



Summer 2007 ❖ SAGE NOTES ❖ A Publication of the Idaho Native Plant Society Vol. 29 (2)

**Deceptive Landscape**

by Paige Wolken

Barren black rock, rubble, and same ole’ sagebrush...why are we having an INPS summer meeting *here*? That may be the first impression some folks have of Craters of the Moon National Monument and Preserve. The challenge is to change that perception during the peak of wildflower season when stark geologic features contrast and frame the scattered botanical beauties of lava fields in South Central Idaho.

Rugged black lava flows are dotted with white blooms of seemingly out of place riparian and montane shrubs such as syringa (*Philadelphus lewisii*) and fernbush (*Chamaebatiaria millefolium*) that deftly grow in cool moist cracks and crevices; lower growing hotrock penstemon (*Penstemon deustus*) and gland cinquefoil (*Potentilla glandulosa*) salt the pepper-colored landscape.

Vertical pillars of imposing basalt, set against a blue sky, are splashed with color from an artist’s palette: lichens in various shades of orange, yellow, green, brown, grey, and black.

Harsh open expanses of baked cinders hold just enough moisture to grow the most spectacular garden of perfectly spaced plants: bitterroot (*Lewisia rediviva*), silverleaf phacelia (*Phacelia hastata*), dwarf buckwheat (*Eriogonum ovalifolium* var. *depressum*), and occasional carpets of magenta-colored dwarf monkey flower (*Mimulus nanus*).

Stark lonely vistas with twisted limber pine (*Pinus flexilis*) grow in the most remarkable places, withstanding brutal conditions, and still provide shelter, food and stability for other plants, animals and the occasional human.

Blue-tinted pahoehoe (pronounced puh-hoy-hoy) lava appears to flow with small colorful native plants floating on waves and in eddies: dwarf goldenweed (*Haplopappus nanus*), Indian paintbrush (*Castilleja miniata* and *C. chromosa*), and wire lettuce (*Stephanomeria tenuifolia*).

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There are many other plant communities here at Craters of the Moon. Many of them are seemingly common, but look closer, look longer, look farther. Since this area is set aside for its geologic treasures and native plant communities, you’ll see interesting combinations of plants, relicts of traditional communities, and areas still free of many invasive and noxious weeds.

We welcome INPS to Craters of the Moon, our deceptive landscape: harsh, scenic, weird, beautiful. Enjoy the unique volcanic features and the plants that call them home.

{ Articles contributed to *Sage Notes* reflect the views of the authors and are not an official position of the Idaho Native Plant Society }

Dear INPS Members,

Thanks to the Rare Plant Conference Committee for a terrific job putting on the conference. I had never previously attended a RPC, so it was a very good first for me. Gillian Crymes and crew worked many long, hard hours to put together an interesting informative conference. Kudos to all who worked on the RPC. This was the 23rd conference INPS has sponsored. That is a very long track record and congratulations are in order for Pahove Chapter who has organized the conference for all these years. The daytime speakers described their projects in terms that even I, as a layperson, could readily understand. The Tuesday evening banquet speaker had some very interesting things to say about fire and its impact on the ecosystems of the United States. This is a conference that all Native Plant Society members could benefit from attending.

The INPS Annual Meeting will be June 15-17 at Craters of the Moon. This will be a fun, interesting meeting with the opportunity to see a unique ecosystem. There will be the added opportunity to meet people from other chapters around the state. Mark your calendars and plan to attend.

When Kristen Fletcher was president of INPS, she started the custom of having the annual meeting south one year and north the next. The 2008 annual meeting will be up north. There are people currently working on finding another wonderful meeting spot. Anyone with suggestions for a good meeting spot north of the Salmon is invited to contact Sylvia Chatburn of Kiinnikinnick Chapter.



Cinder garden beauties at COTM. (Paige Wolken)

Governor Otter signed a proclamation declaring April 29-May 5, 2007, to be Native Plant Appreciation Week. Some chapters are planning activities around this week. We hope to have reports in the September Sage Notes showcasing what each chapter has done. Now that the Society has learned how the proclamation process works, there should be more planning time for Native Plant Appreciation Week activities next year. Wouldn't it be wonderful if this becomes an annual event much as Arbor Day or Earth Day. This is year four for the Washington Native Plant Society and year three for the Oregon Native Plant Society to have the NPAW.

Congratulations are in order to Dylan Levy-Boyd for getting out the last issue of Sage Notes in a timely manner. Also, thanks to Eric Wilson for having the copies made and mailed out. Any comments or submissions would be welcomed.

A reminder: The INPS ballots were in the last issue of Sage Notes. Please send these in by May 10 so the ballot committee can get them counted prior to the annual meeting. Thank you.

See you at the annual meeting in June!!

Cheers!

Janet Benoit, INPS President



**You're Invited to the INPS Annual Meeting:  
@ Craters of the Moon National Monument and Preserve  
June 15-17, 2007**

The unique geology of the Craters has produced unique plant communities: Lava beds, lava tubes, cinder gardens (which should be in full bloom during our visit), kipukas with vegetation isolated by lava flows, sand-loving species and montane flora on the limestone mountains to the north.

**Itinerary:**

**Friday the 15<sup>th</sup>** - Arrive at the Group Campground, set up camp, botanize and explore.

**Saturday the 16<sup>th</sup>** - 8AM-meet @ Group Camp for an assortment of field trips including a presentation by a U of I graduate student on the role of plants in soil development on the young lava flows.

6PM- (or when we return from field trips) **Group Potluck!** Please make a dish that will serve a half dozen folks.

8PM – “Oregon Trail” presentation by Clark Heglar of Idaho Humanities Council.



The group camp at Craters. (Carol Blackburn)

**Sunday the 17<sup>th</sup>** – Brief annual meeting  
Explore on your own and then depart from campground by noon.

Please Note: the campground does not have space for trailers and large RV's –facilities for larger camp rigs as well as motels are available in Arco, 18 miles to the East.

For more information or questions please contact Carol Blackburn (208) 886-2105.

INPS covers the camping fee. Because it is a potluck there is no need to make reservations. If you would like to let Carol know that you are attending please feel free to do so.

Mapquest “Craters of the Moon” for directions. The group camp is slightly East of the main entrance on the North side of the highway.



*Pinus flexilis* basking in the spring bloom. (Paige Wolken)

## Deserts, Stone, Plants, and Rivers—A Story of Change and Inspiration from a Grand Canyon Float Trip

Text and Photos by Chris Murphy

Like tributaries that feed a great river, four of the Southwest's colorful and diverse deserts each add unique botanical elements to the Grand Canyon's flora and vegetation. Here, over myriads of plant generations in the depths of this sun baked gorge, desert plant species have flowed together to form unique combinations of vegetation and new species. The plants and their communities often segregate themselves by being specially adapted to growing on only specific rock layers. This gives various sedimentary rock layers, already easily distinguished by the river runner or canyon hiker by their characteristic hues and erosion patterns, another special quality—like a subtle, but unique botanical jacket worn by certain rock layers that even the budding naturalist can recognize.



Thickets of tamarisk, catclaw acacia, honey mesquite, and Gooding's willow characterize the canyon bottom at Furnace Flats.

From the ecologic extremes of the Great Basin Desert to the northwest and upstream from the Colorado Plateau's windblown and stark, but picturesque, Painted Desert come species allied with pinyon-juniper, big sagebrush, blackbrush, rabbitbrush, and saltbrush vegetation, including broom snakeweed, mormon tea species, and Apache plume. The Mojave Desert to the west feeds botanical elements associated with blackbrush, creosote, desert holly saltbrush, and white bursage communities, including pygmy cedar, indigo bush, bladder sage, burrobush, desert almond, rock nettle, and species of yucca and prickly pear cactus. Despite the northern latitude, elements of the Sonoran Desert find refuge in

the realms of the lower Grand Canyon, especially downstream of the aptly named Furnace Flats. Some of the Sonoran species that persist in the hot canyon are relicts of an even warmer time (not too distant) when the hot deserts were more extensive than they are today. Sonoran Desert creosote and brittlebush communities creep up river into the Grand Canyon and support characteristic species such as catclaw acacia, honey mesquite, crucifixion thorn, teddybear cholla, ocotillo, ratany, janusia, sweetbush, trixis, various barrel cacti, and others at the northern edge of their range.

The incredible floristic diversity of the Grand Canyon also results in part from the numerous life zones represented in the 8,000 foot elevation change from the arid canyon bottom along the Colorado River up to the highest point on the North Rim. The composition and distribution of the many plant communities are also influenced by climate, geology, and geomorphology in multiple geographic dimensions. But, of course, the most important ecologic driver in a desert environment is the presence or absence of water. Drifting along the Colorado River and hiking up its tributary canyons, a complex riparian community can be found. Coyote willow, Gooding's willow, arrowweed, numerous seep willow species, honey mesquite, catclaw acacia, haploppapus, and tamarisk are the characteristic shrubs. Hidden in the cool alcoves of sandstone, illuminated by sunlight that has seemingly sliced the stone slot canyon in which you stand, are trickling waterfalls, seeps, and springs. Colorful hanging gardens of yellow and pink columbines, red monkeyflowers, and green maidenhair ferns, as well as uncommon plants such as the redbud trees, flavaria, and giant helleborine, find refuge on these cool moist cliffs.

Viewed from a sandy beach, with the dark Precambrian core rock radiating the day's heat to the surrounding desert scrub and river runner's camps, the gnarled forms of pinyon pine and Utah juniper are silhouetted in the hazy light of an evening desert sun a few thousand feet above bathed in a cool breeze. Perched atop broad promenades of limestone and sandstone, this woodland may be cooler than the inner gorge, but it is by no means an easy environment for plants. Cold winter nights, sometimes bearing snow, give way to searing early summer heat and drought, followed by late summer's thunderstorms and flashfloods that can readily peel



the scant soil off the smooth rock. Within this woodland one can find big sagebrush, broom snakeweed, Mormon tea, Utah agave, banana and narrowleaf yucca, winterfat, Indian ricegrass, dropseed species, and needlegrass species. Above the pinyon-juniper, on the higher canyon rims, vegetation typical of the southern Rocky Mountains occupies cooler environs. Some of the most extensive ponderosa pine forests in the world grow here at elevations between 6,500 feet and 8,200 feet. Additional species such as Gambel oak, New Mexico locust, mountain mahogany, elderberry, creeping mahonia, muhly, Fendler's muttongrass, and fescue species also occur. Meadows and grassland communities are rare, but typified by grasses including blue and black grama, big galleta, Indian ricegrass, and three-awns in dry meadows, and sedges and forbs in wet, frosty basins. If that wasn't enough, above 8,200 feet on the north rim, spruce-fir forests characterized by Englemann spruce, blue spruce, Douglas-fir, white fir, and aspen, along with several species of perennial grasses, groundsels, yarrow, cinquefoil, lupines, sedges, and asters, thrive in this habitat of deep winter snow. All told, the resultant botanical diversity is mind boggling (see box below).

According to National Park Service botanists, Grand Canyon National Park is habitat for approximately:

- 1,750 known vascular plant species, about 10 percent of which are exotic
- 170 species of fungi
- 65 species of moss species
- 195 species of lichen species
- 12 endemic plants (species known only within the National Park's boundaries)
- 60 special status, or rare, plants species
- 130 plant communities

For many of the fortunate who live and work in the canyon as botanists, ecologists, biologists, geologists, river guides, trail and fire crew workers, resource managers, and tourism and recreation-related employees, the Grand Canyon is not just a magical river trip that must end at a take-out. The same inspiration and love of place experienced on the 17-day river trip I joined as a National Park Service volunteer in May 2005, is integrated into their livelihoods and commitment to preserving and restoring the Grand Canyon. One such person is Lori Makarick, Backcountry Vegetation Program Manager and Restoration Biologist for Grand Canyon National Park. Despite its natural and botanical grandeur, the Grand Canyon is threatened. One of the most troublesome threats is the invasion of natural communities by exotic

plant species, the most notorious being tamarisk or salt cedar.



Typical Mojave Desert community in central canyon, with prickly pear, yucca, and desert shrubs.

Native to Eurasia, tamarisk was introduced to North America in the 19th century for controlling stream bank erosion. Since introduction this evergreen shrub to small tree has colonized riparian corridors throughout lower elevations of the arid and semi-arid West, including the Snake River and its tributaries in southern Idaho. The result has been major changes to natural ecosystems. According to the National Park Service, tamarisk reached the Grand Canyon area during the early 1930s and became a dominant riparian species along the Colorado River following completion of Glen Canyon Dam in 1963 and the subsequent alteration of natural flows. It has since colonized side canyon tributaries and springs. Able to establish in suitably moist habitats ranging from intermittent washes and arroyos, to seeps and springs, to floodplains of small streams or the largest rivers, it typically persists and eventually spreads to form

dense stands. An average tamarisk produces about 600,000 seeds, but a large mature tree can produce over 250 million wind and water dispersed seeds. Although river runners seek its shade from the relentless desert sun and some wildlife species use it for shelter, food, or nesting habitat, tamarisk negatively alters the function of native ecosystems wherever it invades. When tamarisk invades beaches, side canyons, and seeps and springs as it has in the Grand Canyon, it causes a cascade of negative effects by crowding out native vegetation, usurping scarce water, and displacing organisms at all levels of the ecosystem (from insects to birds to mammals). Tolerant of saline conditions, tamarisk concentrates salts in the surface soil layers thus creating an environment more suitable for its own success while deterring or eliminating native plants less tolerant of saline soils. These salts eventually make their way into the aquatic ecosystems, changing water chemistry.

Lori Makarick is the leader of the Grand Canyon “Tamarisk Management and Tributary Restoration” project. Lori and a hard working, dedicated team of restorationists “seek 1) to prevent further loss or degradation of the existing native flora and fauna, and 2) to restore more natural conditions, thereby protecting the park’s riparian areas, some of the nation’s last intact examples of these rare desert ecosystems.” After extensive environmental review, it was deemed that control is prudent and feasible, and the exotic species interferes with natural processes and the perpetuation of natural features, native species, or natural habitats the control of tamarisk in side canyons, tributaries, developed areas, and springs above the pre-dam water level of the Colorado River. Tamarisk is controlled through a combination of mechanical, chemical, and other restoration methods including manual removal, herbicide lance injection, hack and squirt method, cut stump method, and basal bark application. The method selected is specific to each site and is determined by the restoration biologist or project leader. It is truly hard, hot work that only those with commitment as solid as the canyon’s ancient igneous core can successfully accomplish. More than 12,000 hours of volunteer time have been donated to this project so far.

According to Makarick, Phase I of the project, supported by the Arizona Water Protection Fund, the Colorado River Fund, the Grand Canyon National Park Foundation, the Grand Canyon Wildlands Council, and the National Park Service began in 2002. To date, crews have completed work in more than 90 project areas. In over three years, crews have removed more than

140,000 tamarisk trees from 1,819 hectares (4,496 acres) of the park’s inner canyon, with only 7% of the initially controlled trees requiring follow-up treatment. Prior to project implementation, biologists installed a long-term monitoring system that includes 22 vegetation transects and 376 fixed photo points in the first 63 project areas. When re-reading the vegetation transects in 2004, a 99% reduction of tamarisk cover and an increase in native plants were observed. Park biologists will continue to monitor Phase I project areas for 5-10 years. All of the initial results reveal the success of this project.



Arrowweed, a common riparian shrub of the southwest deserts, abundant in the lower Grand Canyon.

The Arizona Water Protection Fund recently provided funding to expand this project into 35 side canyons during 2005-06 and another 30 side canyons during 2006-07. It was for this phase of the project that fellow Idaho Conservation Data Center botanist/riparian ecologist Lisa Hahn and I were blessed with the opportunity to volunteer for this important project . . . in exchange, of course, for an epic guided raft trip through the grandest of canyons. During the 17 day trip, our crew of fun-loving restorationists implemented pre-tamarisk removal



monitoring, including reading vegetation transects, water quality sampling, and completing habitat assessments for federally listed southwestern willow flycatchers (which sometimes frequent dense, tamarisk-Gooding willow communities targeted for treatment).

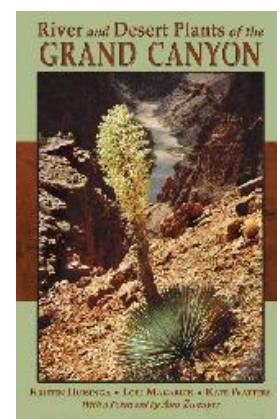
Lori and her botanical comrades are members of a rare tribe of naturalists . . . those never ceasing in their dedication to place, never ending in their quest for knowledge, always grinding away like water eroding stone until the project is complete, yet, always waking the next day with a smile to start the next task. Not satisfied with just removing tamarisk and restoring the Grand Canyon, organizing dozens of volunteers and logistically complex rafting expeditions, they want to document the whole damn flora too! In our journey down the river we were fortunate enough to be joined by two professional botanists with probably the most working knowledge of the canyon's flora of anyone alive, Wendy Hodgson and Tina Ayers. Wendy Hodgson, Curator of the Collections and Director of the Herbarium at the Desert Botanical Garden in Phoenix, Arizona, has been involved in floristic surveys of plants in the Southwest and northern Mexico, ranging from the Grand Canyon National Park and Agua Fria National Monument, to Baja and northern Sonora, Mexico. She is an expert on systematics and ethnobotany of the genera *Agave* and *Yucca*, including pre-Columbian agave cultivation. Her book, *Food Plants of the Sonoran Desert* (2001, University of Arizona Press) won the 2002 Klingler Book Award, presented by the Society of Economic Botany. Dr. Tina J. Ayers is an Associate Professor of plant systematics, phylogenetics, biogeography, and floristics, and curator of the Deaver Herbarium at Northern Arizona University. The Deaver Herbarium is the primary collection of plants from the southern Colorado Plateau, including the Grand Canyon, and adjacent deserts. Together with several volunteers, they are further documenting the flora. Much of their work, combined with photos of canyon plants by David Edwards and others, contributed to a recently completed field guide of the inner canyon flora by Makarick and botanists Kate Watters and Kristin Huisinga. David Edwards, a professional photographer who travels to corners of the globe, such as Mongolia, to glimpse intact cultures through the lens, was also one of our expert and fun-loving river guides.

For botanically inclined river runners such as us, time spent floating down the Grand Canyon during the fine spring bloom of April 2005 was paradise—an adventure of a lifetime. As we rode the giant frothy waves of

dozens of rapids—an act usually culminating in clutching our rafts and ducking our heads as we crashed through walls of whitewater—the adrenaline got our hearts beating. Between rapids we drifted, quietly, or happily chatting about stories of the stone, the flora and fauna, the rapids, or the people that lived and traveled the canyon before us. Floating through the vertical-walled chasms of colorful ancient rock on glassy, peaceful water as it swirled and lapped the canyon walls, slicing downward through millions of years of rock layers while the diversity of the desert flora subtly and constantly changed, stirred our hearts in different ways. Even with our modern river running gear and conveniences, the wild river inspired us and created a passion for exploring the canyon in what must have been similar to those which drove John Wesley Powell, John Charles Fremont, and others to risk their lives exploring and scientifically documenting its untamed core. We shared some of the same passion for the place that drove Ed Abbey, David Brower, and many others to tirelessly and unselfishly fight for (and won) the preservation of the canyon when it was faced with the construction of a massive dam the likes of those which choked the Colorado in Glen Canyon and the Granite gorge near Las Vegas. And we felt a sense of connection with those that have explored the canyon before us—from the Native Americans, who lived there, tended wild “gardens” of native food plants, and considered the canyon sacred, to the early botanists and river runners.

**Species mentioned in this article are described in the following field guide, an excellent reference for the Grand Canyon:**

**“River and Desert Plants of the Grand Canyon,” by Kristin Huisinga, Lori Makarick, Kate Watters, with a Foreword by Ann Zwinger**



## THE MIDDLE FORK OF THE SALMON RIVER—ITS VEGETATION AND FLORA

Text and Photos by Cleve Davis

In 2002 Jeff Aronson, a river guide and area manager for river guiding in central Idaho, asked me if I would be interested in providing botany interpretation to river guides on the Middle Fork of the Salmon River. He said that interpretative trips boost customer satisfaction and stimulate the local guiding business. Knowing this trip would be an excellent opportunity to learn about the natural, archaeological, and historical treasures of the river from other interpreters representing geology, archaeology, wildlife, and fisheries I immediately accepted the offer. I was also excited that we would be running the Middle Fork at the first of June when the river is normally flooding (Figure 1).

Unfortunately, at the beginning I knew nothing about the vegetation of the Middle Fork, so I contacted Michael Mancuso, at the time the Botany Program

Leader for the Idaho Conservation Data Center. Michael provided me with two reports on the flora of the Middle Fork (Mancuso & Moseley 1992, Moseley 1989). He also said that the flora of this area was one of the least known in the State and it would be great to get some botanical information about the area. This article is an attempt to help fill this gap and is for the most part a compilation and summary of my notes and observations.

### *The Canyon*

The Middle Fork of the Salmon River (Figure 2) was one of the original eight rivers in the nation designated as Wild and Scenic on October 2, 1968. It originates 20 miles northwest of Stanley with the merging of Bear Valley and Marsh Creeks. The river traverses northeast through the heart of Idaho and the Frank Church River of No Return Wilderness, the largest designated Wilderness in the lower 48 states. The Middle Fork has also formed the third deepest canyon in North America. The river flows through the heart of the Salmon River Mountains, forms the western border of the Big Horn Crags in a section ominously called “Impassable Canyon”.



Figure 1. Rafters on the Middle Fork Salmon River.



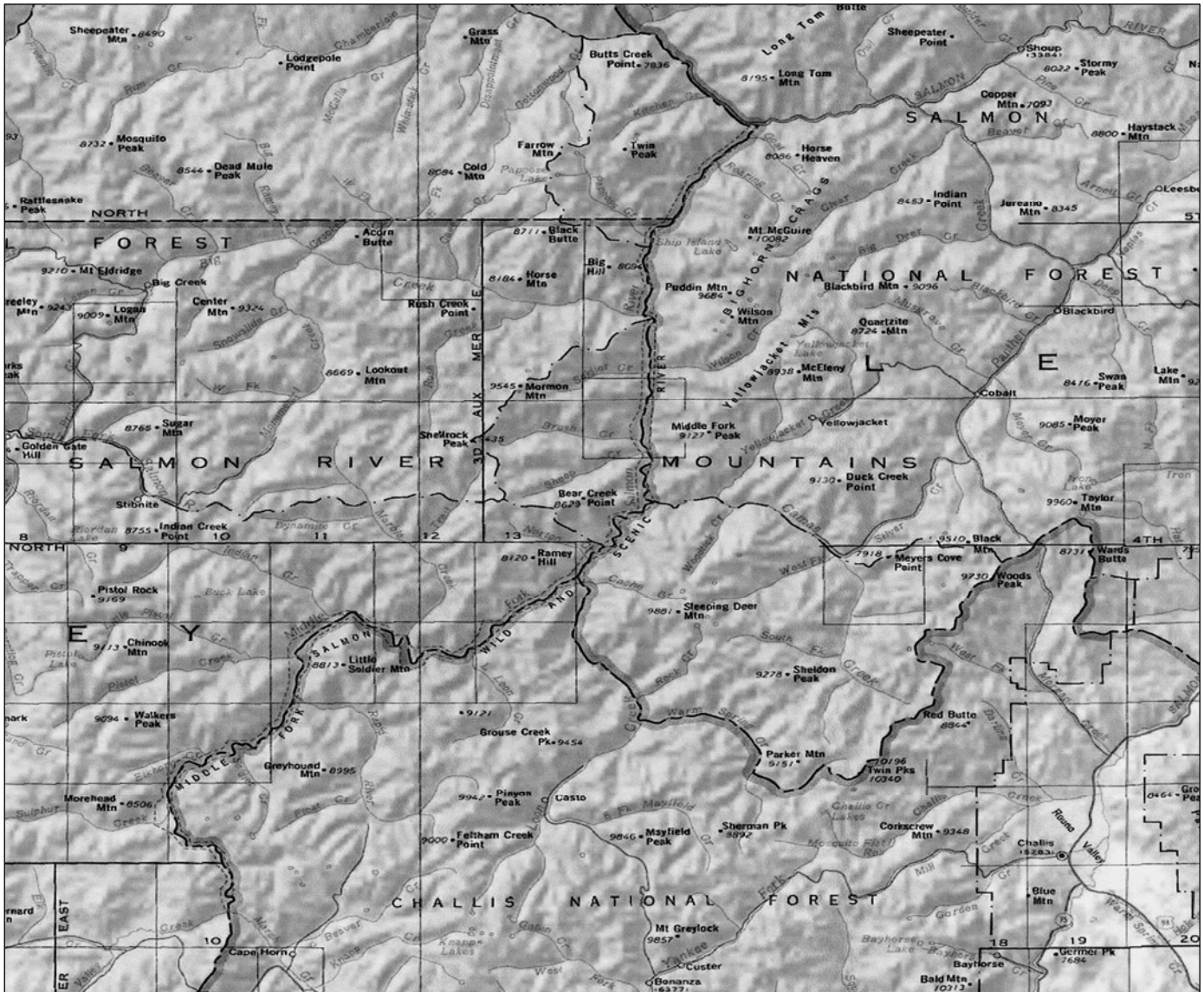


Figure 2. Overview map of the Middle Fork of the Salmon River.

Pleistocene glaciers reached the Middle Fork in Sulphur Creek and some smaller tributaries in that area, but otherwise, the canyon is the result of relentless water erosion. Large, elevated alluvial gravel terraces along the river are remnants of periods of high sediment input related to glacial and non-glacial periods. The Middle Fork is a rapid-filled mountain river in its upper half, with an active floodplain of alluvial bars and islands, transitioning to a big canyon river downstream characterized by big rapids dropping into deep pools and sandy beaches lining eddies. There are 104 named creeks and five hot springs that contribute water to the Middle Fork. A float down the river takes you along

a fascinating transect from the mountains to a semi-arid, deep canyon environment. For example, the elevation at Boundary Creek, the boat “put in,” is about 5,600 feet and distinctly high montane in climate and vegetation. In contrast, at the confluence with the Main Salmon the elevations is at about 3,000 feet and is hot and dry.

Three major geologic formations can be found along the river. These formations include the Cretaceous Idaho Batholith granites, Challis Volcanics, and Precambrian metamorphic terranes. The granites and granodiorites of the Idaho Batholith were emplaced about 75-100 million years ago. The Eocene-aged rocks of the Challis Volcanics are often notably pink

in color and include some rhyolite dikes. The metamorphic rocks of the Yellowjacket Formation were once sedimentary rocks, but through time, heat, and pressure are now expressed as contorted gneiss and schist.

### The Vegetation

Plant communities within the Middle Fork corridor are as variable as the physiographic and climatic diversity found there. The diversity is reflected in the willow communities encountered in the riparian zone as one progresses downriver. A high montane willow community can be found at the upper reaches of the Middle Fork at about 5,800 feet. This community type dominates to about Sulphur Creek (5,600 feet). Barclay's and Lemmon's willows occur in this zone and are typical associates of this community (Brunsfield and Johnson 1985). A transition zone between high- and mid-elevation willow communities occurs from Sulphur Creek to Greyhound Creek (5,000 ft). From Greyhound Creek to Indian Creek (4,800 feet), Booth's and Geyer's willows (often mid-elevation indicators) dominate the riparian zone. The low-elevation willow community exists from Indian Creek to the confluence of the Main Salmon River. Abundant willows present within the low-elevation community include yellow (*Salix lutea*), coyote (*Salix exigua*) and whiplash (*Salix lucida* ssp. *caudata*) willows. Drummond's willow (*Salix drummondiana*), a highly adaptive species of sandy alluvial soils, can be found throughout the river corridor.

Other visually abundant species found within the riparian zone included: alder (*Alnus* sp.), water birch (*Betula occidentalis*), red-osier dogwood (*Cornus sericea*), black hawthorn (*Crataegus douglasii*), wax currant (*Ribes cereum*), and nettleleaf hackberry (*Celtis laevigata* var. *reticulata*). Lewis' mock orange (*Philadelphus lewisii*) and mallow ninebark (*Physocarpus malvaceus*) can also be found in abundance throughout the river corridor and the floodplain. Observing the changes in phenology of these species is quite interesting as one descends in elevation. If you have the opportunity to go down the first week of June you can expect to see these plants go from bud near the Boundary Creek "put in" to withered flowers at "take out" on the Main Salmon River.

The mountainous uplands in the upper reaches of the Middle Fork receive enough precipitation to allow for a mixed conifer forest. The tree species of this forest

include lodgepole pine (*Pinus contorta*), ponderosa pine (*Pinus ponderosa*), Engelmann spruce (*Picea engelmannii*), Douglas-fir (*Pseudotsuga menziesii*), and subalpine fir (*Abies lasiocarpa*). The understory is generally covered with grouse whortleberry (*Vaccinium scoparium*), heartleaf arnica (*Arnica cordifolia*), myrtle boxwood (*Pachistima myrsinifolia*), white spiraea (*Spiraea betulifolia*), and Geyer's sedge (*Carex geyeri*). About a third of the way down river from Boundary Creek the upland vegetation type changes from a mixed conifer forest into a shrub-steppe vegetation type.

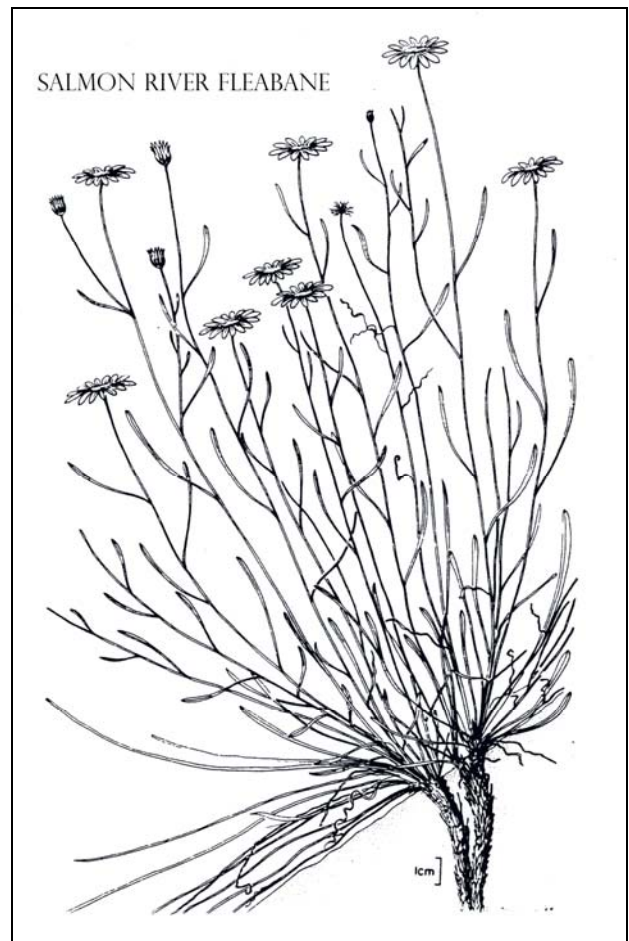


Figure 3. Line drawing of Salmon River fleabane (*Erigeron salmonensis*).

Sagebrush (*Artemisia tridentata*) and bunchgrasses are the dominant plants in this zone. Other species commonly observed in this vegetation type include arrowleaf balsamroot (*Balsamorhiza sagittata*), creeping barberry (*Mahonia repens*), snowberry (*Symphoricarpos* spp.), Sandberg bluegrass (*Poa secunda*), bluebunch wheatgrass (*Pseudoroegneria*



*spicata*), antelope bitterbrush (*Purshia tridentata*), and Idaho fescue (*Festuca idahoensis*). Unfortunately this vegetation type and to a lesser degree the mixed conifer forest, has been extensively invaded by cheatgrass (*Bromus tectorum*), especially in the areas that burned in 2000. Cheatgrass is an exotic annual grass that is capable of altering entire ecosystems by increasing the fire frequency and forming monocultures. This grass was likely introduced from the historic livestock grazing that took place along the river before it was protected.



Figure 4. Giant helleborine (*Epipactis gigantea*) found along the Middle Fork of the Salmon River.

Cliffs, buttresses and talus slopes can be found throughout the river corridor. As the name implies, Impassable Canyon is a good example of this terrain. Although, vegetation is generally sparse some common and specially adapted species found in this type of habitat include spiny greasebush (*Glossopetalon spinescens*), Gooding's gooseberry (*Ribes velutinum* var. *gooddingii*), Lewis' mock orange, curl-leaf mountain mahogany (*Cercocarpus ledifolius*), mat rockspirea (*Petrophytum caespitosum*), gooseberryleaf alumroot (*Heuchera grossulariifolia* var. *grossulariifolia*), and netleaf

hackberry. Salmon River fleabane (*Erigeron salmonensis*) and Davis stickseed (*Hackelia davisii*), two species endemic to central Idaho also occupy this type of habitat.

### **The Flora**

Based on several published species lists from low elevation canyon habitats (Mancuso and Moseley 1992, Moseley 1989), at least 149 vascular plant species representing 47 families and 119 genera occur in the river corridor (Table 1). For fun, I have also included some of the Bannock and Shoshone names of plants. Eleven trees, 44 shrubs, 19 grass and grasslike species, 69 forbs, two ferns, and three succulents represent this diversity. Of these, nine species are exotic, including four Idaho Noxious Weeds: Canada thistle (*Cirsium arvense*), spotted knapweed (*Centaurea maculosa*), rush skeletonweed (*Chondrilla juncea*), and sulfur cinquefoil (*Potentilla recta*). At least five rare plant species, Salmon River fleabane, Davis' stickseed, giant helleborine, beehive cactus (*Coryphantha vivipara*) and Hapeman's coolwort (*Sullivantia hapemanii* var. *hapemanii*) are also known to occur along the Middle Fork. Numerous mosses, lichens and fungi also inhabit the Middle Fork. If a complete inventory of the corridor was completed the number of plant species would rise considerably.

Salmon River fleabane (Figure 3) was first discovered in 1981 and later described in 1989. Salmon River fleabane is currently listed by the Idaho Native Plant Society as a Global Priority 3 (i.e., rare or uncommon, but not imperiled) and is currently known from 14 occurrences in the world (Idaho Conservation Data Center 2005). This plant is a perennial herb with white ray flowers that age to a lilac-color. It has thick branches above the taproot with older leaf bases remaining persistent on branches. This species is endemic to the lower 25 miles of the Middle Fork and the lower canyons of some of its tributaries, extending along the main Salmon River upstream from the Middle Fork confluence. Specific habitat requirements include cracks, crevices, and small ledges on very steep to vertical, large, north-facing cliffs, and buttresses (Mancuso & Moseley 1992).

As stated earlier, there are five hot springs that contribute water to the Middle Fork. Generally, hot springs are formed when water comes in contact with deep heat sources and travels to the surface along a fault. The vegetation occurring on the geothermally

heated soils near hot springs is quite unique and very fragile. Unfortunately, these community types are highly threatened by soakers who choose to trudge through boggy soils or inadvertently introduce weed seed. Giant helleborine (*Epipactis gigantea*), a rare orchid, is also known to occur at a couple of the hot springs on the Middle Fork (Figure 4). This relatively large and beautiful orchid supports numerous long clasping leaves and large brownish to salmon colored flowers. Much of giant helleborine's habitat has been destroyed or greatly altered throughout the species range. Please try to walk on stones and avoid vegetated areas if you visit the wonderful and sacred hot springs of the Middle Fork.



Figure 5. Pictographs found along the Middle Fork of the Salmon River. Do not touch these!!!

For years Davis' stickseed was known only from one occurrence, the type locality on Long Tom Creek. However, inventories in the 1980 have found more populations. It is listed as Global Priority 3 and is currently known from 32 occurrences (Idaho Conservation Data Center 2005). It can be described as a slender perennial herb with several arching to nearly prostrate stems with hairy herbage. The blue flowers have a yellow eye, are relatively few in number, and occur on long pedicels. Davis' stickseed can be found in the drainages of the main Salmon River from Pine Creek to Bear Basin Creek, and along the Middle Fork. Like Salmon River fleabane, Davis' stickseed is apparently restricted to northerly-facing rock outcrops and cliffs, or in talus immediately below the cliffs, where it is moist and

partly shaded (Moseley 1989). Salmon River fleabane and Davis's stickseed are quite rare with a very limited distribution. However, their habitat is secure and there are few if any threats. Weed invasion from adjacent communities could potentially threaten these species in the future

Although, I did some botanizing (i.e., engrossing in the diversity of plant species present for a given area) during these trips I did not make any discoveries other than a hunting blind and several cache pits. Being the botany interpreter, I was usually busy with leading plant walks, talking at the campfire, or dealing with the normal tasks associated with floating a whitewater river. I would still consider the Middle Fork corridor as an area that has a high potential for supporting other rare plant species, especially on the towering peaks above the river and along the tributaries of the river.

Although it was a lot of work being an interpreter, I really enjoyed being on the river and got to meet some energetic, knowledgeable, and charismatic people. Running whitewater rapids is also great, but having interpreters to answer questions and present information on geology, archaeology, fisheries, and wildlife really make a river trip whole. Most of all I was honored to be part of such a trip and learned a lot not only from the other interpreters but the river guides as well.

I'm planning to run the Selway River in May so I may be putting a paper together on the plants of the Selway River soon. This article and some great photography can be found at <http://myweb.cableone.net/clevedavis/default.htm>.

I would like to thank Bill Stout for providing the geological information for this article.

**For a bibliography and plant list, including the Bannock and Shoshone names visit <http://myweb.cableone.net/clevedavis/Middle%20Fork.htm>**



## INPS News

### 23<sup>rd</sup> Annual Idaho Rare Plant Conference

#### Recount

Thank you all for the great success of this year's Rare Plant Conference. We had a great turnout of 85 attendees. The incredible line-up of guest speakers and workshops on 'Rare Plant Conservation' provided great information for professionals and for take home. Also indebted to a warm thank you is our planning committee for devoting a great deal of time and energy in preparation: Beth Colket, Chris Colson, Karen Colson, Cyndi Coulter, Gina Glenne, Jody Hull and Chris Murphy.

Results from this year and previous year's Rare Plant Conference can be viewed on the INPS website at [www.idhaonativeplants.org](http://www.idhaonativeplants.org). Additional resources on upcoming events, native plant guides and membership are also available within the website.

Volunteers for the coming year are always needed and most importantly appreciated by all attendees! Each year brings new ideas and interests. Volunteering is a great way to give back to your community and the plants!

We look forward to seeing you next year.

Sincerely,  
Gillian Crymes  
Planning Committee 2007

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### Idaho Native Plant Society Board Meeting – February 12, 2007

The Treasurer's report revealed that we have \$8,438.28 in our checking account, and \$2,711.58 in a CD, for a total of \$11,149.86. About \$400 had been spent, not including expenses for the Rare Plant Conference. Those expenses were not yet known.

The annual meeting will be June 15<sup>th</sup> through 17<sup>th</sup> at Craters of the Moon National Monument. The Board Meeting will be at 8 a.m. MDT on Sunday, June 17<sup>th</sup>

in the Park Service building.

The Sage Notes editor hired by the board completed the issue on time. Printing took longer than anticipated, but this should improve in the future as the new Board members in Boise become more efficient. The printing process should be shared with other Board members so publication will not be delayed due to sickness or travel of a key person.

Our web site had about ¼ million hits last year, mostly from search engines. BLM and USFS employees were also frequent visitors. Some reorganization of the web site is needed, but it will take some time.

Native Plant Appreciation Week is a joint venture with our sister societies in Washington and Oregon. It is scheduled for April 29 through May 5, 2007. Washington has approved it, and the issue is pending in Oregon. Janet Benoit sent a letter to the Governor requesting the proclamation, and we are awaiting his answer.

An official logo was extensively discussed. A syringa against the state outline has been used in some brochures and other publications in the past. Beth Workman had the original PDF file with this logo and she put together the color brochure. Agnes Miller may be the original artist of the logo. She will be contacted for permission to officially adopt the logo. All board members agreed that a standard logo would be a good idea. A logo would give our organization a way to be recognized more easily. It could be used on letterhead, envelopes, note paper, note cards, etc. Due to the existence of some chapter logos, the chapters will discuss the logo situation and get back to the Board in June.

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### **Reminder:**

**Please mail in your ballots for the INPS state offices.**

### **White Pine Chapter Memorial Fund for Steve Brunsfeld**

*(Please note that this memorial is distinct from the UI Memorial fund)*

INPS White Pine Chapter has set up a memorial fund for Steve Brunsfeld that will purchase plants with which he was associated, to be located in the UI Arboretum. The Chapter has allocated \$300 of its budget toward the memorial and this is being augmented by member donations. ***If you would like to add a contribution to the chapter memorial, please send your donation to the Steve Brunsfeld Memorial Fund at INPS White Pine Chapter, P.O. Box 8481, Moscow, ID 83843 by April 12, 2007.*** For more information, please contact Al Stage at 882-7492 or email [astage@moscow.com](mailto:astage@moscow.com).



By Kent Fothergill



## Chapter News

### *Calypso Chapter*

Please check with chapter for happenings

### *Kinnikinnick Chapter*

#### PROGRAM SCHEDULE

Programs are the 4<sup>th</sup> Saturday of the month at 9:45 a.m..

Location: Sandpoint Community Hall (Log Building)  
First Avenue across from the County Courthouse,  
Sandpoint

**April 28:** Marian Fuller, PhD

“Plants of the Galapagos”

**May 26:** Dick Kramer, Sandpoint District Ranger,  
US forest Service

“KIPZ Forest Plan and District Updates”

**June 23:** Carol Mack, Extension Coordinator, WSU  
Agriculture Extension Office, Newport  
“Native Plants and Butterflies”

#### FIELD TRIP SCHEDULE

**Wed. April 18:** Half a day to Mineral Point for wildflowers and a photography workshop with Marilyn George. Carpooling - meet at Sagle Conoco/Travel America to leave at 8 am.

**Tues. May 1:** Half a day to Mineral Point for a wildflower update led by Betsy Hammet, our local USFS Botanist. Carpooling - meet at Sagle Conoco/Travel America to leave at 8 am.

**Thurs. May 10:** Half day hike on the Lakeside Trail (Hall property). Carpooling - meet at Sagle Conoco/Travel America or the cinema end of the Bonner Mall Parking lot to leave at 8:30 am.

**Thurs. May 24:** Half a day to Mineral Point to see another show of spring wildflowers. Carpooling - meet at cinema end of the Bonner Mall Parking lot to leave at 8 am.

**Tues. June 19:** Hike the Mickinnick Trail and check out the native plant landscaping at the trailhead. Carpooling - meet at Sagle Conoco/Travel America or the cinema end of the Bonner Mall Parking lot to leave at 8:30 am.

Please join a carpool whenever possible, as many of our destinations have limited parking. Carpools will LEAVE at stated times; please be early. Of course we want everyone to enjoy the day so please dress for

the weather and prepare for conditions. Be sure to bring water, snacks/lunch, and native plant field guides, etc. Please contact Molly O'Reilly with questions (255-7336).

#### OTHER ACTIVITIES

**Arbor Day Celebration - April 27<sup>th</sup>** "Trees Are Terrific - And So Are Forests"

Our annual Arbor Day celebration at Lakeview Park is on Friday, April 27<sup>th</sup> from 10:30-1:00 PM.

Activities include the ever popular “tour of trees”, tree ring counting, tree boring demonstrations and other learning activities provided by Forest Service staff, and some new pruning and planting demonstrations along with free tree seedlings. Many local schools participate and the public is welcome. Please call Mary and Doug Toland, 265-2674, if you have questions or would like to help. Let's get ready to celebrate trees together!

### *Loasa Chapter*

#### FIELD TRIP SCHEDULE

**May-** stay tuned for the 411 on a field trip during the 1<sup>st</sup> or 2<sup>nd</sup> week of May.



Paintbrush from Craters of the Moon. (Paige Wolken)

### *Pahove Chapter*

**Pahove Chapter** once again enjoyed hosting a booth at Boise's annual Flower and Garden Show.

There seems to be an increasing interest in native plants. Old friends and curious visitors alike stopped by the booth during the three-day event to learn more about native plants.

The April **Native Plant Identification Workshop** was well attended and the response from participants

favors more of these hands-on sessions in the future. Stay tuned!

Pahove's **Annual Native Plant Sale** was a big success – early estimates indicate that about 2200 native plants found new homes! Thanks to the many volunteers and all the smiling new-plant owners!

### **On the Horizon . . .**

**April 26:** Dry Creek Wildflower Walk with Ann DeBolt (384-1244). Meet at the Merc in Hidden Springs.

### **April 29-May 5 is Native Plant Appreciation Week!**

**May 1:** Lucky Peak Nursery Wildflower Walk with Kay Beall (392-6681).

**May 3, 10, and 17:** Annual May Wildflower Walks – Meet at 6:30 at Foothills Learning Center by the Lower Halls Gulch Trailhead. For more information, call 373-4100.

**June 2:** Celebrate the Weiser River Trail's 10th Anniversary with a Native Plant Tour near Council; led by Chris Murphy. Visit [weiserrivertrail.org](http://weiserrivertrail.org) for more information.

**Reminder for all outings** – wear appropriate footwear, bring drinking water and a light jacket, and please leave pets at home. See you on the trail!

*Pahove Chapter hosts monthly presentations from September through April on 3<sup>rd</sup> Thursdays – Keep on thinking native and we'll see you in September!*

## ***Sah-Wah-Be Chapter***

### **UPCOMING EVENTS**

**April 9** – 6:00pm  
**ANNUAL CHAPTER BUSINESS MEETING, ELECTION OF OFFICERS, FIELD TRIP PLANNING,** Bamboo Gardens Buffet, 1200 Yellowstone Ave., Pocatello.

**April 28** – 3<sup>rd</sup> **ANNUAL COMMUNITY ENVIRONMENTAL FAIR IN POCATELLO.** “CO<sub>2</sub> + you = ?” is the theme, emphasizing ways citizens can help diminish carbon dioxide emission problems. 11am-3pm in Tydeman Park, N. 8<sup>th</sup> and Custer. Chapter members will give away native plant seedlings and will help kids plant seeds of native plants.

**May 5** – **NATIVE PLANT AWARENESS WEEK.** Field trip to Massacre Rocks State Park (tentative).

For more information on any of the above or subsequent meetings and field trips, phone 208-235-1352 or 208-233-0714. Also check the bulletin board and the Sah-Wah-Be section of [www.idahonativeplants.org](http://www.idahonativeplants.org) for our summer field trip schedule.

### **July 20-22, – 4<sup>th</sup> ANNUAL TRIP TO STEENS MOUNTAIN, OREGON**

Each year enthusiasm has increased for the beauty and diversity of vegetation to be found on remote Steens Mountain in SE Oregon. This trip, led by botanist Karl Holte, is open to INPS members of any chapter and/or anyone else interested in a weekend visit to the area. As in past years, we will arrive and congregate Friday evening, July 13, probably at the Diamond Hotel. An all-day field trip on Saturday involves caravanning 25 miles up the western side of Steens Mountain, with frequent stops at meadows, snowfields, canyons, forests, campgrounds, streams and lakes until reaching the almost 10,000 foot elevation level and the spectacular views from the summit. Sunday's field trip will be to areas surrounding Steens, including the Alvord desert playa, marshes of the Malheur Bird Refuge, the Refuge visitor center, Diamond Craters, and historical sites. Watch the INPS website for complete details and a reservation form.

Accommodations are limited and must be reserved by June 1. More information will also be available at 208-232-6563.

### **Winter Meetings Review**

*By Janet Bala and Ardys Holte*

Monthly winter meetings started off in **November** with a presentation “The Saxifrage Family in Idaho—Who Knew?” by Ruth Moorhead, long-time chapter member and former president. She reviewed and showed pictures of the 14 genera of Saxifragaceae found in Idaho, including their habitats, edibility, and medicinal uses. She ended with an excerpt from a 1996 essay she wrote for *Taproot*, the quarterly newsletter of the Idaho Nursery Association: “Wildflowers—those glorious little faces reflecting the outer beyond—give us a clue about reality here in Pocatello. Just knowing that wildflowers are found here is a comfort for many of us, a tie with sanity, a balm for stresses of our ordinary lives. We need them, and they need us. Wild things need wild spaces. Work on it.”



In **December** we celebrated the holidays with a Christmas pot-luck feast at the home of Karl and Ardys Holte.

The **January** meeting was a presentation by chapter member and landscape architecture student Alissa Salmore on her travels to Europe, including the history of European gardens and architecture and how these types of gardens could be incorporated into our native gardens in Pocatello.

Dick Anderson, chapter photographer, spoke to us in **February** regarding how to use your digital camera's software to edit and enhance your pictures.

We wrapped up the winter meetings with our **March** photo show, including pictures and dialog from members' 2006 outings. Stephen Love presented plants of the Pioneer Mountains; Pauline Havens, Linda Johnson, and Ruth Moorhead showed plant photos from various chapter field trips; and Karl Holte, Dick Anderson, and Mel Nicholls showed pictures from the 2006 trip to Steens Mountain.



The Blue Dragon rises from the lava. Kids leave your flip flops at home. (Paige Wolken)

## ***White Pine Chapter***

### **PREVIOUS EVENTS**

Along with the three presentations listed in the Spring *Sage Notes*, early March found us walking in the UI Arboretum with the Arboreta's Superintendent, Paul Warnick, discovering catkins on the willows, finding other harbingers of spring, and watching a resident otter!

### **UPCOMING EVENTS**

**Thursday, April 12: Chapter Presentations**

## **Plant-Climate Relationships, Impacts of Global Warming, and Mitigation Strategies in the Ecosystems of the West**

**Jerry Rehfeldt, Plant Geneticist Emeritus**

**7:00 p.m., UI College of Natural Resources Room # 209**

This presentation will consider climate relationships of communities that range from the desert to the alpine-tundra, species that range from the broadly distributed Douglas-fir to the threatened Macfarlane's Four O'Clock and populations within a single species Western White Pine. Management strategies for mitigating the impact of global warming will also be discussed. Contact Al Stage ([astage@moscow.com](mailto:astage@moscow.com)). This event is co-sponsored by the Palouse Prairie Foundation.

In addition to Jerry's talk, **Kimberly Higgs** (a student in Range 429 Landscape Ecology, taught by Lee Vierling) will make a presentation (as part of the class requirements) on the **Effects of Mushroom Harvest Technique and Forest Management Practices on Subsequent American Production**.

Also at this meeting, we will present to the UI the contribution by INPS members of the White Pine Chapter's memorial for Steve Brunfeldt.

## **Saturday, April 28: Chapter Field Trip**

**Marj and Al Stage's house**

**Meet at 9:00 a.m. Rosauer's parking lot, Moscow, to carpool**

Come start off **Native Plant Appreciation Week** (4/29 – 5/05) by wandering through spring wild flowers on the Stage's property at 3324 W. Twin Road in Moscow. Bring good walking shoes, water, plant guides and binoculars.

## **Wednesday, May 16: Chapter Presentation**

**Flora of Craig Mountain, by Juanita Lichthardt and Janice Hill (both with Conservation Data Center, Idaho Department of Fish & Game)**

**Location: 1912 Building, 7:00 p.m.**

Janice Hill and Juanita Lichthardt will speak on the vegetation of Craig Mountain: its plant communities, rare plants, and outstanding wildflowers, the Canyon Grasslands in particular as an ecological entity, and conservation challenges. Janice and Juanita will jointly talk about natural communities on Craig Mountain and their relationship to aspect and elevation. They will also discuss the rare Spalding's Catchfly. Their talk features beautiful wildflower

images and maps of the region. The presentation will be non-technical, although some Latin will be spoken. This presentation precedes a field trip scheduled on June 9, and is co-sponsored by the Palouse Audubon Society and Palouse Prairie Foundation. Contact Nancy Miller ([nmiller@moscow.com](mailto:nmiller@moscow.com)) or Tom Weber ([tweber@wsu.edu](mailto:tweber@wsu.edu)).

**Thursday, May 10. Chapter Presentation: Linking Social and Biophysical Conservation Perspectives in an Endangered Ecosystem: the Palouse as a model**

**Presenters: Chris Looney, Shannon Donovan, Yaniria Sanchez de Leon, Thor Hanson (UI PhD candidates)**

**7:00 p.m. at the Neill Public Library, Pullman, WA**

The four presenters will describe their research based on the integration of biological survey data and social data from interviews and participant mapping exercises to look for relationships between the biophysical and social landscapes. This event is co-sponsored by the Palouse Prairie Foundation. For more information, go to [www.palouseprairie.org](http://www.palouseprairie.org).

**Saturday, May 19. Chapter Field trip**

**Gerry & Elaine Queener's property in Troy.**

**Meet at 9:00 a.m. at Eastside Marketplace to carpool**

Gerry has many natives, and we should see many in bloom at his home at 1900 Little Bear Ridge just east of Troy. From their home we will go to the east extension of the Latah Trail and walk down the Trail extension in the canyon towards Kendrick. Although much of the land on either side is posted, many flowers will be visible from the railway bed. This should be a really good time to see the flowers in that area. We should be back by about 1:30. Bring binoculars, cameras, water, snack, and wear good walking shoes.

**Thursday, May 31 and Tuesday June 5. Chapter Field trips.**

**Jacie and Wayne Jensen's property on Paradise Ridge Meet at 5:30 p.m. at Eastside Marketplace to carpool**

We will have **two** evening walks on May 31 and June 5 at Jensens' on Paradise Ridge to see some of the natives that hopefully will be in peak bloom. We will meet at 5:30 at Eastside Market Place and carpool to their place to hike among the flowers. Depending on

bloom times at their property we may schedule another time **later in June or early July** for another walk. That will be announced via email so if you are not getting chapter email let Nancy Miller ([nmiller@moscow.com](mailto:nmiller@moscow.com) or 208-882-2877) know if you either want to be added to the email list or want a phone notification.

**Saturday, June 9. Chapter Field trip to Craig Mountain**

**Trip Leaders: Terry Gray and Jerry Cebula (Audubon Society), and Brenda Guettler (INPS-White Pine)**

**Meet at 7:15 a.m. at the UI Sweet Avenue parking lot to carpool**

We hope to see many birds and blooming native plants on this trip to Craig Mountain (a follow-up to Juanita and Janice's Craig Mountain presentation). This trip is co-sponsored by Palouse Audubon Society. We will meet in Moscow to carpool at the parking lot at the intersection of State Highway 8 and Sweet Avenue (behind the two fountain entrance) at 7:15 a.m. Alternatively there will be a second meeting at 8:00 a.m. in Lewiston at the Sports Authority (the old Gart's) parking lot on 21<sup>st</sup>. It is the first left turn after starting up 21<sup>st</sup>. Contact Nancy Miller ([nmiller@moscow.com](mailto:nmiller@moscow.com)).

**Saturday/Sunday, July 14/15, 2007. Chapter Field Trip**

**Little North Fork of the Clearwater**

**Led by Fred Rabe(UI Biology Professor Emeritus) and Pam Brunsfeld (Curator, UI Stillinger Herbarium)**

Participants will visit the Little North Fork of the Clearwater country to study the natural history of the area. We will collect plants and aquatic insects from Pinchot Marsh, the Little North Fork and Fish Lake (a two mile hike is involved). These activities may help persuade BLM to enlarge the present Area of Critical Environmental Concern due to its research and educational value. The area is about 20 miles south of Avery, ID. We will drive to Clarkia, then northeast on Road 321 to the St. Joe River, then take W.F. Fishhook Creek Road to Breezy Saddle. Camp sites and location of sampling are nearby. It's important for those going to help plan meals - we're thinking super -potluck. We'll carpool and share gas. This trip is **limited to 12 people**, so please contact Fred Rabe to reserve your space ([fredr@uidaho.edu](mailto:fredr@uidaho.edu)). This event is co-sponsored by Friends of the Clearwater and the Sierra Club. There is the



possibility that other weekend trips to this area will be organized later in the summer if there is sufficient interest.

**Saturday, July 7, 2007. Chapter Field Trip**

**School House Fires**

**Led by Leigh Lentile (Forest Ecologist/Fire Ecology, Dept. of Forestry & Geology, The University of the South, Sewanee, TN) and Sarah Lewis (researcher at the USFS Rocky Mountain Field Station)**

**Time: 7:30 a.m. at the UI Sweet Avenue parking lot**

This trip has been organized to follow up on Penny Morgan's presentation in January on the School House Fires. It will take approximately 2 hours to reach the site. There will be some hiking, so good walking shoes are appropriate. Bring lunch, water, binoculars (possibly good woodpecker viewing in the burned areas), and camera. There is an outhouse at the first place we stop. We should be back by 6:00 p.m. This will be a good opportunity to see the effects of the fire, the native plant regeneration, the seeding response, and birds that have returned to the area for food or nesting.

**Late Summer events under discussion include:**

**Mid to Late July** – the Chapter will join the Jensens collecting Prairie June Grass seed in McCroskey Park.

**Mid August** – the chapter will again join the Jensens collecting Blue Wild Rye grass seed also in McCroskey Park. Details will be announced in a later newsletter or postcard as well as email as we do not yet know an approximate time when the grass seed will be mature. The grass seed harvested will be grown by the Jensens for planting in McCroskey Park next year.

**August & September** – Possible Field Trips to Little North Fork of the Clearwater II & III: Repeats of Fred Rabe's July field trip.

**September/October: Annual membership meeting**, location to be announced.

**Wood River Chapter**

The Wood River Chapter is partnering with the Sawtooth Botanical Garden to bring interesting activities related to native plants to the Wood River Valley. Visit [www.sbgarden.org](http://www.sbgarden.org) for a calendar of events.

**June 22-24.** The American Penstemon Society's Annual Meeting will be held in the Stanley-Ketchum/Sun Valley area. Members of the INPS are encouraged to attend. A few local INPS devotees are sought to serve as guides, especially for Sunday, June 24. Contact Louise Parsons (parsont at peak dot org) for more info.

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**Sage Notes** is published four times a year in February, May, September, and December by the Idaho Native Plant Society, incorporated since 1977, under the laws of the State of Idaho. Editor, Dylan Levy-Boyd. **Newsletter ads:** personal ads \$2; commercial ads \$5 for 1/8 page, \$8 for 1/4 page, \$15 for 1/2 page, and \$25 for full page. Ads should be sent with payment. **Submissions:** members and others are invited to submit material for publication. Articles in any form, even hand-written, are welcome, as is art work. Please provide a phone number in case there are questions. Material will not be returned. Send submissions directly to the editor, Dylan Levy-Boyd, 506 Center St. West, Kimberly, ID 83341, or <dylan at csr-inc dot com>. Submission deadlines are January 8, April 1, August 1, and November 1.

**Officers:** President, Janet Benoit; Vice President, Eric Wilson; Secretary, Lois Rohay; Treasurer, Jody Hull. **Calypso Chapter**, P.O. Box 331, Careywood, ID 83809. President, Bob Lee; Vice President, Roland Craft; Secretary, Phil Hruskocy; Treasurer, Janet Benoit; Newsletter, Phil Hruskocy. **Kinnikinnick Chapter**, 206 N. 4<sup>th</sup> Ave., PMB 162, Sandpoint, ID 83864. President, Phil Hough; Vice President, Ken Haag; Secretary, Konrad Dahlstrom; Treasurer, Marilyn George; Conservation, Carol Jenkins; Programs, Carol Jenkins; Newsletter\*, Adrienne Lilly; Field Trips\*, Molly O' Reilly. **Pahove Chapter**, PO Box 9451, Boise, ID 83707. President, Cyndi Coulter; Vice President, Bill Addington; Secretary, Gillian Crymes; Treasurer, Jody Hull; Conservation, Chris Colson. **Sah-Wah-Be Chapter**, 146 South 17<sup>th</sup> Avenue, Pocatello, ID 83201. President, Janet Bala; Vice President, Mel & Barb Nicholls; Secretary, Linda Johnson; Treasurer, Catalina Steckbauer. **White Pine Chapter**, PO Box 8481, Moscow, ID 83843. President, Janet Campbell & Nancy Miller; Vice President, David Pierce; Secretary, Sonja Lewis; Treasurer, Nancy Sprague; Conservation, Juanita Lichthardt. **Wood River Chapter**, PO Box 3093, Hailey, ID 83333. President, Tess O'Sullivan; Vice President, Carol Blackburn; Secretary, VACANT; Treasurer, VACANT. **Loasa Chapter**, 340 E 520 N, Shoshone, ID 83352. President, Kelvin Jones; Vice President, LaMar Orton; Secretary, Lois Rohay; Treasurer, Steve Paulsen.

The Idaho Native Plant Society (INPS) is dedicated to promoting interest in native plants and plant communities and to collecting and sharing information on all phases of the botany of native plants in Idaho, including educating the public to the values of the native flora and its habitats. In keeping with our mission, it is the intent of the INPS to educate its membership and the public about current conservation issues that affect Idaho's native flora and habitats. **Membership** is open to anyone interested in our native flora. Send dues to Jody Hull, INPS Treasurer, Box 9451, Boise, ID 83707. Website address: IdahoNativePlants.org.

Category	2007 Annual Dues
<input type="checkbox"/> Patron	\$35
<input type="checkbox"/> Individual	\$15
<input type="checkbox"/> Household *	\$20
<input type="checkbox"/> Student	\$8
<input type="checkbox"/> Senior Citizen	\$8

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Chapter affiliation? (check one)

- Calypso (Coeur d'Alene; please include \$6 newsletter dues)  
 Kinnikinnick (Sandpoint; please include \$10 for Kinnikinnick Journal)  
 Pahove (Boise)       Sah-Wah-Be (SE Idaho)  
 White Pine (Moscow)       Loasa (Twin Falls)  
 Wood River (Ketchum-Sun Valley; please include \$7 chapter dues)  
 None. Those who do not live near a chapter are encouraged to join. We can put you in touch with other members in your area, and can coordinate with you on any state level activities you may wish to be involved in.

\* Household memberships are allocated two votes