

THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 7; Number 1

February 1984

What's Going On?

- Feb. 9 Propagation of Woody Plants by Cuttings - Workshop. Dick Hildreth and Mary Pat Matheson. State Arboretum of Utah Conference Room. \$2.50. Call so they can plan ahead: 581-5322.
- Feb. 13,20,27 Gentle Earth Film Series. Kingsbury Hall, U of U. \$2.50.
2/13: Dive tho the Edge of Creation
2/20: Koyaanisgatsi: Life Out of Balance
2/27: Beyond the Ocean, Beneath a Leaf
- Feb. 10-11 Wilderness in America: A Legal Perspective. J. Reuben Clark Law School. B.Y.U. Registration \$25 includes 2 meals. Contact the law school 378-2188.
- Feb. ? UNPS Executive Committee Meeting. State Arboretum of Utah Conference Room. Pam will call the meeting soon.
- Feb. 15 "More than a Whiskey Barrel - Container Gardening as an Art".
7:00 p.m. Frank Williams, B.Y.U. State Arboretum of Utah Conference Room.
- Feb. 19 Motocross in Washington County may affect the endangered
Arctomecon humilis (Bear Poppy). Want to help protect it?
Contact Tony Frates at 532-1922.
- Feb. 23 Salt Lake Chapter Meeting. Don Christiensen, Utah Division of
7:30 p.m. Wildlife Resources. Use of native plants in range management
and landscaping.
- March 1-4 Salt Lake Tribune Spring Garden Festival. Salt Palace. Would
you like to help represent UNPS at our booth? Call Pam Poulson
at 581-5322.
- March 5-6 High Altitude Revegetation Workshop. Colorado State University.
Contact Julie Etra, Dept. of Agronomy, C.S.U.

Looking Ahead

- March 19-21 Third Biennial Symposium on Great Plains Coal Development. Billings, Montana. Topics on Reclamation Research. \$55 Registration. Contact F.F. Munshower, M.S.U. Bozeman, MT.
- March 21 "Aquatic Gardening - Water Lilies, Lotus and More". Dave Racker and Associates. State Arboretum of Utah Conference Room.
7:00 p.m.
- March 22 Seed Propagation and Seedling Culture - Workshop. Dick Hildreth and Mary Pat Matheson. State Arboretum of Utah Conference Room.
7-9:00p.m. \$2.50. Call 581-5322 so that they can plan ahead.
- March 27,29 Classes in botany and landscaping. State Arboretum of Utah and U of U Div of Continuing Education. See article this issue.
- April 15 Internship Program for U.S. Environmentalists, 1984/85. Deadline for applications. Need working knowledge of another language and professional training in an environmental issue area. \$1500/mo and European travel. Contact M.L. Ginsburg, German Marshall Fund of US, 11 Dupont Circle, N.W., Suite 900, Washington, DC. 20036, 202/745-3950.
- May 21-24 First North American Bioregional Congress. Kansas City, MO. Congress for caucuses, plenary sessions, workshops, field trips and socializing. Topics include appropriate technology, organic agriculture, environmentalism, renewable resources/safe energy, etc. Contact NABC I, Box 129, Drury, MO 65638.

In the Coming Months...

The March Sego Lily will feature Rare and Endangered Plant Committee and Conservation Committee activities. We will learn about the annual T/E Plant Workshop held at BYU Herbarium in mid-January. This meeting brought together representatives of State government, federal agencies, Universities, private consultants, the Nature Conservancy and the UNPS to discuss the current status and future prospects of rare plants in Utah.

Pam Poulson will resurrect "Wildflower Watch" as soon as spring shows any signs. Sprout 'n bloom reports from the far corners of the State will be most welcome. Kathy Wallentine will be reviewing books again this year. Her first review will be of C. Gregory Crampton's Standing Up Country, "a visual and historical panorama of the Four Corners area". Peregrine Smith Books of Layton, Utah donated a copy of this beautifully illustrated book to the UNPS library. Thanks very much!

"From the Mulch Pile" and "Horticultural Notes" will also return soon. And finally, on a regular basis we plan to report field trip and Chapter meeting programs (see "Orchids of Utah" this month). We will be asking the help of activity participants to share these programs with those of us who can not always attend.

With the start of a new year (is it February already?), the helm of the UNPS has changed hands again. We have, however, retained continuity in leadership. Liz Neese retired to the position of advisor to the Board of Directors and Pam Poulson proceeds from President Elect to President. Dave Anderson retains the job of Treasurer and Ruth Henson is our new Secretary. Several of the committee coordinators wanted to carry on with their projects in 1984 and we have a few additional, enthusiastic leaders. I am new to the editing business and will need all the help you can give (more on that later).

Last issue the Sego Lily reported on the new Board of Directors and the State-wide annual October Meeting. In this issue we will recap the Society's activities of 1983 as reported by officers and committee coordinators at the first meeting of the new Board in January. Reports and discussion during this 4+ hour marathon meeting indicated that a lot was accomplished in '83 but that each committee had plenty of new plans and ideas to implement. We need the support of each UNPS member. We hope that more people will join in the projects of the society - whether it is enjoying a monthly chapter meeting (or giving one of the presentations), taking a Saturday field trip or serving on one of the standing committees.

Which brings me to a discussion of the newsletter. Comments from the membership indicate an overwhelming support for continuing and expanding the newsletter as the essential fabric binding the organization together. For the active members and for those unable to participate in projects, the newsletter provides vicarious enjoyment of the flora of Utah. Contributions of time, articles, ideas, coming events, illustrations and opinions (letters to the editor?) from members throughout the State can expand the role of the publication. I hope in 1984 to further develop the "Newsletter by committee" tradition fostered by Jennifer Harrington and truly be an 'editor' rather than a one woman show.

My hope is that each member will read the summaries of 1983 and find a place for her/himself in activities of the coming year. Please don't wait to be asked, join in and more fully enjoy the society dedicated to our State's native flora.

Spring is just around the corner. Why not brush up on those darn yellow composites and elusive Eriogonums? Join the State of Utah's Division of Oil, Gas and Mining noon-time botany study group. They will review two families each Tuesday until warm weather and blue skies beckon. Call Mary Ann Wright for details (533-5771). Or start your own group with a few friends.

President's Message - 1984
"Putting it all together"

The outlook for the Utah Native Plant Society is excellent. Membership is growing, Committees are active and we have money in the bank. I would like to applaud the leadership of past presidents and the progress of the Committees. As incoming president for 1984 I hope to be able to follow in the footsteps of these dynamic pacesetters.

As UNPS efforts increase and we become more involved in pertinent and visible activities, we are becoming more well known as a credible and effective organization. Because of this, I feel that the main thrust of our direction should be to strengthen and build UNPS by integrating and coordinating the activities of directors, officers, committees and membership. I feel that there is a need for pulling together the diverse efforts of UNPS for a unified identity.

To achieve this I believe we should:

- o Continue building public awareness through the Sego Lily, public communication and publicity, the Annual Native Plant Sale and participation in the Salt Lake Home and Garden Show.
- o Increase communication among the Committees, the Board of Directors and the membership through monthly Executive Board meetings and regular reports in the Sego Lily.
- o Require Executive Committee approval when presenting ourselves (as individuals) representing the UNPS.
- o Encourage the fledgling Cache Valley Chapter and start a Utah Valley Chapter.
- o Proceed with the UNPS Professional Papers project.
- o Work with the Utah State government in implementing and updating State land/resource management policies.

I feel that if we can achieve these ends and unite our efforts, UNPS can look forward to a future as a strong and productive organization.

My eyes, ears and mind are open. Any suggestions or critiques are welcome.

Pamela M. Poulson
President, UNPS



The Conservation Committee has been one of our smallest but most active Committees. The Coordinator's "From the Mulch Pile" keeps us informed of activities as they happen throughout the year. While many of the Committee's projects are long term, the job of obtaining and reviewing federal, state and private proposed actions requires quick response. Each document (Resource Management Plan, Environmental Assessment, Environmental Impact Statement, etc.) has a short comment period. Many of the government plans reviewed in 1983 affected listed T/E plants or other rare Utah natives.

Documents/proposed actions reviewed included:

Grand Resource Area MP	Meadowlark Farms EA
Goblin Valley motorcycle ride	<u>Astragalus montii</u> listing
Cedar Breaks GMP/EA	Glen Canyon NRA RMP
Capitol Reef NRA RMP	Project BOLD (State)
Quail Creek Reservoir EA	White River Dam
Tooele Grazing EIS	BLM San Juan RA RMP
Price Rive RA RMP	In lieu land transfer (State)
Heritage Tree Act (State)	Transport of forest products law
Uinta-Southwestern Coal Draft EIS	Utah Combined Hydrocarbon Regional Draft EIS

Special conservation projects for 1983 were:

- o Protection of habitat of Arctomecon humilis (Bear Poppy) on State land in Washington County (look for an article on this project in the next issue).
- o Investigation of a Research Natural Area (RNA) in the Gray Knolls (Uintah County) to protect Glaucoarpum suffrutescens habitat.
- o Support for the Nature Conservancy's RNA program throughout National Forests in Utah.
- o Contact with the Canyon Rim Citizens' Association for potential involvement in the Hansen Hollow project.

Projects in 1984 will be:

- o Further support for protection of the Bear Poppy on BLM land and establish a local poppy patrol.
- o Coordinate with the Nature Conservancy on RNA proposals, protection of the Clay phacelia, etc.
- o Work with the State on projects affecting our native flora. These include project BOLD (see next issue), review of State land laws and (maybe) rare plant legislation.

If you are interested in supporting conservation of our natives, call Tony to offer your support. If you know of proposed projects, meetings or documents of interest to UNPS readers, let us announce them in "What's Going On".

January's meeting of the Salt Lake Chapter of UNPS featured a slide presentation on orchids of Utah (and refreshments too!). Keith Wallentine shared his knowledge and appreciation of this family. Excerpts from his unpublished article on orchids are presented here but are a poor substitute for Keith's (and Liz Neese's) beautiful slides.

Eight genera with 15 species are extant native in Utah. The genera are Calypso, Corallorhiza, Cypripedium, Epipactis, Goodyera, Habenaria, Listera and Spiranthes.

1. Due to its present scarcity, the Yellow Ladyslipper is the Utah orchid least likely to be found by wildflower lovers of the 1980's. Some botanists label the Utah flower Cypripedium calceolus, others C. parviflorum. By any name, it's a beauty whose lip forms a slipper. The Latin "calceolus" translates "little shoe". The few specimens of Ladyslipper remaining hide along small northern Utah streams. The Brown Orchid, Cypripedium fasciculatum, is a rare subalpine flower that seems to prefer the company of spruce trees. Its flowers are not conspicuous and vary in color from purplish brown to yellowish brown. This small orchid grows in the Lake Blanche area on the south side of Big Cottonwood Canyon, east of Salt Lake City.

2. Calypso bulbosa, the Fairyslipper Orchid, can be found in a number of spots in the lower reaches of the Uintahs. In common with the other orchids, it prefers moist shady locations. Its single leaf is often fading when the blossom appears. Rosy petals and sepals and an inflated pouch for a lip make it very distinctive while its white and yellow accents provide the basis for a fairlylike name. Calypso seems to favor locations near decayed wood.

3. If you climb to Lake Blanche in search of the Brown Orchid, you may well encounter another of the Utah orchid genera, Listera convalloroides. Known as Twayblade, this orchid has two opposite leaves appearing about halfway up the plant and an elongated and flattened translucent lip. Several flowers appear on a single stem. A second twayblade L. cordata, characterized by heart shaped leaves and by a deep split in the lip is noted in early botanical collections and recently seen by both Keith Wallentine and Liz Neese.

4. Epipactis gigantea is widespread in Utah. Robust individuals survived a county "improvement" of the creek near the Le Caille Restaurant in southeastern Salt Lake County. If you look for Epipactis there, about July 4, watch out for Poison Ivy nearby. Epipactis in northern Utah can be a tall plant with a raceme of more than a dozen blossoms. In the weeping gardens of the southern Utah rock country, the orchid appears in miniature.

5. Goodyera oblongifolia is also widely distributed in Utah, occasionally appearing in areas that dry out during part of the year. Known as Rattlesnake Plantain from a superstition that it could cure bites, the plant is found easily by watching for its dark green basal leaves with a white reticulation along the mid nerve. The late blooming racemes of flowers are an inconspicuous white tinged with green and brown. The dorsal and lateral sepals form a hood.

6. The Habenarias, or Bog Orchids, form the genera most common in Utah. Ranging from white to green and in height from a few inches to more than 18, the green H. hyperborea and snow white H. dilatata are the most showy. They can be found in many mountain locations in a rather wide range of altitudes. Habenaria unalascensis is much less showy but relatively easy to identify by basal leaves which yellow and wither as it blooms. Flowers are whitish green. Habenaria sparsiflora, named for the paucity of blooms on the raceme, grows in the weeping gardens of the redrock country in southern Utah.

7. Spiranthes romanzoffiana, Ladies Tresses, can be frequently found in Utah's mountain wet spots. Small white blooms spiral upwards in a raceme.

8. The remaining genus of Utah's orchids, Corallorhiza, is one of the most unusual lacking both leaves and true roots - it is a saprophyte. The common name comes from the roots, which have the appearance of coral. The coralroots often appear early in spring with brownish stems terminating in dense racemes. Corallorhiza maculata, the spotted coralroot, has a white, elongated and flattened lip with reddish purple spots - more beautiful than it sounds. A "tooth" at the base of the lip provides positive identification. Corallorhiza striata, the striped coralroot, is relatively easy to spot. Corallorhiza trifida is greenish yellow with a white three-lobed lip. Its coloring may vary and include purple spotting on the lip. The coralroots seem to thrive in forest duff where they apparently live on dead plant material in equilibrium with fungi.

Native orchids in Utah? Find them, photograph them, admire them and let them live. As with orchids everywhere, they are highly specialized and very difficult to transplant into the home garden.

Spring Quarter Classes
State Arboretum of Utah / U of U Division of Continuing Education

Two classes are being offered for Spring Quarter, beginning the last week in March. Choose beginning botany or residential landscape design.

Intended for the wildflower lover with no previous knowledge of botany or ecology, "Introduction to Utah Wildflowers" will take a non-technical look at Utah's diverse wildflower geography, some conspicuous wildflower families and the relationship between plants and people. The class will meet Tuesday nights for 10 weeks, beginning March 27 from 7:15 - 9:30 and includes 2 all day Saturday field trips. The course will be taught by Pam Poulson, Assistant to the Director of the Arboretum. Cost is \$50, non-credit.

The "Residential Landscape Design Workshop" is a concentrated course for the home owner. The workshop will meet at the Whitmore Library Thursday evenings beginning March 29 from 7:00 - 9:00. Each participant will develop a landscape plan for his/her 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 is \$50 per person or \$65 per couple, non-credit.

Register for both courses through the U. of U., Division of Continuing Education. For additional information, call the Arboretum at 581-5322.

The two principal activities of the Horticulture Committee were the autumn plant sale and a series of newsletter articles.

The plant sale held at Mill Creek Gardens produced revenues of \$1190.75 including both plant and seed sales. Success is attributed to publicity, an excellent location and support from both members and non-members. Local nurseries and members provided high quality plant materials and Carscallen Label Co. in Texas printed labels designed by Kaye Thorne. Members served as an informative sales staff feeding a growing interest in Utah natives. A procedures handbook for the Committee will preserve the knowledge gained this year to facilitate future sales.

Deb will continue her newsletter column with a design article emphasizing color and a series of articles on plant groups in the landscape (groundcovers, shrubs, trees, wildflowers and grasses).

The Committee's goals/projects for 1984 are:

- o Promote the use of natives to public agencies and the private sector
- o Support the society library. (Members please remember that 35 mm slides and book donations are always appreciated.)
- o Compile a detailed plant and seed sale procedures handbook.

And of course...

- o To sponsor a successful plant sale in the fall.

Anyone interested in participating in these Horticulture Committee activities or with suggestions for others should contact Deb.

Seed Committee

Coordinator 1983: Richard Page

1984: Janet Williams

The Seed Committee had 8 active participants, including the coordinator. Their main project was to support the native plant sale. Seed sales exceeded last year's by over 1000%. Sales were so good that members were packaging seeds on-site to keep up with demand.

The Committee's produce is transported in a display case housing 52 species. Last year the Committee added several showy bloomers to their list and gathered habitat and germination information for their species.

Plans for 1984 include:

- o Increase inventory of seeds by encouraging collectors (Remember: don't take all of the seeds of any one species from a given area.)
- o Sponsor seed cleaning/packaging
- o Research cultivation techniques and habitat requirements
- o Obtain photos of each species for display at sales (Do you have a good slide or negative to donate? Check your 10/83 newsletter for a list of available species.)

Any new volunteers for 1984? Call Janet.

Treasurer's Report

David Anderson**A. RECEIPTS**

1. Memberships (129).....			\$1177.00
*Student and Senior	14 @ 4.00	56.00	
*Individual	87 @ 8.00	696.00	
*Family	25 @ 12.00	300.00	
*Sustaining	5 @ 25.00	125.00	
2. Sales.....			\$1346.64
*Books, Sego Lily		70.65	
*Seeds		40.42	
*Calendars		38.00	
*Plant Sale		1190.75	
*Reimbursements		6.82	
3. Interest.....			<u>\$245.14</u>
	TOTAL		\$2913.78

B. EXPENSES

1. Newsletter.....			\$1071.30
*Printing		694.49	
*Postage		360.00	
*Labels		5.23	
*Rubber Stamps		11.58	
2. Committee Expenses.....			\$223.01
*Conservation		151.12	
*Seed		49.83	
*T/E		22.06	
3. Board Dinner.....			\$154.68
4. Annual Meeting.....			\$110.00
*Room Rental		30.00	
*Refreshments/door prizes		80.00	
5. Books.....			\$77.70
6. Telephone Listing.....			\$13.65
7. Other Postage and Miscellaneous.....			<u>\$38.29</u>
	TOTAL		\$1688.63

C. RECEIPTS LESS EXPENSES.....			\$1080.15
D. INITIAL ACCOUNT BALANCES 1/1/83.....			\$2739.90
E. ENDING ACCOUNT BALANCE 12/31/83.....			\$3820.03
F. GAIN FOR YEAR.....			\$1080.15

1984 UNPS OFFICERS

President	Pam Poulson	(w) 581-5322 (h) 261-1344
President Elect	Dick Page	(w) 524-4033 (h) 255-7769
Treasurer	Dave Anderson	(w) 582-0144 (h) 572-2139
Secretary	Ruth Henson	(h) 583-9343

1984 UNPS COMMITTEE CHAIRS AND COORDINATORS

Newsletter	Kathy Mutz	(w) 533-5771 (h) 544-0688
Publicity	Dick Hildreth	(w) 581-5322 (h) 942-1978
Photography	Glenn Halliday	(w) 539-5410 (h) 943-4286
Horticulture	Deb Cox Callister	(w) 531-1456
Seeds	Janet Williams	(h) 467-9170
Rare and Endangered Plants	Duane Atwood/ Sherel Goodrich	(w) 377-5780 (w) 377-5717
Conservation	Tony Frates	(w) 532-1922
Field Trips	Mary Ann Wright/ Alyce Hreha	(w) 533-5771 (h) 363-1412 (h) 484-2455
Membership	Duties shared by Secretary and Treasurer	

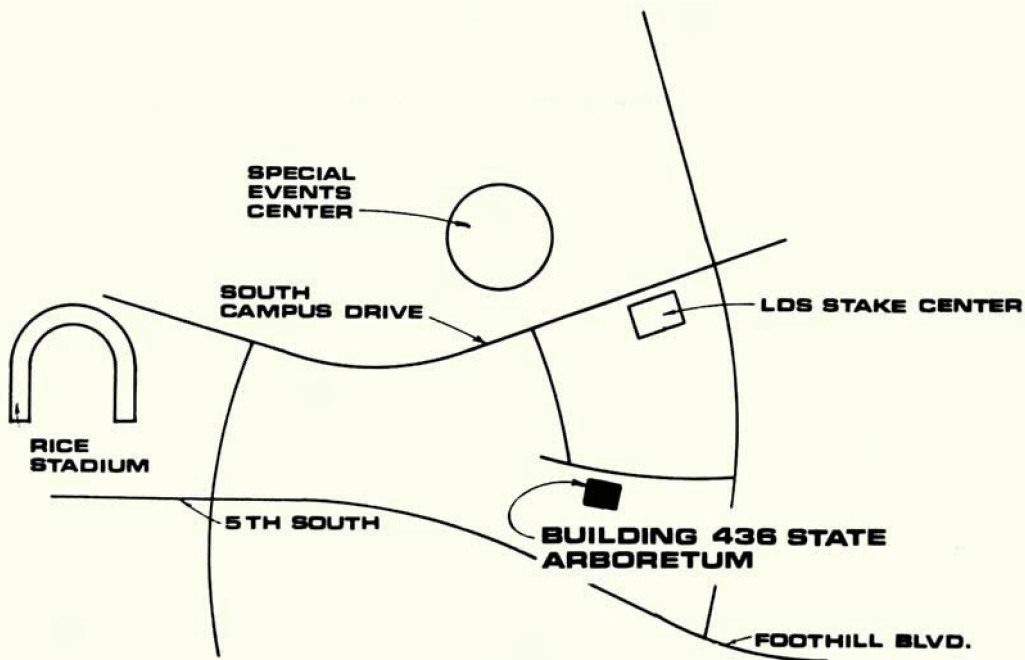
1984 UNPS CHAPTER PRESIDENTS

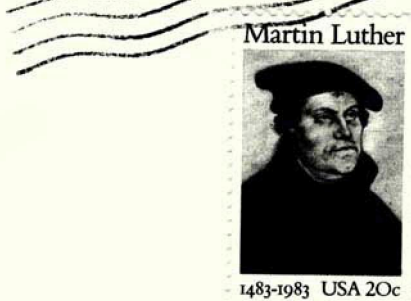
Salt Lake City Area	Dave and Kathy Okelberry	(h) 968-6190
Cache Valley	John Shultz	(h) 753-5447

The UNPS Sego Lily newsletter is published 9 times per year by the Utah Native Plant Society, Incorporated, as a non-profit organization under the laws of the State of Utah. Contributions to The Sego Lily are welcomed and should be sent to the editor. Please state whether articles have been published elsewhere and require publisher's permission. The editor reserves the right to edit as needed and to select suitable articles for publication. Copy deadline is the 15th of each month.

Membership in the Utah Native Plant Society includes The Sego Lily subscription. Please use the form provided in the newsletter for membership applications or change of address. ©1983 Utah Native Plant Society, Incorporated.

Salt Lake Chapter meetings are usually held in the second floor Conference Room at the State Arboretum Center, Bldg. 436, upper sector of the University of Utah campus. You can enter from South Campus Drive or Wasatch Drive.





UNPS Sego Lily
 % KATHY MUTZ
 737 S. ANGEL
 KAYSVILLE, UT
 84037

FIRST CLASS MAIL

MEMBERSHIP APPLICATION

(annual membership from date of receipt of fee)

() New Member () Renewal () Gift

Name _____

Street _____

City/State/Zip _____ Telephone _____

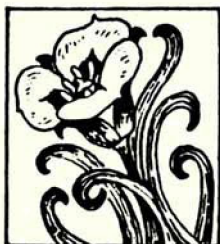
If gift, from: _____

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

Check membership category desired:

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

Please enclose check made payable to Utah Native Plant Society and send to: ~~Dave Anderson~~, Treasurer, 1050 E. Oakridge Circle, Sandy, Utah 84070



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 7; Number 2

March 1984

What's Going On?

- March 14
7-10:00pm
High Uintas Wilderness Benefit. Recreational Equipment, Inc. (REI) and local backpacking supply merchants will cohost this affair with the Utah Wilderness Association, Utah Audubon Society, Utah Chapter of the Sierra Club and the Wasatch Mountain Club. Proceeds from auction of donated items (river trips, artwork, books, sports gear, etc.) and a nominal entrance fee will be shared by the conservation organizations. U of U Union Ballroom.
- March 15
7:00 pm
BLI Scoping Meeting for Wilderness EIS...to formulate alternatives and identify significant issues to be addressed in the EIS. This is one of several meetings being held throughout the state. Salt Palace, Suite D.
- March 19-21
Third Biennial Symposium on Great Plains Coal Development. Billings, Montana. Topics on Reclamation Research. \$55 Registration. Contact F.F. Munshower, M.S.U. Bozeman, MT.
- March 21
7:00 pm
"Aquatic Gardening - Water Lilies, Lotus and More". Dave Racker and Associates. U of U Student Union Building, Room 323. Call 581-5322 for details.
- March 22
7-9:00pm
Seed Propagation and Seedling Culture - Workshop. Dick Hildreth and Mary Pat Matheson. State Arboretum of Utah library. \$2.50. Call 581-5322 so that they can plan ahead.
- March 22
7:30 pm
Salt Lake Chapter Meeting. Alyce Hreha, botanist and consultant, will discuss mistletoe. Arboretum of Utah conference room.
- March 27
7:15-9pm
"Introduction to Utah Wildflowers". State Arboretum of Utah and U of U Division of Continuing Education. Pam Poulson of the Arboretum will teach 10 Tuesday nights and 2 all day Saturday field trips for the beginner botanist/ecologist. Cost \$50. Call 581-5322 or see article in last Sego Lily for details.
- March 28
6:30-8pm
Executive Board Meeting. State Arboretum of Utah conference room. Interested parties are invited.

What's Going On? (continued)

March 29
7:00-9pm "Residential Landscape Design Workshop". State Arboretum of Utah and U of U Division of Continuing Education. Landscape architect Mike Kelly will coordinate the 6 guest lectures at the Whitmore Library. \$50 per person or \$65 per couple. Call 581-5322 or see article in last Sego Lily for details.

Looking Ahead

- April ? Wasatch Front belly plants. When spring looks like it will arrive, we will schedule a local field trip to encourage the first sprouts. Details later.
- April 15 Internship Program for U.S. Environmentalists, 1984/85. Deadline for applications. Need working knowledge of another language and professional training in an environmental issue area. \$1500/mo and European travel. Contact M.L. Ginsburg, German Marshall Fund of US, 11 Dupont Circle, N.W., Suite 900, Washington, DC. 20036, 202/745-3950.
- April 18
7:00 pm "Nature's Climbers and Carpets, Vines and Ground Covers". John R. Dummire of Sunset magazine. U of U Student Union Building, Room 323. Call 581-5322 for details.
- April 27 Arbor Day. For details on Arboretum sponsored events, call 581-5322.
- May 12 Field trip to Lone Peak State Nursery, Draper. Dave Grierson, manager, will lead a 3-4 hour tour of the facilities and explain the nursery's contribution to native plantings in the state. Details in the Sego Lily as the day approaches.
- June 21-25 Desolation Canyon River Run with the Utah Wilderness Assoc. Lee Johnson of the College of Eastern Utah's Canyonlands Institute will lead the trip. \$300. Contact UWA for details 359-1337.

Next issue we will provide a list of sources for native seeds and/or plants. Help us make this a useful resource for all our members. Please send (or call in) the name(s) and addresses of your favorite sources/catalogs so we can include them.

Send to: Sego Lily
c/o Kathryn Mutz
737 S. Angel Street
Kaysville, Utah 84037
or call: 544-0688

A problem that has plagued the Society from the beginning is just where the line between the chapters and the state organization is drawn. With the Salt Lake Valley Chapter going strong, the Cache Valley Chapter reactivating and Utah Valley and St. George/Cedar City Chapters on the horizon, the problem could compound itself.

At the Executive Board meeting on February 29, specific problems were discussed and a proposal was made. The main concerns focused on statewide member benefits and chapter funding.

To clarify where members stand -- When dues are paid, a person becomes a member of the statewide Utah Native Plant Society (UNPS). That person also becomes a member of a local Chapter but only if he/she resides within a Chapter's boundaries. Currently there are 2 local chapters - the Salt Lake Valley Chapter and the Cache Valley Chapter. Consequently, if a person living in Salt Lake City, Sandy or Taylorsville pays dues, he/she belongs to the UNPS and the Salt Lake Chapter. On the other hand, a dues paying member in Moab or Sacramento, California is only a member of the state organization.

UNPS statewide members' benefits are the Sego Lily, discounts on books offered by the Society, other activities such as the Fall Plant Sale, seed sales and field trips and, of course, a magnanimous feeling for supporting our native flora.

Chapter member benefits are any activities directed on a local level, such as monthly meetings and chapter field trips. Salt Lake Chapter members receive "little blue card" notices of up-coming events. (Other members may have received these cards in the past but this practice may be discontinued because of the cost.) A spring plant sale might be an activity of the Salt Lake Chapter to complement the state UNPS fall sale.

By the way -- If you would like to organize a chapter in your area, all you officially need is 10 dues paying members and a president. Contact Dave Anderson (Secretary) if you would like to know the names of members in your area. Rally 10 members and we will help you set up a chapter. An approach that may be usefully in the less populated areas of the state is in the by-laws: "If an organization, already in existence, desires to become a chapter of the UNPS, it may retain its name and be known officially as '_____', a chapter of the UNPS.'" Contact me for details.

Now, concerning funding -- In the past, with only one chapter, this has been a loose situation. Although the UNPS and the Salt Lake Chapter have had separate sets of books and bank accounts, funds were mixed because of confusion over just whose monies they were. The Executive Board felt that this confusion could be overcome by designating money dispersal, especially in the case of dues.

It was proposed that all dues money would be divided as follows:

- 75% to the state UNPS
- 25% to the member's chapter

If there is no chapter in a member's area, 100% of his/her dues would go to the state. The state UNPS is entitled to the majority of funds for production and postage of the Sego Lily - our major expense and main member benefit.

An amendment to this proposal was that new chapters receive \$100 as "start-up" funds. If additional monies are required, there would be 2 options: 1) fund raising on a chapter level, such as book or seed sales, and 2) requests of money from the state. The latter would depend on circumstance and availability since at present, receipts from dues barely cover production and distribution of the newsletter.

This proposal and amendment will have to be studied for feasibility and to determine if they comply with the Society by-laws. We will be discussing them again at the next Executive Board meeting on March 28. If you have any comments or criticisms, please do not hesitate to contact members of the Executive Board (all state officers and chapter presidents) or Committee coordinators (see your 2/84 newsletter for phone numbers).

As the Seasons Change...

Do you have a favorite area in the wild to which you like to return again and again as the seasons change? The Seed Committee is looking for volunteers who will choose an area, photograph plants as they bloom and then return as seeds ripen to collect the species photographed.

Please call Janet Williams at 467-9170 if you are interested in participating.

WILDFLOWER WATCH

Pam Poulson

Despite our lingering cold temperatures, Spring has been seen approaching Utah from the south.

Old Sol's return to northern latitudes will banish icicles from rooflines and snowpack from mountains. The great golden globe will bring a warm magic that swells rivers and turns willows stems from brown to green and turns skiers into joggers.

In Death Valley and Santa Barego, California and Sonora, Arizona the wildflowers have been blooming since January. With 80 degree temperatures in Dixie, Utah's slice of the Mohave should be bursting into bloom momentarily. The pre-vernal Wild Parsley (Cymopteris) of Canyonlands/Arches and Sagebrush Buttercup (Ranunculus juniperus) on Zion are already blooming.

1983's high water and long wet winter should produce an extravaganza of bloomers for 1984. Stand by! Spring is coming! I promise.

Standing Up Country

C. Gregory Crampton

224 pp.; 8 3/8x 10 3/4; 200 illustrations,
8 color plates; 2.5 lbs.; \$12.75, paper

The Delicate Arch, Dead Horse Point, the rim at Bryce Canyon, LaSal Mountain vistas, Moab and its environs...these are familiar landmarks we visualize when the Red Rock country is mentioned. As tourists we scurry from one point to another, read excellent descriptions and study artifacts in the Visitor's Centers. We stand in awe at the scenic overlooks. How much more rewarding might be the Canyonlands experience if one were to read Gregory Crampton's Standing Up Country prior to a visit? This book is a biography of the region that stretches from the Book Cliffs in Utah to White Mesa in the Navajo Country in Arizona, from Bryce Canyon National Park eastward to the meetingplace of Utah, Arizona, New Mexico and Colorado. The most popular tourist sites are, of course, included, but there is much, much more in this "eco history on the land of living rock."

In 1941 Crampton made his first trip to the sculptured lands as a guest of Herbert E. Bolton, who felt that historians could improve the quality of their writing by being acquainted with the places they discussed. In 1956, the Upper Colorado River Project became law and Gregory Crampton urged that historical studies be made of the area before they were damaged by dam construction. He happily accepted the responsibility for the supervision of these salvage studies and traveled through the various canyons and now popular tourist sites before the reservoir began to fill; before Glen Canyon, Page and Lake Powell were realities. The technical work was completed in 1963 and his book, encompassing some of this material, was published in 1964. Crampton was one of the first to love the area and educate the public to its scenic beauty through its history.

Standing Up Country was first published in 1964 in hardback. Thanks to Gibbs M. Smith (a UNPS member) and his Peregrine Smith Books, now one can easily carry a paperback edition on Red Rock country travels.

The front cover is outstanding in its use of desert tan and sky blues. The elongated title accenting a canyonland scene gives one the feeling of stretching tall to encompass the area's depth and enormity. Within, the text corresponds to the original edition. Both local and well known photographers contributed the 200 black and white illustrations which are alphabetically indexed by subject. There are 8 exquisite full color plates in the paper edition that come across clearly on the excellent paper used in the reproductions. Superior maps and a geological cross section of the Canyonlands were compiled by William Stokes, from the University of Utah Geology Department. All the technical features are outstanding.

Crampton mentions in his 1983 preface that many books and articles have been printed about the region since 1964. Had conservationists more intimately known the area before 1963, more voices would have been heard in opposition to the Glen Canyon Dam project. Many of these later books are photographic

essays or personal feelings about the area. In contrast, Mr. Crampton's effort is a detailed, documented history of the area and its people, from the Ancient Ones, Dominguez and Escalante, the trappers and Mormon settlers to surveyors, nature lovers, archaeologists and dam builders.

Standing Up Country illustrates some of the changes and what was lost. This book deserves to be read carefully, thoughtfully from cover to cover and the illustrations studied, not only for its history but as a lesson that needs to be relearned every time a wilderness area is threatened. Perhaps the new paperback edition at the excellent price of \$12.75 will reach many more people who could, after reading it, be prepared to Stand Up and be counted to defend those marvellous resources -- the lands of the West.

Not only does this book make the human history of the Canyonlands come alive, it is a wonderful "travel" book guiding the reader through the dramatic landscapes, reefs, buttes and mesas. Whether you have been to the area many times, are planning a trip or have never been there... Standing Up Country is a must.

Salt Lake Chapter News

Ruth Henson

On February 23, the SL Chapter presented Don Christiansen of the Utah Division of Wildlife Resources as its guest speaker on the use of native plants in range management practices and the home landscape.

Using slides to illustrate the discussion, he showed past and current methods of chaining to restore rangeland habitat. Areas that had been burned in the past as well as more recent burns were shown to demonstrate the effects of reseeding. Uprooted pinyon and juniper are often left where they fall -- the dead trees protect the soil from rapid runoff, provide shelter for wildlife and prevent wind erosion in addition to enriching the soil. Mr. Christiansen concluded his presentation with slides portraying the characteristics of plants suitable for home landscaping.

Green Thumb Alert!

The UNPS plant sale is scheduled for September at Millcreek Gardens. Now is the time to start growing your favorite natives to contribute to the sale. Any plants you can provide for this event will be greatly appreciated. Last year's sale was a whopping success. Let's see if we can top it!!!

Anyone interested in helping with the sale should contact Deb Callister at 467-5988. If you need help getting those native seeds to germinate and thrive, check with the Seed Committee Coordinator, Janet Williams, or attend the Arboretum's Seed Workshop March 22.

The Endangered Species Act (1973) was created to protect threatened and endangered species that occur on federal land. Plants found on private or state land are protected through the cooperation of the land owner with the U.S. Fish and Wildlife Service (USF&WS), the federal agency that administers the endangered species program. Studies undertaken by the BLM, USFS and USF&WS have helped protect these plants and their habitats. Some inventories cover vast floristic provinces like the Uinta Basin in eastern Utah and adjacent Piceance Basin in western Colorado. Other studies focus on a few acres. Large scale projects require a survey team of several botanists, field assistants and support personnel while smaller studies can be completed by one botanist. Although funding has been limited, Utah botanists (many are active UNPS members) have continued to study the state's rare flora.

Dr. James Miller, Endangered Species Specialist with the Denver Regional Office of the USF&WS, contracted several botanists to gather data on eight species from Emery, Garfield, San Juan, Uintah and Wayne Counties. The species and botanists assigned to research them are:

Astragalus equisolensis and Thelypodopsis barnebyanum

Dr. Stanley Welsh and Dr. Elizabeth Neese, Brigham Young University Herbarium

Castilleja aquariensis

Alyce Hreha, botanist/consultant; Salt Lake City

Gilia caespitosa and Phacelia indecora

Dr. Lella Shultz, Intermountain Herbarium, Utah State University

Pediocactus despainii and P. winkleri

Kenneth Heil, Farmington, New Mexico

Ranunculus acriformis var. nestivalis

Kathryn M. Mutz, ecologist/consultant, Kaysville (studied in 1982-83)

These plants were chosen from a group of candidate species under review by the USF&WS. Additional information and field research is necessary before final status designations can be made. Data will be collected from the literature, herbarium specimens and field work. Field searches for these plants will emphasize species distribution, habitat descriptions and threats to their survival. New biological data and management recommendations will be recorded. A status report, the compilation of all the available data on a species, will be prepared. USF&WS personnel will use these reports to make determinations regarding the federal listing of these plants.

Some of the botanists may need help in their field searches for these species. UNPS members interested in volunteering as assistants should watch for field trip announcements in future issues of the Sego Lily or contact the researcher. Members who accompanied botanists last field season enjoyed themselves and learned a great deal about Utah's native flora.

Editor's Note: In future issues we will feature brief reports on some of these rare plant studies.

CONSERVATION AWARD: At the threatened and endangered plants meeting on January 12, a plaque was presented by Duane Atwood (Rare and Endangered Plants Committee Co-chairman) to Kevin Carter of the State's Division of Lands and Forestry for his efforts in connection with the federally listed dwarf bear claw poppy. The plaque reads:

UTAH NATIVE PLANT SOCIETY

PLANT CONSERVATION AWARD

IN RECOGNITION OF HIS EFFORTS DURING 1983
INVOLVING THE PROPOSAL AND IMPLEMENTATION OF STATE PROTECTIVE ACTIONS
FOR THE ENDANGERED ARCTOMECON HUMILLIS (DWARF BEAR CLAW POPPY), THE

UNPS
HONORS

KEVIN S. CARTER
OF THE
UTAH STATE DIVISION OF LANDS AND FORESTRY

January 12, 1984

This is the first conservation award given by the Society.

UNPS conservation efforts for this species began in early 1983. The general consensus was (and is) that this species was the "most endangered" in the State. A draft recovery plan prepared by the USF&WS was furnished to the State and we requested that the State take some action as outlined in the recovery plan. The poppy occurs largely on State owned lands south of St. George. In May, Duane Atwood met with Kevin Carter, Dale Ross of the Cedar City BLM district and others in St. George to discuss the problem and conduct a field survey. Later last year, Mr. Carter prepared a proposed State protective action closing poppy habitat to ORV use and restricting mining activity. The State Land Board approved this action on December 15.

UNPS applauds Mr. Carter's substantial efforts and his genuine concern with protecting this fragile, unique species on State lands. A "hand" should also be given to Duane Atwood for his efforts above and beyond the call of duty. Larry England provided a great deal of assistance as well. He recently helped to mark the route of a motocross race in the habitat area. Special thanks also go out to Elizabeth Neese and Stan Welsh for their encouragement.

PROJECT BOLD: The State's proposed lands consolidation could eliminate the present scattered ownership pattern of school sections and is undoubtedly an excellent step towards better land management. But the question remains: What will happen to federally listed (as well as candidate and other sensitive) plant species that occur on the federal tracts proposed to be transferred to the State?

Milo Barney, Associate Director for Resource Management in the State's Department of Natural Resources, acknowledges that Project BOLD has brought about a significant change in the State's attitude toward resource protection. Recently, the State has displayed concern for rare plant conservation (e.g., the dwarf bear claw poppy action). A February 3, 1984 letter from the Governor to the BLM's state director stated that "The state supports the concept of ACECs..." The State legislature's quick passage of the transportation of forest products law indicates increased receptiveness to plant conservation measures. Temple Reynolds, Executive Director of the Department of Natural Resources, has indicated a willingness to look again at the possibility of State rare plant legislation.

According to Ralph Becker, Project BOLD coordinator, the project's legislation, now before Congress, contains no restrictive language concerning rare plant species. The stated intention has been that the State will manage the lands in a manner similar to that of the BLM's. Based on this assumption, the BLM transferred lands to the State last year without preparing an EIS or initiating a Section 7 consultation with the USF&WS (see the September 1983 Sego Lily concerning last year's "in lieu" indemnity selection land transfer.) In a letter to the BLM state director, dated August 11, 1983, the Governor basically reaffirmed the State's intentions.

The USF&WS has by letter, dated February 7, 1984, furnished to Ralph Becker a list of candidate as well as listed plant (and animal) species which occur or may potentially occur on the proposed tracts. Plant species that initially appear to be the most affected include: Astragalus hamiltonii, Penstemon albifluvis, Erigeron maguirei var. maguirei, Pedlocactus despainii and Gilia caespitosa. At least one of the tracts supports the listed Sclerocactus wrightiae.

Good intentions aside, without State rare plant legislation, the protection and survival of these and other plant species can not be assured. The Project BOLD/rare plant legislation issue is one that must be watched closely. A unique opportunity exists for legislative action next year.

The Taxonomist's Prayer

"Our Linnaeus, who art in homonymy, available be thy name, thy kingdom taxonomic, thy will be done in accordance with the ICZN, on Earth as it is in synonymy. Give us this day our binomial bread, and forgive us our nomen nudums as we forgive those who misidentify us. Lead us not into invalidation but deliver us from syntypification, for thine is the Kingdom and the Phylum, and thy name be abbreviated forever. Amen.

by Donald Fisher
Technical Editor at the
Smithsonian Institution

NATIVE PLANT NEIGHBORS...

to the west.

Many of us feel a kinship with the state of Nevada. Basin and range topography, hardy desert plants and unusual habitats with their narrow endemics --all of these are delightfully reported in the newsletter of the Northern Nevada Native Plant Society. The March issue presents several fascinating articles including a success story in conservation -- the preservation of Ash Meadows; a description of the Steamboat Hot Springs Geyser Basin area just south of Reno and a chapter meeting summary on desert plant adaptations.

We may not be able to visit our neighbors (very often) or attend their Society functions but we can support their conservation activities and enjoy "keeping up" on Nevada native plants. Join the NNNPS, Box 8965, Reno, NV, 89507.

Prices are dropping... BLM is lowering its grazing fee to \$1.37 per animal unit month. The 3/4 reduction from 1983 was effective March 1, 1984.

The U.S. Forest Service is trying to help a rare Utah native to become a little less rare. The Ferron District USFS is providing seed of Hedysarum occidentale var. canone (Canyon sweet vetch) for a mine reclamation project west of Orangeville. They hope to help establish the taxon at this site and others throughout their district.

MEMBERSHIP

In the near future we will conduct a member survey to enlist support for some of our committees. Right now we would like to have the support of each of you in expanding the Society's membership.

Do you know just one person who would enjoy UNPS activities? Lend them your Sego Lily or have us send them a complimentary copy -- just fill out the form on the last page.

Help us introduce more people to Utah's native flora.

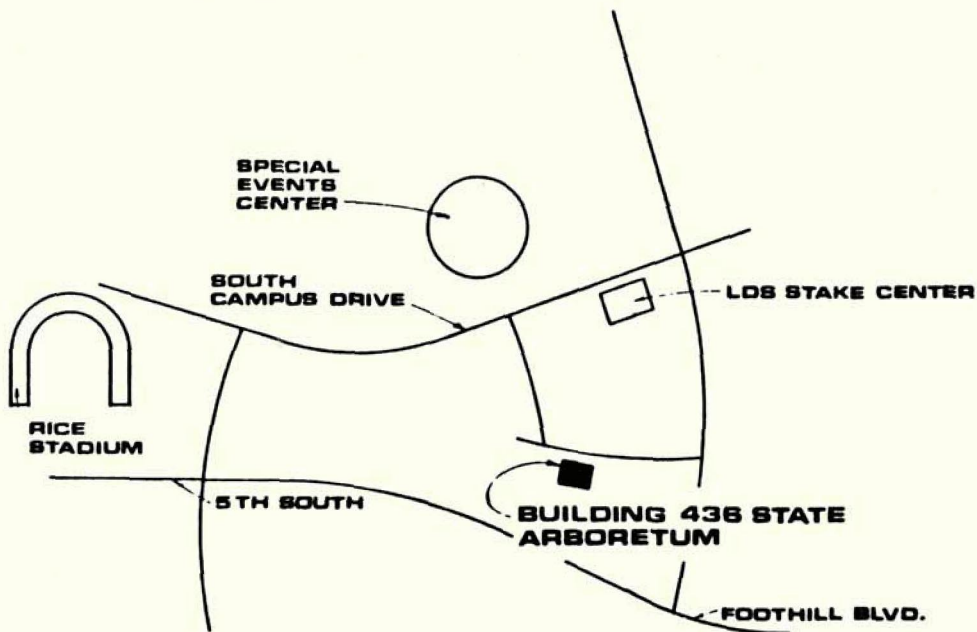
Welcome to new members!

Connie Green	Keith Landgraf
Lucia Malin	David Wallace
Scott Peterson	Alison Child
Kevin Carter	

The UNPS Sego Lily newsletter is published 9 times per year by the Utah Native Plant Society, Incorporated, as a non-profit organization under the laws of the State of Utah. Contributions to The Sego Lily are welcomed and should be sent to the editor. Please state whether articles have been published elsewhere and require publisher's permission. The editor reserves the right to edit as needed and to select suitable articles for publication. Copy deadline is the 15th of each month.

Membership in the Utah Native Plant Society includes The Sego Lily subscription. Please use the form provided in the newsletter for membership applications or change of address. ©1983 Utah Native Plant Society, Incorporated.

Salt Lake Chapter meetings are usually held in the second floor Conference Room at the State Arboretum Center, Bldg. 436, upper sector of the University of Utah campus. You can enter from South Campus Drive or Wasatch Drive.



UNPS Sego Lily
KATHY MITZ
737 S. ANGEL
KAYSVILLE, UT
84037



FIRST CLASS MAIL

MEMBERSHIP APPLICATION

(annual membership from date of receipt of fee)

() New Member () Renewal () Gift

Name _____

Street _____

City/State/Zip _____ Telephone _____

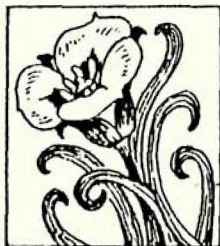
If gift, from: _____

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

Check membership category desired:

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

Please enclose check made payable to Utah Native Plant Society and
send to: Dave Anderson, Treasurer, 1050 E. Oakridge Circle, Sandy,
Utah 84070



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 7; Number 3

APRIL 1984

What's Going On?

- April 18
7:00 pm "Nature's Climbers and Carpets, Vines and Ground Covers". John Dummire of Sunset magazine. U of U Student Union Building, Room 323. Call 581-5322 for details.
- April 26
7:30 pm Salt Lake Chapter Meeting. "Fire as a Tool", Steve Henson, State Urban Forestry Coordinator, State Division of Lands and Forestry. State Arboretum of Utah conference room.
- April 27 Arbor Day. For details on Arboretum sponsored events, call 581-5322.
- May 2
5:30 pm Welcome Daylight Savings Time local field trip. Pam Poulson, UNPS president and Assistant to the Director, Arboretum of Utah. Meet at the Arboretum office. Call 581-53222 for details.
- May 5
10-6 Nuclear Waste Information Exchange. Sponsored by Department of Energy. South High School. Call Pam Poulson, 581-5322.
- May 12 Field trip to Lone Peak State Nursery, Draper. Dave Grierson, manager, will lead a 3-4 hour tour of the facilities and explain the nursery's contribution to native plantings in the state. Call Mary Ann Wright (533-5771) for time and transportation arrangements.

Looking Ahead

- May 19
9:00 am Arboretum of Utah Spring Plant Sale. Held outside at the Arboretum offices (see map on back page). Anyone interested in setting up the day before contact Mary Pat Matheson at 581-5322.
- May 24
7:30 pm Salt Lake Chapter Meeting. "What Flowers are Blooming and Where." Bring your slides and ideas. Special Feature: If you are a native plant grower, bring a (some) seedling, plant division or rooted cutting of your successes to trade with other growers.
- June 12 -
July 18 "Exploring Greenspace", a hands-on investigation of our environment for 10-12 year olds. Emphasis will be on living with the environment. Dr. Betty Wullstein and Mary Pat Matheson. \$50 per student. Call the Arboretum for details at 581-5322.

What is it about spring that brings a smile to even the saddest of faces? Warm temperatures, longer days, green grass, sunshine and what's missing.....??!! COLOR!!

All winter long we experience a series of earthtone shades ranging from browns to grays. The trained eye appreciates the subdued colors of winter as well as the occasional bright blue sky framing the majestic snowcapped mountains. There isn't anyone, however, that does not appreciate the cheerful colors of spring. This month we will address color, it's effect on people, it's use and arrangement in the landscape and a few native plant suggestions for use as perennial borders.

Warm colors, i.e. red, orange and yellow, create a bright and cheerful atmosphere in the garden. They appear to advance toward you, inviting you to come closer. Cool colors, i.e. violet, blue and green, create coolness and calmness in a garden. They appear to recede from you. The cool colors are easier to balance than the warm colors simply because they are not as "loud". Keep this in mind as we discuss how to use color in the landscape.

The primary colors and their respective compliments are:

Red.....Green
Blue.....Orange
Yellow.....Violet

Complimentary colors appear opposite one another on the color wheel. They look brighter when used next to one another in mass, not intermingled. The Wasatch Penstemon (Penstemon cyananthus) with it's intense purplish-blue flowers, would look glorious planted in mass aside a grouping of any of your favorite yellow or orange blooming perennials. A good choice would be the brilliant yellow Desert marigold (Baileya multiradiata) which should be treated as an annual in northern Utah. The vibrant orange Gooseberry leaf globemallow (Sphaeralcea grossulariifolia) or the Iceland poppy (Papaver nudicale) would be equally stunning.

Analogous colors are those which are closely related. They are shades of the same hue. Some examples are blue and purple, or yellow and orange. These colors look more brilliant interspersed amongst one another, rather than planted adjacent to one another in a mass. The Mountain lupine (Lupinus spp.) would put on a nice show intermingled with the Colorado blue columbine (Aquilegia caerulea). Their shades, varying from blue to lavender to purple, are analogous. Blanket flower (Gaillardia aristata) looks great by itself because it has analogous colors within it's own flower parts. It's ray flower colors vary from yellow to scarlet.

The following is a partial list of wildflowers available on the local markets in plant and/or seed form. A brief description of each is included so that you may come up with your own combinations.

Common Name	Scientific Name	Description/Growing Conditions
Pink pussy toes	<u>Antennaria rosea</u>	Mat forming, white to rose flower, 3-10", sun or filtered shade, drought tolerant
Columbine	<u>Aquilegia</u> spp.	Reseeding perennial, delicate flowers ranging from white, blue, red and yellow to multicolored, filtered shade or sun.
White evening primrose	<u>Oenothera pallida</u>	Annual or short lived perennial, 8-20", white flowers in spring, full sun
Desert marigold	<u>Baileya multiradiata</u>	Large canary-yellow flowers up to 1', dry sunny areas, treat as a reseeding annual in northern Utah
Purple coneflower*	<u>Echinacea purpurea</u>	Reseeding perennial to 24-36", daisy-like purple flowers spring and summer, needs some supplemental water
Sulphur flower	<u>Eriogonum umbellatum</u>	Woody-based rosettes, yellow flowers 1-2', rust colored fruit, colorful leaves, full sun, good ground cover
Wild geranium	<u>Geranium viscosissimum</u>	Busily perennial from 16" to 30", bears 1" rose to purple blossoms spring and summer, sun or partial shade
Lewis flax	<u>Linum lewisii</u>	Perennial to 2', light blue cup shaped flowers renewed daily in spring and summer, drought tolerant, evergreen, full sun
Mountain lupine	<u>Lupinus</u> spp.	Perennial to 24", May to August, lavender blue or purple, needs some supplemental water, sun
Penstemon	<u>Penstemon</u> spp.	Range from 12-18" depending on species, flowers from purples to blues, reds, white and pinks, sun or partial shade, mostly drought tolerant
Gooseberry leaf globemallow	<u>Sphaeralcea grossulariifolia</u>	Curved stems with radiant orange flowers, full sun, drought tolerant

* Non-natives

Keep in mind the following when using color in a landscape: The same amount of each color should not be used. One or more colors should dominate to create a theme. Consider the buildings and backgrounds. Use colors that will compliment these. Remember color also exists in the foliage, bark and fruit of plant material, not just in the flowers. Be sure to balance colors properly, keeping in mind the previous discussion on warm and cool colors. Warm colors are more difficult to balance in a design because they pull toward the eye. Lastly, consider the change of seasons. Cool colors are welcome on hot summer days, whereas warm or hot colors are pleasing when the temperatures plummet. Use your imagination, pick your favorites and have fun with them. You may come up with a dazzling display worthy of a shot in Sunset. Until next time....Happy Gardening!



The Nature Conservancy was founded in 1952 by a small group of biologists, natural scientists and outdoor lovers working toward preserving the best examples of our country's natural diversity. Since then the Conservancy has grown to an organization of 180,000 members. It is presently the major United States organization specializing in the preservation of natural lands.

The primary goal of The Nature Conservancy is to protect an excellent representative example of each distinctive plant community and aquatic ecosystem now present in the United States, as well as to preserve at least one viable population of every existing plant and animal species. Toward this end, the Conservancy employs non-confrontational methods, preferring to use the tools of the real estate marketplace rather than the courts. Traditional techniques have centered on buying, leasing, or acquiring development rights on tracts of privately owned land. For example, in Utah the Conservancy has negotiated an option to buy the Layton Marsh, an undeveloped remnant of marshes that once fringed the Great Salt Lake. In February, 1984, the Conservancy purchased private land in the Ash Meadows area in Nevada, which contains many endemic plants and animals.

However, such traditional techniques are of limited utility in states like Utah where the majority of the land is in public rather than private ownership. For this reason, the Western Region of The Nature Conservancy has initiated a Public Lands Program. The theme is cooperation with federal land management agencies to protect communities and species on public lands. Specifically, the Conservancy assists agencies in protecting small tracts of land by means of administrative (versus legislative) designation. The Conservancy provides products, such as field inventories and reports, required by each agency's formal designation process. This greatly accelerates the process, because agencies in Utah are hard-pressed to commit their own time and personnel in the face of continued budget reductions.

The type of administrative designation which most closely coincides with the objectives of The Nature Conservancy is termed a Research Natural Area (RNA). An RNA is a small, undisturbed area set aside for non-manipulative scientific and educational purposes. Each one is designated to preserve specific communities or species, referred to as "elements" of natural diversity. Such elements include undisturbed examples of common communities as well as rare species (and communities). Thus RNA's represent "benchmark" or "control" areas where natural conditions and processes can be investigated without human influence. The present goal of The Nature Conservancy's public land work in Utah is to protect one undisturbed example of every type of habitat in an RNA. The result will be a system of RNA's which protects Utah's natural diversity with little redundancy and in a small aggregate area.

I. Hoose, Phillip M. 1981. Building an ark: Tools for the preservation of natural diversity through land protection. Island Press: Covelo, California. 221 p.

To date the Conservancy's cooperation has been primarily with the U.S. Forest Service. Preliminary work in 1981 and 1982 laid the groundwork for a formal cooperative agreement with Region 4 and the Intermountain Forest and Range Experiment Station in 1983. About twenty potential RNA's have been inventoried on National Forests in Utah and eastern Nevada. Four of these have a strong chance of being designated in the near future. These are Sims Peak Potholes in the eastern Uintas (Ashley NF), Bullion Canyon in the Tushar Mountains (Fishlake NF), Table Cliff northeast of Tropic (Dixie NF), and Timbered Cinder Cone on the Markagunt Plateau (Dixie NF).

The Nature Conservancy hopes to expand its cooperative role in the near future. Negotiations for a 1984 work agreement with the Forest Service are underway now, and chances for success are good. The result will be more RNA's designated and additional sites under active consideration. The Conservancy is also seeking to cooperate with the Utah BLM, to designate RNA's in lower-elevation habitats not represented on National Forest lands. Cooperation will eventually be sought with other agencies such as the National Park Service and the Division of State Lands and Forestry.

There is a great deal of potential for the Utah Native Plant Society to support and join the RNA designation process. Support in the form of volunteer fieldwork and/or endorsements can be very helpful in protecting specific tracts. The UNPS can also promote supervised field trips and research activities on newly-designated RNA's. There are many opportunities for floristic and plant-geographical studies on the twenty or so areas being actively considered now.

In addition to expanding its Public Lands Program, The Nature Conservancy is seeking to establish a more formal presence in Utah in the next few years. This would take two distinct forms. First would be a Utah Field Office, to take on responsibilities now being handled by the Western Regional Office in San Francisco. Primary responsibilities would include fund-raising and coordinating private-land acquisition and public-land designation projects. Second, the Conservancy hopes to initiate a state-supported Utah Natural Heritage Program. A Heritage Program would build an inventory or data base of Utah's natural diversity. From this data base would come knowledge of which communities or species, and their specific locations, are in need of protection. That is, information from the Heritage Program's inventory would be translated into protective action by the state Field Office and by other parties.

Through a combination of private-land acquisition and public-land designation, The Nature Conservancy plans on fulfilling a long-term organizational commitment toward preserving a system of natural areas in Utah.

Editor's Note: For additional information on Nature Conservancy activities, contact Joel Tuly at 752-4154, 1780 S. Hwy 89-91, Logan, Utah 84321 or join TNC (\$10 per year) and receive their bi-monthly News. Write 1800 North Kent Street, Arlington, VA 22209.

An apology to the (hopefully) few who received a March Sego Lily with blanks for pages 5 and 8. If you'd like replacements, please give me a call at 544-0688.

Through the Sego Lily, chapter meetings and UNPS field trips, we learn where to go to see many beautiful natives in Utah. Deb Cox Callister's series of articles has guided us in bringing them closer to home in our landscaping (see "Color" this issue). But where can we get the native materials, plants or seeds, to add to our gardens?

From the Wild: Seeds can be collected as the fruits mature summer through fall. For guidance in your own collecting and to contribute to the UNPS supply, contact Janet Williams, Seed Committee Coordinator. Plants - Remember that many (most) natives, especially perennials, are very difficult to transplant. Try rooting cuttings of some of your woody favorites. This is a good time of year while the material is still dormant.

UNPS or State Arboretum of Utah: Seeds - The UNPS, of course! If you need a new availability list, contact Janet. Plants - Two of the best local sources of materials are the spring (Arboretum) and fall (UNPS) plant sales. Both groups will have good selections of forbs, shrubs and trees.

Other Non-Profit Organizations:

New England Wild Flower Society
Garden in the Woods
Hemenway Road
Framingham, MA 01701

(orders requested by 3/15
but they may have some left-
overs or try next year)

Northern Nevada Native Plant Society
Box 8965
Reno, NV 89507

Lone Peak State Forest Nursery, Draper
Barbara Gardner
3110 State Office Building
Salt Lake City, UT 84114

Commercial Suppliers:

Plants of the Southwest
1812 Second Street
Santa Fe, NM 87501

NPI
9180 S. Wasatch Blvd.
Sandy, UT 84092

Wildland and Native Seed Found.
2402 Hoffman Drive NE
Albuquerque, NM 87110
(publishes Seed Collector's
Notes newsletter)

Clifty View Nursery
Lon Merrifield
Route 1, Box 509
Bonners Ferry, ID 83805

Sego Lily Readers: Have you had success with some species but failed with others? Care to trade seedlings or "starts" with other members? Let us know what you want to trade and/or what you'd like or come trade on May 24.

We have listed a few of the Southwest's native plant sources. Each will have different species available and quantity (either min or max) requirements. We hope to provide names of additional sources in upcoming issues as space permits and we become aware of them. Help us with your favorites.

REPORT OF THE ANNUAL T/E PLANT MEETING

Sponsored by the Rare and Endangered Plant Committee
Reported by Kaye Thorne

The meeting held January 12, 1984 at the Brigham Young University Herbarium was conducted by Sherel Goodrich and Duane Atwood. A brief introduction given by Dr. Stanley L. Welsh reviewed the endangered species program. New collections over the past few years have produced valuable information concerning the habitat and range of rare plants. Undescribed species have been located generating new ideas about the western flora of the United States. Many people including those involved with the management of state lands have become participants in the T/E programs.

Kevin Carter, State Lands Specialist, reported on work for the Arctomecon humilis project in Washington County. Mr. Carter noted that the principal habitat of A. humilis is on state owned land with some habitat within the jurisdiction of the city of St. George. The city government zoned that portion of habitat within the city limits as "open space". After reviewing the federal government recovery plan and investigating the site, Mr. Carter, Duane Atwood and Tony Frates made the following recommendations to the State Land Board: 1) restrict off-road vehicles within the habitat, 2) fence off present mining areas, and 3) restrict future mining lease applications. The Board accepted these recommendations, but were reluctant to block potential future revenue from the land and their protected designation of the area could be reversed (See From the Mulch Pile 3/84).

Milo Barney, Associate Director for Resource Management with the State's Department of Natural Resources, gave information concerning Project BOLD. This Federal and State exchange of lands is designed to facilitate management (See From the Mulch Pile 3/84). Lands to be traded would be almost an acre for acre exchange but the value of minerals, gas and oil deposits would be taken into consideration and royalties shared according to land ownership. Governor Matheson has issued an executive order in the form of a letter to the State Resource Development Board stating the change from Federal to State land would not change the protection given to T/E species. Mr. Barney said the goal is to manage State lands for multiple use similar to the process used by the Federal Government on BLM lands. Plant species protected under the Endangered Species Act on BLM land would, however, lose their legal protection if the land were to come under State ownership. There is no written law in Utah which would ensure protection of T/E species on land owned by the State.

(Editor's Note: As State government is sure to change this year, can we afford to leave the fate of our rare flora to "policy" and "intention"? If anyone is interested in rare plant legislation for Utah, please contact Tony Frates.)

Joel Tuly, an ecologist for The Nature Conservancy, discussed environmental studies made during the past summer. (See article this issue describing The Nature Conservancy in Utah). Some of the areas in various stages of study are:

Red Canyon near Panguitch; ponderosa pine forest with a manzanita understory, high incidence of endemic plants on Wasatch Limestone.

Table Cliffs near Tropic; subalpine forest habitat, cliff rims have Silene petersonii, Oxytropis jonesii, bristlecone pines 1500 to 2000 years old; forest below cliff contains about 8 different conifers, understory of bitterbrush and manzanita.

La Sal Mountains; alpine zone habitat with steep slopes, Hymenoxys grandiflora and Erigeron maucus grow on the crests.

Sims Peak Pot Hole area, eastern Uinta Mountains; lodgepole pine forest with whortleberry understory; potholes contain floating mat bogs with the rare boreal disjunct Potentilla palustris.

Upper Fish Creek, Tusher Mountains; timberline vegetation includes Draba sobolifera and Penstemon tusharensis; many species of the Ericaceae family grow with sphagnum moss in the marshy seep areas.

Bullion Canyon; an old community of Engelmann spruce and subalpine fir with a depauperate understory indicates a pristine forest; talus slopes support various plants including Astragalus perianus and Castilleja parvula.

Other speakers and their topics were:

- Stanley Welsh - Glen Canyon Recreation Area; Orange Cliff Tar Sands Development area
- Daryl Trotter - DOE and Sunnyside Tar Sands project
- Larry Hays - Zion National Park plant survey
- Larry England - USFWS Endangered species policies
- Betsy Neely - Orange Cliffs tar sands development area
- Tony Frates - Conservation efforts of the UNP'S Conservation Committee
- Scott Peterson - Colorado Natural Heritage Inventory Program
- Jim Miller - Utah plant species currently under review
- Frank Dudley - Gray Knolls proposed RNA

REVIEW OF STATUS OF UTAH'S RARE PLANTS

Background of Legislation Pertaining to Utah's Rare Plants

The Endangered Species Act directs federal agencies to take under management consideration species threatened with extinction. A preliminary list of plants to be considered was prepared by the Smithsonian Institution in 1975. Refined and updated lists have been published in the Federal Register in 1976 and 1980. Much additional field work and data have since accumulated. Consequently a supplemental list amending the 1980 list has recently been published in the Federal Register 48:53640, November 28, 1983. This publication primarily involves additions of taxa to and deletions from active consideration for federal listing. It should be noted that this recent federal updated list closely reflects the recommendations of past Utah Native Plants Society rare plant conferences.

Officially Listed Species

- Arctomecon humilis - Endangered
- Astragalus perianus - Threatened
- Echinocereus engelmannii purpureus - Endangered
- Echinocereus triglochidiatus inermis - Endangered
- Pediocactus sileri - Endangered
- Macelia argillacea - Endangered
- Sclerocactus glaucus - Threatened
- Sclerocactus wrightiae - Endangered

Species Under Review

The following lists those Utah plant taxa currently under review for listing as Threatened or Endangered. The list of Category 1^a and Category 2^b species is taken from the 1980 and 1983 Federal Register listings. Species no longer under review, Category 3^c, are not included. This most recent summary of the status of Utah's rare plants was reviewed by the attendees of the 1984 UNPS Rare Plant Conference. Those instances where the conference has recommended changes in the status of plants under review are noted.

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

F	<i>Erigeron maquirei harrisonii</i>	-(add)	2	Wayne
	<i>Erigeron mancus</i>	2	-	Grand, San Juan
	<i>Erigeron proserlyticus</i>	1	-	Iron, Kane
	<i>Erigeron sionis</i>	2	-	Washington
F	<i>Erigeron untermannii</i>	-(add)	2	Uintah
	<i>Eriogonum ammophilum</i> (listing package under review)	1	-	Millard
	<i>Eriogonum aretioides</i>	1	-	Garfield
	<i>Eriogonum cronquistii</i>	2	-	Garfield
	<i>Eriogonum humivagans</i>	2	-	San Juan
	<i>Eriogonum lancifolium</i>	2	-	Carbon, Emery
	<i>Eriogonum loganum</i>	2	-	Cache
	<i>Eriogonum natum</i>	1	-	Millard
	<i>Eriogonum smithii</i>	1	-	Emery
	<i>Eriogonum soredium</i>	2	-	Beaver
	<i>Festuca dasyclada</i>	2	-	Emery, Wasatch
F	<i>Frasera gypsicola</i> (range extension, new to Utah)	1	-	Millard
	<i>Gaillardia flava</i>	2	-	Emery, Grand
F	<i>Gilia caespitosa</i>	2	-	Wayne
	<i>Glaucocarpon suffrutescens</i> (listing package under review)	1	-	Uintah
	<i>Hedysarum occidentale canone</i>	1	-	Carbon, Emery
	<i>Heterotheca jonesii</i>	2	-	Washington, Garfield Kane
	<i>Hymenoxys depressa</i>	2	-	Emery
	<i>Hymenoxys helenioides</i>	2	-	Garfield, Sanpete, Sevier, Emery
	<i>Lepidium barnebyanum</i> (listing package under review)	1	-	Duchesne
	<i>Lepidium montanum neeseae</i>	2	-	Garfield
	<i>Lepidium montanum stellae</i>	2	-	Kane
	<i>Lepidium ostleri</i>	1	-	Beaver
	<i>Lesquerella tumulosa</i>	1	-	Kane
	<i>Lomatium latilobum</i>	2	-	Grand, San Juan
	<i>Mentzelia argillosa</i>	-(add)	2	Sanpete, Sevier
	<i>Musineon lineare</i>	2	-	Cache
F*	<i>Najas caespitosus</i>	2	-	Sevier
	<i>Oenothera acutissima</i>	2	-	Daggett, Uintah
	<i>Opuntia basilaris woodburyi</i>	2	3B	Washington
	<i>Pediocactus despainii</i> (funded for status report)	2	-	Emery
	<i>Pediocactus winkleri</i> (funded for status report)	2	-	Wayne
	<i>Penstemon albifluvis</i>	1	-	Uintah
	<i>Penstemon atwoodii</i>	2	-	Garfield, Kane
	<i>Penstemon bracteatus</i>	1	-	Garfield
	<i>Penstemon compactus</i>	2	-	Cache
	<i>Penstemon concinnus</i>	2	-	Beaver, Millard, Iron
	<i>Penstemon flowersii</i>	-(add)	2	Uintah, Duchesne
	<i>Penstemon goodrichii</i>	2	-	Uintah, Duchesne
	<i>Penstemon grahamii</i>	1	-	Uintah
	<i>Penstemon leptanthus</i>	2	-	Sanpete
	<i>Penstemon nanus</i>	2	-	Millard, Beaver
	<i>Penstemon parvus</i>	-(add)	2	Garfield, Wayne, Piute
	<i>Penstemon tidestromii</i>	2	-	Sanpete, Juab

Penstemon wardii	2	-	Sevier, Sanpete
Phacelia indecora	2	-	Sanpete, Wayne, Emery
Primula maguirei (listing package under review)	1	-	Cache
Psoralea epipsila	2	-	Kane
Psoralea pariensis	1	-	Garfield, Kane
Psoralea polyadenius jonesii	2	-	Emery
Ranunculus acriformis aestivalis (status report funded)	2	-	Garfield, Sanpete
Schoenocrambe barnebyi (status report funded)	2	-	Emery
Sclerocactus pubispinus (Sclerocactus spinosior = S. pubispinus spinosior)	-(add)	2	Sevier, Beaver, Juab, Tooele, Millard
Selaginella utahensis	2	-	Washington
Senecio dimorphophyllus intermedius	2	-	San Juan
Silene petersonii minor	1	-	Garfield, Iron
Silene petersonii petersonii	2	-	Sanpete, Garfield
Sphaeralcea caespitosa	2	-	Millard, Beaver
Sphaeralcea psoraloides	2	-	Wayne, Emery
Sphaeromeria ruthiae	2	-	Washington
Talinum validulum	2	-	Emery
Thelypodopsis argillaceae	1	-	Uintah
Townsendia aprica (listing package under review)	1	-	Sevier, Emery
Trifolium andersonii friscanum	1	-	Beaver, Millard
Xylorhiza cronquistii	2	-	Kane

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

^b Category 2: Plants which are probably appropriate for listing but sufficient data is not yet available for the listing process

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

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

* Possibly extinct

#####

Welcome to New Members!

Marilyn Wright

Terry Diesburg

#####

Botanist Alyce Hreha reviewed mistletoe for the Salt Lake Chapter on March 22. She had specialized on mistletoe for her graduate work at Brigham Young University and is familiar with its distribution and ecology throughout the intermountain region. The interest she stimulated in the group was demonstrated by the active discussion and comment that accompanied her presentation.

The mistletoes are parasites which use rootlike haustoria to extract nutrients and water from the host plant. A single species is usually limited to a specific host. In Utah they are represented by two genera, with Phoradendron (true mistletoe) on juniper and mesquite and Arceuthobium (dwarf mistletoe) on other conifers.

Phoradendron does not usually harm its host seriously because it is only a partial parasite. It takes water and mineral nutrients from its host, but it is a green plant and can produce its own food by photosynthesis. Its seeds are spread by birds which eat the berries, so mistletoe clumps are often found in juniper tree tops where the birds rest.

Arceuthobium is a total parasite which lacks chlorophyll and depends entirely on its host for all sustenance. It is considered a serious disease by foresters since it infects commercial timber species and it is becoming much more prevalent. It eventually kills its host and the unusual growth pattern it causes in the tree makes the wood useless for lumber. The berries of the dwarf mistletoes usually explode when they are ripe and the sticky seeds are thrown up to 45 feet from the host tree.

Alyce found widespread mistletoe infestation in pinyon and juniper in her field research at the Grand Canyon. Her observations there emphasized the relationship between forests and fire. The only areas which were healthy and free of mistletoe had burned some time in the past, as much as 80 years ago. This beneficial effect of natural fire is evidenced by many of the other diseases and insect infestations which plague forests where fires have been controlled.

WANTED: CONSERVATION COORDINATORS FOR:

Salt Lake/Davis Counties - Identify potential foothill and other conservation projects; explore possible conservation educational programs; help to plan conservation related field trips.

Washington County - Assist in setting up a poppy patrol in the St. George area. Numerous other potential projects.

Other Counties - If you do not live in the above counties but are interested in working on conservation related projects in your county, we need your help.

Membership in UNPS is not required; no experience necessary.

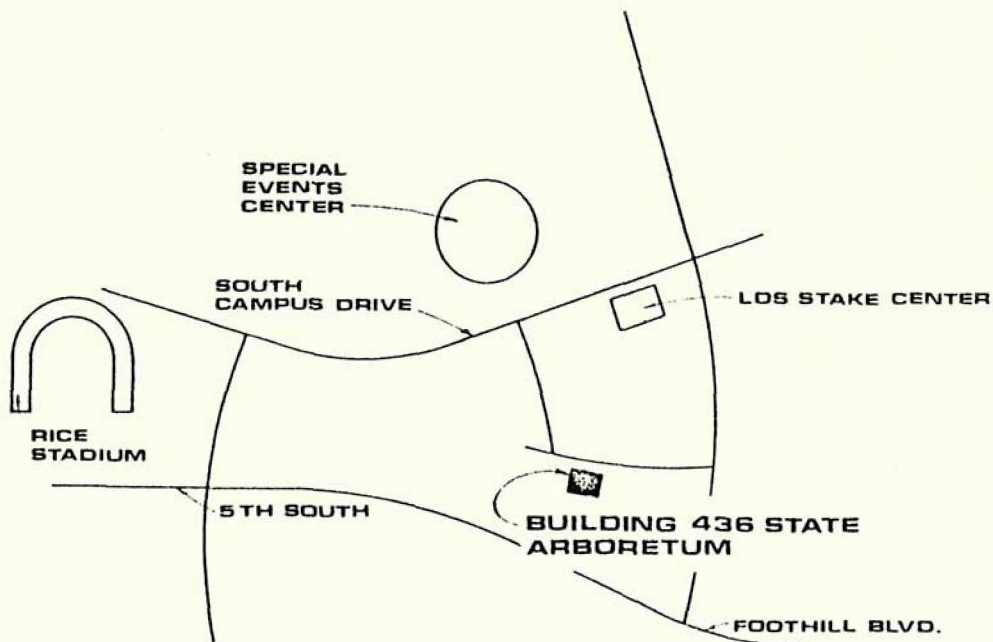
Time commitment: 1/2 to 1 hour per month (average).

Contact: Tony Frates, P.O. Box 1555, SLC, UT 84110; 532-1922 at work.

The UNPS Sego Lily newsletter is published 9 times per year by the Utah Native Plant Society, Incorporated, as a non-profit organization under the laws of the State of Utah. Contributions to The Sego Lily are welcomed and should be sent to the editor. Please state whether articles have been published elsewhere and require publisher's permission. The editor reserves the right to edit as needed and to select suitable articles for publication. Copy deadline is the 15th of each month.

Membership in the Utah Native Plant Society includes The Sego Lily subscription. Please use the form provided in the newsletter for membership applications or change of address. ©1983 Utah Native Plant Society, Incorporated.

Salt Lake Chapter meetings are usually held in the second floor Conference Room at the State Arboretum Center, Bldg. 436, upper sector of the University of Utah campus. You can enter from South Campus Drive or Wasatch Drive.





UNPS Sego Lily
 § KATHY MITZ
 737 S. ANGEL
 KAYSVILLE, UT
 84037

FIRST CLASS MAIL

MEMBERSHIP APPLICATION
 (annual membership from date of receipt of fee)

New Member Renewal Gift

Name _____

Street _____

City/State/zip _____ Telephone _____

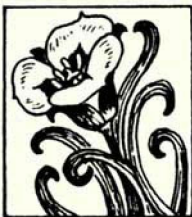
If gift, from: _____

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

Check membership category desired:

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

Please enclose check made payable to Utah Native Plant Society and
 send to: Dave Anderson, Treasurer, 1050 E. Oakridge Circle, Sandy,
 Utah 84070



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 7; Number 4

JUNE 1984

What's Going On?

- June 20
6:30 pm UNPS Executive Board Meeting. All officers, committee coordinators and interested parties are invited. State Arboretum of Utah conference room. Call Pam Poulson, 581-5322.
- June 20
7:00 pm Tree Walks and Talks. "Planting, Pruning and Fertilizing Trees" by Bob Morris, U.S.U. Extension Horticulturist. Meet at the Museum of Natural History, U of U campus.
- June 21
noon Brown Bag Tours. Same as Tree Walks and Talks June 20.
- June 23
9:30 am "Wildflowers of Millcreek Canyon" - a wildflower walk with Pam Poulson sponsored by the Natural History Museum. \$5 for adults, \$3 for children, does not include transportation. Call Joyce at the Museum for reservations or information, 581-6927.
- June 28
7:30 pm Salt Lake Chapter Meeting. Lichens and Slime Molds by Frank Anderson. State Arboretum of Utah conference room.
- June 30 -
July 1 Weekend prairie dog and southern Utah birding trip. Utah Audubon Society. Space limited to 12. Call Chris Swanson 359-3159.
- July Junior Science Academy Summer Program. Utah Museum of Natural History. Second session of classes for 2nd - 8th grade students begins the first week of July. Field courses integrating biology, geology and anthropology. Call Joyce Green 581-6927.
- Early July Albion Basin Wildflowers with the Utah Audubon Society. Call Rick Miller 583-2260.
- July 9-13 Wildland Shrub Symposium. "The Biology of Artemisia and Chrysothamnus" sponsored by the Shrub Research Consortium. BYU University. \$35 basic registration, 2 day field trip extra. Call 378-4903.

Looking Ahead

- July 18-19 Tree Walks and Talks/Brown Bag Tours. "Solving Tree Problems: Insects" by Dr. Kim Miller, U.S.U. Extension Entomologist. Meet at the Museum of Natural History, U of U campus 7 pm Wednesday and noon on Thursday.
- July 26 No Salt Lake Chapter Meeting this month. See you in August.
- August 4-9 For Youth: Desolation and Gray Canyon river experience. Space limited to 12 recent high school graduates. Sponsored by Utah Museum of Natural History. Fee \$400. Call Joyce Green 581-6927.
- August 23 7:30 pm Salt Lake Chapter Meeting. Mushrooms of Utah with Frank Anderson. Whether or not you attend the August 25 field trip, you'll gain an appreciation of the beautiful fungi of the state. State Arboretum of Utah conference room.
- August 25 Mushroom hunt and feast. Frank Anderson will lead a find, identify and eat (optional) field trip for all mushroom lovers. The Uinta Mountains day long trip will conclude with a bring-your-own meat cookout featuring the day's finds. More information in the next issue or call Dave Okelberry at 968-6190.

EDITOR'S NOTES

Kathryn M. Mutz

Spring is quickly passing and we are on "The Road To Summer." Most vegetable and flower gardens should be in the ground by now. The State Arboretum plant sale and Salt Lake Chapter plant exchange (May meeting) added native diversity to many UNPS member gardens.

Hopefully, everyone has had a chance to get out and see what is blooming. Dixie Rose's thoughts on Caltha should inspire any still trapped in the winter doldrums. The two articles by the late Ms. Rose, a free lance writer and full time nature lover, are reprinted with permission from the Salt Lake Tribune. Pam Poulson's Wildflower Hotline should be an aide to arm chair and field botanists alike. No formal field trips have been arranged for this summer's rare plant studies but if you would like to volunteer your services and learn as you enjoy the flora, please contact the appropriate investigator soon (see the 3/84 Sego Lily for details.)

ooooooooo0000000000ooooooooo

Welcome to New Members!

Ilene Bunderson
Joan Johnson
Madeline Mazurski
W.J. Schmidt
Kate Dwire

Stuart Garrett
Kathy & Sherman Young
Robert Fitts
Chad & Karen Milne
Sandy Pruitt

The Road To Summer

by Dixie E. Rose

Up the ridge it leads, or down the long valley, over new culverts and rustic bridges, by a twisting creek into cool woods or between flower-starred meadows. Cows beyond fences chew their cud in peace; horses crop grass or stand in pairs brushing at flies. The sky wears gossamer veils, loose-drawn, pale-colored.

Side roads meandering to favorite picnic sites are striped with tree shadows, garnished with lichen boulders. There is a sound of wind in pines, of water flowing, of human laughter.

For a weekend campout or longer vacation the road may seek a lake in the hills. Tent sites pick sun if the breeze comes chill, shade if temperatures boom. There are fish to catch, pictures to photograph or paint, enchanted trails to follow. Evening scents are of camp coffee and crisping trout. Morning fires crackling, chips fly from the ax, a woman calls to her child or she lends salt to a bemused bride at the neighboring tent.

Knots of men gather, talk of where they came from, where they are bound. They unfold maps, ask questions. How is the road to Hot Springs? To Yellowstone? San Diego? How is the road to summer?

GROWING YOUR OWN

Kathryn M. Mutz

Use of native plant materials in landscaping seems to be gaining in Utah. We are far from matching the use level of arid states like Arizona but anyone visiting the major nurseries of the area will notice the increased availability of native plant materials for landscaping. A recent gardening program on BYU television even featured natives in the garden, at least as a novelty.

For our continuing series on sources, uses and cultivation techniques with natives, we offer a few more sources of native plant materials:

Truckee Meadow Herbs
304 Vassar Street
Reno, Nevada 89507
(702) 786-8814

Large selection of fresh dried Bulk herbs and herb seeds. Many herbs, including yellow dock and dandelion, are put into capsules for easy use

Mid-Atlantic Wildflowers
Joe Brown and Rad Moncure
Star Route Box 226
Goucester Point, Virginia 23062
(804) 642-4602

"blooming size, adult, well rooted stock" range from 25¢ (Typha) to \$9.00 (Rhododendron) per plant. Most species, including many Utah natives, are \$1-3 each. Seeds are \$1.25/pkt plus \$1/10 pkts.

And remember... the fall UNPS plant sale. Now is the time to be growing contributions for the sale and autumn is an excellent time to buy and plant your favorites. Contact Deb Cox-Callister if you have any ideas for the sale or if you want to volunteer a few hours for its success.

APRIL MEETING: At the April 26th meeting of the Salt Lake Chapter, Steve Henson demonstrated through a slide discussion that fire can be a useful tool in forest and range management. Staff forester of Forest Products and Urban Forestry, Henson showed us some typical situations of forest and range improvement where fire is the best tool. Planned, controlled fire is the best tool when preservation of the "sod" is needed. Chaining will damage the crust and can cause severe erosion and natural revegetation problems.

Although Smokey the Bear has taught us that any fire is bad, some management plans of states, U.S. Forest Service, the Bureau of Land Management and even the National Parks include fire as a tool. These plans include allowing natural fires to burn with control lines at specific boundary locations.

Controlled fire as a tool is a science. Various factors and combinations of conditions must be studied over several weeks before managed fire can be undertaken: wind direction, slope, prevailing ambient temperatures, plant materials, moisture content of plants and soil. Every element must be known in order to "map out" the fire. Small test burns are used as ultimate indicators.

A discussion of the role of fire in natural plant community succession followed. Indeed, all left the meeting with a revised opinion of forest and range fire.

MAY MEETING: On May 24, Salt Lake Chapter members (and a few additional interested parties) shared slides of natives, non-natives and miscellaneous interesting aspects of the flora of Utah. Pam Poulson started the program with an introduction to vegetation communities in five major areas of the state. Slides depicted the characteristic plants of Dixie, Canyonlands, Great Basin, Uintah Basin and Wasatch Mountain areas. Sensitive advocates of tamarisk, poison ivy or the Uintah Basin could have been offended by Pam's prejudices but could not argue with her beautiful photographs. Pam reminded us that the Arboretum is sponsoring a Wildflower Hotline based on reports from 40 informants living and working throughout the state. See her first report in this issue.

Other photographers included Dr. Alfred Okleberry showing beautiful specimens of both cultivated and wildland plants. We all donned polaroid glasses and got an introduction to Utah natives in 3-D. Dr. Okelberry belongs to a club which photographs and shows 3-D pictures. Dave Okelberry presented many beautiful slides including several to set the stage for up-coming field trips and meetings: Mushrooms in August and U.F.O.'s (Unidentified Flowering Objects) in November. Lloyd Siegenorf included photos of natives enjoying natives at the Arboretum of Utah spring plant sale and also illustrated his interest in and concern for the use of sound forestry techniques in urban areas.

The meeting concluded with a display and trade of native plants grown by the participants. Species included Amelanchier alnifolia, A. utahensis, Linum lewisii and Iris missouriensis.

At elevations under 4500 feet, the wildflower display is almost over. In Dixie and Canyonlands the display has been less than average because of their dry winter and spring. In the Great Basin and Uinta Basin, the display is about average. To see wildflowers from now on through the rest of the season, head for the mountains, anywhere in the state.

In Dixie (St. George, Zion National Park, Arizona Strip, Kanab)

The weather has been very hot and dry. The wildflower display is moderate with most flowers seen along the road and hiking trails:

Prickly pear cactus (<u>Opuntia</u> spp.)	Sacred datura (<u>Datura meteloides</u>)
Yucca (<u>Yucca</u> spp.)	Globemallow (<u>Sphaeralcea</u> spp.)
Agave (<u>Agave utahensis</u>)	White daisies (<u>Erigeron</u> spp.)
Spiderwort (<u>Tradescantia</u>)	Colo. four-o'clock (<u>Mirabilis multiflora</u>)
Royal penstemon (<u>Penstemon</u> spp.)	Butterflyweed (<u>Asclepias tuberosa</u>)
Palmer penstemon (<u>P. palmeri</u>)	Prince's plume (<u>Stanleya pinnata</u>)

In the hanging gardens of Zion look for:

Golden columbine (Aquilegia chrysantha)
Scarlet monkeyflower (Mimulus cardinalis)

For a better display look for mountain wildflowers in the Pine Valley Mountains and on the Kolob Plateau. Campgrounds fill up on weekends.

In Canyonlands (Moab, Monticello, Escalante, Canyonlands, Arches, Lake Powell, Capitol Reef, Burr Trail)

The weather has been hot and dry. The wildflower display has been moderate but is now on its way out. A good rainstorm would help sustain blooming of the Prickly pear. Most flowers to be seen along the road and hiking trails:

Prickly pear cactus (<u>Opuntia</u> spp.)	Mule's ears (<u>Wyethia</u> sp.)
Yucca (<u>Yucca</u> spp.)	Globemallow (<u>Sphaeralcea</u> spp.)
Evening primrose (<u>Oenothera</u> spp.)	Various yellow sunflowers
Colo. four-o'clock (<u>Mirabilis multiflora</u>)	
Prince's plume (<u>Stanleya pinnata</u>)	

For a better display look for mountain wildflowers on the Abajo Mountains, the Henry Mountains and Kaiparowits Plateau. Campgrounds fill up on weekends.

In the Great Basin (Delta, Wendover, Fish Springs, West Desert)

Wildflower display just passing its peak. The dry spring has caused a stunted perennial display. You can see color from your car, but for best appreciation, stroll through the brush along the road.

Locoweed (<u>Astragalus</u> spp.)	Penstemon (<u>Penstemon</u> spp.)
Paintbrush (<u>Castilleja</u> spp.)	Peppergrass (<u>Lepidium</u> spp.)
Globemallow (<u>Sphaeralcea</u> spp.)	Phlox (<u>Phlox</u> spp.)
White daisies (<u>Erigeron</u> spp.)	Cat's eyes (<u>Cryptantha</u> spp.)
Various mustards	

Wildflower Hotline Continued

For a better display look for mountain wildflowers in the Deepcreek Mountains, the Stansbury Mountains, the Oquirrh Mountains, the Raft River Range and the foothills of the Wasatch.

In the Uinta Basin (Vernal, Roosevelt, Dinosaur National Monument)

Because of the dry winter and spring the wildflower display has been only moderate. The current hot temperatures are shortening the flowering of those wildflowers that do exist. Wildflowers best seen here and there on strolls through the brush.

Yucca (<u>Yucca</u> spp.)	Prickley pear cactus (<u>Opuntia</u> spp.)
Locoweed (<u>Astragalus</u> spp.)	Penstemon (<u>Penstemon</u> spp.)
Paintbrush (<u>Castilleja</u> spp.)	Peppergrass (<u>Lepidium</u> spp.)
Globemallow (<u>Sphaeralcea</u> spp.)	Phlox (<u>Phlox</u> spp.)
White daisies (<u>Erigeron</u> spp.)	Cat's eyes (<u>Cryptantha</u> spp.)
Various mustards	

For a better display look for mountain wildflowers on the Tavaputs Plateau, around Flaming Gorge and the foothills of the Uintas.

In the Mountains (Skyline Drive, Uintas, Wasatch, Utah High Plateaus, Bryce Canyon, Cedar Breaks and other mountains and plateaus above 5000 feet)

Now is the time to start watching the mountains for wildflowers. You can follow the progression of seasons up the mountainside from now through the snowfall. The deep snowpack of last winter should provide ample water for some spectacular displays.

Spring beauty (<u>Claytonia lanceolata</u>)	Iris (<u>Iris missouriensis</u>)
Buttercups (<u>Ranunculus</u> spp.)	Violets (<u>Viola</u> spp.)
Clematis (<u>Clematis</u> spp.)	Larkspur (<u>Delphinium</u> spp.)
Wild forget-me-nots (<u>Hackelia</u> spp.)	Bluebells (<u>Mertensia</u> spp.)
Chokecherry (<u>Prunus virginiana</u>)	Serviceberry (<u>Amelanchier alnifolia</u>)
Balsamroots (<u>Balsamorhiza</u> spp.)	White daisies (<u>Erigeron</u> spp.)
Oregon grape (<u>Berberis repens</u>)	Indian potatoe (<u>Orogenia</u> spp.)
Wild onions (<u>Allium</u> spp.)	Slime molds
Cup fungi (<u>Ascomycetes</u> spp.)	Manzanita (<u>Arctostaphylos</u> spp.)
Dogtooth violets (<u>Erythronium grandiflorum</u>)	

WANTED: CONSERVATION COORDINATORS FOR:

Salt Lake/Davis Counties - Identify potential foothill and other conservation projects; explore possible conservation educational programs; help to plan conservation related field trips.

Washington County - Assist in setting up a poppy patrol in the St. George area. Numerous other potential projects.

Other Counties - If you do not live in the above counties but are interested in working on conservation related projects in your county, we need your help.

Membership in UNPS is not required; no experience necessary.

Time commitment: 1/2 to 1 hour per month (average).

Contact: Tony Frates, P.O. Box 1555, SLC, UT 84110; 532-1922 at work.

Genetics and Conservation: A reference for managing wild animal and plant populations
Christine M. Schonewald-Cox, Steven M. Chambers,
Bruce MacBryde, Larry Thomas
Benjamin/Cummings Publishing Company, Inc.
500 Pages; \$24.95

This 1983 book, the first in a series on biological conservation, is touted by the publisher as "the essential text-reference in resource management..." While the book falls somewhat short of that description, anyone interested in wildlife management should read this book if not have it at desk side.

After Sir Otto Frankel's excellent orientation chapter and a helpful second chapter reviewing genetic principles, the remainder of the book is a collection of articles organized under the following five topics: isolation, extinction, founding and bottlenecks, hybridization and merging of populations, and natural diversity and taxonomy. The final chapter by Schonewald-Cox does not sort out the principles taught by the book but concentrates on the land size needed to support wild populations.

Somewhat technically oriented, the reader is assumed to have basic knowledge of biology, botany, zoology and ecology; however, glossing over the tables and formulas contained in some of the chapters, the book is not difficult to read. Even without any science background, tiny gems of conservation wisdom can be extracted by the casual reader, mainly from chapter prefaces, conclusions and summaries.

Admitting to being animal problem "heavy", the book's forward states that there is "little scope for the management of plant species..." Animals, it contends, are easier to manage due to their relatively simple breeding systems and because they can be managed without greatly affecting habitat areas (unlike plant species on both counts). Nevertheless, the book contains a healthy dose of plant related chapters including "The Founding of Plant Populations" and "The Distribution of Genetic Variation Within and Among Natural Plant Populations".

A significant portion of the book is devoted to appendices in which questions commonly asked by managers are referenced to appropriate chapters. Unfortunately, it lacks checklists or brief outlines which formalize the book's principles for the design of management programs.

Because the book originated in proceedings of a 1982 symposium and workshop, it lacks the consistency and organization more easily attained with relatively few authors. Some chapters deviate from the standard format and in others, authors starting out on point sometimes stray when discussing "pet" species or projects.

Nevertheless, Genetics and Conservation does support a unified theme: the aim of conservation should be to preserve the evolutionary potential of species, not to preserve (freeze) any particular genotypic structure. The editors have done a decent job in reinforcing this theme and tying together diverse topics contained in the book.

Everything was perfect for the 5th Annual Plant Sale and Green Spree at the State Arboretum of Utah on May 19. The weather was beautiful, the plant selection diverse, greater quantities of plants were available and specific cultivation information was provided by expert advisors.

Over 200 people were standing by when the gates opened at 9:00 a.m. Flowering perennials, herbs and native plants were the most popular items, but plants of many categories were on hand: flowering annuals, vegetables, new and unique tree and shrub cultivars, carnivorous plants, cacti, orchids and scented geraniums. Most items sold at the sale are generally unavailable on a retail basis.

More than 50 volunteers helped in herb and vegetable propagation, sale set-up and take-down, table tending and question answering. Plants not grown in the Arboretum conservatory were donated by growers throughout the United States. Lorraine Press printed posters and Uinta Business Systems donated use of adding machines.

The Master Gardeners of U.S.U. Extension were on hand to discuss gardening and the Master Garden Program. The Bonsai Club of Utah had their Spring Bonsai Show at the Plant Sale and Wasatch Cactus and Succulent Society and our own UNPS had displays, answered questions and even picked up a few memberships!

Sales totaled nearly \$7,000, a 130% increase over last year. After meeting costs of C.O.D. shipping, seed and other minor expenses, the proceeds of the sale will be used to further the State Arboretum educational programs.

Over all, the 5th Annual Arboretum Plant Sale and Green Spree was the best ever! Don't miss our even better sale the 3rd Saturday of May 1985, 1986, 1987...

~~~~~

Intermountain Flora Volume Four

Volume four, The Asteridae except the Asteraceae, has recently been published. The enclosed flyer advertises this volume and others which are currently available. Volume four is only available at full price (\$75) with the order form enclosed. Volumes one and six are available at a discount through the UNPS for the following postage paid prices:

| <u>Volume</u> | <u>Members</u> | <u>Non-members</u> |
|---------------|----------------|--------------------|
| 1             | \$21.75        | \$26.75            |
| 6             | \$43.50        | \$48.50            |

Orders for Volume four should be made directly to the New York Botanical Gardens. Discount orders for volumes one and six should be made through UNPS Sego Lily, c/o Kathy Mutz, 737 S. Angel St., Kaysville, Utah 84037; 544-0688.



Marsh Marigolds Light Utah's Alpine Meadows

by Dixie E. Rose

The first half of June — this year — in the intermountain country is a good time to ascend whatever trails are open in search of the enchanting white Caltha leptosepala. This glossy member of the Buttercup Order prefers areas that are high and cool. Starting bloom along lush edged creeks in the seven to eight thousand foot zone, creeping upward as warmth dissolves the snow. Its display on reaching the subalpine meadows is exuberantly lush.

One of its favorite locales, and one we explore as soon as roads clear, is the Meadowy brink of Lost Lake near Mount Baldy on the Upper Provo River.

Last summer we spent the 25th of June in that vicinity, richly enjoying every minute, Kneedeep banks of snow lingered under firs and lodgepole pines, shaded pools had crunchy ice rims, but the intervening glades basked in genial sun. Frogs practicing for serenades drove our two setters frantic, hopping, splashing, vanishing in the ooze among trowel-shaped succulent marsh marigold leaves.

Blossoms were at peak, hundreds on hundreds of snowy-sepaled ruffs - caltha has no petals - hugging cushioned gold stamens. Tiny glass-clear pools reflected bright clusters while the lake reflected blue sky and shining clouds. Flowerscapes, treescapes, waterscapes and cloudscapes — we walked in pictures, sloshed among rippling images, set tripod legs in mud and focused near and far hoping to catch the best.

In early July we negotiated the curves to Big Meadow, close under Bald Mountain Pass, where thaw-drowned acres were inching into bloom. We found them beyond the Pass, too, flanking snow seeps that trickled toward Moosehorn Lake. The middle of a former July, crossing an alpine plateau in central Utah's Fishlake Forest, we came to a shallow ravine decorated by caltha in its declining stages, some blossoms white, some gone tawny, some curled and brown yet not without grace; I'm sure they haunt many a tarn and fen we have not yet discovered.

Marsh marigold has only two species, in contrast to the scores boasted by wildings like penstemons, asters and the multitudinous mustards. Though our white C. leptosepala can't be surpassed, the Eastern C. palustris with corollas enameled a dazzling yellow is also splendid. Purchased plants of this do well for us in shady moist garden coves. Late April brings the glistening flowers, exquisite among driftwood hunks or damp lichened rocks.

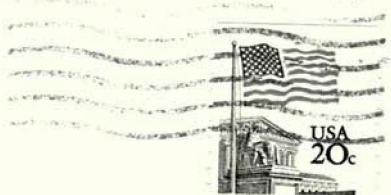
~~~~~

WANTED: UNPS SECRETARY

We need someone to work with other state organization officers as secretary. Duties include taking minutes at the Executive Board meetings and working with the treasurer as co-coordinator of the membership committee.

Membership is required; no experience necessary.
Time commitment: averages 1-2 hours per week
Contact: Pam Poulson 581-5322

Our thanks to Ruth Henson who has been secretary since January.



UNPS Sego Lily
 & KATHY MUTZ
 737 S. ANGEL
 KAYSVILLE, UT
 84037

FIRST CLASS MAIL

MEMBERSHIP APPLICATION

(annual membership from date of receipt of fee)

() New Member () Renewal () Gift

Name _____

Street _____

City/State/Zip _____ Telephone _____

If gift, from: _____

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

Check membership category desired:

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

Please enclose check made payable to Utah Native Plant Society and
 send to: Dave Anderson, Treasurer, 1050 E. Oakridge Circle, Sandy,
 Utah 84070



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 7; Number 5

JULY 1984

What's Going On?

- July 18/19 Tree Walks and Talks/Brown Bag Tours. "Solving Tree Problems: Insects" by Dr. Kim Miller, U.S.U. Extension Entomologist. Meet at the Museum of Natural History, U of U campus 7 pm Wednesday and noon on Thursday.
- July 21-22 Backpack to Deseret Peak and Victory Mountain with the Sierra Club. Doug Clark, 277-6318 or 486-7481; register by July 15.
- July 22-
July 29-
August 5- A Field Study Class in Jarbidge Wilderness, Nevada. University of Nevada, Reno. Biology 491A. S51, 3 credits. Session I, July 22-28; Session II, July 29- August 4; Session III, August 5-11 (this session is designed for family groups). Instructor Dr. Don Prusso, chairman of the Biology Department. Call for further information (702) 784-4062.
- July 26 No Salt Lake Chapter Meeting this month. See you in August.
- July 28
11am-1pm+ Alpine Wildflowers at Snowbird. Leila and John Shultz will lead this lunch time hike from the top of the Snowbird Tram. See article, page 3 or call 581-5322 for information/reservations.
- July 28 Red Pine Lake over the Pfeifferhorn and out Bells Canyon. Advanced hike with the Sierra Club, Gerry VanderBeek, 571-1287.
- August 4 Albion Basin with Stanley Welsh. It's become a delightful tradition! See the plants and taste the history of botany in Utah. Call 581-5322 for details.
- August 5 Days Fork to Flagstaff Peak intermediate hike with the Sierra Club. Dick Dougherty, 484-2175 after 6 pm.
- August 15 T/E: Sclerocactus wrightiae Agency Review Draft Recovery Plan. Comments due on draft by August 15, 1984. Contact US Fish and Wildlife Service, Denver for a copy of the plan.
- August 15/16 Tree Walks and Talks/Brown Bag Tours. "From Acorns to Mighty Oaks" by Dr. Betty Wulstein, Curator of Education. Meet at the Museum of Natural History, U of U campus 7 pm Wednesday or noon on Thursday. For info call 581-5322.

Looking Ahead

- August 23
7:30 pm Salt Lake Chapter Meeting. Mushrooms of Utah with Frank Anderson. Whether or not you attend the August 25 field trip, you'll gain an appreciation of the beautiful fungi of the state. If you enjoyed slime molds, you'll love mushrooms! State Arboretum of Utah conference room.
- August 25 Mushroom hunt and feast. Frank Anderson will lead a find, identify and eat (optional) field trip for all mushroom lovers. The Uinta Mountains day long trip will conclude with a bring-your-own meat cookout featuring the day's finds. More information in the next issue or call Dave Okelberry at 968-6190.
- August 29-
October 23 Northern Rockies Field Studies: The Wild Divide. Sponsored by the Sierra Institute, Cardiff House, University of California, Santa Cruz, CA 95064. Includes 3 upper level undergraduate courses all taught in the field. Call (408) 429-2822.
- Mid Sept. PLANT SALE IS COMING!!

EDITOR'S NOTES

Kathryn M. Mutz

Editorship of the Sego Lily is an interesting job. It's a challenge — mostly to come up with copy on a somewhat regular basis. Then there is getting it into print and out to our membership. I apologize for the "uneven" quality of the print to date. We are trying a new printer this month. The "paste-up" is relatively simple thanks to donated time on a word processor. I regret that the presentation is relatively dull — anyone capable of decorating these pages with sketches, borders, etc. would be appreciated.

The challenge of an editor is to clarify text of the writer without rewriting and changing the piece's style. For those who have submitted articles, I hope I have succeeded because I (and the readers) appreciate your contributions. Articles of all types are welcome and will usually be printed in the next issue. We have been running a lot of material on gardening with natives and would like more botany/ecology/taxonomy contributions.

One of the pleasures of being editor is that I am "forced" to read newsletters from many other native plant societies. We exchange complementary copies of newsletters from the east coast to California. Occasionally, this issue for example, I share excerpts of these publications through the Sego Lily. Our members are welcome to borrow these copies, just contact me for arrangements (544-0688).

Welcome New Members

Karen Williams

Dr. and Mrs. David W. Richards

High Altitude Field Trips

This is the season for plants at and above timberline. Two field trips are scheduled for late July/early August.

First, Leila and John Shultz from the Intermountain Herbarium, Utah State University, will meet us at the bottom of the Snowbird Tram. Trip participants will ride the 11:00am tram to the top and spend the next 2 hours walking and talking alpine plants. Return trips on the tram are available throughout the afternoon. Bring your lunch and join us for a beautiful view and spectacular display at 10,000 feet. Call 581-5322 by 7/25 for advanced reservation; if there are 20 people or more, tram tickets will be \$4; tickets bought on the 28th are \$5.50.

Next, Stanley Welsh, Brigham Young University Herbarium, will hike with us in the Albion Basin area. With a little persuasion he may recount the travels of Marcus E. Jones, botanist and natural historian. The trip is scheduled for August 4. Details on time and carpools up the canyon are available at 581-5322.

EXECUTIVE BOARD MEETING

June 20, 1984

Reported by Kathryn Mutz

Board members discussed guidelines for Conservation Committee responses to government agency actions prepared by Anthony Frates. Tony, as the committee coordinator, frequently responds to management plans, environmental impact statements and other documents as the representative of the UNPS. Before writing UNPS official comments, he often seeks the professional opinions of various society members. Board members suggested changes/additions to the general comment guidelines and recommended that each response letter be sent to the president and/or Rare Plant Committee Coordinator for their input before it is released.

The group also discussed the Seed Committee. The Committee has received some complaints about poor results with seeds sold by the society. Two major possibilities are 1) lack of persistence or poor technique on the part of the grower and 2) poor quality seed. While we are trying to provide germination and care information for our seeds, we must also maintain quality materials. Some of our supplies are getting old. Anyone interested in helping maintain a viable seed supply should contact Janet Williams at 467-9170. The group discussed the possibility of buying seed wholesale to package and sell.

Board members also discussed recent resignations of Secretary, Ruth Henson, and Field Trip Coordinator, Mary Ann Wright. A replacement is being sought for the Secretary position, particularly someone interested in working on membership enhancement. Alyce Hreha, currently Co-coordinator of Field Trips will continue to arrange trips (see article on the special alpine trip scheduled for Snowbird and the Albion Basin hike). Thanks Alyce!

While voting is restricted to Executive Board members, all are invited to contribute to these (usually) monthly meetings. Watch for meeting schedules in the Sego Lily or contact Pam Poulson (581-5322) for information.

At elevations below 7500 feet, the wildflower display is almost over. To see wildflowers from now through August, head for the mountains anywhere in the state. In the north, Utah had a wet winter, but the dry spring will make for only a moderate display, not quite as spectacular as last year.

Although snow still caps 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.

Some sure bets for good displays easily reached by passenger car are:

Logan to Bear Lake Road (Information 524-5030)
 The canyons of the Wasatch Front (Dogtooth violets at Brighton)
 Mirror Lake Road (opened June 15)
 Cascade Springs and the Alpine Loop Road (Road conditions 1-377-5780)
 Nebo Loop Road (Road conditions 1-377-5780)
 Skyline Drive (Road conditions 1-637-2817)
 Bryce Canyon National Park (Information 1-834-5322)
 Cedar Breaks National Monument (Information 1-586-9451)
 The Boulder to Torrey Road (Road conditions 1-826-4221)
 LaSal Mountain Loop Road (Road conditions 1-637-2817)
 Lehman Caves National Monument in the Wheeler Peak Scenic Area, just over the border into Nevada (Information 702/234-7311)

Of course, even more wildflowers can be seen at a leisurely walking pace just off the road and along hiking trails. In wet areas and along streams look for:

Monkshood (<u>Aconitum columbianum</u>)	Marsh marigold (<u>Caltha leptosepala</u>)
Shooting star (<u>Dodecatheon</u> spp.)	Monkeyflower (<u>Mimulus</u> spp.)
White bog orchid (<u>Habenaria dilitata</u>)	Cow parsnip (<u>Heracleum lanatum</u>)
Bluebells (<u>Mertensia</u> spp.)	Parry's primrose (<u>Primula parryi</u>)
Western bistort (<u>Polygonum bistortoides</u>)	
Elephant head (<u>Pedicularis groenlandica</u>)	

Some Dogtooth violets or Glacier lilies (Erythronium grandiflorum) and Spring beauty (Claytonia lanceolata) can still be found at higher elevations near the melting snow. And, don't miss the Yellow pond lilies (Nuphar polysepalum) to be found in Utah only on the lakes of the Uintas.

In dry meadows, in rocks and on south facing slopes look for:

Sulphur buckwheat (<u>Eriogonum umbellatum</u>)	Larkspur (<u>Delphinium</u> spp.)
Lupine (<u>Lupinus</u> spp.)	Indian paintbrush (<u>Castilleja</u> spp.)
Yarrow (<u>Achillea millefolium</u>)	Senecio (<u>Senecio</u> spp)
Mules ears (<u>Wyethia amplexicaulis</u>)	Penstemon (<u>Penstemon</u> spp.)
Wild geranium (<u>Geranium</u> spp.)	Currants (<u>Ribes</u> spp.)
Showy golden eye (<u>Helianthus multiflora</u>)	Cinquefoils (<u>Potentilla</u> spp)
Western coneflower (<u>Rudbeckia occidentale</u>)	Wild rose (<u>Rosa woodsii</u>)
Mountain death camas (<u>Zygadenus elegans</u>)	Asters (<u>Aster</u> spp.)
Jacob's ladder (<u>Polemonium foliosissimum</u>)	Daisies (<u>Erigeron</u> spp.)
Pearly everlasting (<u>Anaphalis margaritacea</u>)	

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

Wild clematis (<u>Clematis columbiana</u>)	Fireweed (<u>Epilobium angustifolium</u>)
True bluebells (<u>Campanula rotundifolia</u>)	Various mushrooms
Tiny saxifrages (<u>Mitella stenopetala</u>)	Parrot beak (<u>Pedicularis racemosum</u>)
Coral Root Orchid (<u>Corallorhiza maculata</u>)	

This is the easiest time of year to get a good close look at Bristlecone Pines (Pinus longaeva). Look for them at: Bryce Canyon National Park, Cedar Breaks National Monument and Wheeler Peak Scenic Area

For additional information call the Wildflower Hotline at the State Arboretum of Utah, 581-4969.

LANDSCAPE DESIGN

Deb Callister
Horticulture Committee

Fall is the best time for planting. For those of you following these landscape design articles, you're in luck! With this discussion, we've covered all of the basic landscape design principles just in time to implement them this fall. Keeping in mind all 13 principles we've previously discussed, let's take a look at the last three basic aspects of landscape design: scale and proportion; harmony and composition; and symmetry.

Scale and proportion are extremely important aspects of landscape design. Always take into consideration the size of the home, the growth rate and the ultimate size of the plant species used. An average home will look larger with small plants around it and smaller with large plants around. The landscape should complement the home, neither one dominating the other. It's important to try to blend the house with the landscape and the landscape with its immediate environment.

The blending of a structure and its surroundings via the landscape brings up the second principle: harmony and composition. A nice balance between the structure and the surrounding landscape should be the ultimate goal. There should be no major changes in design principles throughout the visual space i.e. line, form, color, mass, texture, etc. All areas of the landscape should have their own identity yet they should all come together in unity to create an overall picture.

The last straightforward concept is symmetry. Symmetrical landscapes portray a very formal feeling. The design remains the same on both sides of a chosen axis. Asymmetrical landscapes give an informal feeling. The design is not the same on both sides of an axis. This type of landscape gives a more natural appearance. Asymmetry is generally more interesting to the eye and it lends itself best to native plantings.

This is it folks. Now we're all dealing with a full deck when we design our landscapes. We've covered all 16 basic landscape design principles. They are: mass, balance, structure, form, repetition, rhythm, simplicity, contrast, grouping, line, texture, focalization and accent, color, scale and proportion, harmony and composition and symmetry. How do we put all these principles to use? Watch for the Horticulture Committee's next series of articles: "Landscaping with Natives".

In early June, KBYU-TV's Utah Family Garden presented a show on landscaping with Utah native plants. KSL radio farm director John Berg hosts Utah Family Garden which airs Saturdays at 10:00 am, repeating Thursdays at 7:00 pm. A frequent guest on the half-hour program, Dr. Frank Williams, professor of agriculture/horticulture at BYU, played show and tell with NPI (Native Plants, Inc.) stock.

Trees, shrubs and a few ground covers were displayed: blue spruce, elderberry, chokecherry, maple, mountain mahogany, squaw bush, shrubby cinquefoil, scrub oak, Oregon grape, golden currant, quaking aspen, mountain ash, montain lover, birch, bearberry, wild strawberry, rabbitbrush and sagebrush. Removal of plants directly form their natural habitats for planting in residential landscapes was discouraged (although not strenuously).

The show's low point occurred when Berg asked Williams why anyone would want to plant sagebrush. Generally, though, the show was upbeat with a few natives getting some precious air time. Hopefully more programs will be forthcoming.

Penstemons: Versatile Perennials for Western Gardens

The Denver Botanic Gardens was the scene of a program dedicated to the genus Penstemon. Elizabeth Neese, 1983 UNPS President, spoke on "Penstemons of the Southern Rockies and Great Basin". Dr. Neese is currently working on a treatment of the genus for the Utah Flora project. (Perhaps she will give her DBG presentation at one of the Salt Lake Chapter meetings.)

GROWING YOUR OWN

Kathryn M. Mutz

While most of us are trying to maintain our gardens rather than starting seeds, it is still a good time to be thinking about those important fall plantings. What better time to start seeds which require higher (70-85°F) soil temperatures for germination? And, of course, it is time to start gathering seeds on desert and mountain hiking trips.

If you are interested in growing natives the Applewood Seed Company catalog is a good reference whether or not you plan to order their product. The color illustrated catalog gives common and scientific names and describes each species including its flower color, growth habit, sun and moisture requirements and germination time, temperature and special needs. Many of their selections are only available in an ounce or more but others are sold by the packet (\$1) with no minimum order. Applewood also sells mixtures and Mini-meadows — 5 oz. cans to plant 350 square feet meadow areas.

Applewood Seed Company, Inc.
P.O. Box 10761 Edgemont Station
Golden, CO 80401
(303) 431-6283

The West Virginia Native Plant Society introduced three books to their readers in February:

Rock Gardening - A Guide to Growing Alpines and Other Wildflowers in the American Garden. H. Lincoln Foster. Timber Press. Portland, Oregon. Reprint edition, 1982. 466 pages; softcover \$22.95.

An extensive glossary, general techniques for propagation and growing wildflowers and developing habitats of different types including bogs, swamps and woodlands. It also includes a catalogue of plants with cultural requirements.

The New Wildflowers and How To Grow Them. Edwin Steffek. Timber Press. Beaverton, Oregon. 1983; softcover \$22.95. (Available for \$19.95 including postage from The Virginia Wildflower Preservation Society, 3718 Camelot Drive, Annandale, VA 22003.)

"First published in 1954, it is a clear, systematic study of the conditions under which wildflowers flourish... This is a practical book on the cultivation of wildflowers."

The Prairie. J. E. Weaver and T. J. Fullerton. Contribution to Botany, No. 82. University of Nebraska. Reprinted 1980. 295 pages; paperbound \$6.00 postage paid.

Gary Wayner of the WVNPS says: "One of the best bargains I have come across lately... I highly recommend it to all botanists."

Reviewed in the Northern Nevada Native Plant Society Newsletter:

A Flora of the Tahoe Basin and Neighboring Areas and Supplement. Gladys L. Smith. Wasmann Journal of Biology, University of San Francisco. 1983; paperbound \$10.75. (Can be ordered from the author at 730 28th Ave., San Francisco, CA 94121.)

A catalogue of the area's vascular plants without key or descriptions (nomenclature follows Munz and Keck, A California Flora). Includes a description of physiographic and geologic features, plant communities, floristic analysis and botanical explorations along with ecological comments and anecdotes about the plants. The book treats 1288 taxa in 345 genera and 79 families.

And, of course, there is the Intermountain Flora Volume 4. Several UNPS members took advantage of the discounts offered on Volumes 1 and 6. Orders have been forwarded to the NYBG.

UNPS Segó Lily
c/o Kathryn Mütz
737 S. Angel Street
Kaysville, Utah 84037



FIRST CLASS MAIL

MEMBERSHIP APPLICATION

(annual membership from date of receipt of fee)

New Member Renewal Gift

Name _____

Street _____

City/State/Zip _____ Telephone _____

If gift, from: _____

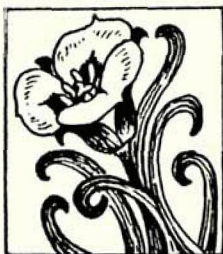
Please send a complimentary copy of the Sego Lily Newsletter
to the above.

Check membership category desired:

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

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

Dave Anderson, Treasurer, 1050 E. Oakridge Circle, Sandy, Utah 84070



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 7; Number 6

AUGUST - SEPTEMBER 1984

What's Going On?

- August 22
6:30-8 pm Executive Committee Meeting. Agenda includes: new officers, Seed Committee, plant sale, annual state meeting, etc. State Arboretum of Utah conference room. All are invited.
- August 23
7:30 pm Salt Lake Chapter Meeting. A Survey of Mushroom Groups with Frank Anderson. Whether or not you attend the August 25 field trip, you'll gain an appreciation of the beautiful fungi of the state. If you enjoyed slime molds, you'll love mushrooms! State Arboretum of Utah conference room.
- August 25
8:30am - 5 Mushroom hunt and feast. Frank Anderson will lead a find, identify and eat (optional) field trip for all mushroom lovers. The Uinta Mountains day long trip will conclude with a bring-your-own meat cookout and pot-luck featuring the day's finds. Meet at 8:30 am at the Parley's Way K-Mart parking lot or call Dave Okleberry at 968-6190.
- August 29-
October 23 Northern Rockies Field Studies: The Wild Divide. Sponsored by the Sierra Institute, Cardiff House, University of California, Santa Cruz, CA 95064. Includes 3 upper level undergraduate courses all taught in the field. Call (408) 429-2822.
- August 30-
September 3 5th Annual Visit to Chiricahua Mountains with the Tucson Chapter of the Arizona Native Plant Society. Accommodations available at the American Museum of Natural History Southwestern Research Sta. Portal, AZ. Call Meg Quinn ANPS for details (602) 883-1380.
- September 11
6:00 pm Landscaping with Native Plants: A walking tour by Bill Wagner, landscape architect with Forest Hills Nursery. Meet at Wagner's 6722 S. 2395 E (Lazy Bar Circle), Holladay.
- September 15
9:00 am Utah Native Plant Society Fall Plant Sale. Millcreek Gardens, 3500 S. 900 E., SLC 487-4131.
- Sept 18-21 Productive Second Uses of Mined Land. An international conference on innovative approaches to reclamation planning. Pacific Grove, CA. Call (415) 956-1230 for details.

Sept. 19/20 Tree Walks and Talks/Brown Bag Tours. Solving Tree Problems: Diseases. Dr. Sherm Thompson, U.S.U. Extension Pathologist. Meet at the Museum of Natural History, U of U campus 7 pm Wednesday or noon on Thursday. Call State Arboretum of Utah for details. 581-5322.

September 27 Salt Lake Chapter Meeting. Cryptogamic Crusts of Utah Deserts by 7:30 pm Larry St. Clair. State Arboretum of Utah conference room.

Welcome to New Members!

Marcus and Constance Theodore

FIELD TRIP REPORTS

Alpine Wildflowers and Albion Basin

Reported by

Luci Malin and Pam Poulson

On July 30, a group of over 40 flower aficionados took the Snowbird tram to above 11,000 feet for a quick romp through the alpine flora with Dr. Lella Shultz and her husband, John. At first glance it appears that there is very little vegetation in the rocky alpine terrain. But soon we were crawling on our bellies to see an abundance of flowering plants. We saw Penstemon humilis, the smallest flowered penstemon of the over 200 species that occur in North America (over 100 of which are found in the Great Basin). Dr. Shultz pointed out that the alpine flora consists of predominantly perennials because of the short season. Perennials store carbohydrates so that they can initiate growth as soon as the conditions are right and in alpine areas this may be only once in several years. Annuals just don't get enough time to germinate, establish, flower and produce seed in places where the growing season may only be 4 or 5 weeks.

Dr. Stanley Welsh delighted over 30 of us on August 4th with his tales among the wildflowers of Albion Basin. After a typical Utah rainstorm, lasting all of 10 minutes, the sky cleared and we followed Dr. Welsh over meadow, bog and hillside.

Stopping at each flower, we learned not only its name, but its history and lore. At the Richardson geranium (Geranium richardsonii) we heard of Dr. Ralph Richardson and his ill fated endeavors to find the Northwest Passage. At the Jacob's Ladder (Polemonium foliosissimum) we saw the "ladder" arranged leaves and smelled the "polecat" fragrance that gives this plant the name skunkweed. In wet areas, the tiny floppy ears and curled trunk of the purple Elephant head (Pedicularis groenlandica) stand in spikes. The Latin name indicates that it was collected in Greenland. It wasn't. It doesn't grow in Greenland.

We experienced nearly 50 species of wildflowers, a partial checklist occurs in the Wildflower Watch column in this issue. The fantastic array is difficult to describe. It must be seen first hand. Jump in your car and head for Albion Basin before the first frost!!

CATTLE DESTROY NATURAL VEGETATION?

It is becoming more and more obvious that domestic cattle (and also sheep and goat) grazing subjects vegetation to immense stress. This is even more pronounced in arid and semi-arid regions like sub-Saharan Africa, South Africa, Australia and much of our American West. Utah's grazed lands, especially those of the Bureau of Land Management (BLM) and the U.S. Forest Service (USFS), certainly should be areas of concern.

In fact, some experts have stated that the reckless over grazing of the Spanish and Anglo ranchers and cowboys of the not-so-distant past may have already done fatal damage to the natural balance of native vegetation in most of our West. Furthermore, the "improved" grazing practices of today are still questionable and are increasingly being identified as continuing to do harm to the West's native vegetation.

Anyone concerned about the vigor and quality of Utah's native vegetation can get an introduction to the grazing issues through a number of easy-to-read publications.

The first is a new book, Sacred Cows at the Public Trough by Dr. Denzel and Nancy Ferguson, (1983; Maverick Publications, Bend, Oregon; \$9.00). As a research station director at the Malheur National Wildlife Refuge, Dr. Ferguson was outraged to discover that cows were literally taking over the refuge with little resistance from the U.S. Fish and Wildlife Service (USFWS). Upon investigating the situation, the Fergusons discovered and experienced the political influence, threats and harassment of the cowboys who have always used the public lands as if they were their own. Due to the powerful influence of our Western ranchers, federal district managers and field rangers do not always administer the law and their own regulations when it comes to restricting grazing abuses.

The Fergusons point out that ranchers using our public lands produce only 3% of the nation's beef. Their beef production could be eliminated entirely with little loss to the nation. These ranchers are charged only \$1.40 per animal unit to graze on the public land, yet they will also willingly pay an average of \$8.80 per AUM to graze comparable and adjacent private land. Worst of all, say the Fergusons, are the rangeland "improvement" projects. With taxpayers' money, our public lands are subjected to herbicide and pesticide spraying, predator control, rodent control, miles of fences, exotic grass seedings, well drilling and installation of pipes and water troughs -- with no extra cost to the ranchers using these "improved" areas. The potential for favoritism, if not corruption, is obvious.

Ranchers do not tolerate a reduction or removal of their cows. Instead, the abused land must be "improved". The result of this heavily subsidized "maximum number" grazing is a shocking loss of soil, extensive damage to riparian zones, immense reduction of wildlife and dangerous conversion of native vegetation to communities of exotic grasses and noxious weeds. Big game, other than deer, is paltry, river fishing is in serious decline and hardly a stream is fit to drink thanks to the ever-present cow. Over 70% of the western U. S. is subjected to this unnecessary grazing of our public lands, conclude the authors.

Additional publications addressing the grazing issue are;

Desertification of the United States. Council on Environmental Quality. 1981. Free from the Sierra Club office in Salt Lake City, this book addresses overgrazing as one of the major causes of desertification.

A Grazing History of S.W. Idaho with Emphasis on the Birds of Prey Study Area. It is available free from the BLM Boise District Office, Idaho. This immensely interesting and disturbing document is written by Dr. Dana Yensen, Department of Biological Sciences, University of Idaho. BLM disclaims the findings, conclusions and recommendations of the author.

The Desert: An Age-Old Challenge Grows. National Geographic, November, 1979.

Desert: The American Southwest. Ruth Kirk. 1973

The Desert World. Dave Costello. 1972.

These references should give a reader an appreciation of the immense effect that simple grazing of cattle, sheep and goats have had and are still having on our public lands.

EDITOR'S NOTE: Sacred Cows certainly sounds like a book to provoke discussion among the diverse elements of Utah's (and UNPS's) population. Let's hear from you.

Native Seeds

Due to requirements of the Utah Seed Act, UNPS Seed Committee is making some changes in practice. State Law requires that germination tests be made on seed sold in the state. Since the tests are costly if made on large numbers of species where seed is available only in very small quantities, the Seed Committee has elected to buy tested seed from wholesalers of native species, repackage it and make it available in small amounts. This way we can comply with state law and still promote the use of native plants in the landscape. We will also offer wildflower mixes. They will be available in a Rocky Mountain mixture for 6000 feet elevation and above and a Great Basin mixture for below 6000 feet.

Seed on hand, gathered and donated to the Society, will still be available but at reduced prices for the fall sale and thereafter at no charge. Recipients will be asked to complete and return a pre-printed postcard reporting germination information. This will help us make recommendations in the future to aid growers of reported species.

Although the number of species for sale is now reduced, we would still like to help acquire seed for persons desiring a given species. Requests can be made directly to the Seed Committee or through a Wanted item in the Sego Lily. Also, please contact us if you are interested in doing germination tests on native plant seed.

Contact Committee Coordinator:

Janet Williams
2147 S. 1700 East
Salt Lake City, Utah 84106

Alpine Plants

Following is a partial (you never get them all) checklist of the alpine plants of the Snowbird, Big Cottonwood Canyon area. We saw many of these on the July 21st field trip. Dr. Lella and John Shultz provided this list, the sub-alpine checklist on the reverse and a wonderful trip above timberline. Thanks very much.

APIACEAE

Pteryxia hendersonii

ASTERACEAE

Antennaria alpina
Artemisia ludoviciana
A. michauxiana
Solidago nana
A. rosea
Aster alpigenus
Chaenactis alpina
Circium eatonii
Erigeron caespitosus
E. compositus
E. leiomerus
Haplopappus macronema
Hymenoxys grandiflora
Senecio fremontii
S. multilobatus
Townsendia montana

BORAGINACEAE

Hackelia micrantha
Mertensia ciliata

BRASSICACEAE

Arabis lemmonii
Descurainia californica
Draba aurea
D. oligosperma
Erysimum asperum
Thlaspi montanum

CRASSULACEAE

Sedum debile
S. lanceolatum

FABACEAE

Astragalus alpinus
Lupinus argenteus

GENTIANACEAE

Swertia radiata (*Frasera speciosa*)

GERANIACEAE

Geranium richardsonii
G. viscosissimum

GROSSULARIACEAE

Ribes cereum
R. montigenum

LILIACEAE

Zigadehus elegans

PINACEAE

Picea engelmannii
P. flexilis

POLEMONIACEAE

Polemonium foliosissimum
P. occidentale
Phlox hoodii

POLYGONACEAE

Oxyria digyna
Eriogonum brevicaulis
E. umbellatum

PRIMULACEAE

Primula parryi
Androsace septentrionalis

RANUNCULACEAE

Anemone multifida
Aquilegia caerulea
Ranunculus eschscholtzii
Thalictrum fendleri

ROSACEAE

Geum rossii
Ivesia gordonii
Potentilla ovina

SAXIFRAGACEAE

Saxifraga rhomboidea

SCROPHULARIACEAE

Castilleja miniata
C. rhexifolia
Penstemon humilis
P. whippleanus

VALERIANACEAE

Valeriana acutiloba
V. edulis

Report: Flora of Snowbird

Flower Color	Common Name	Genus	Species	Family	Growth Form
blue	Aster	Aster	chilensis	ASTERACEAE (Sunflower)	herb
blue	Beardtongue	Penstemon	spp.	SCROPHULARIACEAE (Figwort)	herb
blue	Mountain bluebell	Mertensia	lanceolata	BORAGINACEAE (Borage)	herb
brown	Western coneflower	Rudbeckia	occidentalis	ASTERACEAE (Sunflower)	herb
green	Alpine phileum	Phleum	alpinum	POACEAE (Grass)	grass
green	Aspen	Populus	tremuloides	SALICACEAE (Willow)	tree
green	Boxelder	Acer	negundo	ACERACEAE (Maple)	tree
green	Curly dock	Rumex	crispus	POLYGONACEAE (Buckwheat)	herb
green	Figwort	Scrophularia	lanceolata	SCROPHULARIACEAE (Figwort)	herb
green	Foxtail barley	Hordeum	jubatum	POACEAE (Grass)	grass
green	Mugwort	Artemisia	ludoviciana	ASTERACEAE (Sunflower)	herb
green	Sedge	Carex	rostrata	CYPERACEAE (Sedge)	grass-like
green	Stinging nettle	Urtica	gracilis	URTICACEAE (Nettle)	herb
green	Willow-leaved dock	Rumex	salicifolius	POLYGONACEAE (Buckwheat)	herb
none	Alder	Alnus	teruifolia	BETULACEAE (Birch)	tree
none	Bracken	Pteridium	aquilinum	POLYPODIACEAE (Fern)	herb
none	Meadow horsetail	Equisetum	arvense	EQUISETACEAE (Horsetail)	herb
none	Subalpine fir	Abies	lasiocarpa	PINACEAE (Pine)	tree
pink	Sticky geranium	Geranium	viscosissimum	GERANIACEAE (Geranium)	herb
pink	Subalpine paintbrush	Castilleja	rhexifolia	SCROPHULARIACEAE (Figwort)	herb
pink	Wild rose	Rosa	woodsii	ROSACEAE (Rose)	shrub
purple	Aster	Aster	perelegans	ASTERACEAE (Sunflower)	herb
purple	Fireweed	Epilobium	angustifolium	ONAGRACEAE (Evening Primrose)	herb
purple	Horsemint	Agastache	urticifolia	LAMIACEAE (Mint)	herb
purple	Lupine	Lupinus	argenteus	FABACEAE (Legume)	shrub
red	Indian paintbrush	Castilleja	miniata	SCROPHULARIACEAE (Figwort)	herb
red	Scarlet gilia	Gilia	aggregata	POLEMONIACEAE (Phlox)	herb
white	Angelica	Angelica	pinnata	APIACEAE (Carrot)	herb
white	Baneberry	Actaea	rubra	RANUNCULACEAE (Buttercup)	herb
white	Buckbrush	Symphoricarpos	oreophilus	CAPRIFOLIACEAE (Honeysuckle)	shrub
white	Eaton thistle	Cirsium	eatonii	ASTERACEAE (Sunflower)	herb
white	False Solomon's Seal	Smilacina	stellata	LILIACEAE (Lily)	herb
white	Jacobs ladder	Polemonium	foliosissimum	POLEMONIACEAE (Phlox)	herb
white	Meadow buckwheat	Eriogonum	heracleoides	POLYGONACEAE (Buckwheat)	herb
white	Mountain ash	Sorbus	scopolina	ROSACEAE (Rose)	shrub
white	Pearly everlasting	Anaphalis	margaritacea	ASTERACEAE (Sunflower)	herb
white	Red elder	Sambucus	racemosa	CAPRIFOLIACEAE (Honeysuckle)	shrub
white	Red osier	Cornus	stolonifera	CORNACEAE (Dogwood)	shrub
white	Richardson geranium	Geranium	richardsonii	GERANIACEAE (Geranium)	herb
white	Skunkcabbage	Veratrum	californicum	LILIACEAE (Lily)	herb
white	Snowbush	Ceanothus	velutinus	RHAMNACEAE (Buckthorn)	shrub
white	White sweetclover	Melilotus	albiflora	FABACEAE (Legume)	herb
white	Willowherb	Epilobium	ciliatum	ONAGRACEAE (Evening Primrose)	herb
yellow	Bur buttercup	Ranunculus	macounii	RANUNCULACEAE (Buttercup)	herb
yellow	Cirquefoil	Potentilla	spp.	ROSACEAE (Rose)	herb
yellow	Golden aster	Heterotheca	villosa	ASTERACEAE (Sunflower)	herb
yellow	Groundsel	Senecio	multilobatus	ASTERACEAE (Sunflower)	herb
yellow	Lanceleaved stonecrop	Sedum	lanceolatum	CRASSULACEAE (Stonecrop)	herb
yellow	Linum	Linum	aristatum	LINACEAE (Flax)	herb
yellow	Mountain lover	Pachystima	mysinites	CELASTRACEAE (Boxwood)	shrub (low)
yellow	Skunkbrush	Rhus	trilobata	ANACARDIACEAE (Sumac)	shrub
yellow	Winflower	Lonicera	involutrata	CAPRIFOLIACEAE (Honeysuckle)	shrub
yellow	Woolly mullein	Verbascum	thapsus	SCROPHULARIACEAE (Figwort)	herb
yellow	Yellow aster	Helioneris	multiflora	ASTERACEAE (Sunflower)	herb
yellow	Yellow sweetclover	Melilotus	officinalis	FABACEAE (Legume)	herb

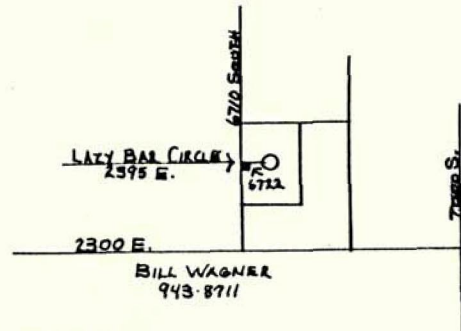
Selecting the plants you want may require some research on their growth habit, i.e. height, width, spread, sun, shade, flowering, evergreen or deciduous. After you have determined which plants you desire, you will be ready to obtain your native species. Check with your local nurseries for availability. Native plants are becoming easier to obtain.

Fall is the best time for planting. If you are planting in the heat of the summer, it is very important to keep the plant material moist and as cool as possible. When digging the planting pit, make the hole 4 inches to 12 inches larger than the root ball. This allows the roots to grow more easily into the loose soil. Make sure that the plant ends up growing at the same level in the soil that it did prior to planting. The material will not live long if it is planted too deep. Fertilizer is recommended but not necessary at the time of planting. Always read the label thoroughly to prevent over application.

Once planting is completed, deep watering is extremely important. If this is not done, the root ball may dry out and the plant can die. Most native plants can get by with 2 or 3 deep waterings a week the first year and 1 or 2 deep waterings the second year (depending on the weather). After that, once a week will probably be sufficient. Some drought tolerant species may eventually be weaned away from any supplemental waterings. Even these plants, however, will benefit from some deep waterings throughout the dry season.

Pruning may be required to maintain the desired shape and form of the plant. Weeding is also very important to insure a quality landscape. A NATIVE landscape requires much less maintenance than a traditional landscape. Less time is required to keep it looking nice, so more time can be spent enjoying it. So this fall, GO NATIVE AND ENJOY!

NOTE: For those interested in seeing natives growing in a mature landscape, join the Horticulture Committee's field trip beginning at 6:00 pm, September 11 at Bill Wagner's residence. We will have the opportunity to visit two different landscapes in the area.



UNPS ANNUAL FALL PLANT SALE

The plant sale is set for September 15th at 9:00 am at Millcreek Gardens. This is the Saturday following the native landscape tour. Don't miss this sale! There will be more native plants than ever before.

Millcreek Garden
3500 S. 900 East
Salt Lake City

See you there!

Now is the time to take a close look at the showy flowers of some of our garden weeds as we chop them down and dig them up.

Common Sunflower (Helianthus annuus), Yellow sow thistle (Sonchus arvensis) and Teasel (Dipsacus fullonum) are tall, obvious plants but their flowers, especially the delightful tiny lavender flowers of the Teasel, demand closer inspection. Rise early to catch the beautiful blue bloom of the Chicory (Cichorium intybus). The ubiquitous Dandelion (Taraxacum officinale) is interesting in that the flowers will not open at temperatures above 95°F. Throw young Dandelion greens and succulent Purslane (Portulaca oleracea) leaves into your next salad. Look closely at the Morning Glory (Convolvulus arvensis) vine whose flowers may be beautiful, but whose roots may penetrate to a depth of 10 feet or more. Check your bushes for the pretty purple flowers and red berries of the highly poisonous twining Nightshade (Solanum camara). A relatively newcomer weed to Utah gardens is the Flower of the Hour with a large 5 petaled flower with a purple center. Would you believe it is a Hibiscus (Hibiscus trionum)? Of the above, only the sunflower is a Utah native.

After weed pulling, head for a leisurely stroll in the mountains where the wildflower display above 8500 feet is a spectacular rainbow. In wet areas and along streams anywhere in the state look for:

Corn lilies (<u>Veratrum californicum</u>)	Monkshood (<u>Aconitum columbianum</u>)
Monkeyflowers (<u>Mimulus</u> spp.)	Cow parsnip (<u>Heraclium lanatum</u>)
White bog orchid (<u>Habenaria dilatata</u>)	Bluebells (<u>Mertensia</u> spp.)
Western bistort (<u>Polygonum bistortoides</u>)	
Elephant head (<u>Pedicularis groenlandica</u>)	

Don't miss the Yellow pond lilies (Nuphar polysepalum) to be found in Utah only on the shallow, muddy bottomed lakes of the Uintas.

In dry meadows, in rocks and on south facing slopes, look for:

Wild roses (<u>Rosa woodsii</u> , <u>R. nutkana</u>)	Larkspur (<u>Delphinium</u> spp.)
Lupine (<u>Lupinus</u> spp.)	Indian paintbrush (<u>Castilleja</u> spp.)
Showy Golden Eye (<u>Viguiera multiflora</u>)	Skyrocket gilia (<u>Gilia aggregata</u>)
Mountain death camas (<u>Zygadenus elegans</u>)	Cinquefoils (<u>Potentilla</u> spp.)
Yarrow (<u>Achillea millefolium</u>)	Senecios (<u>Senecio</u> spp.)
Sulphur buckwheat (<u>Eriogonum umbellatum</u>)	Asters (<u>Aster</u> spp.)
Western coneflower (<u>Rudbeckia occidentalis</u>)	Daisies (<u>Erigeron</u> spp.)
Pearly everlasting (<u>Anaphalis margaritacea</u>)	
Penstemons (<u>Penstemon humilis</u> , <u>P. cuananthus</u> , <u>P. whippleanus</u>)	
Jacob's Ladder (<u>Polemonium foliosissimum</u> , <u>P. viscosum</u> , <u>P. occidentale</u> , <u>P. pulcherrimum</u>)	

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

Wild clematis (<u>Clematis columbiana</u>)	Fireweed (<u>Epilobium angustifolium</u>)
True bluebells (<u>Campanula rotundifolia</u>)	Parrot beak (<u>Pedicularis racemosum</u>)
Coral root orchid (<u>Corallorhiza maculata</u>)	Various mushrooms

Above timberline, look for:

Parry's primrose (Primula parryi) Windflower (Anemone multifida)
Alpine sunflower (Hymenoxys grandiflora) Moss campion (Silene acaulis)
Diamondleaf saxifrage (Saxifraga rhomboidea)

Be sure to read up on the berries and have your pails and long sleeved shirts ready for the end of August and into September. If the birds haven't beat you to them, you'll find:

Elderberry (Sambucus spp.) Thimbleberry (Rubus parviflorus)
Service berry (Amelanchier spp.) Raspberry (Rubus strigosus)
Gooseberries and Currants (Ribes spp.) Choke cherry (Prunus virginiana)

Good Berries to You!!

SALT LAKE CHAPTER MEETING

Great Admiration for Low Life

Reported by Pam Poulson

Dr. Frank Anderson brought us a new respect and understanding of lower plants with his discussion of "Lichens and Slime Molds" at the June meeting of the Salt Lake Chapter. A group of over 25 were gathered for his colorful slide presentation and hands-on inspection.

Lichens, our crusty plant friends of the rocks and trees, are more complex than their lifeless appearance would have us believe. With over 15,000 species worldwide, taxonomy is somewhat difficult. One might, however, be able to take on the 130 species found in the dry climate of Utah. The distinguishing characteristics are to be found through a microscope in the crystals of each specific lichen acid. It's easy to understand why lichen taxonomists are a rare commodity.

What are lichens? They are a union of two organisms: algae (usually green) and a fungus. Although the relationship is symbiotic, the fungus actually parasitizes the algae. The two organisms are so closely linked that they were not originally recognized as two separate entities.

Lichens are metabolically active only when moist. Photosynthesis takes place mostly in the winter and spring, with a slowdown from lack of moisture in the summer. Slow growing (4 mm per year) communities can be used by geologists to date rockfalls that occurred as long as 4000 years ago.

The slime molds are a smaller group of only 400 or so species worldwide. They prefer warm moist environments which excludes them from much of Utah. More have been sighted in the last few years because of our unusually wet weather.

The slime mold is not slimy all of its life. In the plasmodium stage (the slimy one) the organism is amoeba-like. It creeps around in periods of warm moisture. As it creeps, it engulfs and consumes its food. In a fungus-like stage, the slime dries up and fruits in appearance similar to a fungus.

When asked whether a slime mold is classified as plant or animal, Dr. Anderson smiled and advised us to consider it a "Planimal".

UNPS Sego Lily
c/o Kathryn Mutz
737 S. Angel Street
Kaysville, Utah 84037



FIRST CLASS MAIL

MEMBERSHIP APPLICATION

(annual membership from date of receipt of fee)

New Member Renewal Gift

Name _____

Street _____

City/State/Zip _____ Telephone _____

If gift, from: _____

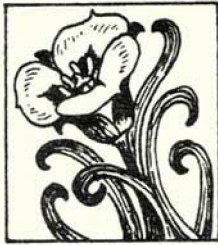
Please send a complimentary copy of the Sego Lily Newsletter to the above.

Check membership category desired:

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

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

Dave Anderson, Treasurer, 1050 E. Oakridge Circle, Sandy, Utah 84070



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 7; Number 7

OCTOBER 1984

What's Going On?

- October 11 7:30 pm Mountain Man/New World Social. UNPS annual state meeting will be at the Sugarhouse Garden Center. See the article in this issue. Come visit with other native plant fans. Bring a friend and a native!
- October 12 9:00 am - Hearing on High Level Radioactive Waste Repository Siting Program. House of Representatives Subcommittee on Energy and the Environment. Do we want a nuclear waste dump near Canyonlands? See article this issue. Governor Matheson speaks at 9:00 am.
- October 17 Horticultural Therapy Workshop. This is a day long workshop on horticultural skills and the therapeutic benefits of horticulture. University of Utah Union Building. For further information, contact Dr. Betty Wullstein, Curator of Education, State Arboretum of Utah, 581-4938. \$35 registration.
- October 17 7:00 pm Garden Odyssey - Gardens of the World Series sponsored by the Arboretum of Utah. Dr. Irving B. McNulty, U of U faculty will present "It Began in Padua: The Renaissance of Formal Gardens", Olpin Union Building Room 323.
- October 23 9:00 am Report on Threatened and Endangered species by the state land law review committee to the State of Utah Resource Development Coordinating Committee. Room 305 of State Capitol Building. For information call Kathy Mutz, 533-5771.
- November 6-7 Utah Greenhouse and Landscape Maintenance Conference. Sponsored by Utah State University. Tri-Arc Travelodge. The two day conference registration fee is \$49 if received by 10/26. Call Lorene Stone at 750-1760 for further information.
- November 10 9-12 am Harvest potpourri. A workshop on crafts with harvest plants - dried flowers, cones, etc. Instructor: Helen Cannon. Call the Arboretum for reservations at 581-5322.

UTAH NATIVE PLANT SOCIETY ANNUAL MEETING
MOUNTAIN MAN/NEW WORLD SOCIAL

Pam Poulson

Come to Sugarhouse Park Garden Center to mingle with other native plant fans at the annual UNPS State Social at 7:30 p.m. October 11. The entire affair will be one of relaxing and getting acquainted with each other and with some of the lesser known uses and virtues of our native plants. We will take a brief moment to ratify new officers for 1985.

Our guest speaker will be Bill Varga, Director of the Utah Botanical Garden and gentle mountain man extraordinaire. He will tell us through slides and examples how the lives of the mountain men and the Native American centered around the native plant world. Mountain man costume is optional.

Being one day shy of Columbus Day, let's take a closer look at some of the food gifts of the New World. Price of admission: a bit of refreshment or decoration (show and tell) created from a plant of the New World. We've already heard of people bringing pumpkin cookies, elderberry jam and cranberry punch. Be imaginative! We'll have a prize for the most imaginative or tastiest, whichever seems appropriate. Let Ewell Gibbons be your guide! Below is a list of a few of the plants 'brought to us by Columbus'. Uncommonly eaten items are not included below, but are fair game as admission (i.e., Cattail shoots, Camas lily bulbs, Miner's lettuce.)

- Pineapple (Ananas spp.) - Tropical South America
- Potatoe (Solanum tuberosum) - Andes
- Pottowattamie (Prunus americana) - North America
- Tobacco (Nicotiana tabacum) - Tropical America (if you like to chew!)
- Tomatoe (Lycopericon spp.) - South America (What did the Romans use on pasta?)
- Sunflower (Helianthus annuus) - Ubiquitous!
- Jerusalem artichoke (H. tuberosa) - ditto
- Cranberry (Vaccinium macrocarpon) - North America
- Pumpkin (Cucurbita pepo) - North America
- Winter squash (C. mixta) - North America
- Crookneck squash (C. moschata) - North America
- Banana squash (C. maxima) - South America
- Corn (Zea mays) - Central America (How about some popcorn?)
- Cocoa (Theobroma cacao) - Mexico, Central America, Brazil
- Coca(ine) (Erythroxyton coca) - Peru and Bolivia (Not allowed)
- Prickley pear cactus (Opuntia spp.) - Throughout
- Chili peppers (Capsicum spp.) - Central America
- Red and green peppers (Capsicum spp.) - Central America
- Cashew (Anacardia occidentale) - Tropical America (Most welcome!)
- Tapioca (Manihot spp.) - South America
- Guava (Psidium spp.) - South America
- Avocado (Persea americana) - Tropical America (A party without guacamole?)
- Tequilla (Agave spp.) - Central America
- Mescal(ine) (Agave spp.) - Central America (Don't you dare!)
- Sarsaparilla (Smilax spp.) - Central America
- Sassafras (Sassafras spp.) - North America (native american beer)
- Blackberry/Dewberry (Rubus spp.) - North America
- Blueberry/Huckleberry (Vaccinium spp.) - North America
- Chokecherry (Prunus virginiana) - North America

Elderberry (Sorbus spp.) - North America
Papaya (Carica papaya) - Central America
Persimmon (Diospyros virginiana) - North America
Lima bean (Phaseolus limensis) - South America
Kidney bean (P. vulgaris) - South America
Pinto bean (Phaseolus spp.) - Central America
Maple sugar/syrup (Acer saccharum) - North America
Pimento (Pimento spp.) - Central America, West Indies
Vanilla (Vanilla spp.) - Tropical America (My achin' Haagen Dazs!)
Brazil nuts (Bertholletia excelsa) - Amazon Valley (Still the only source)
Pecan (Carya illinoensis) - North America
Pinon nuts (Pinus edulis, P. monophylla, etc.) - North America
Sweet potato (Ipomoea batatas) - Central America, West Indies

That's only a partial list. Obviously every Mexican restaurant, ice cream parlor and hospital would have been out of business if we all still lived in the Old World. Come taste the treasures of the New World and rub elbows with those that might have been mountain men or women, born just 150 years earlier. Friends and neighbors are welcome.

NUCLEAR WASTE DUMP FOR UTAH

The southeastern corner of Utah is an extraordinary landscape. Recognition of this special beauty is found in the establishment of Canyonlands National Park and the designation of Dark Canyon Primitive Area and 3 Wilderness Study Areas. In addition to these nationally recognized areas, thousands of people each year affirm the aesthetic and cultural value of Beef Basin (Bureau of Land Management) and the adjacent section of the Manti-LaSal National Forest.

The stillness and raw beauty of this area of Utah may soon be lost. The Department of Energy (DOE) has been charged with finding a dumping ground for commercial and Defense Department nuclear waste material. Along with 7 other sites throughout the country Davis and Lavender Canyons, on the east border of Canyonlands N. P., are being evaluated as candidate sites. While selection as one of 3 "candidates" does not guarantee that the repository will be built in red rock country, it does guarantee that the stillness will be broken. "Site Characterization" necessitates bore hole drilling, geophysical studies and the drilling or blasting of a shaft up to 30 feet in diameter and thousands of feet deep into the salt formation beneath canyon country. The waste storage facility itself would be comparable in facilities and activities to a huge mining operation.

Governor Matheson has stated his opposition to the dump both because of irreconcilable conflicts with Canyonlands N. P. and the rest of the natural treasures of the area and because the DOE has been unresponsive to Utah's concerns for a fair and complete evaluation of the site before destruction is caused. DOE now promises to do most of their environmental studies after the Environmental Assessment is written. On October 12, starting at 9:00 a.m. at the Quality Inn, 154 west 600 South, Salt Lake City, Morris K. Udall will be conducting hearings before the House of Representatives Subcommittee on Energy and the Environment. Governor Matheson is scheduled as the first speaker on the agenda. Come to hear. Come to speak. Or send your comments to Udall at the House of Representative, Washington DC 20515.

If this cold snap subsides and the snow melts, the Autumn leaves will be glorious throughout October. This untimely cold may shorten the display, but let's hope for the best.

The leaves seem to be changing in the canyon bottoms first. This is caused by the famous Utah temperature inversion. The first leaves to change then will be the reds of Bigtooth maple (Acer grandidentatum) and native Sumac (Rhus glabra) and the golds of Box elder (Acer negundo) and Narrowleaf cottonwood (Populus angustifolia). All of these trees prefer moister habitats along streams and north facing slopes. Watch higher up and a little later in the month 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 where ever you go. Call area rangers for road and weather conditions. Campgrounds are open and campsites are free, but water has been turned off for the winter.

Monte Cristo up Ogden Canyon has been nominated as one of the prettiest places on 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 on the Wasatch Forest are: the Ward Canyon side of Bountiful Peak, Mirror Lake Road and any of the canyons along the Wasatch Front.

Try the Red Cloud Loop on 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 aspen 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 Daniels Canyon to the west side 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 has been plagued with landslide problems in the past two years so call area rangers for road conditions. The Fairview to Huntington road is open and provides easy access to the Skyline Drive and other areas of autumn color. The LaSal Mountain Loop isn't really a local secret. Running out of Moab, the loop is famous across the country for its huge aspen and the unique location of 13,000 foot 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 on the Dixie National Forest around Brian Head 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 Brian Head to Panguitch Lake for a dazzling display.

1985 Western States Native Plant Societies Meeting

Recently the Oregon Native Plant Society has been corresponding with us about next year's meeting of the Western States NPS organization. Oregon will be hosting the meeting in LaGrande - "gateway to the Willowa mountains, a beautiful area both scenically and botanically." The meeting is scheduled for August 2, 3 and 4, 1985. Michael Fahey is developing a program for the meeting and is asking help from each of the western societies.

Four sections of the program are in the planning stages:

- 1) panel discussion on conservation
- 2) panel discussion on legislation for the protection fo native plants
- 3) reports on the activities of each state's society
- 4) special subject/project presentation by society individuals

If you are interested in attending the meetings, participating in the program or have any ideas which may help in the planning, please contact Michael D. Fahey, 215 Phoenix Way, Vancouver, WA 98661. Oregon would like to provide a program to the states as soon as possible so please make your comments by December 1.

Welcome to New Members!

Julia Lippert
John & Bernice Pfeiffer
Gordon Thiriot
Tom & Chris Portle
John Fairchild
Ed & Mary Greenwood
Jean Miller
Bob Woldberg
Jim Dalgleish

Joseph Meyer
Jay & Kris Stone
Sally Kefer
Bart Kale
Gretchen Van Ert
Diane Wallace
Marjorie Stolhand
Utah State Historical Society
Bill Varga

To all our members:

Recently you should have received a copy of a new nature magazine. The publisher asked for the UNPS mailing list. In exchange for providing your names for a free copy of their first issue, we will be asking for their mailing list in the coming year. We feel it is one way to bring our organization to a wider audience. If you do not want your name released for any future requests, please let us know.

Praise the budget and please be patient!

UNPS just recently received its non-profit, bulk mailing permit. This means that as first class postage costs rise, our mailings will cost us only 5.2¢. On the other hand, we will no longer enjoy first class service. We are not too sure how much lead time is necessary for blue card announcements and to keep the Sego Lily calendar timely. Please let us know if we are mailing too late.

It has been an active year for proposed listing actions involving Utah native plant species. The table below summarizes those species that have been proposed for listing so far this year.

<u>SPECIES</u>	<u>PROPOSAL PUBLISHED</u>	<u>PROPOSED STATUS</u>	<u>HABITAT OWNERSHIP</u>	<u>COUNTY</u>	<u>THREATS</u>
<u>Primula maguirei</u> Maguire primrose	4/13/84	Threatened	USFS, State	Cache	Collecting Development
<u>Townsendia aprica</u> Last chance T.	5/29/84	Endangered	BLM, private	Sevier Emery	ORV, mining grazing/tramp.
<u>Asclepias welshii</u> Welsh's milkweed	6/6/84	Endangered	BLM, State	Kane	ORV grazing
<u>Erigeron maguirei</u> var. <u>maguirei</u> Maguire daisy	7/27/84	Endangered	BLM	Emery	grazing any habitat disturbance

The proposed action for Astragalus montii is still pending so the total of Utah plant species that have been proposed for listing is now 5. Since listing packages have been prepared for an additional six species which are currently under review in Washington, more species may be officially proposed later this year. No Utah plant species have been listed since 1979. If all of the presently proposed species are actually listed, the total for Utah would increase by more than 50%. In accordance with Section 4(b)(5)(6)(A) of the Endangered Species Act, a final decision should be made in connection with each of these species within 12 months of the Federal Register publication date (although the period can be extended).

Dr. Leila Shultz furnished comments to the Fish and Wildlife Service (FWS) on Primula maguirei. She supported listing without critical habitat on the basis that the resulting recognition would help to ensure protection of the species since the populations would more likely be adversely affected by "ignorance or carelessness than from justifiable need." Nine populations occur within an area 10 miles long and less than 1/2 mile wide. Shultz reported that the largest population, while limited to a small area, has in excess of 100 plants and that good reproduction appears to be occurring within the population.

Only 3 populations of Townsendia aprica are known with an estimated total of just 220 individual plants. This species was not discovered until 1966 and has apparently never been abundant. Since this species grows on a formation containing coal, mining is a potential threat.

Welsh's milkweed occurs in and near the Coral Pink Sand Dunes State Park. While some 8,500 or so individuals are estimated to exist, the species has a restricted habitat which is quite vulnerable to impacts by off road vehicles. Listing was proposed with the designation of critical habitat unlike the other 3 proposals published this year. The state of Utah requested a public hearing which was held on September 18 in Kanab. Larry England (FWS) conducted the meeting and reports that while the meeting was a cordial one, all public comments were negative. Drs. Duane Atwood and Stanley Welsh appeared at the meeting and provided technical information. The BLM claimed that grazing is not a threat. The state's Division of Parks and Recreation indicated that they do manage for the entire well being of

the ecosystem and that more study should be done prior to listing. Restrictions on ORV use is undoubtedly a concern. Public hearing and other comments will be assimilated and evaluated and a final decision will be issued which will result in 1) listing the species as proposed, 2) listing the species as threatened rather than endangered, or 3) withdrawing the proposal. Listing as either threatened or endangered still seems likely.

The Maguire daisy is as rare as they come. Now known from only one site, only 7 total plants were found in 1982. The variety may not be able to survive at these extremely low numbers.

Excluding species officially proposed and those prepared for listing, there are still over 90 rare Utah plants under review (i.e. candidates for listing.)

Upper Colorado Environmental Plant Center

"Native and introduced plants adaptable to the Upper Colorado Region are of prime importance to the region's development yet are not commercially available. Development and overuse within the region either completely destroy or significantly alter the vegetation so critically necessary for the region's stability." These discouraging words introduce the long range program plan for the Upper Colorado Environmental Plant Center.

After a recent visit to the Center and the opportunity to work with the staff on a mine reclamation project for Utah, I know that progress is being made to develop materials that will help mitigate impacts of development on plant communities of the West.

The Environmental Plant Center is owned and operated by the Douglas Creek and White River Soil Conservation Districts of Colorado. Located about 5 mile from Meeker, Colorado, the Center occupies 189 acres about 6500 feet in elevation. Plant seed collected throughout the Rocky Mountain area (and beyond) is brought to the Center and "evaluated as to its utility in reclaiming areas disturbed by mining, highway construction, or areas which require intensive management to improve livestock grazing and wildlife habitat." Test plantings are evaluated over a period of years both at the Center and in actual reclamation projects or test plots. Successful types are then grown under agricultural conditions to produce sufficient quantities of seed for distribution to commercial growers. As commercial growers increase the availability of these species, the price of seed can plummet from over \$80 per pound to just a few dollars.

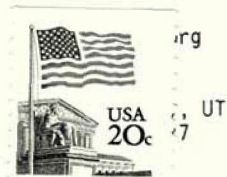
High priority project areas for plant materials development include alpine and subalpine lands, oil shale development areas, coal mined lands, wildlife habitat and rangelands. For these and other projects, the Center attempts to develop the plants and the technology necessary to effectively use the materials. Included in their test plantings are some of the rare species of Utah and Colorado: Astragalus lutosus (milkvetch), Aquilegia barnebyi (Oil shale columbine) and Festuca dasyclada (Fescue).

The work of Sam Stranathan, Soil Conservation Service manager of the Center, and his staff is important to the future of Utah's native plants. I thank them for their hospitality and for their service to Utah and the Rocky Mountain West.

This article is the first article in a series on mine reclamation.

Kathryn Mutz

UNPS Sego Lily
c/o Kathryn Mutz
737 S. Angel Street
Kaysville, Utah 84037



Return Postage guaranteed

FIRST CLASS MAIL

MEMBERSHIP APPLICATION

(annual membership from date of receipt of fee)

New Member Renewal Gift

Name _____

Street _____

City/State/Zip _____ Telephone _____

If gift, from: _____

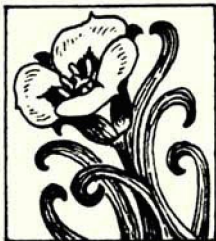
Please send a complimentary copy of the Sego Lily Newsletter
to the above.

Check membership category desired:

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

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

Dave Anderson, Treasurer, 1050 E. Oakridge Circle, Sandy, Utah 84070



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 7; Number 8

NOVEMBER 1984

What's Going On?

- November 15 7:30 pm Salt Lake Chapter Meeting. The most popular meeting of the year: UFO's and 'What I did on my summer vacation'. Bring your slides of those puzzling plants and the beautiful scenes from your summer travels. State Arboretum of Utah conference room.
- November 17 9-12 am Harvest potpourri. A workshop on crafts with harvest plants - dried flowers, cones, etc. Instructor: Helen Cannon. Call the Arboretum for reservations at 581-5322.
- November 27 7:00 pm Japanese and Chinese Gardens Compared. Presentation by Dr. Lennox P. Tierney. State Arboretum of Utah Garden Lecture Series. Room 323, Olpin Union Building.
- November 28 6:30 pm Executive Board Meeting. All members of the Executive Committee are asked to attend and all others are welcome. State Arboretum of Utah office.
- December 8 Wreath workshop. Sponsored by the State Arboretum of Utah. Call 581-5322 for details.

Looking Ahead

- January 8 - 7:15 - 9 pm Advanced Native Plant Identification. Offered by the State Arboretum of Utah through the Division of Continuing Education. Moderator Alyce Hreha. Guest speakers will present a new topic each of 10 weeks, including ferns, Liliaceae, Cactaceae, conifers, threatened and endangered species and Chenopodiaceae. University credit is available, registration about \$50. Call 581-5322 for details.
- February Society for Range Management. The 1985 national meeting will be held in Salt Lake City. UNPS will have a display to introduce our national range managers to the benefits of native plants.
- August 24 1985 Mushroom field trip. Plan ahead! You don't want to miss this famous annual event.

1985 UNPS OFFICERS

Past President/ Chair of the Board President	Pam Poulson Dick Page
President Elect	Dave Okleberry
Treasurer	June Sullivan
Secretary	Janett Schmidt

1985 UNPS COMMITTEE CHAIRS AND COORDINATORS

Newsletter	Pam Poulson
Publicity	Jointly by Secretary and Membership
Photography	Glenn Halliday
Horticulture	Bill Wagner
Seeds	Jennifer Harrington
Rare and Endangered Plants	Duane Atwood/ Sherel Goodrich
Conservation	Tony Frates
Field Trips	Alyce Hreha
Membership	Kathy Mutz

Officers and committee coordinators were recommended by a panel of the Executive Board and contacted before their official nomination. The individuals were ratified at the October annual state meeting. We appreciate the interest of both the new officers and coordinators and those that are continuing in their duties from 1984. All of these people could use the assistance of one or more UNPS member. If you would like to spend a few hours a month, please volunteer your services.

NEW NEWS ON NATIVES (and others)

The Upper Colorado Environmental Plant Center (see article in the October Sego Lily) is starting a newsletter. If you are interested in the development of plant materials, get on their mailing list.

Upper Colorado Environmental Plant Center
Mr. Sam Stranathan, Manager
P.O. Box 448
Meeker, Colorado 81641

MEETING REPORTS

Annual State Meeting

On October 11, many members of the UNPS (and non-member guests, too!) enjoyed an evening eating, seeing and hearing about native edibles. The pot-luck refreshments ranged from potatoe and carrot chips to pottowattamie jelly, pumpkin cookies, cranberry juice punch and tapioca pudding. By popular vote, a cranberry cake was the all around favorite. Andrew Boyack, the contributor, received a selection of the society's new (guaranteed) native plant seeds. Special guests at the meeting were Loring and Margaret Williams of the Northern Nevada Native Plant Society.

Bill Varga, Director of the Utah Botanical Gardens, described in word, dress and picture the life of these early westerners. Accused of not looking like a mountain man, Bill explained that these men were not always the heavily bearded hulks we often picture as trappers and, later, wagon train guides. The mountain men came west as business men pursuing their product - the beaver.

While eating mainly meat, the mountain men, often with Indian wives, added native plants to their meals. Following the seasons from valley floor to high mountains, they found their favorite vegetables spring through fall. The Indian potatoe (Orogenia linearifolia) and various pot-herbs were widely used. Those that survived in the wilderness took care to identify their plants with root, stem/leaf and flower intact. Simple mistakes in discriminating between Blue camas (Camassia quamash) and Death camas (Zigadenus spp.) could bring an early end to a trapping career. Besides food items, the mountain men used many plants as medicines, tools (cordage, fishing gear and fire starters) and clothing.

Bill explained that the mountain men of the past were by no means 'environmentalists'. Conservation was not a watchword while wildlife was abundant. Today's mountain men are concerned not only with recreating the dress, customs and activities of their predecessors but with preserving the country they walked. Bill stressed that natives can be enjoyed and used but that care must be taken to conserve the populations of even our common natives.

The following publications were on hand for those interested in pursuing the subjects of edible natives or the mountain man lifestyle.

Harrington, H. D. 1967. Edible Native Plants of the Rocky Mountains. University of New Mexico Press.

Gunther, Erna. 1945. Ethnobotany of Western Washington: the knowledge and use of indigenous plants by Native Americans. University of Washington Publication in Anthropology.

Gilmore, Melvin R. 1977. Uses of Plants by the Indians of the Missouri River Region. Bison Books (Reprint of 33rd annual report of the Bureau of American Ethnology, 1919)

Wheat, Margaret M. 1967. Survival Arts of the Primitive Paiutes. University of Nevada Press, Reno.

Elmore, Francis H. 1944. Ethnobotany of the Navajo. University of New Mexico Bulletin. University of New Mexico Press.

BOOKS, BOOKS and More Books

Several interesting books are available just in time for holiday gift giving. Order now for delivery by Christmas.

From: The New York Botanical Garden

Scientific Publications Department
Bronx, New York 10458

Wild Flowers of the United States

Dr. Harold W. Rickett

McGraw-Hill Book Company

clothbound, each includes over 1000 color photographs

<u>Volume</u>	<u>Contents and Publication Date</u>	<u>Sale price</u>
1	Northeast States (1966)	\$54.00
2	Southeastern States (1967)	\$74.00
4	Southwestern States (1970)	\$81.00
5	Northwestern States (1971)	\$74.00
6	Central Mountains and Plains (1973)	\$27.00
	Index (1975)	\$27.00
	Full set of 1,2,4,5,6 & Index	\$350.00

Prices are good through November 30, 1984; order from TNYBG

Intermountain Flora

A. Cronquist, A. Holmgren, N. Holmgren, J. Reveal, P. Holmgren
270 pages, clothbound, illustrated

Volume 1: Geological and botanical history; plant geography; vascular cryptogams; gymnosperms; glossary
\$21.75 (members) \$26.75 (non-members)

Volume 6: The monocotyledons
\$47.00 (members) \$52.00 (non-members)

Order these through Kathy Mutz, UNPS; check payable to TNYBG

From: Southern Illinois Native Plant Society

Director of Book Services
Department of Botany
Southern Illinois University
Carbondale, Illinois 62901

Where Have All the Flowers Gone?

Dr. Robert Mohlenbrock

Illustrated by Mark Mohlenbrock

256 pages, 40 color photos, 80 line drawings

Macmillan Publishing Co., Inc., New York

Discount price if ordered from SINPS is \$13.00, includes postage

A region-by-region guide to threatened or endangered U.S. wildflowers. Mohlenbrock relates the stories behind 120 of the rarest plants in the nation.

The Field Guide to U.S National Forests

Dr. Robert Mohlenbrock

324 pages, soft cover

Congdon & Weed, Inc., New York

Discount price if ordered from SINPS is \$10.00, includes postage

From the lush subtropical rain forests of the South to the Southwest's sunbaked deserts to the snowcapped "Alpine" timber zones of the Northwest: share the author's personal finds, his favorite trails, outlooks, canoe trips...compiled over 25 years.

From: Utah Native Plant Society

Introduce a friend to Utah's natives. Give a gift membership in the UNPS. Benefits include discounts on books, field trips and a year of the Sego Lily. Use the form on the last page of this issue and we will send a card to announce your gift.

Medicinal Wildflowers of Utah

Achillea millefolium
Iris missouriensis
Polygonum bistortoides

Insert a bit of root into a cavity to reduce toothache

Abies lasiocarpa
Eriogonum spp.
Cercocarpus ledifolius
Rosa spp.

Colds: tea from needles
tea from roots
scrapings from the cambium
tea from the roots

Linum lewisii
Artemisia tridentata
Achillea millefolium
Iris missouriensis

Stomach: stems steeped for pain and gas
leaves chewed to aid digestion
tea from root to relieve gas
tea from root to induce vomiting

Stellaria spp.
Rosa spp.
Fragaria spp.
Nasturtium officinale

Vitamins: tea from dried plant: potash & C
tea from hips: C
berries: C
leaves eaten: C

Linum lewisii
Cercocarpus ledifolius
Purshia tridentata
Argemone spp.

Eyes: steeped roots
tea from dried bark for eyewash
tea from bark for clearing pus
infusion from seeds as an eyewash

Datura spp.

Asthma/Bronchitis/Hayfever

leaves smoked or brewed as tea (can be highly toxic)

Asclepias spp.

tea from various plant parts

Ephedra spp.

tea from stems

Helianthus annuus

soak leaves and flowers in alcohol for "spoonful" medicine

FIELD TRIP REPORTS

Mushrooms

Sue Linner

On August 25th, approximately 25-30 fungiphiles (and the just plain curious) spent a cloudy/rainy day in the Uinta Mountains looking for mushrooms under the guidance of Dr. Frank Anderson, a consultant (on more than mushrooms) with Vern Rodgers and Associates of Salt Lake.

Though the weather was definitely more to the liking of fungi than people, the group enthusiastically hunted mushrooms in a half dozen different areas in and around the Uintas. All stops were known to Dr. Anderson as good mushrooming areas. After the group had scoured an area, the crowd would gather around Dr. Anderson as he attempted to identify everyone's finds. Not all could be identified but a number of easily identifiable edible mushrooms were collected.

After all the sites had been visited the edible mushrooms were separated from the unknowns and inedible ones. The sun came out just in time for cooking and sampling. According to the veterans of this annual event, this year's crowd was much more interested than previous groups in sampling the collections. Fungi were supplemented with pot luck dishes of all sorts and entrees ranging from steak to chicken.

Edible mushrooms sampled included Boletus edulis, Armillariella mellea (honey mushroom), Pluteus cervinus (deer mushroom), Agaricus campestris (field mushroom closely related to the grocery store variety), Suillus spp., Leccinum sp. and the highly sought Chantarelles (family Cantharellaceae). Often the biggest and easiest to identify was the puffball (Calvatia spp.). We learned to cut it in half before eating to avoid having our last meal on a false puffball (Hymenogastrales of several genera). Poisonous mushrooms identified included those in the genera Russula, Amanita and Inocybe.

All in all the group learned that finding mushrooms was easy once you got accustomed to looking for them and that a fairly substantial haul of edible mushrooms could be made with a few hours work in the right place. Dr. Anderson cautioned, however, that no one should eat wild mushrooms unless they are absolutely certain of their identification or have consulted an expert. Don't sample a questionable fungi to "check it out" for further consumption because the poison may take several hours before it takes effect.

Next year's trip is already scheduled for August 24th. We can hope for better weather but can't ask for a more interesting and delicious event.

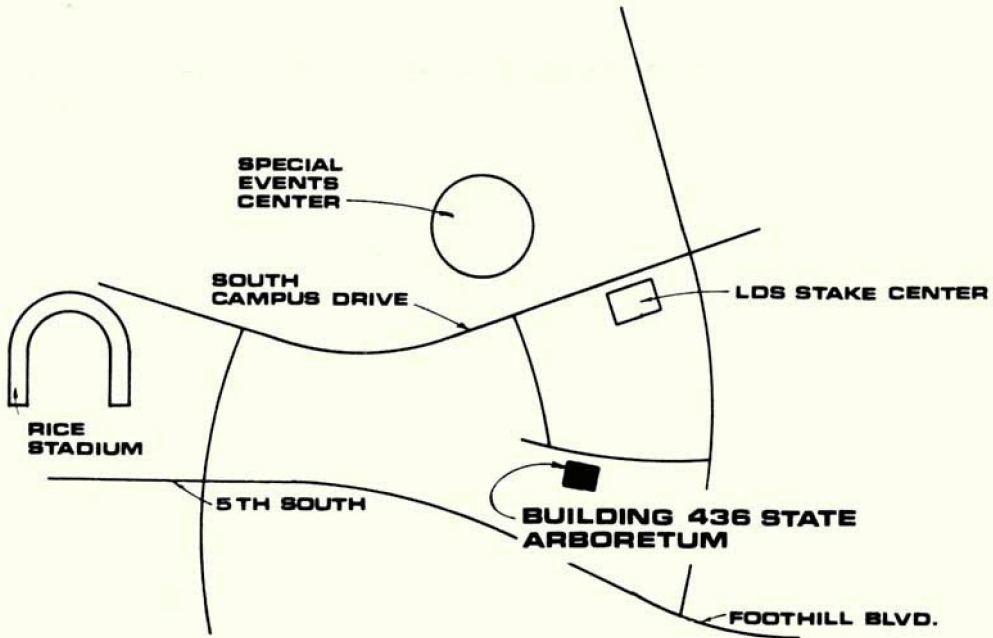
Utah's Land Laws: Hope for Native Plants

Earlier this year Governor Matheson charged a Land Law Review Commission to review the laws of Utah relative to state owned lands. The UNPS Conservation Committee is reviewing the proposed revisions to the Utah Code. The Commission makes its final recommendations for legislative review later this month. With a little more work and a lot of luck the state may recognize the need to manage for threatened and endangered plants on state lands. With a lot more work and even more luck, we may get a law that would permit a cooperative agreement with (and potential for funding from) the Fish and Wildlife Service. We'll keep you posted.

The UNPS Sego Lily newsletter is published 9 times per year by the Utah Native Plant Society, Incorporated, as a non-profit organization under the laws of the State of Utah. Contributions to The Sego Lily are welcomed and should be sent to the editor. Please state whether articles have been published elsewhere and require publisher's permission. The editor reserves the right to edit as needed and to select suitable articles for publication. Copy deadline is the 15th of each month.

Membership in the Utah Native Plant Society includes The Sego Lily subscription. Please use the form provided in the newsletter for membership applications or change of address. ©1983 Utah Native Plant Society, Incorporated.

Salt Lake Chapter meetings are usually held in the second floor Conference Room at the State Arboretum Center, Bldg. 436, upper sector of the University of Utah campus. You can enter from South Campus Drive or Wasatch Drive.



UNPS Segó Lily
c/o Kathryn Mutz
737 S. Angel Street
Kaysville, Utah 84037

Non-Profit Org
US Postage
PAID
Salt Lake City, UT
Permit No 327

Return Postage guaranteed

MEMBERSHIP APPLICATION

(annual membership from date of receipt of fee)

New Member Renewal Gift

Name _____

Street _____

City/State/Zip _____ Telephone _____

If gift, from: _____

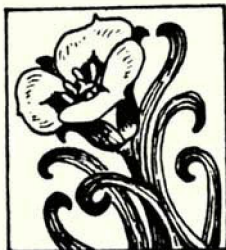
Please send a complimentary copy of the Segó Lily Newsletter
to the above.

Check membership category desired:

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

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

Dave Anderson, Treasurer, 1050 E. Oakridge Circle, Sandy, Utah 84070



THE SEGO LILY

NEWSLETTER OF THE UTAH NATIVE PLANT SOCIETY

Volume 7; Number 9

DECEMBER 1984

What's Going On?

- January 8 - Advanced Native Plant Identification. Offered by the State Arboretum of Utah through the Division of Continuing Education. Moderator Alyce Hreha. Guest speakers will present a new topic each of 10 weeks, including ferns, Liliaceae, Cactaceae, conifers, threatened and endangered species and Chenopodiaceae. University credit is available, registration about \$50. Call 581-5322 for details.
- March 12
7:15 - 9 pm
- January 8 Don't Waste Utah Meeting. Monthly meeting of the DWU Campaign will have a guest speaker on the risks of nuclear waste disposal. University of Utah Law School, enter through the front door.
7:00 pm
- January 16 Gardens of China. State Arboretum of Utah Garden Odessey Series. Presented by Dr. Michael Treshow. Olpin Student Union Room 323. 581-5322 for more information.
7:00 pm
- January 17 Board of Directors Annual Meeting. Dinner meeting at Apple Butter Farms Restaurant. Board members please R.S.V.P. by 1/11 to Pam Poulson (581-5322) or Kathy Mutz (544-0688).
7 - 9:30 pm
- January 22-24 DOE Briefings. Department of Energy briefings on how to understand the Environmental Assessment for siting a nuclear waste repository near Canyonlands National Park.
6:30 - 9 pm
1/22 SLC - Hotel Utah
1/24 Monticello - High School
1/25 Moab - Middle School
- January 24 Salt Lake Chapter Meeting. "Made for each other - White bark pine and Clark's Nutcracker" by Dr. Ron Lanner, Utah State University. NOTE: Meeting place is changed to Highland High School. Call 581-5322 for details or directions.

Looking Ahead

- February 8 Nuke Waste Info Seminar. Sponsored by "Don't Waste
1 - 5 pm Utah" Campaign. Eccles Conference Center in Logan.
- February 10-14 Society for Range Management. The 1985 national
meeting will be held in Salt Lake City. UNPS will
have a display to introduce our national range
managers to the benefits of native plants. Anyone
interested in helping with this event should call
Dick Page at 524-3126.
- February 13-17 Workshops for the "Don't Waste Utah" Campaign. Help
generate public outcry against a waste dump near
Canyonlands; learn how to prepare effective comments
on the waste dump Environmental Assessment.
2/13 Logan - Eccles Conference Center (7-9 pm)
2/16 SLC - Unitarian Church 569 S 1300E (1-4 pm)
2/17 Moab - call 532-4796 for location (1-4 pm)
- February 16-18 Passive Poppy Patrol. Volunteers are needed on the
Presidents' Day long weekend to distribute
information in the Bear poppy habitat near St.
George, Utah. The area receives heavy ORV use at
this time. Your presence would be a deterrent to
illegal off road driving in an important habitat
area. For information call Tony Frates at 532-1922.
- February 19-22 Public Hearings on Nuclear Waste Repository EA's.
Call collect 614-424-4235 to reserve a time to speak.
2/19 Monticello - High School (4-9 pm)
2/20 Moab - Knight Elementary School (4-9 pm)
2/22 SLC - Hotel Utah (2-9 pm)
- February 20 Darwin's Voyage. State Arboretum of Utah Garden
7:00 pm Odyssey Series. Presented by Dr. Michael Treshow.
Olpin Student Union Room 323. 581-5322 for more
information.
- February 22 Rare and Endangered Plant Workshop. This annual
meeting will be held at the BYU herbarium in Provo.
The 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. Call Duane Atwood for details, 377-5780.
- Spring Qrt Residential Landscape Design. Sponsored jointly by
Utah Chapter of American Society of Landscape
Architects and U of U Division of Continuing
Education. Instructor for this eight week course is
Dr. Richard Hildreth, Director of the State
Arboretum. One hour credit possible; non-credit \$50
with spouse \$65. For info call 581-8614 or 581-6233.

LAND LAW REVIEW COMMISSION REPORT

Just recently the State's commission for review of laws governing state owned land made their final recommendation to an interim legislative committee. The Commission, composed of department and division directors, federal agency and various interest group representatives reviewed all statutes dealing with lands owned or managed by the state. These include school sections, state park lands, wildlife refuges and sovereign lands. Much of the review was coordinated by state attorneys to reduce redundancy and conflicts among the statutes. Recommendations were also made for establishing new authority/duties for the state's land managers.

Of particular interest to UNPS are recommendations for management planning. To date, management planning has not been required on all state lands but has been limited to specially designated areas, e.g., the Great Salt Lake and special issues such as timber resources. The Commission is recommending to the legislature that management plans be prepared for all state lands. The state Land Board, governing body of the Division of Lands and Forestry will be responsible for the plans and will have the authority to seek data and advice from other state agencies. Recommendations governing the content of management plans are very general. The plans are to include "all natural and cultural resources". This general mandate covers plant species, plant communities and threatened or endangered (T&E) species. In addition the Commission is recommending that the Land Board serve an advisory capacity on T&E plant species on all lands within the state i.e. on state, federal and private property.

A third recommendation provides the authority to establish a land bank. Currently, most state lands are school sections. Each square mile of land was deeded to the state by the federal government. Management of school sections must be consistent with their purpose of producing revenue for public education. The land bank would permit the state to purchase land for income purposes so that the status of school sections could be changed for protection of a specific resource or for a special use incompatible with revenue production. Another recommendation to the legislature would require that the Land Board seek public comment on its actions, e.g., management plans and land purchases or exchanges.

These four provisions can be important to the future of native plants in Utah. If adopted by the legislature, they would require the state to consider plants and plant communities in the management of state lands. They also open the door for cooperation between the state and the U.S. Fish and Wildlife Service for protection of T&E species. If a formal cooperative agreement is established, the USFWS will pay 75-90% of the cost of approved conservation programs. The state's 10-25% share can be provided in a variety of ways including volunteer work.

Law Review Continued

The statute changes are being recommended to the legislature because of the persistent efforts of Tony Frates, UNPS Conservation Coordinator. Paul Pratt, the technical coordinator for the commission supported UNPS recommendations and provided the logistical information necessary to get convincing arguments to the right people in the nick of time.

Our next hurdle is the legislature. Senator Swan and Representative Mc Keachnie will be presenting the Commission's recommendations in the January session. Phone calls or letters to these men or to your area Congressmen supporting these four provisions could be very important to the future of our native flora. Tony got the recommendations to the legislature. Now we need the membership's support because as a non-profit organization, the UNPS cannot actively lobby. For more information call Tony Frates, 532-1922.

#####

EDITOR'S NOTES

Thanks to the hustle, bustle and vacation of the holiday season, the Sego Lily Volume 7 #9 is a little late. After this final issue of 1984, I will turn the editorship over to the enthusiasm of Pam Poulson (1984 Society President). Perhaps the delay will give Pam a little time to get organized for her first issue.

I want to thank those who have contributed articles to the Sego Lily during 1984:

From the Mulch Pile	Tony Frates
Wildflower Watch	Pam Poulson
Book Reviews	Elliott Bernshaw, Kathleen Wallentine,
Chapter/Trip Reports	Ruth Henson, Sue Linner, Luci Malin, Pam Poulson, Dave Wallace
Special Articles	Alyce Hreha, Kaye Thorne, Joel Tuhy, Keith Wallentine, Janet Williams
Landscaping With Natives	Deb Cox-Callister, Bill Wagner

#####

HELP WANTED: The Seed Committee needs help to package seeds for distribution at the Society for Range Management Meetings in early February. The seeds will be used to "advertize" UNPS and the value of native plants to our country's range managers. If you can help, please contact Jennifer Harrington 532-6726 or Pam Poulson 581-5322.

SALT LAKE VALLEY CHAPTER MEETINGS

The Stuff is ALIVE!
and Show and Tell

Pam Poulson and Kathy Mutz

SEPTEMBER: Forgive this writer for the delayed report, but before the snow began to fall, we had a fascinating meeting of UNPS on September 27. Larry St. Clair from Brigham Young University joined us to talk about Cryptogamic Crusts. That stuff beneath our feet is more intricate than it appears!

The thick black crust we see so clearly on soils derived from the Navaho sandstone isn't limited to southeastern Utah. Cryptogamic crusts occur over a broad range and are particularly prevalent on clay or gypsum soils. The crusts evolved in the Great Basin where they are now an uncommon sight because of breakup by heavy grazing.

"Cryptogamic" comes from crypto (hidden) and gam (marriage), and describes the actual arrangement of a community of cooperating organisms. Lichens, mosses and blue-green algae combine in a relationship so closely connected and interrelated that the arrangement creates a crust in the upper layers of desert soil or even on bare rock.

The slow growing cryptogamic crust occupies a vital niche in desert ecology. They develop between higher plants or on other open ground. Protecting and sealing off the surface of the soil, they prevent erosion. Water runoff is slowed and water infiltration is increased. In this way the crusts improve soil and moisture conditions, enhancing seed germination and seedling development. Perhaps the dark color of the crust itself, absorbing heat on sunny days, warms seeds for early germination before the droughts of summer. The crust continues to aid soil development by contributing organic matter and nitrogen. Some crusts are nitrogen fixers.

The crusts are quite fragile being seriously injured by the disturbance of trampling, grazing or ORV's. The algae/lichen/moss community is set back several years in reconstruction. Range fires completely eliminate the crusts. The first of the organisms to return after a fire is the blue-green algae. Lichens and mosses require much more time to reestablish. Proposals have been made to the BLM to recover blowouts and burned and eroded areas by spraying with a soil crust slurry made of crusts from adjacent soils or from algae propagated in labs.

NOVEMBER: Our traditional November meeting is a "show and tell" with slides and identification of UFO's. Several members brought slides to share. Liz Neese started the evening with a family/genus quiz to sharpen the wits and loosen the tongues. After (or was it before?) he was elected Salt Lake Chapter president, Dave Wallace showed slides of both Utah natives and the wonders of Glacier National Park. Karen Milne, the Chapter's new secretary, brought both slides and a live specimen for identification. The Hallidays, as usual, showed a variety of beautiful photographs from throughout the state. And Janett Schmidt (new UNPS secretary) and Andy Boyack brought back the lovely days of summer with several natives, including good potential for gardens.

NUCLEAR WASTE DUMP FOR UTAH ?

Late last month, siting of a nuclear waste repository near Canyonlands National Park was big news. The Davis Canyon site was ranked fourth in a preliminary review by the Department of Energy. Only three sites are scheduled for the high intensity research that DOE calls "characterization". The fact that Canyonlands ranked fourth is good news but according to Terry Martin of the National Parks and Conservation Association, "... Canyonlands is not off the hook. DOE's selection is tentative, and could conceivably change over the 90 day public comment period. It is also possible that DOE may later try and "test" a 4th site if one of the top 3 sites turns out to be unsuitable."

The Canyonlands area will not be safe from a repository until the DOE recognizes that a site adjacent to a National Park is unsuitable as a waste dump. Several dates in the What's Going On? calendar deal with the nuclear waste dump issue and review of the Environmental Assessment just released by DOE. The following are excerpts from a National Parks and Conservation Association criticism of DOE's draft EA. If you are interested in the issue, get on the Don't Waste Utah Campaign mailing list: Box 1563, Salt Lake City, 84110 or call 532-4796.

Major criticisms of DOE's draft Environmental Assessments by NPCA include:

- 1) DOE fails to develop basic facts about the safety of the site. Most significantly, DOE fails to develop the basic information needed to adequately assess the risk of radioactive contamination through groundwater transport.
- 2) DOE fails to adequately assess the environmental impacts to Canyonlands National Park from repository development. For example:
 - DOE has refused to address impacts on visitor enjoyment values such as solitude, remoteness or scenic beauty. DOE refused to complete any visitor or tourism impact studies despite a state sponsored survey indicating that 82% of Canyonlands visitors would be discouraged from future visits if a repository was built next to the park.
 - "DOE refuses to acknowledge the intangible values of Canyonlands as a refuge for the human spirit," says Terri Martin. "They can't put numbers on it, so they refuse to study it."
 - DOE completed no analysis of how drilling inside Canyonlands National Park would affect the park, despite admissions by the DOE that drilling in the park may occur.
 - DOE failed to collect any on-site air quality data despite prospects for serious degradation.
 - Many park impact analyses are perfunctory, incomplete or inadequate. For example, DOE's noise analysis is limited to the measurement of ambient sound levels with malfunctioning equipment during uncharacteristic conditions. DOE's "night sky" impact assessment ignores a study by the National Park Service showing that 1/3 to 1/2 of the night sky would be lit by repository floodlighting and that a visitor's ability to see stars would be diminished.

Waste Dump continued

- 3) DOE refuses to admit the obvious and unavoidable conflict between protecting Canyonlands National Park and repository development. For example, DOE concludes that the impacts from "testing" the Canyonlands site are mitigable to an acceptable level. But DOE's own documents describe testing as including:
- constant blasting for the construction of two 15-30 foot wide and 3000 foot deep mine shafts less than a mile from the park boundary;
 - construction of one 22 story high (225 feet) and one 17 story high (170 feet) headframes over the mine shafts;
 - major drill rigs in constant operation for over 4 years, drilling at least 47 deep boreholes, at least 1/2 of which are within a mile of the park boundary;
 - two large diesel generators will operate around-the-clock at each drilling rig;
 - the drilling of 740 shallow boreholes at the proposed site (within a mile of the park boundary) and adjacent to the park's eastern boundary along proposed rail-road and highway routes;
 - seismic surveys which require both drilling hundreds of 25 foot deep holes and packing them with explosives. Seismic lines will border Canyonlands National Park, 2 Wilderness Study Areas and the park entrance road;
 - the excavation and on-site storage of nearly 10,000 dump truck loads of salt (115,000 cubic yards) and 20,000 truck loads (230,000 cubic yards) or rock;
 - constant operation of trucks carrying water to the drill rigs (as many of 19 trucks a day for 3 years), reconstruction of existing 4 wheel drive roads and new road construction. Hundreds of vehicles will be at the drilling sites at any one time, including drilling rigs, seismic testing trucks, bulldozers, cranes, dump trucks, front-end loaders, etc.
- ***--Additional major drilling operations inside Canyonlands National Park, admitted as a possibility even by the DOE, are considered a virtual necessity by reputable independent scientist.

GARDENING WITH NATIVES

Kathy Mutz

Shepherdia rotundifolia

One of our readers from New Mexico was quite take with Round leaf buffaloberry on a recent visit to Zion National Park. Mr. Wooten has a small nursery specializing in native and drought tolerant plants.

Have any of our other readers worked with this plant in landscaping? Anyone know of a commercial seed source? Contact:

Tom Wooten
Dry Country Plants
3904 Highway 70E
Las Cruces, New Mexico 88001

If you have a special question about natives, have a favorite source of materials or have information that would be valuable to our members, please write to me c/o the Sego Lily.

UNPS Segó Lily
c/o Kathryn Mutz
737 S. Angel Street
Kaysville, Utah 84037

Non-Profit Org
US Postage
PAID
Salt Lake City, UT
Permit No 327

Return Postage guaranteed
Address Correction Requested

MEMBERSHIP APPLICATION

(annual membership from date of receipt of fee)

New Member Renewal Gift

Name _____

Street _____

City/State/Zip _____ Telephone _____

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.....\$4.00
<input type="checkbox"/> Family.....\$12.00	<input type="checkbox"/> Senior Citizen...\$4.00
<input type="checkbox"/> Supporting.....\$25.00	<input type="checkbox"/> Corporate.....\$25.00
<input type="checkbox"/> Life.....\$250.00	or greater

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

Dave Anderson, Treasurer, 1050 E. Oakridge Circle, Sandy, Utah 84070