of Utah
Building 436 University of Utah
Salt Lake City UT 84112

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WINDOWSILL CONTINUED

My techniques were grossly simplified into two avenues of approach: 1) a dry, warm "desert" treatment and 2) a moist, cool "forest" treatment.

Desert Treatment: (Gaillardia pinnatifida, Eschscholzia californica, Datura meteloides, Encelopsis nudicaulis, Oryzopsis hymenoides, Penstemon ambiguus, Zinnia grandiflora, Gilia aggregata, Allium nevadense, Heterotheca villosa, Linum lewisii, Oenothera pallida, Argemone munita, Sphaeralcea coccinea) No stratification. Plant in peat pots, barely covering the seeds with a mixture of 3 parts sand and 1 part Cascade. Seeds are planted in peat pots to avoid need of transplanting, which many wildflowers cannot take. Keep soil evenly moist. Place in bright, south facing windowsill. Seeds germinate within one week! What did I do with tiny plants in February? Unfortunately, the best thing to do with plants once they have germinated and have their first true leaves is plant them outside, in the ground. I sprouted another set of desert wildflowers in April. This technique also works well for plants that grow in scree at high altitudes, where soil is non-existent and water runs off quickly.

Forest Treatment: (Iris missouriensis, Allium accuminatum, Monardella odoratissima, Zauschneria californica, Viguiera multiflora, Eriogonum heracleoides, Dodecatheon pauciflorum, Wyethia helianthoides, Lilium pardalinum, Erythronium multiscapoidia, Calochortus leichtlinii, Achillea millifolium, Penstemon ssp., Aquilegia ssp.) Stratify in moist peat moss in ziplock bags in the refrigerator (not the freezer) until tiny roots appear. This takes from 4-6 weeks and can take up to a whole year, but uses up time so that when the tiny plants are ready for the outdoors, the outdoors is ready for them. Plant in peat pots (peat moss and all), barely covering the seeds with a mixture of 1 part sand and 1 part Cascade. Keep soil evenly moist. A south windowsill exposure is not necessary. Seeds germinate as fast as three days! Move to sunny window. Plant outside in the ground when the first true leaves appear.

All of the above mentioned wildflowers were successful, grew well in my native landscaped yard and most bloomed. Some of the perennials will not bloom until next year (Dick Hildreth calls their first year "perenniating") and the bulb plants will not bloom for a couple of years. It is interesting to note that with just the little extra water the wildflowers received in my xeric landscape, they had a longer blooming period. Two perennial genera that are extremely easy to germinate and grow are two favorites: Aquilegia ssp. and Penstemon ssp.. There's always room for more of them and the Aquilegia promiscuously propagates itself throughout the garden. Beware of Achillea, however. It is another heavy propagator (both seeds and rhizomes) and can get out of hand fast! Three annuals that did exceedingly well were Clarkia pulchella, Phacelia campanularia and Verbesina encelioides. They bloomed all summer. The Clarkia and the Campanularia were pretty and I collected their seed for 1986. But the Verbesina, a close relative of the Common Sunflower, became weedy. Avoid it if you have a choice.

All in all, my February and March were more bright than they might have been, and it's thrilling to see a wildflower in bloom that you have watched closely from its seedhood. If you would like to know specific details on my "scientific" methods or there is a particular species you would like to discuss, give me a call....

WILDFLOWER SEEDS FOR SALE FROM UNPS
by Jennifer Harrington

Seeds are available for sale from the Utah Native Plant Society. Seeds are supplied in 3" x 5" packets of at least 50 seeds unless noted. Send one dollar for each seed packed (check or money order) and self addressed stamped envelope to:

Jennifer Harrington
480 F Street
Salt Lake City UT 84103

Allow four weeks for delivery. Quantities are limited so we cannot guarantee orders.

UNPS SEED ORDER FORM

<u>Quantity</u>	<u>Botanical Name</u>	<u>Common Name</u>
_____	Agoseris ssp.	Mountain Dandelion
_____	Alisma ssp.	Water Plantain
_____	Allium geberi	Wild Onion
_____	Aquilegia caerulea	Blue Columbine
_____	Arnica ssp.	Arnica
_____	Artemisia papposa	Fuzzy Sagebrush
_____	Astragalus asclepiodea	Milkweed Milkvetch
_____	A. bisulatus	Royal Milkvetch
_____	A. hamiltonii	Milkvetch
_____	A. racemosus	Milkvetch
_____	A. saurinus	Milkvetch
_____	Atriplex corrugata	Saltbrush
_____	Bailey multiradiata	Desert Marigold
_____	Balsamorhiza sagittata	Arrowleaf Balsamroot
_____	Cercocarpus ledifolius	Curleaf Mountain Mahogany
_____	Chaenactis douglasii	Douglas Dusty Maiden
_____	Clematis hirsutissima	Hairy Leather Flower
_____	Cleome serrulata	Rocky Mountain Bee Plant
_____	Cryptantha breviflora	Cryptantha
_____	Echinacea purpurea	Purple Coneflower
_____	Ephedra viridis	Mormon Tea
_____	Epilobium angustifolia	Fireweed
_____	Eriogonum heracleoides	Wild Buckwheat
_____	Eschscholzia californica	California Poppy
_____	Fallugia paradoxa	Apache Plume
_____	Gaillardia pinnatifida	Blanket Flower
_____	G. aristata	Blanket Flower
_____	Geranium viscosissimum	Wild Geranium
_____	Geum triflorum	Prairie Smoke
_____	Gilia leptantha	Blue Gilia

UNPS SEEDS CONTINUED

_____	<i>Hedysarum boreale</i>	Northern Sweet Vetch
_____	<i>Helianthella microcephala</i>	Lesser Royal Conehead
_____	<i>Layia platiglossa</i>	Tidy Tips
_____	<i>Linum lewisii</i>	Blue Flax
_____	<i>Lomatium dissectum</i>	Biscuit Root
_____	<i>Lupinus caudatus</i>	Tailcup Lupine
_____	<i>L. sericeus</i>	Silky Lupine
_____	<i>Oenothera pallida</i>	White Evening Primrose
_____	<i>Papaver rhoeas</i>	Flanders Poppy
_____	<i>Penstemon cyananthus</i>	Wasatch Penstemon
_____	<i>P. leonardi</i>	Penstemon
_____	<i>P. moffatii</i>	Penstemon
_____	<i>P. mueronatus</i>	Penstemon
_____	<i>P. palmeri</i>	Palmer Penstemon
_____	<i>P. platyphyllus</i>	Penstemon
_____	<i>P. rydbergii</i>	Penstemon
_____	<i>Phacelia campanularia</i>	Annual Bluebells
_____	<i>Polygonum bistortoides</i>	American Bistort
_____	<i>Prunella vulgaris</i>	Self Heal
_____	<i>Purshia tridentata</i>	Bitterbrush
_____	<i>Rudbeckia hirta</i>	Black-eyed Susan
_____	<i>Sphaeralcea coccinea</i>	Scarlet Globemallow
_____	<i>Stanleya albenscens</i>	Prince's Plume
_____	<i>Viguiera multiflora</i>	Showy Goldeneye
_____		Great Basin Wildflower Mix
_____		Rockymountain Wildflower Mix

WILDFLOWER SEEDS ALSO AVAILABLE FROM THE NEW ENGLAND WILDFLOWER SOCIETY
by Barbara F. Pryor

Gardeners wanting to grow wildflowers or ferns from seeds or spores can select from the more than 100 varieties offered by the New England Wildflower Society from their 1986 Seed-Sale List. By offering for sale a large number of native plant (U.S.) seeds, the Society hopes to encourage gardeners to use more wildflowers in their home landscapes. This program is an adjunct of the Society's world-wide botanical garden seed distribution effort.

NEW ENGLAND WILDFLOWER SEED

All requests for seed lists must be received by March 1, 1986 because seed sales close March 15, 1986. Requests will be filled in the order received. Send a self addressed, \$.39-stamped envelope (business size) to:

Seeds
New England Wildflower Society
Garden in the Woods
Hemenway Road
Framingham MA 01701

No requests for lists will be honored without the stamped envelope.

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PROMOTE AND SUPPORT UNPS! BUY OFFICIAL UNPS CAPS!
by Bill Wagner

Be known as a member of the Utah Native Plant Society. Buy and wear one of our great new baseball caps. They come in blue, red or green and are decorated with a custom designed Utah Penstemon illustration and the words Utah Native Plant Society on the white front panel. The intent of the caps is for UNPS exposure, not for fund raising, so the caps are for sale at cost. The caps will be available at all Salt Lake Chapter Meetings at \$3.00 for members or \$3.50 for non-members.

Members are encouraged to submit original articles to the Sego Lily Newsletter. Please state if articles have been published elsewhere and need permission of the publisher. Drawings with or without articles are also welcome. The editor reserves the right to edit as needed and to select suitable articles for publication.

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c/o Pam Poulson
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Salt Lake City UT 84106

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Please enclose check made payable to Utah Native Plant Society and send to:

June Sullivan, Treasurer, 717 South 800 East, Salt Lake City, Utah
84102.