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Newsletter of the Idaho Native Plant Society

Promoting an Interest in Idaho's Native Flora

Buckwheats and Botanists - A Reminiscence

Idaho Native Plant Society 2014 Annual Meeting Report

By Stephen Love, University of Idaho, Aberdeen

I find it fascinating that people can encounter the same event and come away telling entirely different tales. Our perceptions are so dependent on point of view, frame of mind, past experiences, and myriad other factors. The Idaho Native Plant Society meeting held last June in Twin Falls, was a stimulating and educational occasion that left me with a score of personal memories. For those of you lucky enough to attend the conference, I am sure you have some of your own, likely very different from mine. Here is my version of the story.

For me, the meeting started more than a year prior to my arrival in Twin Falls. At that time I was serving as president of the Eriogonum Society, a fairly new society with the stated mission to

increase appreciation of - and education about - the wild buckwheats. My good friend and fellow native plant connoisseur, LaMar Orton was simultaneously president of the Idaho Native Plant Society. Hoping to create a special learning opportunity for members of both societies, we initiated discussions about the possibility of a joint meeting. The idea of combining world class expertise on buckwheats with extensive knowledge of local botany and ecology made sense. Discussions led to board approvals and in February 2013 INPS issued a letter of invitation to the Eriogonum Society to participate in a joint meeting.

LaMar volunteered to tackle the job of chairing the meeting organization committee. Having just wrapped up the 2013 meeting I

was grateful for his willingness to take on this huge task. Besides, I knew LaMar had the skills necessary to pull together a first-rate conference. Dates were scheduled, facilities reserved, programs and tours organized, speakers invited, meals arranged, and registration materials distributed. The table was set for a fantastic meeting. Details: meeting in Twin Falls, events centered at College of Southern Idaho and LaMar's own Plantasia Cactus Gardens, field trips into the South Hills and Gooding City of Rocks, and a Monday post-meeting tour to Craters of the Moon. I was excited.

One of the special features organized for the 2014 meeting was two concurrent Friday afternoon workshops presented by members of the Eriogonum Society on topics related to Idaho buckwheat species. Though held earlier than the historic norm, on the last day of the work week, attendance at CSI-based classes was fantastic. I had a unique view of one of the workshops, from behind the eyes of the instructor. I taught a class on growing buckwheats from seed. It was a hands-on class where we talked about good garden species, cleaned some seed, and handed out some potted plants. I had a great time and like to think my students did as well. Maybe, as a result, more

In this Issue:

Buckwheats and Botanists	1
Letter from the President	2
Botany Puzzle	2
Announcements	5
Annual Meeting Information	6
Tribute: Vernon "Dick" Anderson	9
Idaho Mystery Plant	9
Report on Botany 2014 Conference	10
New Idaho Wildflower App	11
Diversity Within Sagebrush Species	12
Great Places to See Idaho Wildflowers	14
INPS History	16
Chapter News	18
Photographers Wanted	19

(Continued on page 3)

Letter from the President

Dear Idaho Native Plant Society Members,

It looks like 2015 is shaping up to be a very good year for INPS members. There has been more moisture this winter than last and if good precipitation continues there should be a good Spring wildflower display. As the temperatures in February have been quite mild, that display could come earlier than usual. In our garden here in Twin Falls as of Feb 13th, the fern bushes are greening up and the early blooming buckwheats such as *Eriogonum caespitosum* are starting to show some growth. When one sees such activity in the garden, the excitement of Spring and the desire to wander Idaho wild areas substantially increases. I'm sure many members and chapters are already planning exciting field trips.

The annual meeting looks to be very exciting with many field trips planned offering a wide variety of botanical experiences to different types of plant habitat. The annual meeting will be held July 10-13, 2015 and will be centered in Driggs, Idaho with our base camp about 10 miles from Driggs at the Forest Service Reunion Flats Campground in Teton Canyon in the Caribou-Targhee National Forest. This will be a joint meeting of the Idaho and Wyoming Native Plant Societies. Field trips will be offered to both the east and west slopes of the Tetons. Please check out the information provided about the annual meeting in this issue of Sage Notes and on the INPS website for the latest updates.

At our 2014 annual meeting held jointly with the Eriogonum Society we had the privilege of having Dr. James Reveal with us. Dr. Reveal not only provided a class on *Eriogonum* identification and a complete *Eriogonum* key, but also provided us with a field guide to all the species and varieties of wild buckwheats and their related genera in Idaho. During our field trips he gave us amazing historical and botanical information. Sadly, Dr. Reveal suddenly passed away on Jan 9, 2015. This fine man and wonderful teacher will be greatly missed by all who were fortunate enough to have known him.

The very best to you all in your botanical and life adventures.

LaMar N. Orton
President, Idaho Native Plant Society

Botany Puzzle

This Word Search puzzle tests your knowledge of fruit types. Can you find 10 botanical fruit types hidden in the puzzle? Examples of fruit types not in the puzzle include nut and legume. Puzzle answers are on page 7.

e t s a m a r a l t o p e p l
l v i c e l c i l i s a p e t
u l l o y r r e b t s a u p u
s r i r l o m e n t u m r o w
p e g n w e n i s m a v d a p
a y e e l c i r t u e m o p a
c a r t y e q u e h z e i n g

IDAHO NATIVE PLANT SOCIETY

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Newsletter: Vacant

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(Continued from page 1)

buckwheats grow in gardens today.

In the next room, James Reveal, the unmitigated world expert on buckwheats, taught the second workshop on the subject of identifying and keying Idaho's large assortment of buckwheat species. For obvious reasons, I am not in a position to report on Jim's class. But having attended his discussions in the past, I'm pretty sure he imparted a portion of his immense botanical knowledge while throwing in a few interesting stories about fellow botanists. The sharpest students may have actually learned to identify a stipe or recognize an involucre. As things turned out, we were very lucky to learn at the feet of James Reveal. In January, 2015, Jim suddenly and unexpectedly passed away, taking a lifetime of knowledge with him.

When the workshops adjourned, we migrated to LaMar's place - Plantasia Cactus Gardens - for an opening reception. The Ortos have created a delightful place on Filer Ave W in Twin Falls; five acres of the most diverse and interesting desert plants imaginable, including a significant collection of buckwheats. All in one location were cacti of every sort, agaves, yuccas, penstemons, paintbrushes, globemallows, a few choice shrubs, and around it all a big fence to keep the deer at bay.

One of the amazing things LaMar has accomplished is identification and collection of hardy accessions of plants that just should not grow in frigid southern Idaho, including Joshua trees, chollas, and some really interesting barrel cacti. The garden was magnificent, the weather perfect, the company good. The only significant problem of the evening was pulling people away from the gardens for long enough to serve them a meal. In addition to everything else, I left the garden with

seeds of some of LaMar's unique collection securely tucked away in my pocket. That made the evening especially memorable.

On Saturday and Sunday (June 21st and 22nd), two concurrent field trips were offered to meeting participants, one to the South Hills and the other to the Gooding City of Rocks. My wife (Monaquita) and I selected the South Hills trip for our first adventure. Dennis Pettygrove, a local amateur botanist, and Jim Reveal led the excursion. There was



Jim Reveal instructing INPS and *Eriogonum* Society members on the intricacies of identifying Idaho's native buckwheat species. Photo by Nancy Miller

much to see as we sampled the diversity at elevations ranging from 4,000 to 7,200 feet; the lower areas festooned with dry grasses and desert scrub, the higher spots inhabited by pockets of conifers surrounded by tall sagebrush, snowberry, and other high desert shrubs. My memories of the trip are six months old, but I still hold on to distinct images, such as:

- Bill Adams on his stomach in the dust intently photographing a clump of the largest *Pediocactus simpsonii* (Simpson's foot cactus) I have ever seen
- Admiring a bonsai-like plant of

Eriogonum sphaerocephalum (rock buckwheat) tucked into a rock crevice, just waiting to be immortalized in a photograph

- Jim Reveal walking at the head of his "class of students" as he provided interesting insights into the local flora
- The din of cicadas serenading our walk through the cheat-grass and the *Amelanchier alnifolia* (serviceberry) bushes
- Barbara Ertter in a meadow along the Oakley-Rogerson Road instructing me on the intricacies of morphological diversity in the species *Potentilla gracilis* (slender cinquefoil)
- Exploring an aspen grove in search of just one more strikingly beautiful *Penstemon perpulcher* (Minidoka beard-tongue) plant in full azure bloom
- Wondering if there was anywhere in the world with larger or more attractive populations of *Linum lewisii* (Lewis flax)
- Pleasurable sensations of leisure as I sat in the shade with a peanut butter and jelly sandwich watching the hummingbirds come and go from an isolated feeding station.
- The comfort and peace of the cool, verdant grotto where tumbles the waters of Ross Falls

Saturday evening brought a rest from dust and bright sun; not that native plant folks need much respite from the great outdoors. However, in honor of tradition we gathered at Canyon Crest Conference Center for an annual business meeting and keynote speech. I found the business element of the evening to be a little tedious. But I kept quiet knowing I was probably alone in that sentiment. On the other hand, it was a real pleasure to sit with like-

(Continued on page 4)

(Continued from page 3)

minded people and enjoy good food.

After the meal, we were treated to a fascinating Steven Lubinski lecture about the geological implications of the Bonneville flood. I found the speech especially stimulating because I discovered clues to many of the geological anomalies I had observed around the region I call home. Things like the lack of topsoil on the lava bedrock in the Portneuf Valley, the unanticipated beach sand layer (complete with snail shells) just under the topsoil



Annual meeting participants checking out the wonders of LaMar and Rosalie Orton's Plantasia Cactus Gardens in Twin Falls. Photo by Nancy Miller

around Aberdeen, the channel and dune formations west of American Falls, and the melon boulders mounded near King Hill. After the dinner, my wife and I loitered around the terraces overlooking the Snake River canyon and watched the purple shades of dusk rise up from the depths. Great evening.

On Sunday morning, I led a caravan north on ID-46 to the junction with Gooding City of Rocks Road. There we met our tour leader, Carol Blackburn, bota-

nist for the Sawtooth Botanical Garden in Hailey. Our ultimate destination, Gooding City of Rocks, is a surreal formation of igneous rocks in the parched Bennett Hills. But first, we made a detour to a botanically diverse rocky flat west of the preserve. After lunch on the rocks, we hiked into the prominent ravine that forms the backbone of Gooding City of Rocks. Again, I have some very distinct images of this excursion, as clear as if the field trip was held yesterday:

- Watching tour participants spread out over the rocky slopes, as singles or small groups, physically contorted into every imaginable plant-observing posture
- Finding a single spot where I could stand and frame five different species of buckwheats into a single photograph
- Successfully collecting a few seeds of the intriguing, golden to maroon-flowered plants of *Eriogonum ovalifolium* (cushion buckwheat)
- Deciding that "charming" is the best word to describe the cottony, peppermint-striped flower heads of *Eriogonum thymoides* (thymeleaf buckwheat)
- Conducting a stare-off with one of the local inhabitants, a plump but spiny horny toad
- Standing in awe at the massed beauty and fragrance of *Philadelphus lewisii* (syringa) shrubs that filled each narrow, black-walled ravine
- Enjoying the solitude that resulted from a stronger need to examine the workings of nature than to keep up with the group

Monday was a bonus; an extra chance to celebrate interesting plants and good company. The event was a post-meeting field trip

to Craters of the Moon National Monument and Fish Creek Canyon. We left Twin Falls early to ensure plenty of time amongst the plants of this unique region. At Craters of the Moon, the staff obligingly allowed INPS members to explore the Monument without paying the usual fee - much appreciated. There we met Steven Bekedam (Monument Ecologist) and Steve Popovich (former BLM botanist in the area) who introduced us to the spectacle of flora on the cinders. After a half-day at the Monument, we headed north up Fish Creek Canyon, over the top into Leadbelt Creek and ended up in upper Antelope Creek Canyon. Remote, rough, and steep, the road on this last leg of the journey was a challenge to both driver and steed. At the end of the tour, most participants chose a longer, but more sedate drive down Antelope Creek and out through Arco. It was an enjoyable educational day, with a few more unforgettable moments, namely:

- Listening to Jim Reveal discuss the morphological uniqueness of the small, silver-leaved *Eriogonum ovalifolium* var. *focarium* (Craters of the Moon buckwheat) that grows ubiquitously, but only on cinders at the Monument
- Trying to find just the right spot to shoot a photograph that would capture the freckled facade created by sparsely arranged plants of Craters of the Moon buckwheat scattered across the monotone color of the cinder flats
- Marveling one more time at the ability of syringa (also called Lewis mockorange), Idaho's state flower, to rise up out of cracks in the barren, unbroken lava fields
- Carefully memorizing the location of a single plant of *Paeonia brownii* (Brown's peony)

observed on the way up Fish Creek Road, so I could stop and take a closer look on the return trip, then feeling the frustration of not being able to find it the second time around

- Sitting atop a rocky buttness in Antelope Creek Valley, observing petite mounds of yellow-flowered buckwheats and trying to decide whether they were a better morphological match to *Eriogonum capistratum* (hidden buckwheat) or to *Eriogonum verrucosum*
- Feeling a touch of remorse as one-by-one the final group of participants said their good-byes and faded into the dusty cloud hovering over Antelope Creek Road

Due to the efforts of the dedicated people who worked to provide this unforgettable experience, the meeting was a success in every way. Kudos to the organization committee: LaMar Orton, Rosalie Orton, Dennis Pettygrove, Carol Blackburn, Kelvin Jones, Alan Crockett, Sue Braastad, Stephen Love. And a special credit goes to James Reveal, a friend and colleague we will never forget.

As a result of the committee's diligence, 90 attendees left the meeting with a greater appreciation of Idaho's diverse flora, stronger bonds with new and old friends, and revitalized hearts and minds.



Craters of the Moon buckwheat scattered across the cinder fields at Craters of the Moon National Monument. Photo by Stephen Love

Announcements

Idaho Botany Foray: Save the Date! The 8th Annual Idaho Botanical Foray will be held in the Selway River drainage of the Nez Perce-Clearwater National Forest from June 18-22, 2015. We look forward to exploring the early season flora of our northern Idaho disjunct temperate rainforest, and contributing new collections from this amazing ecosystem. More detailed information about camping and logistics will be available soon on the INPS webpage. Please contact Dr. David Tank (dtank@uidaho.edu) at the University of Idaho for questions.

Advanced Field Botany class: Advanced Field Botany (BIOL 460/560) at the University of Idaho McCall Field Campus, June 28-July 11, 2015. Two weeks of botany on Payette Lake in McCall, Idaho. Learn the flora of Idaho during a two-week field experience in the Inland Northwest. This 3-credit course is open to upper division undergraduates and early career graduate students that want to enhance their botanical knowledge and field skills. More information and how to apply at: www.webpages.uidaho.edu/dtank/AFB.

Portneuf Valley Environmental Fair: The annual Portneuf Valley Environmental Fair will be held in Caldwell Park, Pocatello, on Saturday, April 18, 2015, from 11:00 a.m. to 3:00 p.m. Last year 7,000 people attended this yearly event that features booths for groups that emphasize the environment and environmental issues. This year the Sawabi

Chapter booth will provide information about our chapter, INPS in general, and information about growing native plants in the area. We will give away small pots of native plants (mainly donated by the University of Idaho Aberdeen Research Station) and will provide a children's activity. With music and food and the outdoors, this fair is a fun way to celebrate and be informed about our environment and the benefits of preserving habitat and native flora and fauna.

New Publication – Grasses of Idaho: The Idaho Museum of Natural History (IMNH) has published a revision and update of the Grasses section of *The Flora of Idaho*, originally published by Ray J. Davis in 1952. This publication is the result of several years of work by Karl E. Holte, Bruce P. Ronald, and James M. Glennon. The manual is entitled "A Nomenclatural Revision of Ray J. Davis' Flora of Idaho Poaceae (Gramineae) Including New Additions and Revised Keys" and is available for \$17.99 at IMNH, with all profits going to the Ray J. Davis Herbarium at Idaho State University. To order a copy, the mailing address is 921 S. 8th Ave., Stop 8096, Pocatello, ID 83209-8096, telephone 208-282-3168. Contact Dr. Karl Holte, 208-241-8358, plantprof@live.com; or Jim Glennon, 307-389-1118, wytbn@live.com, for questions about the content or format of the revised keys. More details about this publication will be included in the next *Sage Notes*.

Two Sides Of The Tetons

2015 Annual Meeting of the Idaho and Wyoming Native Plant Societies

This year's annual meeting, July 10-13, is meant to draw from the expertise and resources of the Wyoming and Idaho Native Plant Societies and provide their members with a chance to mingle, socialize, botanize and explore one of the world's most beautiful alpine areas while doing so. There will be numerous field trips, five each day, plus an optional all-day auto tour on Monday. The trips will range from valley riparian areas to high alpine ridges, from easy walks to arduous all-day hikes. Group sizes will be kept as small as possible to maximize the interface with our botany experts.

The same field trips will be offered both Saturday and Sunday. Four of the trips will feature two destinations for the day; the fifth outing will be an all-day hike into a high alpine area. The time spent botanizing on the all day hikes may be limited by the distances to be covered. The Monday all-day auto tour will be along the Flagg Ranch road where it crosses the mountains between Ashton, ID and Flagg Ranch (WY). The USFS has a twenty-person limit on groups entering wilderness areas, so if too many people sign up for any one of the outings we may have to do some shuffling around. We will do our best to accommodate everyone and will finalize at the Friday evening get-together.

Note that these mountains make their own weather and summer thunderstorms are common, BE PREPARED! Field trips and other outdoor func-

Gatherings

Friday, July 10: 12:00 p.m. The weekend begins with an informal gathering at Reunion Flat Campground (Group Site C), located in beautiful Teton Canyon of the Caribou-Targhee National Forest. Sign-in and information packet handout will start 12:00 p.m. Karl Holte, Professor Emeritus, Botany, Idaho State University, will be leading guided plant walks Friday afternoon and early evening in the campground area. There will be a potluck starting at 7:00 p.m.; bring your own dinner and socialize with old and new friends.

Directions: Reunion Flat Campground is approximately 10 miles east of Driggs. From the intersection with Hwy 33 in Driggs take Ski Hill Rd 4.0 miles to W Alta Ski Hill Rd. Follow W Alta Ski Hill Rd 7.0 miles to Teton Canyon Rd in Alta, WY. Turn right on Teton Canyon Rd. Go approximately 3.4 miles to Group Site C.

tions may be modified or cancelled due to weather conditions. Download and make a copy of the plant lists that will be made available on the registration website. You can register for the meeting no later than June 15 at <http://idahonativeplants.org/statewide-annual-meeting/> or by mailing in the registration form along with payment.

We have reserved the Reunion Flat Campground Group Camp "C" for Thursday through Sunday night. The camping fee covers those four nights. You will need to make other arrangements for Monday night if necessary. There are water and pit toilets but no hookups. The campsite will accommodate 34 vehicles. An auto/trailer combo counts as one vehicle. There are additional, reservable campsites in the area through the US Forest Service and dispersed campsites along the canyon. There are a small number of cabins near Driggs that can be reserved at Teton Valley Cabins (208-354-8153), be sure to call (as the website will show no cabins available) and mention you are with the Native Plant Society. For further information please contact one of the following:

Amy Taylor (WYNPS)

tetonplants@gmail.com 307-699-1314

Grant Thomas (INPS)

thomasgm60@gmail.com 208-237-5317

Ann L. Boelter (WYNPS)

Boelter@uwyo.edu 307-745-5487

Janet Bala (INPS)

balajane@isu.edu 208-232-2815

Saturday, July 11: 6:30 p.m. The (optional) Saturday evening buffet starts at 6:30 p.m. for those choosing to participate (the chef has an excellent reputation). The doors will open at 6:00 p.m. You may bring your own alcoholic beverage but they will not be available for purchase at the Driggs City Center. The Saturday evening guest speaker will be Dennis Knight, Professor Emeritus, Vegetation Ecology, University of Wyoming. The subject of Dr. Knight's presentation, starting at 7:30 p.m. will be "The Ecology of Western Wyoming and Eastern Idaho: Twenty Years of Change and New Research," based on the newly released 2nd edition of the book, *Mountains and Plains: The Ecology of Wyoming Landscapes* (Knight, et al., 2014).

Sunday, July 12: 6:30 p.m. An informal get-together at the Reunion Flat Campground at 6:30 p.m. Nothing provided except an evening in the Tetons with good company.

Field Trips

Saturday, July 11

You should have a lunch, water, sun protection and insect repellent for all field trips. Good walking/hiking shoes will be necessary and hiking poles should be considered for the more strenuous hikes.

WEST SIDE

Trip #1:

Grand Targhee Resort: half day: Chairlift ride to the 9,862 ft. summit of Fred's Peak to explore the subalpine/alpine communities. Excellent Teton views. Price of the chairlift ticket is additional and is not included in the registration fee. Difficulty rating: Leisurely walk but moderate due to altitude.

Woods Creek Fen: half-day: Tour of Teton Regional Land Trust's 60 acre parcel. Learn about the hydrology, geology and botany of this unique wetland. Home to over 107 plant species including 6 rare plants. Wear shoes/sandals that can get wet. Difficulty rating: Easy

Trip #2:

Darby Canyon: Explore the amazing flora of Darby Canyon. Options exist for different destinations. As a group, we will focus on the lower portions of the trail and hike to Wind Cave. The cave is 2.7 miles one-way with 1,800 elevation gain. Participants have the option to return to the trailhead early or continue on to Ice Cave and beyond to the alpine flora of Fossil Mountain. The Wind Cave/Ice Cave area in the Jedediah Smith Wilderness supports incredible plant diversity. Difficulty rating: Easy to moderate to strenuous; based on turn-around point.

Horseshoe Canyon: Located in the Big Holes, this option offers an opportunity to see the eastern side of Teton Valley. Active beaver ponds, good bird-watching and wildflower peeping. Depending on the group, we may or may not have time for this field trip after the Darby hike. Difficulty rating: Easy.

Trip #3:

Table Mountain: A full day hike to 11,106 ft. Elevation change is approximately 4,100 ft. Distance is 12.8 miles round trip. Classic Teton hike with spectacular views of Tetons and their U-shaped valleys and canyons. Lots of hiking with judicious botanizing. Good hiking boots and poles recommended. Difficulty rating: Difficult

EAST SIDE

Trip #4:

Teton Village Tram: half day: Start the morning with an aerial tram ride at Jackson Hole Mountain Resort. The tram arrives at the top of Rendezvous Mountain, 10,450 ft. where we will enjoy the alpine flora. Meet at 9:00 a.m. at JHMR ticket office. Driggs to Teton village is approximately 1 hour. Price of tram ticket is additional and is not included in registration fee. Difficulty rating: Moderate due to altitude.

Teton Pass: half day: There will be the option to spend the afternoon exploring Jackson on your own or the chance to see the wildflowers of Teton Pass with naturalist and writer, Susan Marsh. At 12:30, Susan will lead a 2-3 hour hike at some of the best spots along Teton Pass. Come for the first part even if you don't want to hike the entire afternoon. Difficulty rating: moderate.

Trip #5:

Grand Teton National Park Driving Tour: Spend the day touring glorious Grand Teton National Park with stops at different habitats, areas of interest, and research sites. Botanist Frances Clark is busy planning a great day for us! We will meet at Stilson Parking lot in Wilson to coordinate a carpool. Allow at least 45 minutes to drive from Driggs, ID to Wilson, WY. Park pass per vehicle required. Difficulty rating: Easy

Sunday, July 12

A repeat of Saturday's trips but Trip #3 will be as follows:

Trip #3:

Taylor Mountain (tentative): Day-long hike to 10,068 ft. summit of Taylor Mountain; 7.4 miles round trip with 2,780 ft. elevation gain; impressive views of the area's mountain ranges. Steady pace with limited botanizing. Difficulty rating: Difficult

Monday, July 13

Ashton-Flagg Ranch Road Driving Tour: This area has some of the best botanizing sites to be found in this part of Idaho and Wyoming. Possible stops could include the fen at Loon Lake and pond lilies and other interesting plants at Indian Lake. Difficulty rating: Easy

Botany puzzle answers (page 2): acorn, berry, capsule, drupe, loment, pepo, pome, samara, silicle, utricle

TWO SIDES OF THE TETONS — July 10-13, 2015
Joint Annual Meeting of the Idaho and Wyoming Native Plant Societies
Registration Form (due no later than *June 15*)

Name: _____

Name: _____

Address: _____

Phone#: _____ E-Mail: _____

Please print information clearly, if we can't read it, we can't register you.

Registration and Fees: The registration fee is \$20 per person and includes participation in any/all parts of the agenda including the Friday potluck, the three days of field trips and the Saturday evening program. The Saturday evening buffet dinner is a separate cost of \$15 per person. If you wish to take advantage of the reserved Reunion Flat Group Camp, Site C, (tent or RV, no hookups) the fee is \$15 per vehicle whether for one day or for all four days (Thursday through Sunday, vehicle rate includes auto/trailer combos).

Registration Fee \$20.00 X _____ = _____

Dinner \$15.00 X _____ = _____

Please list any dietary restrictions/preferences: _____

Camping Fee (if using Group Camp): \$15.00 _____

Total Fees: _____

You may register online at <http://idahonativeplants.org/statewide-annual-meeting/> or by using this form. If you use this form, please make checks payable to "INPS Sawabi Chapter". Mail payment and completed form to:
Idaho Native Plant Society, Sawabi Chapter, 933 Bryan Rd., Pocatello, ID 83201

See the exciting field trip descriptions, and register for your choices now (below). Some group sizes are limited and we may not be able to accommodate everyone on their first choice. Gathering times and places for field trips will be in the registration packets, available Friday and Saturday evenings.

Saturday Field Trips: WEST SIDE

_____ Grand Targhee (am) and Woods Creek Fen (pm)

_____ Darby Canyon (am) and Horseshoe Canyon (pm)

_____ Table Mountain (all day)

Saturday Field Trips: EAST SIDE

_____ Teton Village Tram (am) and Teton Pass (pm)

_____ Grand Teton National Park driving tour (all day; PARK PASS REQUIRED)

Sunday Field Trips: WEST SIDE

_____ Grand Targhee (am) and Woods Creek Fen (pm)

_____ Darby Canyon (am) and Horseshoe Canyon (pm)

_____ Taylor Mountain (all day)

Sunday Field Trips: EAST SIDE

_____ Teton Village Tram (am) and Teton Pass (pm)

_____ Grand Teton National Park driving tour (all day; PARK PASS REQUIRED)

Monday Field Trip:

_____ Ashton-Flagg Ranch Road Driving Tour (am and early afternoon)

Tribute to Vernor “Dick” Anderson (May 14, 1930 - January 30, 2015)

Vernor “Dick” Anderson, a valued member of the Sawabi Chapter INPS, expert photographer and expert self-taught botanist, passed away on January 30, 2015. Prostatic bone cancer had taken its toll.

Dick’s early life was spent in Berkeley, California, where he was involved in various high school activities including musical groups and photographing for the city newspaper. After high school he enlisted in the U.S. Navy and trained as a Navy photographer at its School of Photography. After his four-year stint in the Navy, he married his first wife, Pat, also a Navy-trained photographer. He continued his photography interests by working in retail photographic sales in California his entire career. His professional association with photography ended with his retirement, but he remained an active photographer for the rest of his life.



After retirement, he and Pat spent a few years with family members on a farm in Texas where he enjoyed studying and photographing the local wildlife and

plant life. Upon the death of his wife and his sister's husband, he and his sister moved to Pocatello to be near family. Thus began a new chapter in his life.

Because of his life-long interest in birds and flowers, he became active in the Sawabi Chapter of INPS and the Portneuf Valley Audubon Society. Through those connections, he met and married his second wife, Joan Bergstrom, with whom he enjoyed seven years before her untimely death.

When Dick discovered digital cameras, he wrote, “I was fascinated because with this new system I could do the whole process, from taking the photos to making the prints myself, doing it all on my computer.” Many of his excellent photos of native plants were entered in the INPS photo contest a few years ago, and were featured among winning entries. He was generous with his flower photos, often contributing framed prints for door prizes at special meetings. Dick enhanced his botanical interests by taking plant keying classes from Dr. Karl Holte at the Idaho Museum of Natural History (IMNH), which fostered a strong friendship with Karl and others in the class and the IMNH staff. He became an expert botanist himself and for a number of years assisted Karl in the keying classes. They also team-taught summer Elderhostel classes with Malheur Field Station personnel in southeast Oregon.

In recent years Dick was a regular volunteer in the IMNH Ray J. Davis herbarium, photographing for digitization more than 55,000 sheets of plant specimens stored in the herbarium. On Sawabi field trips he was extremely helpful in assisting the leaders and participants in the identification and recognition of characteristics of native plants, along the way photographing the flowers. He stated that if he couldn't be found with the group, he was the one on his knees taking close-up photos of whatever flower and interesting foliage he encountered. He always participated in as many field trips as he could throughout Idaho.

Dick will be missed for his expert skills, for his many contributions to the Sawabi Chapter, and for his quiet and subtle sense of humor. He was a great friend. The Sawabi Chapter will hold a memorial/celebration of life and tree-planting in Dick Anderson's honor in late May 2015.

- Shirley Rodgers and Ardys Holte, Sawabi Chapter



Idaho Mystery Plant

This photo was taken by Jessica Irwin in the Salmon River Mountains north of Stanley, Idaho. The species is a matted perennial with striking magenta flowers found in rocky, high elevation habitats. What is your guess? The answer will be revealed in the next edition of *Sage Notes*.

The Idaho Mystery Plant in the September-December issue was *Anelsonia eurycarpa* (daggerpod) in the Mustard family (Brassicaceae). Named in honor of Dr. Aven Nelson (1859—1952) a leading authority on the Rocky Mountain flora during his long tenure with the University of Wyoming and the Rocky Mountain Herbarium. Have an Idaho Mystery Plant to share? Send it in to the Sage Notes editor: (sage-editor@idahonativeplants.org). - M. Mancuso

Report on Botany 2014 Conference

By Beth Corbin, Pahove Chapter

Botany 2014: New Frontiers in Botany was a nationally and internationally attended conference held in Boise in July 2014. This conference is the annual meeting of the Botanical Society of America, International Association for Plant Taxonomy, American Bryological and Lichenological Society, Society of Herbarium Curators, the American Fern Society, and American Society of Plant Taxonomists. The Pahove Chapter of Idaho Native Plant Society sponsored my registration fee under their new Education and Enrichment Award grant, for which I am most grateful for the opportunity to have attended this fine conference.

The conference began with a number of optional field trips over the weekend. I helped Don Mansfield (College of Idaho botany professor) lead a trip to Silver City in the Owyhee Mountains, which gave visitors from as far as Singapore, Taiwan, Florida, and New Jersey a view of our vegetation and geology across an elevation transect, plus some interesting mining history. Conference presentations started on Monday morning and ran through Wednesday, with a dizzying selection of presentations and symposia to select from. For example, on Monday alone I counted 189 different talks offered in the program, in addition to what were probably a hundred (perhaps more) poster presentations, plus business meetings, alumni lunches, workshops, etc. Most talks were 15 minutes long, and graduate students, researchers, professors, and the occasional non-academic professional spoke on an incredible diversity of plant-related subjects. My strategy was to sample from a wide selection of talks, as well as hitting talks most relevant to Idaho's botany. Following is just

a subset of some of the more memorable talks I attended:

- One study was on modeling future habitat for rare plants in the western United States under predicted climate change, using climate data and occurrence records. They found that about half of the species would show an increase and half a decrease in suitable habitat under projected climate change, but there were not clear directional (like all species heading north) or elevation shifts because of individual species' requirements. If climate shifted habitat out of the species' current range, then plants may or may not be able to migrate, depending on their dispersal ability and other factors.
- I was interested in a talk on the status of the Flora of North America project. There have been 16 out of 30 planned volumes published to date, since 1993, with three more to go to the publisher in 2014 and another 3 or 4 in 2015. Each genus is illustrated, along with one of six species in large genera. This has been an incredibly ambitious undertaking to document the flora on that scale, and completed volumes have been an excellent resource.
- A study on fire ants and henbane found a mutualistic relationship between these two invasive species, with the seeds providing food for the ants, and the ants dispersing the seeds and creating small clearings (microhabitat) favored by the henbit.
- Boise State University's Carly Prior gave a good talk on the invasive grass *Medusahead*, comparing native populations

from Bulgaria, Greece, Macedonia, Turkey, and Romania to invasive populations in Idaho, Oregon, and California. She found there was not a lot of difference in the amount of self pollination versus outcrossing between the two types of populations.

- Another BSU student, Jay Zimmers, gave a good talk on his morphological and genetic work on varieties of *Astragalus cusickii*. It appears that variety *packardiae* is well supported as a taxon, as is var. *sterilis*, but keeping them and varieties *cusickii* and *flexilipes* together under *A. cusickii* is problematic because another species (*A. whitneyi*) falls between them in the cladogram (an evolutionary tree of relatedness, based on certain genetic markers).
- Inmates are being used in Logan, Utah, to re-mount, digitize, and database herbarium specimens and photos for Utah State University herbarium. It's a win-win situation as the herbarium gets work done and inmates get biological and computer experience, a little money, and the pride of accomplishment.
- Studies are underway on potential fungi controls for cheatgrass. The "black fingers of death" fungus has some potential, but only works on dormant (not fall-germinating) seeds, and some strains of cheatgrass are more resistant to it. A newly-found pathogen produced "bleached blonde syndrome" which causes cheatgrass plants to flower but not set seed; it appears to be an un-named fungus.
- I heard various talks on ferns, pollen, grasses, fossils, begonias, cucurbits, sedges, li-

chens, Penstemons, and lots of genetics – phylogenetic charts and cladograms one after another. The hot topics within botany have changed quite a bit since I was in school, and it was both inspiring and humbling to hear a little bit about all the advances.

Of course, another value of the conference is to make and re-

new acquaintances of extremely knowledgeable folks, and it is gratifying to be around others as interested in plants as yourself. It's fun to put a name to a face of someone I've read about, and hear them explain new research themselves. It's also heart-warming to see young people interested in and passionate about plants, coming from all over the world. It was a rare opportunity to

have the botany meeting in Boise this year (last year it was in New Orleans, and next year it will be in Edmonton, Alberta), and I think it showed off our fine state in a very favorable light. It was also good for Boiseans to get a taste of the larger botanical world. I appreciate the Pahove Chapter's sponsorship for me to attend the Botany 2014 conference.

New Idaho Wildflowers App

By David Giblin, University of Washington Herbarium, Burke Museum

The University of Washington Herbarium at the Burke Museum has partnered with the University of Idaho's Stillingher Herbarium, Idaho State University's Ray J. Davis Herbarium, wildflower photographer Mark Turner, and High Country Apps to produce *Idaho Wildflowers*, a plant identification app for smart phones and tablets. The app provides images, species descriptions, range maps, and bloom period information for 805 common wildflowers, shrubs, and vines that occur in Idaho and adjacent areas of Montana, Washington, Utah, and Oregon.

Designed for everyone from budding wildflower enthusiast to experienced experts, *Idaho Wildflowers* provides users with images, names, and the natural history of the wild growing plants that they frequently encounter in natural areas. Idaho is home to diverse landscapes containing a wealth of wildflowers, shrubs, and vines. *Idaho Wildflowers* is also a great educational tool for learning more about plant communities, botanical terms, and how to identify plants in general.

The majority of species included are native, but introduced species common to the region are also covered in order to expand the app's usefulness. Once downloaded, the app does not need an Internet or network connection to run, so you can use it no matter how remote your wanderings take you.

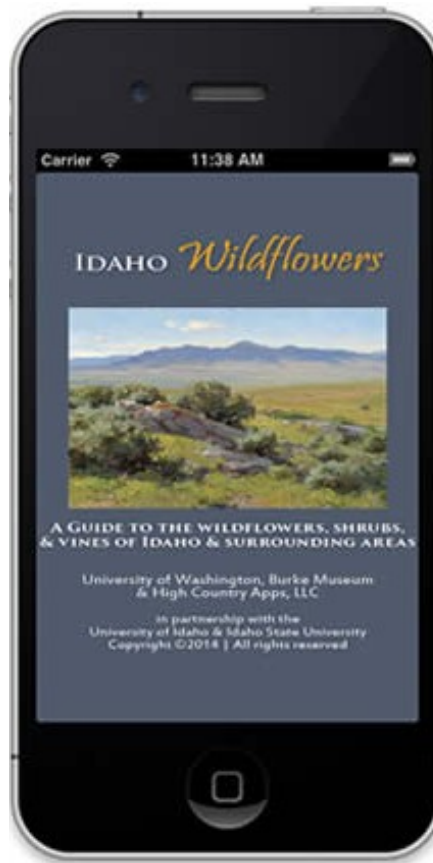
Users can browse the species list by common or scientific name, or by family, to locate a plant and access the related information. However, most users

will likely use the app's identification key to get the correct name for a plant of interest.

The key's interface is broken down into 11 simple categories: growth habit (e.g., wildflower, shrub, vine), flower color, flower shape, petal number, month of year, geographic region, habitat, leaf arrangement, leaf type, duration (annual, biennial, perennial), and origin (native or introduced). Users mark choices only in those categories for which they are certain (e.g., flowers blue, petals 5, month = June) and leave the rest blank. The number of species to which the overall list has been reduced appears at the top of the key and changes each time that a selection reduces it further.

Idaho Wildflowers includes supporting documents with extensive information on the ecoregions of Idaho. Users will also find an extensive glossary of botanical terms, along with labeled diagrams. Finally, detailed descriptions can be found for each family contained in *Idaho Wildflowers*. Tapping on a family name brings up a list of images and names for all species in the app belonging to that family. You can also create a list of favorites, whether just for the day or ongoing, that you can email to yourself or others or upload to the cloud.

Idaho Wildflowers is available at Amazon, Apple, and Google app stores for \$7.99. You can also find links to these online stores through the High Country Apps Web site (www.highcountryapps.com). A portion of revenues from the app's sales supports conservation efforts and further botanical study in the region.



Diversity within a Species: Studying Sagebrush Morphotypes

By Marcella R. Fremgen, Graduate Student, Boise State University

Driving along the highway at 65 mph, looking out across a shrub-steppe landscape, it all looks remarkably homogenous. However, to an ecologist or botanist, there are subtle differences – the sagebrush high on the hills is generally shorter often with sticky, greenish leaves, and the sagebrush low in the drainage is tall, with long silver leaves. There is actually a large amount of diversity in sagebrush, from the species level down to the individuals within patches and the chemicals that individuals or specific leaves produce. This has important implications for sagebrush-obligate herbivores like the Greater Sage-grouse (*Centrocercus urophasianus*, hereafter, sage-grouse).

Sage-grouse rely on sagebrush for food and cover throughout their life. During the winter months,

searching for the least toxic food to consume.

As a master's-degree student at Boise State University, I am studying how herbivores select certain plants to consume based on their chemistry. This research is affiliated with my major professor Dr. Jennifer Forbey's chemical ecology laboratory. John Connelly, recently retired from Idaho Department of Fish and Game, is another collaborator for the project. I study how herbivores select certain plants to consume based on the plants' chemistry. We track sage-grouse with radio transmitters (Fig. 1) to their foraging site and identify browsed plants that we then analyze in the lab.

By studying the sagebrush plants that were selected by sage-grouse as food and those that were not, we have identified the

These morphotypes are not only structurally different, but they also differ in their chemistry, with different size classes showing variation even within a single species (Figs. 3 and 4). The figures show the difference in profile of monoterpenes (Fig. 3) which are the volatile compounds you smell in sagebrush after it rains, and coumarins (Fig. 4), a class of ultra-violet fluorescent compounds. Sage-grouse can see ultraviolet light (all birds can!) and we are learning that more and more birds can even smell their food. So sage-grouse can potentially see the light emitted by chemicals or smell the volatiles released when they are foraging! This diversity in chemicals may provide important cues for foraging animals that are trying to avoid or minimize the intake of plant toxins.

It is important to maintain this chemical diversity across the landscape as it provides a wide range of foraging resources for herbivores, including sage-grouse, pygmy rabbits, pronghorn and wintering mule deer. This diversity also improves habitat resilience to climate change as increased carbon dioxide and increased temperatures are likely to result in higher chemical defenses. Therefore, having a wide range of chemistry may provide some high-quality forage resources for wildlife in the future as toxins increase. It is important to preserve this diversity for the future.

Editor's Note: One of my goals while editor of Sage Notes is to include at least one student-generated article in each issue. I see this as a way to raise awareness of the diverse and interesting botanical/ecological research being conducted by students at Idaho colleges and universities with a state-wide audience. If you want to share your research, please contact me at: sage-editor@idahonativeplants.org



Figure 1. Idaho Fish and Game employee Lisa Cross tracks sage-grouse with radio transmitters. Plants browsed at the foraging site were then identified.

sage-grouse rely entirely on sagebrush for food resources. Sagebrush, however, produces a suite of secondary metabolites for defense, including monoterpenes, phenolics, and sesquiterpene lactones. These chemicals have negative physiological effects that deter herbivory. Sage-grouse select plants with lower chemical defenses when they are foraging,

importance of diversity below the species level. Plants were split into different size classes or morphotype, which reflect the species and age of the plant. These morphotypes include identifying morphology for the species itself, as well as structural (height, stem branching) characteristics that further separate species by size class (Fig. 2).

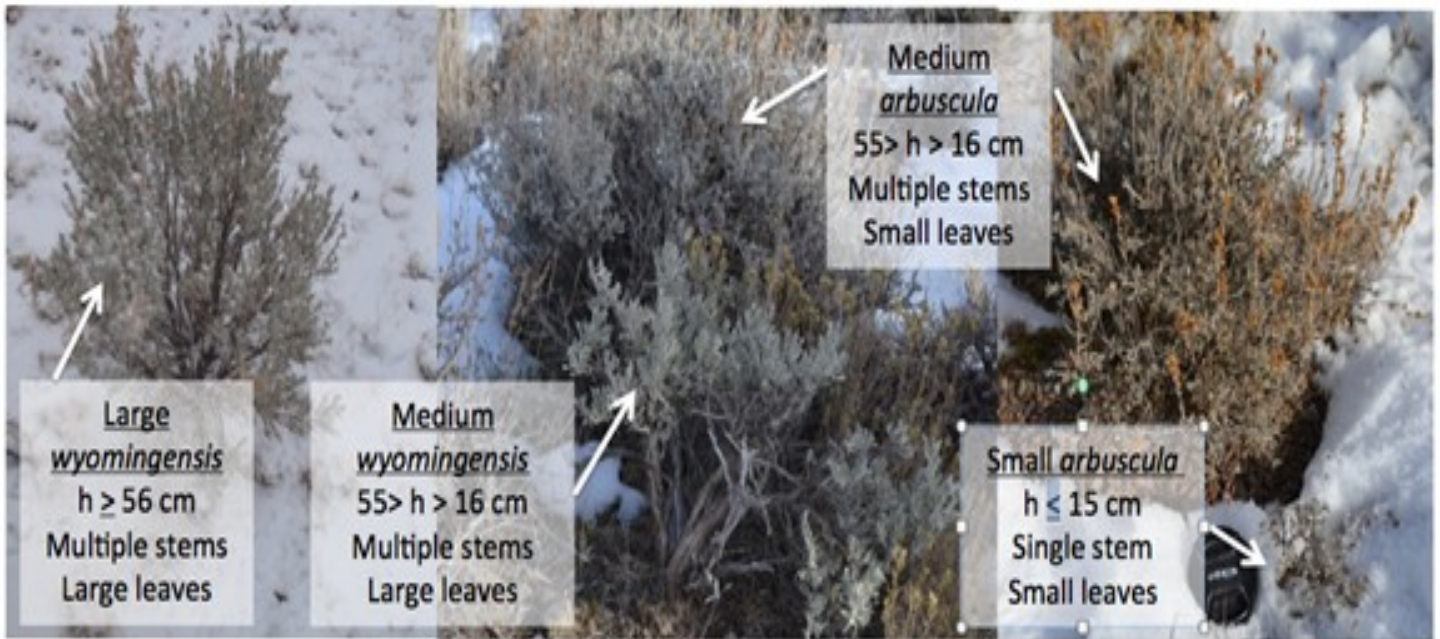


Figure 2. Morphotypes of sagebrush found at a Raft River site in Cassia County, Idaho. Left: a large *A. tridentata wyomingensis* plant. Center: a medium *A. t. wyomingensis* plant in front of a medium *A. arbuscula*. Right: a small *A. arbuscula* on the bottom right and a medium *A. arbuscula* in the center.

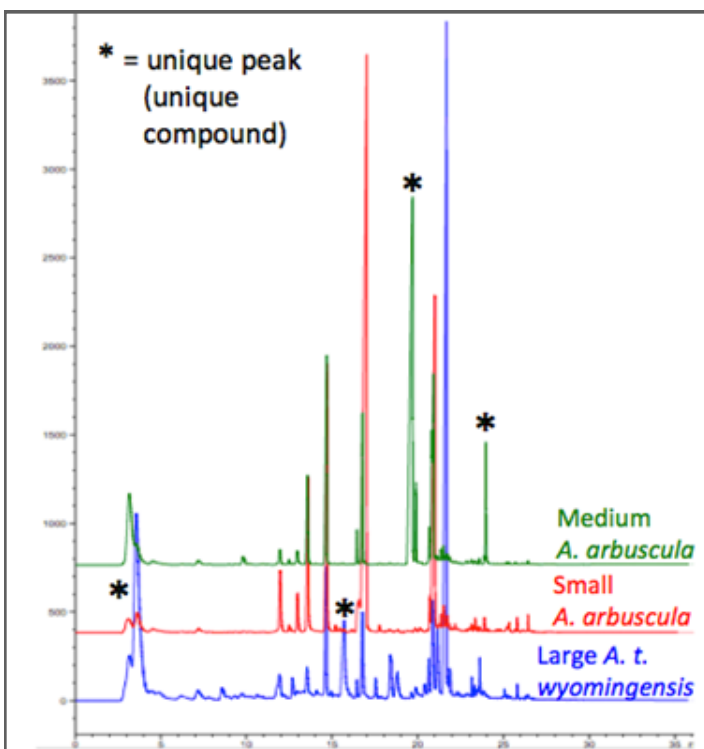


Figure 3. Monoterpene profiles for each morphotype are unique. Each species has a unique chemical profile (different peaks), but there is also variation within a species that is related to size (or age) of the plant. The different peaks (different compounds) also represent a type of diversity - chemical diversity. By diversifying the toxic compounds in the diet, animals utilize more detoxification pathways, meaning they can digest the food more quickly and experience fewer negative effects. Therefore, diversity is important even at the chemical level!

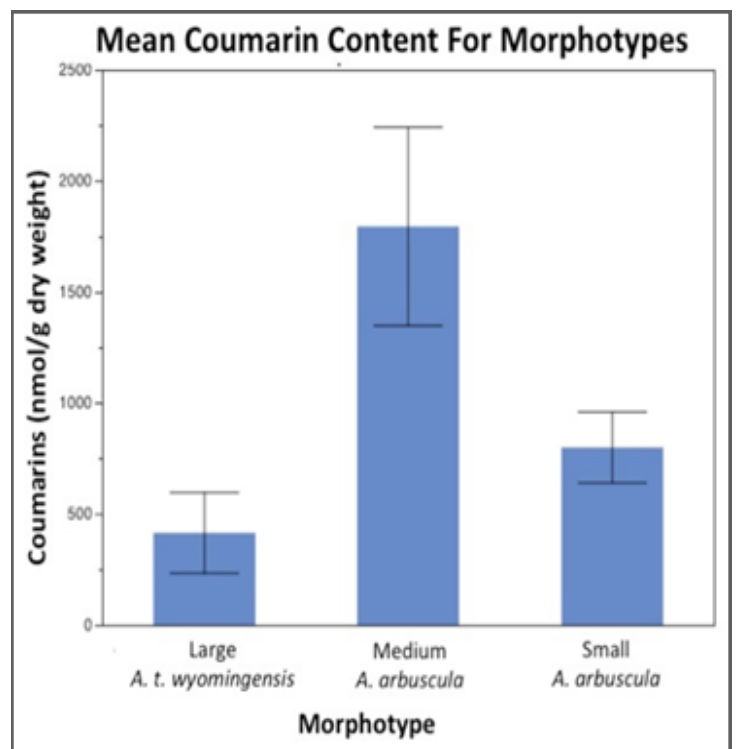


Figure 4. Coumarin content varies by morphotype and species. Coumarins are UV-fluorescent compounds that are more abundant in more palatable plants. Large *A. t. wyomingensis* is significantly different (less palatable) from medium *A. arbuscula* (more palatable). This graph shows that the coumarin content is also reflected by morphotype, which suggests that each morphotype has different palatability. Bars show mean \pm standard error of the mean (SEM).

Great Places to See Idaho Wildflowers

By Lynn Kinter, Botanist, Idaho Natural Heritage Program, Idaho Department of Fish and Game

Idaho has many wonderful places to see wildflowers. Here are a few favorites of mine and my colleagues (Derek Antonelli, Sue Birnbaum, Alexia Cochrane, Wendy Hoffman, Juanita Lichthardt, Dave Lingle, Jennifer Miller, Chris Murphy, Marilyn Olsen, Kristen Pekas, Kyra Povirk, Beth Waterbury, and Ross Winton). These sites are at their peak during spring and early summer. Look for a late summer list in the next issue of Sage Notes.

Also, Deniz Aygen, Idaho Department of Fish and Game, and I are putting together a brochure or booklet of spectacular wildflower viewing sites based on input from INPS members and others. Over the past year, we received nearly 30 recommendations, but would like to have more. If you would like to suggest a site, contact Deniz at deniz.aygen@idfg.idaho.gov.

Site	County	Peak	Showy species sampler
Homestead/Watchman Trails, Boise Foothills	Ada	early-mid-May	lupine, balsamroot, biscuitroot, bitterroot, phlox, woodland star, penstemon, milkvetch
Jackson Cr. & Goodrich Cr. roads, near Council	Adams	mid-late May	camas, groundsel, penstemon, mariposa lily, mules ears
Bear Basin, NW of McCall	Adams/Valley	late May-early July	camas, shooting star, mules ears, balsamroot, bistort, onion
Mary Minerva McCroskey State Park	Benewah/Latah	late May-early June	sticky geranium, wild hyacinth, shooting star, larkspur, sugarbowl, prairiesmoke, balsamroot
Craters of the Moon National Monument	Blaine	May-June	buckwheat, bitterroot, biscuitroot, balsamroot, dwarf monkeyflower, sticky cinquefoil
Warm Springs Trail to Eightmile Mountain	Boise	late May	balsamroot, monkshood
Red Mountain Lookout	Boise	late May-June	balsamroot, lupine, penstemon, paintbrush, geranium, scarlet gilia, cornlily
Wapiti Creek Trail	Boise	late May	balsamroot, paintbrush, yellowbells
Morris Ck. & Regal Ck.	Bonner	mid-May-July	roundleaf alumroot, Indianpipe, devilsclub, drops-of-gold, yellowdot saxifrage, rose spirea
Pass Creek Road (USFS Road 122)	Butte/Custer	late June	mules ears, paintbrush, lupine, phlox, phacelia, larkspur
Camas Prairie Centennial Marsh WMA	Camas	late May-early June	camas, mules ears, groundsel
City of Rocks & Castle Rocks State Park	Cassia	May	balsamroot, bluebell, stonecrop, lupine, goldenpea, steershead, sticky geranium, yellowbells
Weippe Prairie	Clearwater	mid-May-mid-June	camas, bistort, buttercup
Tubbs Hill, in Coeur d'Alene	Kootenai	April-May	shooting star, checker lily, Oregon grape, clarkia, fairy slipper, glacier lily, blue-eyed grass
Blue Creek Bay, Lake Coeur d'Alene	Kootenai	May-June	oceanspray, white spirea, spreading dogbane, heart-leaf arnica, harebell, orange honeysuckle
Marie Creek	Kootenai	May-July	monkshood, phantom orchid, showy aster, tall bluebells, false hellebore, orange honeysuckle
Q'emiln Park	Kootenai	April-May	sagebrush buttercup, shootingstar, glacier lily, checker lily, yellowbells, blue-eyed grass
Discovery Hill/Slump Gulch/Owl Canyon	Lemhi	May-June	bitterroot, false dandelion, hawksbeard, phlox, onion, paintbrush, lava aster
Wagonhammer & Big Silverlead creeks	Lemhi	mid-May-early June	cushion cactus, lupine, balsamroot, penstemon

Site	County	Peak	Showy species sampler
North Fork	Lemhi	May	balsamroot, scarlet gilia, phacelia, penstemon
Salmon River Trail down-stream from Corn Ck.	Lemhi	mid-April-May	syringa, thimbleberry, balsamroot, phacelia, penstemon
Little Sawmill Cr./lower Hayden Cr.	Lemhi	late May-early July	cinquefoil, milkvetch, phlox, mock goldenweed, buckwheat, penstemon, bitterroot, fleabane
Divide between Cow Cr. & Yearian Cr.	Lemhi	early June-July	fleabane, milkvetch, paintbrush, locoweed, larkspur, stonecrop, prairiesmoke, penstemon
Bench btwn Mollie Gulch & Little Eightmile Cr.	Lemhi	early June-July	paintbrush, locoweed, milkvetch, penstemon
Hot Springs Ridge, SE of Salmon	Lemhi	May-June	paintbrush, milkvetch, phlox, blazingstar, onion, fleabane, larkspur
Barracks Ln trails from Cheney public access	Lemhi	May-June	buttercup, milkvetch, cats-eye, cleomella, phacelia, buckwheat, penstemon
Agency Cr./Pattee Cr./Warm Springs roads	Lemhi	mid-May-early July	penstemon, milkvetch, groundsel, currant, buckwheat, blazingstar
Badger Basin near Carmen Creek Road	Lemhi	May-June	prairiesmoke, mock goldenweed, milkvetch, penstemon, lava aster, buckwheat, paintbrush
Henry Creek Trail, particularly at basin	Lemhi	May-June	paintbrush, phlox, milkvetch, larkspur, lupine, bitterroot, buckwheat, cushion cactus
Williams Cr. picnic area/Perreau Cr./Horse Mtn.	Lemhi	May-June	aster, milkvetch, penstemon, paintbrush, lupine, cushion cactus
Craig Mountain	Nez Perce	May-early June	ballhead waterleaf, mariposa lily, penstemon, phlox, false dandelion, buckwheat
Owyhee Uplands Byway/Mud Flat Road	Owyhee	late May-early June	mules ears, camas, phlox, monkeyflower, iris, penstemon, milkvetch
Bruneau Dunes State Park	Owyhee	April-May	bitterbrush, buckwheat, nakedstem sunray, sand lily, white blazingstar
Duck Valley	Owyhee	late May-early June	camas, mules ears, groundsel
Meadows around Clarkia	Shoshone	late May	camas, red kittentails, trillium, buttercup
Cecil Andrus WMA & Brownlee Summit	Washington	May	biscuitroot, balsamroot, bitterbrush, hawthorn, lupine, buckwheat, penstemon, syringa



Camas at Weippe Prairie. Photo by Junaita Lichthardt



Trout-lily at Lemhi Pass. Photo by Beth Waterbury

Idaho Native Plant Society History

By Lynda Smithman with assistance from Carol Prentice, Pahove Chapter

Pat Packard, College of Idaho faculty member and botanist, after attending several regional conferences on rare plants, realized that in the 1970s, botanists may have been more rare in Idaho than the plants which needed further study. During a summer field trip with Carol Prentice and Billie Ann Farley, Pat asked if they would help organize a native plant society. They agreed to serve two-year terms as President and Vice-President/Secretary. Next Pat asked Bob Steele, Research Forester with the U.S. Forest Service

other chapters. Bob Steele encouraged us to incorporate as Idaho Native Plant Society so that there would be a statewide association. This model for lay and professional members working together clearly had been successful in surrounding states and it proved to be in Idaho as well.

The earliest lecture series took place in the Tucker Herbarium at the College of Idaho which was centrally located for members who, for example, resided in Boise, Caldwell, Nampa, New Plymouth, Payette and Weiser. By the mid-80s the large number of Boise-based members necessitated the change of meeting place to Boise State University. Detailed records of activities and participants in the early years were kept, but later lost when Pahove changed its venue from Caldwell to Boise. Carol Prentice, Mary Trail and Lynda Smithman have made their personal files of the early years available for a series of Sage Notes articles to celebrate the 35th anniversary of the newsletter and for inclusion in the INPS collection at the Idaho State Historical Society Archives.

Early Pahove Field Trips

September 1977 Council Area, Adams County

The first official field trip was led by INPS technical advisor Bob Steele. *Ceanothus prostratus* (prostrate ceanothus) was the focus, for at that time it was known from only one Idaho location near Council, even though it was more common elsewhere in the Pacific Northwest as well as Nevada and California. Participants included several of Pat's former students. Additionally, Jerry Cross, Joe Duft, Lynda and Jay Smithman were invited as Pat was acquainted with

them through the Southern Idaho Mycological Society and had known Lynda's mother, Ruth Colpin, as a re-entry student at the College of Idaho. Unfortunately neither Lynda, Jay nor Ruth were able to attend. They were however very interested and recruited their friends Gordon and Barbara Pierce to attend in their place. The Pierces reported that they had been warmly welcomed, were impressed with their knowledgeable guides and thoroughly enjoyed the field trip.

Some years later after more investigation, Bob Steele recommended dropping *Ceanothus prostratus* from the Rare Plant Technical Committee's list as it appeared to be introduced into Idaho.

October 1977 Snake River Birds of Prey Natural Area

Other individuals must have been as impressed as the Pierces,



Eriogonum shockleyi var. *packardiae*

for there was a much larger crowd in attendance for the second field trip. The focus for this trip was the recently discovered Packard's variety of Shockley's buckwheat (*Eriogonum shockleyi* var. *pack-*



Mentzelia mollis

Intermountain Research Station and fellow member of the Rare Plant Technical Committee, Idaho Natural Areas Council, to serve with her as technical advisors to the fledgling native plant society. Bob also was appointed Chairman of the Board. Members were recruited from among the College of Idaho alumni and the Southern Idaho Mycological Society. These first members then invited friends interested in the natural sciences to join INPS. When Pahove (Paiute name for sagebrush) was initiated in 1977 there were no

ardiae) known at that time from only one site on the rim of the Snake River Canyon in the Birds of Prey Natural Area.

Pat's collaborators Carol Prentice and Billie Ann Farley were there to help. The group consisted of College of Idaho alumni plus Lynda and Jay Smithman, Mary Trail, her brother, Jon Trail, Ruth Colpin and her guest Myrtle Freeburg. (Myrtle was interested to learn more about native plants as she and her neighbors had gathered and used both edible and medicinal plants during the Depression.) Newcomers were introduced to various Chenopodaceae such as Saltbush (*Atriplex* spp.)



Mentzelia torreyi var. *acerosa*

as well as the Compositae especially sagebrush (*Artemisia* spp.) of the high desert. A few of our new members, needed to be trained not to step on our study plants, but by-and-large everyone enjoyed the day. Carol and Billie Ann asked Lynda to be the group's Historian.

Pat encouraged participants to adopt a rare plant and conduct field searches for more sites. Lynda, Jay and Mary decided to adopt *E. shockleyi* var. *packardiae* which was also known as "Packard's cowpies." The following weekend they returned to the Snake River Canyon armed with notebooks and topographical

maps. Within an hour they retreated to their vehicle drenched by a sudden rainstorm. Blue sky however could be seen in Owyhee County on the other side of the canyon. They decided to give up the *Eriogonum* search and visit the old stage station on the Mud Flat Road out of Grandview. While walking around on the ancient lakebed formations, Mary became very excited. She had stumbled unexpectedly onto *E. shockleyi* var. *packardiae*. Before the day was over the group had documented two new sites for that taxon and a range extension for *Mentzelia torreyi* var. *acerosa* (Torrey's mentzelia). This orange-flowered variety is only known from Owyhee County east to Twin Falls County. In winter form the mentzelia would have would not have been noticed except for Smithmans' Cairn Terrier, Tor, who showed up with velcro-like leaves stuck to his fur.

The Idaho Statesman published an interview with Pat Packard on the "cowpie-like" plants named in her honor and in the process created a new entity known as "Lynda Mary Train" which provided no end of amusement for Lynda and Mary. In the years to come, more sites were found for these "cowpie-like" plants, some of which seemed similar to *E. shockleyi* var. *shockleyi* which provided new perspectives on the taxonomy and distribution.

November 1977 Succor Creek Miocene Flora, Malheur County Oregon

Those of us who live and work in Southwest Idaho consider Eastern Oregon ours to explore. So no one thought it unusual for Pahove to botanize across the state line. Pat Packard introduced us to the

fossil flora of an earlier age. She also provided an overview of the white and brown ash beds of Succor Creek as well as the green



Chaenactis douglasii

ash in Leslie Gulch, all of which are associated with various *Mentzelia* species (blazing star) such as *M. mollis* (soft blazing star) and other rare plants. The common *M. laevicaulis* (smoothstem blazing star) was still in bloom, along with the introduced *Erodium cicutarium* (redstem filaree), which in folklore Pat told us is associated with strychnine. Rosettes of the common *Chaenactis douglasii* (Douglas' dustymaiden) were still visible at this late date. The trip concluded with picnic lunch in scenic Succor Creek Canyon. Watercress was growing abundantly in the creek, but Pat cautioned all of us that the cress most likely contained liver fluke and should not be added to our sandwiches. This was a little too late for one person who shall remain nameless.

Historic photographs courtesy Jay and Lynda Smithman

INPS Chapter News

CALYPSO CHAPTER

When: Meetings are the first Wednesdays of March, April, May and October at 7 p.m. Field trips are scheduled during the spring, summer, and early fall months.

Where: Meetings are held in the conference room of Idaho Department of Fish and Game, 2885 W.

Kathleen Ave., Coeur d'Alene.

Contact: Derek Antonelli, antonelli8@frontier.com

March 4: Chapter meeting will include a presentation on the Blackwell Island Native Plant and Pollinator Garden by LeAnn Abell, Botanist, BLM.

April 1: Chapter meeting will include a presentation on local members of the Lily and Saxifrage families by Derek Antonelli, Calypso Chapter President.

May 2: Native Plant Appreciation Hike around Tubbs Hill in Coeur d'Alene. Meet at 11th Street parking lot at 10 a.m.

May 6: Chapter meeting presentation still to be determined.

May 23: Tour of Kinnikinnick Native Plant Society's Sandpoint Arboretum led by Sylvia Chatburn. We can attend presentation on Scotchman Peaks Wilderness and have lunch in Sandpoint prior to the tour. Meet at the Hayden Walmart at the northeast corner of parking lot at 8:45 a.m. to carpool

May 30: Plant hike at the Tall Pines IDFG property east of Hayden Lake. Meet at the Hayden Walmart, northeast corner of parking lot at 9 a.m. to carpool.

June 28: Plant hike in the area of Benard Peak. Meet at the Hayden Walmart at the northeast corner of parking lot at 9 a.m. to carpool.

August 8: Plant hike to Harrison or Beehive Lakes. Meet at the Hayden Walmart at the northeast corner of parking lot at 8 a.m. to carpool.

LOASA CHAPTER

All members and the public are welcome to attend chapter events.

When: Meetings are held the third Thursday of each month.

Where: Taylor Building, Room 258, College of Southern Idaho, Twin Falls

Contact: Kelvin Jones, (208) 886-7051

PAHOVE CHAPTER

We hope to see you at our upcoming presentations.

When: September- April on the second Tuesday of each month, 7:00 p.m. *The following dates and topics are tentative. More current information will be sent to members via postcard and email. Events are also posted on the Pahove Chapter page of the INPS website: <http://idahonativeplants.org/local-chapters/pahove/>*

Where: Meetings are held at the MK Nature Center Auditorium, 600 S. Walnut St, Boise.

Contact: For more information about Pahove Chapter activities visit the website or email Karie Pappani at pahove.chapter.president@gmail.com.

March 10: Barbara Ertter will speak about an Alaska Transect: Kenai Peninsula to North Side of Brooks Range.

April 7: Paul Castrovillo will speak about Japanese beetles in the Treasure Valley

April 24-25: "Go Native!" Annual Plant Sale This event celebrates Earth Day, is a fundraiser for our chapter, and helps to promote and perpetuate the use of Idaho's native plants in our own landscapes. This year we have a theme: Monarchs and Milkweed. We are keeping the format the same as the past few years with a "Members Only" sale in the evening on Friday the 24th (5 p.m. to 7 p.m.) and an "Open to the Public" sale on Saturday the 25th (10 a.m. to 1 p.m.). Pahove donates 25% of Plant Sale profit to MK Nature Center, in appreciation for our use of the facilities throughout the year.

We are planning to hold a "Turf Alternative Tour" in late spring. We will be visiting various sites in the Boise area and discussing alternatives to conventional lawn. Date and time to be determined. Members will be informed by email, and further information will be available on the website.

SAWABI CHAPTER

Fall/Winter Meetings: We welcome the public to our chapter's informative programs.

When: The first Monday of each month, October through March, 7:00 p.m.

Where: The Pond Student Union Building, Room 308, Idaho State University Campus, Pocatello.

Contact: (208) 241-5851, or sawabi.inps@gmail.com.

March 2: Jim Smith of Boise State University will speak on "Idaho endemics and molecular systematics: Does morphological data match the DNA?"

April 6: Sawabi Chapter annual dinner meeting for election of officers and planning field trips for the upcoming warm months. Location: Puerto Vallarta, 160 W. Cedar, Pocatello, 5:30-8:30 p.m.

April 18: Portneuf Valley Environmental Fair. See details elsewhere in *Sage Notes*.

May 4: Stephanie Zorio, Master's degree candidate in the Biological Sciences Department at Idaho State University, will discuss the results of her research titled "65 years of Vegetation Change in the East River Basin, Colorado."

May 30: Tentative date for Vernor "Dick" Anderson memorial/celebration of life and tree planting in Edson Fichter Park, Pocatello. For additional information, contact Karl Holte (241-8358).

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UPPER SNAKE CHAPTER

Please come to an Upper Snake chapter meeting/ social and a short presentation about Project Bud-Burst, a great national network of citizen scientists monitoring plants as the seasons change.

When: April 21, 2015 (this is the 3rd TUESDAY), at 7:00 p.m.

Where: Bonneville County Extension Office Meeting Room, Rollandet Ave.

Contact: Sue Braastad, braastads@yahoo.com.

WHITE PINE CHAPTER

When: Meetings are held once a month during the spring and fall. Field trips occur most any month. Please check the chapter website for events which may be scheduled or finalized after *Sage Notes* is printed: www.whitepineinps.org. Or email the chapter officers at whitepine.chapter@gmail.com.

Where: 1912 Center, 412 East Third St., Moscow (between Adams and Van Buren)

Contact: INPS, White Pine Chapter, PO Box 8481, Moscow, ID 83843 or whitepine.chapter@gmail.com

WOOD RIVER CHAPTER

Contact: Carol Blackburn, blackburncrl@yahoo.com for information on activities.

New Volunteers

INPS would like to welcome some new volunteers who will be joining our Membership and Website Committees. Their assistance with this work is greatly appreciated.

Derek Duval, a non-plant field service engineer who does exquisite high desert flora and fauna photos, is unraveling some of the email list confusion.

Sarah Funk, an Idaho Power vegetation ecologist and INPS member since 2007, will collect and distribute INPS mail and assist with membership database management.

Jessica Irwin, a botanist who studies central Idaho flora, will manage the statewide membership database.

Diane Jones, enthusiast and grower of native and water-wise plants, has volunteered to join the website committee.

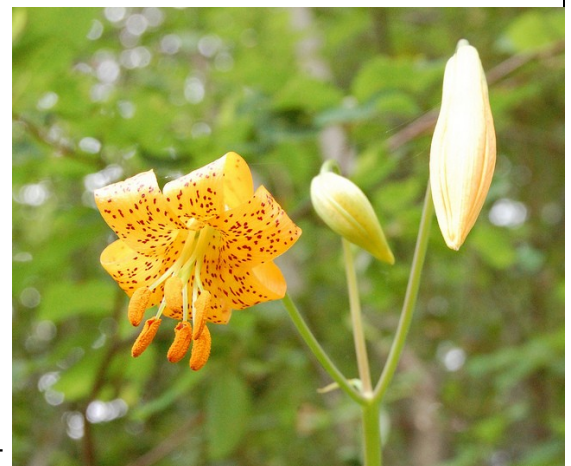
Photographers (and there are a lot of good ones among us!) Wanted

If you have photos of Idaho native plants or INPS activities to share, please consider uploading them to Flickr which is a photo-sharing application used by people all over the world. Flickr is also a free application, unless you choose to get the Pro version in order to upload more and larger photos. It works with Windows and Mac devices and even your smart phones and tablets have capability to upload and view. It's very easy to set up an account using Yahoo or Facebook accounts – possibly others. For more about Flickr go to www.flickr.com/about.

One Flickr group INPS uses is **Idaho Native Plants** and it can be found at www.flickr.com/groups/idaho_native_plants/ (note the underscores). This group (like an album) has numerous photos of Idaho natives, but really could benefit from many more. So join this group of photographers and share your photos from field trips, annual meetings, walks in the woods or desert, or wherever your favorite native plants are found.

The second Flickr group INPS uses is called **Idaho Native Plant Society** and it can be found at www.flickr.com/groups/1492892@N21/. Only a few members have uploaded about 350 photos to this group. It is a great way to document our chapter and state activities so you can help us present a good history of the diverse activities of INPS members.

The group descriptions and rules can be found on the URLs listed. Photos from each of these groups are often included in *Sage Notes* and could be used on the webpages as well. While you are in Flickr (www.flickr.com), check out some of the other groups. Use the photos to study birds, to research your next trip to a location documented in Flickr, and to just be stunned by the awesome creativity of Flickr members. - Nancy Miller, White Pine Chapter



Lilium columbianum. Photo by Nancy Miller



IDAHO NATIVE PLANT SOCIETY

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