

# Sage Notes

THE IDAHO NATIVE PLANT SOCIETY NEWSLETTER



## VOTE ON NEW INPS BY-LAWS

by Carol Prentice

Your vote is requested on our new proposed INPS by-laws. A copy of these and a mail-in ballot are enclosed with this newsletter.

A by-laws committee, chaired by Mary McGown has worked during the past year in drafting the new by-laws. Drafts were sent out to interested members around the state, comments received and considered in the final draft. See Mary's articles in the March-April 1988 and September-October 1988 issues of Sage Notes. The final draft was presented to board members at the last INPS Board of Directors meeting and were approved.

The current by-laws require that any amendments be made by a majority vote of members at any regular meeting, a quorum being present. Since the new by-laws affect all members, the Board of Directors decided to publish the by-laws with this issue of Sage Notes and let the membership vote by mail-in ballot. Remember that family memberships have two votes. Mail your ballot cards to the address provided by February 13, 1989.

MAIL IN YOUR VOTE  
TODAY ON THE NEW INPS  
BY-LAWS.

New chapter by-laws have also been drafted for the Pahove Chapter. These will be presented at the February Pahove meeting, given a period for review and comments, then voted on at a spring meeting.

## INPS MEMBERSHIP DRIVE REPORT

by Joe Duft

The membership committee, chaired by Susan Bernatas met on November 22 to go over ideas and plans for increasing membership. Several ambitious plans were outlined, with emphasis on assisting other Idaho communities in establishing their own chapters. Interest has been expressed by members in Coeur d' Alene, Moscow, Pocatello and Ketchum-Sun Valley. As a result of the committee meeting a 'new chapter packet' of materials has been assembled and is available from Susan Bernatas. The packet includes guidelines for organizing a chapter, membership committee ideas, INPS By-Laws, example chapter by-laws, brochures and membership lists.

Other activities discussed were the designing of a wildflower poster, T-shirt and cards. See news item on page 3.

(Continued on page 2)

## IDAHO SENSITIVE PLANT WORKSHOP

by Ann DeBolt

Our annual sensitive plant workshop is scheduled to be held March 2 and 3, 1989 at the BLM District Fire Office on Development Ave. in Boise. An inter-agency meeting for concerned agency personnel is planned for the morning of March 2 (starting at 8:30). The plant workshop will start at 1:00 pm. and continue through the 3rd. This year color slides of those plants of concern will be shown during the meeting. Participants are asked to bring slides or photos of plants and the plant habitats from their areas. This will be the start of an inventory of photos on sensitive plants in Idaho.

A no-host dinner meeting is planned for the evening of the 2nd, at a location to be announced. Workshop participants and any other INPS members are invited to attend. There will be a short program and opportunity to mix with plant experts from around the state.

Weather permitting, a short field trip is planned for Saturday morning (March 4) to *Allium aaseae* sites on the Boise Front. Plan on having breakfast together before departing for the field.

Packets of workshop materials will be mailed to the usual workshop participants. All INPS members are invited to attend the 1 1/2 day program. For more information on the workshop, contact Bob Parenti, U.S. Fish and Wildlife Service at (208)334-1816 or Ann DeBolt, Bureau of Land Management at (208)334-1582.

## Membership Cont.

A contest for members recruiting the most new members was also poposed.

The membership committee is planning a meeting for late January. If you have ideas or would like to get involved with membership program activities, contact Susan Bernatas at 334-1457.

Also remember that INPS brochures are available from Susan or through the regular INPS address.

## PAHOVE CALENDAR

**Jan. 19:** Meeting at 7:30 pm in 218 Science Education Building at Boise State University. Jean Findley, Vale BLM District Botanist, will discuss *Astragalus mulfordiae* and other rare plants of southeastern Oregon.

**Feb. 16:** Meeting at 7:30 pm in 218 Science Education Building at Boise State University. Richard Old of the University of Idaho will present a program on Idaho's noxious weeds.

**March 2-3:** Idaho Sensitive Plant Workshop, BLM Boise District Fire Office on Development Way, Boise, starting at 1:00 pm on the 2nd. Contact Bob Parenti at (208)334-1931 or Ann DeBolt at (208)334-1582 for details. See article on page 1.

**March 2:** No-host dinner meeting for Idaho Sensitive Plant Workshop participants and INPS members. The time and place to be announced at meetings or call Ann DeBolt for details.

**March 16:** Meeting at 7:30 pm in 218 Science Education Building at Boise State University. Joe Duft will present a program on computer applications in botany. Demonstrations will be given in expert systems, interactive videos, digitized graphics, and data base programs.

*NOTE THE WORKSHOP  
EVENTS FOR MARCH 2-4.  
ON PAGE 1*

## OTHER EVENTS

**Jan. 14, Feb. 4, Mar. 4:** Museum workdays, Orma J. Smith Museum of Natural History, College of Idaho. Contact Bill Clark at 375- 8605 for information.

**Jan. 16-20:** Restoration, the New Management Challenge, Society for Ecological Restoration and Management, First Annual Conference, Oakland, CA. For information contact SERM Conference Registration, US Arboretum, 1207 Seminole Highway, Madison, WI 53711.

**Jan. 24-26:** PNW Range Short Course, Ridpath Hotel, Spokane, Washington. Topic: Range Weeds. Emphasis will be on cheatgrass, the knapweeds, leafy spurge, and rush skeletonweed. For more information contact Dr. Ben Roche at Washington State University (509-335-3716).

## PAHOVE ACTIVITIES

by Ann DeBolt

### November Meeting

Dick Lingenfelter reported that thanks to about 15 INPS volunteers the Idaho Botanical Garden was open to the public on Sunday afternoons all summer. Dick hopes the program will be continued next year.

Joe Duft reported on the membership drive and distributed copies of the new brochure. Susan Bernatas has returned to Boise and will be continuing as Membership Chairperson.

Roger Rosentreter reported on the Wild-a-Fair dinner being organized to promote non-game wildlife. Skits and other entertainment are being donated. Agnes Miller and Mering Hurd provided flower arrangements for the event. Ann DeBolt and others provided volunteer help with the dinner. Roger encouraged members to attend the Congress and push for habitat improvements and a full-time Plant Ecologist position for the Heritage Program.

Mary McGown announced that new by-laws are about ready for a vote from the membership. They address the formation of new chapters.

Carol Prentice has several copies of her report on *Allium asseae* available.

Chris Davidson presented a colorful slide program on plant diversity in the tropics.

Kathy Geier-Hayes reports a balance of \$593.21 in our treasury.

## Wild-A-Fair Dinner

The Wild-a-Fair dinner banquet was a big success with about 140 people attending. Dinner included such tantalizing treats as wild rice, roasted duck in orange sauce, baked salmon, strawberry torte and lots of wine. Volunteers from a number of organizations including INPS, Idaho Conservation League, Audubon, Idaho Whitewater Association, and the Idaho Wildlife Society assisted with the dinner. Volunteers all wore funny animal hats - we should have had a contest for the most original.

It was a great way to kick off the Wildlife Congress. We even made a profit of \$40.00 which was donated to the excellent chefs.

## Christmas Party

The annual Christmas party was held on December 15 at the home of Joe and Maxine Duft. Approximately 20 people gathered and exchanged plants. Thanks to the Dufts for letting us use your home on such short notice!

## Special Meeting

On December 21, Barbara Erter gave a slide show on her botanizing in the west, specifically in Idaho, Nevada, and California. She explained how she got hooked on botany and traced an interesting career that has, to date, included stints at the New York Botanical Garden, the University of Texas at Austin, and now Berkeley.

# IN THE NEWS

## INPS DESIGNING WILDFLOWER POSTER

by Susan Bernatas

One of the projects undertaken by the INPS membership committee is the design of a new INPS wildflower poster. Posters, T-shirts and cards are being considered for sale at special events where INPS participates.

One such event will be the national convention for the Oregon/California Trail Association (OCTA) to be sponsored by the Idaho Chapter at the Red Lion In Boise, August 9-12, 1989. Approximately 600 people are expected to attend. This should be a good opportunity to publicize our Society.

If you are interested in attending the OCTA meeting or want more information, contact Virginia Ricketts, 510 E. 300 S., Jerome, ID, 83338. For more information on how you can help out with INPS poster production, contact Mary McGown, 1824 N. 19th Street, Boise, 83702, 336-6811.

## IDAHO WILDLIFE CONGRESS LISTS PRIORITY CONCERNS

by Roger Rosentreter

About 1,000 Idahoans with varied interests attended the Idaho Wildlife Congress in November. The 10 most important wildlife issues listed by members of the Congress are as follows (unranked):

- Emphasize cooperative programs with private landowners for habitat and access.
- Develop cooperative habitat programs with other agencies, private groups and volunteers.
- Continue efforts to solve downstream anadromous fish problems - passage and harvest.
- Improve management of riparian habitats.
- Expand education programs for hunters - ethics, safety, behavior,

techniques and landowner relations.

- Develop better two-way communications between agencies and the public.
- Minimize grazing impacts, especially to riparian areas.
- Equalize status of fish and wildlife with other resources on public lands.
- Develop statewide water quality standards and improved water monitoring capabilities.
- Protect and enhance fish and wildlife habitat more actively.

Participants broke up into discussion groups. Several topics covered by these groups touched on rare plant and habitat issues. The association of rare plant species with the Fish and Game is not clear to many hunters. Yet all rare plant and animal species are treated in the Heritage Program. The general concerns about wildlife habitat expressed by INPS members were shared by many hunters at the Congress. Major issues supported by many INPS members included: 1) Expanded educational programs on regulations, habitat issues, Treaty rights, and threatened and endangered species, 2) Assessment of environmental analyses for possible effects of proposed Public Lands uses on threatened plant and animal species 3) Develop means of protecting threatened and endangered species habitats from any adverse impacts current land uses, 4) Broaden management to include all wildlife values, not just consumptive uses, 5) Seek general fund monies for the non-game program, 6) Seek funding from the Idaho Parks and Recreation Department for the nongame program, 7) Move toward ecosystem management to protect biological diversity.

Carol Prentice, Mary McGown, Mary and David Dudley, Susan Bernatas, and a few other INPS members actively participated in the Wildlife Congress. The INPS was suggested as a group which should be a part of the State and Regional Wildlife Councils being formed as a result of this Congress.

Many hunters feel that non-game promoters such as INPS members do not provide their share of financial support toward the Idaho Fish and Game Department. Generally a lot of time and energy was spent voicing minor differences in approaches rather than focusing in on the common goals among Congress participants. Hopefully, the future will be in the spirit of cooperation and focus on the mutual goals for the benefit of wildlife and its habitat.

## TROPICAL RAINFORESTS: A DISAPPEARING TREASURE

This exhibition, organized by the Smithsonian Institution Traveling Exhibition Service in cooperation with the World Wildlife Fund, will be on display in 15 cities around the country over the next 5 years. It will first be on display at the Smithsonian (May 88 - Jan 89) and then moves to the World Forestry Center in Portland, Oregon (12 March - 4 June 1989).

## NOXIOUS NEWS

The sunflower is the state flower of Kansas. The state bird of Iowa is the goldfinch. One day the Iowa legislature passed a resolution declaring the sunflower to be a "noxious weed." Reciprocating in kind, the Kansas legislature declared the goldfinch to be a "public nuisance." This, and trying to get money from the taxpayers without disturbing the voters, are the two most important things these groups have accomplished so far.

## A QUOTE

"I rank (botany) with the most valuable sciences, whether we consider its subjects as furnishing the principal subsistence of life to man and beast, delicious varieties for our tables, refreshments from our orchards, the adornments of our flower-borders, shade and perfume of our groves, materials for our buildings, or medications for our bodies."—Thomas Jefferson.

# PAHOVE PROFILES

## Meet Robert K. Moseley

Bob may be a new botanist in town, but not new to INPS members. Bob recently moved from Moscow, ID where he was employed with the Idaho Nature Conservancy to Boise as a plant ecologist for the Idaho Department of Fish and Game. Here he is in charge of the endangered plant species program and the Natural Heritage Program database dealing with rare plant species and plant communities.



Bob on a back country ski tour in British Columbia, Canada.

Bob came west from Pennsylvania in 1975 to major in range sciences at the University of Idaho. After receiving a bachelors degree he worked for a few years with the U. S. Forest Service in central Idaho. In 1982 he went back to the University for graduate work, which earned him a Masters of Science degree in botany. Bob spent two summers above timberline doing thesis work on the ecology of alpine grasslands in the high ranges of east-central Idaho (between Sun Valley and the Montana border). He has continued his interests in alpine vegetation, and is currently involved in a project to catalog Idaho's alpine flora for the first time. This and his general botanical background makes Bob well qualified to co-author a book, *Alpine*

*Wildflowers of the Rocky Mountains*, to be released in mid-1989.

His duties with the Idaho Nature Conservancy involved cooperative efforts with Federal and State agencies to protect biologically significant features on public lands in the state. Bob was active in the establishment of Natural Research Areas, and thanks to the work of Bob and Chuck Wellner, the U.S. Forest Service brags of 27 new NRA's established in Idaho in 1988. In addition to having an exciting job that took him from one end of the state to the other, Bob is an avid hiker, mountain climber and skier. He knows scenic Idaho as well as anyone.

Bob has contributed many articles to *Sage Notes*, led INPS field trips and is a technical committee member for the Society. His friendliness, enthusiasm and willingness to share his talents have been great assets to INPS. Thanks, Bob, from all of us.

## PUBLICATIONS

by Roger Rosentreter

Three books by Margaret Fuller are available from Margaret Fuller, P.O. Box 148, Weiser, ID 83672. Add \$1.00 for shipping.

**Trails of Western Idaho.** 278 p. \$10.95

**Trails of the Frank Church - River of No Return Wilderness.** 364 p. \$14.95.

**Trails of the Sawtooth and White Cloud Mountains, Revised Edition.** 248 p. \$12.95.

**Idaho Mountain Ranges** by George Wuerthner. American Geographic Publishers, Helena, Montana. 104 pp. \$14.00. This is a book full of pictures of Idaho and a narrative which is easy to read for non-technical types. The book covers many natural history topics and is a good overview of Idaho. I recommend this book to all Pahoves who don't have it yet.

**Yellowstone and the Fires of Change** by George Wuerthner. Dream Garden Press, Box 27076, Salt

Lake City, Utah 84127. 64 pp. \$8.75. This is another book full of good pictures illustrating fire and its effects on Yellowstone Park. George presents the pro's of fire in a non-technical style. Fire as a part of the living and breathing natural community is presented in an up to date and timely manner.

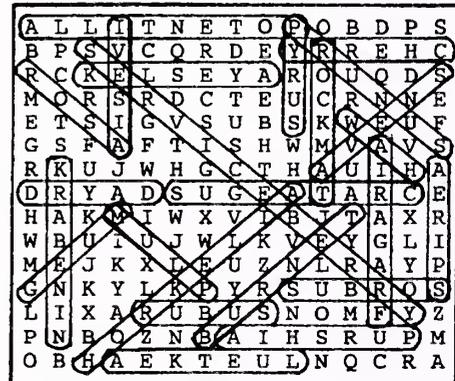
**Mosses, Lichens and Ferns of Northwest North America** by Janet Marsh. Lone Pine Publishers, 414, 10357-109 Street, Edmonton, Alberta T5J 1N3. (403) 424-1278. \$24.95

**The Sierra Club Guide to the Natural Areas of Idaho, Montana and Wyoming** by John and Jane Greverus Perry. 1988. Sierra Club Books, San Francisco. Outstanding out-of-the-way places to visit.

**Pahsimeroi, Land Beyond Words** by Edson Fichter. 1988. Blue Scarab Press, Pocatello. A collection of poetry and wildlife art by a long-time student of Idaho's outdoors.

**Wetland and Riparian Ecosystems of the American West.** K. M. Mutz and L. C. Lee, technical coordinators. Eighth Annual Meeting of the Society of Wetland Scientists. 1988. To obtain copies of the proceedings contact: Kathryn Mutz, Planning Information Corporation 1801 Broadway, Suite 920, Denver, CO 80202. No charge.

**Index to Information on Insects Associated with Western Wildland Shrubs** by A. B. Haws, A. H. Roe, and D. L. Nelson. 1988. Gen. Tech. Rep. INT-248. USDA, Forest Service, Intermountain Research Station, Ogden, UT 84401. No charge.



# EVERYTHING HAS LATIN NAMES

do you know what scientists call daisies?

carablanthemum lousyanabum pinetafitidum

how about that!

I know lots more

the professor he makes us learn them

for example how about the good old bobolink

i bet you don't know what his name is

dollychewinx crandawhifforus!

and heres a easy one for you to remember

roos troxickcocacoladon

that theres poison ivy

next time youre out picking

carablanthemum lousyanabum pinetafitidum

listen to the

dollychewinx crandawhifforus

but dont walk in the roos troxickcocacoladon!

the professor says we got to have these names

or else scientists everywhere would get confused

and not know what each other was talking about.

Norman H. Russell

Central State College

Edmund, OK

Swiped from *Douglasia*, newsletter of the Washington Native Plant Society XII(3):19.

# HISTORY OF BOTANICAL COLLECTING IN SOUTHERN IDAHO BEFORE 1850

## PART 2

by Barbara Erter

Barbara wrote this term paper in 1975 while a graduate student at the University of Maryland. This is Part 2 of 3.

In England, the outstanding botanist was Sir William Jackson Hooker. As an Englishman he received what the American botanists could not: the cooperation of the Hudson's Bay Company in the Northwest. His main collectors in Oregon were David Douglas and William Fraser Tolmie, neither of whom made it into southern Idaho. However, Tolmie had a friend among the trappers, a man named John McLeod, who had been trained by Townsend in the art of collecting plants. He brought Tolmie plants he had collected while passing through the Snake River Plains on his way to a trappers' rendezvous in Wyoming.

McLeod's collection of around seventy plants is significant in that many were collected in the spring and early summer. Wyeth and Nuttall and most of their successors traveled through Idaho in the late summer and fall. Seasons are critical in the sagebrush deserts of southern Idaho. Many of the more interesting and unique species are the little desert annuals that bloom after the winter snows melt and then wither away to nothing in the summer heat. McLeod found several new species of these desert annuals, including *Cryptantha circumscissa* (H. & A.) Johnst. and *Phacelia lutea* (H. & A.) J.T. Howell. McLeod's collections were ascribed to Tolmie and the identity of "Tolmie's friend" was not known until McKelvey (1955) rediscovered it from Tolmie's notes.

## WORD SEARCH

by Wayne Owen

The theme of this month's puzzle is the genus *Astragalus*. Once you have found all 20 words below, the left-over letters will form a secret message.

Names and terms to look for are Astragalus, banner, Barneby, beautiful, diadelphous, dice, dolabriform, keel, legume, milkvetch, locoweed, muticous, papilionaceous, pinnate, pod, raceme, selenium, stipules, superior, and wing.

A S T R A E G K A L U S I P S  
M O S T C E E A S E M E C A R  
I M U I N E L E S L Y S E P P  
P A D O L A B R I F O R M I R  
A T E I E D A F R O E M N L O  
X B E Y A T R R O N P N I I S  
B E W Y T D N H N E A M P O D  
P A O I R E E A S T E U N N C  
E U C O N F B L E A S T M A A  
E T O L L G Y P P R O I J C E  
M I L K V E T C H H C C T E I  
U F O N O N T H E K O O E O E  
G U L O F R O I R E P U S U T  
E L A S T R A G A L U S S S H  
L E L A T S E L U P I T S E R

ANSWERS TO WORD SEARCH IN THE LAST ISSUE ARE ON THE ADJACENT PAGE.



John Torrey and Asa Gray, Early Botanists

McLeod's activities corresponded with events that were to change not only the style of botanical exploration in the West, but the composition of the vegetation itself. Wyeth's exploration had been a total financial failure. Fort Hall had been sold to the British fur companies two years after it was built. But Wyeth's efforts had created new American interest in Oregon. He had brought back to the East two Indian boys, and the sight of these poor heathen savages helped trigger a missionary fervor. This, combined with the economic depression that hit the United States in the late 1830's, spelled the end of the British claim to Oregon. In 1836, Marcus Whitman pioneered a wagon route that was to become the Oregon Trail. This route closely followed the one that Wyeth had taken on his first expedition. First, missionaries came; they were followed by settlers in the thousands. The British had failed to send colonists of their own and, as the beavers disappeared, so did the British.

Such a monumental undertaking was not without an effect on botanical explorations. The West was being opened. It was no longer a vast unknown wilderness with impossible dangers lurking behind every corner. The Indians were fast decreasing due to smallpox epidemics and disappearance of the buffalo, but the ones remaining were becoming more hostile to the white invaders. Good grazing was disappearing along the wagon route and game was becoming scarce.

descriptive botanists at home were pushing their collectors into the vast western territory that still needed exploring. Field botanists could earn money by gathering seeds and pressed specimens for sale to nurseries and various herbaria. Collecting was profitable, though minimally so. Of the many botanists who took to the field, only a few passed through Idaho, and those who did added little to the knowledge of the plants there. This is understandable because southern Idaho was no longer an unknown territory after Nuttall had passed through.

Of the descriptive botanists back in civilization, Sir William J. Hooker has already been mentioned as the leading botanist in England. In America, his position was filled by John Torrey and his protege, Asa Gray, with some glory falling on the German, George Engelmann, in St. Louis. While Hooker was working on *Flora Borealis Americana*, Torrey and Gray were putting together what they could of the *Flora of North America*. Both these volumes included the new discoveries from the West, which were by now fairly well known, though new collections were still incorporated avariciously. In America, work was hampered by the scanty descriptions of Linnaeus-type collections. In 1838, Gray went to Europe to check the types himself, which helped the state of American botany immensely. Even then work was slow because of the tremendous

The buffalo, which had once been common as far west as Fort Hall, had just about vanished. Weeds of Eurasian origin were following the emigrants' path and the native vegetation could not always compete successfully with the interlopers.

During this period the

number of new species that needed sorting. Torrey and Gray were both tremendously overworked.

While the descriptive botanists were striving to bring order out of chaos, the field botanists were striving to create more chaos. One of the more colorful characters who collected in southeast Idaho was Karl Andreas Geyer, a German botanist. In 1843, he entered southern Idaho and went as far west as Fort Hall before turning north. Most of his collections were from northern Idaho and Washington. He apparently collected no new species from southern Idaho. He kept no journal, and his collection notes were rather scanty in regard to dates and locations. He did, however, divide the region he covered into several "tracts", and described the distinguishing characteristics and vegetation of each. McKelvey (1955) suggests his locations were vague because he may not have always had a clear idea of where he was since he traveled alone.

Geyer proved that botany was not free of scoundrels. He was conceited and arrogant, except when trying to curry favor from his superiors. His expedition was funded by George Engelmann, who, along with Asa Gray, expected to have the privilege of distributing Geyer's collection. In spite of his written contract, Geyer took himself and his collection to England, where he deposited his collection of almost ten thousand specimens on the doorstep of Sir William Hooker. This left Hooker in a rather awkward position, to say the least. Exactly how Hooker straightened things out with Engelmann and Gray is not known, but he eventually distributed Geyer's collection in twenty sets of 200 to 600 specimens for two pounds per hundred. Most of the specimens were in excellent condition, except for the early ones including those from southern Idaho, which were damaged by frequent crossings of rivers.

*Due to space limitations, the third and final part will be presented in the next issue.*

*WE ERRORED: In the last issue when we stated that Barbara wrote this paper at the College of Idaho.*

# COLLEGE OF IDAHO'S PLANT FOSSIL COLLECTION GAINS PROMINENCE

A rhinoceros lumbers through thickets of tiny wild roses, nearby, an oreodont - a small pig - forages for acorns beneath a canopy of oak and maple. Small herds of antelope and horses browse wooded hillsides. Clustered ferns choke streams and lakes teeming with sunfish. Thickets of water pine rise above swamps dotting the landscape. Thin plumes of smoke and ash from a distant volcano snake through the sky. Lush vegetation, abundant wildlife and water everywhere - Succor Creek looked far different 15 million years ago.

Reconstructing a prehistoric view of Succor Creek has kept Pat Fields, a College of Idaho Research Associate, shuttling between site digs along the Idaho-Oregon border south of Caldwell and the C of I. In addition to research on the Succor Creek area for his doctorate at Michigan State University, Fields, a paleobotanist has also spent part of the summer "curating the daylight" out of the C of I's growing collection of fossil plants with the help of a group of volunteers.

This summer "thousands" of fossil plant specimens were donated to the museum by the Bake Young family of Nampa. The C of I collection of fossil plants may number more than 40,000 when curating is eventually complete. The collection is housed in the Orma J. Smith Museum of Natural History located in Boone Science Hall.

Smith taught chemistry, zoology and geology at the C of I beginning in 1910 and twice served as acting president during his 37-year career. The museum's fossil collection began when Smith's daughter, Helen, became interested in fossil plants from

Succor Creek. Ultimately she did her master's degree and her doctorate on Succor Creek fossil plants at the University of Michigan. Her original hand-labeled specimens form a foundation on which the entire collection has been built.

The collection continued to grow slowly under Patricia Packard, a C of I biology professor, until a couple named Howard and Darlene Emry became interested in the collection in the late 1970's. As it stands, the collection exists largely as a result of pioneering efforts by Smith and Packard, and major donations by the Emrys and most recently the Young family. With the Young material the college also acquired a lot of very good hard-to-find reference books.

While much of the collection falls into the mid-Miocene (13-17 million years ago) and focuses on Idaho and adjacent parts of Oregon and Washington, specimens from other locations as old as 300 million years and as young as 50,000 years are also represented.

The fossil plants have provided startling clues to life along Succor Creek 15 million years ago. The area was then lush with plant life because of frequent rainfall and moderate temperatures. Trees were varied and abundant with evidence of pine, spruce, fir, elm, alder, sycamore, oak, maple and ancestors of the Chinese water pine. Other plant life common to the area were members of the rose family, fruit-bearing bushes and many varieties of ferns. Animal life was remarkably similar to modern counterparts ranging from antelope-like creatures to small horses to evidence of early rhinoceroses. Small rodents and reptiles, including tortoises, were common as were the small pigs called oreodonts. Sunfish filled lakes and

streams throughout the area. Volcanic activity and severe climatic changes altered the environment to its present state today.

The recent work at the C of I would not have been possible without the efforts of volunteers who constructed the fossil cabinets over the last two winters. The cabinets were built through funding provided by Museum Benefit Sales and special donations by C of I biology alum, Dr. Ron Weedon of Chadron, Nebraska, according to Bill Clark, Museum Assistant Director and coordinator of volunteers.

A decrease in fossil collection storage space coupled with the continued growth in popularity of fossil bones are responsible for the drop from 50 fossil plant repositories west of the Mississippi to three or four-- two in California, including the largest at the University of California, Berkeley; the Burk Museum at the University of Washington in Seattle; and the C of I. Collections of later Tertiary Age (30 to 35 million years ago) plant fossils can only be found at Berkeley, the Smithsonian in Washington, D.C., and at the C of I and U of T.

*Submitted by Bill Clark and adapted with permission from an article by Steve Grant, The College of Idaho, Caldwell.*



**Pat Fields with a leaf fossil of *Oreopanax* and a new display case of fossil finds in the Museum.**

## CLASSIFIED ADS

Space is available for your personal or commercial advertising. Ads of a botanical nature should be submitted with payment to our INPS address or directly to the newsletter editor. Per issue rates are: Personal ads (up to 30 words) are \$2.00; Commercial advertisements--1/8 page is \$5.00, 1/4 page is \$8.00, 1/2 page is \$15.00 and full page is \$25.00.

## WELCOME TO NEW MEMBERS

Gary Burnett, Bozeman, MT  
Glenn and Caryl Elzinga, Carmen, ID  
Ralph Faust, Coeur d'Alene, ID  
Pat Fields, East Lansing, MI  
Lawton Fox, Moscow, ID  
Margaret C. Fuller, Weiser, ID  
Tom Gnojek, Pocatello, ID  
Bill Haight, Pocatello, ID  
Russ Manwaring, Emmett, ID  
Wayne Mehlquist, Boise, ID  
Linda and Mike Merigliano, Driggs, ID  
Burton Silcock, Meridian, ID

## NOTES ON CONTRIBUTORS

**Ann DeBolt** is a botanist for the Bureau of Land Management, Boise District.

**Susan Bernatas** is Natural Areas Ecologist for the Nature Conservancy in Idaho.

**Joe F. Duft** is a retired forester, amateur botanist and long time member of INPS.

**Barbara Ertter** is Manager of Collections, Jepson Herbarium, University of California, Berkeley. She is a College of Idaho biology graduate.

**Wayne Owen**, a former Idahoan and present INPS member is a

graduate student at the University of California, Davis, studying the reproductive biology of Astragalus kentrophyta.

**Carol Prentice** is a graduate botanist and housewife who finds time to work on Allium aseae studies.

**Roger Rosentreter** is State Botanist for the Idaho Bureau of Land Management, Boise.

**ILLUSTRATIONS:** Photos of John Torrey and Asa Gray are from Volume 1 of Intermountain Flora by Cronquist, Holmgren, Holmgren and Reveal.

## ABOUT OUR SOCIETY

**OFFICERS:** President - Carol Prentice (362-9029), Vice President - Wilma Gluch (343-3026), Secretary - Ann DeBolt (334-9291), Treasurer - Kathy Geier-Hayes (334-1457), Board-Chr - Roger Rosentreter (334-1927).

**TECHNICAL COMMITTEE:** Dotty Douglas, Pat Packard, Bob Parenti, Bob Steele and Bob Moseley.

**LAY REPRESENTATIVES** Mary Clark and Agnes Miller.

**NEWSLETTER STAFF:** Newsletter Editor - Nancy Shaw, Technical Editor - Bob Steele, and Publishing Editor - Joe Duft.

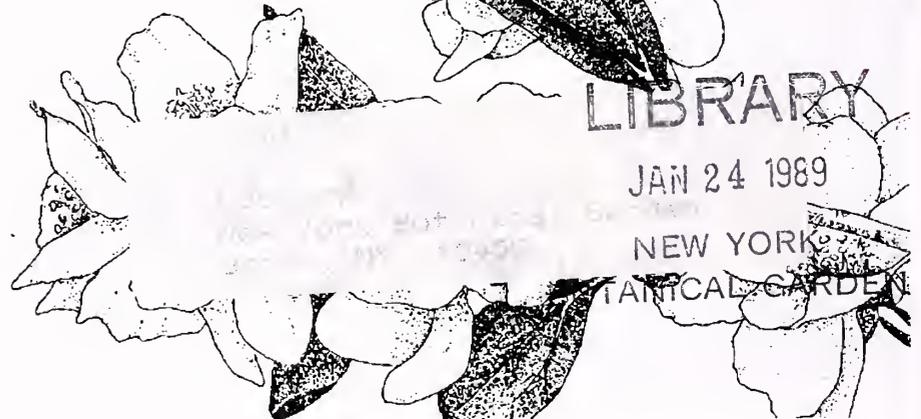
**MEMBERSHIP** in the Society is open to all interested in our native flora. Regular dues are \$8.00 per year, \$6.00 for students and senior citizens on an anniversary month basis, that is, from the time you join. Contributions to our Society, a non-profit organization, are tax deductible. Send dues and all correspondence to I.N.P.S., Box 9451, Boise, ID 83707.

**SAGE NOTES** is published bimonthly by the Idaho Native Plant Society, incorporated since 1977 under the laws of the State of Idaho. A red dot beside your due date on the mailing label indicates that your membership has expired. You will receive only two newsletters after this date.

**MATERIALS FOR PUBLICATION:** Members and others are invited to submit material for publication in Sage Notes. Text should be in typed form or if possible on 5 1/4 inch floppy discs for an IBM computer in WordStar, WordPerfect, Multimate or ascii file format. Illustrations and even good quality photos may be reduced and incorporated into the newsletter. Provide a phone number in case the editors have questions on your materials. Send these to our regular INPS address or directly to the newsletter editor.

Due date for material for the next newsletter is February 20, 1989.

Idaho Native Plant Society  
P. O. Box 9451  
Boise, Idaho 83707



# Sage Notes

THE IDAHO NATIVE PLANT SOCIETY NEWSLETTER



Syringa

## MEMBERSHIP COMMITTEE NEWS

by Susan Bernatas

The membership committee has had a busy winter. The results are a beautiful T-shirt thanks to Ann DeBolt, Mary McGown and Agnes Miller's lovely *Mirabilis* illustration, and a poster is in the works for next spring. Joe Duft has put together a packet of information for folk interested in starting a new chapter. Budding this spring are three new chapters, North Idaho, Sun Valley, and Pocatello.

North Idaho started the roll with an organization meeting in early January and had their "first" meeting on February 15 at the University of Idaho Herbarium. It was reported that the room was packed. Thanks go to Doug Henderson for leading the meeting. Dick Bingham gave a great slide show on the "Flora of the Seven Devils". Jumping into the spirit, Dick has volunteered to act as chairman, and Pam Brunsfeld, secretary of the group until officers can be elected. Dick can be contacted at 882-5204 or 612 N. Moore, Moscow, ID 83843.

Bill McDorman from Ketchum reports that their March 5th meeting in Sun Valley had a turnout of about 20

people; a second meeting is set for March 15th at 7:00 p.m. at a location yet to be determined. Contact Bill at 726-3221 or Box 4238, Ketchum, ID 83340.

Bruce Rittenhouse, an ISU grad student in Pocatello, is working on an organization meeting at the Idaho State University for late March. Contact Bruce at 236-3745 or Box 8007, Pocatello, ID 83209.

Membership committee contact persons for new chapters are Nancy Cole at 345-8995(H) 334-3402(W) or Susan Bernatas at 345-0595(H) 334-1457(W) or at the INPS address.

## INPS BY-LAWS--THE VOTE IS IN

by Mary McGown

The new INPS state by-laws have been approved by a membership vote of 51 affirmative to one negative. Approval of these by-laws sets the groundwork for a statewide organization to begin functioning.

The next major task will be to select statewide officers under the new by-laws. The first set of officers and board members will be influential in setting the course for the organization as a number of decisions will need to be made regarding INPS operations. Chapters automatically will have state board representation, so selection of statewide officers may be done after at least one more chapter has been formed.

Anyone interested in serving as an officer or on a standing committee, please contact Mary McGown through the INPS, P.O. Box 9451, Boise, ID 83707.

## HOW TO HAVE A SUCCESSFUL FIELD TRIP

by Joe Duft

After a long, hard winter many of us are anxious for spring and the start of a new season of wildflower hunting. The Pahove Chapter is planning several good field trips to areas of botanical interest.

INPS has had many successful and well attended field trips in past years, and perhaps a few that were not so successful. In looking back we see that the better attended trips were well publicized, organized, lead by knowledgeable botanists, held during optimum times (usually springtime), and to areas of unique interest. Spontaneous field trips with smaller groups have also been successful. Each member has his/her own goals and interests--most enjoy finding new species, some photograph plants, some enjoy all aspects of the natural habitat, while others like to camp out or hike into remote areas. I enjoy doing all of these.

During past years, INPS has provided guidelines for conducting their field trips in an effort to achieve specific botanical objectives, preserve the environment, and make the experience more enjoyable for all participants. After years of experience on dozens of field trips, we have arrived at the following items as contributing to successful and enjoyable field trips.

1. Advertise well in advance of the trip, identify a trip coordinator with

(Continued on page 7)

## PAHOVE CALENDAR

**March 16:** Meeting at 7:30 p.m. in 218 Science Education Building at Boise State University. Joe Duff will present a program on computer applications in botany. See Highlights on page 3. Nominations for 1989-1990 offices will also be presented.

**April 8:** Field trip led by Jon Trail to investigate the early spring flora of Mann Creek area. Meet before 8:30 a.m. at the Flying J Travel Plaza (8000 Overland Road). We will depart at 8:30 to meet Jon at the Fiddlers Restaurant in Weiser at 10:00. Be prepared for mud and possibly snow; bring hiking boots and a sack lunch. In Boise, contact Carol Prentice (362-9029) or Lynda Smithman (344-2650).

**April 20:** Meeting at 7:30 p.m. in 218 Science Education Building at Boise State University. Nancy Cole will present a program on Nature Conservancy Preserves in Idaho. See Highlights on page 3.

**April 29:** Field trip to Leslie Gulch with Billy Farley to honor Pat Packard's retirement. Meet at 9 a.m. at the Boone Science Hall parking lot behind Jewett Auditorium in Caldwell. Bring hiking shoes and a sack lunch. We will return to Caldwell by 5 p.m. For more information, contact Billy Farley in Caldwell (459-0524) or Carol Prentice in Boise (362-9029). See highlights on page 3.

**May 18:** Meeting at 7:30 p.m. in 218 Science Education Building at Boise State University. Barbara Nelson will present a session on basket making with native materials, and Carolyn Sherman will give a historical account of 1930's botanist M. Alfreda Elsensohn from the Cottonwood area. Jerry Schulton will show the film "When the Pot Boiled Over" or, Why Cottonwood Creek overflowed.

**May 27:** Field trip to McBride Creek-Sands Basin in Owyhee County led by Roger Rosentreter. Leave from the Burns Brothers Truck stop (4115 Broadway Ave) at 9:00 am. This "Little Utah Badlands" area has unique geology, plants, and lichens, and is a short walking distance from the road. Bring

a sack lunch; we will return in the early afternoon. Contact Roger Rosentreter (334- 1927) for more information.

**Mid-July:** Field trip to Railroad Ridge in the White Cloud Mountains of Central Idaho. This is a favorite high elevation alpine region, accessible by vehicle, to visit alpine meadows, fellfields and snowbed areas. More information will be provided in the next newsletter, or contact trip leader Joe Duff at (208)375-8740.

## OTHER EVENTS

**March 29-31:** Whitebark Pine Ecosystems: Ecology and Management of a High Mountain Resource. Contact University Scheduling and Conference Center, Room 280 F, Strand Union Building, Montana State University, Bozeman, MT 59717.

**March 30-31, April 1:** Bring Back the Land, Mineral Reclamation in the Arid West Conference. Jot Travis Student Union, University of Nevada, at Reno. For information contact: Public Resource Association, 1755 E. Plumb Lane #170, Reno, NV 89502 or 702-786- 9955.

**April 1:** Museum workdays, Orma J. Smith Museum of Natural History, College of Idaho. Contact Bill Clark at 375-8605 for information.

**April 5-7:** The Sixth Wildland Shrub Symposium. Las Vegas, Nevada. Contact University of Nevada Division of Continuing Education, 702-739-3707.

**April 21:** Global Climate Change and Natural Resource Implications for the Intermountain West. Logan, Utah. Contact Registration Services, Conference and Institute Division, Utah State University, Logan, UT 84322-5005.

**May 5:** Idaho Conservation League annual fund raising auction will be held. Time (evening) and location have not yet been determined. Contact Carolyn Bohn (334-1457) for information.

**May 9-12:** Practical Approaches to Riparian Resource Management. Billings, Montana. Contact Chris Hunter,

OEA Research, Box 1209, Helena, MT 59624 for information.

**May 13-14:** Idaho Trails Council Annual meeting in Sun Valley. Contact: John Barnes, Idaho Department of Parks and Recreation.

## PAHOVE ACTIVITIES

by Ann DeBolt

### January Meeting

Susan Bernatas gave a membership committee report. The membership committee is developing fund-raising ideas and methods to increase membership. Susan Bernatas is working with a group in Moscow and Nancy Cole is working with a group in Sun Valley to investigate the possibility of forming two new chapters. Joe Duff has put together a packet of materials to guide prospective chapters.

It was announced at the meeting that the Idaho Botanical Garden would like donations of leftover Christmas poinsettias. If you would like to donate, they are requesting that you bring them out to the garden in May, after it is safe to plant them outside.

Jean Findley, the BLM botanist at Vale, Oregon, gave the program for the meeting. She talked about three different rare plants that she has worked with: *Astragalus mulfordiae*, *Hackelia cronquistii*, and *Astragalus solitarius*. See article on page 4.

### February Meeting

A nominating committee was formed to find officers for the new term, which begins in September. Mary McGown and Roger Rosentreter volunteered to be on the committee.

The program for the meeting was given by Richard Old, a weed scientist at the University of Idaho. The title of his program was "New Weeds of Idaho". See weed article on page 4.

Kathy Geier-Hayes announced that there is \$675.68 in the treasury. □

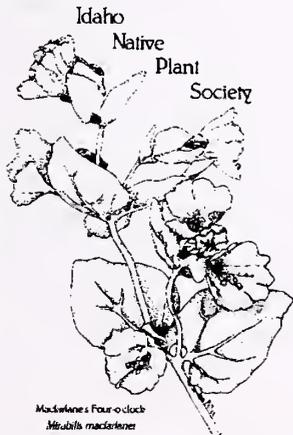
## NOTES FROM THE PRESIDENT

by Carol Prentice

This last month has been a spree of Pahove letter writing for me, which is most unusual, so I thought I should share my enthusiasm with you. I sent a letter to Yvonne Ferrell, the Director of Parks and Recreation suggesting that they increase their park fees to fund the Heritage Program ecologist position. Parks and Recreation has statewide authority over native plants and has signed an interagency agreement with the Fish and Game, which supervises the position. I also volunteered a spokesperson to work with them to help develop a funding program.

Also, I wrote to the Boise National Forest asking that they participate in the inventory and research activities on *Allium aseae* which has been found on their land at Hulls Gulch and the Boise Ridge east of Horseshoe Bend hill. I am hoping for a response to this letter at the Threatened and Endangered Plant Meeting.

We are also requesting input from Pahove members on activities we could pursue for our State's Centennial Celebration. Carolyn Sherman is the Pahove Historian and welcomes all suggestions. A few ideas that have come up are: inventory of a Research Natural Area, species identification mapping along the Centennial Trail and a publication of selected plant species of historical and current interest. More input is needed as we would like to have a project selected by the end of May.



# PROGRAM HIGHLIGHTS

## COMPUTERS IN BOTANY March 16, 1989

A special program with demonstrations and discussion on many computer applications for education, the natural sciences and resource management. See videodisc technology, digitized images in high resolution graphics, expert systems, hypercard, databases, electronic information services and desktop presentations.

Meet at 7:30 p.m. in room 218 of Boise State University's Science Education Building; demonstrations will be given next door at the Simplot/Micron Technology Center.

## THE NATURE CONSERVANCY IN IDAHO April 20, 1989

A special program presented by Nancy Cole at our March meeting (See Pahove Calendar). Nancy is the Science Coordinator for the Idaho Field Office of The Nature Conservancy. The goal of the Nature Conservancy is to protect the natural biotic diversity of the world. In Idaho, the Nature Conservancy protects over 18,000 acres of land that are home to rare plants, plant communities, and rare animals. Nancy will present a slide show describing the preserves in Idaho and the things that make each one special.

## FIELD TRIP TO HONOR DR. PACKARD April 29, 1989

This is a special field trip to Leslie Gulch with Billy Farley to honor Pat Packard's retirement. Meet at 9 am at the Boone Science Hall parking lot behind Jewett Auditorium in Caldwell. Several of Pat's students and friends will accompany the group to examine

the plants unique to Leslie Gulch. Bring hiking shoes and a sack lunch. We will return to Caldwell by 5 p.m. Pahove members will have an opportunity to meet botanists from as far away as California and New York. For more information, contact Billy Farley in Caldwell (459-0524) or Carol Prentice in Boise (362-9029).

## TRAVEL THE OREGON TRAIL May 10, 1989.

Travel the Oregon Trail from Rattlesnake Station north of Mountain Home to Bonneville Point near Boise. The BLM retirees are motoring along the trail with frequent stops at historical points of interest and to identify spring wildflowers. Pahove members are invited. Meet in the SW parking area of the Boise BLM District at 8:00 a.m. for car-pooling. Bring a lunch and plan on a casual day in the field. For information, call Burt Silcock at 888-5441.

## INPS T-SHIRTS AVAILABLE

The society now has T-shirts with Idaho's only federally listed rare plant, the Macfarlane's Four-o'clock (*Mirabilis macfarlanei*) represented on the front. The artwork is a beautiful line drawing generously donated by long-time Pahove member Agnes Miller. See illustration on this page. The T-shirts are available in 4 colors (aqua, tropical pink, cream, ice green) and medium, large and extra-large sizes. This is a fund-raiser for the native plant society, so proceeds naturally go for a good cause. Cost per shirt is \$9.00. If you would like to order one through the mail, send your request to INPS, P.O. Box 9451, Boise, ID 83707. Please add an additional \$2.00 to cover postage and include your name, phone number, mailing address, size and 1st, 2nd, and 3rd color preferences. Otherwise, contact Ann Debolt (384-1244).

# IDAHO MILK-VETCH FOUND IN OREGON

by Jean Findley

Isabel Mulford would be pleased; her namesake, *Astragalus mulfordiae*, is thriving at scattered locations in northeastern Malheur County, Oregon. Prior to the 1988 field season, this rare milk-vetch was known from only two historical locations in Oregon. More by accident than design, I collected a specimen of an odd-looking milk-vetch in the sand hills northeast of Vale for Dr. Packard's spring plant taxonomy class. Although the compressed, triangular pods made the keying process relatively easy for an otherwise tricky genus, we were surprised and delighted to find the species in an entirely new and different geographical area.

Later in the spring, in the course of routine sampling of Malheur forget-me-not (another rare plant on Bureau of Land Management land in the sand hills surrounding Vale), not ten feet from an enclosure protecting the forget-me-not was more of Mrs. Mulford's milk-vetch. Because the species has been considered for listing in Oregon as threatened and because its rare occurrences and threats in Idaho have given rise to a possible need for Federal listing, we carried out further inventory for the plant in the summer of 1988. A number of sites were located in the original Adrian area, and two more sites were found near the forget-me-not enclosure southeast of Vale. Two ridges northeast of Vale and one ridge south of Vale have intermittent pockets across their summits.

Mulford's milk-vetch grows in blowing sand in bowls on high places. Its creamy white flowers and small dark pea-like seeds may be found in June. A glance at the map shows that this species occupies the same sandy habitats as Malheur forget-me-not (*Hackelia cronquistii*), but the sites

are different. The forget-me-not is restricted almost exclusively to north slopes. It grows in protected basins on organic matter pads where snow melts slowly and the difficult-to-germinate seeds have plenty of moisture to soak and disintegrate the seed coats. Mulford's milk-vetch grows atop the sandy ridges, but in fewer locations. While its range is similar, it is indeed a far more rare species.

Having found this almost strictly Idaho milk-vetch thriving in Oregon and knowing that the sand hills extend into Idaho, we suspect that Oregon's Malheur forget-me-not may yet surface in Idaho. Idaho field botanists, on to the challenge! Perhaps next year you'll be able to report an Oregon forget-me-not in Idaho. □

## THE WEEDS WE NEVER KNEW

by Ann DeBolt and Carol Prentice

The Pahove meeting for February was moved up one week to coincide with the weed meetings and Richard Old's journey from Moscow to Boise. Rich is the weed scientist with the Department of Plant, Soils and Entomological Sciences at the University of Idaho.

Rich's presentation included slides and herbarium specimens of the recent and not so recent invasion of exotics and the economic problems they can cause. In the 1930's the Idaho legislature rejected a bill to provide \$200 to eradicate Canada thistle (*Cirsium arvense*). Now there are over a million acres of Canada thistle in Idaho (however, the eradication effort probably would not have worked anyway).

Purple loosestrife (*Lythrum salicaria*) has infested irrigation canals and river areas and has no value to wildlife. Ducks Unlimited is supporting efforts to eradicate this species. If any one is interested in working on this species, such as mapping popula-

tions, they can contact Sharon Bancroft, Pend Oreille Co. Weed Superintendent, Extension Office, Courthouse, Newport, Washington 99156.

The following is an abbreviated run-down of Rich's dreaded "WEEDS OF IDAHO":

Scotch thistle (*Onopordum acanthium*) is one of the fasted spreading weeds in Idaho.

*Galium pedamontanum* is newly known in the western U.S. and is rampant on the Selway and Clearwater Rivers. The leaves of this Galium turn back down the stem.

Gem County has 200 square miles of *Cerastium dubium*; before this single find, only one other site was known in the west.

*Centaurea montana* is often found in wildflower mixes (which are exempt from inspection since they are not agricultural seeds).

Tansy ragwort (*Senecio jacobaea*) is toxic to livestock and was found two years ago in Benewah County.

*Asclepias incarnata* or swamp milkweed has been found in Gem County and occurs in wet sites with cattails.

Rich uses not only U.S. keys but Flora Europea, Flora of the USSR, and Flora of Turkey - all of which are translated into English to identify his weeds.

The best way to recognize a plant as an exotic weed is to know the native plants. Weeds found west of the Cascades are most likely to be found in north Idaho, and those east of the Cascades in south Idaho. Idaho gets about nine new species per year and the majority of new weeds move west from the eastern U.S. (How odd when the prevailing winds are from west to east - must not be wind born seeds!) One of the most prolific sites for new weeds in Idaho is Harpster Grade in Idaho County. Not enough new weeds are being reported, so if you would like to be a botanist par-excellence, report any new weed to Rich through your local County Agricultural Extension Agent. □

# HISTORY OF BOTANICAL COLLECTING IN SOUTHERN IDAHO BEFORE 1850

## PART 3

by Barbara Ertter

*Barbara wrote this term paper in 1975 while a graduate student and the University of Maryland. This is Part 3 of 3.*

While Geyer was profiting from his collecting, an official collector of Hooker's was not faring nearly as well. Joseph Burke was hired by Hooker to collect in Oregon from 1844 to 1846. McKelvey (1955) believes that Hooker's displeasure with Burke resulted more from Hooker's lack of understanding of the conditions in the West than from any failings of Burke. The terrain, climate, and natives did not always allow Burke to follow the instructions given him by Hooker. Communication was hopelessly delayed; one letter between Burke and Hooker took a year and a half to arrive. Burke's collections were not delivered to England with any greater speed.

Despite the time Burke spent in the Northwest, his collections contained very little that was new. He did find one new *Delphinium* along the Snake River in southern Idaho that was named after him. Most of his time was spent around Fort Hall and other areas that previous collectors had already covered extensively. When he traveled it was with Hudson's Bay men who were usually in too much of a hurry to allow leisurely collecting. Burke ended up resigning from Hooker's service after receiving an undeserved berating from his distant sponsor. Both parties were highly disappointed with the results of Burke's collecting.

Burke was not as unlucky as one of his contemporaries, a German collector named Friedrich Luders. Very little is known about Luders; he may or may not have passed through southern Idaho. Like Geyer, he was sponsored by Engelmann and Gray, who had great anticipation of his collections. They were disappointed, for Luders' entire collection was lost when the canoe carrying his supplies was overturned in the Columbia River (McKelvey, 1955).

Luders' accident was witnessed by a person whose own collection would suffer a similar fate. John Charles Fremont, the colorful explorer who mapped much of the unknown West, went through southern Idaho on his second expedition. Fremont was one of the first and undoubtedly one of the most famous of the government-sponsored explorers. After the Lewis and Clark expedition, the government had been uninterested in Oregon. The United States was willing to let Britain have the whole territory as an area worthless for anything but trapping, until the emigrants began showing its potential for colonization. Then, belatedly, the government began showing renewed interest in its western boundaries and started sending out parties to explore and survey the area.



John Charles Fremont

In 1843 John Charles Fremont, the illegitimate son of a French dance instructor, and the son-in-law of one of the most influential senators of the time, set out with the Corps of Topographical Engineers to explore the Great Basin. On his peaceful scientific mission he took forty men, two carts, a light covered wagon, and a twelve-pound howitzer. The government questioned the necessity of the latter and sent a letter ordering Fremont to return to Washington for an explanation. Fremont's dutiful wife somehow neglected to forward the letter and Fremont took off with his howitzer in tow. While the cannon was never fired and eventually had to be abandoned in the Sierra Nevada, it must be admitted that Fremont's second expedition was not bothered by Indian attacks (Jackson and Spence, 1970).

For the most part Fremont followed the emigrant trail and entered southern Idaho on August 22. He then turned off and followed the Bear River to the Great Salt Lake, which he reconnoitered in a rubber raft with leaky seams. He returned to Idaho and arrived at Fort Hall on the 18th of September. From there he followed the Oregon Trail along the Snake River until turning north to intersect the Boise River near the site of the present city of Boise. He followed the Boise River to the Snake River, crossed the Snake into Oregon on the 9th of October, and continued on his path around the Great Basin.

Fremont was not an experienced botanist. Geyer met him in the field and was not impressed with his botanical attempts. But then, Geyer was not impressed by anybody. Torrey and Gray had both been excited by the possibilities presented by Fremont's expedition. They had hoped to get an experienced botanist on the expedition but had to settle for teaching Fremont collecting techniques. Most of Fremont's expeditions were botanically quite successful, though rushed, but this was not the case with his second expedition. He passed through southern Idaho in the early fall, when most of the plants were already brown and dry. What there was had probably been collected by his predecessors. What he collected

made no difference, however, for his collection suffered the same fate as Luders'. While descending the Sierra Nevadas from Carson Pass, the horse carrying all the plant collections since Fort Hall fell off a precipice into a torrent. Nothing was recovered, though Fremont replaced as much of the collection as he could on the return trip, which did not pass through Idaho. Even this later collection was largely destroyed by a sudden flood on the Kansas River and what remained was broken, moldy, and decayed. The botanical information in Fremont's journal was still very informative however.

Fremont's expedition marked the end of a phase in botanical exploration in southern Idaho. The major plant species had been discovered and floras of North America were printed describing them. There was little else that could be accomplished by wide-ranging expeditions from the East. The next phase would not begin until the end of the century when gold, irrigation, and immigration increased the population of the West to where it could support resident botanists and local herbaria. These later botanists would have the task of ferreting out the unusual and endemic plants overlooked by the earlier botanical explorations. But the main work had already been done; Idaho was no longer the botanical mystery it had been a short half century before.

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# HERITAGE PROGRAM REPORTS AVAILABLE

We present a list of unpublished rare plant and community ecology reports written (with one exception) by Steve Caicco and Bob Moseley of the Idaho Natural Heritage Program. Included are reports resulting from field investigations by the Heritage Program from its inception in 1984, through January 1989.

They are available from Bob Moseley, Idaho Natural Heritage program, Idaho Department of Fish and Game, P.O. Box 25, Boise, ID 83707 or 208/334-3402.

U.S. Fish and Wildlife Service Section 6 Status Surveys:

*Calochortus nitidus*

*Draba trichocarpa*

*Thelypodium repandum*

*Howellia aquatilis*

U.S. Forest Service Challenge Cost Share Projects:

1987 Field investigations of selected sensitive plant species on the Clearwater National Forest.

1988 Field investigations of selected sensitive plant species on the Clearwater National Forest.

Field investigations of selected sensitive plant species on the Idaho Panhandle National Forest.

Field investigations of selected sensitive plant species on the Nez Perce National Forest.

Studies in the genus *Carex* on the Idaho Panhandle National Forests.

Preliminary results of an investigation into the life history and population dynamics of *Calochortus nitidus* Dougl. (*Liliaceae*).

Field investigations of three sensitive plant species endemic to the Stanley Basin area, Sawtooth National Forest: *Draba trichocarpa* Rollins,

*Thlaspi aileeniae* Rollins, *Eriogonum meledonum* sp. nov.

Field investigations of *Douglasia idahoensis*, a Region 4 Sensitive Species, on the Payette and Boise National Forests.

Field investigations of *Calamagrostis tweedyi*, a Region 4 Sensitive Species, on the Payette National Forest.

Species management guide for *Lomatium rollinsii*.

**National Natural Landmark Ecological Theme Studies:**

National Natural Landmark Evaluation, Great Rift System, Columbia Plateau Province, *Artemisia tridentata* (big sagebrush) Steppe Theme.

National Natural Landmark Evaluation, Hell's Half Acre Lava Field (Idaho), Columbia Plateau Natural Region, Utah and Rocky Mountain Juniper Theme, Lava Flows Subtheme.

National Natural Landmark Evaluation, Aquarius Proposed Research Natural Area (Idaho), Northern Rocky Mountain Natural Region, Cedar-Hemlock Theme, Montane Coastal Refugium Subtheme.

National Natural Landmark Evaluation, Little Granite Creek (Idaho), Columbia Plateau Natural Region, Canyon Grassland Theme. National Natural Landmark Evaluation, North Fork of the Owyhee River (Idaho), Columbia Plateau Natural Region, Western Juniper (*Juniperus occidentalis*) Woodland Theme, Montane Western Juniper Woodland Subtheme.

Final Report, Phase I, 1986 National Natural Landmark Project, Pacific Northwest Region, National Park Service; Including classification of the following ecological themes: Antelope Bitterbrush Shrub Steppe, Big Sagebrush Steppe, Mountain Mahogany Chapparal, and Palouse and Plateau Grasslands.

Final Report, Phase II, 1986 National Natural Landmark Project, Pacific Northwest Region, National Park Service; Including the following ecological theme site evaluations: Antelope Bitterbrush Shrub Steppe, Big

Sagebrush Steppe, Mountain Mahogany Chapparal, and Palouse and Plateau Grasslands.

Final Report, Phase I, 1987 National Natural Landmark Project, Pacific Northwest Region, National Park Service; Including classification of the following ecological themes: Western Juniper, Utah and Rocky Mountain Juniper Woodlands, Lowland and Valley Grassland, Canyon Grasslands, and Montane Coastal Refugium Forest.

Final Report, Phase II, 1987 National Natural Landmark Project, Pacific Northwest Region, National Park Service; Including the following ecological theme site evaluations: Western Juniper, Utah and Rocky Mountain Juniper Woodlands, Lowland and Valley Grassland, Palouse and Plateau Grasslands, Canyon Grasslands, and Montane Coastal Refugium.

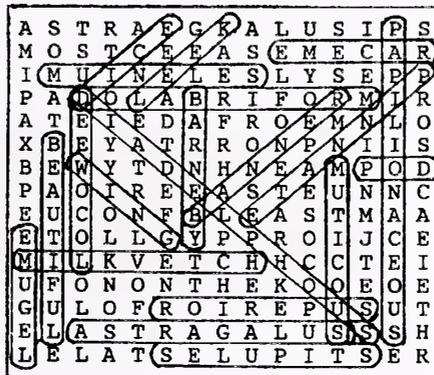
**Miscellaneous Reports:**

Status and distribution of Aase's onion (*Allium aaseae*), a federal candidate species, on Ada County lands in Seaman Gulch.

The distribution and habitat characteristics of *Haplopappus insecticruris* in Camas, Blaine, and Elmore counties, Idaho. By Vince Lee. □

**WORD SEARCH**

Here are the answers to word search in the last issue. After you locate all of Wayne's words, the remaining letters should provide you with this message: *Astragalus* is most easily separated from *Oxytropis* by the presence of a small projection on the keel of the later.



**FIELD TRIPS CONT.**

phone number to receive questions. RSVP's should be considered if there is any question about holding or coordinating the trip. This is especially important for distant travelers.

2. Advise members on conditions likely to be encountered on the trip regarding weather, hiking distance and difficulty, services available, etc.

3. A description of the area to be entered and what plants are likely to be found is always of interest. A short newsletter article in advance or a briefing before the trip starts is good policy. Trip leaders should be familiar with the areas they are going to and know what to expect when they arrive.

4. Establish meeting locations and times and be punctual. Travel in caravans as able, but signing at back country road intersections and leaving posted messages may be appropriate.

5. A species list provided to trip participants is always welcomed. A list of area plants handed out at the beginning of the trip is desirable, or designate someone to record the plants observed, then type up a verified list for distribution later. Or possibly publish it in the newsletter along with a short report on the trip.

6. In addition to botanical information, participants are usually interested in learning of other aspects of the natural environment, such as, landmarks, historical events, wildlife, ecology, and geology of the area visited.

7. Small children and dogs should be under the close supervision of parents or owners. Problems sometimes occur from children picking too many flowers or disrupting activities and dogs annoying some members and trail hikers.

8. Remember, collecting must never endanger a plant population. Don't collect underground plant parts except for identification purposes. Avoid excessive collecting, and encourage group study of a single specimen.

Enjoy your field trips this year. □

## CLASSIFIED ADS

**WANTED:** True-to-name seed of yampa root (*Perideridia gairdneri* or *Carum gairdneri*). Packet to ounce. Top prices paid. Contact: Singh, 2140 Shattuck Ave., Drawer 2479, Berkeley, CA 94704.

Space is available for your personal or commercial advertising. Ads of a botanical nature should be submitted with payment to our INPS address or directly to the newsletter editor. Per issue rates are: Personal ads (up to 30 words) are \$2.00; Commercial advertisements--1/8 page is \$5.00, 1/4 page is \$8.00, 1/2 page is \$15.00 and full page is \$25.00.

## WELCOME TO NEW MEMBERS

Kay Beall, Moscow, ID  
Lynn Burton, Stanley, ID  
Bob & Cle Callihan, Moscow, ID  
Samuel & Amanda Gallbreath, Boise,  
Galen Green, Boise, ID  
Fred Johnson, Moscow, ID  
Doug Henderson, Moscow, ID  
May Hunter, Emmett, ID  
Dana Quinney, Boise, ID  
Lyle Lewis, Salmon, ID  
Kate Parkin, Boise, ID  
R. Leslie Shader, Fort Collins, CO  
William Shalter, Utica, IL  
Allan Thomas, Boise, ID  
Beth Workman, Boise, ID

## NOTES ON CONTRIBUTORS

**Ann DeBolt** is a botanist for the Bureau of Land Management, Boise District.

**Susan Bernatas** is Natural Areas Ecologist for the Nature Conservancy in Idaho and membership chairperson for INPS.

**Joe F. Duft** is a retired forester, amateur botanist and long time member of INPS.

**Barbara Ertter** is Manager of Collections, Jepson Herbarium, University of California, Berkeley. She is a College of Idaho biology graduate.

**Jean Findley** is a botanist for the Bureau of Land Management in Vale, Oregon.

**Mary McGown** is a landscape architect and is currently finishing up a PH. D. program in Forest Social Science at the Univ. of Idaho.

**Bob Moseley** is a botanist who works as a plant ecologist for the Idaho Fish and Game. Bob is an active member of INPS and regularly writes articles for Sage Notes.

**Carol Prentice** is a graduate botanist and housewife who finds time to work on *Allium aaseae* studies.

**ILLUSTRATIONS:** Photo of John Charles Fremont is from Volume 1 of *Intermountain Flora* by Cronquist, Holmgren, Holmgren and Reveal.

## ABOUT OUR SOCIETY

**OFFICERS:** President--Carol Prentice (362-9029), Vice President--Wilma Gluch (343-3026), Secretary--Ann DeBolt (334-9291), Treasurer--Kathy Geier-Hayes (334-1457), Board-Chr-- Roger Rosentreter (334-1927).

**TECHNICAL COMMITTEE:** Dotty Douglas, Pat Packard, Bob Parenti, Bob Steele and Bob Moseley.

**LAY REPRESENTATIVES** Mary Clark and Agnes Miller.

**NEWSLETTER STAFF:** Newsletter Editor--Kathy Geier-Hayes, Technical Editor--Bob Steele, Publishing Editor--Joe Duft and Circulation Manager--Mering Hurd.

**MEMBERSHIP** in the Society is open to all interested in our native flora. Regular dues are \$8.00 per year, \$6.00 for students and senior citizens on an anniversary month basis, that is, from the time you join. Contributions to our Society, a non-profit organization, are tax deductible. Send dues and all correspondence to I.N.P.S., Box 9451, Boise, ID 83707.

**SAGE NOTES** is published bimonthly by the Idaho Native Plant Society, incorporated since 1977 under the laws of the State of Idaho. A red dot beside your due date on the mailing label indicates that your membership has expired. You will receive only two newsletters after this date.

**MATERIALS FOR PUBLICATION:** Members and others are invited to submit material for publication in Sage Notes. Text should be in typed form or if possible on 5 1/4 inch floppy discs for an IBM computer in WordStar, WordPerfect, Multimate or ascii file format. Illustrations and even good quality photos may be reduced and incorporated into the newsletter. Provide a phone number in case the editors have questions on your materials. Send these to our regular INPS address or directly to the newsletter editor.

**Due date for material for the next newsletter is April 20, 1989.**

**Idaho Native Plant Society  
P. O. Box 9451  
Boise, Idaho 83707**

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# Sage Notes

THE IDAHO NATIVE PLANT SOCIETY NEWSLETTER



Syringa

## NEW INPS CHAPTERS FORMING

by Joe Duft

### SOUTHEAST IDAHO

The Pocatello members, holding meetings at Idaho State University, have officially formed a new INPS chapter. The elected officials for the chapter are: Bruce Rittenhouse, President; Von Michaelson, Vice-President; Susan Rittenhouse, Secretary; Ruth Morehead, Treasurer, and Dr. Karl Holte and Dr. Jay Anderson, Technical Advisors. The new chapter, with at least 18 new members, have submitted their new by-laws and a summer field trip schedule. Contact Bruce Rittenhouse at 236-3745 or Box 8007, Pocatello, ID 83209. Welcome to our second chapter.

### NORTH IDAHO

At their last organization meeting held May 2 in Moscow, INPS members moved ahead with plans to form their new chapter. The group appointed three people to carry out the duties of chapter officers; these are chairman--Dick Bingham, vice chairman--Selma Neilson, and Secretary/Treasurer Pam Brunfield. Several committees, including a by-laws committee, have been formed to work on chapter matters. The

group is still undecided about a chapter name. A field trip schedule has been developed and is included in this issue. An active recruiting program by the group is responsible for about 40 new chapter affiliated members. Contact Chairman Dick Bingham at 882-5204 or 612 N Moore, Moscow, ID 83843.

## SENSITIVE PLANT WORKSHOP REPORT

by Ann DeBolt

Our fifth annual Idaho Sensitive Plant Workshop was held on March 2 and 3. Some past workshops have been squeezed into one day, meaning everyone went home exhausted. Allowing one and a half days to go through the list of some 300 plants took some of the pressure off. The lists generated from the workshop are enclosed in this issue of Sage Notes.

On the first half day we held an inter-agency meeting with representatives from several national forests, BLM districts, Fish and Wildlife, Heritage Program and others. We discussed the State's priority species and which agency is taking the lead role in monitoring, inventory, and management plans for each species. Both meetings were well attended, with up to 40 people participating.

This year we showed slides of as many of the species as possible as they were discussed. This gave anyone unfamiliar with the plant a point of reference. Thanks to Susan Bernatas for getting the slides together and for being our projectionist. And thanks to all the other INPS members who helped make the meeting a success.

## INPS STATE ELECTIONS PLANNED

With the advent of several new INPS chapters forming, and with the approval and adoption of our new state by-laws, the wheels are being put into motion to hold a state-wide election of officers within the next few months. At the April INPS meeting in Boise, the motion was made and carried to appoint a nomination election committee to receive nominations, prepare a mail-in ballot, count the votes and announce the election results. In addition to a chairman, this committee is to have a member from each of the new or proposed chapter areas. A second motion carried to appoint Bob Steele as chairman of this committee. Bob will be contacting prospective members for the committee.

Nominations are being sought for positions of President, Vice President, Secretary and Treasurer. We are looking for people who will offer good leadership to our organization. Although much business may be conducted by phone, consideration should be given to the occasional need to travel to meetings. Along with each nomination, a brief note of the individual's qualifications is requested. These will be published in Sage Notes along with the mail-in ballot.

Nominations are requested by June 1. See the state officer nomination form on page 5.

A Joint Chapter Meeting/Field Trip is scheduled for June 10 and 11. For details, see the article on page 3.

3

May, June



## INPS CALENDAR

### PAHOVE CHAPTER

**May 18:** Meeting at 7:30 p.m. in Boise at the Idaho Department of Law Enforcement Support Services at 6111 Clinton Street. Clinton is off of Curtis between the railroad tracks on the south and Emerald on the north. This is election night for Pahove Chapter officers. Jerry Schulton will show the film "When the Pot Boiled Over" or, Why Cottonwood Creek overflowed. Carolyn Sherman will give a historical account of 1930's botanist M. Alfreda Elsensohn from the Cottonwood area. Barbara Nelson will present a session on basket making with native materials.

**May 27:** Field trip to Jameson Bog in eastern Oregon. Because the field trip with Pat Packard went to a location very similar to the field trip originally scheduled for this date, this trip has been substituted. Jean Findley, botanist for the Vale BLM District will lead the trip. Meet at the Flying J Travel Plaza (8000 Overland Rd., Boise) at 8:00. Contact Willie Gluch at 343-3026 for more details.

**July 15:** Field trip to Railroad Ridge in the White Clouds Mountains of Central Idaho. This is a joint field trip with the Wood River Group. See article on Alpine Adventure on page 4. Contact trip leader Joe Duft at 375-8740.

### SOUTHEAST IDAHO CHAPTER

**May 20:** Field trip to Gibson Jack and Scout Mountain to look at native plants from around Pocatello. Meet at ISU biology parking lot at 8:00 am with a sack lunch. Contact: Dave Burrup (397-4606) or Bruce Rittenhouse (232-2534).

**June 3 or 10:** Field trip to Craters of the Moon. Explore wildflowers at this exciting geologic wonder. Meet at ISU biology parking lot at 8:00 am. Led by: Sharon Luce, a Ph.D. student working on the breeding systems of *Mimulus nanus*. Contact: Bruce.

**July 8:** Field trip to Formation Springs and Oneida Narrows. See interesting wetland and endangered plant

communities. Meet at ISU biology parking lot at 8:00 am. Contact: Geoff Hogander (232-4727), Bill Haight (232-1256) or Tom Gnojek (232-2703).

**August 5:** Field trip to Jensen Creek-Palisades area. Observe subalpine meadow wildflowers. Meet at ISU biology parking lot at 7:00 am. Contact: Dr. Karl Holte (233-3079).

### NORTH IDAHO CHAPTER

**May 20:** Trip to Mary McCrusky State Park. Meet at Rosauers parking lot on N. Main in Moscow at 8:30 am. For more information call trip leader Ray Boyd at 882-7084.

**June 10-11:** Weekend trip to the Aquarius area on the N. Fork of the Clearwater River. Members will meet at the Konkleville Motel in Orofino at 10:00 am on the 10th, then motor into the Aquarius campground. The Aquarius is north of and also accessible via Pierce and Headquarters. This will be an overnight camping experience. Bring some rain gear just in case. Field trips are planned for Saturday afternoon and Sunday morning into areas near the campground. See article about the Aquarius on page X. For more information call trip leader Chuck Wellner in Moscow at 882-0567 or Joe Duft in Boise at 375-8740.

**July 22:** Trip to Freezeout Saddle and Pinchot Meadows. For more details on this trip, call trip leader Chuck Wellner at 882-0567.

### WOOD RIVER GROUP

For more information on the following activities, contact Kristen Fletcher in Ketchum at 788-9530.

**May 17:** Meeting in 7:00 p.m. Ketchum. Bob Moseley, Ecologist with the Idaho Fish & Game will present a program on the different vegetative regions in the Wood River Valley.

**May 27 or 28:** Desert Walk at Magic Reservoir, lead by Patty Slayton, an internationally recognized plant and seed collector.

**June 11:** Nature Walk along Wood River, lead by Dr. Bruce Lium. Discussion will focus on river ecology and restoration.

**June 52:** Wildflower Workshop and Walk, lead by Bill McDorman, local seed and plant specialist. This will be sponsored by the Ketchum/Sun Valley Chamber of Commerce for the annual Flower Festival.

**July 15:** Field trip to an alpine region in the White Cloud Mountains, lead by Joe Duft. See details under Alpine Adventure on page 4.

### OTHER EVENTS

**May 16:** Big Summit Prairie Wildflowers Field Trip to be led by INPS member Stu Garrett. Sponsored by the High Desert Museum, Bend, Oregon. Call 503-382-4754 for details.

**May 19:** Society of Range Management Western Chapter Summer Tour. The tour will be on the Boise Front and the discussion will include rangeland issues subject to many non-traditional and often conflicting uses. Contact Jim Cornwell at 334-1033 for details.

**May 21:** Idaho Botanical Gardens Garden Tour. 12:00 to 5:00. Also a plant and gift sale at the Gardens. Plant donations are requested for the sale. Call 343-8649 for pickup of plants.

**June 3:** College of Idaho Museum of Natural History monthly workday. Call Bill Clark, 375-8605 or Eric Yensen, 459-5331 for details.

**June 22-23:** Tour of Yellowstone National Park. INPS is co-sponsoring this field trip with the Idaho Wildlife Society and the Society for Range Management. Frank Singer, Biologist in Yellowstone, will be the tour host. Contact Jack Connelly, 1035 Serrey Lane, Blackfoot, ID 83221 or call 232-4703 for information.





## JOINT CHAPTER MEETING/FIELD TRIP SCHEDULED FOR JUNE 10 & 11

The Aquarius field trip weekend, sponsored by the new North Idaho Chapter (see details in trip schedules), is the planned scene for a joint chapter meeting to discuss details on the new INPS by-laws and organization. Members from all chapters and prospective chapters are invited to this first statewide organization meeting. The Aquarius area, located on the North Fork of the Clearwater River, is of unusual botanical significance with coastal disjuncts, high endemism and rare plants. It has been designated a Resource Natural Area, and is currently of environmental concern to us. Plan to attend this exciting event. Also see article describing the Aquarius area on page 4. □

## RARE PLANT SLIDE SHOW AND COLLECTION

by Susan Bernatas

Not even our most seasoned rare plant botanists know all the sensitive species in Idaho by sight. To aid in discussion and to make our State Sensitive Plant Workshop more enjoyable, approximately 100-150 plants and their habitats were featured in a color slide show. The show was well received and will grow as we obtain slides for more of the species on the list.

It was a big job to collect slides from people around the state, make duplicates, label the duplicates, and put the slides in order. So far, I've spent over 100 hours on this project and have learned lots of new species. Many other people have spent considerable time in this effort. THANKS!!!! go to the slide donators: Ann BeBolt, Joe Duft, Peter Lescia, Bob Moseley, Bruce Rittenhouse, Roger Rosentreter, Chuck Wellner, and the US Fish and Wildlife

Service; and slide handlers and labelers: Duane Atwood, Nancy Cole, Joe Duft, Bob Moseley, and Jeri Williams.

The slide show will be an annual event. All slides that were collected this year were copied for the newly formed INPS rare plant slide file. Slides are still needed. Check the list from the rare plant meeting. If you have slides you think would help the collection please notify or send them to Susan at the regular INPS address. Label the slides with the photographer's name, species name (scientific), and date and location (if known). □

## MEMBERSHIP COMMITTEE NEWS

by Susan Bernatas

The INPS membership committee, consisting of five members, has been very busy this year. The committee's goals were to substantially increase membership around the State, and if there was interest, help other chapters get started. So why the big push to increase membership? Well, with 200 members and newsletter exchanges to other native plant societies we can get a bulk rate mailing which saves money. As a larger statewide group we can be more effective in monitoring and protecting our rare plants. And if for no other reasons, "plant people" are fun, so why not get to know more of them.

At our April 25th committee meeting, which will be last until fall, we went over our accomplishments since October and came up with quite a list:

Membership has gone from about 120 to 180. Because of INPS organizational changes, Joe Duft is revamping the membership list program to facilitate the changes.

We designed and printed INPS T-shirts. So far, 75 have been sold.

Three community education classes on the plants of Idaho were held in Boise as part of the Centennial Series. Class topics were: edibles, poisonous plants, and conifers.

We have worked with members in three regions who had expressed interest in starting local chapters. The proposed chapters are in North Idaho, focusing in Moscow, Wood River Valley, and southeastern Idaho, centering in Pocatello. This has taken considerable time and effort, but has been well worth it. There are lots of great people around Idaho who are interested in native plants. When officers are elected and by-laws written, the proposed chapters will become Chapters. Field trips and meetings are already being organized by all proposed chapters, so the INPS is rapidly becoming THE statewide organization to join in the 1990's.

Two other projects were proposed and evaluated, but not undertaken. The first was a color poster for the statewide INPS. This was to be a poster pretty enough to sell as art. This project could be a fund raiser, but it is an expensive project to initiate and we would need to acquire the necessary funds before we could proceed. We could not afford to do both the t-shirts and the posters. Another proposal was a traveling educational display. This also would take money and lots of volunteers.

Membership committee members are: Susan Bernatas Co-chair, Nancy Cole Co-chair, Ann DeBolt, Joe Duft, and Mary McGown. Mering Hurd takes care of the membership list. □

## PAHOVE ACTIVITIES

### March Meeting

Carol Prentice announced that she has sign up sheets for anyone interested in helping to monitor the threatened/endangered species of their choice. Everyone was also encouraged to write to their congressmen to encourage the publication of a new federal register of candidate species. Chris Meyer suggested a possible INPS work project of a centennial planting at the new Fish and Game interpretive center. Joe Duft presented a program on "Computer applications in Botany." Those not attending missed a good opportunity to learn more about the latest in computer technology.



## April Meeting

The new Pahove Chapter by-laws were passed unanimously with no alterations. Nominations for Pahove offices were announced: Carol Prentice for President; Joe Duft for Vice-President; Kathy Geier-Hayes for treasurer. Two candidates for secretary are undecided about running: Ann DeBolt and Chris Meyer. INPS had a booth set up at Edward's Nursery open house with membership information and t-shirts. Eleven t-shirts were sold and all the brochures were distributed.

A suggestion was made for an INPS Centennial project of a calendar with photographs of the state's threatened and endangered species. Concerns about the project were whether it could be completed in time for the Centennial, and the money needed to initiate such a project.

Nancy Cole presented a program on the Nature Conservancy's preserves in Idaho.

## Mann Creek Field Trip

April 8th was a gorgeous day and enjoyed by all as Jon Trail lead us on an early spring flora investigation trip to the Mann Creek area. Thirteen Pahoves made various stops in the Mann Creek area, had lunch at Spangler Reservoir, and finished up with a stop at the Trail Orchard where everyone snacked on real Trail Apples.

Lynda Smithman made a collection of *Viola beckwithii* at Mann Creek and compared it with herbarium specimens at the College of Idaho. This collection and others from Mann Creek are "different" from the Owhyee country *V. beckwithii*. Lynda plans to investigate these differences further and report back this fall.

Jon pointed out new growth on the *Astragalus mulfordiae* on the hills above his orchards. Thank you Jon - we had a wonderful trip! □

Notes contributed by Ann DeBolt, Nancy Cole and Carol Prentice.

We welcome news from other chapters.

## TAKE AN ALPINE ADVENTURE

Society members and others are invited to join in our alpine excursion to the White Cloud Mountains on July 15, 1989. This will be a joint field trip between the Pahove Chapter and the Wood River group.

The White Clouds Mountains of central Idaho, with peaks to nearly 12,000 feet, support some of the most diverse populations of alpine flora in the state. Access to this alpine wilderness with extensive areas well above timberline, is not normally easy. However, an area in the north end of the range, called Railroad Ridge allows vehicle travel to 10,000 feet elevation. A short, moderately difficult hike will put you on top of a small peak, which presents breathtaking views of this spectacular mountain range.

The alpine and subalpine plant communities host a large number of species not found at lower elevations. Although plant sizes are normally reduced from their lower elevation counterparts, blossom sizes are not much reduced. As you travel along the top of Railroad Ridge, you encounter acres and acres of beautiful alpine meadows in spectacular color. When you reach the fellfield areas, other species take a very low profile, as they seek protection among the rocks. Boulder fields provide added protection to some plants that find their way up from the lower elevations. Snowbed areas support another group of plants, each offering to the variety and large diversity of species to be found in this area. Alpine areas have very short growing seasons, usually mid-June to mid-August. This will be a prime time to see the greatest number of flowering plants.

Meet at the F.S. Stanley Ranger Station, two miles south of Stanley on Saturday morning. We will car-pool and depart at 10:00 a.m. for Railroad Ridge via Hwy 93, the East Fork of the Salmon and Big Boulder Creek roads. Vehicle selection may depend on local road conditions. Take a lunch and be prepared for rapid changes in weather (sometimes stormy) at the higher elevations. Plan on an all day trip as there are also many interesting plants at lower elevations. For more information, contact trip leader Joe Duft in Boise at 375-8740, or the Stanley Ranger Station at 774-3681. □

## THE AQUARIUS AREA, A SANCTUARY FOR RARE PLANTS

by Bob Steele

The Clearwater River drainage has some of the lowest elevations in the State. It warms up early and provides a long growing season for many unusual plant species. About 25 million years ago the present Cascade and Coast Ranges, which intercept much of the rain coming off the Pacific, did not yet exist and the northern Rocky Mountain forests received full benefit of this oceanic climate. The fossil record shows that many coastal species flourished in what is now called Idaho. But, as the Cascades gradually rose, Idaho's Pacific climate diminished and with it most of the coastal flora.

Today, portions of the Clearwater drainage, and especially the Aquarius area on the North Fork of the Clearwater River, serve as sanctuaries for the last remnants of Idaho's coastal flora. These low elevation forests surrounded by high mountains provide the mild environment that is critical for certain coastal species. Many species found in the Cascade and Coast Ranges are common here but rare elsewhere in the State: *Viola sempervirens*, *Lycopodium selago*, *Trientalis latifolia*, *Carex hendersonii*, *Rubus ursinus*, the list goes on and on. Ferns are a special feature of the Aquarius area. Thirteen different species can be found here. Careful observers may also find the rare ghost orchid (*Eburophyton austiniiae*) or the rare clustered lady slipper (*Cypridpedium fasciculatum*).

A number of species more common to north Idaho also grow in the Aquarius area. White pine (*Pinus monticola*) and western red cedar (*Thuja plicata*) are common tree species. Devils club (*Oplopanax horridum*), bunchberry (*Cornus canadensis*), orange honeysuckle (*Lonicera ciliosa*), and Indian pipe (*Monotropa uniflora*) can be found here. This is probably the southern-most occurrence for skunk cabbage (*Lysichitum americanum*) in Idaho.

There are also endemic species such as *Cardamine constancei* and *Ligusticum*



# RESULTS OF FIFTH ANNUAL IDAHO RARE PLANT MEETING

MARCH 2-3, 1989

## FEDERAL CRITERIA

The Federal Candidate List includes the recommendations for Idaho taxa listed in the Federal Register (Sept. 27, 1985), and other taxa recommended for addition to the Federal Candidate list.

### Federal Status Categories:

- 1 U.S. Fish & Wildlife Service has sufficient data to support listing as endangered or threatened.
- 2 Listing as endangered or threatened is possibly appropriate, but U.S. Fish & Wildlife Service lacks sufficient data to support such action.
- 3 Former candidate taxa (subcategories as indicated)
  - 3a Taxon is believed to be extinct
  - 3b Taxonomic status is in question
  - 3c Taxon is more widespread or abundant than previously believed, or is not subject to identifiable threats.

## IDAHO NATIVE PLANT SOCIETY CRITERIA

State Priority 1 A taxon in danger of becoming extinct or extirpated from Idaho in the foreseeable future if identifiable factors contributing to its decline continue to operate; these are taxa whose populations are present only at critically low levels or whose habitats have been degraded or depleted to a significant degree.

State Priority 2 A taxon likely to be classified as Priority 1 within the foreseeable future in Idaho, if factors contributing to its population decline or habitat degradation or loss continue.

Sensitive A taxon with small populations or localized distributions within Idaho that presently does not meet the criteria for classification as Priority 1 or 2, but whose populations and habitats may be jeopardized if current land use practices continue.

Monitor Taxa that are common within a limited range as well as those taxa which are uncommon, but have no identifiable threats (for example, certain alpine taxa).

Review Taxa which may be of conservation concern, but for which we have insufficient data upon which to base a recommendation regarding their appropriate classification.

\* preceding a taxon name indicates a recommendation for a change in status made during the 1989 meeting.

# preceding a taxon name indicates that we have no or only one slide.



## FEDERAL CANDIDATE TAXA

Name (Federal status,Listing priority)

ALLIUM AASEAE (1,5)  
ANTENNARIA ARCUATA (2,5)  
#ASTER JESSICAE (2,5)  
\*ASTRAGALUS AMBLYTROPIS (N->State Sensitive)  
ASTRAGALUS ANSERINUS (2,11)  
#ASTRAGALUS AQUILONIUS (2,8)  
#ASTRAGALUS ATRATUS VAR. INSEPTUS (2,6)  
\*ASTRAGALUS CAMPTOPUS (3c->State Monitor)  
\*ASTRAGALUS MULFORDIAE (2,11)  
\*ASTRAGALUS ONICIFORMIS (3c->State Monitor)  
ASTRAGALUS STERILIS (2,5)  
ASTRAGALUS VEXILLIFLEXUS VAR. NUBILUS (2,6)  
ASTRAGALUS YODER-WILLIAMSII (2,8)  
\*CALAMAGROSTIS TWEEDYI (2->3c;to State Priority 2)  
CALOCHORTUS NITIDUS (1,5)  
#CAREX ABORIGINUM (2\*,2)  
CASTILLEJA CHRISTII (1,5)  
#CHRYSOTHAMNUS PARRYI SSP. MONTANUS (2,9)  
\*CLAYTONIA LANCEOLATA VAR. FLAVA (2,3->9)  
\*CYMPTERUS DAVISII (N->2,8)  
#CYMPTERUS DOUGLASSII (2,11)  
DOUGLASIA IDAHOENSIS (2,5)  
DRABA TRICHOCARPA (1,11)  
ERIGERON LATUS (2,8)  
\*ERIGERON SALMONENSIS (N->2,2)  
\*ERYTHRIONUM GRANDIFLORUM VAR. NUDIPETALUM (N->2,3)  
#GRINDELIA HOWELLII (2,8)  
\*HALIMOLOBOS PERPLEXA VAR. PERPLEXA (2->3c;to State Monitor)  
#\*HAPLOPAPPUS INSECTICRURIS (2->1,8)  
HAPLOPAPPUS LIATRIFORMIS (2,5)  
\*HAPLOPAPPUS RADIATUS (2,8->3b)  
\*HOWELLIA AQUATILIS (1,1)  
\*LEPIDIUM DAVISII (2,5->11)  
LEPTODACTYLON GLABRUM (2,11)  
\*LEPTODACTYLON PUNGENS SSP. HAZELIAE (3c->2,6)  
\*LOMATIUM ROLLINSII (2,8->3c;to State Monitor)  
#LUPINUS CUSICKII (2,?)  
#\*MACHAERANTHERA LAETEVIRENS (2,2->5)  
\*MENTZELIA MOLLIS (2,5->2)  
MIMULUS CLIVICOLA (2,2)  
#MIMULUS PATULUS (2,5)  
MIRABILIS MACFARLANEI (LE,N/A)  
OENOTHERA PSAMMOPHILA (2,5)  
#\*ORYZOPSIS SWALLENII (3C->State Monitor)  
#\*OXYTROPIS BESSEYI VAR. SALMONENSIS (N->State Monitor)  
#\*PENSTEMON IDAHOENSIS (N->2,2)  
#\*PENSTEMON LEMHIENSIS (2,5->8)  
#PHACELIA INCONSPICUA (2,2)  
#PHLOX IDAHONIS (1,5)  
PHYSARIA DIDYMOCARPA VAR. LYRATA (2,6)  
\*PRIMULA ALCALINA (2->1,2->5)  
PRIMULA WILCOXIANA (3b)  
SAXIFRAGA BRYOPHORA VAR. TOBIASIAE (N->2,5)  
SILENE SPALDINGII (2,5)  
\*TAUSCHIA TENUISSIMA (3c->2,8)  
\*THELYPODIUM REPANDUM (1->2,2->5)  
\*THLASPI AILEENIAE (N->State Monitor)  
\*TOFIELDIA GLUTINOSA VAR. ABSONA (3b->2,3)  
TRIFOLIUM OWYHEENSE (2,5)

## IDAHO STATE PRIORITY 1 TAXA

#ANDROMEDA POLIFOLIA  
#\*ASTRAGALUS GILVIFLORUS  
#ASTRAGALUS LEPTALEUS  
#ASTRAGALUS RIPARIUS  
#BACOPA ROTUNDIFOLIA  
#\*BLEPHARIDACHNE KINGII  
#\*CAREX CHORDORHIZA  
#\*CAREX COMOSA  
#\*CAREX LIVIDA  
CEANOOTHUS PROSTRATUS  
CHAENACTIS CUSICKII  
\*CLEOMELLA PLOCASPERMA  
\*CORNUS NUTTALLII  
CYPRIPEDIUM CALCEOLUS SSP. PARVIFLORUM  
\*DODECATHEON HENDERSONII  
\*ERIOGONUM DESERTORUM  
ERIOGONUM MELEDONUM  
ERIOGONUM SHOCKLEYI VAR. NOVUM (PACKARDIAE)  
#GLYPTOPLEURA MARGINATA  
#LEPIDIUM MONTANUM VAR. PAPILLIFERUM  
LYCOPODIUM INUNDATUM  
#MAIANTHEMUM DILANTATUM  
#MIMULUS RINGENS  
#\*OXALIS TRILLIFOLIA  
#PAPAVER KLUANENSE (=P. LAPPONICUM)  
#\*PETERIA THOMPSONAE (3c)  
#\*PHACELIA MINUTISSIMA  
#\*PITYROGRAMMA TRIANGULARIS  
#\*PRENANTHES ALATA  
#PSORALEA PHYSODES  
#RIBES HOWELLII  
#RIBES SANGUINEUM  
#TEUCRIUM CANADENSE VAR. OCCIDENTALE  
#\*TOFIELDIA GLUTINOSA VAR. BREVISTYLA

## IDAHO STATE PRIORITY 2 TAXA

ALLIUM ANCEPS  
#ALLOTROPA VIRGATA  
ASTRAGALUS TETRAPTERUS  
#BLECHNUM SPICANT  
\*BOUTELOUA GRACILIS  
\*CALAMAGROSTIS TWEEDYI (3c)  
CALOCHORTUS MACROCARPUS VAR. MACULOSUS  
\*CAREX PAUPERCUA  
#CREPIS BAKERI SSP. IDAHOENSIS  
DIMERESIA HOWELLII  
#EBUROPHYTON AUSTINIAE  
EPIPACTIS GIGANTEA  
#FESTUCA SUBULIFLORA  
#GAULTHERIA HISPIDULA  
#\*GILIA POLYCLADON  
#HYDROPHYLLUM OCCIDENTALE VAR. WATSONII  
#HYPERICUM MAJUS  
#\*LOMATOGONIUM ROTATUM  
#LYCHNIS APETALA VAR. MONTANA  
#\*PENSTEMON JANISHIAE  
#PERAPHYLLUM RAMOSISSIMUM  
#\*RHYNCHOSPORA ALBA  
#SALIX FARRIAE  
#SCIRPUS CYPERINUS  
#\*THELYPODIUM LACINIATUM VAR. STREPIANTHOIDES  
#THELYPTERIS NEVADENSIS  
VACCINIUM OXYCOCCOS  
\*VIOLA SEMPERVIRENS



IDAHO STATE SENSITIVE PLANT TAXA

#ADIANTUM PEDATUM VAR. NOVUM  
#AGOSERIS LACKSCHEWITZII  
#ALLIUM MADIDUM (3c)  
#ALLIUM VALIDUM  
\*ASTRAGALUS AMBLYTROPIS  
ASTRAGALUS AMNIS-AMISSI (3c)  
ASTRAGALUS ATRATUS VAR. OWYHEENSIS  
ASTRAGALUS KENTROPHYTA VAR. JESSIAE  
#\*ASTRAGALUS PAYSONII (3c)  
#\*ASTRAGALUS PURSHII VAR. OPHIOGENES  
ASTRAGALUS SCAPHOIDES  
ASTRAGALUS VALLARIS  
#\*BETULA PUMILA  
CAMASSIA CUSICKII (3c)  
#\*CAMISSONIA PALMERI  
CAMISSONIA PTEROSPERMA  
#CAMPANULA SCABRELLA  
#CARDAMINE CONSTANCEI (3c)  
#\*CAREX BREWERI SSP. PADDOENSIS  
#CAREX BUXBAUMII  
#CAREX FLAVA  
#CAREX HENDERSONII  
#CASTILLEJA ORESBIA (3c)  
#\*CICUTA BULBIFERA  
COLLOMIA DEBILIS VAR. CAMPORUM  
#CORYPHANTHA MISSOURIENSIS  
CORYPHANTHA VIVIPARA  
#CRYPTANTHA BREVIFLORA (3c)  
#CRYPTANTHA SIMULANS  
#CYMPTERUS ACAULIS VAR. GREELEYORUM  
#CYMPTERUS IBAPENSIS (3c)  
CYPRIPEDIUM FASCICULATUM (3c)  
DASYNOTUS DAUBENMIREI (3c)  
DODECATHEON DENTATUM  
#\*DRABA DAVIESIAE (3c)  
#\*DRYOPTERIS CRISTATA  
#ERIOGONUM SHOCKLEYI VAR. SHOCKLEYI  
HACKELIA OPHIOBIA (3c)  
#\*HULSEA NANA  
#\*JUNCUS HALLII  
LESQUERELLA KINGII VAR. COBRENSIS  
#LESQUERELLA PAYSONII  
#LOMATIUM DISSECTUM VAR. DISSECTUM  
#LUPINUS UNCIALIS  
#LYCOPODIUM SITCHENSE  
#MALACOTHRIX GLABRATA  
\*MENTZELIA TORREYI VAR. ACEROSA  
#OXYTHECA DENDROIDEA  
PEDIOCACTUS SIMPSONII VAR. ROBUSTIOR  
PHACELIA LUTEA VAR. CALVA  
#PHACELIA LYALLII  
#POLYPODIUM GLYCYRRHIZA  
#\*POLYSTICHUM KRUCKEBERGII (3c)  
#\*RIBES WOLFII  
#\*ROMANZOFFIA SITCHENSIS  
#SALIX CANDIDA  
#\*SALIX PEDICELLARIS  
#SANICULA GRAVEOLENS  
#SANICULA MARILANDICA  
#SEDUM LANCEOLATUM VAR. RUPICOLUM  
#\*STIPA WEBBERI  
#\*TRIENTALIS ARCTICA  
#TRIFOLIUM PLUMOSUS VAR. AMPLIFOLIUM (3c)

IDAHO STATE MONITOR LIST

ALLIUM TOLMIEI VAR. PERSIMILE (3c)  
#\*ALLIUM TOLMIEI VAR. PLATYPHYLLUM  
#ARNICA ALPINA VAR. TOMENTOSA  
#\*ARTEMISIA PACKARDIAE  
ARTEMISIA PAPPOSA (3c)  
#\*ASTRAGALUS CAMPTOPUS (3c)  
ASTRAGALUS CERAMICUS VAR. APUS (3c)  
#\*ASTRAGALUS JEJUNUS  
#\*ASTRAGALUS ONICIFORMIS (3c)  
ASTRAGALUS SPATULATUS  
#CASTILLEJA PULCHELLA  
#\*CHRYSOTHAMNUS NAUSEOSUS SSP. NANUS  
#COLLOMIA HETEROPHYLLA  
CORYDALIS CASEANA VAR. HASTATA (3c)  
#DRABA ARGYRAEA (3c)  
#EATONELLA NIVEA  
ELAEAGNUS COMMUTATA  
ERIGERON HUMILIS  
#ERIGERON RADICATUS  
GENTIANA PROPINQUA  
#GENTIANA TENELLA  
\*GYMNOSTERIS NUDICAULIS  
#HACKELIA DAVISII (3c)  
#HALIMOLOBOS PERPLEXA VAR. LEMHIENSIS (3c)  
#HALIMOLOBOS PERPLEXA VAR. PERPLEXA (3c)  
HAPLOPAPPUS ABERRANS (3c)  
#IVESIA TWEEDYI  
\*JUNCUS EFFUSUS VAR. PACIFICUS  
\*LOMATIUM ROLLINSII (3c)  
#MACHAEROCARPUS CALIFORNICUS  
\*MALOCOTHRIX TORREYI  
#MERTENSIA BELLA  
#\*ORYZOPSIS SWALLENII (3c)  
#\*OXYTROPIS BESSEYI VAR. SALMONENSIS  
PARNASSIA KOTZEBUEI VAR. KOTZEBUEI  
#PETASITES SAGITTATUS  
RUBUS BARTONIANUS (3c)  
#\*SALICORNIA RUBRA  
#SALIX GLAUCA  
#SAXIFRAGA ADSCENDENS VAR. OREGONENSIS  
#\*SCUTELLARIA NANA  
#\*SEDUM BORSHII  
#\*SCHEUCHZERIA PALUSTRIS  
#SILENE SCAPOSA VAR. LOBATA  
#STYLOCLINE FILAGINEA  
#SYNTHYRIS PLATYCARPA (3c)  
TELESONIX JAMESII  
THLASPI AILEENIAE  
TRIENTALIS LATIFOLIA  
#WALDSTEINIA IDAHOENSIS (3c)



IDAHO STATE REVIEW LIST

#AGROSTIS OREGONENSIS  
#ASCLEPIAS CRYPTOCERAS  
#ASPLENIUM VIRIDE  
#\*ASTRAGALUS BECKWITHII VAR. SULCATUS  
#ASTRAGALUS BISULCATUS  
#ASTRAGALUS BOURGOVII  
#ASTRAGALUS CONJUNCTUS  
#ASTRAGALUS DRUMMONDII  
#\*ASTRAGALUS EUCOMUS  
#ASTRAGALUS MICROCYSTIS  
#ASTRAGALUS NEWBERRYI VAR. NEWBERRYI  
#\*ASTRAGALUS PLATYTOPIS  
#ASTRAGALUS SALMONIS  
#\*BOTRYCHIUM ASCENDENS  
#\*BOTRYCHIUM BLUNARIA  
#\*BOTRYCHIUM CRENULATUM (C2)  
\*BOTRYCHIUM LANCEOLATUM  
#BOTRYCHIUM MINGANENSE  
#\*BOTRYCHIUM MONTANUM  
#\*BOTRYCHIUM PEDUNCULOSUM  
#\*BOTRYCHIUM PINNATUM  
#BOTRYCHIUM SIMPLEX  
#CALANDRINIA CILIATA  
#CAREX AENEA  
#CAREX ANGUSTATA  
#CAREX CALIFORNICA  
#CAREX LENTICULARIS VAR. IMPRESSA  
#CAREX LENTICULARIS VAR. LENTICULARIS  
#\*CAREX LEPTALEA  
#CAREX IDAHOA (3c)  
#CAREX SHELDONII  
#CAREX STRAMINIFORMIS  
#CAREX TUMULICOLA  
#CASTILLEJA ANGUSTIFOLIA VAR. FLAVESCENS  
#CHRYSOTHAMNUS ALBIDUS  
#CHRYSOTHAMNUS NAUSEOSUS SSP. GRAVEOLENS  
#CHRYSOTHAMNUS NAUSEOSUS SSP. NAUSEOSUS  
#CRYPTANTHA PROPRIA  
#CRYPTOGRAMMA STELLERI  
#CUSCUTA DENTICULATA  
#CYMOPTERUS CORRUGATUS (3C)  
#CYPERUS RIVULARIS  
#\*DRABA FLADNIZENSIS  
#\*DRABA MAGUIREI  
#\*EPILOBIUM PALUSTRE  
#ERIOGONUM BREVICAULE VAR. ?  
#ERIOGONUM DOUGLASII VAR. DOUGLASII  
#ERIOGONUM SALICORNIODES  
#\*ERIOPHORUM VIRIDICARINATUM  
#FRASERA ALBICAULIS VAR. IDAHOENSIS (3C)  
#GYMNOSTERIS PARVULA  
#HABENARIA OBTUSATA  
#HAPLOPAPPUS BLOOMERI  
#HAPLOPAPPUS HIRTUS VAR. SONCHIFOLIUS  
#HAPLOPAPPUS INTEGRIFOLIUS SSP. INTEGRIFOLIUS  
#HAPLOPAPPUS RACEMOSUS VAR. GLOMERELLUS  
#HAPLOPAPPUS RESINOSUS  
#HAPLOPAPPUS SPINULOSUS VAR. SPINULOSUS  
#HAPLOPAPPUS UNIFLORUS SSP. HOWELLI  
#HYMENOXYIS RICHARDSONII  
#JUNCUS KELLOGGII  
#LEWISIA KELLOGGII  
#LOBELIA KALMII  
#LOMATIUM SALMONIFLORUM  
#LOTUS HUMISTRATUS

#LUDWIGIA POLYCARPA  
#LUPINUS LYALLII SSP. ALCIS-TEMPORIS  
#LUPINUS LYALLII SSP. SUBPANDENS  
#MACHAERANTHERA SHASTENSIS VAR. LATIFOLIA  
#\*MIMULUS WASHINGTONENSIS VAR. AMPLIATUS VAR. NOV.  
#MUHLENBERGIA GLOMERATA  
#MUHLENBERGIA RACEMOSA  
#NEMAELADUS RIGIDUS  
#ORYZOPSIS SP. NOVUM  
#PENSTEMON ELEGANTULUS (3C)  
#PENSTEMON LEONARDII VAR. LEONARDII  
#POTAMOGETON DIVERSIFOLIUS  
#PRIMULA INCANA  
#\*PSILOCARPHUS BREVISSIMUS VAR. BREVISSIMUS  
#PSILOCARPHUS OREGONUS  
#PSILOCARPHUS TENELLUS  
#\*RANUNCULUS PYGMAEUS  
#\*RANUNCULUS GELIDUS  
#\*RIBES VELUTINUM VAR. NOVUM  
#SAXIFRAGA CERNUA  
#\*SENECIO STREPTANTHIFOLIUS VAR. LAETIFLORUS  
#STELLARIA CALYCANTHA VAR. CALYCANTHA

#STIPA PINETORUM  
#STIPA VIRIDULA  
#THALICTRUM DASYCARPUM  
#TOWNSENDIA SCAPIGERA  
#TRIFOLIUM MICRODON  
#TRIFOLIUM MULTIPEDUNCULATUM

TAXA POSSIBLY EXTIRPATED FROM IDAHO

#ASPLENIUM TRICHOMANES  
#KOBRESIA SIMPLICIUSCULA  
#LEDUM GROENLANDICUM  
#NYMPHAEA TETRAGONA  
#RHINANTHUS CRISTA-GALLI  
RUBUS SPECTABILIS  
#SOLIDAGO SPECTABILIS  
#STREPTOPUS STREPTOPOIDES VAR. BREVIPES  
#VIBURNUM OPULUS VAR. AMERICANUM

TAXA DROPPED FROM CONSIDERATION IN IDAHO

\*ACHILLEA MILLEFOLIUM VAR. CALIFORNICUM (does not occur)  
\*ANTENNARIA ACUTA (=A. ALPINA VAR. MEDIA)  
\*CAREX LIMOSA (common, no threat)  
\*CAREX SITCHENSIS (=C. AQUATILIS in part)  
\*CHRYSOTHAMNUS PARRYI SSP. SALMONENSIS (common, no threat)  
\*ERIOGONUM OCHROCEPHALUM VAR. NOVUM (SCEPTUM) (does not occur)  
\*GALIUM MULTIFLORUM VAR. SUBALPINUM (common, no threat)  
\*VERATRUM CALIFORNICUM VAR. CAUDATUM (common, no threat)



Space is available for your personal or commercial advertising. Ads of a botanical nature should be submitted with payment to our INPS address or directly to the newsletter editor. Per issue rates are: Personal ads (up to 30 words) are \$2.00; Commercial advertisements—1/8 page is \$5.00, 1/4 page is \$8.00, 1/2 page is \$15.00 and full page is \$25.00.

*verticillatum*, which add to the floristic uniqueness of the area. Recent studies in this area have discovered several new species for Idaho such as *Dryopteris arguta* and *Thelypteris nevadensis*, and it is quite possible that observant INPS members could find still more .

## NATIVE PLANTS WANTED

The Aberdeen Plant Material Center, operated by the Soil Conservation Service, is beginning a project to select and develop an improved variety of Sandberg bluegrass, *Poa secunda*. They need native collections from as many ecotypes as possible from the Inter-mountain and northwest regions. They are also interested in Sandberg's closest relatives including Canby bluegrass, *Poa canbyi*; Nevada bluegrass, *Poa nevadensis*; and big bluegrass, *Poa ampla*. They want to select a high performance accession for the 8-13 inch precipitation zone for range seedings, revegetation, firebreaks, weed suppression, land retirement, erosion control, and possibly low maintenance ground cover for landscaping. It would normally be seeded in mixtures as an understory grass. For information, contact Bonnie



## NORTHPLAN/MOUNTAIN SEED

P.O. Box 9107, Moscow, ID  
(208)882-8040 or  
Route 1, Eagle, ID 83616  
(208)939-7704

Since 1974, NORTHPLAN has been supplying seed for disturbed land restoration, i.e., erosion control, mined-land reclamation, range revegetation, transmission right-of-way, test drilling, pipelines, as well as landscaping for highways, homes and ranches.

Send a large, self-addressed, stamped envelope for: THE NATIVE SPECIES SEED LIST of wildflowers, shrubs and trees.

Pond, SCS, State Office, Boise, ID (208-334-1610). Send collections to Aberdeen PMC, Experiment Station, P.O. Box AA, Aberdeen, ID 83210.

## INPS T-SHIRTS FOR SALE

The society has T-shirts with Idaho's only federally listed rare plant, the Macfarlane's Four-o'clock (*Mirabilis macfarlanei*) represented on the front. These are available in 4 colors (aqua, tropical pink, cream, ice green) and medium, large and extra-large sizes. Cost per shirt is \$9.00. To order one through the mail, add \$2.00 to cover postage. Give size and 1st, 2nd, and 3rd color preferences. Contact Ann DeBolt (384-1244) or use our regular INPS address.

## CLASSIFIED ADS

**WANTED:** True-to-name seed of yampa root (*Periderida gairdneri* or *Carum gairdneri*) Packet to ounce. Top prices paid. Contact: Singh, 2140 Shattuck Ave., Drawer 2479, Berkeley, CA 94704.

**WANTED:** *Paeonia brownii* seeds or plants. Please contact E. Halas, P.O. Box 2682, Detroit, Michigan, 48231.

**FREE CACTUS:** Red-flowered, Idaho prickly pear. Come and get it. Call Joe at 375-8740.

## INPS STATE OFFICER NOMINATIONS

	Name	Phone Number
President	1. _____	_____
	2. _____	_____
Vice Pres.	1. _____	_____
	2. _____	_____
Secretary	1. _____	_____
	2. _____	_____
Treasurer	1. _____	_____
	2. _____	_____

Mail to: INPS OFFICER NOMINATIONS, P.O. Box 9451, Boise, ID 83707

## VOLUNTEERS NEEDED AT IBG

As the Idaho Botanical Garden goes into its fifth year, its growth and community support has been phenomenal. Most of the work have been done through contributions and volunteer efforts. A new brochure with a volunteer interest form outlines the many areas in which volunteer work is desired. These include both indoor and outdoor jobs. Preparations are now under way for the Spring Garden Tour on May 21. Contact Jan Veatch, Director of Volunteers, at the Idaho Botanical Gardens on Old Penitentiary Road, Boise at 343-8649.



## WELCOME TO NEW MEMBERS

Rosemary Young, Portola Valley, CA  
James & Dorothy Borland, Denver, CO

Dave Burrup, Bonnie Miera, both from  
Aberdeen, ID

Carol Delaney, Joan Fauci, Garry Tanner,  
Lelace Gregory, Kristin Meyer,  
Karen Pratt, Nancy Sopwith, Warner  
and Grace Terrell, and Donald Wells, all  
from Boise, ID

Elsa & James Humble, Chubbuck, ID

Rolf Jorgensen, Coeur d'Alene, ID

Lucy Perrine, Gooding, ID

Richard & Sandra Knighton, Idaho  
Falls, ID

Rosemary Kobus, Meridian, ID

Janice Schaefer, Lewiston, ID

Kristin Fletcher, Bill McDorman and  
Ralph Naser, all from Ketchum, ID

Ray Boyd, Janet Campbell, Lynn  
Cantrell, Jayne Cronk, Dennis and Judy  
Ferguson, Ray and Bettie Hoff, Stuart  
Markow, Selma and Eric Nielson, Doug  
Niskek, Laura Niskek, Carolyn Putnam,  
Edwin Tisdale and Hanako Yamane, all  
from Moscow, ID

Pamela Fortner, Mountain Home, ID

Joan Bergstrom, Jay Anderson, Harry  
and Susan Giesbrecht, La Rue Greger-  
sen, Geoff Hogander, Von, Sharon &  
Matthew Michaelson, Ruth Moorehead,  
Nancy Nation, Todd and Kellie Wetty,  
all from Pocatello, ID

Marie Rounsevel, Potlatch, ID

Clyde & Hyrtha Miller, and Jim & Jane  
Thornes, all from St. Maries, ID

BLM District, Shoshone, ID

Tom Gorman and Lee Ann Eareckson,  
both from Viola, ID

James Cecil, Salt Lake City, UT

## WELCOME TO NEW CHAPTERS

See article on page 1.

## NOTES ON CONTRIBUTORS

Nancy Cole is an ecologist recently  
employed with the Idaho Power Co. in  
Boise.

Ann DeBolt is a botanist for the  
Bureau of Land Management, Boise  
District.

Susan Bernatas is Natural Areas  
Ecologist for the Nature Conservancy in  
Idaho.

Joe F. Duft is a retired forester,  
amateur botanist and long time member  
of INPS.

Carol Prentice is a graduate botanist  
and housewife who finds time to work on  
*Allium aseae* studies.

Bob Steele is a research forester with  
the Intermountain Forest and Range Ex-  
periment Station in Boise.

## ABOUT OUR SOCIETY

**OFFICERS:** President--Carol Pren-  
tice (362-9029), Vice President--  
Wilma Gluch (343-3026), Secretary--  
Ann DeBolt (334-9291), Treasurer--  
Kathy Geier-Hayes (334-1457), Board-  
Chr-- Roger Rosentreter (334-1927).

**TECHNICAL COMMITTEE:** Dotty  
Douglas, Pat Packard, Bob Parenti, Bob  
Steele and Bob Moseley.

**LAY REPRESENTATIVES** Mary  
Clark and Agnes Miller.

**Idaho Native Plant Society**  
**P. O. Box 9451**  
**Boise, Idaho 83707**

**NEWSLETTER STAFF:** Newsletter  
Editor--Kathy Geier-Hayes, Technical  
Editor--Bob Steele, Publishing Editor--  
Joe Duft and Circulation Manager--  
Mering Hurd.

**MEMBERSHIP** in the Society is  
open to all interested in our native flora.  
Regular dues are \$8.00 per year, \$6.00  
for students and senior citizens on an  
anniversary month basis, that is, from the  
time you join. Contributions to our  
Society, a non-profit organization, are  
tax deductible. Send dues and all cor-  
respondence to I.N.P.S., Box 9451,  
Boise, ID 83707.

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the State of Idaho. A red dot beside your  
due date on the mailing label indicates  
that your membership has expired. You  
will receive only two newsletters after  
this date.

**MATERIALS FOR PUBLICATION:**  
Members and others are invited to sub-  
mit material for publication in Sage  
Notes. Text should be in typed form or  
if possible on 5 1/4 inch floppy discs for  
an IBM computer in WordStar, Word-  
Perfect, Multimate or ascii file format.  
Illustrations and even good quality  
photos may be reduced and incor-  
porated into the newsletter. Provide a  
phone number in case the editors have  
questions on your materials. Send these  
to our regular INPS address or directly  
to the newsletter editor.

**Due date for material for the next  
newsletter is June 20, 1989.**

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# Sage Notes

THE IDAHO NATIVE PLANT SOCIETY NEWSLETTER  
SAGE NOTES VOL.12, #4 JULY,AUGUST 1989 PAGE 1



Syringa

## INPS FOUNDER RETIRES

by Billie Ann Farley

Dr. Patricia L. Packard retired this spring after 30 years of dedicated service at the College of Idaho as Professor of Biology and curator of the Harold M. Tucker Herbarium. Her life-long research has focused on the evolutionary ecology of the Owyhee uplift and adjacent Snake River Plain flora of the Owyhee Desert Section. Although she will no longer be on the faculty at the C of I, Dr. Packard will continue in her position as curator of the herbarium and will continue to work on her research.

Dr. Packard came to C of I as an undergraduate student in 1945. She received her B.S. in Biology in 1949 and then began work on her Masters of Science degree at Oregon State University. Her Masters thesis was a winter key to trees and shrubs of northwestern Oregon which later was incorporated in a (Continued on page 8)

## AQUARIUS PROPOSED RESEARCH NATURAL AREA FIELD TRIP

by Christine Lorain

"Welcome to THE MOST UNIQUE area in the northern Rocky Mountains". This was the greeting Chuck Wellner gave the group present at the Aquarius proposed Research Natural Area (pRNA) field trip held on June 10th and 11th. This was the second monthly field trip held by the newly-formed White Pine Chapter of the Idaho Native Plant Society. The trip was led by Chuck Wellner, a long-standing leader in Research Natural Area work throughout Idaho.

The Aquarius pRNA is a 3600 acre area located along the lovely North Fork Clearwater River some 50 miles northeast of Orofino. Considerable interest and controversy has surrounded this pRNA as was evidenced by the large turnout of 54 people. Individuals from the Forest Service, concerned citizens, and INPS members from both the White Pine and Pahove chapters were present.

So, why is this area considered by many botanists and ecologists to be so unique? (Continued on page 6)

## INPS STATE ELECTIONS

Nominees for state offices are now announced. The nominees are Susan Bernatas for President, Bruce Rittenhouse and Nancy Cole for Vice President, Pam Brunsfeld for Secretary, and Kathy Geier-Hayes for Treasurer. Nominee biographies are located on page 5 along with a ballot. **Please return your ballot to the INPS address before August 20th.** Officers will be announced in the next newsletter and will take office in September 1, 1989.

## CHANGE IN MEMBERSHIP YEAR

In accordance with the new INPS state bylaws passed in February of this year, the dues year for membership will change from an anniversary date (month joined) to a calendar year starting January 1, 1990. If the dues are unpaid by April 1, the membership will lapse. New members who join before June 1 will pay for a full year; members joining on or after June 1 will pay for one-half year.

In order to change everyone's membership over to the new (Continued on page 6)

## INPS CALENDAR

### PAHOVE CHAPTER

July 15: Joe Duft will lead an Alpine Meadows walk into the spectacular Railroad Ridge area of the White Clouds in conjunction with the Wood River Group. Meet at the Stanley Ranger Station at 9:30 a.m. Contact Joe at 376-8740 for more details.

August 12: Field trip to Snowbank Mountain near Cascade. This is an outstanding area for mountain wildflowers. RSVP trip coordinator Willie Gluch at 343-3026.

### SOUTHEASTERN IDAHO CHAPTER

August 5: Jensen Creek-Palisades area. Observe subalpine meadow wildflowers. Meet at ISU biology parking lot at 7:00 am. Contact: Dr. Karl Holte (233-3079).

### WHITE PINE CHAPTER

July 22: Field trip to BLM Lund Creek RNA which contains Pinchot meadows, an extensive area of wet sedge meadows, stands of old growth mountain hemlock, and south slope balds covered with beargrass. On the way there, visitors will follow an upper elevation ridge of superb scenery where much of northern Idaho mountain country can be viewed. Meet at 9:00 a.m. in Clarkia at the

school with a lunch. Contact Selma Nielsen (885-7059) for details.

September 16: Potluck and nature walk, Kamiak Butte State Park, Whitman Co., WA from 1-6 p.m.

## OTHER EVENTS

July 15: Field trip lead by Joe Duft to Railroad Ridge. See Pahove Calendar for July 15th.

August 5: Museum of Natural History monthly workday at the College of Idaho. Contact Bill Clark (375-8605) or Eric Yensen (459-5331) for more details.

August 12: Ken Britton, professional forest manager with the Sawtooth National Recreation Area will lead a field trip into the Alturas Lake area to discuss "Wildfire in the Sawtooth Forests". Meet at the SNRA, 8 miles north of Ketchum, at 10:00 a.m. Contact Gail Sheehan (788-2787) or Kristin Fletcher (788-9530) for more details.

August 13-September 2: Natural Science Illustration Course offered by the Malheur Field Station and taught by Linda Vorobik. The course is designed for the beginner as well as experienced artist. Linda will teach field

illustration as well as marketing techniques. Contact Lucile Housley, Malheur Field Station, HC 72 Box 260, Princeton, OR 97721 or (503)493-2629 for more details.

September 6-9: Wildflowers for Wyoming presents Wildflowers, a Lasting Legacy. Cheyenne, Wyoming. Contact: Wildflowers, P.O. Box 1003, Cheyenne, WY 82003 (307-634-8816).

## INPS ACTIVITIES

### PAHOVE CHAPTER MAY MEETING

The last meeting of the spring for the Pahove Chapter was held on May 18. At that time, new officers were elected. The officers are Carol Prentice, President; Joe Duft, Vice President; Wilma Gluch, Secretary; and Kathy Geier-Hayes, Treasurer. Carol Prentice presented awards to Mary Clark, Joe Duft, Lynda Smithman, Carolyn Sherman, Kathy Geier-Hayes, Wilma Gluch, and Mary McGown for all their hard work during the last year.

The program included a discussion lead by Carolyn Sherman about Sister Alfreda Eisensohn, an early botanist from Grangeville. Sister Alfreda, who died April 12th of this year, wrote several books including Flora of Camas Prairie, Pioneer Days

in Idaho County, Idaho Chinese Lore, and Polly Bemis.

A second presentation was conducted by Barbara Nelson, who showed many examples of basket weaving using local materials. Barbara explained the various techniques and materials used in basket weaving while handing around examples. Most attending were surprised how many local plants can be used to make so many useful and beautiful items.

Lastly, Jerry Schulton showed a film titled "When the Pot Boiled Over" about the flooding of Boise's northeast end when Cottonwood Creek overflowed. The film described the flood damage and subsequent mitigations on the Cottonwood Creek watershed. The contour terraces erected as part of the watershed rehabilitation are still evident on the hills northeast of Boise.

#### WHITE PINE CHAPTER

At the Aquarius field trip June 10-11, northern Idaho INPS members voted overwhelmingly to name their chapter "White Pine". Loring Jones' bylaw committee reported general acceptance of the present INPS bylaws, altered for Chapter definition and other minor chapter needs. Loring and Dick Bingham will be together to make necessary revisions.

### IDAHO'S MCCROSKEY MEMORIAL STATE PARK PRESERVE

by Loring Jones and Dick Bingham

Some 29 White Pine Chapter members and guests toured about 15 miles of road in McCroskey State Park Saturday, May 20. Led by Steve Brunfeldt, Ray Boyd, and Loring Jones, more than 100 flowering trees, shrubs, and herbs were seen, along with breath-taking views of the Idaho-Washington border Palouse country.

Land for the 4,400 acre forest preserve was purchased by Virgil Talmadge McCroskey over a period of sixteen years from 1939 to 1955. The various parcels involved in this acreage straddle the county line between Benewah and Latah Counties in Idaho. A twenty five mile gravel road traverses the area and is known locally as Skyline Drive.

McCroskey, a bachelor pharmacist from Colfax, Washington, and a graduate of Washington State University, had successfully acquired land to establish Steptoe Butte State Park in Whitman County, Washington. He deeded two separate parcels to the State of Washington in 1945 and 1946 for use as a park for all people to enjoy in perpetuity. From this "island

in the sky", Steptoe, Virgil could look across to the existing timbered wildland stretching along the county line in Idaho.

McCroskey had a fondness for wildflowers and a passion for trees. He was influenced by conservation and state parks movements. He saw the value in undisturbed areas for the provision of rest and relief from modern day turmoils. As he had given land to his homestead state of Washington, he wanted to do the same for people in Idaho.

This gift, which was finally accepted by the Idaho legislature in 1955, was named to honor his mother, Mary Minerva McCroskey, and other pioneer women of the Palouse. What better choice of location for the May 20th inaugural field trip of INPS's northern White Pine Chapter? (If you would like more information, see "Virgil T. McCroskey, Giver of Mountains", by Mary E. Reed and Keith Petersen. Department of History, Washington State University, 1983.)



## ALPINE WILDFLOWERS OF THE ROCKY MOUNTAINS

This is the title of a new field guide written by INPS members Joe Duft and Bob Moseley. It is being published by Mountain Press Publishing Company in Missoula, MT and is due for release in July 1989. The 200-page paperback guide will cost \$9.95.

The guide includes color photographs and detailed descriptions for 300 flowering plants, timberline trees and ferns occurring in the Rocky Mountain alpine, with another 100 similar species referenced in the write-ups. Most of the 400 species treated in the guide are widespread and will be commonly encountered on an alpine hike. The primary area of coverage for the guide is the Rocky Mountain crest from the Canadian border to northern New Mexico. The distribution of many Rocky Mountain alpine species extends westward into high mountain ranges of the great basin to eastern Oregon, Nevada, and Arizona. The guide provides very good coverage of central Idaho alpenes.

Many alpine plants have circumboreal or circumpolar distributions, thus the usefulness of the guide is extended to other areas of Northern America and

Eurasia. The guide should also be of interest to rock gardeners. Since most alpine plants are compact and have relatively large, showy flowers, many species have been sought after and successfully cultivated in low elevation gardens. Numerous rock garden clubs and societies have been organized around the world.

Preparation of *Alpine Wildflowers of the Rocky Mountains* required about two years, however, the photographs presented in the guide were taken over the past 15 years. Both authors have spent many days hiking and researching the alpine regions. The authors shot about 95 percent of the photographs for the guide in numerous alpine areas from Glacier National Park and central Idaho south to Pike's Peak and the San Juan Mountains of Colorado.

## LETTERS TO INPS

This letter was written by Thomas Rhode, Planning Staff Officer of the Clearwater National Forest to Susan Bernatas and the INPS.

I would like to express my thanks to your Society and especially Chuck Wellner for being invited to attend your meeting/field trip to Aquarius this weekend. We appreciate the opportunity to gain an

understanding of your group and meet your membership.

Hopefully, the discussion of the Dworshak connection road was valuable to you. Please understand a decision has not yet been made and it is one we are struggling to make. We want to make sure we have all the pertinent information prior to selecting any alternative. As was indicated in our discussion one area we still need a better understanding of is the value of the RNA. I urge you to help us better understand these values and encourage you to work with the District Ranger in ensuring these values are dealt with in the analysis.

Once again thanks for coming to the Clearwater, we enjoyed it and you certainly have a standing invitation to come back any time.



**NOMINEES FOR STATE OFFICES**

**President--Susan Bernatas**

Susan is Public Lands Coordinator/Natural Areas Ecologist for The Nature Conservancy. A INPS member for two years, Susan acted as co-chair for the membership committee, organized and collected slides for a slide show for the annual rare plant meeting, and is chair of the Acting Board of Directors. She became involved in the INPS because of her interest in rare plants and in growing native plants from seed.

**Bruce Rittenhouse**

Bruce is currently a Master's student at Idaho State University working on the biology of the state sensitive Challis milkvetch (*Astragalus amblytopis*). He received an

undergraduate degree from Oregon State University in Botany. His career goals are to work for some organization concerned with the conservation of Threatened and Endangered species since he is very interested in threatened and endangered species.

Bruce helped organize the newly formed Southeastern Idaho Chapter and was elected Chapter President. He is very interested in the INPS and the many positive things it does concerning our native flora. He also enjoys meeting the interesting people associated with INPS.

**Vice President--Nancy Cole**

Nancy has been a member of INPS since 1987. She is employed by the Idaho Power Company in Boise as a plant ecologist/botanist. An active member, Nancy served

on the membership committee as co-chair and worked with the Ketchum-Hailey residents to establish a native plant group in 1989. She earned both B.S. and M.S. degrees in Botany from Idaho State University.

**Secretary--Pam Brunsfeld**

Pam is a Botanist on child-rearing leave (Courtney 8, John 6, Nicholas 1). Before she had children, she worked for the Forest Service on Threatened and Endangered plant surveys, and help her husband Steve with field work for *Willows of East-Central Idaho* and *Alpine Flora of East-Central Idaho*.

Recently, she has been active as a Brownie leader, has helped at her children's school with science-related projects, and is secretary of the White Pine Chapter of INPS.

**Treasurer--Kathy Geier-Hayes**

Kathy is a forester with the Intermountain Research Station in Boise. She has been a member and treasurer of the INPS for two years, and has been newsletter editor for the past three newsletters. She is currently treasurer of the Pahove Chapter. She became interested in the INPS through her personal interest in plants and enjoys the people and activities associated with the INPS.

**INPS STATE OFFICERS BALLOT**

Nominee	Write-in
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**President:**

Susan Bernatas.....	_____	_____	.....	_____
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**Vice President:**

Bruce Rittenhouse.....	_____	_____	.....	_____
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Nancy Cole.....	_____	_____	.....	_____
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**Secretary:**

Pam Brunsfeld.....	_____	_____	.....	_____
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**Treasurer:**

Kathy Geier-Hayes.....	_____	_____	.....	_____
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Mail to INPS, PO Box 9451, Boise, ID 83707 before August 20 .

## CHANGE IN MEMBERSHIP

(Continued from page 1)

system, everyone with membership due after June 1, 1989, will receive a bill showing a balance to pay for the rest of calendar year 1989 and an option to pay for calendar year 1990 in advance. Those who elect not to pay for 1990 with that bill will receive another bill in December for 1990. Everyone who is paid up on their membership dues before June 1 will receive a prorated bill in December taking into account what month they renewed and how far into calendar year 1990 their membership is paid. For example, if your anniversary date is April and your dues is current, the amount due for 1990 will be dues for May through December.

Please bear with us during this change over. Once in place, the new system will reduce the work load of the treasurer and allow the state organization and chapters to better budget their money. During the change however, problems may arise. If you have a question or problem, contact the interim state treasurer, Kathy Geier-Hayes at the INPS address or at (208) 334-1457.

## SIX FIGURE HONOR

In its Centennial year the University of Idaho recently added the 100,000 plant to the Vascular Herbarium. Every plant is stamped and accessioned as it is added to the herbarium. To honor the University of Idaho's C.J. Stillenger Trust, the 100,000 plant was stamped by Richard C. Stillenger, son of C. J. Stillenger. The trust is to fund floristic exploration of Idaho, including lichens, mosses, fungi, as well as vascular plants. In attendance at the celebration were University of Idaho President Gibb, Art Rouke, Biological Sciences Department Head, Doug Henderson, Botany Professor and Herbarium Curator, and numerous friends of the herbarium.

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## AQUARIUS FIELD TRIP

(Continued from page 1)

Within these low-elevation, warm canyons small populations of disjunct plants and animals with Pacific coastal affinities occur. This is due to the strong prevailing westerly winds that promote an inland expression of a Pacific maritime climate consisting of mild winters and high annual precipitation.

To fully appreciate this area and its vegetation, we need to go far back in history - 25 million years in fact! At this time there was no such thing as the Cascade Mountains, and the broad low plains west of the Rocky Mountains supported a rich mesophytic forest. The climate was mild

## Idaho Native Plant Society

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with short winters and long, humid summers. By the end of the Miocene (12-25 MYA), climates and vegetation changed due to the formation of the Cascade Mountains and the outflowing of the Columbia River Basalts. A rainshadow developed in the region east of the Cascades and the more pronounced seasonal temperature fluctuations eliminated many members of the mesophytic flora. Changes continued into the Pliocene, when a drying period occurred and an eventual cooling trend that lead to the Continental Glaciation of the Pleistocene. During the Pleistocene at least 4 and possibly as many as 18 glacial advances occurred resulting in rapid climatic oscillations.

The truly remarkable thing is that during this entire time of constant and considerable change, the climate within these low-elevation canyons of the Clearwater River drainage remained relatively mild. These were the first canyons south of the glacial border and strong westerly winds off the Pacific Ocean continued to moderate this interior region's climate. In turn this allowed some of the hardier members of the old mesophytic forest to persist as isolated, relic populations. Today these canyons harbor some very old western redcedar climax forests and numerous relic, disjunct populations of the Pacific

coastal flora. The only areas east of the Cascade Mountains where Pacific dogwood (*Cornus nuttallii*), licorice fern (*Polypodium glycyrrhiza*), Henderson's sedge (*Carex hendersonii*), and Henderson's shootingstar (*Dodecatheon hendersonii*) occur in the Clearwater River drainage of northern Idaho. Some of the best populations of other coastal disjuncts, such as red alder (*Alnus rubra*) and redwood violet (*Viola sempervirens*), are also found in these canyons.

A number of endemic taxa occur in these regions as well, such as Constance's bittercress (*Cardamine constancei*), Daubenmire's dasynotus (*Dasynotus daubennirei*), western starflower (*Trientalis latifolia*), and Idaho phlox (*Phlox idahonis*). The flora of the area is also very rich in ferns -eleven different species occur on a single river bench within the pRNA. Additionally, disjunct species of moss, moss beetles, earthworms, and salamanders have been located. And, recent evidence now indicates that these isolated populations have undergone genotypic differentiation. It is for all of the above reasons that this area was initially proposed as a Research Natural Area.

As you might expect, this area is also extremely productive timber land, again due to it's coastal-like climate. The

controversy surrounding this site deals with a proposed road to be built along the north side of the river through the pRNA. The road would provide access to Dworshak Reservoir for log dumping and storage. It would also create easier access to timber up in the North Fork region.

All of these issues and concerns were discussed during the field trip by the Forest Service representatives and chapter members. The trip also included a Saturday walk along the North Fork Clearwater River through a portion of the pRNA to observe some of the unique flora. On Sunday we diverted from the original agenda in order to observe a population of the controversial little bank monkeyflower (*Mimulus clivicola*), whose presence has temporarily suspended road construction. The trip ended with a walk to the fern glade on the opposite side of the North Fork Clearwater River.

A big thank you to everyone who expressed their interest by attending this field trip - the chapter members, concerned citizens, and Forest Service personnel. The trip proved to be very informative for all concerned, and a lot of fun too!

## FOUNDER RETIRES

(Continued from page 1)

small publication co-authored by Helen M. Gilkey (Gilkey and Packard, 1962. *Winter Twigs: Northwestern Oregon and Western Washington*. Oregon State University Press). While working on her Masters at Oregon State, Dr. Packard also worked for the USDA Plant Identification Service. Upon completing her Masters in 1952, she attended Colorado University in 1952 and 1953, after which she pursued a brief high school teaching career at Wendel, ID. She taught secondary science, mathematics, art, and music for 4 years. In 1956 she went to Washington State University to pursue a doctorate. While working on her doctoral dissertation, Dr. Packard became a research assistant to the late Marion F. Ownbey. She received her Ph.D. in Botany and Genetics in 1959 and continued working with Dr. Ownbey until 1961. Her doctoral dissertation was titled "A fertile constant hybrid between two heterobasic species of *Calochortus*."

Dr. Packard joined the faculty at the C of I in 1959 as Assistant Professor, taking on the responsibilities of Associate Professor in 1964 and achieving the office of Professor in 1969. She taught almost every class offered by the biology department with special emphasis on botany,

genetics and human ecology. Dr. Packard has also worked as a consultant for the Oregon Rare Plant Task Force, Vale District BLM Rare and Endangered Plant Survey, and is a member of the Rare and Endangered Plants Technical Committee for the Idaho Natural Areas Council. Other projects included development of a curriculum for the Caldwell School District using Idaho as an outdoor classroom (1968) and a flora/fauna inventory of Stewart Gulch for Judith Glad (1972).

During her career as a botanist, Dr. Packard traveled to Central America, the Galapagos Islands, and northern South America including Ecuador and Columbia. She also accompanied students on many major field trips in the western United States.

It was her love of plants and the desire to share information about plants and ecosystems that led her to start a native plant society in 1979. She gathered together people who shared her enthusiasm for both plants and field expeditions. From this came Pahove and then the Idaho Native Plant Society with the Pahove Chapter.

Her interests are not limited to just the world of plants. She is currently working on a publication of poems written by Clarence E. Eddy, an early Idaho miner. The publication

will be annotated and will include biographical information on Eddy. Dr. Packard has also ventured into the computer age and is working on a series of programs which will help compare data collected on erratic and variable rare plants. She is also continuing her work with the museum at Yankee Fork Dredge and the Museum of Natural History at the College of Idaho.

To give herself "a rest", she recently read Stephan Hawkins book, *A brief History of Time* and the companion book on Hawkins life. It is through the overviews, principles and absolutes of nature that Dr. Packard has traveled. It is the mind which explores and inquires that makes life interesting for Dr. Packard. Her style of teaching was difficult and challenging for her students but so rewarding for those who took up the tasks for the joy of learning. May her retirement be as full and fruitful as her long, productive career at the College of Idaho.

## DR. PACKARD HONORED WITH FIELD TRIP

by Carol Prentice

Pat Packard started teaching at the College of Idaho in 1959 and after 30 years is retiring from teaching, but not from Botany. She is moving

her office to the herbarium where she hopes to find peace and quiet, but not solitude.

Pat has examined the flora of Leslie Gulch over the years and had encouraged her students to work out the flora as a part of their masters studies. As a result, the Harold M. Tucker Herbarium is the ultimate and singular resource for accurate determinations of flora of the Owyhees and surrounding area.

A large group of about 50 alumni and friends participated in the Pahove field trip (the largest field trip in Pahove history) to honor Pat. Students from New York, Portland, and Berkeley made special trips to be present for a nostalgic trip to Leslie Gulch. The group met at the Boone Science parking lot and each person introduced themselves telling how they first met Dr. Packard - many were students and others had met her through Pahove activities. One participant met her when *she* was a student.

A caravan of more than a dozen cars traveled to a stop near Rockville School where Judy Glad, a student of Pat's, showed us the *Mentzelia mollis* and *Cymopterus acaulis* var. *greeleyorum* (named by Pat after a local rancher).

At the next stop at the top of Leslie Gulch, Dr. Barbara Ertter, also one of Pat's

students, showed off the *Ivesia ripara* named after Jim Grimes, ripara being latin for grimy.

Jim Grimes, another of Pat's students, discussed the mix master geology of Leslie Gulch and described the *Mentzelia packarderi* named after Pat by Judy Glad, and the *Senecio ertterii* named after Barbara Ertter, which he described as ugly little plants that grow only on the ash piles (sweet revenge?). He also discussed the *Artemisia packardiae*, named for Pat, that occurs only on the rhyolite that is intruded between the Leslie Gulch tuft. Also near Leslie Gulch, Pat has documented and published the occurrence of a lonely group of *Pinus ponderosa*, the only known population in the entire Owyhee uplift. Pat has theorized that others were present, having found some logs used in an old cabin, but were apparently utilized upon arrival of the white man. The lunch stop was highlighted by presentation of

awards:

- the first ever "Pahove Award" in appreciation for a lifetime commitment to native plants,
- a lifetime membership in the INPS commemorative with a framed color photo of *Mentzelia mollis*, photographed by Jay Smithman,
- an INPS t-shirt,
- a special presentation by Mary Trail including a packet of postcards of a peace quilt dedicated to John Jeavons, an ecologist who worked in Latin America developing food sources for the native populations. One block of the quilt is a frog designed by Mary and dedicated to Pat.
- Judy Glad also gave Pat an herbarium cabinet, to be picked up in Portland.

We can all learn from Pat's example and commend her outstanding achievements. Her work motto is "to love what you do and feel that it matters - how could anything be more fun?". Thank you Pat - we had fun - and now as Jim Grimes says "Can we go play in the herbarium?"



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## WELCOME TO NEW MEMBERS

Dawn Kladerman, Signe Sather-Blair, John Sloan, Boise, ID  
 Dorothy and Ottis Rechard, Calder, ID  
 Margaret Sutherland, Chubbuck, ID  
 Mindy Wiebush, Elk City, ID  
 David and Patricia Green, Lisa Therrell, Grangeville, ID  
 Jean and Ernie Brammer, Kendrick, ID  
 James McAdoo, Lewiston, ID  
 Peggy Polichio, Lolo, MT  
 Chris Thiesen, Moscow, ID  
 Rick and Naomi Barth, Wallace, ID

## ABOUT OUR SOCIETY

### INPS OFFICERS

**Pahove Chapter:** President--Carol Prentice, Vice President--Joe Duft, Secretary--Wilma Gluch, Treasurer--Kathy Geier-Hayes.

**Southeast Idaho Chapter:** President--Bruce Rittenhouse, Vice President--Von Michaelson, Secretary--Susan Rittenhouse, Treasurer--Ruth Morehead.

**White Pine Chapter:** President--Dick Bingham, Vice President--Selma Nielsen, Secretary/Treasurer--Pam Brunsfeld.

**NEWSLETTER STAFF:**  
 Newsletter Editor--Kathy Geier-Hayes, Technical Editor--Bob Steele, and Circulation Manager--Mering Hurd.

**MEMBERSHIP** in the Society is open to all interested in our native flora. Regular dues are \$8.00 per year, \$6.00 for students and senior citizens on a calendar year basis. Contributions to our Society, are tax deductible. Send dues and all correspondence to I.N.P.S., Box 9451, Boise, ID 83707.

**SAGE NOTES** is published bimonthly by the Idaho Native Plant Society, incorporated since 1977 under the laws of the State of Idaho. A red dot beside your due date on the mailing label indicates that your membership has expired. You will receive only two newsletters after this date.

**MATERIALS FOR PUBLICATION:** Members and others are invited to submit material for publication in Sage Notes. Text should be in typed form or if possible on 5 1/4 inch floppy discs for an IBM computer in WordPerfect, Multimate or ascii file format. Illustrations and even good quality photos may be reduced and incorporated into the newsletter. Provide a phone number in case the editors have questions on your materials. Send these to our regular INPS address or directly to the newsletter editor.

Due date for material for the next newsletter is August 20th.

Idaho Native Plant  
 Society  
 P.O. Box 9451  
 Boise, Idaho 83707



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# Sage Notes

THE IDAHO NATIVE PLANT SOCIETY NEWSLETTER  
SAGE NOTES VOL.12, #5 SEPT,OCT 1989 PAGE 1



Syringa

## DISTINGUISHED INPS MEMBER CHUCK WELLNER

by Bob Moseley

It is generally acknowledged that few people know Idaho better than Chuck Wellner. Chuck has been hiking the canyons, deserts and mountains of the state for most of his 77 years. As a child around Twin Falls, he explored the South Hills and the Snake River canyon, which probably led him to pursue a career in natural resources management. Upon completion of Forestry degrees from the University of Idaho and Yale, he became a research silviculturist and research administrator with the U.S. Forest Service Northern Rocky Mountain Station which later became the Intermountain Research Station. Although Chuck had responsibility for research programs throughout the Northern Rockies, he continued to spend considerable time in Idaho. (Continued on page 4)

## INPS STATE ELECTION RESULTS

Thank you to those members who returned their ballots for the election of the statewide officers. The results are: President--Susan Bernatas, Vice-president--Bruce Rittenhouse, Secretary--Pam Brunfeld, and treasurer--Kathy Geier-Hayes. The first board of directors for the statewide INPS organization will consist of the above officers, and one representative from each chapter (either the Chapter President or an appointee of the Chapter president). Members at large will also be represented by an appointee of the State President. You can contact any member of the state board at the INPS address.

## MEMORABLE FIELD TRIPS OF YESTERYEAR

by Bob Moseley

Now that the field season is over, I would like to share the following quote with INPS members. It is a description of Carl Linneaus' field trips while he was a renown professor of botany at the University of Upsalla, Sweden, in the 1750's. Not only was Linneaus the father of modern systematic botany, responsible (Continued on page 3)

## INPS THANKS TO ANN DeBOLT AND JOE DUFT

Ann DeBolt--Ann will be leaving Boise this month to pursue a Master's degree at Oregon State University in Corvallis. We would like to say thank you to her for all the hard work she has put in for INPS the past few years. Ann served as secretary for the Pahove Chapter, helped organize the Rare and Endangered Plant meeting, faithfully attended almost every Pahove function, and handled the daunting task of purchasing and distributing t-shirts, which have been one of our most successful fundraisers. Good luck Ann; we will miss you!

Joe Duft--We would like to extend a special thanks to Joe Duft who will be stepping down as newsletter Publication Editor after almost 2 years. During this time, Joe has provided INPS with a high quality, easy to read newsletter as well as suppling a number of articles. Joe has been very dedicated to INPS over the years and has served on several committees, worked on the newsletter, and acted as an officer. Joe will continue to work for INPS as Vice-president of the Pahove Chapter. Thank you for all your time and effort Joe!

## INPS CALENDAR

### PAHOVE CHAPTER

September 24: Syringa Seed Collection field trip. In celebration of Idaho's Centennial, Boise State University will be distributing their Award Winning publication, *Cold Drill* with seed from Idaho. Syringa, the state flower, is to be included in the seed packet. Carol Prentice is organizing a field trip to help BSU collect the needed seed. If you would like to participate, contact Carol at 362-9029. If you would like to collect on your own, please contact Carol to arrange dropping off the seed.

October 19: Meeting at 7:30 pm in 218 Science Education Building at Boise State University. Open parking is no longer allowed in the parking lot adjacent to the building. Free parking is permitted only in the lot marked "Towers".

The program will include slide shows and reports on INPS activities during the past summer. Come and share your 1989 wildflower slides/photos and experiences with us.

November 16: Meeting at 7:30 pm in 218 Science Education Building at Boise State University. Program topic to be announced in next newsletter.

### SOUTHEASTERN IDAHO CHAPTER

For information on any of the following, contact Bruce Rittenhouse at 233-2534.

September 26: Meeting at 7:00 pm at the ISU Nursing Lecture Hall. Topics will include a discussion on the implications and affects of a proposed BLM plan to begin grazing on Pocatello's west bench. A field trip to this area may be included the following Saturday, September 30.

October 24: Meeting at 7:00 pm. Topics to be determined.

### WHITE PINE CHAPTER

October 28: Alpine Drabas of Idaho: Member Lawton Fox discusses "The Alpine, Perennial Whitlow-grasses (*Draba*) of Idaho". Meeting will be at 7:00 pm in room 455 (next to the herbarium) in the Life Sciences building, University Ave., U of I. Lawton will discuss and illustrate some 15 perennial and alpine *Draba* spp. he has studied from east-central and other portions of Idaho. Parking can be found across Ash St. (immediately east of the Life Sciences building) or east two blocks at the corner of Deakin and University Avenues.



## OTHER EVENTS

September 30-October 2: 1989 Governor's Conference on Recreation. Sun Valley, ID. For more information contact John Barnes at 334-2154.

October 7-8: C of I Museum of Natural History workday, from 7 am until evening. For information contact Bill Clark (375-8605) or Eric Yensen (459-5331) for information.

## INPS ACTIVITIES

### WHITE CLOUDS MOUNTAIN TRIP REPORT

by Joe Duft

Approximately 33 INPS members and friends turned out for our July 15th trip to Railroad Ridge, a high alpine ridge in the White Cloud Mountains. Members from Boise, Stanley, Ketchum, and Pocatello braved steep mountain roads and changing weather to view alpine plants and magnificent scenery. Although we were a week or two late for some of the fellfield plants, there were still plenty of new plants for members to learn. For those that ventured the last quarter mile to the top of a small (Continued page 3)

peak, spectacular views of Castle Peak, the Chinese Wall, Crater Lake, and Tin Cup Lake awaited them. Toward the end of the afternoon a thunderstorm sent members scurrying off the mountain.

Some of the more interesting plants were *Astragalus alpinus*, *Astragalus kentrophyta implexus*, *Bupleurum americanum*, *Eritrichium nanum*, *Geum rossii*, *Gilia spicata*, *Hymenoxys graniflora*, *Haplopappus byallii*, *Ivesia gordonii*, *Lewisia pygmaea*, *Oxytropis campestris*, *Phlox pulvinata*, *Polemonium viscosum*, *Potentilla ovina*, *Saxifraga bronchialis*, *Saxifraga rhomboidea*, *Senecio remontii*, and *Smelowskia calycina*.

### FREEZEOUT SADDLE/PINCHOT MEADOWS FIELD TRIP

About forty-six people, including six children, attended the INPS White Pine Chapter field trip to Freezeout Saddle and Pinchot Meadows on July 22. The trip was organized and led by Chuck Wellner. Steve Brunsfeld and Fred Johnson identified myriad plants throughout the day. With stops at Windy Peak, Freezeout Saddle, Orphan Point, and Pinchot Marsh, we enjoyed spectacular views of the Clearwater and St. Joe drainages and a variety of plant life from subalpine to moist alpine meadows. Most of the area is managed by the Bureau of Land Management. At

Orphan Point, a representative of the BLM explained that the Lund Creek area has been recommended as a Research Natural Area. The trail system will be maintained, but the area will be mainly left alone to promote study.

**MEMORABLE (Cont.)**  
responsible for the binomial system of nomenclature, he was also an outstanding teacher, with hundreds of students from all over Europe.

"The amount of enthusiasm he generated was astounding and, when the malignant Swedish weather allowed, his twice weekly botanical expeditions would attract as many as two hundred undergraduates and more; often so many that they announced fresh discoveries to each other with bugle calls like huntsmen in the field. At the end of the hunt they took

their trophies to the professor to hear him appraise the best of them. If he judged any to be of particular interest they would honor the plant and its discoverer with a celebration - singing, as they marched home in a long crocodile, to the beat of drums and fanfares from bugles and trumpets.

The party that evening would be held in a hall or garden with much dancing to fiddle music, and drinking as only Scandinavian students could drink. Their professor would sit and smoke his pipe and enjoy their exuberance. And then he, as well, would be pulled to his feet to share in the dancing. At this too, he excelled. Not only was he an internationally renowned collector and classifier and their inspiring teacher, but he could also outclass them all in the footwork of a Polish jig." From: Whittle, Tyler. 1970. The Plant Hunters. TAJ Publication, New York.



## NORTHPLAN/MOUNTAIN SEED

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Since 1974, NORTHPLAN has been supplying seed for disturbed land restoration, i.e., erosion control, mined-land reclamation, range revegetation, transmission right-of-way, test drilling, pipelines, as well as landscaping for highways, homes and ranches.

Send a large, self-addressed, stamped envelope for: **THE NATIVE SPECIES SEED LIST** of wildflowers, shrubs and trees.

**WELLNER (Cont.)**

During his 40 year career with the Forest Service, Chuck developed an intimate knowledge of the ecological aspects of these Idaho forests and a deep concern for the wise use of their resources.

Upon retiring in 1973, Chuck embarked on another career that has kept him busy more than full-time ever since. He has dedicated the last 16 years to the preservation of Idaho's biological diversity through the establishment and protection of Research Natural Areas. Chuck recognized early in his career that the proper management of wildland resources must be based on sound ecological principals. One aspect of this is the use of natural areas as baseline controls for monitoring man's effect on the landscape. He was involved in designation of the first Research Natural Area (RNA) in Idaho, on the Kaniksu National Forest, in 1935. Chuck was responsible for the establishment of three more in Idaho and Montana in 1937. Several more were established under his guidance in the 1950's.

During the 1950's, he became concerned at the rate man was altering the landscape, and that if someone did not act quickly, unaltered elements of the rich biological diversity of the Intermountain and Rocky Mountain west would be lost. This concern culminated

in the mid-1960's when he chartered and organized the Forest Service's Intermountain and Northern regional RNA Committees. Under his leadership the committees oversaw the task of identifying and establishing RNA's on National Forests in Idaho, Montana and Utah and parts of Washington, Wyoming, Nevada, and California.

While much progress was made during his tenure as Chairman of the two regional committees, other duties as Assistant Director still did not allow enough time for the RNA program. Upon retirement in 1973, he organized the Idaho Natural Areas Coordinating Committee, a group of volunteer scientists from around the state, who systematically described the range of biological diversity in Idaho, then searched for suitable areas to serve as long-term ecological reserves. Under his strong leadership, the Committee has been extraordinarily successful. Close to 200 RNA's (more than any other state) will soon be protected in Idaho due to his involvement. He orchestrated this monumental task by cooperatively working with private, state, and federal agencies and organizations. Although he concentrated this effort on his home State of Idaho, Chuck remains involved in natural area protection in Washington, Montana, Wyoming, Utah and Nevada.

Those who have worked alongside Chuck in his 50+ career know him as a man with integrity, diligence, and vision. He is a humble person who does not relish the spotlight, continually highlighting his colleagues' accomplishments over his own. Only recently has he begun to receive the recognition he deserves for his outstanding contribution to natural resource management and conservation. Several years ago he received The Nature Conservancy's Oak Leaf Award, its highest honor to an individual's contribution to the preservation of biological diversity. In May 1989, Chuck received an honorary doctorate at the University of Idaho's Centennial Commencement for his contribution to Idaho during his two careers. Also in May, he was presented the Chevron Conservation Award for his "extraordinary legacy in land conservation".

Chuck's legacy continues. He joined the Idaho Native Plant Society in 1984 and is an active member of the White Pine Chapter. His interest in rare and sensitive plant species is reflected in many of the RNA's he proposed. Idaho's largest known plant, a western red cedar, is named in his honor. The extraordinary tree (over 18 feet in diameter) stands quietly deep in the Clearwater Forest and is a fitting symbol for this extraordinary man.

## CONGRESSIONAL APPROPRIATIONS FOR THREATENED AND ENDANGERED PLANTS

Proposed funding for the Endangered Species Program for Fiscal Year 1990 (starting October 1, 1989) is in jeopardy if the Senate version of the appropriations package is adopted. The Natural Resources Defense Council lobbied for an appropriation of 8 million dollars for the BLM Threatened and Endangered Species Program (TES) and for 12.7 million dollars for the Forest Service TES program with \$600,000 earmarked for the plant program. The House version of the appropriations package provides for no earmarked money for the TES program within the BLM, but offers 1.6 million dollars for the TES program within the Forest Service. The Senate version however, provides no earmarked funds for any TES plant program in either agency.

If the House version of the package is not adopted, little money will be available for the plant program in the Intermountain Region of the Forest Service and most other federal agencies will be strapped to come up with money to support TES plant programs. If you have an opinion about how you would like your tax dollars spent in

relation to the TES program, please write to your congressional representatives.

## NORTH AMERICAN WILDFLOWERS

by the Natural Resources  
Defense Council

Trade in North American wildflowers is booming. A survey conducted in 1986 uncovered over 600 species offered for sale by specialized or general nurseries. Most of these species are sold by only a few outlets and in small quantities. However, it is probable that several hundred thousand plants of the most popular species are sold each year through at least 50 mail-order catalogs and unknown numbers of retail nursery and garden centers. The latter often carry wildflower roots or corms packaged in plastic bags with a cardboard cover showing an attractive photograph of the plant in habitat.

Unfortunately, some of the most popular species are nearly always collected from the wild rather than propagated. The pink ladyslipper orchid (*Cypripedium acaule*) is one example. A few individuals are propagating small numbers of this lovely flower, but not in commercial quantities. Nevertheless, the pink ladyslipper was sold by 8 mail-order catalogs, including those with the largest circulations; and by virtually every retailer that handles wildflowers. Another species which cannot

be propagated yet it the large-flowered (snow) trillium (*Trillium grandiflorum*). It was sold by 13 catalogs.

Other wildflower species are almost always collected from the wild when they are sold by mass merchandisers. These include Jack-in-the-pulpit, Dutchman's breeches, crested iris, and bloodroot. Most can be propagated in small quantities by dedicated horticulturalists. Other wildflowers that can be propagated in commercial quantities are still collected, particularly to supply the retailers with the largest sales. These include Virginia bluebells, cardinal flower, fairy candles, shooting stars, trout lilies or dogtooth violets, the various hepatica, and bird's-foot violet.

While a study of native fern species offered for sale was not conducted, one nursery indicated that they are also collected from the wild.

Collecting wildflowers from the wild concerns conservationists because if too many plants are taken, the species declines in number and many even disappear from certain sites. If the species is confined to a small range, or if collecting is sufficiently widespread, the species may be forced to the brink of extinction.

(Continued page 6)

At present, there is no regulation of this collecting on scientific grounds. No one has published studies showing how many plants may be taken each year as a "sustained yield" - that is, without damaging wild populations. This kind of information, which is the basis for regulations governing the hunting of ducks, deer and other animals, is just not available for plants. Therefore, we have no assurance that collecting wildflowers is not reducing their numbers.

Furthermore, since collecting is often done by free-lance "diggers" who compete with each other to supply wholesale brokers, economic pressures encourage overcollecting from well-known sites.

The current lack of propagated sources for woodland plants has led one of the Nation's largest plant retailers, W. Atlee Burpee, to drop all woodland wildflowers and ferns from its catalog, despite their profitability. The company is searching for ethical suppliers so that it can resume selling these popular lines.

Many gardeners wish to avoid buying wild-collected plants. Unfortunately, some dealers have responded to this concern by trying to hide the wild origin of their material. They may describe the plants as being "nursery grown". This phrase, however, means only that the plant has been

"established" in a nursery for as little as a few weeks in order to recover from the shock of being dug up. This phrase does not mean that the plant was propagated from seed, cuttings, or tissue culture rather than being collected from the wild.

Nor is it true, as some dealers claim, that planting wild-collected plants in your garden will help prevent their extinction. The most meaningful conservation actions protect species in their natural habitats. Sometimes, carefully planned raising of additional plants by scientific institutions can help restore depleted populations. But transplanting individual plants outside of an organized recovery program does not contribute to saving a species.

Of course, many nurseries sell a mixture of plants; some were propagated, others were not.

If you wish to join the many people who enjoy propagated wildflowers in their gardens, please exercise great caution. Ask your supplier, "Did you propagate these plants in your nursery from seeds, cuttings, tissue culture, or other means?" If the supplier cannot answer "yes" to this question, please do not buy the plants in question.

The trade in seeds, primarily of prairie species, must reach the millions. Some of these seeds are grown by the seller, the rest collected. Ordinarily, seed collecting is not likely to

deplete the species, particularly if it is an annual. However, if a large proportion of the seed is collected from limited populations of the species on the edge of its range, particularly if this pressure continues over a period of years, the collecting could cause the species' depletion.

The major conservation problem associated with planting seed mixtures is the possible introduction of weedy exotics into previously undisturbed environments where they may cause severe disruption. Commercial mixes of "wildflower seed" often contain species native to Europe, some of which have become severe problems - for example, purple loosestrife. Other mixes contain species native to particular areas of the United States which could become weeds if introduced into other parts of the country.

The Natural Resources Defense Council (NRDC) is a national environmental organization which uses law and science to protect the environment. One goal of the Plant Conservation Project is to discourage sale of wild-collected plant species.



## FLORAL ATTRIBUTES

by Ann Cooper

(reprinted from *Aquilegia: Newsletter of the Colorado Native Plant Society*, Vol. 13, No. 3, May/June 1989)

It is a fair assumption that all the people reading this newsletter are already more than casually interested in plants. They may be amateur or professional sleuths, tracking down the rarest of the rare. They may be plant advocates, agitating for the preservation of our native flora. They may be horticulturists in search of natives of the exact shape, color, or water requirements, to fit their landscape design. They may be all these things and more.

It is also a fair assumption that all the readers are adult--many are old enough to have forgotten how they first became enthusiastic about plants. How do **children** become interested in plants? After all, plants are static. They possess none of the glamor or excitement of a garter snake or horned lizard along the trail. What plant features capture kids' imaginations? What facts about plants bore them? What turns children into the next generation of Native Plant Society supporters? I think about questions like these as I plan outdoor programs for children. As a result, I would like to pay tribute to many "old reliables" of the plant

kingdom that seem to go down well with the younger set. Most of the examples fit into the "nature did it first" category.

Thanks go to the fruits of *Glycyrrhiza lepidota*, wild liquorice, *Arctium minus*, burdock, and *Xanthium strumarium*, cocklebur. These wonderful examples of "nature's velcro" start kids thinking in terms of form fitting function. Details seen with a hand lens can be quite a revelation. Many of the composites provide parachute-achenes in such abundance that the kids can experiment with a little seed dispersal. *Tragopogon dubius*, salsify, is a satisfying example because of its size.

And talking about dispersal, the maples, with their propeller-samaras, and the oriental poppies (common escapees to the wild), with their pepper-shaker, poricidal capsules are perfect vehicles to convey form-and-function ideas. They also provide proof that plants are not so static after all.

Nature is a great packager. The pods of *Asclepias speciosa*, showy milkweed, are particularly appealing. Just opened, the seeds lie in neat rows, overlaying the tightly packed tufts of silk-like hairs that will later carry the seeds off on the wind. So precise is the packaging, that the seeds remind one of fish scales. As the silk dries, layer by layer the

seeds are carried away--a nice timing mechanism for dispersal. Ask the kids if they could stuff all those seeds back in the pod. The same applies to cattails. One quick squeeze of a ripened cattail provides a highly entertaining "snowstorm".

Do we think we invented barbed wire? That invites the comparison with a branch of *Robinia pseudoacacia*, black locust, or *Prunus americana*, wild plum.

None of these plants is rare, or hard to find. That's the beauty of them. Some are not native. Children are largely unaware of, and indifferent to, the distinction between native and non-native. Just as they are bored by names, unless they are intrinsically intriguing, or unless they have a good story attached. What kids remember are nifty mechanisms, like the seed-shooting mock cucumber, *Echinocystis lobata*, that has "mini-loofahs" inside. They remember plants that look like something else, the elephant-heads of *Pedicularis groenlandica*, elephantella, or the dragon-tongues of the Douglas-fir cones. They remember plants that scatch, *Mentzelias* for example. They remember plants that stink, such as *Grindelia squarrosa*, gumweed, and of course mints of all kinds. They remember furry leaves like the mullein and twining tendrils of the vetch.

(Continued on page 8).

This may seem a statement of the obvious, but in the quest for rarities it is easy to dismiss the familiar, (Oh! that's only a weed), forgetting that these are the plants that may well "hook" the next generation of plant conservationists.

Now, if only someone would tell me how to explain *Silene antirrhina*, sleepy catchfly, to kids. If it is good for the plant to catch insects on its stem, presumably to stop the insects plundering nectar or pollen, then why is it only good to catch those insects on alternating parts of the stem? As always, I sign off with more questions than answers.

### WELCOME TO NEW MEMBERS

**Ann Finley**, Linda Williams, Violate Gee, Cathy Ford, Christine Whittaker, Toni Holtuijzen, Lenore Oosterhius; Boise, ID  
**Brenda La Plante**; Culdesac, ID  
**John and Francine Edson**; Elk River, ID  
**Steve Paulson**; Lenore, ID  
**Chris Lorain**, Anita Koehn, Claudia Beck, Lee Deobald, Jeri Stewart; Moscow, ID  
**Karen Harvey**, Orofino, ID  
**Sarah Walker**; Peck, ID  
**Amy Miller**; Picabo, ID  
**Barbara Swanson**, Gail and Beulah Clark; Pocatello, ID  
**Diane, Noel, and Tim Steury**; Potlatch, ID

### ABOUT OUR SOCIETY

#### INPS OFFICERS

**Pahove Chapter:** President--Carol Prentice, Vice President--Joe Duft, Secretary--Wilma Gluch, Treasurer--Kathy Geier-Hayes.

**Southeast Idaho Chapter:** President--Bruce Rittenhouse, Vice President--Von Michaelson, Secretary--Susan Rittenhouse, Treasurer--Ruth Moorhead.

**White Pine Chapter:** President--Dick Bingham, Vice President--Selma Nielsen, Secretary/Treasurer--Pam Brunfeld.

**NEWSLETTER STAFF:** Newsletter Editor--Kathy Geier-Hayes, Technical Editor--Bob Steele, and Circulation Manager--Mering Hurd.

**Idaho Native Plant  
Society**  
 P.O. Box 9451  
 Boise, Idaho 83707

**MEMBERSHIP** in the Society is open to all interested in our native flora. Regular dues are \$8.00 per year, \$6.00 for students and senior citizens on a calendar year basis. Contributions to our Society, are tax deductible. Send dues and all correspondence to I.N.P.S., Box 9451, Boise, ID 83707.

**SAGE NOTES** is published bimonthly by the Idaho Native Plant Society, incorporated since 1977 under the laws of the State of Idaho. A red dot beside your due date on the mailing label indicates that your membership has expired. You will receive only two newsletters after this date.

Due date for material for the next newsletter is October 20th.



NEW YORK  
BOTANICAL GARDEN

# Sage Notes

THE IDAHO NATIVE PLANT SOCIETY NEWSLETTER  
SAGE NOTES VOL.12, #6 NOV,DEC 1989 PAGE 1



Syringa

## USES OF NATIVE PLANTS FROM OUR NATIONAL FORESTS

by Chris Lorain

Did you know that there now exists a world-wide florist market for beargrass (*Xerophyllum tenax*) foliage? Apparently it is used in weaving and dried flower arrangements and is in high demand! The plants are harvested with sharp knives and a single person can average up to 200 pounds a day. I first heard of this activity from friends of mine who worked for the Mt. Hood National Forest in Oregon. The forest started getting requests for the harvest of beargrass foliage a few years ago, and just recently the Clearwater National Forest sold its first commercial contract for 3000 pounds.

And how about our old traditional favorite, the huckleberry (*Vaccinium* spp.)? An innovative harvest method is becoming popular with some large, commercial  
(Cont on page 6)

## EARTH DAY 1990

(reprinted from Project Learning Tree Branch, American Forest Foundation)

On April 22, 1990, people across the globe will take time out of their busy schedules for a common purpose - to celebrate the Earth's natural resources and educate each other about how to take better care of our planet.

Earth Day 1990 will be an opportunity for people of all ages, from all walks of life to come together for a day of fun and learning. Earth Day organizers hope the event will be a worldwide demonstration that raises the public's consciousness about its environment and motivates individuals to take action to conserve it. In a sense, it is a way to kick off the next decade and launch a renewed effort to solve some critical environmental problems.

Earth Day 1990 is a follow-up to the original Earth Day held in 1970. On that day thousands of schools and millions of individuals from communities across the United States participated in parades, concerts, classroom teach-ins, political demonstrations, tree planting, television broadcasts and more to show support for environmental concerns and solutions.

(Cont on page 7)

## SCROUNGER'S NOTEBOOK

by Pat Packard

Family BETULACEAE

Mountain alder (*Alnus incana* (L.) Moench) and Wavy-leaf alder (*Alnus sinuata* (Regel) Rydb.)

These are streamside shrubs either in this area, or in the mountains of central Idaho; sometimes they are found on hillsides, usually on recent burns. They are most easily recognized by the female inflorescences which look like tiny pine cones and by the usually stalked buds.

Cambium can be eaten in time of famine. The bark also contains salicin, the bitter glucoside with aspirin-like properties, and was used by Indians in treating fever. The bark from 17 feet of alder branches 1 inch in diameter are needed in the winter to equal two aspirin.

The bark and young shoots may contain as much as 16 to 20 percent tannic acid and can be used for tanning if the dye also contained in the bark and shoots doesn't matter. The tannic acid content of the bark makes an infusion useful in treating diarrhea and in relieving minor burns.

(Cont on page 7)

## INPS CALENDAR

### PAHOVE CHAPTER

*December 8: Christmas Party at the home of Susan Bernatas and Bob Moseley, 904 E. Washington, at 6:30 pm. Bring your own drinks, table service, and one food item for the potluck. Also, bring one plant for the plant exchange. Hope to see you there!*

January 18: Meeting at 7:30 pm in Room 213, Science Education Building at Boise State University. Program to be announced.

### SOUTHEASTERN IDAHO CHAPTER

The Southeastern Idaho Chapter has organized a herbarium day each month through the winter. At each meeting, we will look at a specific plant family or large genus and discuss its characteristics, how to recognize it in the field, uses and edibility of some species. It was voted that we have this herbarium day on the Saturday following our monthly meetings. Our first herbarium day was Saturday October 28th. Ruth Moorhead discussed the Saxifragaceae family to those who were interested.

November 28: Meeting at 7:30 pm in Nursing 209 on the ISU campus. The topic will be announced later.

## OTHER EVENTS

December 2; January 6: College of Idaho Museum of Natural History monthly workday. 7 am until evening. Call Bill Clark (375-8605) or Eric Yensen (459-5331) for more information.

January 12-13: Idaho Rivers Symposium: A confluence of Interests. Red Lion Riverside, Boise, ID. For more information contact Wendy Wilson, The Rivers Project, (208) 343-7481.

## INPS ACTIVITIES

### PAHOVE CHAPTER

#### THE BOISE TREE TOUR

by Dick Lingenfelter

Financially, the October 15th Boise Tree Tour, sponsored by the Pahove Chapter of INPS, was not much to brag about; artistically, however, it was a howling success.

Most of the howls came as the Tour Train was entering Latah Street from Crescent Rim Drive. "On your left," Roger Rosentreter pointed out, "is a very fine tree farm

people are dying to get into it." It was the Morris Hill Cemetery!

While negotiating the sharp turns in Ann Morrison Park, Roger again had the mike. "On your left is a fine Dogwood tree (that's Dogus Woodii). Its leaves are beginning to color the town red; and notice, too, its very interesting bark -- but it has no bite!

Joking aside, all participants voiced enthusiastic approval of the ride. Both Roger and myself attempted to make the excursion enjoyable as well as informative. Each passenger was furnished with a kit that contained an itinerary and plant list plus a map of the route. These are available to INPS members by writing to the INPS mailing address.

### SOUTHEASTERN IDAHO CHAPTER

The topic for the September meeting of the Chapter was the proposed plan by the BLM to graze cattle on Pocatello's west bench. Bill Haight of the BLM and Dr. Jay Anderson from ISU were the featured speakers.

Bill told the group that the general objective of the plan was to use cattle as a tool under a rest-rotation grazing system to increase the vigor and density of perennial grass and shrub species. The rest-rotation grazing formula will use a three pasture (possibly four or five pastures may be

used) system. In one pasture the cattle will graze for the whole season. The second pasture will be rested until seed ripening is completed for a number of important species, then cattle will graze for the rest of the season. Bill stated that this will help these species germinate from the trampling of cattle. The third pasture will be rested for the entire season. Each year these pastures will be rotated. Bill said that "rest-rotation has worked in some areas when it is managed properly." An example he gave was Morgan Creek near Challis.

Dr. Anderson began his talk with describing the area that will be grazed. He said that the one bench between City and Cusick Creeks (an area that has not been grazed for some time) has a forb diversity of 45 species and seven species of native grass.

He gave three reasons why he is opposed to grazing this area. The first reason is that areas that have not been grazed have important scientific value; these areas act as controls of what ungrazed areas are like, and that there are not that many areas like this in the western United States. Areas like this also preserve genetic diversity.

The second reason is that areas like this have high recreation and wildlife value. An increased number of native forb and grass species are important for all types of

wildlife. Being close to a population center is also has important recreation uses. This past spring was an excellent flower year as the balsamroot and hawksbeard brightened up the hills.

The third reason Dr. Anderson gave is he predicts that with this grazing proposal the plant communities will change and this will change the fire seasons. With the increased in soil disturbance, cheatgrass will increase and will outcompete the native species. The so-called "ice-cream" species (species that are highly palatable to cattle) will be grazed intensively and decrease in abundance. He predicted that this will increase the abundance of unpalatable shrubs (sagebrush and rabbitbrush) and decrease the number and abundance of forbs. Dr. Anderson also predicted that "cheatgrass will increase under any grazing regime."

The second point in his argument is the changing fire season. This is important to consider because the areas is close to many homes. If cheatgrass increases, which Dr. Anderson predicts, fire may be more of a problem that it is now. He stated that cheatgrass when cured is very flammable, increasing the fire risk. The fire season would occur earlier in the season (June) and this would be detrimental to the surviving native species that would be susceptible to the fire.

Before this proposal is signed, the City of Pocatello and BLM have indicated there will be public hearings to discuss the proposal. INPS may sponsor a field trip to the area in the future.

### WHITE PINE CHAPTER Kamiak Butte Trip

by Pat Peek

Members and friends of the White Pine Chapter of the Idaho Native Plant Society assembled at Kamiak Butte Park for a leisurely walk up the well-maintained trail before sharing a potluck dinner Saturday, September 16.

Plant identification by Steve Brunsfeld and Chris Lorain, wildlife discussions by Jim Peek, and other interesting information by Ray Boyd and others made the walk fun and educational for the group of about 30 that hiked up the north side of the Butte, which is about 15 miles NW of Moscow.

Heavy rains the last of August gave plants an autumn luster in the Douglas fir/ninebark habitat type forest. Ponderosa pine, western larch and grand fir also occur there. Asters and yellow St. John's wort were still blooming along the route, and pearly everlasting, elk sedge and burdock were identified among others.

After the easy mile walk, the top of the ridge revealed the magnificent view of rolling wheatland and distant

mountains of the Palouse. Pines are sparsely scattered down the south slope, which is dominated by bluebunch wheatgrass and Idaho fescue.

Back at the picnic site, over Dick Bingham's famous baked beans, we were entertained by numerous red breasted and white breasted nuthatches flocking around the dripping faucet near the tables. A pine grosbeak and hairy woodpecker also made cameo appearances in the trees nearby before we packed up and headed back to town.

## CHRISTMAS PLANT LORE

by Kathy Geier-Hayes

Few holidays are as closely associated with plants as Christmas. Holly, mistletoe, and the scent of an evergreen tree all remind many of us of the holiday season. Many of these plants are ingrained as part of our celebration because they have been a part of Christmas as long as there has been Christmas; in fact, many of these plant traditions are older than Christmas. Most uses are based on early pagan practices which have merely persisted as the Church would allow.

In 336 A.D., the Church assigned December 25th as the birthdate of Christ. No one knew the actual date and a great deal of speculation and mysticism was used to arrive at this date as well as a little

political savvy (historians now believe that Jesus was born sometime between May and October 7 B.C.- 5 B.C.). Throughout the "conversion" of the masses from paganism to Christianity, most Church leaders recognized that they could not persuade the people to convert if they did away completely with popular traditions, so the Church attempted to supplant the pagan rituals with sacred rituals. The selection of December 25th by the Church appears to have been an attempt to turn the celebration of several secular feasts, which occurred near the end of December and the beginning of January, into a more sacred celebration. Four major events were celebrated from December 17 to January 1: *Saturnalia* - the remembrance of the "Golden Age"; *Sigillaria* - the Feast of Dolls when children were showered with toys; *Brumalia* - the celebration of the solstice; and *Kalendae Januarii* - the special feast of Childhood and Youth (rebirth) when gifts were given to everyone. As long as the Church could endow celebration traditions with sacred meaning, the people were allowed to practice them.

The significance of evergreen boughs at Christmas time dates back to the *Saturnalia*. The Romans used the boughs to decorate their homes as an offering of winter hospitality to the spirits that haunted the forests; if they were kind to

the spirits, the spirits would be kind to them in the following year. Though the early Church allowed many of the original traditions to remain in place, later Church officials forbade the use of greenery as a dangerous, pagan custom. Decorating with evergreen boughs again became popular in the 16th century, however, it was considered foolhardy to bring the boughs in before Christmas Eve since once in the house, the mischievous spirits might create an uproar. The spirits revered the Christ Child, and by placing the boughs on Christmas Eve, one could hope that the Christ Child would appear before the spirits were able to organize their merriment.

Holly and ivy were also very commonly associated with paganism; holly was the talisman for men and ivy the symbol of women. In England, it was traditional for a maiden to protect herself from goblins on Christmas Eve by placing a berried holly sprig under her bed. The Church eventually assigned very sacred meaning to holly. With its prickly leaves and blood red berries, holly came to represent the Crown of Thorns worn by Christ.

For many years, holly and ivy were always used together. Early tradition espoused that whoever brought in the most of their symbol during the holiday season (holly for men, ivy for women) should rule

the house for the next year. Eventually however, the two become antagonists. While holly became associated with life and immortality, ivy was associated with death and mortality. Eventually, ivy was kicked out of the house during the Christmas season while holly was given a place of honor. This parting of the ways may have been exacerbated by the Church; holly was eventually considered very sacred while ivy never gained a foothold in Christian custom.

Other traditionally popular plants have lost favor at Christmas over the years. Rosemary was once considered one of the most important (and sacred) of all Christmas decorations. The odor of rosemary was thought to be very offensive to evil spirits, and the possessor of a sprig could consider themselves well protected. According to legend, rosemary acquired its fragrance when the swaddling clothes of the infant Jesus were laid on the plant to dry. The color of rosemary, which was originally white, changed to blue when the Virgin Mary, fleeing from Herod with Joseph and the baby, laid her blue cloak on a rosemary. For some unknown reason, use of rosemary fell out of favor during the Victorian times.

Christmas trees have always had a place of honor in most Christian houses. Though pagan religions honored trees as symbols of eternal life,

Christmas trees came about entirely out of Christian sentiment. The earliest story of Christ's association with trees comes from Georg Jacob, a 10th century arabian geographer who described a miraculous event. On the night Jesus was born, all trees, even those weighed down by snow and ice, burst forth into bloom. From that, it became popular to force branches of hawthorn and cherry to bloom at Christmas. In wealthy households, whole trees were moved indoors for the festivities, and there was a great deal of rivalry as to who displayed the biggest tree. The use of evergreen trees started in Germany with a German folktale. The story goes that one lonely, bitterly cold Christmas Eve, a cold, hungry child appeared at the door of a German forester. He was warmly welcomed, and treated with the best the meager household could offer. The next morning, the family, roused by a choir of angels, found that they had entertained the Christ Child. As a gift for the hospitality, he took a fir twig, planted it in the ground, and said "I have gladly received your gifts, and here is mine to you; this tree will never fail to bear fruit at Christmas and you shall always have abundance".

Eventually, naturally blooming trees were replaced by artificially decorated trees in Germany, and it was here that the Christmas tree began to come into its own. The

"modern" Christmas tree is ascribed by some to Martin Luther, who, on a Christmas Eve, was entranced by the wonder and beauty of a starry night sky. As a tribute, he set up a tree, illuminated with candles to represent the heavens from which Christ came, for his children. The first mention of decorated Christmas Trees was from Strassburg in 1604. The popularity of decorated trees spread from there throughout Germany and eventually throughout Europe. Christmas trees made their debut in Paris in 1840, and Queen Victoria set up a tree in Windsor Castle in 1841. Early emigrants from Germany and England introduced the custom of Christmas trees in America. In 1925, at noon Christmas Day, the famous General Grant Giant Sequoia, was designated as the Nation's Christmas Tree, however, the lighting of the Christmas tree in Washington D.C. has supplanted its importance.

While the set-up of Christmas decorations was traditionally done on Christmas Eve, the removal was determined by local customs and beliefs. The disposal of Christmas plant material however, was another ritual in itself. Decorations were never tossed willy-nilly into the yard to decompose or set out with the garbage. While some were carefully saved, or in some parts of Europe burned in sacred burnings, (or in other areas never burned), most were used

somewhere in the household.

Though many of the plants that we associated with Christmas have come to us through popular legends and folklore, some are merely utilitarian. For example, few homes are without a poinsettia at Christmas, however, poinsettias have become popular only because of their red and green color. To provide some significance for poinsettias, the Junior League developed a story about a little orphan girl, Maria, who was invited on Christmas Eve to the cathedral with some friends. She hesitated to go, having nothing to offer the Christ Child as a gift, but her friends reassured her that they would find something on the way. Along the road, they found a plant and gave it to Maria to take, telling her that even the humblest gift given with love is beautiful. Maria was upset about having to take a simple weed, but she gathered some and they went along. At the church, she laid the dried, brown stems in front of the nativity at the altar, offering them with love and respect. As she turned to go, the dead stems turned green, and the upper leaves changed to a beautiful scarlet. The humble plant had changed into the miracle flower, the Flower of the Nativity.

Enjoy your holiday traditions and have a safe and happy holiday and New Year!

## NATIVE PLANTS

(Continued from page 1)

operations. It seems that sending people into huckleberry patches is no longer economical, it is easier to bring the plants to them. Consequently, some operators now send a few individuals out into the fields accompanied by a big truck. The workers cut down the whole berry bush, stems and all, bulk load them onto the truck, and take them to a large warehouse where the "pickers" glean the berries. This allows the collection of many more pounds of berries and operations can continue despite the weather.

Concerns have arisen regarding the effects these

harvest practices will have on the overall plant populations and reproduction. Research regarding the plant's reaction to such activities is scanty and can be contradictory. A certain amount of foliage removal may be beneficial, since both of these species can resprout. However, severe cut-back and/or continued removal on an annual or short-term basis is likely to have a deleterious effect. Many of the national forests were "taken by surprise" and have no precedence concerning the regulation of such activities.

The Forest Service is now receiving all sorts of interesting requests concerning its natural resources. Most of

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**4 FIELD TECHNICIAN POSITIONS**, 1-2 botanists and 1-2 wildlife biologists. Principle responsibilities include sampling wildlife and vegetation of riparian and upland communities in the Snake River corridor in southwestern Idaho. 3 positions March-August 1990 and 1 position January-December 1990. Requirements: B.Sc. Biology (mammalogy, botany, ecology), or natural resource field (wildlife). Field experience in ornithology, mammalogy, and vegetation sampling, preferably in the intermountain west, required for all four positions. Familiarity with Great Basin Flora and/or excellent taxonomic skills preferred. The Snake River Plain is characterized by a cool, moist spring and high mid-summer temperatures. Technicians should expect to work long hours in adverse weather conditions. Technicians can expect to hike long distances while carrying field equipment, will be required to operate a 4-wheel drive vehicle and may be required to operate a jet boat. \$8/hr plus limited benefits, overtime. Send cover letter, C.V. and names, addresses and telephone numbers of 3 references by 1 December 1989 to apply for the 1 yr. position and by 1 January 1990 for the 6 mo. positions to: Allan R. Ansell, Idaho Power Company, Environmental Affairs Dept., P.O. Box 70, Boise, ID 83787. Telephone (208) 383-2729. Idaho Power Company is an equal opportunity employer.

us are probably aware of the harvesting of yew (*Taxus brevifolia*) bark for cancer research, but what about devil's club (*Oplopanax horridum*) bark! Asians in the Pacific Northwest apparently use the bark as they would ginseng (same family-Araliaceae), for teas and herbal remedies. Some people have even shown an interest in rocks! What will they think of next? Keep tuned.....

## EARTH DAY 1990

(Continued from page 1)

Since then, progress has been made in cleaning up our water and air. But new environmental problems have arisen worldwide, and Earth Day is a way to draw attention to the new concerns, such as global climate change, solid waste disposal, ozone holes, tropical rain forest destruction, and ocean pollution from medical and hazardous wastes.

Individuals can do their part by altering lifestyles and being catalysts for change within communities. That's what Earth Day is all about. The old adage holds true again: "Think Globally, Act Locally."

Decisions on how best to participate in Earth Day must be made on the local level, but the following are some suggestions: sponsor parades or other public gatherings that create a sense of community

and provide opportunity for education, political action and entertainment; hold classroom teach-ins to discuss local environmental issues and global ones; encourage national, state, and local leaders to adjourn for a day to go home and listen to concerns of their constituents, and possibly local teach-ins; create media impact by promoting coverage of local events or by creating advertising and public service announcements that spread the word about the environment; and as nationally known artists like John Cougar Mellencamp, Sting, and U-2 have proven, music carries a powerful message, so local concerts could be another option.

Tree plantings are also encouraged by Earth Day organizers. The goal is to plant one billion trees. The reason is simple - trees are environmental wonders. They remove carbon dioxide from the atmosphere, absorb other pollutants, help prevent erosion, deter sedimentation of water bodies, provide recreational opportunities for humans and habitat for wildlife and provide untold numbers of wood products.

Each INPS chapter is hoping to sponsor an Earth Day celebration. If you would like to help, or have a suggestion for a project, please contact your chapter president.

## SCROUNGER'S NOTEBOOK

(Continued from page 1)

The tiny cones are quite decorative and are especially nice tied on a tiny Christmas package with a sprig of evergreen. In spite of the compulsion of some, the female cones are quite attractive in their own way and really don't require gold paint and glitter.

The whole bark with no mordant other than the naturally occurring tannins produces a good tan on wool. With alum the tan is a little muddy and with chrom it is khaki. Usually various treatments will produce related colors from a dye but in this case the khaki is unrelated to the other shades.



## WELCOME TO NEW MEMBERS

Anne Hutchinson, Wendell Martin, Margaret Kruesi, Paul Shaffer, Peter Wolheim, Boise, ID

Marlene Eno, George Patsakos, Moscow, ID

Jay Jones, Steven Waite, Pocatello, ID

Dick Dingle, Pullman, WA  
Boyd Holdaway, Rexburg, ID

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### NEWSLETTER STAFF:

Newsletter Editor--Kathy Geier-Hayes, Technical Editor--Bob Steele, and Circulation Manager--Mering Hurd.

**MEMBERSHIP** in the Society is open to all interested in our native flora. Regular dues are \$8.00 per year, \$6.00 for

students and senior citizens on a calendar year basis. Contributions to our Society, are tax deductible. Send dues and all correspondence to I.N.P.S., Box 9451, Boise, ID 83707.

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**MATERIALS FOR PUBLICATION:** Members and others are invited to submit material for publication in Sage Notes. Text should be in typed form or if possible on 5 1/4 inch floppy discs for an IBM computer in WordPerfect, Multimate or ascii file format. Illustrations and even good quality photos may be reduced and incorporated into the newsletter. Provide a phone number in case the editors have questions on your materials. Send these to our regular INPS address or directly to the newsletter editor.

Due date for material for the next newsletter is December 20th.



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