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# Sage Notes

THE IDAHO NATIVE PLANT SOCIETY NEWSLETTER  
SAGE NOTES VOL.13, #1 JAN,FEB 1990 PAGE 1



## IDAHO RARE PLANT CONFERENCE

The Idaho Native Plant Society is once again sponsoring the annual Idaho Rare Plant conference March 21 and 22. Now in its sixth year, this conference has proven to be a successful forum to discuss recent findings and update the conservation status of the rarest members of Idaho's flora. Last year it was attended by about 50 people, representing a broad cross-section of the public, including federal and state agency personnel, academic botanists, conservationists, gardeners, consultants, developers, amateurs, and interested lay people.

Plans are now being made that will make the 1990 meeting the best yet. A few highlights include:

-Last year we had slides  
(Continued on page 5)

## THE INPS WANTS YOUR VOTE

On proposed changes in the INPS's By-laws:

Article VIII - Meetings  
Section 1. Annual Meeting

Presently reads:  
The annual meeting of the members of the Society shall be held during the months of June or July on an hour and day to be determined by the Board of Directors.

Proposed Change:  
The annual meeting of the members of the Society shall be held between the months of February and May on an hour and day to be determined by the Board of Directors.

Justification:  
1. We primarily conduct "business" and indoor activities during the winter months while summer months are for field excursions.

2. The by-laws state that newly elected officers will take office at the conclusion of the annual meeting. According to the by-laws, a mail ballot shall be enclosed in the newsletter 2 issues prior to the annual meeting with ballots being returned no later than 30 days before the annual meeting. By changing the date of the annual meeting to the winter, (Continued on page 6)

## INPS STATE BOARD OF DIRECTORS MEETING

Following is a summary of the meeting held on Dec. 2, 1989.

The meeting was held at the Forestry Sciences Lab of the Intermountain Research Station in Boise. Those present were Susan Bernatas, President; Pam Brunfeld, Secretary; Kathy Geier-Hayes, Treasurer; Dick Bingham, President, White Pine Chapter; Kristin Fletcher, Board Member-at-Large; and Nancy Cole, Chairperson, Rare Plant Meeting.

Kathy outlined the 1990 budget. She explained that we will be switching from an anniversary year to a calendar year method of collecting dues and that the newsletter printing costs and mailing costs eat up the majority of our income. If we get nonprofit status from the IRS we can apply for a bulk mailing permit which would save us about \$277.20/year. Dick then proposed that we change the bylaws to state that the dues return to the chapters be 35%-40% of the annual dues instead of the current 25%. We decided to table the motion until we have a better idea of how we are going to do financially. (Continued on page 6)

## INPS CALENDAR

## PAHOVE CHAPTER

January 18: Meeting at 7:30 pm in Room 213, Science Education Building at Boise State University. Dr. Roger Rosentreter will discuss river axis orientation with relationship to plant communities.

February 15: Meeting at 7:30 pm in Room 213, Science Education Building at Boise State University. Michael Jones, a BSU graduate student will present a program on the flora of Mauritius, an island in the Indian Ocean.

March 15: Meeting at 7:30 pm in Room 213, Science Education Building at Boise State University. Bob Moseley will talk about the natural history of Hells Canyon.

April 19: Meeting at 7:30 pm in Room 213, Science Education Building at Boise State University. Dr. Don Mansfield, botany professor at the College of Idaho will speak on revegetation of subalpine lake margins. (Also probable elections night).

May 17: Meeting in question.



## SA-WAH-BE CHAPTER

January 23: Meeting at 7:30 pm in the Auditorium, Idaho Museum of Natural History. Speaker yet to be determined.

January 27: Herbarium day. 10 am.

February 27: Meeting at 7:30 pm in the Auditorium, Idaho Museum of Natural History. Speaker yet to be determined.

March 3: Herbarium day. 10 am.

## WHITE PINE CHAPTER

January 24: Doug Henderson will lead a tour and discuss the function of the University of Idaho Herbarium at 7 p.m. in room 456 of the Life Sciences Building South at the University of Idaho.

February 20: Christine Lorrain will discuss her work on "Clearwater National Forest Coastal Disjuncts and Sensitive Plants" at 7:30 p.m. in room 213 of the College of Forestry at the University of Idaho.

## OTHER EVENTS

January 23-25: Fire in Pacific Northwest Ecosystems, Pendleton, OR. Contact Department of Rangeland Resources, Oregon State University, Corvallis, OR 97331. Fee required.

February 10; March 10: Museum of Natural History

monthly workday, College of Idaho from 7 AM until evening. Contact Bill Clark (375-8605) or Eric Yensen (459-5331) for more information.

February 26-March 1: Interior Douglas-fir Symposium, Spokane, WA. Contact Conferences and Institutes, 208 Van Doren Hall, WSU, Pullman, WA, 99166-5222 (509-335-2946). Fee required.

## INPS ACTIVITIES

## PAHOVE CHAPTER

At the last meeting in November, Jay and Lynda Smithman presented a very informative and entertaining program about their recent trip to Cosa Rica. Their program included many slides of not only the flora, but also the architecture, culture, scenery, and food. All present enjoyed the program immensely.

## SA-WAH-BE CHAPTER

Dr. Karl Holte presented a wonderful slide show on the flora of Steens Mountain in Southeastern Oregon.

The chapter approved changing the chapter name from Southeastern Idaho to Sa-wah-be, the Shoshone-Bannock Indian name for Sagebrush. We have begun to coordinate a joint project with

the Portneuf Audubon Society to plant native plants and trees at the Region 5 Idaho Fish and Game Building in Pocatello. Right now the area is full of Russian thistle and kochia.

Another member, Jay Jones, is searching for any oak trees in Idaho. No native oak species are known to occur in Idaho but some may just reach into the extreme southeast corner of the state. Dr. Ray J. Davis looked extensively in this area years ago but didn't find any. Good luck to Jay in his search.

Just a reminder to members to please attend the monthly meetings. Take advantage of your membership!

### INPS MEMBERS IN THE NEWS

Dick Bingham was presented with the Barrington Moore Memorial Award at the Society of American Foresters national meeting in Spokane, WA, in September. Hailed by the Society as a leader in forest genetics, he was given the award for more than 25 years of research on the biology of the white pine host and blister rust pathogen. This work helped restore western white pine through genetically resistant planting stock. Dick's work, said the Society, allows "the return of white pine as an important species for management in the Inland Empire."

Dick was principal plant

geneticist at the Moscow FSL from 1950 until his retirement in 1974. He assisted in forming the White Pine Chapter of the INPS and helped instrument their very successful membership drive. He served as Chapter President for 1989. Congratulations to you Dick!

### THE IDAHO WILDLIFE COUNCIL

by Carol Prentice

In November 1988, a diverse group of representatives held the first statewide Idaho Wildlife Congress. I attended this first congress as a representative of the Pahove Chapter of the INPS. At that meeting, we established six councils throughout the state to correspond with the Idaho Fish and Game regional boundaries. The Pahove Chapter boundaries lie within the Region 3 boundaries, and I was accepted as a dues-paying member of the Region Wildlife Council (R3WC) and have been attending meetings as a Pahove Chapter representative. R3WC developed their own bylaws with the goal to "maintain and improve Idaho's fish and wildlife resources". The first meetings addressed legislative concerns; subsequent meetings have addressed environmental issues.

Why should INPS be interested in a Wildlife Congress? Well, because fauna eat flora. Many

decisions concerning wildlife can also concern plants and therefore, INPS can provide valuable input.

When the next legislative session begins, the legislature will consider some very important issues. Most important to us is a proposal for state funding for the non-game program of which the Heritage Program is a part. The Heritage Program is the backbone of data and expertise for rare plant issues and I think it is important that the State sufficiently fund that program.

I will not be able to keep you updated on important R3WC issues through the INPS newsletter because they will probably develop too rapidly. I urge you to keep informed through your local sources. The R3WC is doing a super job on educating its members on the concerns and need for funding for the non-game program. We addressed many misconceptions concerning non-game wildlife and rare plant species.

You should have received a flyer about the 1990 statewide Idaho Wildlife Conference scheduled for January 26 and 27. The Conference will discuss six issues which all have implications for native plants. I urge you to attend and to call or write your state representatives and let them know your opinion concerning the non-game program.

## EARTH DAY CELEBRATION

The first Earth Day, April 22, 1970, was the largest organized demonstration in human history. More than twenty million people in virtually every community in the United States took part. Their demonstration of concern prompted Congress and the President to establish the Environmental Protection Agency and the Clean Air and Clean Water Acts.

Much has been accomplished in twenty years. But our environment still in grave danger.

Problems that no one imagined back in 1970, such as ozone depletion, are now a serious threat. To launch the 1990s as the "decade of the environment," concerned citizens around the world are now planning Earth Day 1990.

INPS would like to be part of the Earth Day Celebration, and has chosen the theme "Planting Native Plants". Each chapter will coordinate their own celebration using this theme, which is general enough to allow for many different kinds of activities. Some suggestions included plantings in rest areas (in

collaboration with the Idaho Garden Clubs); plantings in parks, schools and yards; and plantings for senior citizens to name only a few. Address suggestions to your Chapter president.



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**CONFERENCE**

(Continued from page 1)

of the plants and their habitats. This year we are adding a lively narration to go with the slides which will include habitat distribution and other notable facts about the plants.

-Because an "Interstate Rare Plant Meeting" will be held before the INPS meeting and an "Interagency Rare Plant Meeting" will be held just after the INPS meeting, we should expect some great discussions on the regional status of our rare species.

-There will be a cover charge for the meeting: \$5.00 or \$2.50 for students and seniors.

.....See you there!!

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*If approved by the membership (see Vote article page 1), INPS will hold the annual state-wide business meeting on Wednesday night, March 21. This meeting will be a dinner banquet and there will be a charge. Details in the March newsletter.*

\*\*\*\*\*

**SENSITIVE PLANT MEETING**

Plans for the 1990 Rare Plant Meeting are well underway. If you are planning to attend the meeting, consider volunteering for one of the following tasks: projectionist, scribe (6 people), registrar (1-2 people). One additional request: we need slides for all species on the Sensitive Species list that have been labeled with a "#". Slides should be sent to Susan Bernatas, c/o Intermountain Research Station, 316 E. Myrtle St., Boise, ID 83702. Volunteers should contact Nancy Cole before March 2 at 383-2351 (8 am-5 pm MST), 345-8995 (evenings) or write Nancy c/o Idaho Power Company, Department of Environmental Affairs, P.O. Box 70, Boise, ID 83707.

This year we will be setting an important precedent...no styrofoam cups!!!. We will have coffee mugs available for purchase or bring your own favorite cup. (Coffee and teas will be provided at the meeting).

For housing if needed, write to Willie Gluch, 1010 N. 7th, Boise, ID 83702 or phone (208) 343-3026.

Abbreviated agenda.

March 21:

8:00- 8:30 Registration  
8:30- 9:00 Welcome  
9:00-10:00 State Sensitive  
10:00-10:15 Break  
10:15-12:00 State Sensitive  
12:00- 1:00 Lunch

1:00- 3:00 State Sensitive  
3:00- 3:15 Break  
3:15- 5:00 State Sensitive

March 22:

8:30-10:00 Federal Species  
10:00-10:15 Break  
10:15-11:30 Federal Species  
11:30-12:00 Wrap-up  
1:00- ??? Field trip

*Rare Plant Conference  
March 21-22, 1990  
BLM District Office  
Boise, ID*

**AN INNER VOICE**

from Roger Rosentreter

As agency personnel, we often see a lack of compliance with environmental laws and an over utilization, rather than sustained yield, of resources. Many people get frustrated and some are troubled by an inner voice. We know how to cut forests ecologically and how best to graze cows, but sometimes these best management practices are far removed from the practices of one's own organization. What should we do? Should we be loyal to the organization which is usually very good to us, or should we be loyal to the public? Listen some more to that "inner voice". Subscribe to the new "Inner Voice", an association of F.S. employees for environmental ethics, P.O. Box 11615, Eugene, OR 97440.

**VOTE**

(Continued from page 1)

we may get a better return of election ballots since members are more likely to be reading their INPS mail. Additionally, newly elected officers would have time to attend to INPS duties before the busy summer months.

3. The Board would like to hold the annual meeting and rare plant meeting during the same week to reduce travel costs for Board members who would likely attend both meetings. An annual summer field trip would still take place. The annual meeting would not revolve around rare plants. It is hoped that all of the meetings/field trips would rotate among the Chapters. (We are not changing the location of the annual and rare plant meetings or the timing of the field excursion)

Procedure:

The Board of Directors has approved the following change in the State's By-laws. Now the proposed change must be voted on by the membership. Please return the ballot to: INPS, P.O. Box 9451, Boise, ID 83707 by Feb 22.

Yes, I approve the change as stated

No, I do not approve the change as stated.

I recommend the following:

**DIRECTORS MEETING**

(Continued from page 1)

We agreed that chapters can take their share of the dues out before sending the money to the treasurer. All voted to approve the budget.

Next, we discussed conducting the annual INPS state board meeting at the Rare Plant Meeting with another board meeting again at the state-wide field trip in the summer. We then talked about whether INPS should elect board members and all chapter officers at the same time so everyone would serve their state board term concurrently. We decided that a staggered system of election throughout the State was fine. Dick moved that the board Vice President should also be president-elect and therefore take over as president the following year. We decided to discuss this again at a later date. We then considered whether we wanted to amend the bylaws to rotate the summer statewide field trip among the chapters and decided we would leave this as an unwritten policy.

Next we discussed some housekeeping. It was moved, seconded and approved to keep Kathy Geier-Hayes as the newsletter editor. We then established a technical advisory committee. We determined that it would be best to have a group of "experts" to provide technical assistance in specific areas concerning native plants. We

decided on the following categories: Nursery; Rare Plant Biology; Forest Ecology; Range Ecology; Plant Taxonomy; and Landscape.

After that we talked about the Rare Plant Meeting. The date will coincide with the University of Idaho spring break (between March 16-23). The committee consists of Nancy Cole (chair), Leann Henry, Susan Bernatas, and Bob Moseley.

The next item was the INPS policy on public comment. We decided that INPS should adopt a procedure to allow the organization to make position statements. The procedure will be as follows:

- 1) Identify an issue
- 2) Recommend the appropriate chapter president find a knowledgeable person to write a position statement.
- 3) The chapter president will review the position statement.
- 4) The board will review and approve (or disapprove) the statement.

The board president will find the appropriate person to write the statement if the issue is not chapter affiliated. The board emphasized that persons must follow these guidelines or they cannot represent INPS. We identified several issues in need of position statements: Aquarius; Hulls Gulch; Saylor Creek Bombing Range; SNRA. We then decided that board members would be excused from voting on a position

statement in cases of conflict-of-interest (e.g. employer conflict).

Lastly, we discussed fundraising. Leann Henry, Susan Bernatas and appointees from the three chapters will develop a traveling display about native plants and the INPS. Susan will put together a proposal for the display and a list of suggestions for obtaining the funding. Kristin Fletcher presented a list of possible themes for the Earth Day celebration and we agreed on "Planting Native Plants". We then discussed creating an INPS poster to sell as a fundraiser. We will solicit designs by holding a contest. We agreed that the major consideration for selecting a design be that it represent the purpose of the Idaho Native Plant Society as described in the bylaws. We will form a committee to handle the details of the poster.

## WHAT IS A MINIMUM VIABLE POPULATION?

by Dr. Ethen Perkins

When does a species which has gone "over the edge" and, no longer able to replace its individuals at a given location, become what Dr. Daniel Janzen calls a "living dead" species? This is the topic of much dialogue among conservation biologist, and as is often the case, the answer is

uncertain. Species with widely scattered individuals and declining habitats are more likely to reach minimum viable number thresholds before those species which occur more densely and have stable habitat area requirements.

A thumbnail definition of minimum viable population threshold could be stated as that number of individuals which still display complete and characteristic interaction with all the influences of their normal habitat, and which do not display genetic degradation from loss of variability. Below that critical number, if conditions don't improve, the species will continue to decline until it disappears from the local environment.

Can the problem of minimum viable populations be overcome if the threshold is crossed? The jury is still out, but the costs of making such an attempt are very high indeed compared to the costs of protecting known natural habitat areas and existing populations.

Still, one can ask what might be the costs of attempting to artificially increase a species population which has declined below the minimum viable population threshold. To artificially increase populations, people using a greenhouse or botanical garden would have to locate,

collect and rear a large number of genetic types, preferably from geographically similar populations adapted to similar climatic, soil, and plant community conditions. Potted flowering plants might then be transported and maintained in the field to augment the declining population.

Once seed is produced, a second round of seeding into suitable habitats or captive rearing and transplanting would be required. Since it often is difficult or impossible to transplant, maintain or reestablish wild plants, measures with this much cost and risk should be withheld until all other possibilities for protection of the species in its natural habitats are exhausted.

Clearly it is a less costly and more likely successful strategy to increase efforts to locate, protect and manage larger reproducing populations of endangered species in the vicinity of known but marginal populations. This would provide a living, natural source of genetic material for the eventual recovery of the presently "living dead" populations.

From: Iowa Nature Conservancy News, Fall 1989, Vol 28, No. 3.



## WELCOME TO NEW MEMBERS

**Don Mansfield**, Paula Wiens,  
Craig Groves; Boise, ID  
**Kathy Hutton**; Tekoa, WA  
Lucinda Haggas; Mackay, ID  
**Pam Goodman**; Pocatello, ID  
**Barbara Marley**; Chubbuck, ID

## ABOUT OUR SOCIETY

### INPS OFFICERS

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

**Sa-Wah-Be Chapter:** President--Bruce Rittenhouse, Vice President--Von Michaelson, Secretary--Susan Rittenhouse, Treasurer--Ruth Moorhead.

**White Pine Chapter:** President--Bob Skiles, Vice President--Ed Tisdale, Secretary/Treasurer--Pam Brunfeld.

### 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. Newsletter ads are \$2.00 for personal ads, Commercial advertisements: 1/8 page \$5.00, 1/4 page \$8.00, 1/2 page \$15.00 and full page \$25.00.



**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 February 20th.**

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



JAN 30 1990

NEW YORK  
BOTANICAL GARDEN

# Sage Notes

THE IDAHO NATIVE PLANT SOCIETY NEWSLETTER  
SAGE NOTES VOL.13, #2 MARCH, APRIL 1990 PAGE 1



Syringa

## INPS ANNUAL MEETING

The Annual Meeting of the Idaho Native Plant Society will be held on Wednesday, March 21 coinciding with the Rare Plant Conference dinner. We will meet at the Great Wall Restaurant in Boise at 10398 Overland Road (see map page 5) at 6:30 pm in the private meeting room. Following dinner (at 7:30), Professor Fred Johnson, University of Idaho, will conduct a slide presentation entitled, "Endemism -- Causes, Significance, and some Idaho examples". After the presentation, at approximately 8:00, we will conduct the business portion of the meeting. All INPS members are encouraged to attend.

A reminder to those planning to attend the Rare Plant Conference...we will not be providing styrofoam cups for refreshments. If you would like coffee or tea, bring your own cup, or you can purchase a new INPS coffee cup at the conference.

## DISTRICT RANGER ATTENDS WHITE PINE CHAPTER MEETING

by Chris Lorain

A slight change of plan was in store for the White Pine chapter members at their January 24th meeting. Previously scheduled events included a tour of the University of Idaho Herbarium, however, some last minute rescheduling was necessary to accommodate a visit from Art Bourassa, Ranger for the North Fork District of the Clearwater National Forest. Mr. Bourassa had kindly driven up from Orofino to hear our concerns involving a proposed logging road to be constructed along the north side of the North Fork Clearwater River through the proposed Aquarius Research Natural Area (RNA).

Certain members of the White Pine Chapter, particularly Chuck Wellner and Fred Johnson, have been interested in this area for some 20 years. Widely recognized by scientists as the most unique biological area in the northern Rocky Mountains, the proposed RNA encompasses some 3900 acres of this distinctive and rare ecosystem. During the summer of 1989, the White

(Continued on page 4)

## MANAGING RIPARIAN LANDS ALONG THE BLACKFOOT RIVER

by Bruce Rittenhouse

In recent years the Blackfoot River in southeastern Idaho has been the location of a conflict between grazing and recreation interests. The Pocatello Resource Area of the Bureau of Land Management (BLM) came up with a Resource Management Plan (RMP) that identified the need to protect and improve the riparian vegetation along the river. The main objective of the RMP is to reduce adverse livestock grazing and reduce the potential for erosion on riparian areas on BLM land.

The lands to be managed are along the Blackfoot River between Sage Hen Flat and the county bridge west of the Blackfoot Reservoir Dam. This area occurs within three grazing allotments, with two of these not allocated for grazing. However, grazing is done by trespass cattle. This unauthorized grazing use has adversely impacted the vegetation and soil in the riparian areas. The adverse impacts include a complete removal of forage to the roots by heavy grazing and trampling and exposing soil to

(Continued on page 6)

## INPS CALENDAR

### BIG WOOD CHAPTER

March 26: Meeting at 7:00 at Perry's Restaurant. Bill McDorman will discuss gardening in Siberia.

April 23: Meeting at 7:00 at Perry's Restaurant. In conjunction with earth day and the INPS theme of Planting Native Plants, Kelley Weston will talk about native landscaping.

### PAHOVE CHAPTER

March 15: Meeting at 7:30 pm in Room 213, Science Education Building at Boise State University. Bob Moseley will talk about the natural history of Hells Canyon.

April 14: Native plant swap meet. Several members have expressed an interest in this, so we will open it to all members. For more information, call Joe Duft at 375-8740.

April 19: Meeting at 7:30 pm in Room 213, Science Education Building at Boise State University. Dr. Don Mansfield, botany professor at the College of Idaho will speak on revegetation of subalpine lake margins. This is also election night for Pahove officers.

April 28: Spring wildflower hike, starting at the Idaho Botanical Gardens and hiking

into the lower Boise foothills with Chris Davidson and Roger Rosentreter. Plants of interest should include *Primula wilcoxiana* and *Idaho scapigera*. Meet at 10:00 am at the Idaho Botanical Garden (near old penitentiary) and plan on spending most of the day.

May 17: Meeting at 7:30 pm in the Boone Science Hall at the College of Idaho, Caldwell. The program will be a recreation of a historical trip down the Grand Canyon by Terry Lord.

May 19: Field trip into the Owyhee Reservoir area, Oregon. This area has many interesting desert plants, such as *Mirabilis bigelovii*, *Calochortus bruneaunis*, *Langloisia punctata* and a population of *Astragalus mulfordiae*. Meeting places are at the Boone Science Hall, College of Idaho parking lot at 8:45 and the Owyhee Junction Store at 10:00. For more information call trip leader Jean Findley at (503)889-5908 or Joe Duft at 375-8740.

June 2: Native gardens tour in Boise and vicinity. This tour, led by Karen Pratt, will take you to several interesting yards and gardens to illustrate the use of natives for landscaping, from xeroscapes to aquatic ponds and bogs. Meet at the Kathryn Albertson Park at 9:00 and bring a lunch. For more information, call Karen at 344-3257.

July 28-29: Weekend trip into the Seven Devils Mountains. Enter near Riggins and travel to Seven Devils Lake and Heavens Gate areas. The road is steep, but passable by passenger car. View high mountain meadows and timbered areas, subalpine slopes and Hells Canyon, the deepest canyon in North America. This will be a combined Pahove-White Pine Chapters trip. Contact Dick Bingham in Moscow at 882-5204 or Joe Duft in Boise at 375-8740.

Late August: Botanize by canoe on an easy water river trip. If interested, call Roger Rosentreter at 334-1927 or 384-1244 for date and location.

### SA-WAH-BE CHAPTER

March 27: Meeting at 7:30 pm in the Idaho Museum of Natural History Auditorium. Dr. Karl Holte will lead a tour and discuss the functions of the Ray J. Davis herbarium located in the basement of the Idaho Museum of Natural History. We will also approve nominations for new officers and discuss where to go on summer field trips. We plan on one field trip per month from April or May through September.

April: The meeting day and time will be determined in March so we can plan our work day at the Fish and Game building. This will

be done in conjunction with the 20th anniversary of Earth Day.

March 31: Herbarium day, 10:00. These are for interested people to learn something interesting about native plants, be it plant families, plant communities, or pollination of plants. Everyone is welcome.

Upcoming projects: If anybody knows of recipes using Native Plants, please call Bruce Rittenhouse (233-2534). A possible fundraiser could be to make a recipe book based on native plants. Another possible topic would be a book on landscaping with native plants.

#### WHITE PINE CHAPTER

April 3: Meeting at 7:30 p.m. in room 213 of the College of Forestry, University of Idaho. Guest speaker Chris Lorain will discuss her work on "Clearwater National Forest Disjuncts and Sensitive Plants". (Note this meeting is rescheduled from an earlier date due to a series of conflicts that arose when the Clearwater Forest came to get our input on the Aquarius RNA at the January meeting.)

May 12-13: Field trip to Hells Canyon Area. All INPS members are invited to join us Saturday and/or Sunday, May 12-13 for a one or two day field trip to Pittsburg Landing on the Idaho side of the Snake River. This is just below Hells Canyon and within the Hells Canyon National Recreation Area. View marvelous canyon-

bottom spring flowers (including endemics) and prehistoric petroglyphs.

Meet at 10:00 a.m. at Hoot's Cafe (just on the Boise side of Whitebird) and drive to Pittsburg Landing arriving by about 11:00 a.m. We will spend the remainder of Saturday viewing the local flora and petroglyphs, and Sunday hike south along the Idaho side of the Snake River. We will break up around noon. Bring sleeping bags, tents, food and drinking water. *Mirabilis macfarlanei*, along the Salmon River, should be in bloom!

June 30: Field trip to Marble Creek/Hobo Creek area. Visit Marble Creek, St. Joe National Forest Centennial Historical sites and botanical sites. Meet 9:30 a.m. on Saturday, June 30 at the Clarkia School.

Starting about 10:15 a.m. we will hike the 1/2 mile to an early 1900's logging camp, splash dam, and steam donkey engine in the bottom of Hobo Creek, returning to the Hobo Creek road for lunch by noon. From 1:00 to 2:30 p.m. we will drive to Marble Creek via Hobo Creek road and return to Hobo Creek Cedar Grove Botanical area by about 2:30 p.m. We will hike the cedar grove loop trail and inventory its plants as our contribution to the Centennial work, breaking up by 3:30-4:00 p.m. Bring lunch and drinking water.

July 28-29: Field trip to Seven

Devils Mountains. Joint meeting with the Pahove Chapter led by Dick Bingham and Clyde Miller on Saturday and Sunday, July 28 and 29. Meet at 9:30 a.m. Saturday, July 28 at Forest Service Hells Canyon NRA office just south of Riggins on U.S. 95.

We will drive to Seven Devils camp, 1/2 mile left at Windy Saddle on Salmon-Snake divide, by about 10:30 a.m. One group (youngsters led by Miller) will leave immediately for a two mile hike (800 feet up, 600 feet down and back) via Goat Pass to Sheep Lake (7800', fishing ok) which is immediately west of He Devil (9393') and She Devil Mtns. and see a new variety of maidenhair fern and other subalpine flora. The second group (older and/or wiser!) will visit sites in the vicinity of the campground, Seven Devils Lake (fishing ok) and Windy Saddle. Saturday evening, Ace Barton, Hells Canyon old-timer and present mayor of Riggins, will talk on early homesteading and stock raising in Hells Canyon at the Seven Devils campground. Sunday we will visit Heaven's Gate Lookout (8400') and botanize in the vicinity, breaking up about 1-3 p.m. Bring camping gear, food, drinking water and, if wanted, dry wood.



## OTHER EVENTS

April 14: College of Idaho, Museum of Natural History monthly workday. Call Bill Clark 375-8605 or Eric Yensen 459-5331 for more details.

May 4-6: Annual Desert Conference at the Malheur Field Station on the Malheur National Wildlife Refuge, south of Burns, Oregon. Call Randy Morris (208)587-4326 or Steve Jakubowics (208)343-8614 for more details.

July 9 or August 13: An exciting class trip is being offered this summer to study and photograph the natural history of the Denali Parks of Alaska. Travel is by train and river rafts on this 11 day backpacking expedition. College credit is available. Class fee: \$465. For details write John Wenger, 6038 E. 12th., #10, Anchorage, AK 99504.

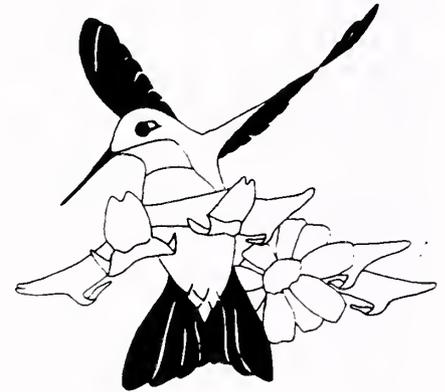
## DISTRICT RANGER

(Continued from page 1)

Pine chapter held an overnight field trip to this site, located some 50 miles northeast of Orofino. Numerous people attended the trip, including Forest Service personnel, concerned citizens, and INPS members. Apparently, our voices were heard and our concerns have been acknowledged, as is evidenced by the visit of the District Ranger.

During the course of the meeting information was presented to Mr. Bourassa concerning the paleo-history of the region and the uniqueness of the ecosystem. The proposed RNA supports a rich biological assemblage of very old western redceder climax stands, numerous relic, disjunct populations of the Pacific coastal flora, endemic plant and animal taxa, and high genetic and bio-diversity. Additionally, we addressed the consequent impacts of a road on the integrity of the Research Natural Area. Specific concerns included increases in recreational activity, introduction of exotic and noxious weeds, destruction of habitat for native species, fragmentation and edge effect, and slumpage potential due to the instability of soil types.

The proposed Aquarius Research Natural Area has become an important issue for the White Pine Chapter and we are grateful for the time and interest expressed by Art Bourassa towards acknowledging our concerns. We hope the evening presentation and discussion was enlightening for everyone involved. A decision pertaining to the proposed road was expected in mid-February, so keep posted!



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## MANAGING RIPARIAN LANDS

(Continued from page 1)

wind and water erosion. The BLM in the years past has asked the owners of the trespass cattle to remove them on many occasions. This has not been successful because no fence separates private and state lands from public lands.

The entire length of the Blackfoot River between Blackfoot Reservoir and Cedar Creek, 30 miles to the north, provide opportunities for several types of recreation including camping and fishing. Recreationists have complained about the high density of livestock in the area.

The proposed action that has begun includes fencing the project and building cattleguards at road crossing. Livestock will be excluded for at least two growing seasons starting in 1989. Yearly monitoring of riparian areas began in 1988. This monitoring will continue on an annual basis for 10 years.

The BLM monitoring plan will provide yearly monitoring for the improvement of native plant vegetative soil cover and the recovery of riparian plant communities to the appropriate composition and density. This monitoring plan will establish photo stations to monitor soil cover and plant community recovery, measure soil loss or gain, monitor streambank cutting and sloughing, and

install visitor registration stations to collect visitor use data.

The rehabilitation part of the plan will consist of two categories; mechanical and ecological, with a goal of promoting the recovery of native riparian vegetation. The mechanical methods include fencing, installing cattleguards, metal gates and vehicle barriers. The ecological methods will defer livestock grazing in the area for two years, allow livestock grazing in the area after the two year rest period during the early spring, generally between May 15 and June 15, exclude all livestock when grazing utilization reaches 40 percent on key species, and plant appropriate shrubs along streambanks if regeneration is not satisfactory.

We can only hope with cooperation from all parties involved that the Blackfoot River in this area may someday return to its original state.

## PRESIDENT'S NOTES

by Susan Bernatas

The motion to amend the by-laws was passed by the necessary voting majority. This has opened the door to hold the INPS Annual Meeting on March 21. Overall, it was a small voting turnout (14 out of 220). The "yesses" had lots of comments:

"I would like to see a weekend in April."

"...it is best to make changes slowly. Very slowly. This is not to say the suggested changes in the by-laws are ill or well advised-they may be neither or both-depending upon who is looking at them..."

"If the Board thinks this will be more workable, I'm willing to try it. But...by always having the annual meeting connected to the rare plant meeting, we run the risk of appearing to be very Boise oriented and very professional botanist oriented."

"I have real objections to the Annual Meeting being placed this year on a Wednesday. It says to me that you really do not want members from a distance to attend..."

It's interesting that some felt "we" were trying to keep "out-of-towners" away from the meeting because "we", the Board of Directors, have representatives from all chapters. Speaking for myself and other Board Members, having two separate meetings this spring would have been overwhelming; this year the meeting is held with the Rare Plant meeting to get things moving. No matter where and when the meeting is held will put some people at a disadvantage. At the recent state board meeting, we decided to have an annual field trip held on a weekend.

Next year's field trip will likely be on a weekend in April.

The other meeting that INPS holds annually is the rare plant meeting where the sensitive species of the state are ranked according to their rarity. This is a very important technical session because the land management agencies use these data in a meeting following the rare plant meeting to set their management priorities. The folks that are best able to rank the species are those that work with the rare species, hence the mid-week timing to encourage people to attend as "part of their job". No where did anyone suggest that the rare plant meeting and the annual board meeting should be ever entwined.

Last year 50 people attended from around the state with various levels of involvement in rare species. The meeting has become more interesting with the addition of slides that can help even the most seasoned botanist learn more about the species. If there is chapter interest perhaps we could make the slides a traveling show. Given a little time and money, the slide show text could be drafted and a slide tray or two purchased for distribution.

Getting a new organization off the ground has been exciting and frankly, lots of work. There are lots of great ideas, enthusiasm, and fun people. There is also not enough money and problems with long

distance communications and logistics. It is likely to take some time to smooth out the rough edges in getting four chapters to work separately and in concert as a state organization. I think all will agree that it has been a great start.

The last newsletter outlined a policy on how the INPS will implement position statements about issues of concern to INPS and the first approved position statement deals with the proposed road through the proposed Aquarius Research Natural Area. This biologically significant area has been highlighted in Sage Notes and was the featured statewide field trip in 1989. Following is the statement:

The proposed Aquarius Research Natural Area is located along the North Fork of the Clearwater River at the upper end of the Dworshak Reservoir. This section of the North Fork is a low elevation canyon characterized by relatively warm temperatures and high precipitation. These climatic factors, which are unusual in the northern Rocky Mountains, are responsible for an extraordinary ecosystem containing many disjunct and endemic plant and animal taxa and unique vegetation types.

The justification for establishing the Aquarius Research Natural Area is to preserve the last remaining intact example of a unique ecosystem unequalled in character in forest regions of

the northern Rocky Mountains. Vegetation studies of Aquarius and other coastal refugia in the vicinity have elucidated the history and development of vegetation in the northern Rockies. Although studies to date have revealed valuable information, much more knowledge of flora and fauna can be expected from future research on this undisturbed site. This knowledge can be of great value in determining characteristics, limitations, and trends of the present vegetation and, hence, is of consequence to present and future management of northern Rocky Mountain forests.

Although the proposed Dworshak Access Road would not destroy the Research Natural Area, it would seriously impact it and impair its value as a most unusual refugium for research on flora and fauna of the Northern Rockies. The road would traverse unstable landtypes having a high potential for mass wastage and sedimentation. Furthermore, a well-designed, hard surface haul road is already in place providing access to the timber from the North Fork of the Clearwater River. The estimated savings in log hauling cost are too high a price to pay for impairment of this unique and valuable ecosystem.



## FROM THE TREASURER:

Just a reminder--if your dues has expired, you have until April 1 to renew. If you don't, this will be the last copy of the newsletter that you will receive.

## ABOUT OUR SOCIETY

### INPS OFFICERS

**State Officers:** President--Susan Bernatas, Vice President--Bruce Rittenhouse, Secretary--Pam Brunsfeld, Treasurer--Kathy Geier-Hayes.

**Big Wood Chapter:** President--Kristin Fletcher, Vice President--Frances Naser, Secretary/Treasurer--Carol Blackburn.

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

**Sa-Wah-Be Chapter:** President--Bruce Rittenhouse, Vice President--Von Michaelson, Secretary--Susan Rittenhouse, Treasurer--Ruth Moorhead.

**White Pine Chapter:** President--Bob Skiles, Vice President--Ed Tisdale, 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. Newsletter ads are \$2.00 for personal ads, Commercial advertisements: 1/8 page \$5.00, 1/4 page \$8.00, 1/2 page \$15.00, and full page \$25.00.

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

### 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 April 20.**



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# Sage Notes



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## RARE PLANT CONFERENCE

by Bob Moseley

About 50 people attended the Rare Plant Conference including a wide cross-section of agency biologists and botanists, consultants, and interested lay people.

For various reasons over the course of the two-day meeting, the group dropped 29 species from the rare plant list for Idaho, mostly because these species were found to be more common than previously thought (see box on page 7 for details). Sixteen species were added to the list, mostly in the Review category.

What impressed me about this conference, compared to previous years, was the amount of discussion on conservation strategies needed to maintain and enhance depleted and threatened species. Biologists in the state now have a good understanding of the basic status of many of the rarest species (i.e., distribution, abundance, and past and (Continued on page 5)

THE IDAHO NATIVE PLANT SOCIETY NEWSLETTER  
SAGE NOTES VOL.13, #3 MAY,JUNE 1990 PAGE 1

## THANKS FOR A JOB WELL DONE

The success of the 1990 Rare Plant Conference was the result of much hard work provided by many INPS members. Bob Moseley, Susan Bernatas, LeAnn Henry, and Scott Riley deserve recognition for their efforts as RPC coordinating committee members. Mering Hurd kept participants fat and happy with a wonderful assortment of breads, fruits, and vegetables. Willie Gluch, Agnes Miller, Dr. Pat Packard, Caryl Elzinga, Linda Smithman, Cindy Lunte, Pam Conley, and Carol Prentice did a great job keeping everyone on track, on time, and in the know during the conference. Susan and Mering did a great job coordinating the slides of rare plants and habitats for the conference. Several folks added to the INPS rare plant slide collection this year including Bob Moseley, Fred Johnson, Doug Henderson, and Peter Lesica.

Carol Prentice and Jay Smithman provided the logistical support for the INPS Annual Meeting on March 21. Fred Johnson deserves special thanks for traveling from Moscow specifically to enlighten INPS members about endemism in northern Idaho and for providing us with a very entertaining and

insightful program.

And most of all, an appreciative hand to Nancy Cole, INPS-RPC Committee Chairwoman, for her diligence in coordinating this meeting as well as providing a well documented framework for future meetings. Nancy's efforts this year will certainly pay off in the years to come!

Sincere thanks to all who helped make the 1990 Rare Plant Conference the best yet!

## A LAYPERSON PERSPECTIVE OF THE RARE PLANT CONFERENCE

by Kristin Fletcher

Now why would someone such as I, a non-plant specialist, want to drive 300 miles to attend a rare plant conference? Good question. The answer was...curiosity. I soon discovered I had no real concept of what makes a plant rare. The simplest answer is that there aren't many of them. But why? As we discussed, the current status of Idaho and federal candidates to the rare and endangered plant list, two words kept coming up again and again to describe the environments in which these plants occur: disjunct and endemic.

(Continued on page 5)

## INPS CALENDAR

**BIG WOOD CHAPTER**

May 19: Cindy Lunte, State Land Steward for The Nature Conservancy with a M.S. in Limnology (the study of lakes and streams) will lead "An Intimate Look at Silver Creek". She will be assisted by Amy Miller, a former intern with The Nature Conservancy. Meet at the visitor's center, Silver Creek Preserve at 9:00 a.m.

May 30: Susan Bernatas, Public Lands Coordinator/Natural Areas Ecologist for The Nature Conservancy (and president of I.N.P.S.) will join Cindy Haggas, Ecologist for the Lost River District, Challis National Forest, to present a slide show and discussion on the Iron Bog Research Natural Area, a unique wetlands preserve. Meet at the Sixth Street Environmental Center, Ketchum, at 7 p.m.

Mid-July: Bill McDorman of High Altitude Gardens will lead a walk featuring wildflowers of the high mountains. Time and location to be announced.

August 4: Ken Britton, professional forest manager with the Sawtooth National Recreation Area will lead a trip into the Alturas Lake area to discuss wildfire in the Sawtooths. Meet at the

SNRA, 8 miles north of Ketchum, at 10:00 a.m.

For information about any of these events, contact Kristin Fletcher at 788-9530 or Francis Naser at 726-4684.

**PAHOVE CHAPTER**

May 17: Meeting at 7:30 pm in the Boone Science Hall at the College of Idaho, Caldwell. The program will be a re-creation of a historical trip down the Grand Canyon by Terry Lord.

May 19: Field trip into the Owyhee Reservoir area, Oregon. This area has many interesting desert plants, such as *Mirabilis bigelovii*, *Calochortus bruneaunis*, *Langloisia punctata* and a population of *Astragalus mulfordiae*. Meeting places are at the Boone Science Hall, College of Idaho parking lot at 8:45 and the Owyhee Junction Store at 10:00. For more information call trip leader Jean Findley at (503)889-5908 or Joe Duft at 375-8740.

June 2: Native gardens tour in Boise and vicinity. This tour, led by Karen Pratt, will take you to several interesting yards and gardens to illustrate the use of natives for landscaping, from xeriscapes to aquatic ponds and bogs. Meet at the Kathryn Albertson Park at 9:00 and bring a lunch. For more information, call Karen at 344-3257.

July 28-29: Weekend trip into the Seven Devils Mountains. Enter near Riggins and travel to Seven Devils Lake and Heavens Gate areas. The road is steep, but passable by passenger car. View high mountain meadows and timbered areas, subalpine slopes and Hells Canyon, the deepest canyon in North America. This will be a combined Pahove-White Pine Chapters trip. Contact Dick Bingham in Moscow at 882-5204 or Joe Duft in Boise at 375-8740. See White Pine Chapter events for more details.

Late August: Botanize by canoe on an easy-water river trip. If interested, call Roger Rosentreter at 334-1927 or 384-1244 for date and location.

**SA-WAH-BE CHAPTER**

No report from the Sa-Wah-Be Chapter this newsletter.

**WHITE PINE CHAPTER**

June 30: Field trip to Marble Creek/Hobo Creek area. We will visit Marble Creek, St. Joe National Forest Centennial Historical sites and botanical sites. Meet 9:30 a.m. on Saturday, June 30 at the Clarkia School.

Starting about 10:15 a.m. we will hike the 1/2 mile to an early 1900's logging camp, splash dam, and steam donkey engine in the bottom of Hobo Creek, returning to the Hobo Creek road for lunch by noon. From 1:00 to 2:30 p.m. we

will drive to Marble Creek via Hobo Creek road and return to Hobo Creek Cedar Grove Botanical area by about 2:30 p.m. We will hike the cedar grove loop trail and inventory its plants as our contribution to the Centennial work, breaking up by 3:30-4:00 p.m. Bring lunch and drinking water.

July 28-29: Field trip to Seven Devils Mountains; Joint meeting with the Pahove Chapter led by Dick Bingham and Clyde Miller on Saturday and Sunday. Meet at 9:30 a.m. Saturday, July 28 at Forest Service Hells Canyon NRA office just south of Riggins on U.S. 95.

We will drive to Seven Devils camp, 1/2 mile left at Windy Saddle on Salmon-Snake divide, by about 10:30 a.m. One group (youngsters led by Miller) will leave immediately for a two mile hike (800 feet up, 600 feet down and back) via Goat Pass to Sheep Lake (7800', fishing ok) which is immediately west of He Devil (9393') and She Devil Mtns. and see a new variety of maidenhair fern and other subalpine flora. The second group (older and/or wiser!) will visit sites in the vicinity of the campground, Seven Devils Lake (fishing ok) and Windy Saddle. Saturday evening, Ace Barton, Hells Canyon old-timer and present mayor of Riggins, will talk on early homesteading and stock raising in Hells Canyon at the

Seven Devils campground. Sunday we will visit Heaven's Gate Lookout (8400') and botanize in the vicinity, breaking up about 1-3 p.m. Bring camping gear, food, drinking water and, if wanted, dry wood.

### OTHER EVENTS

July 9 or August 13: An exciting class trip is being offered this summer to study and photograph the natural history of the Denali Parks of Alaska. Travel is by train and river rafts on this 11 day backpacking expedition. College credit is available. Class fee: \$465. For details write John Wenger, 6038 E. 12th., #10, Anchorage, AK 99504.

July 14-15: Iron Bog Research Natural Area workday. The Nature Conservancy with INPS members will be helping the Lost River District, Challis National Forest, build a fence to protect the sphagnum moss bog. This type of bog is unique in Southern Idaho and sphagnum peat develops at a rate of less than 1 centimeter per 100 years! Contact Susan Bernatas 334-1457 or Cindy Haggas 588-2224 for more information.

August 12-22: Natural Science Illustration taught by Linda Ann Vorobik at the Malheur Field Station. Class fee: \$440. For more information contact

Dr. Vorobik at the Jepson Herbarium, University of California, 6701 San Pablo Ave, Oakland, CA 94608 or phone (415)643-7008 days, (415)527-3023 evenings.

### WHITE PINE CHAPTER EARTH DAY ACTIVITIES

By Janet Campbell

Gray skies did not deter several members of the White Pine Chapter from tending our information table on Earth Day at Mountain View Park in Moscow. INPS brochures and information on upcoming field trips were available to the public, as well as the Society's colorful tee-shirts. It appears that this chapter will be welcoming some new members who became acquainted with the Society on Earth Day.

Mother Nature was not as cooperative with other scheduled activities related to Earth Day. A number of members had prepared to lead nature walks at Kamiak Butte State Park, in nearby Washington, for local students as part of Moscow High School's Environmental Symposium. Although the event was called off due to rain, the students' enthusiasm was not dampened, and the hike will be held later in May. Those of us who visited Kamiak Butte earlier in the week for a preview were

greeted by welcome spring bloomers such as serviceberry, calypso orchid, meadowrue, and prairie star in this Douglas fir - Ponderosa pine habitat.

Another activity under discussion with students from Moscow High School is the planting of native species on the school grounds. Upcoming construction there will delay plans, but it is encouraging to see a group of young people so interested in establishing native plants in public areas.

## AQUARIUS AREA ROAD DECISION

Chris Lorain, in the last issue of Sage Notes (March, April Vol. 13,#2) informed us that a decision was expected in February concerning the Dworshak Access Road Proposal and the potential impact on the proposed Aquarius Research Natural Area. On March 19, INPS sent out the recently drafted Aquarius Area position statement (published in the last newsletter) to the agencies involved in planning programs for the area. INPS received a response from Regional Forester's office later in March, thanking us for our interest in the area and involvement. The letter noted that the Clearwater National Forest would be releasing the decision notice on the proposed road in early April. On April 6, the following decision was released by Arthur Bourassa, District Ranger of the North Fork

Ranger District:

"Based on the analysis and evaluation found in the Environmental Assessment, I have decided to select Alternative 1, No Action. Under this alternative, the proposed action, an access road between Isabella Landing and the Milk Creek log dump site, will not be built. In addition to the provision of this alternative, I have further decided to initiate preparation of an establishment report, and ultimately, a management plan for the Proposed Aquarius Research Natural Area. This will be for the specific purpose of inventorying the biotic and abiotic communities and establishing a standard for determining and monitoring effects. It will be completed not more than three (3) years from the signing of the decision.

My decision is based on the following rationale:

1. The proposed road poses too great a risk to the values for which the Aquarius Research Natural Area has been proposed.
2. After conducting the analysis, I have determined that a road is inappropriate in a Research Natural Area, at least until some baseline understanding of the significance of the values can be documented.
3. Too many uncertainties

remain which cannot be solved through additional analysis, at least in the near future."

## INPS GOALS FOR IDAHO'S SENSITIVE PLANTS

INPS approached Yvonne Ferrell, Director the the Department of Parks and Recreation, in March to develop a protection and education program for Idaho's flora. The Rare Plant Protection Committee of INPS presented six goals to the Department of Parks and Recreation, the agency with authority over Idaho's flora, with the hope that INPS and the Department could coordinate joint efforts concerning sensitive plants. Following are those goals:

1. Amend the list of state sensitive species. The present species list in the Idaho Code are common to northern Idaho with two exceptions. INPS recommends that the list of species developed from the Rare Plant Conference be adopted as the state sensitive species list.
2. Develop State coordination in rare plant conservation. INPS would like the state to develop clearances for rare plants similar to the clearances now required for archeological sites.
3. Develop educational material for the public on Idaho's rare plants.
4. Develop protection plans for rare species on State lands.

5. Adopt a registry system for rare plant populations on private lands to encourage protection and pride in our state's flora.

6. Develop acquisition potential by the State or through partnerships to protect high quality rare plant populations.

After an April meeting with Yvonne, the following goals were agreed upon:

1. Adopt the INPS rare plant list as a State rare plant list.
2. Develop a traveling display on the State flora and,
3. Design a book on the State rare plants.

As a footnote, at the INPS Annual Meeting in March, it was proposed that INPS should form a conservation committee to work on plant protection issues. After lengthy discussion, it was decided that the present Rare Plant Protection Committee would change its name to the Conservation Committee and over time, other duties of the committee would evolve. Members of the committee include Susan Bernatas (committee chair), Nancy Cole, Caryl Elzinga, Doug Henderson, and Bob Moseley.

## PLANT CONFERENCE

(Continued from page 1)

present threats), a subject which used to dominate the discussion at past meetings. We have moved beyond this for many species and the discussions now focus on

conservation and management of populations for long-term preservation. Some notable examples were discussions on federally listed Aase's onion (*Allium aaseae*), and Mulford's milkvetch (*Astragalus mulfordiae*) and the preservation of concentrations of disjunct species, such as the Kane Lake basin in the Pioneer Mountains.

## LAY PERSON PERSPECTIVE

(Continued from page 1)

A disjunct's area, I discovered, harbors plant communities which often occur quite frequently in other regions of North America, yet are rare in Idaho. The Aquarius area in northern Idaho is an excellent example. Here coastal species such as cedar and red alder (*Alnus rubra*) become environmentally separated from their peers by climatic changes brought on by the rising coastal ranges of Oregon and Washington thousands of years ago. Yet in the North Fork canyon of the Clearwater River, a unique niche remained which was similar enough to a coastal environment to allow these plant communities to flourish, though in limited numbers.

Endemic regions, on the other hand, harbor plants which occur only in highly specific areas. Particular conditions of altitude, aspect, moisture, geology, and other factors combine to create unique plant communities. The White

Clouds milkvetch (*Astragalus vexilliflexus* var. *nubilus*) is such a plant which occurs only in the Whitecloud Mountains.

What I began to see was not a state marked by county lines, highways, and towns, a few major rivers and mountains, but a patchwork of plant communities, some quite familiar and common like the southern sagebrush covered basin and range systems and northern Idaho's verdant tree covered mountains. Yet tucked away here and there exist quite extraordinary environments. Here in the Challis and Sawtooth endemic areas, the Palouse Prairie, Aquarius and other areas, circumstances have combined to create plant forms rare in Idaho and some which are seen no where else on the planet.

## THE MYTHS OF KNAPWEED

by Richard Tucker, Range Agrologist, British Columbia Forest Service, Kamloops. (From Knapweed, February 1990, Vol 4(1). Washington State University, Cooperative Extension)

Primitive people used mythology to explain things they did not understand or were unable to control. Supernatural powers were attributed to natural phenomenon, which were then separated into clearly defined areas of good and evil, with

the hope that good would prevail. Following this tradition, people of the late 20th century North America developed an intricate mythology around the invasion of knapweed into their rangelands. These myths, far less naive than earlier ones, were laced with pseudo-science to the point where they were seldom recognized as myths and often were supported by otherwise rational people.

The myths began a long time ago in the 1970s. Despite the best efforts of Range Managers, knapweed was defiling land at an ever increasing rate. The land was being desecrated, no longer would it produce forage; instead it became the breeding ground for hordes of evil seeds. Armed with the wisdom and science of range management, the Great Range Managers of the time fought a terrible battle, but failed to control knapweed. Gradually a belief developed that not only was knapweed bad, but it was actually possessed by an evil spirit. The spirit was called "allelopathy". Now Range Managers could sigh a collective sigh of relief; they were no longer at fault. Mere mortals could not be held responsible to control the awesome power of demonic plants. This was the first myth of knapweed that was espoused in many society gatherings.

Since these early times much has been learned. Research

has found that though there are toxic chemicals in knapweed, allelopathy is not an important ecological factor contributing to its successful invasion and survival in North America. But the myth persisted.

Another strategy to rid the land of knapweed was developed. It was suggested that the powers of knapweed could be controlled, at least partially, by a shielding spell placed around some lands that would block the entry of knapweed. The spell was invoked by a Range Manager standing over the land and intoning the phrase, "This area is in good to excellent range condition". The strength of the spell depended on the status of the range manager, which in turn depended on age and occupation. Research scientists appeared to have more clout than agency people. The scarcity of good wizards and the distance between sites caused great weariness, and really good Range Managers found it was easier to invoke the spell by inserting the phrase on a small scale map with a colored pencil.

When the protected lands succumbed to slow encroachment by knapweed, it was assumed that the wizardry of the Range Manager was not up to snuff. It became widely known that young Agrologists just did not measure up, and their spells were weak and ineffective. As a remedy it was suggested that

the spell could be enhanced in power by having a touring group from "The Society" stand in a semi-circle, wave their arms and scuff the dirt, while one revered member intoned the phrase, "Knapweed cannot invade good to excellent condition range," into a P.A. system.

We now know that knapweed can invade all grasslands. The rate of spread and final density are dependent on range condition and current management. Where good condition ranges thrive under proper use, invasion will be slower and the density will be lighter than on ill treated lands.

Knapweed continued to spread and range managers were desperate for a way to stop it. Away to the south people worked long hours cloistered in a flat land to conjure up a Solution, namely a magic cow capable of grazing the land and cleansing it of knapweed. The magic cow on its own turned out to be powerless, it had to be turned out in conjunction with an enchanted grazing system. The goodness, focused by interconnectedness of all things, was then able to overcome the evil forces manifested in knapweed and rid the land of the menace.

This myth was often talked about but generally not accepted, partly because the sorcery required was far stronger than found in most Range Managers (most of the

really good wizards went into wildlife management and did not dabble in the smaller problems), and partly because interconnecting the magic cow with the enchanted grazing system on the right range type was nearly impossible. For the few times it did work, the effect was over such a small piece of land and for such a short time that few people actually saw it.

Nevertheless, the myth persisted, and many of the people insisted that we could do away with herbicides and costly biocontrol if we would only believe in the magic cow.

Grazing systems do have an effect on knapweed, as they affect all plants within the grazed areas. Obviously, some systems will encourage and some will discourage knapweed invasion. It is, however, unlikely that a grazing system can be developed that on its own will accomplish satisfactory control.

The problem with myths is that they can divert a lot of energy away from the real problems. The best strategy with knapweed seems to be to contain its spread with judicious use of herbicides, to practice good range management, and to implement biological control. Efforts on these three fronts should eventually reduce knapweed to a manageable weed. Does that sound like a myth?

## INPS MEMBERS IN THE NEWS

Robert Tiedemann, an ecologist with the Idaho Transportation Department, initiated and led an extensive interagency effort to reach an agreement on using a wetland "bank" as a mitigation alternative in Idaho. After reaching agreement with several state and federal agencies, Rob developed and implemented two successful wetland mitigation banks in the State. For his efforts, Rob was one of six recipients of the First Annual Wetlands Awards. This award is presented by the National Wetlands Newsletter in cooperation with the U.S. Environmental Protection Agency and the Association of Wetlands Managers to recognize individuals who have demonstrated outstanding innovation or excellence in wetlands protection at state and local levels. Congratulations to Rob!

## GENETIC CODE FOUND IN 17-MILLION-YEAR-OLD LEAF

The New York Times reported that scientists have extracted fragile strands of DNA, the genetic code of life, from a 17-million-year-old magnolia leaf that was still green when it was found embedded in sediment in an ancient lake near Moscow, ID. The site consists of layers of clay sediments that encase the remains of flowers, stems and leaves, insects and fish, that are exceptionally well-preserved because of the low oxygen content and cold temperatures of the water. Through the use of a new laboratory technique, polymerase chain reaction, (PCR) scientists were able to compare the gene sequence of the newly discovered leaf with that of a modern magnolia to see how it had changed over the years.

*If you did not attend the meeting and would like a copy of the Results of the Sixth Annual Idaho Rare Plant Conference, send a self-addressed stamped envelope to INPS, P.O. Box 9541, Boise, ID 83707, Attn: Rare Plant List.*



## WELCOME TO NEW MEMBERS

Laura Bond, Sherri Sturm-Lesch,  
Connie Gable, Boise, ID  
Larry Morse, Arlington, VA  
Sylvia Reichel, Shelly, ID  
Kim Batchelder, Spokane, WA  
Catherine Stapp, Gooding, ID  
Rocky Tschappat, Aspen, CO  
C. Edward Bottum, Jerome, ID  
Robert Spccht, Challis, ID  
Sherry Ratcliff, Caldwell, ID

## ABOUT OUR SOCIETY

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**Big Wood Chapter:** President--Kristin Fletcher, Vice President--Frances Naser, Secretary/Treasurer--Carol Blackburn.

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

**Sa-Wah-Be Chapter:** President--Bruce Rittenhouse, Vice President--Von Michaelson, Secretary--Susan Rittenhouse, Treasurer--Ruth Moorhead.

**White Pine Chapter:** President--Bob Skiles, Vice President--Ed Tisdale, Secretary/Treasurer--Pam Brunsfeld.

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

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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 June 20th.**

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.



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# Sage Notes



Syringa

## IRON BOG FENCING PROJECT

by Jill Andersen

On July 14 and 15, the Iron Bog Fencing Project broke ground in the Challis National Forest. Volunteers from the Nature Conservancy, Lost River District of the Challis National Forest, and the Pahove and Sah-Wah-Be Chapters of the INPS gathered to build a fence around the Iron Bog Research Natural Area. Though the Iron Bog has been a swamp for years, recent drought has caused slow drying. Cattle are now moving into the bog, damaging the sphagnum moss mat.

Volunteers rose early Saturday morning to a beautiful sunrise in the Iron Bog Campground to start digging the fence post holes. Two members of the INPS won the contest for digging out the biggest rock. They pulled out two boulders the size of dinosaur eggs and were lost in the hole for a couple of hours. By the end of the day, most of the holes had been dug.

(Continued on page 4)

THE IDAHO NATIVE PLANT SOCIETY NEWSLETTER  
SAGE NOTES VOL.13, #4 JULY, AUGUST 1990 PAGE 1

## THE MARBLE CREEK CENTENNIAL PROJECT

by Bob Skiles

The Marble Creek Interpretive Center was inaugurated on Saturday, June 16, as one of the main points of interest in the Marble Creek Centennial Project. The White Pine Chapter of the INPS has pledged support to the project by making a species list of the Hobo Cedar Grove Botanical Area. The grove will become part of the Marble Creek project, along with several interpretive trails, historical trails and campgrounds.

In earlier years Marble Creek was used by loggers to transport logs to the St. Joe River and onward. Today there are numerous relics of the logging years in the area, and the Interpretive Center and Centennial Project are designed around the logging history. Logging is still a major activity in the area, and there is an increasing and substantial use of the area for recreational purposes. The Interpretive Center is dedicated to the demonstration that the logging industry and recreational use can live and work together in national forests.

The Marble Creek Centennial  
(Continued on page 4)

## STUPENOUS CEDARS

By Fred Johnson, Director,  
Idaho Big Tree Program

First, lets get one thing straight, the common name of "cedar" means practically nothing in helping decide a tree's genus. In southern Idaho, junipers are called cedar, and there are numerous Cedar Mountains and Cedar Creeks which are named for any one of the three species of tree junipers in Idaho. Looking back to the origins of the word "cedar", we find it is Greek, "kedros", standing for a true cedar (*Cedrus*) or a juniper tree. This moved to Latin "cedrus" which became a generic name. Citrus is thought to have the same roots. About the only thing trees called "cedar" have in common is the fragrant wood.

At any rate, in the western United States we have stinking-cedar (*Torreya californica*), incense-cedar (*Calocedrus decurrens*), Port-Orford-cedar (*Chamaecyparis lawsoniana*), Alaska-cedar (*C. nootkatensis*), many junipers, escaped eastern redcedar (*Juniperus virginiana*), western redcedar (*Thuja plicata*), and even some planted true cedars (*Cedrus atlantica*, mostly).

It's our western redcedars I want to write a bit about. They are certainly the trees  
(Continued on page 4)

## INPS CALENDAR

### BIG WOOD CHAPTER

August 4: Wildfire in the Sawtooths. Ken Britton, professional forest manager with the Sawtooth National Recreation Area will take us into the Alturus Lake area to discuss the role fire has in creating the ecology of our region. Also to be discussed is the role land management agencies have taken in both the suppression of fires and the use of controlled burns. Should be a timely fieldtrip, this hot and dry summer. Meet at the SNRA, 8 miles north of Ketchum at 10:00 a.m.

August ?: What Plant is That? A Layperson's guide to plant identification including how to use keys, diagrams, and understanding terms commonly used in plant taxonomy. We expect to have many handouts available for this class to help make plant identification easier and more fun. Time and date to be announced.

Open invitation to all members and other friends of native plants: Please feel free to call if you will be in our area. We often have somewhat spontaneous meetings and/or field trips as the opportunities arise that are not listed in the newsletter. Or perhaps you'd like to know of a good walk where the wildflowers are

especially nice, or perhaps just to visit with like-minded folks. In any case, we welcome your call. Kristin Fletcher 788-9530, Francis Naser 726-4684, or Carol Blackburn 788-4276.

### PAHOVE CHAPTER

September 8: Botanize by canoe on the Boise River from Glenwood Bridge to Eagle Island. Meet at the Glenwood Bridge at 10:00. Bring a lunch. If interested call Roger Rosentreter at 334-1927 (work) or at 384-1244 (home).

### SAH-WAH-BE CHAPTER

August 12: Field trip to Gravel Creek Campground and Grays Lake Wildlife Refuge near Wayan, Idaho led by Bill Haight. Meet at the Idaho State Museum Parking lot at 9:00 a.m. Contact Ruth Moorhead, 233-5011 for more information.

September 25: Meeting at 7:30 p.m. at the Idaho Museum of Natural History. We will discuss plans for the fall and winter.

### WHITE PINE CHAPTER

August 18-19: Priest Lake area. Plan to arrive at Outlet campground on Friday, August 17, or no later than noon on Saturday, August 18. There are 29 campsites at Outlet, with water and toilets. The camping fee is \$6 per night and up to eight people can camp in any one site. If there are too many of us, there is Osprey campground less than one mile north of Outlet for

the overflow. No reservations are needed in either campground. The campgrounds are located at the south end of Priest Lake close to Highway 57 just north of Outlet Dam and Outlet Bay. Follow Highway 57 north from the town of Priest River. We plan to tour some marsh and bog vegetation as well as other local spots of interest. Depart on Sunday afternoon, August 19, or on Monday, August 20.

September 15-16: St. Joe River. Plan to join us for a tour of some locations of interest on the St. Joe River. We will meet at Huckleberry campground, about five miles east of Calder on the St. Joe River highway. Meet at noon on Saturday, September 15. There are 17 camping sites plus plenty of additional level space for tents or campers. Water is provided. No reservations are required for the campground sites. Saturday afternoon and Sunday will be spent touring a cedar grove and Fish Hook Creek, and viewing rockplants and other items of interest.

October 6: Kamiak Butte. This will be our last outdoor venture of the year and will be held at Kamiak Butte near Palouse, Washington. People in attendance last year seemed to enjoy it so much that we decided to make it an annual event! Hike park trails from 2:00 to 4:00 p.m. Potluck will follow around 4:30 p.m. Besides a potluck dish to

share, bring your own table service and drink. Any dogs must be on leashes.

Kamiak Butte Park is about 30 minutes from Moscow traveling north on U.S. 95 to the Palouse turn-off (Highway 66) to Palouse, then south on Highway 27 out of Palouse. Look for the Kamiak Butte signs.

In addition, since it is the end of the year, we will have an election of officer for our chapter for 1991, plus a short business meeting to discuss interest and suggestions for future meetings and tours.

All INPS members are welcome to attend any or all of these trips. If you need further information please call a White Pine Chapter officer.

## OTHER EVENTS

July 21-21: Wildflower Identification. The program will be led by Chris Lorain from the Idaho Natural Heritage Program. Fee: \$50.00.

August 27-29: Alpine Landscape Photography. Contact Michael Bosold and Judith Senk, 6511 Butte St., Boise, ID 83704 or phone (208)377-2648. Fee: \$120.00.

Both programs are part of the Summer Session, University of

Idaho Field Campus, McCall, Idaho. For more information, contact Walter Dunn, University of Idaho, McCall Field Campus, P.O. Box 1025, McCall, ID 83638 or phone (208) 634-9937.

July 26-27: High Altitude Revegetation Summer Field Tour. Colorado Springs/Denver. For information contact: High Altitude Revegetation, Department of Agronomy, Colorado State University, Fort Collins, CO, 80523.

## WHITE PINE CHAPTER TRIP TO HELLS CANYON

by E.W. Tisdale

Thirty five members, including some from as far away as Wallace and Calder, turned out for this trip. The access road from Highway 95 to Pittsburg Landing on the Snake River was less challenging than expected due to recent improvements, but the view from Pittsburg Saddle into Kurry Valley and the Snake Canyon is still breathtaking.

A group camp, primitive but comfortable, was made under a grove of locust trees established in the early 1900's by settlers now long gone from the area. From camp we ranged out on Saturday afternoon and Sunday morning to explore this large and

varied area. A group of petroglyphs on polished river boulders near the lower Pittsburg Landing, and other remains indicate the importance of the site to the Indians of the region. Other attractions included one rattlesnake (small) seen on the first field excursion.

The vegetation of the area is diverse and of special interest due to the great range of elevation, and the mild and not too arid climate of the canyon which has favored the occurrence of many species whose main distribution is much further south. Such species include white alder (*Alnus rhombifolia*), hackberry (*Celtis douglasii*), mountain mahogany (*Cercocarpus ledifolius*) and greenbush (*Glossopetalon nevadense*). Other interesting natives include the beautiful Snake River phlox (*Phlox colubrina*) endemic to the area, broomrape (*Orobanche fasciculata*) a root parasite, and several species of fleabanes, milk vetches, lupines, etc. About forty species were identified, most in bud or flower.

Introduced species are common due to heavy grazing for many years and the mild climate. Most of the range weeds of the region occur in the area along with some such as barren brome (*Bromus sterilis*) which are not common this far north. A recent introduction pointed out by Bob Calliahan, silver-leaf

nightshade (*Solanum eleagnifolium*), has its only known Idaho occurrence in this area.

Several members of the group including Dick Bingham, Ed Tisdale, Fred Johnson and Chris Lorain who were familiar with the area and its vegetation, helped to identify plants and explain other interesting features. The fun of camping together was another factor which helped to make this an outstanding trip.

## IRON BOG

(Continued from page 1)

A baked potato feed awaited back at the campground for hungry fencers and everyone joined around for great cooking, laughter, and fun, hospitable fellowship. It was great to see so many volunteers from around Idaho invest their time to preserve one of Idaho's rare Natural Areas.

## MARBLE CREEK

(Continued from page 1)

Project has funding of \$500,000 provided by many private and public sponsors throughout the region. Many volunteers have been, and continue to be engaged in multiple efforts to further the project. Governor Andrus supports the Interpretive Center and its purpose, and sent a representative to the dedication ceremony on June 16. When the project is completed it will be a

wonderful monument to the logging industry and public recreation.

## STUPENDOUS CEDARS

(Continued from page 1)

redcedar groves in the northern Rockies. In the summer of 1979, our attention was called to this tree by engineers who were surveying a road for a logging show. After a preliminary measurement with two people, we decided it would take three or four folks to properly measure the tree. That fall, four of us found these average measurements: 680 inches in circumference, 177 feet tall, and a narrow crown which averaged only about 40 feet. At 867 points (see Sage Notes, 1990, Vol 13(2) for point system) this is far and away the biggest tree in Idaho. Almost 17 stories tall, it's a beautiful tree with a healthy, full crown which almost touches the ground. It sits in a small fern-clad stream bottom. In fact, the stream flows *under* the tree! It's hollow as a tom-tom; we easily pushed a 6 foot survey stake through a crack into the center. How did it get missed with early logging railroads going nearby? Well, it was simply too big! Many smaller trees in the grove were cut, but the larger ones, good only for shingles because they were hollow, were ignored. How old is it? We simply don't know. Based on some tree ring chronologies done by Tracey

Parker, we are claiming with high confidence that it is over 3,000 years old!

We claim this as the largest tree east of the Cascades; certainly there's no larger on the 1990 American Forestry list of the nation's champion trees. How does ours stack up with the Pacific coast? Pretty well actually, the largest in the U.S. is near Forks, Washington on the Olympic Peninsula: 19.4 feet diameter X 178 feet tall and a 54 foot crown spread for 942 points. This tree is all but dead. But wait, here's a news item from British Columbia sent to me by a friend to put us in our place. On Vancouver Island, Pacific Rim National Park, is a redcedar 19.7 ft in diameter and 194 ft tall - no crown measurement. So, as far as we know, this tree is the world's largest - appropriate, since western redcedar is the provincial tree of British Columbia.

Where is this Idaho giant cedar? It's a few miles north of Elk River in Clearwater County. The folks at the Palouse Ranger Station in Moscow (or in Potlatch) will be glad to provide a map/brochure. There's a road nearby and the area has signs for guidance.

Our redcedar groves are nearly irreplaceable, for they take well over a thousand years to produce; for larger trees, much longer. Here's a list, north to south, of some

of the better and more accessible groves:

Kaniksu N.F.: Roosevelt Grove (Washington), northwest of Nordman; Hanna Flats Botanical Area, west of Priest Lake Ranger Station

Coeur d'Alene N.F.: Settler's Grove, north of Wallace

St. Joe N.F.: Sand House Grove (Fishhook Creek), south of Avery, Hobo Botanical Area, northeast of Clarkia; Giant Cedar Grove, north of the town of Elk River

Clearwater N.F.: Heritage Grove (Isabella Creek), north of Headquarters; DeVoto Grove, U.S. 12 northeast of Powell Ranger Station

Nez Perce N.F.: O'Hara Grove, south of Fenn Ranger Station

## CATALOG OF WOES

by Richard N. Mack (1990. *Natural History*, March: 45-52).

Like his modern-day counterpart, the winter-weary gardener of one hundred years ago could open his mailbox in late winter to find that long-awaited harbinger of spring--the wonderful new seed catalog. While mail-order catalogs in general are a modern phenomenon, seed catalogs have been around for more than two hundred years, long enough to have influenced the vegetation of

many parts of our country. The results have been both beautiful and disastrous.

Nineteenth-century nurseries introduced and helped spread many of the plants we now call weeds on our farms, waterways, lawns, and gardens. The word weed has several definitions. I will consider it to mean a plant that we think is out of place either in the wild or in the garden. In their native environments, the plants live alongside their predators, parasites, and plant competitors, which limit their number and range. Removed from their natural enemies, they can run unchecked and become weeds.

For more than a century, botanists have been collecting information on the origins and life histories of these aggressive plants, and their data have been the basis for plant quarantine and state laws aimed at controlling the spread of weeds. Nevertheless, many weeds have marched across our continent, often showing up simultaneously in locations thousands of miles apart with no apparent explanation. Perhaps one reason for this mystery is that weed experts have held contaminated crop seeds, vehicles, and animals mainly responsible for the distribution of weeds, while underestimating another culprit: nineteenth century mail-order seed business.

In the first decade after the

American Revolution, these catalogs were usually small circulars or handbills that advertised seeds, cuttings of fruit trees, or a few ornamental plants sold locally. Some catalogs were undoubtedly mailed to potential customers, although the high cost of postage and the uncertainty of mail service in the new republic probably limited the practice. It wasn't until the late 1849's that postal rates became affordable and opened the doors to a potentially lucrative mail-order market. The mail quickly became an efficient disperser of plants.

In the early 1800's, seed catalogs reflected the needs of their typical customers: self-reliant farmers who grew all the food they and their livestock ate, as well as the fiber they needed to make their clothes. Plants were also used to make home remedies. Catalogs of the time advertised horehound, an expectorant in cough syrups; catnip, which could be made into a tea to soothe the nerves; and absinthe, used as an antiseptic and a sedative (also as an ingredient in a liqueur). Some medicinal plants, such as belladonna and digitalis, are still used by the pharmaceutical industry as sources of powerful drugs. Customers could also buy seeds of the opium poppy, which were sold for "medicinal purposes" as well as for their oil. As late as 1895, the catalog of the German Fruit

Company of Los Angeles advertised the oil of the opium poppy "as agreeable sweet oil, good for eating, painting, and illuminating".

Another drug-producing plant that appeared regularly in seed catalogs more than a hundred years ago is marijuana. In those days, however, the plant was grown for its physical, not its chemical properties. Hemp, as the plant was commonly called, was sold mainly as a source of fiber. A local supply of fiber for rope production would have been essential to a largely rural population. Although cultivation was sporadic, hemp nevertheless was planted widely. Much of the so-called ditch weed growing in the Midwest today is probably the legacy of nineteenth century local fiber production.

The seeds of the hemp plant, however, were most often used as bird seed. Other weedy plants were also introduced as bird seed, including canary grass, corn poppy, and rape. Although none of these species, including opium poppy and marijuana, are native to North America, today they are all naturalized and commonly found throughout the United States.

After the Civil War, Americans enjoyed an economic boom. Industries grew, and new railroads and highways crisscrossed the nation, connecting burgeoning

cities and suburbs. Americans who now drew wages in factories and shops rather than on farms had more leisure time and discretionary income than ever before. Also, most people no longer had to grow their own food. All of this meant that, for the first time, many people could afford lawns and ornamental gardens. At the same time, the public's interest in natural history grew, particularly in plants and their scientific names. Collecting dried and pressed botanical specimens became a popular hobby. The seed catalogs in the United States (and in Europe, too) between 1870 and 1900 mirrored these great social and economic changes. Their pages were filled with hundreds of species of ornamental plants. Selections of medicinal and herbal plants shrank or disappeared altogether. Seed merchants discovered that there was a lot of money to be made in ornamentals, and they competed to see who could offer the most diverse and exotic selection of plants. The catalogs of the late Victorian era were hundreds of pages thick and elaborately illustrated in a multitude of colors. Modern seed catalogs pale by comparison. Among the plants portrayed so enticingly are some of the most persistent weeds in many areas of the country today: baby's breath, Japanese honeysuckle, and bachelor's button.

Several introductions during this era proved particularly troublesome, most notably, the water hyacinth. This plant first drew public attention in the United States at the 1884 International Cotton Exhibition in New Orleans. For unknown reason, this native of the Amazon Basin was exhibited by the Japanese delegation, which probably handed out specimens to exhibitiongoers. The exhibition spurred interest in the water hyacinth, but it wasn't the first time this aquatic plant had been brought to our shores. At least one nursery owner in New Jersey was selling it at the time, and the plant had been available from European suppliers for at least twenty years. By the early 1890's, the water hyacinth had attracted the attention of many other nursery owners, who sold it by mail for as much as a dollar a plant, a large sum in those days, equivalent to about eleven dollars today. These nursery owners lavishly praised the beauty of this plant and described its easy care in the house or garden. Their catalogs included specific instructions on how to grow the plant and recommended that it be planted in ponds. At least one catalog illustrated its advertisement with an idyllic scene of water hyacinths floating down a stream. Little did these plant merchants know that they were contributing to what would become one of the worst weed disasters in the country.

Outside its home range in South America, where it is kept in check by its natural enemies, the water hyacinth runs wild. Its ability to float means it can be carried miles downstream by the current. It can also be carried upstream, for instance, if it gets caught in the paddle wheels of a river steamer. Water hyacinth grows at spectacular rates, each plant replicating itself hundreds of times each year. By the mid-1890's, many Florida rivers were clogged with dense mats that even steamers could not penetrate. Navigable rivers were quickly reduced to streams by impenetrable tangles of living and dead plants. Photographs of this period in Florida show long wooded boardwalks that had been constructed over the mats to allow passengers access to ships now confined to narrow channels offshore. The water hyacinth is a particularly serious pest in regions where malaria and encephalitis are common, as the insect carriers of these diseases breed in the plant's extensive vegetative growth. By 1896 the water hyacinth had become such a problem that Congress appropriated funds for the study of the plant's control.

Today, water hyacinth remains a serious pest in much of the tropics and subtropics, as well as in parts of Florida and other states of the Gulf Coast. But it is not the only plant that was introduced with great enthusiasm, which later turned

into regret. Hindsight tells us that bringing in Brazilian pepper, common ironweed, and purple strawberry guava was also a mistake. Each of these attractive woody plants has escaped cultivation and become a threat to native plants in Florida and Hawaii.

Trouble lay hidden, too, in seeds that were never intended for planting. For example, dried flower arrangements and wreathes (often called immortelles in old catalogs) were popular among the late Victorians, as they are today. The wreathes were fashioned out of a wide variety of dried alien grasses, which today make up a virtual Who's Who of weedy grasses in the United States: soft chess, chess, rattlesnake chess, compact brome, medusa's-head, and goose grass. Jointed goat grass is perhaps the most notorious of this group. A native of arid Eurasia, the grass is a close relative of wheat. It has a life history similar to that of wheat and occasionally even hybridizes with that grain in the field. By germinating and flowering at the same time as winter wheat, but with seeds that readily shatter before the wheat is harvested, jointed goat grass has become a stubborn pest in many wheat fields. When they were sold in dried flower bouquets, the grasses were ripe and ready to shed their seeds. There is no way of knowing for certain how many weeds were spread by discarding of dried flower arrangements, but it is

probably many.

Although few food crops have become serious weed problems (exceptions include weedy forms of cereal grains), some forage plants have turned out to be bad choices. Johnson grass was introduced locally in the United States before the Civil War and was touted as a forage grass that regularly produced amazing amounts of hay. Its reputation grew, and by the end of the nineteenth century, it was being sold across the country, although mostly in the South. However, the high forage production of this grass came at a steep price for the farmer. In the course of its vigorous growth, Johnson grass forms tenacious rhizomes, among which few other plants can grow. Furthermore, the grass is practically impossible to eradicate in a field because it readily resprouts from these rhizomes, even if they remain only as small fragments in the soil. This ability to resprout was particularly troublesome before the advent of herbicides. Once a field was sown with Johnson grass, the farmer could not use it for any other purpose. The grass also can hybridize with cultivated sorghum, a close relative, and the result reduces a field of commercial sorghum to a worthless mixture of weedy sorghum offspring. The widespread popularity of Johnson grass in the late 1800s continues to cause problems for American agriculture today. Each year

farmers from California to Georgia must cope with this aggressive plant.

Not all weeds are herbaceous plants. Woody ones, such as trees and shrubs, can also cause big problems. From the standpoint of its real and potential damage to American agriculture, the worst alien invader by far in the nineteenth century was common barberry. The shrub is not a particularly aggressive weed, but it is a terrible hazard nonetheless, because it is the intermediate host for the devastating stem rust disease of wheat, caused by the fungus *Puccinia graminis*. The earliest record of its sale in a catalog that I have seen is 1844, although other historical accounts place it in the United States before then. Certainly by the end of the century seeds and cuttings were widely available. Common barberry is an attractive, hardy shrub with bright scarlet berries that can be made into jelly. Perhaps for these reasons its popularity and range grew quickly. Common barberry was planted all over the country, including the wheat-growing states of the Midwest, and consequently threatened the wheat crop on a national level. During World War I, in an effort to save the crop for the war effort, a campaign was organized to eradicate every barberry shrub. Thousands of schoolchildren in the Midwest were enlisted to seek out common barberry, while

others specialized in destroying the plants once they were found. Schools held competitions, and the child who found the most plants was awarded a medal. This quasi-military operation was an unparalleled success. Although the plant was not totally eradicated, it was controlled to the point where wheat crop losses due to stem rust dropped significantly.

Unfortunately, the commercial spread of undesirable alien plants did not end with the nineteenth century. A few of the weedy plants advertised in old catalogs are still sold today, along with some new potential disasters. Two examples are diffuse knapweed, which readily invades rangeland in the western United States, and Kahili ginger, which spreads quickly through mountain forests in Hawaii. The renewed interest in seed mixtures of "wildflowers" also has the potential for spreading alien species. Purveyors of these packets or cans of seeds often do not discriminate between native and alien species. How many more local naturalizations will occur as nature enthusiasts unwittingly sow these seeds?

I believe there are several lessons to be gleaned from the perusal of old seed catalogs, those dusty and now fragile remnants of a largely unrecognized nineteenth-century industry. One has to do with the contribution these

catalogs make to our understanding of how the alien weed flora grew and prospered in the United States and how good intentions can go amiss. Another concerns the wisdom of disseminating any wild plant before we have firm evidence that it is unlikely to become weedy. Introducing an aggressive weed is much like opening Pandora's box; once established, such a plant is virtually impossible to eradicate.

## SEED COLLECTION

By Betty Benson and W.L. Corley

Types of seeds are as varied as types of plants. They may be small, large, thin, winged, wood capsules, inside berries or in a pulp, etc.

Select healthy blooms when picking seed. Mark the plant before the seed ripens and make note of where it is growing. Be sure that you collect only mature seed and that you always leave enough for natural propagation.

Observe conditions carefully. Study plant habits to learn when seeds will mature and the qualities that will indicate ripeness. Some will enlarge and change colors. This will be different of course on different plants. Annuals and biennials can bear seed a month or so after blooming. Perennials will need to be watched carefully so seed can

be gathered at the proper time. Some seeds mature and drop rapidly. They should be inspected daily or wrapped with a nylon netting or stocking to keep them from being dispersed by the wind or eaten by birds. The longer you leave the seed the greater your risk of losing it.

When gathering seed chose a day that is dry and time when the plant is not wet with dew or rain. When ripe cut the seed head and store it until the seed pod has completely dried out and is ready to release its seed. Store them in a paper bag so air can pass through. When the seeds are ripe and dry, shake out, remove all debris, and either sow immediately or put them in an airtight container and store in the refrigerator. Keeping seed cold will help them last longer.

Seeds that have fleshy pulp must be cleaned as they have a tendency to rot if left in their natural state.

Do not store in plastic until they have completely dried. Label all seed with their correct name and when they were collected. Never collect seed from plants on another person's property without first securing permission.

Drying, threshing, and cleaning--A. Spread harvested seeds on tarp or screen (check seed size and screen opening size) off the ground in protected, well-ventilated area.

B. After air drying for 5 to 7 days, plant material and seeds are ready for threshing.

C. Several methods can be used to separate seeds from other plant parts:

1. Beating or crushing plant material rolled in tarp or cloth bag.

2. Rubbing collected material on coarse screen with a gloved hand.

D. Further cleaning can be accomplished by a combination of two screens:

1. Hardware cloth top screen to scalp large material for discarding and

2. Screen wire bottom screen to retain seeds but allow small trash to drop through.

3. For small lots of seeds, kitchen strainers can be useful to separate seed from trash.

Drying and storage--A. Allow seeds to complete drying and reach moisture equilibrium during periods of low humidity.

B. Seeds should be stored in a cool, dry place. Temperature and humidity should not exceed 100.

C. Silica gel bags placed with seeds in storage containers can reduce moisture problems when using refrigerator storage.

#### References

Phillips, Harry. 1985. Growing and Propagating Wildflowers. University of North Carolina

Press, Chapel Hill.

Young, James and Cheryl. 1986. Collecting, Processing, and Germinating Seeds of Wildland Plants. Timber Press, Portland, Oregon.

## COLORADO'S RARE PLANTS

Ninety-two rare and endangered species are profiled in a new publication of the Colorado Native Plant Society called Rare Plants of Colorado. Designed by Ann E. Green, the 75-page book reveals that Colorado is losing plant diversity and its heritage of natural places. While many of the plants listed in this colorful publication are candidates for listing under the federal Endangered Species Act, only a few are already protected, and many are not being considered for that designation at all. "Plant rarity," says Colorado Native Plant Society president Eleanor Von Barga, "is in no way synonymous with 'failure' but instead indicates a limited habitat. It is up to us to determine whether the limitation is a natural one, or whether the limitation results from the activities of man."

Rocky Mountain Nature Association, Rocky Mountain National Park, Estes Park, CO 80517. Softcover: \$7.95. Seventy-five pages. Illustrated with color photos, line drawings, and maps.

## NEW MEMBERS

**Gene Sajcich**, Marian O'Brien, Mark Krueger, Liz Hall, John Schwandt, Melinda Moeur, Moscow, ID

**Daniel Taylor**, Robert Pedersen, Craig Weathers, Andrea Peck, Billie Jo Griffin, Michael Mancuso, Carolyn Green, Gloria Shirley, David Towner, Boise, ID

**Scott and Karen Cornelison**, Eagle, ID  
**Charles Sellers**, Idaho Falls, ID

**Janet Sullivan**, Susanne and Tom Forrest, Pocatello, ID

**Ben Franklin**, Salt Lake City, UT

**Spike Thompson**, Grangeville, ID

**Cindy and Lou Lunte**, Bellevue, WA

**Lois Bates**, Blackfoot, ID

**Norma Naugler**, Malad, ID

**Mike Little**, Cascade, ID

**Becky Snorgrass**, Council, ID

Skiles, Vice President--Ed Tisdale,  
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.



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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 August 20th.

## ABOUT OUR SOCIETY

### INPS OFFICERS

**State Officers**, P.O. Box 9541, Boise, ID, 83707: President--Susan Bernatas, Vice President--Bruce Rittenhouse, Secretary--Pam Brunsfeld, Treasurer--Kathy Geier-Hayes.

**Big Wood Chapter**, P.O. Box 4154, Ketchum, ID, 83340: President--Kristin Fletcher, Vice President--Frances Naser, Secretary/Treasurer--Carol Blackburn.

**Pahove Chapter**, P.O. Box 9451, Boise, ID, 83707: President--Carol Prentice, Vice President--Joe Duft, Secretary--Wilma Gluch, Treasurer--Kathy Geier-Hayes.

**Sah-Wah-Be Chapter**, 603 Willard Ave, Pocatello, ID, 83201: President--Ruth Moorhouse, Vice President--Jim Gleason, Secretary--John Bergstrom, Treasurer--Harry Giesbrecht.

**White Pine Chapter**. President--Bob

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# Sage Notes

THE IDAHO NATIVE PLANT SOCIETY NEWSLETTER  
SAGE NOTES VOL.13, #5 SEPT,OCT 1990 PAGE 1



Syringa

## RESEARCH NATURAL AREAS— LIVING WINDOWS IN TIME

by Bob Moseley, Staff  
Biologist, Plant Ecology (First  
published in Idaho Wildlife,  
Spring 1990)

*"The last word in  
ignorance is the man  
who says of an animal or  
plant: 'What good is it?'  
If the land mechanism as  
a whole is good, then  
every part is good,  
whether we understand it  
or not."*

*--Aldo Leopold, A Sand  
County Almanac, 1949*

On a bright July day in 1985, I stood on a ridge in the upper Coeur d'Alene River drainage gazing at a 270-acre patch of old-growth mountain hemlock. With me was Charles Wellner, chairman of the Idaho Natural Areas Coordinating Committee. What he told me then has considerably affected how I've seen Idaho's landscape ever  
(Continued on page 3)

## AQUARIUS pRNA UPDATE

by Susan Bernatas

An appeal of the 'No Action' (no road) decision on the proposed road through the Aquarius proposed Research Natural Area was denied by the Clearwater National Forest Supervisor.

An attorney representing the Intermountain Forest Industries Association, Clearwater County Commissioners, Clearwater Resource Coalition, Konkoville Lumber Company, Empire Lumber Company, Orofino Chamber of Commerce, Potlatch Corporation, and Triple R. Forest Products challenged District Ranger Arthur S. Bourassa's decision not to construct the proposed Dworshak Access road which was to connect Isabella Landing with Dworshak Reservoir, North Fork Ranger District, Clearwater National Forest. It was determined that the attorney provided no evidence that the District Ranger failed to consider all factors in making the 'No Action' decision. The Wilderness Society, the Idaho Conservation League, the Northern Rocky Chapter of the Sierra Club, the Idaho Environmental Council, the Idaho Native Plant Society,  
(Continued on page 7)

## FLORA OF BIGHORN CRAGS EXPLORED

by Bob Moseley

In the spirit of botanical explorers of the last century, five determined plant hunters ventured into the Bighorn Craggs in late July to catalogue the flora of this little explored area. The Craggs are a remote, more or less linear range of peaks that parallels the Middle Fork of the Salmon River on the east side of the Frank Church-River of No Return Wilderness. The core of the massif is comprised of Tertiary quartz monzonite displayed in an array of spires, buttresses and domes that rival the Sawtooth's. The north and south ends of the range are comprised of metamorphic rocks, mostly gneiss, schist and quartzite, which add delightful scenic and biological diversity to the area. Numerous lakes sparkle in the cirques throughout the 18 mile length of the Craggs.

Botanically, the Bighorn Craggs are one the least explored areas in Idaho. Only a few wildlife and recreational impact studies conducted there in the 50's, 60's, and 70's resulted in any species lists. There isn't even any evidence that Idaho's foremost plant collector of this century, John Christ, ever visited the Craggs; he has collected plants almost  
(Continued on page 8)

## INPS CALENDAR

### PAHOVE CHAPTER

October 25: Meeting at 7:30 p.m., Room 218, Science Education Building, Boise State University. Terry Kawakami will present a slide show of an early trip down the Grand Canyon.

November 15: Meeting at 7:30 p.m. Room 218, Science Education Building, Boise State University. Dotty Douglas will present a program about her summer trip to Russia.

### SA-WAH-BE CHAPTER

October 23: Chapter meeting/potluck picnic at 6:00 p.m. followed by a plant exploration walk south of the Ross park Zoo in Pocatello. Meet at Upper Ross Park. Call 233-5011 for more information.

November 10: Idaho State University campus plant-walk led by Dr. Karl Holte, Professor of Botany at ISU. Meet at the Idaho Museum of Natural History parking lot, Pocatello, at 10:00 a.m. Call 233-3079 or 236-3530 for more information.

November 27: Chapter meeting at Idaho Museum of Natural History "auditorium" (regular meeting room, at 7:30 p.m. Charlie Sellars (522-1137) to speak or arrange for speaker.

December: No activities.

## OTHER EVENTS

October 20: The Idaho Botanical Garden is holding a Fall '90 work day. You should bring gloves, pliers, wire cutters, a sack lunch (beverages provided). Please bring family, friends, and neighbors.

## CHAPTER ACTIVITIES

### PAHOVE CHAPTER

The Pahove Chapter held their first fall meeting, an informal potluck at President Mary McGowns home, on September 20th. Attendees enjoyed wonderful conversation and food followed by slides presented by members. Mary announced the tentative fall schedule in addition to other upcoming events of interest to the members.

Thanks to Dawn Kladerman for organizing and staffing our booth at the Centennial Greenbelt Appreciation Day on October 6. We handed out information on xeriscaping and threatened plants in the Boise foothills.

### SAH-WAH-BE CHAPTER

The Sah-Wah-Be Chapter completed their fall activities,

enjoying three long-distance outings in rapid succession. Many of the spring-transplanted natives are holding on, with the help of periodic irrigation, on a steep, fine-grained north-facing slope at the Fish and Game Department's new headquarters facility, but they face fierce competition from a thick growth of chenopodes and sweet-clover. The Chapter recently held an informal work day at the planting site, and began clearing hordes of Melilotus, Salsola, and Kochia from around the transplants. That this will take many more hours of this became painfully obvious, but we are encouraged by the success of many of our starts.

### WHITE PINE CHAPTER

### SEVEN DEVILS FIELD TRIP

by Christine Lorain

Our first attempt at a joint field trip involving two chapters of the Idaho Native Plant Society took place on the 28-29th of July. A large gathering of some 40 people participated in this overnight trip to the Seven Devils Mountains including members from both the White Pine and Pahove chapters, as well as Forest Service representatives from the Wallowa-Whitman and Nez Perce National Forests. The trip was led by two experts on the area who literally "wrote the book" (the flora that is), of the Seven

Devils, Dick Bingham and Clyde Miller. These two have hiked just about every nook and cranny of this rugged region and proved to be a wealth of valuable information and funny stories.

We began our adventure by meeting at Riggins and then proceeding on the 17-mile drive to Seven Devils camp, an elevation gain of some 5000+ feet. Once camp was setup, one group immediately headed off for a strenuous 2-mile hike to Sheep Lake via Goat Pass. Clyde and Dick lead the procession as we climbed straight up (some 800 feet), then straight down (some 600 more feet). Although it has been a number of years since they really hiked this country, they are still as swift and agile as mountain goats on those steep slopes. The views from Sheep Lake were quite spectacular! We were not only situated at the edge of a lovely cirque lake, but also immediately west of He Devil and She Devil Mountains. While there we visited a new variety of maidenhair fern in addition to a number of lovely subalpine meadow flowers.

After a rugged return hike back to camp, we ate supper then gathered round the campfire for early homesteading stories told by Ace Barton, a Hells Canyon old-timer and present mayor of Riggins. We were all thoroughly entertained by tales of the wild west and our

gathering of 40 or so people looked like a real family reunion.

Sunday morning found us hiking up to Heaven's Gate Lookout (8400 feet) where we were given a history of the area's geology from Steve Brunfeld and had an opportunity to do some alpine botanizing at the summit. We then broke up to all head to our respective homes.

Many thanks to Dick and Clyde for organizing such an enjoyable trip, and thanks to all who helped make our first attempted joint meeting a success.

### WESTERN UNIVERSITIES ACCUSED OF PROMOTING LIVESTOCK INDUSTRY

Conservationists assailed professors at two Western universities, claiming they published a booklet filled with misinformation about livestock grazing on public lands. The booklet says low Federal grazing fees do not encourage excessive livestock grazing on public land, and that Federal land managers determine grazing levels solely on the basis of what is environmentally acceptable. The 18-page booklet, "Seven Popular Myths About Livestock Grazing on Public Lands", was published in March by Jeffery Mosley of

the University of Idaho and E. Lamar Smith and Phil Ogden of the University of Arizona. Conservationists said the claim that subsidized grazing on Federal lands doesn't lead to over-grazing and environmental damage is an indication of how natural resource departments in most of the West's public universities are controlled by the livestock industry.

### NEW CANCER DRUG DERIVED FROM OLD-GROWTH YEW

Scientists have been forced to turn to the lab to reproduce a healing compound found naturally only in the bark of the vanishing Pacific yew tree. The drug, called taxol after the yew's Latin name, *Taxus brevifolia*, fights ovarian cancer better than any other known cancer-fighting drug. Clear-cut logging in the Pacific Northwest has jeopardized yew's habitat and has left an average of only one yew tree per acre on private and State-owned forests.

### LIVING WINDOWS (Continued from page 1)

chairman of the Idaho Natural Areas Coordinating Committee. What he told me then has considerably affected how I've seen Idaho's landscape ever since.

"Unless we go about setting these places aside, we'll lose our opportunity," he said.

Chuck was reminiscing about the day in 1935 when he first visited this stand on Pond Peak. He was a young research forester for the Forest Service. Part of his job was to find and identify potential "research natural areas" in the northern Rockies. The new program was intended to preserve exemplary ecosystems all over the country in their natural state, for future research and education.

"The Kanicksu, Coeur d'Alene country and a bit of the St. Joe were the major timber forests in Idaho right from the start. In the Coeur d'Alene country they started cutting in 1910, during the big fire, and floated the logs down the river," Chuck said. "When we drove down the ridge road, we thought this upper basin area was just about what we were looking for because it had a pond in it and I always tried to get aquatic situations along with the terrestrial."

"This mountain hemlock stand is a remnant now. It's all logged around it. That's happened everywhere," he said. "We had so much in Idaho that hadn't been disturbed that people didn't see much reason to get excited about setting aside baseline reference areas for research, but in the East they were already quite into it. That's why the Forest Service started this program in the 1920s."

Pond Peak was just one of a

couple of dozen potential northern Rockies RNAs that Chuck and others identified in the mid-30s. Unfortunately, only three were established in Idaho in that decade and Pond Peak wasn't one of them. Over the next 50 years, most of the others were altered by timber harvest or other development. Fortunately, the old-growth mountain hemlock on Pond Peak was spared. In August 1988, Forest Service Chief Dale Robertson approved the establishment of Pond Peak RNA.

What happened at Pond Peak is unusual only in its happy ending. Typically, researchers like Chuck had difficulty getting natural areas set aside because no one appreciated their value. It wasn't until the 1960s that the program really got going again.

"In the '60s we formed committees in the Forest Service and I got myself set as a chairman," Chuck says. "We didn't have much time to get to it but we began to identify situations in 1965. In the early '70s, about the time I retired, I felt we just had to get going or they wouldn't be there anymore in Idaho. In 1974 we set up a coordinating committee, all volunteers, and went about it systematically."

The importance of natural areas for scientific and educational research was recognized in the United States by ecologists as early as

1917. In the 1920s, the Ecological Society published a long report about the necessity of preserving undisturbed examples of the country. That stimulated Forest Service foresters like Chuck to suggest natural area status for a number of national forest lands in need of protection. The first to be formally designated was the Santa Catalina Natural area on the Coronado National Forest in Arizona, in 1927.

What began in the 1920s as a not very urgent effort to set aside sample ecosystems today is a race to preserve what few high-quality remnants remain.

Over the years, research natural areas have been variously defined by the different entities establishing them. Most are physical or biological units in a condition as natural as possible. A potential RNA should exemplify typical or unique vegetation and its associated living organisms, soil, water or geology. If designated, it should be maintained in a natural condition by allowing physical and biological processes to operate, usually without direct human intervention.

Idaho is well known for its many acres of relatively undisturbed land, especially those in designated wilderness. But while these hold many elements of Idaho's vast biological heritage, especially the high-elevation

components, many regions of the state harbor unique animal and plant species and natural communities that don't occur in designated wilderness or roadless areas. Often, these are the rarest of our biological resources. Because they occur on land with the greatest economic value, they suffer the highest impacts from development.

To understand how important natural areas are in a well-rounded strategy to maintain Idaho's biological resources, consider their context. The state spans seven degrees of latitude. Annual rainfall exceeds 60 inches in parts of the Panhandle; less than 8 inches dampens Bruneau and Challis. Elevations dip below 800 feet in the canyons and rise to almost 13,000 feet in the Lost River Range. This varied landscape results from a complex geologic history.

Think about how much these physical factors have affected Idaho's human social and cultural diversity. Obviously, they've had an equally profound effect on the state's biological diversity. In fact, all these overlapping factors have made Idaho the most biologically diverse state in the Intermountain region. The primary focus of the Idaho natural areas program has been to protect and maintain as many examples as possible of this biological wealth.

Most land management agencies have special

management designations that, at least in part, live up to the natural area definition. At the federal level, both the Forest Service and National Park Service have RNAs. The Bureau of Land Management uses Area of Critical Environmental Concern (ACEC) as an umbrella designation for several subdesignations, including RNA. Others occasionally used are Special Interest Area (Forest Service), Outstanding Natural Area (BLM) and National Natural Landmark (National Park Service.) In all, there are more than 200 proposed or established RNAs or their equivalents on federal lands in Idaho.

At the state level, the Department of Parks and Recreation manages parts of three state parks as natural areas: Bruneau Dunes, Ponderosa and Mary Minerva McCrosky Memorial.

The Nature Conservancy (TNC) is the only private organization in Idaho that acts directly to preserve biological diversity by acquiring and managing natural areas. This national non-profit group manages 11 natural areas around the state.

"Natural areas" are generally small in size (less than 1,000 acres) and chosen primarily for their ecological features. Recreational and scenic values are secondary and subordinate to ecological criteria. Although there are purely

aesthetic or ethical reasons to set aside natural areas, the primary purposes of reserving them are more pragmatic.

Foremost is that they are sites for collecting baseline data for long-term monitoring of environmental quality. For instance, Canyon Creek RNA in the cedar-hemlock country of the Kaniksu National Forest has long been used as a "control" in experiments. Established in 1937, it is compared to similar forest ecosystems on the adjacent Priest River Experimental Forest that are manipulated.

Likewise, Summit Creek Exclosure RNA/ACEC in the Little Lost River Valley is used as a comparison for nearby disturbed and recovering riparian systems. Initially fenced in 1975 and established as a RNA in 1988, these 230 acres managed by the Salmon District BLM have shown that riparian ecosystems are resilient and can bounce back from degradation. The wetland and aquatic communities, including the fisheries, have made a surprising comeback, and the exclosure is now used as a baseline reference for assessing the recovery potential of similar sites.

In a cooperative project, the Idaho Department of Parks and Recreation, TNC and the U.S. Geological Survey (USGS) installed sophisticated stream-flow monitoring equipment at Minnie Miller

Falls on TNC's Thousand Springs Preserve in Hagerman Valley. Not only will its measurements help enforce the minimum stream-flow legislation recently passed by the legislature, it will aid the USGS in monitoring both the quantity and quality of the Snake River Plain aquifer.

On natural areas, researchers study the structure and function of natural ecosystems. Because RNAs are protected more or less permanently, the body of knowledge gained there has special meaning.

For instance, in Idaho, resource managers must understand the succession of plant and animal communities after a wildfire. In July 1986, a large wildfire swept along Granite Creek in Hells Canyon, burning the lower third of the proposed Little Granite Creek RNA. It so happened that several permanent monitoring plots had been placed there the previous season. Upon rereading the plots after the fire, it was clear that it had had many beneficial effects, including rejuvenating grassland communities in one part of the RNA and maintaining old-growth ponderosa pine stands in another. These plots will continue to yield important and useful information for years to come.

Another exciting project that's monitoring effects of catastrophic disturbances to

ecosystems has been started by the Forest Service Intermountain Research Station and TNC. They set up permanent monitoring stations on the Moose Creek Plateau RNA on the Targhee National Forest in 1990. Near Yellowstone National Park, this RNA is within the nationally publicised North Fork burn of 1988. Researchers are studying how the forest recovers after this stand-replacing event. A similar project in the West Fork Mink Creek RNA on the Caribou National Forest will measure the effect of insects on forest ecosystems.

An increasingly important role for RNAs is in preserving gene pools of natural organisms, both rare and common. Malm Gulch, along the Salmon River near Challis, has long been known for its high concentration of endemic and disjunct plant species. (Endemic species occur nowhere else; disjunct species are widely separated from their main body of distribution.) Its species assemblages, or biotic communities, also are considered unique. The Salmon District of the BLM, recognizing that special planning considerations were needed to properly manage the rare features here, designated Malm Gulch an RNA/ACEC in 1988.

Along the northern border of the state, Snowy Top RNA on the Kaniksu National Forest

encompasses a high-elevation environment that occurs nowhere else in Idaho, but is more common to the north in Canada. One indication is the only known Idaho occurrence of alpine arnica (*Arnica alpina*), a species common in arctic North America.

The intrinsic contributions that natural areas make to environmental quality and the quality of human life cannot be overlooked. These range from practical uses such as ecological buffers, flood control and aquifer recharge, to simply meeting our need to know we have been responsible stewards of the life around us. As Leopold wrote, everything in nature has value and a purpose, even if we can't put a label on it at the moment. RNAs give us the chance to find out what that purpose might be, someday.

## VOLUNTEERS LEAVE A LASTING LEGACY: NATURAL RESEARCH AREAS

by Bob Moseley

Between 1928, when the principles of a Research Natural Area (RNA) system were first set down by the Forest Service, and the early 1970's, natural area establishment in Idaho was sporadic at best. In 1974, the Idaho Natural Areas Coordinating Committee (INACC) was formed as a

consortium of mostly volunteer scientists and land managers who wanted to protect and maintain Idaho's biological diversity. They began by setting down the first list of rare Idaho plants and animals. Then they became the driving force behind setting up RNAs to protect them. Recently, they joined with The Nature Conservancy to work with agencies and landowners to protect biologically significant sites.

Success has not come easily. Through the late 1970s, many areas were identified for protection but few were seriously considered by the agencies. That changed dramatically when the Forest Service and Bureau of Land Management began integrated resource planning in the late '70s. Regulations required managers to consider special designations to protect places with ecological value. This breathed new life into the movement. To date, more than 200 natural areas have been established or are in the process on federal lands in Idaho.

Recognizing the significant contribution INACC has made to the lasting protection of Idaho's natural heritage, the Idaho Centennial Commission recently honored INACC with a "Take Pride in Idaho" award. Charles Wellner, whose strong leadership is responsible for much of INACC's success, has also been recognized recently

by a special award from the Forest Service, an honorary Ph.D. from the University of Idaho, and a Chevron Conservation Award.

The perseverance and dedication of many people for the past 50 years have left a lasting legacy for future Idahoans. The RNA network these men and women have developed will ensure that the high quality of life we enjoy in this state will continue for generations.

### **SIXTEEN NEW RESEARCH NATURAL AREAS ESTABLISHED IN NORTHERN REGION**

Region 1 Forester John Mumma has announced the establishment of 16 new Research Natural Areas (RNAs) in the National Forests of the Northern Region, representing a total of 12,368 acres.

This brings the number of RNAs to 36 in a four state area. Forests in Montana, northern Idaho, North Dakota, and northwestern South Dakota are included in the Northern Region. The new RNAs are in the Idaho Panhandle, Clearwater, Kootenai, and Nez Perce National Forests in northern Idaho and Montana.

### **AQUARIUS pRNA** (Continued from page 1)

and Mr. Chuck Wellner as an individual were accepted as interveners in this challenge.

The attorney's contentions were:

1. That the District Ranger conducted a flawed analysis because: a. he failed to properly consider certain key facts, and b. he used arbitrary and biased techniques and values to determine and describe impacts.
2. The Ranger's decision is against the weight of the evidence provided in the Environmental Assessment and is therefore arbitrary and capricious.
3. The decision is inconsistent with the Clearwater Forest Plan.

The Supervisor found that the District Ranger made an informed and reasoned decision and that the decision is consistent with the Clearwater Forest and Resource Management Plan based on a review of the administrative record for the Dworshak Access.

Aquarius pRNA houses numerous endemic and disjunct plant species and communities and as a relic of past climate is considered one of the most diverse areas in the Northern Rocky Mountains. For a copy of the

decision and to express your opinion contact: Supervisor, Clearwater National Forest, 12730 Highway 12, Orofino, ID 83544.

## BIGHORN CRAGS FLORA

(Continued from page 1)

everywhere else in the state. With this in mind, Duane Atwood, Regional Botanist for the Forest Service, organized a plant collection trip with the help of the Cobalt Ranger District, Salmon National Forest. The collecting team consisted of Duane Atwood, Susan Bernatas of The Nature Conservancy, Barbara Ertter of the University of California, and Michael Mancuso and myself from the Idaho Natural Heritage Program.

In the five days spent in the Craggs, we collectively scoured every conceivable habitat above about 7,500 feet, hiking many hundreds of miles, climbing many of the peaks, and collecting close to 900 specimens. Following are a few of the floristic highlights of the trip.

Rare Species - we found populations of four rare species:

-Borsch's stonecrop (*Sedum borschii*) - Previously known in Idaho only from the Seven Devils Mountains and Monumental Creek areas, the discovery of four populations in the Craggs extends its range east in Idaho. The species is

also known from western Montana.

-Kellogg's bitterroot (*Lewisia kelloggii*) - Seven very small populations, most consisting of less than 50 individuals, were discovered on two ridge systems. Previous to this trip, only three historical sites were known in Idaho, all west of the Sawtooth's. This is a significant range extension to the northeast for this species, which is disjunct in Idaho from the Sierran California.

-Rough bellflower (*Campanula scabrella*) - Rough bellflower was known from several very small populations spread across central Idaho from the Seven Devil's to the Beaverhead Mountains, including an old collection from the Craggs. So, it was not unexpected when we encountered it this year. What was surprising was its abundance; it is common in the core of the Craggs, with more than a dozen populations collectively covering several hundred acres on exposed ridges and open slopes.

-Flexible alpine collomia (*Collomia debilis* var. *camporum*) - Prior to our trip, this inhabitant of talus slopes was only known from the North Fork of the Salmon River drainage, Idaho, north down the Bitterroot Valley to Missoula, Montana. We found several small populations scattered in talus and scree throughout the length of the

Craggs.

We were disappointed, however, not to find at least two other rare species we believed could occur in the Craggs: Lyall's phacelia (*Phacelia lyallii*) and Idaho douglasia (*Douglasia idahoensis*). In Idaho, Lyall's phacelia is only known from a few sites in the northern Beaverhead's and Lemhi Range and in the Seven Devils'. The Craggs seemed to be a likely area to find more. Reports of a douglasia (or mountain primrose) from the Craggs fueled our plant hunting drive. We were somewhat disappointed then, when it turned out to be the more common Rocky Mountain douglasia (*Douglasia montana*) instead of the rare central Idaho endemic.

Other interesting finds: Although not all the specimens have been identified, two other interesting floristic discoveries are worthy to report now:

-Western stenanthium (*Stenanthium occidentale*) - We found two small populations of the distinctive lily, which is more commonly found in northern Idaho. While it is known from the Seven Devils', these collections from the Craggs appear to represent the known southeastern edge of its distribution.

-Wallowa lewisia (*Lewisia columbiana* var. *wallowensis*) - Previously thought to be

endemic to the Wallowa Mountains, Oregon, and the Seven Devils', we found Wallowa lewisia to be common on moist slopes throughout the entire length of the Crags. This is a significant range extension to the east.

Also of note was the almost total lack of legumes. Only one clover was found; we didn't find any lupines or milkvetches. The portulaca family, on the other hand, was well represented with three species of *Lewisia*, two of *Claytonia*, and one *Montia*.

Another focus of the trip was to conduct a floristic and ecological inventory of the proposed Dome Lake Research Natural Area (RNA). The RNA comprises an undisturbed hydrologic basin, with over 4000 feet of vertical relief, at the North end of the Crags.

The Bighorn Crags is a high elevation region that is quite dry, resulting in a relatively low floristic diversity. We feel that the 900 specimens collected represent greater than 95 percent of the flora of the area. We hope to produce a checklist soon after the specimens are processed.

I'd like to thank Duane Atwood for organizing the trip and the Cobalt District Ranger Clinton Groll for his support and help with the logistics. A special thanks are extended to the Wilderness

Ranger, Mitch Richardson, who spent five long days with his pack string hauling seven plant presses around after crazed plant hunters.

## RESOURCES

Desert Trees for Urban Landscapes by the Tucson Chapter of the Arizona Native Plant Society 1989. This brochure, which doubles as a wall poster, provides detailed information about ten native trees which are suited for low-maintenance, low-water-use landscapes. \$1.00 plus a self-addressed, stamped business size envelope for the brochure or \$3.00 as a poster in a mailing tube.

## MEMBERSHIP LISTS

We normally publish a membership list in the Sage Notes once a year, however, due to the success of our recent membership drive, it is not practical to include the list in the newsletter.

**Members (only!)** can acquire a copy by sending a business-sized self addressed and stamped envelope to INPS, P.O. Box 9451, Boise, ID 83707. Requests from businesses will not be honored.



"Tü for ta, I suppose. He was a vegetarian."

## WELCOME TO NEW MEMBERS

**Paula Brooks**, Baker City, OR  
**Jeff Fereday**, Kay Hummel, Pat  
 Patterson, Boise, ID  
**Jeanne Anderson**, Donna Guilford,  
 Naomi Wood, Idaho Falls, ID  
**Nadine Solomon**, Marj and Al Stage,  
 Moscow, ID  
**Silver Springs Nursery**, Moyie  
 Springs, ID  
**Bruce Barnes**, Pendleton, OR  
**Robert and Audene Campbell**, Mel  
 and Barbara Nicholls, Lyle and  
 Naida Olson, Randy Smith,  
 Pocatello, ID  
**Diane Green**, Peg and Tom Muzik,  
 Thom Sadoski, Sandpoint, ID  
**Dorothy Sunderland**, Troy, ID  
**Jennifer Whipple**, Yellowstone  
 National Park, Yellowstone, WY

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

**MATERIALS FOR  
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 possible on 5 1/4 inch floppy discs  
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 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  
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**Due date for material for the next  
 newsletter is October 20th.**



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# Sage Notes

THE IDAHO NATIVE PLANT SOCIETY NEWSLETTER  
SAGE NOTES VOL.13, #6 NOV,DEC 1990 PAGE 1



Syringa

## PARK AND RECREATION APPROVES PLANT SPECIES OF SPECIAL CONCERN PROGRAM

by Susan Bernatas

November 9 should be considered a great day for plant conservation and education in Idaho. The Idaho Department of Parks and Recreation Board approved Idaho's Plant Species of Special Concern Program. The Board has directed the Idaho Department of Parks and Recreation Staff to seek resources that will allow educational materials and exhibits to develop public awareness of plant species of special concern in Idaho. Furthermore, the Board also directed that guidelines be developed to assist and compliment the work being done in federal agencies and professional organizations.

The "rare plant law" for Idaho is under the Department of Park and Recreation. This is a relatively weak law. The law does not require the Department to adopt (Continued on page 4)

## INPS STATE BOARD CONFERENCE CALL

Meeting convened 9:00 a.m. MST November 10, 1990

The following board members participated in the State board meeting: Susan Bernatas (President), Pam Brunsfeld (Secretary), Kathy Geier-Hayes (Treasurer), Ed Tisdale (Vice-president White Pine), Chris Lorain-Ebrahemi (Bulletin Board Committee Chairperson), Nancy Cole (Rare Plant Conference Committee Chairperson), Mary McGown (President Pahove), Kristin Fletcher (President Wood River Native Plant Society), Ruth Moorhead (President Sah-Wah-Be), and Caryl Elzinga (Board member-at-large).

Chris Lorain-Ebrahemi was recommended to fill the vacant Vice-president position (originally held by Bruce Rittenhouse who has moved out of state) and the board approved.

The board then discussed the Rocky Comfort Flat pRNA (see article). It was decided that a position statement would be drafted encouraging establishment and protection of the area. Members are also encouraged to individually write letters to the Payette National Forest to express (Continued on page 7)

## CLEARWATER ROAD APPEAL DENIED

The U.S. Forest Service has again rebuffed northcentral Idaho timber interests' push to build a road to Dworshak Reservoir.

John Hughes, the agency's Northern Region deputy forester denied Orofino lawyer Nick Chenoweth's second appeal of an earlier decision not to build the road north of Headquarters on the Clearwater National Forest.

Chenoweth said he will have to study the agency's appeal procedures and consult with his clients before deciding what the next step may be.

He represented Intermountain Forest Industries Association, Clearwater County Commission, Orofino Chamber of Commerce, Clearwater Resource Coalition, Konkoville Lumber Co., Empire Lumber Co., Potlatch Corp., and Triple R Forest Products.

Idaho logging companies advocated the road's construction along the Clearwater River's North Fork, arguing it would help make it economical to haul timber from roadless areas to the reservoir for towing downriver.

(Continued on page 8)

## INPS CALENDAR

### BIG WOOD CHAPTER

Contact Kristin Fletcher at Big Wood Native Plant Society, P.O. Box 4154, Ketchum, ID 83340 for information.

### PAHOVE CHAPTER

December 16: 12:00 noon. Potluck brunch and plant exchange at Mary McGown's house, 1824 N. 19th (336-6811).

January 17: Meeting at 7:30 p.m., Science Education Building Room 218, Boise State University. Speaker to be announced.

### SA-WAH-BE CHAPTER

January 12: 10:00 a.m. Ski South Fork Mink Creek Road if possible; walk if not. Meet at Museum parking lot, ISU campus, Pocatello. No leader assigned. 233-5001 for information.

January 22: 7:30 p.m. Jay Jones (232-7493) to speak on tree propagation project. Museum meeting room.

February 26: 7:30 p.m. Terri Ratzlaff, ISU graduate student in Biological Sciences, to speak on reseeding project on City Creek 1988 burn area west of Pocatello.

### WHITE PINE CHAPTER

January 25: Lee Folliard, from University of Idaho's wildlife

department, will speak on his work on the spotted owl in second-growth forest in northern California. Call Ed Tisdale (882-2743) or Pam Brunsfeld (882-7909) for more information.

1991 Rare Plant Conference  
February 12-13, 1991  
Boise District  
BLM Fire Office  
For information write N.  
Cole, C/O INPS, P.O. Box  
9451, Boise, ID 83707

## INPS ACTIVITIES

### WHITE PINE CHAPTER

The White Pine Chapter completed their fall activities which included an overnight trip to the St. Joe River and a potluck get-together on Kamiak Butte. Chris Lorain led the St. Joe trip which included a visit to a beautiful old cedar grove, stops along Fish Hook Creek for identification of various rock-plants, and gorgeous fall weather.

The chapter's final outdoor venture of the year to Kamiak Butte was attended by about thirty five people. Some INPS members enjoyed hiking the park's trails, and everyone enjoyed good food and company. A short business meeting followed with President Bob Skiles asking

members to complete a questionnaire to help in the planning of future chapter activities. Those elected to serve as officers for 1991 are: Ed Tisdale, President; Pam Brunsfeld, Vice President; and Mark Krueger, Secretary/Treasurer.

## INPS BULLETIN BOARD

by Chris Lorain-Ebrahemi

Well, I'm finally getting my act together concerning the proposed Bulletin Board traveling display to promote the Idaho Native Plant Society. From what I gather, there is a great need for such a display, especially in the Boise area.

I have put together a draft idea and will be forwarding it to each Chapter for comment. Remember, it is just a draft and there are lots of other items that could be included. Letter size, placement, color, wording etc. is all very flexible right now, but at least it's a start. What I'd like from other INPS members are some additional ideas and suggestions. I'm sure there are lots of them out there waiting to be tapped, so here's your opportunity!

The basic plan, as I understand it, is to have a display that stands about 7 feet tall and about 9 feet wide, consisting of three 3-foot wide partitions that interlock. I have seen a

number of these and they are quite nice with lots of room to get your point across.

The plan is to emphasize "who we are" and "what we do" as a general advertisement, while including lots of flower photos to draw people's attention. I think its also a good idea to include some information on our chapters, while highlighting the splendid community and floral diversity of Idaho.

Like I said, there are lots of possibilities and I'm open to any and all suggestions. So, have a look at my draft when you get the chance, then jot me a note! Many thanks.

Christine Lorain  
404 South Grant #5  
Moscow, ID 83843

## NEW NEWLETTER EDITOR

Kathy Geier-Hayes will be stepping down as editor after this newsletter and Caryl Elzinga of Carmen, Idaho will take over. Please send newsletter items to Caryl at: P.O. Box 182, Carmen, ID 83462.

## MEMBERSHIP DUES CHANGES

At the State Board Meeting held November 10, the board approved the following dues changes: Family \$10.00 (two or more persons) and Sustaining \$30.00. The Senior

Citizen and Student dues will remain at \$6.00 and the Individual dues will remain at \$8.00. Members with Family memberships are allowed two votes on INPS issues and elections while all other membership categories have one vote. Address questions or comments concerning the dues changes to Susan Bernatas at the INPS address.

## IDAHO RARE PLANT BOOK NEEDS YOUR HELP

by Susan Bernatas

A committee has been set up to produce a magazine style book on Idaho's rare plants and their habitats. Approximately 100 plant species will be highlighted with color photos and/or illustrations. Text will be written for a lay audience and will include stories on who the plant was named after, who first collected the plant, etc. The project will cost roughly \$50,000.

To pull off a project like this we are going to need some volunteers. We need folks interested in researching the plants, fundraising, distribution, and illustration. Bob Moseley (Heritage Program botanist) and Diane Ronayne (editor of Idaho Wildlife) have generously agreed to work on the text.

For more information or to volunteer, contact Susan

Bernatas at 208-334-1457, 316 E. Myrtle, Boise, ID 83702.

## ROCKY COMFORT FLAT pRNA

by Bob Moseley (excerpted from Vegetation Map of the Proposed Rocky Comfort Flat Research Natural Area, Payette National Forest).

Rocky Comfort Flat proposed Research Natural Area (pRNA) is a plateau-like peninsula surrounded on all but the eastern side by canyons of Bear Creek and Crooked River, upstream from their confluence. These two rivers form the Wildhorse River which flows into the Snake River in Hells Canyon. The plateau is gently undulating and breaks abruptly to steep-sided canyon walls that drop approximately 1,000 feet to the the valley bottoms.

The pRNA is located on the Weiser Embayment of the Columbia River Basalt Group, which is the southeasternmost extension of the Columbia Plateau. Two flows are present in the pRNA: Imnaha Basalt, the oldest flow, is exposed on the lower canyon slopes where it underlies the younger Grande Rhonde Basalt, which comprises a majority of the area.

Two rare plant species are found in the area. The small pale Wallowa Indian-paintbrush (*Castilleja oresbia*) is endemic to Adams County,

Idaho and adjacent Oregon. In Idaho, it is restricted to high-elevation stiff sagebrush scablands. Approximately 1,500 plants are widely scattered in all stiff sagebrush habitats on Rocky Comfort Flat. Tolmie's onion (*Allium tolmiei* var. *persimile*) is endemic to Adams County, Idaho, where it is locally abundant in suitable habitat. Only several hundred plants are found occurring in a camas community along an ephemeral stream in the pRNA.

Sixteen distinct mapping units are found in the pRNA: 1. Mountain big sagebrush/Idaho fescue habitat type (though there is very little mountain big sagebrush in these communities in Rocky Comfort Flat unlike the typical version of the habitat type); 2. patterned ground (mountain big sagebrush/Idaho fescue habitat type on mountains, stiff sagebrush/Sandberg's bluegrass habitat type in swales); 3. stiff sagebrush/Sandberg's bluegrass habitat type; 4. Talus Garland community type; 5. bluebunch wheatgrass/Sandberg's bluegrass/arrowleaf balsamroot habitat type; 6. bitterbrush/Idaho fescue community type; 7. Douglas-fir/common snowberry habitat type, ponderosa pine phase; 8. Douglas-fir/ninebark habitat type, ponderosa pine phase; 9. mountain mahogany/Idaho fescue habitat type mixed with mountain-mahogany/bluebunch wheatgrass habitat type; 10.

mountain-mahogany/bluebunch wheatgrass; 11. ponderosa pine/common snowberry habitat type; 12. Idaho fescue/bluebunch wheatgrass habitat type; 13. stiff sagebrush/Sandberg's bluegrass-Idaho fescue community (undescribed in literature); 14. tall shrub drainage bottom; 15. Sandberg's bluegrass/Hooker's balsamroot association; and 16. Ephemeral stream bottoms.

### PARK AND RECREATION DEPARTMENT AGENDA

(Continued from page 1)

administrative rules or any other program. It is a "permissive law". Presently, the Department doesn't have staff with botanical expertise, but has Yvonne S. Ferrell, their very farsighted Director.

In March, the INPS Conservation Committee started working with Yvonne on a set of goals for a plant species of special concern program. The ensuing months of discussion resulted in the following goals for the program:

1. Amend the list of state sensitive species.
2. Develop state coordination in rare plant conservation.
3. Develop educational material for the public on

Idaho's rare plants.

4. Adopt a registry system for the public on Idaho's rare plants.

5. Develop cooperative agreements through paternships to protect high quality rare plant populations.

Following is the agenda item as presented at the Idaho Parks and Recreation Board Meeting.

### AGENDA ITEM: IDAHO'S PLANT SPECIES OF SPECIAL CONCERN PROGRAM - BOARD ACTION REQUESTED

Background: This agenda item was tabled at the August 3 board meeting in order that more time could be devoted to determining potential impacts. National concern for the loss of plant and animal species in the United States culminated in 1973, with the passage of Public Law 93-205, the Endangered Species Act. Since that time there has been considerable activity at all levels of government with non-governmental organizations directed toward the survival and recovery of endangered, threatened and rare plants and animals. To some degree, planning for and management of rare species has been fragmented because of jurisdictional barriers.

Several state and federal agencies operating in Idaho have as a part of their goals

and mandates the identification and protection of rare species and their habitats.

Idaho Department of Parks and Recreation-A law protecting native wildflowers in Idaho was enacted in 1967 (Idaho Code Section 18-3913). It gives the Department of Parks and Recreation the authority to establish and amend a list of plants in need of protection because they might possibly become extinct or they affect the scenic beauty of public roads or public land. Of the 24 species listed in 1967, most are forest herbs and shrubs common in northern Idaho.

U.S. Fish and Wildlife Service-The Fish and Wildlife Service administers the Endangered Species Act of 1973, as amended. The Endangered Species Act provides federal protection for those plants and animals listed as Endangered and Threatened (see definitions below) and authorized the Secretary to enter into cooperative agreements with states in which federal Endangered and Threatened species occur. In Idaho, cooperative agreements are in effect with the Department of Fish and Game for animals and the Department of Parks and Recreation for plants.

U.S.D.I. Bureau of Land Management-It is the policy of the BLM to conserve threatened and endangered

species and the ecosystems they depend upon primarily by prescribing management for conservation of Lands these species inhabit (BLM Manual Chapter 6840). The primary goals of the Threatened and Endangered Species Program are inventory, monitoring, plan preparation, and plan implementation to insure the maintenance and recovery of these species. Similarly, it is BLM policy to manage candidate species and their habitats to insure that their actions do not contribute to the need to list any candidate species as threatened or endangered. The State Director has the authority to designate Sensitive Species, which are to be managed under the same policy as candidate species. It is also BLM policy to carry out management for the conservation of state-listed plants and animals. The State Director is to develop policies that will assist the state in achieving their management objectives for those species. Lastly, the Bureau has developed a national plan, referred to as Fish and Wildlife 2000, a part of which details broad goals and objectives for the management of threatened and endangered species.

U.S. Forest Service-The Secretary of Agriculture's Policy on Fish and Wildlife (Department Regulation 9500-4) directs the Forest Service to manage habitats of all existing plants and animals in

order to maintain at least viable populations and to avoid actions which may cause species to become federally listed. The Regional Foresters to establish programs to identify threatened, endangered and sensitive species occurring in the Regions and to provide special management emphasis that will ensure their viability. Forest Service policy for Threatened and Endangered Species is to manage their habitats to achieve recovery objectives so that special protection measures under the Endangered Species Act are no longer necessary. For Sensitive Species, the Forest Service is directed to develop and implement management practices to insure that these species do not become threatened and endangered.

Idaho Department of Fish and Game-The Department of Fish and Game is mandated under Idaho Code Section 36-103 to preserve, protect, perpetuate, and manage all wildlife. All fish and wildlife are considered to be property of the state, and their capture and take are regulated by the Department. The Department has regulations which classify wildlife into the following categories: The game animals, game birds, game fish, fur-bearing animals, migratory birds, threatened and endangered wildlife, protected nongame species, unprotected wildlife species, and predatory species. In addition, the Department maintains a list of Species of Special Concern.

Threatened or endangered wildlife, protected nongame species, and species of special concern are dealt with in detail in a publication.

With the initiation of Idaho Natural Heritage Program in 1984, the state gained its first full-time program dedicated to collecting, storing, analyzing, and distributing information on the status and distribution of rare, threatened, and endangered species in Idaho. Since its inception, much new information on Idaho's rare flora and fauna has become available, primarily as a result of extensive field studies by federal and state agencies, academic institutions, and other interested parties. With this new information in hand, the U.S. Fish and Wildlife Service published a new list of candidate species in 1989, the Department of Fish and Game redefined and published a new list of Species of Special Concern in 1989, and the U.S. Forest Service (Region 4) published their first Sensitive Species list for animals in 1990.

The Heritage Program within the Department of Fish and Game has integrated the plant portion and animal portion on their data base and location maps. All staff and equipment are housed at the Department of Fish and Game and operate under the supervision of the Natural Heritage Program.

Funding-The Idaho plant program is funded through a

variety of sources. The program was initially started and funded as a result of the concern and involvement of The Nature Conservancy of Idaho. The Nature Conservancy continues to fund two FTE positions in the Natural Heritage program. In recent years IDPR has secured funds of approximately \$20,000 a year provided by a 5-year \$121,000 grant from the U.S. Fish and Wildlife Service. These funds are passed through to the Natural Heritage Program. The Department of Parks and Recreation has a limited authorities agreement under Section 6 under the Endangered Species Act which allows the Department to qualify for Federal money to work on the highest priority species and recovery plans for listed species. In order to apply for Federal aid the State had to draft a plan for rare plants. This plan was written by Steve Caicco, former Botanist, Idaho Natural Heritage Program, which primarily outlines the role the Heritage Program has in collecting and housing rare plant data.

This money is used to perform status survey work. These surveys are to determine the extent of the species range and population numbers. Often times, species are on the state sensitive list because little is known about the distribution or population numbers. Once a survey is performed it may be found

that the species is abundant but no one in the past had looked for it at the right time of year in the correct habitat, another scenario is that it is not very abundant and has numerous threats.

Unaltered ecosystem--the storehouses of natural diversity--are highly evolved, interactive associations of the land and its species. These associations cannot be duplicated in an artificial setting. Society cannot afford to lose these living parts of the natural environment before it understands them fully. Examples of these complex ecological systems may be invaluable to future generations in ways we cannot foresee.

Many discoveries of practical value to humans have come from the study of seemingly insignificant species. Medicines, disease resistance for crops, control of pests; these are some of the benefits derived from the genetic diversity of the natural world.

From this practical perspective, natural plant areas can and do serve as areas for scientific research--research that could uncover extraordinary values in common species of plants, leading to the discovery of new medicines, sources of lubricants (e.g., the common desert jojoba plant was found to produce a very fine grade of oil that is now used in cosmetics and for lubricating

precision machine parts), or other products to enhance our lives. Natural areas can be (and are) used for outdoor environmental education where Idahoans of all ages and backgrounds can learn about the plant life that surrounds them.

Natural plant areas have a wide variety of values that are similarly important to a wide variety of people. Many of the values are without monetary definition and relate to aesthetic, philosophical, and spiritual human needs. People enjoy the experience of being in a natural place for removed from their everyday urban existence. There is a need to be a part of the natural environment, to sit by a rushing river, to see a hawk or eagle soaring overhead, or hear a lone coyote howling in the still of the night.

Natural plant communities can also serve to sustain the natural diversity of plant and animal life that is characteristic of Idaho; here again preserving examples of different plant communities that represent unique adaptations to the environments in which they live, or preserving areas that contain gene pools of rare species cannot be easily expressed in terms of dollars. It makes good ethical and business sense to preserve the high quality of Idaho's natural environment.

Any enhanced activity in the

area of Idaho rare plants in the Idaho Department of Parks and Recreation would have no impact on private lands. Any relationship between state and private would be one of education and information sharing with willing and interested parties. There is a common misconception that the identification of a rare plant or plant species of special concern automatically means a cessation of all activity that may currently be taking place. This is seldom the case. Some rare plants can only survive in routinely grazed, logged, or on disturbed land; other species or communities are monitored and often a plant is moved if the existing use of the land may be in conflict with its survival.

Future Direction-For the past two years the Idaho Native Plant Society and The Nature Conservancy have been requesting that IDPR assume a stronger role in helping to develop informational and educational programs for Idaho's flora.

**RECOMMENDED BOARD ACTION:** That the board direct staff to seek resources that will allow educational materials and exhibits to develop public awareness of plant species of special concern in Idaho. That guidelines be developed to assist and compliment the work being done in federal agencies and professional organizations.

## STATE BOARD MEETING

(Continued from page 1)

their opinions.

Kathy Geier-Hayes gave a brief treasurer's report. The INPS state organization currently has \$907. The revenue for the year was \$1732 with \$2400 in expenses. Mary McGown (with help from her tax attorney husband) is filling out IRS forms necessary to apply for non-profit status. This status would help for fundraising and would allow us to get a cheaper, non-profit mailing rate.

The board approved a \$25 donation to the Idaho Botanical Garden and suggested an article about the Garden for the newsletter.

Caryl Elzinga will chair the 1991 nominating committee for State officers. Each Chapter President will try to find someone willing to serve on the nominating committee and these people will solicit candidates for offices. Candidate biographies will appear in the next newsletter.

The board discussed the INPS 1991 annual state meeting and suggested a weekend meeting/field trip in April or May instead of during the Rare Plant Meeting. Several themes and locations were discussed for the annual meeting including xeriscaping, Hagerman Valley, Hell's

Canyon and Rocky Comfort Flat. Chris Lorain-Ebrahemi, as Vice-President will coordinate. Address theme and location suggestions (with a good description and map of area) to Chris ASAP. After much discussion, the board decided to hold an executive board meeting during the Rare Plant Conference.

Nancy Cole reported that the Rare Plant Meeting will be held in Boise on February 12-13. Please send suggestions and comments about the meeting to Nancy Cole C/O INPS mailbox. Again, styrofoam cups will not be available for hot beverages but paying attendees will receive the second annual rare plant mug.

A dues raise was discussed. Susan Bernatas presented her research into dues schedules for other Native Plant Societies, many of which make available Lifetime and Patron dues categories. The board agreed to adopt a Family and sustaining membership dues category for 1991 and discuss other dues categories at the end of 1991. Caryl Elzinga agreed to rework the old INPS brochures to include the new dues and other changes. The board suggested using recycled paper for the brochure which should be ready for the Rare Plant Meeting. Send your suggestions concerning the brochure to Caryl.

Susan discussed the INPS

Conservation Committee activities and their involvement with the Department of Parks and Recreation. The Parks Department recently adopted an agenda item concerning "plant species of special concern" (see article). Susan also discussed a letter she wrote to Governor Andrus asking him to approve funding for a new Resource Specialist position in the Park's Department (to work on the agenda item) jointly funded by The Nature Conservancy. Members are also encouraged to send opinion letters to the Governor. For more information, contact Susan Bernatas.

The board discussed a possible Idaho Rare Plant book modeled after the recently published Colorado Rare Plant book (see article). The project will cost between \$40,000 and \$50,000. The board agreed to set up a committee to work on the book. Bob Moseley is willing to write the text and Diane Ronayne will edit. The committee still needs six more volunteers to help with fund raising and collating information. If you would like to help, contact Susan Bernatas.

Selling seeds as a fundraiser was discussed. High Altitude Garden (Ketchum) had indicated that they would be willing to supply seed packets. The board decided to table this project after discussing

potential problems. If you have other suggestions or ideas, contact Kristin Fletcher.

Kathy Geier-Hayes asked if anyone knew of someone in their Chapters or other members who would be willing to take over the newsletter since she had been doing it for two years. Caryl Elzinga was interested and will take over after the December newsletter. Caryl will type and format the newsletter, and Kathy Geier-Hayes and Mering Hurd will be responsible for printing and mailing.

Chris Lorain-Ebrahemi reported about the bulletin board (see article) and will soon be sending out the preliminary details to the Chapters. The Department of Parks and Recreation may also be interested in the project.

The next conference call will be on Saturday, January 12, 1991 at 9:00 a.m. MST (8:00 a.m. PST).

Meeting adjourned 11:00 a.m. MST.

## CLEARWATER ROAD

(Continued from page 1)

Conservationists called the road, which could cost as much as \$2 million, a boondoggle and threat to the Aquarius area's rare plants.

In May, Chenoweth first appealed North Fork District

Ranger Arthur Bourassa's April 6 decision to Clearwater National Forest Supervisor Fred Trevey. Trevey rejected the appeal in September.

Chenoweth's appeal to the regional office touched upon many of the points he raised in the first go-round. He said the original decision failed to follow the Clearwater's long-range management plan, or to gauge industrial and political support for the road.

### INFLUENCE OF LIVESTOCK GRAZING ON WEED ESTABLISHMENT AND SPREAD

by John Lacey. Reprinted from 1990, Knapweed, Washington State University Cooperative Program, Vol. 4(3).

Since about 1850, grazing of domestic livestock and spread of plants introduced from other continents have modified the condition of Montana's rangelands. Farming practices, fire suppression and cyclic weather patterns have also contributed to changes that reduced forage yield and quality, degraded wildlife habitat and impaired the value of range for watershed and recreational uses. During the past 50 years, the rapid increase in exotic weeds on rangeland may have triggered the most significant changes. Five major points regarding the influence of

livestock on weeds can be made:

1. The success of exotic weeds make re-evaluation of the closed community concept necessary. Scientists no longer accept that established stands of native vegetation (closed community) fully utilize the habitat and are rarely invaded by new plant species without severe climatic fluctuations, fire or biological disturbance. Exotic species have become an important part of the total vegetational component. They occupy nearly one-eighth of Montana's range and grazable woodland.

2. Climatic fluctuations, livestock grazing and trampling, rodent and insect activities, fire and off-road vehicles open plant communities to weed invasion. Initial weed establishment and spread are enhanced by disturbance. However, once weeds are introduced into a plant community, the best adapted species will eventually dominate the community. Whether that species is introduced or native, or whether the range is in good or excellent condition, is moot.

3. The two basic approaches to using livestock for weed control are to either change normal animal behavior patterns or to select alternative livestock species. An example of management to increase grazing use of the weedy plants contrary to

animal preferences is using short duration high intensity grazing to lessen selectivity. The second strategy chooses animals that selectively graze the weedy plants. Grazing sheep and/or goats to control forbs and shrubs is an example.

4. Livestock must be kept from spreading noxious weeds. Cattle retain seeds for 7 to 10 days in the digestive tract and sheep retain seeds from 6 to 9 days. Confine animals grazing weeds during the seed ripe stage for 9 to 10 days before moving them to weed free areas. Monitor vehicles, horses and dogs, clothing, grain, seed and hay and take necessary steps to ensure that normal management activities are not enhancing weed seed dispersal.

5. The effects of manipulating grazing management strategies to impact weed populations have not been satisfactorily evaluated. Results from trial and error efforts suggest that use of selective grazing to control weeds may be more of an art than a science. The potential is promising. Allocating additional research funds to evaluate and develop techniques of using livestock to control range weeds is justified.



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

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