

Douglasia

VOLUME 33, NO. 1 Spring 2009



Journal of the
WASHINGTON
NATIVE PLANT
SOCIETY

*To promote the appreciation
and conservation of Washington's
native plants and their habitats
through study, education,
and advocacy.*

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Douglasia (ISSN 1064-4032) is published quarterly by the Washington Native Plant Society.
See inside back cover for a WNPS directory and page 28 for subscription and membership information.
Douglasia logo designed by Louise Smith of Seattle.
Printed on acid-free paper using 30% post-consumer waste.

 The Washington Native Plant Society is an affiliate of Earth Share of Washington.



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A Note About This Issue

It has been a very eventful winter for most of us across the state, and I know that spring will be very welcome this year. If it hasn't quite arrived in your area, you can still find much to interest you in this issue of *Douglasia*. John Browne, Jr. has written a very timely and informative essay on the effects of winter conditions on the natural landscape.

It will give us all something to ponder as we are out exploring later in the season. We also have two book reviews for those colder spring evenings. Fred Weinmann explores the life of Roger Tory Peterson in *Birdwatcher*, by Elizabeth J. Rosenthal and Laura Maier discusses the natural history of the Wallula Gap in *Where the Great River Bends*, edited by Robert J. Carson. One of the many opportunities offered by WNPS to learn first hand about native habitats will be coming up in June. The Wenatchee Valley Chapter has planned this year's study weekend, including an amazing array of hikes and outings exploring that very botanically interesting part of the state. You can go on a mushroom foray, explore the sagebrush community of the Beezley Hills, or take a nature journaling workshop with naturalist/artist Heather Wallis Murphy. It promises to be a very full weekend!

I hope you will all be able to take advantage of some of the wonderful opportunities to explore and enjoy our wonderful native flora this spring.

Cynthia Spurgeon
Managing Editor

Thoughts on Conservation

by John H. Browne, Jr.

Conservation Committee Co-Chair



Snow is a wonderfully effective keeper of the status quo across the land. The inertia that the “dry water” brings to bear wherever it falls, slows down all activities (with the possible exception of recreating humans) and keeps things the way they were in forests and on farms and especially in the high country, where the snow may hold on for months, or years, or centuries.

In liquid form, though, especially at ground level, it is a much more active presence as it collects in the low places and travels through them, shaping them by its passing. Whether a permanent presence or seasonal, the watered landscape offers an opportunity to a broad range of plants and the creatures that depend upon them that could not exist in those places but for the water. These low places have been invaluable to humans as the hunter-gatherer societies, and later, as agricultural communities developed. The pressures that people have exerted on the riparian, lacustrine and shoreline ecologies have irrevocably altered those places when the numbers of people grew beyond a certain point.

With technological development and growing populations, the riparian areas were also viewed as places to collect water artificially, to facilitate community development at some distance from the water. The non-human communities in the collection zones were essentially displaced, with no real consideration for their needs... or even for their existence. Out of sight, out of mind.

Today, with the principal water courses in our own state dammed for various purposes—for water as essential to nourishment, for power generation, for cheap transportation, for irrigation, for recreation—the displaced and “disappeared” communities of non-humans that formerly inhabited those impoundments have far fewer numbers and less visibility than ever. They also seem to count for very little when new impoundments or water-collecting schemes are proposed by those who want access to the (primarily) economic marvels that water can provide in an arid landscape.

It was gratifying to read that the Bureau of Reclamation had decided against the Black Rock Valley reservoir

proposal, on (mostly) economic grounds and also decided to hold off on two other regional projects in the Yakima/Columbia River nexus, at least for the time being. While there has been a fairly recent focus on more efficient use of water in some watersheds that are principally utilized for irrigation (often because that usage threatened fish runs that have received Federal protection), a great deal more “efficiency” likely can be brought to bear across the region. In the realm of humans, however, the entropic equivalent of snow is probably present in property laws, generally, and water law, in particular. These human artifices will most likely continue to wreak ecological havoc, even when the dams have silted up and become anachronistic monuments to the hubris and anthropocentrism for which our species may be justly remembered for a good long time.

This past summer, a good friend and fellow hiking enthusiast discovered something while walking the beach along an uninhabited section of Vashon Island... something that I had sought, myself, without any luck – a *Castilleja*, high up on a steep bank on a southwest-facing slope. Finding this flower added something that had been missing from the growing list of Vashon-Maury flora (according to the keeper of that list, a notable reference librarian who is also a local treasure). It also reiterated the importance of the habitat in which the discovery was made: an area steep enough to discourage browsing animals, while still offering support to a diverse plant community. (I should note that in the cases of prominently showy flowering species, the primary culprits in their paucity of numbers, or actual disappearance, are generally creatures a lot like you and me.)

The steep places that have a little soil and enough water will always be special to native plant seekers just because their degree of inaccessibility makes them refugia for the species that manage to thrive in those places. More often than not, the formative process in creating these landscapes has to do with water, in some form. And, once again, these landform situations are seen as possible enhancements for creating holding places for water—for reservoirs—rather than being valued and appreciated for their attributes as less-than-common habitats for less-than-common plant communities.

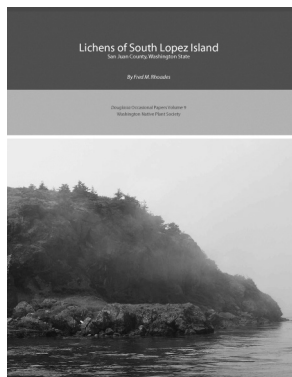
One place being considered, at present, a place that’s been called “the crown jewel of the channeled scablands” and “an exquisite scar,” is Rock Lake, in Whitman County just a dozen miles south, as the crow flies, from the Turnbull National Wildlife Refuge.

>

Lichens of Lopez Island in the San Juans

The Washington Native Plant Society is pleased to announce publication of the ninth in its series of "Occasional Papers." These monographs, published in soft cover book form, are intended to increase appreciation and awareness of the incredible diversity of Washington's flora.

Lichens of South Lopez Island, San Juan County, Washington State by Fred Rhoades provides an in depth glimpse of lichens as they occur in the San Juan Islands. Dr. Rhoades, instructor and mycologist/lichenologist at Western Washington University, conducted a survey in 1998 of the lichens he found on two Bureau of Land Management properties (Point Colville and Iceberg Point) on the southern reaches of Lopez Island. This paper is an update of that survey. It features a general background on lichens, including a glossary of commonly used terms, background on the geology and vegetation of the area,



and site descriptions which depict the variety of habitats at these locations. The text reviews some 190 species of both "macrolichens" and "crusts," including comments on each species' habitat, any special status or rarity, and comparisons to other studies in the region. The report documents the first occurrence of 17 crustose species for Washington State (or from the area west of the Cascades) and one new to North America. Dr. Rhoades also discusses human impacts upon this very special ecosystem.

The book is richly illustrated with some 89 color images of habitats, and several of the common and not so common lichen species. Copies can be ordered at the WNPS website (www.wnps.org) where a link to this publication will appear under What's New. You can purchase online with a credit card utilizing PayPal or order by mail or telephone to the WNPS office. The cost, including shipping and handling, is \$15.

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Thoughts on Conservation continued from previous page

A story, with photos, can be found at <http://washington-state-magazine.wsu.edu/stories/04-fall/scablands/index.html>

While the proposal to Washington State Department of Ecology to study the feasibility of creating an impoundment for agricultural purposes out of this beautiful and uncommon landscape is new, the impetus behind the study request is quite an old one; that is, acquiring what is presently a public treasure, and destroying it to enable private profit. Everywhere we look around our state we can find examples of this in the past, where millions of acres of forest were cleared and converted to conifer farms; millions of acres of shrub-steppe converted to agriculture, watered by flooding the riparian corridors of our greatest once-public rivers; and millions of acres of grasslands converted to grain production, and that crop carried to market on a

river converted to provide barge transportation, electric power and irrigation to a lucky few at the cost of entire races of fish, and all the other opportunities that those watered pathways provided to the plants and animals that had traveled through and/or settled there for millennia.

There must be a limit to growth, where the physical presence available to support it is finite, because there is no growth without an attendant loss. There may be no limits to dreams and to ideas but once we have moved into the physical realm, the limits appear. We will need to be truly efficient, and considerate of the needs of more than the human population, as we attempt to reach truly sustainable ways of living well and not merely 'surviving.'

JS

Jewelweeds and Touch-Me-Nots (*Impatiens*) of the Pacific Northwest

by Peter Zika, University of Washington Herbarium, Burke Museum

The jewelweeds, *Impatiens*, are remarkable for their diversity of floral form, showiness, baffling cryptic species, pollination intrigue, and aggressive spontaneous hybrids. As with the hawkweeds (*Hieracium*), we have a confusing mix of native and introduced species in the Pacific Northwest. Although jewelweeds are delicate annuals with brittle succulent stems, they are able to sprout and flower in the midst of dense stands of reed canary grass (*Phalaris arundinacea*), a wetland bully notorious for displacing our indigenous flora. As many children know, the capsules of *Impatiens* are explosive if squeezed, leading to their popular name, touch-me-not. Jewelweeds are members of the *Balsaminaceae*, a family little known and seldom seen outside of gardens. I'd like to introduce some of the puzzles of our northwestern jewelweeds, as well as provide keys and illustrations for identification. Seek touch-me-nots on the shores of river sloughs, ponds, in riparian forest, and in damp ditches and cranberry farms. *Impatiens* are sporadic in most areas, except for the extensive populations in the intertidal freshwater marshes of the lower Columbia River (Fig. 1).



Figure 1. Type locality of *Impatiens xpacifica*, freshwater intertidal marsh near Point Adams on the lower Columbia River, Columbia Co., Oregon. All photos by the author.

The foliage of our three native *Impatiens* is the same, so to understand the genus you must understand the flowers. They all can produce tiny self-pollinating (cleistogamous) flowers in leaf axils early or late in the season (Fig. 2).



I. ecalcarata



I. xpacifica

Figure 2. Self-pollinating (cleistogamous) green flowers, lacking any colored petals, producing normal fruits and seeds.

This is a relatively quick and inexpensive method of setting seed for an annual. I think of it as a backup strategy, should the elaborate and colorful outcrossing flowers fail to attract a pollinator. Boreal jewelweed, (*Impatiens noli-tangere*), ranges north in the boreal forest of high latitudes in Alaska, the Kamchatka Peninsula in Russia, and western Canada, where plants in shaded thickets bear few or no showy petal-bearing corollas. Instead they produce a crop of little green selfing flowers in the short summer. Plants lacking petaliferous blossoms can not be reliably identified if they are in the range of two or more species, thus in places like central Manitoba it is not possible to differentiate spotted jewelweed (*I. capensis*) from boreal jewelweed without outcrossing flowers. The thrust of this article is to show the array of outcrossing (chasmogamous) flowers, their billboards to attract pollinators.

You might assume our recent illustrated floras clarify the floral differences among jewelweeds. But you would be wrong. The Jepson Manual (Hickman 1993) omitted the family due to a printer error (M. Weatherwax pers. comm.). Hitchcock and Cronquist (1961, 1973) are missing recently naturalized garden escapes. Our most current illustrated regional flora, for British Columbia (Douglas et al. 1998, pp. 6-9), shows some flowers inverted, and confuses size and shape of the corollas enough to befuddle identification. I find the upside-down flower art especially amusing, because sometimes visiting bees enter the flowers upside-down (Fig. 3).

But the British Columbia flora also fails to mention that variable jewelweed (*I. aurella*), can have spotted flowers, does not show *I. noli-tangere* with a gradual taper to the



Figure 3. Bees gathering nectar and pollen from varied jewelweed, *Impatiens aurella*. Legs down or legs up.

spur, orients the blossoms of small-flowered touch-me-not (*I. parviflora*), vertically instead of horizontally, and says the spots of *I. capensis* are brown, when in life they are red to orange. The BC flora also says the spots of *I. noli-tangere* are brownish-purple, but the live plants I have seen

in America and Asia have dark red spots. Similarly, the *Flora of the Pacific Northwest* (Hitchcock and Cronquist 1973) illustrates three flowers upside-down, says *I. aurella* is always unspotted, does not show the abrupt taper to the spur in *I. capensis*, and inaccurately illustrates the diagnostic small spots which are primarily dorsal on the tube of *I. noli-tangere*. I should also note that spotted jewelweed has occasional odd color forms not described in western floras, without spots, or with the corolla white, cream or pale yellow, with spots varying red to bright pink. Atypical color forms are rare in western Washington, where they are mixed among typical plants.

Why are the illustrations and descriptions such a mess in our floras? Northwesterners are not alone; the confusion goes back to the time of Linnaeus, who mixed up North American collections of *I. capensis* with *I. noli-tangere* (Zika et al. 2008). The biology of the genus is at the heart of the problem. As lovers of wet soil, they can support their succulent lifestyle despite our summer drought. But when you pick them, they wither quickly on a hot summer day, soon resembling cooked spinach. As with the violets, their wilted flowers make poor herbarium specimens. So the study of museum vouchers is not as enlightening as it is for other wetland genera like sedges and rushes, which are easy to preserve by drying. A special effort must be made to press *Impatiens* flowers immediately. I've found picking a few extra flowers and pressing them in tissue paper makes a valuable addition to any herbarium collection (Fig. 4).

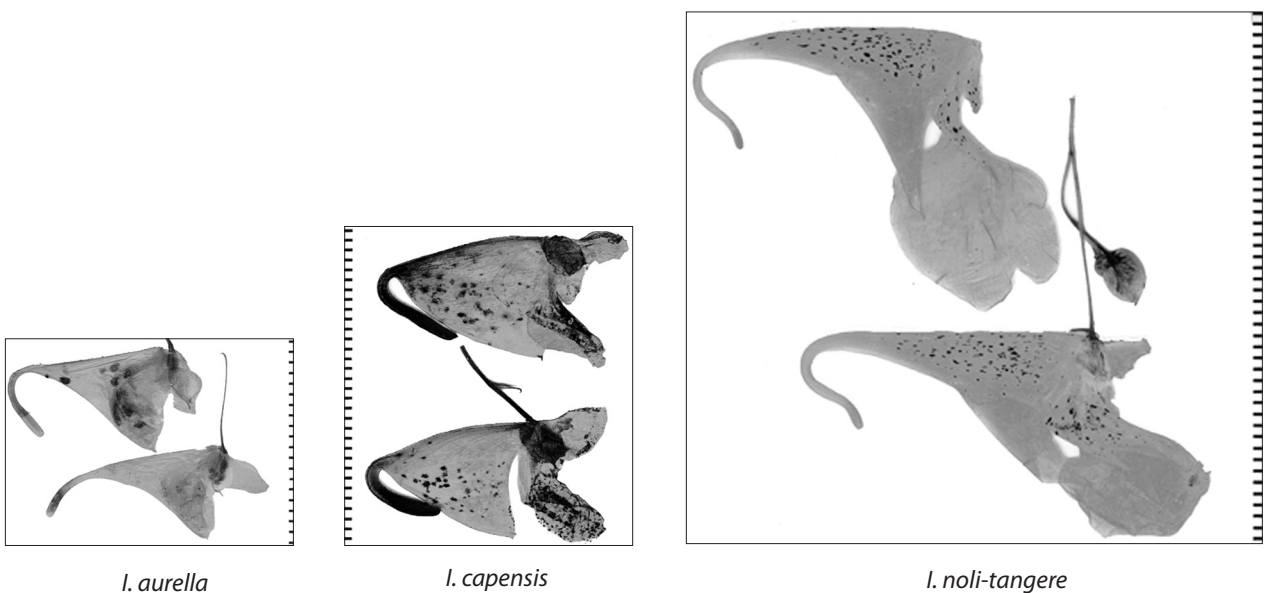


Figure 4. Dried *Impatiens* flowers showing relative size, taper to spur and spotting. Scale is mm. Flowers picked and pressed separately in tissue paper. Variable jewelweed, *I. aurella*, can be dark orange- or red-spotted or spotless; the taper to the spur can be gradual or abrupt. Spotted jewelweed, *I. capensis*, typically with abrupt taper to spur and dark orange or red spots which are coarse and primarily ventral on the tube. Boreal jewelweed, *I. noli-tangere*, with gradual taper to spur and typically dark red spots which are fine and primarily dorsal on the tube.

Fresh *Impatiens* flowers are striking and different enough to allow identification, even when converted to black and white photos. Kashmir balsam (*Impatiens balfourii*), is a pink-flowered rare garden escape east of the Cascade Range and in California. The gradual taper to the spur is quite different from the abrupt taper to the spur of policeman's helmet, (*I. glandulifera*), another pink-flowered species naturalized on the coast and in Idaho (Fig. 5).

Large pink to purple flowers (and occasional albinos)

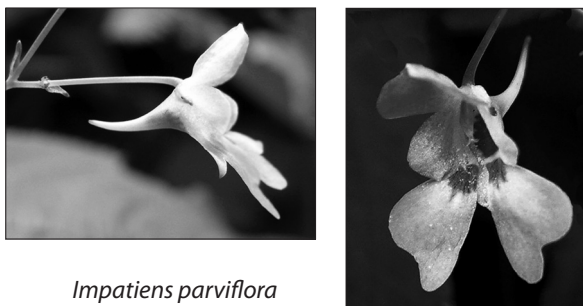


I. balfourii



I. glandulifera

Tiny pale yellow flowers



Impatiens parviflora

Figure 5. Fresh corollas of *Impatiens* in the Pacific Northwest; non-native species with pink to purple flowers, or small pale yellow flowers. Scales vary.

A third Asian introduction grows wild in British Columbia, the aptly named small-flowered touch-me-not (*I. parviflora*), with diminutive pale yellow corollas.

The jewelweeds with large yellow to orange flowers include all our natives, and are an interesting group. Those with spurred flowers are shown in Fig. 6, and a key is provided to help in sorting them out.

The most common species west of the Cascades, spotted jewelweed (*Impatiens capensis*), was treated as a northwestern native by many authors (e.g., Ornduff 1966, Hitchcock and Cronquist 1973, Douglas et al. 1998). Spotted jewelweed is native in eastern North America, and parts of boreal Canada, but not west of the Rocky Mountains. I came to that conclusion after looking at hundreds of herbarium collections and wild populations. All the verified local records for spotted jewelweed begin in 1950, which is 80-100 years after the start of the collecting record for our three natives, *I. aurella*, *I. ecalcarata*, and *I. noli-tangere*. In addition, *I. capensis* acts like a recently introduced weed, and has been spreading rapidly in ditches and disturbed wetlands over the last half century, while our native species west of the Cascades are declining as wetland habitat is lost. This by itself may not sound alarming, but where *I. capensis* meets *I. ecalcarata*, the native and non-native species hybridize. I found these crosses in 87% of the populations of *I. ecalcarata* west of the Cascades (Zika 2006a).

The showy flowers of spotted jewelweed have large amounts of nectar in their spurs, so they are well-suited to pollination by ruby-throated hummingbirds (Temeles and Ewald 1999). Hummingbirds demand a lot of sugar-rich nectar to power their flight, beating their wings 50 times a second. Ruby-throated hummers are native to eastern North America, and absent in the Pacific Northwest, where bees come to the flowers to gather the copious nectar. In our region spotted and spurless jewelweeds flower at the same time. They readily hybridize when bees move pollen between the species in mixed stands. However, spotted jewelweed has that prolific nectar spur, and one study found it received 77% of the floral visits by honeybees in mixed populations of jewelweeds. Spurless jewelweed can't compete; it has no nectar to offer, and garnered only 4% of the honeybee visits when growing with hybrids and spotted jewelweeds (Zika 2006a). So times are tough for spurless jewelweed when spotted jewelweed moves in. My preliminary observations suggest *I. ecalcarata* has reduced seed set in the presence of hybrids and spotted jewelweed.

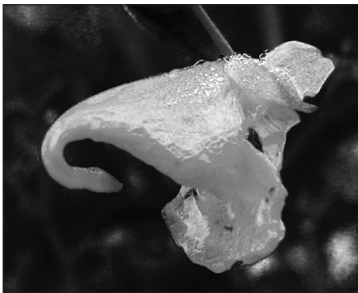
The hybrid found in these situations is called Pacific jewelweed, *Impatiens ×pacificica*, and it grows at more than



I. aurella



I. aurella



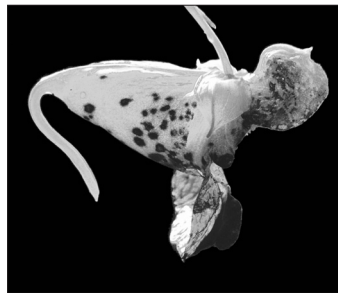
I. aurella



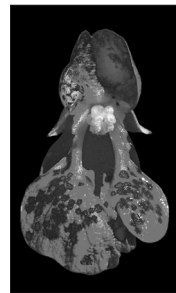
I. aurella



I. capensis



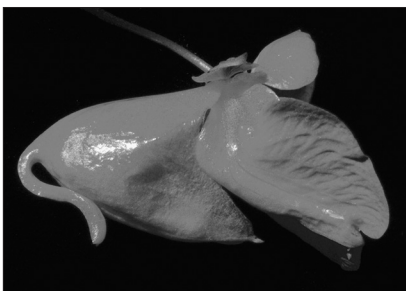
I. capensis



I. noli-tangere



I. noli-tangere



Impatiens x pacifica (spurred spotless form)

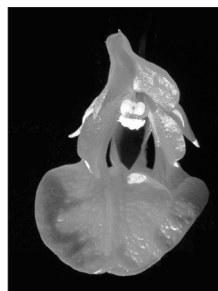


Figure 6. Fresh *Impatiens* corollas, native and non-native species with larger yellow to orange flowers and spurs. Scales vary.

A key to flowers of Pacific Northwest *Impatiens* (based on Zika 2006b)

1. Flowers without a spur
 2. Flowers without spots *I. ecalcarata*
 - 2' Flowers with spots..... *I. ×pacifica*
- 1' Flowers spurred
 3. Spur ± straight
 4. Flowers pink or purple, 10-15 mm from pedicel to spur base (not tip) *I. balfourii*
 - 4' Flowers pale yellow, 1-5 mm from pedicel to spur base *I. parviflora*
 - 3' Spur strongly curved or hooked
 5. Flowers purple, pink or white; spur short; leaves finely toothed *I. glandulifera*
 - 5' Flowers yellow to orange; spur elongated; leaves entire or coarsely toothed
 6. Flowers without spots
 7. 9-14 mm from pedicel to spur base (not tip); E side of Cascades *I. aurella*
 - 7' 14-19 mm from spur base to pedicel; W side
 8. All flowers in population spurred rare spotless forms of *I. capensis*
 - 8' Some plants with flowers spurred, other plants spurless *I. ×pacifica*
 - 6' Flowers with spots
 9. 9-14 mm from pedicel to spur base (not tip); E side of Cascades *I. aurella*
 - 9' 14-19 mm from spur base to pedicel; W side
 10. Gradual concave taper to spur; spots primarily dorsal, small and sparse *I. noli-tangere*
 - 10' Abrupt & convex taper to spur; spots primarily ventral, coarse and often dense or confluent near throat *I. capensis*

50 locations in western Oregon and Washington. Hybrids combine the characters of its parents in one of two ways (Table 1). First noted by Robert Ornduff in the 1950s, Pacific jewelweed is now found from the Seattle area south to Tillamook County, Oregon (Ornduff 1967; Zika 2006b). The spurless spotted floral form is unmistakable (Fig. 7).

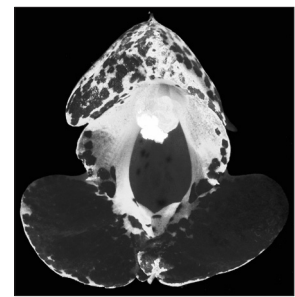
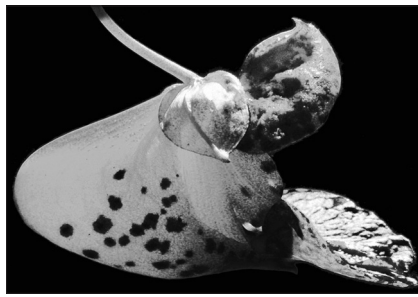
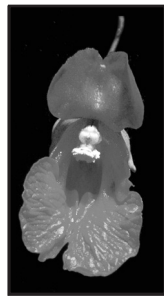
The other form, spurred but unspotted (Fig. 6), is mimicked by a botanical oxymoron: spotless spotted jewelweed, a scarce coastal weed. Although there are minor differences in pollen fertility, the most practical way to separate them is to look for a mix of parents and hybrids. I found unspotted forms of *I. capensis* growing in pure stands in southwestern Washington, and all plants had spurred flowers, while unspotted *I. ×pacifica* were

always in mixed stands of plants with and without spurs.

Table 1. A floral comparison of Pacific jewelweed (*Impatiens ×pacifica*) with its parents.

Species	Spotted corolla	Spurred corolla
<i>I. ecalcarata</i>	No	No
<i>I. ×pacifica</i>	No	Yes
<i>I. ×pacifica</i>	Yes	No
<i>I. capensis</i>	Yes	Yes

What does one call a spontaneous hybrid between native and introduced species? This is not a simple question. Some botanists say that if non-native plants are involved in a hybrid, then the offspring must be non-native. If you exclude garden hybrids, a counter-argument says all taxa must have evolved somewhere and have a native range.



I. ecalcarata

Impatiens × *pacifica* (spurless spotted form)

Figure 7. Fresh *Impatiens* corollas, spurless yellow to orange flowers.

This second view, more or less, was adopted by authors and editors of the *Flora of North America* treatment of the genus of goatsbeards (*Tragopogon*), a well-known weedy group of species originating in Eurasia. Some of these introduced species formed spontaneous natural hybrids in southeastern Washington, and subsequently doubled their chromosomes to create new allotetraploids: remarkable goatsbeard, (*T. mirus*), and hybrid goatsbeard, (*T. miscellus*). They are found occasionally in Pullman and scattered across the western United States, from Arizona to Wyoming. *Flora of North America* calls them North American native species (Soltis 2006). This is not altogether outrageous; the ancestry of many lines of plants originated through natural hybrids (*Dryopteris*, *Polypodium*, *Botrychium*, many of the asters, fleshy-fruited members of the Rose Family, etc.). Pacific jewelweed, recently formed in Oregon and Washington, has never been found elsewhere, so perhaps the Pacific Northwest could and should be considered its home range.

As *Impatiens capensis* increases west of the Cascades, *I. ecalcarata* declines. But any efforts to reduce spotted jewelweed populations must take into account identification difficulties. In particular, surveys and control efforts must be restricted to the west side of the Cascades, and conducted when the plants are in full bloom, so each plant is recognizable. I would recommend some identification training, and only hand culling, with great care and deliberation, to prevent unintended destruction of the native jewelweeds, which can grow intermingled with spotted jewelweed. *Impatiens* are easily pulled out of wet ground, but one can not simply uproot plants “with spots” or plants “with spurs,” because of the possibility of finding new colonies of *I. noli-tangere*, *I. ecalcarata*, or *I. ×pacifica*. No spurless plants should be molested. And if you like the challenge of hunting for rare native species, more field work might also reveal more populations of boreal jewelweed, which is currently known from only one extant population in the lower 48, in Whatcom County, Washington.

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Contact Peter Zika at: WTU Herbarium, Box 355325, University of Washington, Seattle, WA 98195-5325 USA.



Kul Kah Han Native Plant Demonstration Gardens Chimacum, Washington

by Sami Gray and Linda Landkammer, Olympic Peninsula Chapter

One of the best kept secrets of the Olympic Peninsula is an ambitious project tucked into a corner of H.J.Carroll Park in Chimacum, Washington. The venture was initiated in 1998 by the environmental group Wild Olympic Salmon, who asked veteran landscaper and native plant advocate Linda Landkammer to design the gardens and administrate their implementation. The gardens were named after Kul Kah Han, the last known chief of the local Native American tribe, the Chemakum, who used the local native plants in their daily lives. Since then, the project has slowly acquired funding, plants, materials and labor from Washington Native Plant Society, Jefferson County Master Gardeners, Jefferson County Parks and Recreation, local garden clubs and an ever growing pool of dedicated volunteers. These stalwart environmental and horticultural devotees have established and cultivated garden beds, propagated and planted, installed hardscape and signage and established a website.

Occupying an acre of land, Kul Kah Han Gardens encompasses five subsidiary garden areas representing ecosystem types of the Pacific Northwest: Montane, Subalpine, Meadow, Forest and Edgeland. This mode of organization serves as environmental education, helping people to think about native plants in their wild contexts. It also provides clues to aspiring native plant gardeners about felicitous inclusion of a diversity of native plant species into their own gardens. Presentations continue throughout the year on the characteristics of the different species, their place in sustainable landscaping and horticulture and their ethnobotanical applications.

In the late spring of 2009, visitors will see extensive display gardens, attractively designed with numerous species coming into bloom. The gardens contain over 125 native species at present, and are graced with sculptures by local artists. Most species are labeled with signs providing details about the plants. Plant lists and additional information can be obtained from the garden's website, nativeplantgarden.wordpress.com.



Kul Kah Han Native Plant Demonstration Gardens



Kul Kah Han Native Plant Demonstration Gardens

Gardens at Kul Kah Han with examples of representative species:

Forest Garden

Berberis aquifolium- tall Oregon grape
Cornus nuttalli- Pacific dogwood
Dicentra formosa- bleeding heart
Polemonium pulcherrimum- Jacob's ladder
Rhododendron macrophyllum- Pacific rhododendron
Rosa nutkana- Nootka rose
Tellima grandiflora- fringe cup
Vancouveria hexandra- inside out flower

Edgeland Garden

Arctostaphylos uva ursi- kinnikinnick
Aster sp.- aster
Cornus stolonifera- redbud dogwood
Erigeron speciosus- showy fleabane

Meadow Garden

Achillea millefolium- yarrow
Allium acuminatum- Hooker's onion
Camassia quamash- camas
Lupinus littoralis- seashore lupine
Picea sitchensis- Sitka spruce
Quercus garryana- Garry oak

Montane Garden

Campanula rotundifolia- bluebell
Carex deweyana- Dewey's sedge
Dodecatheon hendersonii- broad-leaved shooting star
Phyllodoce empetrifolia- red mountain heather
Tsuga mertensiana- mountain hemlock
Xerophyllum tenax- bear grass
Vaccinium membranaceum- mountain huckleberry

Subalpine

Abies lasiocarpa- subalpine fir
Abies procera- noble fir
Festuca ovina glauca- blue fescue
Heuchera glabra- smooth alumroot
Penstemon rupicola- rock penstemon
Pinus monticola- western white pine
Potentilla gracilis- graceful cinquefoil
Sedum oregonum- Oregon stonecrop



Kul Kah Han Native Plant Demonstration Gardens

The gardens are sited on ground that is level to gently sloping, and the pathways are mostly wide and flat, making them accessible to those with limited mobility. There is plentiful parking nearby, and a large sheltered picnic area. Adjacent is the woodland strip that surrounds HJ Carroll Park, with sloping trails leading down to Chimacum Creek. Dogs are allowed on leash throughout the park, including Kul Kah Han Gardens. Admission to the park and gardens is free.

Volunteers maintain a small nursery of mostly native plants which are intermittently available for purchase to augment funding for the project. Each spring, during Native Plant Appreciation Week, a special event is held featuring a native plant expert. Live guided tours and other events are also hosted throughout the year. See the website calendar for upcoming events. Additional volunteers are always welcome, with or without previous horticultural or native plant experience. For more information, email Linda Landkammer at wild4nature@isomedia.com.

Directions to the gardens: From Port Townsend, follow SR 20 and then SR 19 south toward Chimacum. About a half mile south of the Ness's Corner intersection, watch for the signs for HJ Carroll Park on the left. After turning in to the park, proceed to the end of the short main drive, then turn right and follow the parking lot to the end, where the demonstration gardens are located. The North Olympic Salmon Coalition keeps its traveling emissary, a gigantic, silvery salmon sculpture named Fin (by Chimacum artist and environmentalist Sara Mall Johani), on a flatbed trailer near the gardens. When he's in town, you will see him as you enter the parking area.

Jo

Study Weekend Fieldtrips

Diversity in Bloom—Botanizing Among the Endemics

The Wenatchee Valley Chapter of the Washington Native Plant Society invites you to join us for a late spring weekend of botanizing in the beautiful Wenatchee area of central Washington. The Wenatchee area is unusual for its diverse landscape, complex geology and varied climate which provide environments that support an incredible diversity of common and endemic plants. There are more than a dozen rare endemics within as many miles of Wenatchee. As a result, the Wenatchee area is a hotbed of rare plants in Washington.

“Study Weekend Central” is the Chelan County Expo Center (fairgrounds) in Cashmere just 11 miles from downtown Wenatchee and 12 miles from Leavenworth.

Details and a registration form are included in this issue of Douglasia, so complete the form, submit by mail and mark your calendars! A good time is planned for all! Registration is limited to the first 150 people.

Tentative schedule:

Friday, June 5

- 3:00 p.m. Registration opens at Event Center inside fairgrounds
- 4:30 –7:00 p.m. Informal social gathering at Event Center w/ snacks
- 4:30-7:00 p.m. Dinner on your own
- 7:30-9:00 p.m. Evening Program: “Endemics of the Wenatchee Area”, Joe Arnett Botanist, Natural Heritage Program

Saturday, June 6

- 7:00 a.m. Breakfast at Event Center dining area and pickup sack lunch
- 9:00 a.m. Field trips depart
- 4:30 pm Social gathering at Event Center w/snacks
- 5:45 pm Dinner at Event Center dining area
- 7:30-9:00 p.m. Geology and Catastrophic Ice-Age Floods of the Wenatchee Valley area, Brent Cunderla, Geologist with the Bureau of Land Management

Sunday, June 7

- 7:00 a.m. Breakfast at Event Center dining area and pickup sack lunch
- 9:00 a.m. Field trips depart

Camping:

Camping with hookups and shower facilities is available adjacent to the fairground main entrance. These sites

cost \$20/ night for one tent or single RV and up to 4 people. Those wishing to share a site need to make their own arrangements. Alcohol is allowed, but is limited to the meeting area or at your campsite. There is no public display or consumption of alcohol allowed.

Other parks are also available and not too far away. These include the county park at Monitor: Wenatchee River County Park (RVs only; 667-7503; 5 miles); Confluence State Park at Wenatchee (509-664-6373; 9 miles)

There are also Forest Service campgrounds in the Leavenworth area. (www.fs.fed.us/r6/wenatchee-river/recreation/campgrounds). The Wenatchee River Ranger District can also be contacted for information (509-548-6977).

Motels:

Several motels have agreed to give reduced rates for our group. All prices listed below, except for the “group rate” motels are subject to change. Prices listed do not include tax. Room availability is on a first come, first served basis.

Moonlight Motor Lodge in north Wenatchee: 509-663-5157 (~8 miles); Rates: ~\$69 one bed and \$89 two beds.

Village Inn in Cashmere: 509-782-3522 (~2 miles); Rates: ~1Bd = \$79 + tax add \$10 for additional bed.

Evergreen Inn in Leavenworth: 509-548-5515 (~8 miles); Rates: 1 Queen = \$89; 2 Queens = \$94.

Wedge Mountain Inn in Dryden: 509-548-6694 (~7 miles); Rates: ~1Queen = \$120; 2 Queens = \$140.

Group rates for WNPS members are available at these Wenatchee locations (mention NAP (Native Plants) or WNPS when making reservations):

Econo Lodge: 1-800-424-6423 for Reservations (509-663-7121) (~11 miles); Rates: 1 Bd = \$70; 2 Bd = \$80.

Value Inn: 800-668-1862 (~10 miles); 1-2people=\$81; 3 people = \$91; 4 people = \$101.

Cedar's Inn: 800-358-2074 (~12 miles), 1-4 people = \$100.

Holiday Inn Express: 509-663-6355 (~10 miles), 1K = \$119; 2Q = \$129.

Chieftain Best Western: 877-203-8585 (~11 miles),

1-2people=\$120; 3 people = \$130; 4 people = \$140.

Comfort Inn: 866-973-7839 (~10 miles), 1-2people=\$120; 3 people = \$130; 4 people = \$140.

June is a busy time of year in the Wenatchee Valley so make reservations ASAP.

Meals:

All meals will be served buffet style in the Expo Center. Food services include snacks on Friday night, a Saturday and Sunday sit down breakfast, and a Saturday sit down evening meal. Sack lunches will also be provided for Saturday and Sunday field trips. All meals will have a standard and vegetarian option. Meals will only be available as a complete package.

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Spend the Weekend Exploring and Hiking in the Wenatchee Valley, June 5-7, 2009

by Terry Lillybridge, Wenatchee Valley Chapter

1. Lake Wenatchee mushroom meanders - Mick Mueller (Sat. 9 am to 4:30 pm)

Take a field trip to Lake Wenatchee during the prime spring fungi season. See numerous species of spring fungi (including morels, we hope!) and discuss the role of fungi in forest ecosystems. Types of fungi, their edibility and toxicity, and their role in enhancing and sustaining forest landscapes and wildlife species will be discussed. The trip will be by auto with several stops and short walks.

2. Tronson Ridge - Laurie Malmquist and Don Knoke (Sat. 9 am to 4:30 pm)

The Tronson Ridge trail is a hike through diverse forested habitats to a ridge-top. Over 180 plant species can be found in the area. The ridge is primarily sandstone with spectacular views and unique habitats. Expect a hike of 3-4 miles and plan accordingly. Elevations range from 2500-5500 feet. The hike starts from the Five-mile Creek Road trailhead. The trail head has limited parking so carpooling is a must.

3. Wedge Mountain - Ted Alway (Sat. 9 am to 4:30 pm)

This extension of the Stuart Range provides wonderful panoramas of the Enchantment Lakes area of the Alpine Lakes Wilderness, the north Cascades, and the Entiat Mountains. Wedge Mountain provides habitat for many lovely wildflowers, including species of *Penstemon*, *Eriogonum* paintbrush, and many more. We'll drive out of Leavenworth up to 3700 feet, then stroll up another 2000 feet over a distance of 2.5 miles to the ridge, passing through a 1994 burn along the way. Some bushwhacking required, as well as tolerance of curious mountain goats.

4. Burch Mountain - Peter Dunwiddie (Sat. 9 am-4:30 pm)

Burch Mountain, just north of Wenatchee, provides an op-

portunity to see regional endemics and also follow green-up since elevations range from around 1000 feet to over 4000 feet. Shrub-steppe is the primary vegetation until the uppermost part of the mountain is reached. Regional endemics include *Delphinium xantholeucum*, *Iliamna longisepala*, *Lewisia tweedyi*, *Petrophyton cinerascens*, and *Penstemon eriantherus* var. *whitedii*. This will be an easy hike of 1-2 miles with a few different road stops. Note: the road is rough but passable with care. High clearance vehicles are preferred.

5. Camas Meadows - Priya Shihani and Therese Ohlson (Sat. 9 am-4:30 pm)

This wet mountain meadow and surrounding conifer forest support a number of unique and common species. This unusual wet meadow and its rare plant species is a designated Natural Area Preserve that has been the focus of many field studies. The surrounding forest supports many more common lower forest-zone plants. Elevation is around 2000 feet. This will be an easy walk through a variety of habitats.

6. Beezley Hills - David Giblin (Sat. 9 am to 4:30 pm)

The Beezley Hills is the northern most range of sagebrush covered hills that are found in the Columbia Basin of Washington. The hills are located north of Quincy and harbor unique and endemic plant species including *Pediocactus nigripinus*, and *Hackelia diffusa* var. *arida*. The elevation ranges from 1800 to 2800 feet. The trip will be by auto with several stops and short walks in sagebrush and lithosol communities.

7. Iron Creek - Dave Wilderman (Sat. 9 am to 4:30 pm)

This is a fairly strenuous hike of approximately 7 miles round-trip and 1300 foot elevation gain. We will start from the Iron Bear trailhead, approximately 2 miles north of Mineral Springs, off of Hwy 97. The trail ascends the Iron Creek valley through open ponderosa pine, Douglas-fir, and grand fir forest, crossing a number of rocky meadows and small streams. Two Wenatchee Mountain endemics, *Lomatium cuspidatum* and *Chaenactis thompsonii* can be seen on the way up, along with many other east-slope Cascade species. From the turn-around point, there's a great view of the Wenatchee Mountains. Check out Don Knoke's species list ("Iron Creek") on the WNPS website—we'll see if we can add to it! Note—the trail is open to bicycles, motorcycles, and horses but in the past, encounters with these have been rare.

8. Swakane Canyon - Joe Arnett (Sat. 9 am-4:30 pm)

Visit the Thompson's Clover Research Natural Area, the shrub-steppe home of the endemic *Trifolium thompsonii*. We expect this beautiful Washington State threatened and federal candidate clover to be flowering! The hike will be up a rocky Forest Service road, at about an 800 foot elevation gain, through beautiful grassland and shrub-steppe with occasional scattered ponderosa pine. Terrific views of the

Study Weekend continued from previous page

Field Trips:

All field trips are scheduled to leave at 9:00 a.m. from the Expo Center and return by 4:30 p.m. Scheduling changes will be posted at the registration table. Sunscreen, rain gear, layered clothing, water and sturdy shoes are recommended for all field trips.



Columbia River await. Hiking distance is approximately 2 miles.

9. Deer Park Springs - Ellen Kuhlmann (Sat., 9 am-4:30 pm)

This natural spring site is within a dry Douglas-fir, ponderosa pine forest. The meadow contains a large population of the endemic Wenatchee larkspur (*Delphinium viridescens*), a Washington State endangered and federal candidate species. Explore this fascinating wetland complex and learn about ponderosa pine fire ecology and effects of past sheep grazing on this rare plant. Hiking is easy.

10. Chumstick Mountain - Pollinators, Butterflies and Plants - Don Rolfs & Rod Clausnitzer (Sat./Sun. 9 am to 4:30 pm)

Chumstick Mountain has one of the highest diversities of butterflies in the Northwest (87 species - 62% of all known in the State!). Butterflies are host plant specific: learn about their interactions with our native plants, as well as how to find and identify these beautiful pollinators. Binoculars, nets, tweezers, and field guide provided. The trip will be by auto with several stops and short walks. NOTE: HIKE LIMITED TO 8 PARTICIPANTS DAILY.

11. Moses Coulee/Rimrock Lake - Charlie Repath and Julie Sanderson (Sat./Sun. 9am- 4:30 pm)

This hike will start at Rimrock Lake located in the heart of Moses Coulee and features sagebrush steppe, scabland salt-grass and wetland habitats. This is a Nature Conservancy Preserve. The spectacular but harsh coulee was carved through basalt by the largest floods known to science, it is a place of deep canyons and hidden wetlands and rocky ridge tops.

12. Badger Mountain (Duffy Creek and Rock Island) - Kevin Kane (Sat./Sun., 9 am-4:30 pm)

Explore the Sagebrush steppe and lithosols, and riparian communities on Badger Mountain. Kevin will emphasize traditional and modern uses of the plants. Badger Mountain is located east of Wenatchee and ranges in elevation from 700-3000 feet. Rock Island grade is a BLM wildflower site. The trip will be by auto with several stops and short walks. Expect spectacular views and easy hiking.

13. Hay Canyon - Susan Ballinger and Jeanne Poirier (Sun. 9 am to 1 pm)

Hay Canyon Ranch, a few miles north of Cashmere, ranges from 2000-4000 feet, offering scenic views and a variety of habitats including shrub-steppe, dry forests, recently burned areas and recovering cultivated lands. Thanks to the generosity of the private land owner, WNPS members have been invited for this one-time tour of the property. The trip will be by auto with several stops and short walks.

14. Sauer Mountain Trail - Peter Dunwiddie (Sun., 9 am-4:30 pm)

The Sauer Mountain Trail is located in Anderson Canyon, just north of Peshastin. This gentle trail begins on private

land (no dogs) and then transitions to Forest Service land. Part way, there is a memorial bench and a sign identifying peaks. At 3 miles there is a great view of Ski Hill basin and the rest of the Wenatchee River valley to Cashmere (lots of peaks, too). It starts in great shrub-steppe (switchbacks) and then goes on to a forested ridge. There is limited parking so car-pooling is a must.

15. Derby Canyon Native Plant Nursery Tour - Ted Alway (Sun. 9 am-1 pm)

Ted is a native plant enthusiast and owner of Derby Canyon Natives nursery in Peshastin where he grows over 120 species of plants, most native to Chelan County. He looks forward to a lively discussion of native plant propagation, their uses in both landscaping and restoration, and touring the nursery and demonstration gardens. Visit the web site www.derby-canyonnatives.com to preview what's growing. There are always many other species not listed that are being grown on a trial basis or for "special customers."

16. Lichen Love- a tryst with non-vascular plants! Jeanne Ponzetti (Sun., 9 am-1 pm)

Are they really plants? Join Jeanne as she provides an introduction to the diverse variety of local lichens. Learn some species and gain an understanding of our local ecosystems from a different perspective. You'll have a chance to look at many vascular plants too. Badger Mountain with its many and varied habitats provides the backdrop for this excursion. This will be an easy foray.

17. Native Plant Photography - John Marshall and a botanist (Sun., 9 am-4:30 pm)

Improve your plant photos with tips from local professional photographer, wildlife biologist, and long-time Native Plant Society supporter, John Marshall (www.johnmarshallphoto.com). Learn and photograph the native plants of dry ponderosa pine, Douglas-fir forests and the rock outcrops of Tumwater canyon. Hiking will be easy to moderate, bring a camera and a tripod (if you have one).

18. Nature Journaling - Heather Wallis Murphy (Sun., 9 am-4:00 pm)

Mountain Home Ridge near Leavenworth will be the backdrop for learning to create beautiful field journals using pen and water color paints with artist and wildlife biologist Heather Wallis Murphy (www.wildtales.com). The field trip site overlooks the Icicle River valley, with beautiful mountain views, and wetland and dry forest habitats. Hikes will be 2 miles for serious journalers and 4 miles for hikers who wish to cover more ground. Please see the classes and events section of Heather's website for a list of supplies (<http://www.wildtales.com/pages/events.html>). Heather will also bring supplies that may be purchased the day of the class or the evening before.



REGISTRATION FORM

**Wenatchee Valley Chapter
WNPS Study Weekend June 5 - 7, 2009
Diversity in Bloom - botanizing among the endemics**

Please complete one form for each person attending

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____ Email _____

Chapter affiliation _____



Penstemon speciosus
PHOTO: Ted Alway

Registration fee & meal package: \$ 120.00 = \$ _____

Includes speakers, facilities, 5 meals, and snacks

Registration only: \$ 50.00 = \$ _____

Includes speakers and facilities

Onsite Camping/RV: \$ 20.00/site/night X ____ night(s) = \$ _____

Includes hookups, flush toilets, and showers
(no fire pits available). One tent or one RV per site.
Does not include registration or meals.

	Total Fees	= \$ _____
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Type of meals: Regular _____ Vegetarian _____

Field trip preference: Saturday 1st choice # _____ 2nd choice # _____ 3rd choice # _____

Sunday 1st choice # _____ 2nd choice # _____ 3rd choice # _____

Note: many of our field trips are limited to 15 people per group

Registration deadline is May 1. \$20 cancellation fee. No refunds after May 16.

Please make checks payable to WNPS. Registration confirmation and an information packet will be sent to your e-mail address within two weeks of registering. To receive confirmation by postal mail, please enclose a self-addressed, stamped legal-sized envelope.

Send your registration to: Wenatchee Chapter WNPS, c/o Susan Ballinger, 2009 Skyline Drive, Wenatchee, WA 98801. Questions regarding registration may be directed to: Susan Ballinger at 509-664-8955; skylinebal@gmail.com or Barbara Kenady-Fish at 509-663-6853; florababs@msn.com

Note: We urge you to get hotel reservations early as there is a cycling event scheduled for the same weekend as the WNPS Study Weekend.

Darlingtonia State Natural Site near Florence, Oregon

by Kathy Murray, *Salal Chapter*

Winter is a time for trip planning and if you're thinking of visiting the Central Oregon Coast, I highly recommend a stop at the Darlingtonia State Natural Site, an 18-acre state park just east of Highway 101 about 5 miles north of Florence. This is Oregon's sole state park devoted to the protection of a plant species.

Darlingtonia californica is a carnivorous plant in the family Sarraceniaceae.

Its most prominent feature is a tall (25–50 cm) hollow



Darlingtonia californica from the boardwalk. PHOTO: KATHY MURRAY

hooded tube (actually part of the leaf) in which insects become trapped. The plants flower in the spring. Each flower has five purple petals surrounded by yellow sepals.

D. californica is sometimes called the California pitcher plant or cobra lily. It is found primarily in northern California and southern Oregon although the US Department of Agriculture Web site shows its range as California to British Columbia. It grows in damp areas—

fens and along cool streams—and likes serpentine soils and areas with heavy metals. The University of Washington Herbarium has 18 records of the plant in Washington but only the most recent has a location (Fred and Ann Weinmann 1999; Summer Lake, Skagit County).

The Darlingtonia State Natural Site offers easy access to the plants via a boardwalk. There is also a picnic area.

Both site access and parking are free.



WNPS Annual Backpack

by Jim Riley

This year's annual WNPS backpack trip will take you to the mountains. Join us for a trip to Copper Creek, in the Okanogan National Forest in the north Cascades. July 17-20, 2009

We will meet at 9:00 am at the Bridge Creek trailhead (parking passes required) on Highway 20 between Rainy and Washington Passes. For a total of a little less than five miles we will hike south on the Pacific Crest

National Scenic Trail and then take the Copper Creek Trail #426 to establish a camp below Copper Pass. From that camp we can explore nearby areas; Copper Point, Copper Lake, Stiletto Lake, the ridge on the north side of Copper Creek and others. The valley of Copper Creek is in the Okanogan N.F. and borders the North Cascades N.P. The Green Trails Stehekin map covers the region except for a short part of our route on the Pacific Crest Trail. Many maps do not show the Copper Creek Trail. For more information **and to sign-up** contact: Jim Riley, Box 458, Randle, WA 98377, e-mail: dalife@juno.com or phone (360) 497-5193.

Highlights of the WNPS State Board Meeting, Fall 2008

by Gary Smith, Secretary, WNPS

The State Board of Directors meeting was held in Seattle on October 18, 2008.

Agenda Item 1: Earth Share

Peg Pearson, WNPS Earth Share representative and Bill Borden, Earth Share executive director presented a history and review of WNPS involvement in Earth Share. The greatest value of WNPS affiliation with Earth Share is the Work Place Giving Campaign where WNPS shares revenues from work place giving, which totaled \$13,000 in 2007. Some of the local big workplace contributors are the state combined fund, King County Employees, REI, Boeing, United Way Option, Microsoft, Regents, and Kitsap County Combined Fund. Earth Share receives 15% of revenues donated as administrative support. Bill Borden asked WNPS Board members to provide names of potential new businesses that he could contact as future Earth Share donors.

Agenda Item 2: Approval of April 12, 2008 State Board Minutes

President Dean Longrie joined the Board. By unanimous vote, the Board approved the April 12, 2008 spring Board meeting minutes.

Agenda Item 3: Executive Board Report

Dean Longrie reviewed actions taken by the Executive Committee: approved support for petition for Federal listing of *Erigonum codium*; approved slate of candidates for election to the WNPS State Board of Directors; approved the Central Puget Sound Chapter's proposal to pledge \$8000 to help fund the Rare Care Program contingent upon sufficient contributions from other sources to continue the Program; and approved Financial Advisory Committee request to reallocate cash to CD and money market accounts.

Agenda Item 4: Elections

By unanimous vote the Board approved the election results returning incumbents Scott Moore and Katrina

Strathmann and welcomed a new member Priya Shahani to the State Board. The Board also passed a motion to investigate the potential option of electronic voting in future elections.

The Board also approved the election of Officers by unanimous vote. The 2008 Officers are: Dean Longrie, President; Walt Lockwood, Vice President; Scott Moore, Treasurer, and Gary Smith, Secretary.

The Board recognized outgoing Vice President Elizabeth Binney for her 6 years service on the Board and presented her with a WNPS vest.

A new Executive Committee was formed for 2008-2009 that includes Dean Longrie, Walt Lockwood, Scott Moore, Terry Lillybridge, and Mark Turner.

Agenda Item 5: Standing Committee Reports

Conservation Committee. John Browne and Mike Marsh, Conservation Committee co-chairs, presented the Committee report. The Board unanimously approved a grazing policy that has been a major undertaking by the Committee. The policy, "Grazing of Domestic Livestock on Public Lands," provides guidance to Federal and State agencies on how they should treat livestock grazing on fragile shrub-steppe ecosystems. The full text of the policy appears in this issue of *Douglasia* and will appear on the WNPS website.

The Conservation Committee also was unanimous in support of a letter to the US Forest Service requesting consultation with WNPS on minimizing visitor impacts on sensitive ferns and native plants that may be affected by the restructuring of the parking lots and trails between the Perry Creek Research Natural Area and Mt. Dickerson trailheads.

Education Committee. Fayla Schwartz, Education Committee chair presented the Committee report. The Education Committee funded three new projects in 2008 which included phase one of the Common Wildflowers of the Wenatchee Foothills webpage, a brochure on the Plants of Old Fort Townsend State Park, and a native plant garden for the Quinault Tribe (senior program).

Research Committee. Pam Camp, Research Committee chair, reported the completion of two funded projects: the Ecology of the Black Lily by Holly Zox and the Garry Oak project by Thomas Maertens of the University of Guelph. A report on the Ecology of the Black Lily by Holly Zox appeared in the fall issue of *Douglasia*. New projects funded in 2008 included: Garry oak communities in the Eastern Cascades, Phylogenetic and

phylogeographic analysis of the *Lupinus lepidus* species complex, Georeferencing Washington's Noxious Weed and Invasive Plant Species Records: an online mapping tool, and Molecular Systematics of the Genus *Allium* in North America Evolution and Endemism.

Editorial Board. Kathy Murray, Editorial Board chair, discussed progress with WNPS' latest Occasional Paper "Lichen Inventory of BLM Lands on the South Shore of Lopez Island" by Fred Rhoades. She also recognized the new managing editor, Cindy Spurgeon and a new layout editor, Sonja Nelson for their contributions.

Following lunch, Mike Marsh presented a monitoring proposal to continue work in the Whiskey Dick Wildlife Area. It was agreed that an additional review of the management and monitoring objectives and methodology would be necessary to complete the proposal.

Agenda Item 6: Budget Report

Scott Moore, State Treasurer, presented the draft Audited Financial Statements for 2007 recently completed by David Bembridge, CPA, and requested Board approval. After review, the Board unanimously approved the draft audit.

Chapter/State cash reserves were summarized. As of the end of 2007, \$131,580.75 resided in Chapter accounts; current cash reserves in the state account were \$7,329.85 as of October 15, 2008 with approximately \$19,000 in accounts receivable. This does not include endowment funds or temporarily restricted funds in state accounts.

The WNPS Endowment Fund currently is \$73,097.35. Fred Weinmann presented the Financial Advisory Committee plan to get the Endowment Fund over \$100,000 in 2009 through a Chapter Match Endowment Fund Drive. The plan would establish WNPS funding for soliciting matching funds. The original idea behind the endowment was to use up to 5% of the interest earned from the endowment to fund education, research and conservation grants.

A status quo State budget of \$127,500 for FY2009, as amended, was unanimously approved by the Board.

Agenda Item 7: Chapter Reports

Northeast Chapter: Grant Cummings reported the chapter used proceeds from the Study Weekend to award three research fellowships. One went to a student at Eastern Washington University and two to students at Gonzaga University. The Gonzaga students are studying

a fungus that infects cheatgrass. The EWU student is researching the expected impacts of dam removal (Elwah River Ecology).

Olympic Peninsula Chapter: Wendy McClure stated the chapter conducted monthly programs and workshops with its core groups in Port Townsend. Assistance was provided in the Kai Tai Prairie controlled burn and continued Garry oak restoration at Point Wilson at the Washington State Department of Transportation project site near Sequim.

The chapter also led field trips in support of Botany Washington coordinated by Fred Weinmann.

Walla Walla Subchapter: Laura Maier reported the Walla Walla Subchapter is a subchapter of the Columbia Basin Chapter. The subchapter coordinates with local conservation groups. With \$8000 in grant funding, the subchapter is preparing a field guide to native plants for their area.

Wenatchee Valley Chapter: Julie Sanderson said their chapter sponsors hikes, and in partnership with other local conservation groups maintains a window downtown called the Conservation Corner.

The chapter continues to struggle with low membership but has agreed to co-host Study Weekend in 2009.

Central Puget Sound Chapter: Brianne Cohen stated the current chapter focus is on increasing membership and filling vacant Board positions. Successful plant sales provide a healthy budget but volunteer help to continue the plant sales remains a challenge. The chapter shares a staff position with the WNPS State office that works on member engagement and a part-time intern is being recruited to assist the chapter with expanding chapter outreach activities.

Koma Kulshan Chapter: Mark Turner said the chapter is very active and holds an annual plant sale each spring in conjunction with the Flora and Backyard Habitat Fair sponsored by Bellingham Parks. The chapter is exploring projects to fund and is looking at ways to involve and engage younger people. Koma Kulshan also works with local conservation groups.

South Sound Chapter: Reba Olsen reported the chapter offers monthly programs in both Tacoma and Olympia. The chapter will conduct a Natural Areas Stewardship Training in 2009 funded by the Greater Tacoma Community Foundation (Pierce Conservation District Funds). The program will follow the WNPS Native Plant Stewardship curriculum coordinated by Anna Thurston and the funding will be administered by WNPS.

Central Washington Chapter: Katrina Strathmann reported the chapter schedules summer field trips and holds monthly meetings in either Ellensburg or Yakima. The chapter would like to continue their partnership with the Yakima Valley Community College in hosting guest speakers to expose students to biology and science that is normally not taught in the classroom, such as shrub-steppe ecology and sage grouse biology. A talk on David Douglas is planned.

WNPS State Education Committee provided funds for Dr. Eugene Hunn to speak at CWU about ethnobotany. He gave a lecture on a Saturday and led a hike in the Wild Horse area.

Suksdorfia Chapter: Dean Longrie said the chapter continues to hold regular meetings and field trips and they are looking at some Garry oak projects.

Okanogan Chapter: Joyce Bergen reported the chapter led a number of field trips and initiated two new programs. The Naturally Beautiful Roadsides program identified a small site on a state highway on which to plant native plants and reached an agreement with WSDOT to prohibit herbicide use on the site. The site will be monitored and documented to encourage others to extend

the program to other roadside sites.

The second new program is the Autumn Native Plant Seed Exchange where members collect and exchange seeds or use them in the roadside project.

Agenda Item 8: Guidance to Chapters

An Ad Hoc Committee was asked to develop guidance to chapters and reported on four issues: payment to field trip leaders or speakers at WNPS Study Weekends; sale of items by other organizations at WNPS events; requiring honoraria/payment to chapters or individuals for WNPS volunteer talks on native plants/native plant gardening, to groups or organizations; and the issue of professional referrals. After much deliberation, the Board determined that State guidelines were not warranted and that chapters should have discretion to apply their own judgment.

Agenda Item 9: Strategic Plan 2003-2009

The Board received a summary of accomplishments for six Strategic Plan goals established 2003. The Board agreed to a recommendation by Fred Weinmann to add a day to the Board's spring meeting to review current progress and decide on the direction for the next two years and continue the process on a biennial schedule.

Agenda Item 10: Board Meeting Dates for 2009

The Board established April 4th and 5th tentatively for the spring business meeting and October 17th for the fall business meeting.

Agenda Item 11: 2009 Events

Natural Areas Conference, Vancouver, WA, Sept. 15-18, 2009

SERNW Regional Conference, Lynnwood, WA May 19-22, 2009

WNPS Study Weekend, Wenatchee, WA, June 5-7, 2009

Botany Washington, to be announced

Native Plant Appreciation Week, statewide, May 3-9, 2009

For the complete minutes of the WNPS State Board

JS



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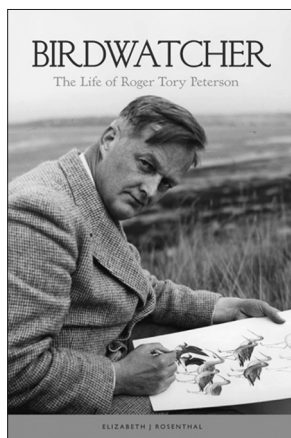
Birdwatcher: The Life of Roger Tory Peterson

By Elizabeth J. Rosenthal

Lyons Press Publishing, Guilford, Connecticut, 2008

Reviewed by Fred Weinmann, Olympic Peninsula Chapter

Roger Tory Peterson (RTP) is an icon among icons. Not only because he wrote birding guide books (including personally creating all the text and paintings), and is generally considered the “inventor” of the modern field guide; but because he was a leader among leaders in the teaching of natural history and the development of a conservation ethic in the 20th century. His life and work spans the period from the beginning of modern natural history field guides, through the revolution created by Rachel Carson’s *Silent Spring* and into the modern environmental movement which is based largely on legislation of the 1970s. Among all this, RTP is the 20th century’s most prolific and best known author about, and painter of, birds.



RTP was interested and accomplished in multiple aspects of natural history. His second most intense interest was butterflies, and this interest provides a great Pacific Northwest connection. Lepidopterist Robert Michael Pyle (also Washington’s guru of natural history writing) met RTP on several occasions and was impressed by his interest in talking about butterflies rather than birds. This is most clearly revealed by Rosenthal through the quotes she obtained from Pyle. Even so, RTP never authored a guidebook on butterflies, but he did write a book about plants.

RTP was an accomplished botanist and authored what is still the best known guide to wildflowers of the northeastern United States. The title was simply, *Field Guide to Wildflowers*, and its geographic coverage included the US from Virginia north to Canada and east to Minnesota and Missouri. RTP’s wildflower book was

first published in 1968. He not only co-authored the text but prepared all the drawings. Along with its companion volume, *A Field Guide to Trees and Shrubs* authored by George Petrides, edited by RTP and published in 1958, it became the standard plant guide for the region of its coverage. These two volumes are to the northeast United States what Pojar and MacKinnon’s, *Plants of the Pacific Northwest Coast*, is to our area.

The *Field Guide to Wildflowers* provides another northwest connection. RTP’s co-author for the book is Margaret McKenny. McKenny lived much of her life here in the northwest and was one of the most accomplished naturalists of our area. She became deeply intrigued with the study of mushrooms and eventually co-authored with Daniel Stuntz (perhaps the most famous mycologist to work in the northwest--on a par with C.L. Hitchcock’s fame for vascular plants) a classic northwest mushroom book called *The Savory Wild Mushroom*. McKenny worked with the best for her co-authors!

Rosenthal takes us from start to finish through the characteristics and accomplishments which comprise the life of RTP. In so doing her book provides us a view into a slice of history regarding natural history guidebooks, the conservation movement, and the study of birds in the United States. RTP was famous, respected, and accomplished in all these areas, and anybody who reads this book is certain to learn something about each of these topics.

It is no surprise that when not writing about, talking about, or painting birds, RTP was watching birds. He set a new North American birding big year record along with his closest friend, James Bishop. As a botanical aside, the competitive side of natural history as manifested by constructing species lists was not new to RTP with his birding “big year.” When still a teenager he, along with schoolmate and friend, Clarence Beal, did a botanical “big day” where they identified 240 species of plants. When he tired of painting or writing about birds he would pick up his cameras and take pictures of birds. It may have been his greatest passion as evidenced by an accumulation of over 1,000,000 slides.

The breadth of insights regarding the essential character of RTP is greatly expanded by Rosenthal’s extensive use of quoted material from over 100 interviews. These quotes are the sine qua non of the book much like the photographs are often the centerpiece of a plant field guide. The list of interviewees reads like a list of the top 100 birders and naturalists of our time. Rosenthal provides the context for the quotes and then includes enough of the actual

language of the person being quoted to give the reader some in depth insight about RTP, as he is viewed by both his peers and the generation of naturalists that followed.

The writing in the book is clear and accessible. It is straightforward chronologically with a few flashbacks infused for clarification and reminders. While the extensive use of quotations could cause the text to be chopped up a bit, Rosenthal does a good job of splicing them into the flow of the subject; and they clearly add robustness to the facts and insights of the author. A helpful addition would have been a list of RTP publications along with the dates of their various editions. This would not only be factually informative but would also reveal the massive extent of his work when one considers that he did the painting, illustrating and writing.

Other Roger Tory Peterson biographies have been published, even quite recently, but you won't go wrong with the Elizabeth Rosenthal book. It includes the whole story and will be a valuable reference. Her book explains the connections between the most famous old-timer (also referred to by some as The Great Man) and the names and work of current natural historians. Rosenthal's biography of RTP was published by The Lyons Press, 2008.

As an additional item of information, there was also published in 2008 a new field guide to commemorate the 100th birthday of Roger Tory Peterson. It is titled *Field Guide to Birds of North America* and combines the information from eastern and western field guides.



Plant Lists Available Online

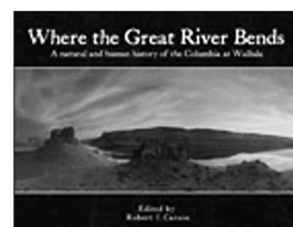
Before you set out on your next hike, check out the "Native Plant Lists" link at the WNPS web site www.wnps.org. Here you'll find plant lists from more than 500 sites throughout the state, compiled by some of the most respected names in Washington botany. Updates will be done once a year and members are invited to contribute their own lists. If you have suggestions about the plants lists or would like to contribute a plant list, please contact Don Knoke at donknoke@yahoo.com.

Where the Great River Bends: A natural and human history of the Columbia at Wallula

By Robert J. Carson, Editor,
Keokee Co. Publishing, Inc., Sandpoint, Idaho, 2008

*Reviewed by By Laura Maier, Walla Walla
Subchapter of Columbia Basin Chapter*

Where the Great River Bends, edited by Bob Carson, Professor of Geology and Environmental Studies at Whitman College, portrays the natural and human history of Wallula Gap. The book includes chapters by local experts on biology, archeology, and pre-history, and features an amazing collection of photographs showing aspects of the Gap at present and in historical times. The aerial photographs give an added dimension to the understanding of the area. The explanations of the geology of the Horse Heaven Hills and the record of human history of the river at the Gap provide a grand setting for the natural life of the area. With its many maps and diagrams, this illustrated book is a great companion for those who travel through or live in the area.



Of particular interest is Mike Denny's chapter "Biology, Seasons in the Sun." Mike begins by describing changes to the natural environment of the Wallula Gap area beginning as early as 1776. He discusses the introduction of cheatgrass, Russian thistle, carp, chukar, Russian wheat aphid, yellow sack spider, California quail, yellow star thistle, European starlings and Chinese ring-neck pheasants, and the effect of these introductions on native species. As these invasive species have increased, so has the list of endangered native plants and animals. In some cases, native species have become extinct in the Gap area. Mike's writing makes you feel as if you are there, watching a bird and feeling the wind.

The natural history focus of the book, *Where the Great River Bends*, fits the National Natural Landmark precepts that a site must be one of the best examples of a type of biotic community or geologic feature in its biophysiographic province. However, from my point of view, the National Landmark Program needs to offer more protection for a site. The N.L. Program does not place any land use restrictions on property as a direct result of federal designations. It only encourages the voluntary,

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Washington Native Plant Society Policy on Grazing of Domestic Livestock on Public Lands

Adopted: October 18, 2008

Purpose

The primary purpose of this policy is to protect native plant species and their ecosystems by supporting appropriate grazing management practices on appropriate sites. WNPS seeks to collaborate with public and private land managers in order to promote grazing practices that are least harmful to native ecosystems and plant populations. The WNPS believes that native habitats that appear to be intact should be managed to support dynamic native plant and wildlife populations into perpetuity.

Policy Statement

- The WNPS recognizes that livestock grazing can be a valid use of public lands. However, grazing, like many other land uses, has potential adverse effects.
- The WNPS recognizes that responses to the effects of domestic livestock grazing are specific to ecological conditions and vegetation types.
- The WNPS would support livestock grazing on public lands in cases where a funded site-specific management plan, based on the best available science, is expected to protect native habitats and native flora.
- The WNPS opposes grazing use where native plant communities will be degraded, with a long-term reduction in natural biodiversity.
- The WNPS does not support the initiation of domestic livestock grazing on previously ungrazed habitats, particularly shrub-steppe and Garry oak habitats.
- The WNPS favors a public policy that will reduce the adverse impact of grazing, particularly in shrub-steppe and Garry oak communities, on public lands in Washington state.

Background

Botanists, plant ecologists and others concerned about native plants are interested in the whole suite of vascular plants, as well as the mosses, lichens, fungi and algae, which complete the biological setting that other organisms inhabit and use. Ecosystems have evolved with complex interrelationships between the plants and animals in them. In the northwest, plants evolved without large populations of ungulates; as a result, native plants in the region are more sensitive to domestic livestock grazing than native habitats where large ungulates were historically present, such as bison in the North American great plains. Livestock grazing has a multitude of effects

Where the Great River Bends continued from previous page

long-term commitment of public and private owners to protect an area's outstanding values.

The Wallula Gap Road Log is a treasure of information and a joint undertaking of Bob Carson and Mike Denny. You can hear the voices of both of them on page 184.

"Spring Gulch ... is named for a few small springs issuing from basalts exposed on the valley floor and in side canyons. Water flows rarely in the intermittent stream along the valley axis. If it is a sunny morning, stop to listen for lazuli buntings singing in the golden currants over against the talus slope. In spring watch for the common ravens and white throated swifts. In fall and winter, scan the river for common loons."

For anyone who wants to become more familiar with the plants of the area, an excellent explanation of the intricacies of life for shrub steppe plants can be found in the Bureau

of Land Management publication *Watchable Wildflowers* of which Pam Camp is the principal author and editor. The Carson book lacks adequate plant records, although you will find intriguing photographs. One checklist provided in the BLM book, *Watchable Wildflowers*, is for the Horse Heaven Hills and includes plants for the Wallula Gap area, only ten miles away, as the eagle flies. This checklist for native plants includes both the common names as used in Ron Taylor's *Sagebrush Country* and Latin names following *Flora of the Pacific Northwest*, by Hitchcock and Cronquist. Enjoy the photographs in the Carson book of the field of *Phacelia* (pg. 88), the ancient western juniper (pg. 181), and the sand dock growing beneath the Twin Sisters (pg. 37) and then find your own specialties when you visit Wallula Gap.



on native ecosystems, and potential negative effects can severely alter habitats, which are difficult to restore to natural conditions.

Areas with extensive and intensive, poorly managed grazing are widespread on public lands in Washington state. Poor management is often the result of grazing on lands that are sensitive; where funds are not available to either monitor for or mitigate damage; and/or where grazing is allowed due to improper administrative or political motivation. Poor range management techniques can have negative effects on natural resources such as native plants and plant communities, pollinators, wildlife, and water and soils.

Less than 15% of the shrub steppe community is still biologically intact in Washington. (Noss et al. 1995) Garry oak communities are of limited extent and also highly altered. Current native plant communities in eastern Washington did not evolve with the continual levels of grazing pressure and the presence of noxious and non-native invasive species.

The tradeoff between benefits and costs of grazing on public lands has long been an issue with WNPS members, public land managers and the public at large. Public land managers (both state and federal), charged with increasing revenues from public lands, have often used grazing as another source of income from the lands they manage. WNPS members have been concerned that the short term monetary gain from grazing may not justify the potential long-term negative effects to native plants and habitats or cover the potential increased cost of future management.

The WNPS recognizes the shared goals of ranchers and the WNPS to preserve natural open spaces, which contrast with the economic conditions driving natural open space loss through conversion for housing, agriculture or energy development. In many cases, grazing may be a better land use than others with greater impact, such as development, that can result in permanent loss of wildlands.

Issues and Concerns

Grazing is not compatible with biological resources on all sites. Some sites are less resilient to disturbance or may harbor sensitive species.

Grazing can increase the distribution of invasive plant populations. Grazing may also contribute to the risk of wildfire through plant community changes towards a more flammable system.

Use of grazing for weed control may have adverse impacts on residual native plants. In sites with both native

and non-native species present, native species are usually preferred forage by livestock.

In many cases, the long-term increased economic costs of weed control, soil loss, water degradation and loss of biological integrity is much higher than the short term economic benefit of grazing.

Monitoring and adaptive management practices are needed for grazed sites, but are frequently not implemented due to limited funding.

Adequate funding should be available when grazing is implemented on public lands. Inadequate funding can prevent implementation of good management practices and of adequate monitoring and review.

The long-term cumulative effect of grazing practices are difficult to evaluate and quantify, such as reduction in natural biodiversity or the loss of native flora, because of the numerous disturbance factors present in the Columbia Basin over the past 100 years. However, current and historic grazing practices contribute to ecological impacts.

On state and federal lands, inadequate required environmental review (NEPA/SEPA project analysis), out of date policies, lack of management plans and inadequate reviews, feedback and follow through of those plans, may not provide adequate protection of threatened, rare or endangered plant species and other natural resources.

The regulatory mechanism to reduce the amount of grazing on an allotment, or to close vacant and unused allotments, is not in place or applied.

Recommendations

The WNPS:

- Recommends development of formal decision-making criteria for, and the application of, appropriate grazing practices based on ecological conditions, such as the specific ecosystem and site grazing history.
- Recommends that previously ungrazed lands determined to be in excellent condition, are not grazed in the future. This is particularly important for shrub-steppe and Garry oak habitats because of their limited extent.
- Recommends that sensitive ecological areas (such as riparian areas, wetlands, or rare plant habitats) are protected using appropriate practices (such as exclosures, managed intensity, duration and timing, or movement of animals).
- Recommends that grazing practices allow for flowering and sexual reproduction to provide for long-term viability of native plants.

- Recognizes that management decisions must be made to accommodate political or economic realities (such as human communities or land acquisition opportunities). With this in mind, the WNPS recommends the development of decision-making criteria for a grazing regime that accommodates political necessities, while affording the highest possible protection to native plants and their habitats.
- Recommends that use of grazing for weed control should be applied carefully and monitored to preserve native plants and habitats. Use of grazing to control weeds may be most appropriate in permanently altered, non-native communities. Plant communities that have experienced significant alteration, such as invasion by exotic plants, should be managed where possible, to return them to a more natural state.
- Recommends to the extent possible, restoration to a more natural state, or rehabilitation to a more productive state, of significantly altered plant communities. Adequate monitoring followed by adaptive management may prevent the need for restoration or rehabilitation.
- Recommends a system of consistent monitoring and review that allows the grazing regime to be altered when necessary.
- Recommends that agencies build a system that provides adequate funding for all appropriate grazing management and monitoring practices. Hidden costs that can be barriers to appropriate management, and which should be included in funding plans, include mandated environmental compliance (NEPA/SEPA), monitoring, fencing, and weed control.
- Recommends that the costs and benefits of grazing should include both the return from grazing and the long-term costs of weed control, soil loss, water degradation, developing water sources, and loss of biological integrity. Short-term monetary return of grazing should not be the only consideration.
- Recommends that the availability of water for both grazing and ecological needs, particularly during drought-year scenarios, should be considered.
- Recommends that federal agencies cancel permits and make inactive those active allotments that are unused, with the intent of eventual closure and cancellation.

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University of Washington Herbarium's 2008 Field Season

by David Giblin, University of Washington
Herbarium (WTU), Burke Museum

2008 was a year of several “firsts” and “mosts” for the University of Washington Herbarium (WTU) at the Burke Museum. We undertook the most number of collecting trips in one year (17); the Annual Herbarium Foray was held in Montana for the first time ever, supported by the largest number of participants to date (29), and resulted in the most number of specimens on a Foray so far (750). We also made our first-ever expedition to the Pasayten Wilderness, a remote and largely uncollected backcountry area along the Canadian border in north central Washington. Finally, Lincoln County was our destination for an extensive collecting trip for the first time since J.W. Thompson did so in 1935.



Chionophila tweedyi from Herbarium Foray to Montana. PHOTO: R. OLMSTEAD



Taking lunch at bus stop along the Columbia River in April. PHOTO: J. ARNETT

We also continued several multi-year projects that included surveys of small islands in the San Juan Archipelago and of North Cascades National Park, and our ongoing efforts to document the diversity and distribution of Washington's aquatic flora. Of course we got to see a lot of great plants along the way, but more importantly, we were joined in the field by a tremendous number of professional and amateur botanists, whose

support and eyes for plants is so vital to our work. There is not enough space to include write-ups for all of the trips, so here is a sampler from the various corners of Washington that we visited, along with our trip “out East” to Montana.

San Juan Islands surveys, San Juan County (April, May, Sept) - My field season began and ended with this project, which The Nature Conservancy's Peter Dunwiddie and I have been working on since 2005. This April was one of the coldest, latest springs in memory, but we still had a very productive early season outing that targeted the string of small islands around Sucia and Matia (north of Orcas Island). The two most exciting finds were our first collections of *Valeriana scouleri* (Scouler's

valerian), and the largest populations *Myosurus minimus* (tiny mousetail) that we've seen in the Islands. In May, we located a new population of *Sanicula arctopoides* (footsteps of spring), a species that appears to be disappearing rapidly from coastal habitat in Washington. In September, we collected three species that we had not seen on our surveys to date: *Perideridia gairdneri* (Gairdner's yampah), *Asplenium trichomanes* ssp. *trichomanes* (maiden spleenwort), and *Woodsia scopulina* (cliff fern). Peter and I have visited nearly 80 small islands to date on this project, so we are always amazed when we come across species that we haven't yet seen in our surveys. We are grateful to all of the 2008 participants: Phil Green (Yellow Island Caretaker and project Boat Captain), Joe Arnett, Erica Nees, Megan Jensen, Pam Camp, Janneke Hille-Riis Lambers, Eliza Habegger, Thor Hanson, Carrie Marschner, Jim Kling, Steve Hahn, Amy Dearborn, and Veronica Wisniewski.

Douglas Creek Canyon, Douglas County (May) –

Just north of Beezley Hills and along the western edge of Moses Coulee lies Douglas Creek Canyon. It is gorgeous basalt rimrock country where the north-facing slopes of the canyon are covered in largely native vegetation (south-facing slopes in rimrock country tend to be drier, so often have more cover by non-native cheatgrass (*Bromus tectorum*)). Pam Camp of the Bureau of Land Management provided us with the necessary directions and permits, and WTU's Megan Jensen and I collected there for two days in mid-May. Despite unseasonably cool and wet conditions on the second day, we gathered nearly 150 specimens, many of which were new records for WTU's holdings of plants from Douglas County. Plant diversity is high in this habitat, as evidenced by the four species of *Crepis* (hawksbeard), five species of *Lomatium* (biscuitroot), and three species of *Eriogonum* (buckwheat) that we collected. Among the plants that I do not often get to see were the tiny but showy yellow annual *Camissonia hilgardii* (Hilgard's suncup) and *Schoenocrambe linifolia* (flaxleaved plainsmustard).

Oak Creek Canyon, Yakima County (June) –

Over the years I have been very fortunate to make numerous collecting trips with Don Knoke. I've come to know that Don packs very efficiently for outings, but he looked to be traveling especially light the June morning that I pulled into his driveway for a planned two-day trip to Oak Creek Canyon. Well, planned in my mind at least, as apparently I forgot to include the "two-day" detail during our email exchanges. Always unflappable, Don threw together his camping gear and food supplies in about 15 minutes and we headed south where the Tieton and Naches rivers meet west of Yakima. The upper reaches of the canyon had recently come out from snow cover, while the lower canyon was in full late-spring bloom with things like *Astragalus reventiformis* (Yakima milk-vetch), *Nothocalais troximoides* (false agoseris), the easily overlooked *Antennaria dimorpha* (cushion pussytoes), and large patches of *Allium acuminatum* (taper-tip onion). Perhaps the only disappointing aspect of the trip was making specimens from large patches of *Chorispora*

tenella (blue mustard). This non-native annual is quickly spreading and becoming invasive in some areas east of the Cascades. We made nearly 150 collections on the trip, and I passed a new dusting of snow at Snoqualmie Pass, which explained why I needed a wool hat in low elevation Yakima County the day before!

13th Annual Herbarium Foray, Montana (July) –

For the first time ever, the 2008 Annual Herbarium Foray was held in western Montana. We have very few contemporary collections from this area, which represents the eastern edge of the geographic range circumscribed in "Flora of the Pacific Northwest." The specific location and dates of the trip were intentionally planned to have us in the same area from which Leo Hitchcock and Clarence Muhlick collected back in 1946, some 62 years ago! Our center of operations was the Bitterroot Flat campground in Lolo National Forest, which is about 25 bumpy, dusty, gravel-road miles south of Interstate 90 as it heads east from Missoula. An unusually wet spring made for atypically lush conditions according to Jim Mital from the U.S. Forest Service, who is to be thanked for all of his help with the permits needed.



Steve Hahn carrying presses in the backcountry, North Cascades National Park.
PHOTO: B. RENAUD



Bundling supplies for packhorses to carry into Pasayten Wilderness.
PHOTO: D. GIBLIN

The habitats we collected varied among subalpine, lodgepole pine understory, open grasslands, riparian zones, and mesic meadows. The group size was the largest ever, 29, which explains why we made the most collections on a Foray to date – about 750. Among the many interesting finds were *Chionophila tweedyi*, a penstemon-like member of the Scrophulariaceae (sensu lato) whose distribution is restricted to Montana, and *Geum rivale* (water avens), a plant with brilliant red sepals considered rare in Washington but fairly common out there. *Galium boreale* (northern bedstraw) was abundant in the forest understory, and *Festuca idahoense* (Idaho fescue) dominated many of the grassy slopes. Participants in the 2008 Foray were Robert Goff, Doug Williams, Suzanne Anderson, Dick and Sheila Olmstead, Julia Gertsen, Hannah Marx, Hanhla Phan, Julia Bent, Brianne Cohen, Caroline Stromberg, Julie Nicol, Dan Paquette, Tracy, Ryan, and John Fuentes, Alan Yen, Jeff Benca, David Giblin, Don Knoke, Maria Gerace, Ryan Miller, Yuan Yawou, Valerie Soza, Pat Lu-Irving, Luke Ledwich, Howard Coleman, Jim Rodman, Scott Mincemoyer and Peter Lesica.

Pasayten Wilderness, Okanogan County (August) – Methow Ranger District Botanist Therese Ohlson and I had been trying to organize a joint collecting trip to the Pasayten Wilderness since 2004, and this year it finally came to pass. The Pasayten lies to the east of North Cascades National Park along the Canadian border, and due to its remote location has received very little collecting activity. This is an unfortunate situation considering the number of known rare species in this area. Therese invited Dana Visali and I invited Joe Arnett to join us for the expedition, and the four of us made the 17-mile trek from Andrews Creek trailhead to Spanish Camp by horseback (a long way to go for only my second time on a horse!). Once there, we spent four days collecting on and between peaks named Amphitheater, Cathedral, Bald, and Rimmel. The species diversity was high and contained lots of alpine species such as *Polemonium viscosum* (skypilot), *Potentilla nivea* (snow cinquefoil), *Smelowskia calycina* (alpine smelowskia), and *Rhodiola integrifolia* ssp. *integrifolia* (roseroot). Seeing fields full of the small but showy *Gentiana glauca* (glaucous gentian) was one of the highlights of the trip. We made approximately 350 collections during the trip, which dramatically expanded the number and the taxonomic breadth of WTU's holdings from this remote area of Washington.

Columbia River, Wahkiakum County (September) – Cathy Maxwell, author of "Vascular flora of the Willapa Hills and Lower Columbia River area of Southwest Washington," was kind enough to host Joe Arnett and

me for two days of collecting on and around the lower Columbia River. This trip was part of my ongoing work with the aquatic flora, and the focus was plants found in the freshwater intertidal zone. This habitat occurs where large rivers meet the sea. The heavier, denser salt water intrudes below the freshwater, and causes it to rise and fall in conjunction with the tides. Unfortunately, much of this habitat in Washington has been largely destroyed due to land conversion to residential or agricultural development.

Nevertheless, freshwater intertidal habitat does occur on the islands in the Columbia River offshore from the town of Cathlamet. Many of these islands form part of the U.S. Fish and Wildlife Service's Julia Butler Hansen National Wildlife Refuge for Columbian white-tailed deer. Charlie Stenvall and Joel David from USFWS provided us with both permitting and boat transport, respectively, and another excellent botanist from the area, Kathleen Sayce, also joined us. We spent a day collecting on islands of sand that resulted from a mix of natural and man-made (dredging) activities. Some of the neat things that we found were *Limosella aquatica* (awl-leaf mudwort), *Hydrocotyle ranunculooides* (floating marsh-pennywort), and *Crassula aquatica* (water pygmy weed). *Deschampsia cespitosa* (tufted hair grass) is probably the most common grass in the intertidal zone, a species of *Corispermum* (bugseed) most abundant on the sands, and *Mimulus ringens* (Allegheny monkeyflower from eastern North America) was by far the most unusual and showy non-native species that we encountered. In all, we made about 175 collections over sites ranging from islands, to river and stream shorelines, to brackish estuaries.

The Pacific Northwest in general, and Washington in particular, are wonderful places to explore botanically because of their diverse landscapes and plants. Floras at both the regional and the state levels are dynamic, meaning that some new plants come and some resident plants disappear with time. One way to track this dynamism is by collecting a lot of plants from a lot of different places. With the help of so many great people this past year, we were able to do that. Currently, there are a number of other people who are now entering these specimens into our database so that they are available online at WTU's Web site: (<http://biology.burke.washington.edu/herbarium/collections/vascular/search.php>). Special thanks go to the supporters of the Herbarium Endowment and Friends of the Herbarium funds, which make these trips possible. Hopefully, in 2009 we will continue to be similarly productive in our efforts to generate and disseminate knowledge about the flora of the Pacific Northwest.



A Look at Washington's Rare Plants: Whited's Penstemon (*Penstemon eriantherus* var. *whitedii*)

Washington State Sensitive Species

by Sarah Baker, Rare Care Volunteer

Four species of *Penstemon* are classified as rare in Washington. In the past several years, Rare Care volunteers Sarah Baker, Julie Bresnan and Julie Sanderson have monitored and found five occurrences of *P. eriantherus* var. *whitedii*, Betty Swift and Hally Swift monitored and found one occurrence of *P. barrettiae*, and David Biek monitored and found two occurrences of *P. deustus* var. *variabilis*. Rare Care has not monitored *P. wilcoxii*. This is third in a series by Rare Care featuring Washington's rare plants.

As a long-time *Penstemon* admirer, I was excited to search for a population of the rare Whited's penstemon (*Penstemon eriantherus* var. *whitedii*) in central Washington. Plus, its location in the hills near Lake Chelan provided an excuse to camp at the lake. Summer temperatures make a camp near water desirable indeed!

With an impressive 270 or more species, *Penstemon* is the largest genus of flowering plants endemic to North America. Found only in central Washington, Whited's

penstemon grows in canyons and dry, open places from the low plains to moderate elevations in the foothills. Four varieties of the species exist: *whitedii*, *eriantherus*, *argillosus*, and *redactus*; however, only varieties *whitedii* and *eriantherus* occur in Washington. With only about 15 occurrences of the taxon documented, *whitedii*'s distribution in Washington is quite limited.

Multi-stemmed, somewhat hairy, and about a foot in height, Whited's penstemon produces attractive light blue to orchid colored flowers in the spring. Though the plants I found were mostly past flower in late summer, they stood

out prominently on the hillside of bare soil and sparse bunch grass. Whited's penstemon is also found in bitterbrush/Indian ricegrass (*Purshia tridentata*/*Oryzopsis hymenoides*) and purple sage/wheatgrass (*Salvia dorrii*/*Agropyron spicatum*) communities. However, the plants seemed equally happy to grow on the eroding cut bank of the roadside I walked in on. My only complaint was that I kept finding more of them there on my way back to the car. Though soaked in sweat and out of water, as a Rare Care volunteer I still stopped and took a look. Other populations of Whited's penstemon are threatened by grazing or off-road vehicles. For the moment, however, these plants seemed to be quite content growing where I found them.



This *Penstemon eriantherus* var. *whitedii*, distinguished by its relatively large corolla and a staminode bearded for most of its length, grows in an opening in ponderosa pine/*Purshia tridentata* habitat on a steep, dry slope in Chelan County. PHOTO: JULIE SANDERSON.

Learn more about conserving Washington's rare plants and the Rare Care Program at: <http://www.depts.washington.edu/rarecare/>. For more information on volunteering with Rare Care or to receive our semi-annual newsletter, e-mail us at rarecare@u.washington.edu or call 206-616-0780.



2009 Washington State Noxious Weed List

By Jane Wentworth, Central Puget Sound Chapter

There are new noxious weeds to be on the lookout for in the new year. Three new Class A noxious weeds have been added to the state weed list:

<i>Geranium lucidum</i>	shiny geranium
<i>Brachypodium sylvaticum</i>	false brome
<i>Butomus umbellatus</i>	flowering rush

Spartina alterniflora, smooth cordgrass, has been elevated from a Class B noxious weed to Class A. Class A noxious weeds are generally very limited in distribution and are of the highest priority for eradication. The change in the status of *S. alterniflora* is a result of the highly successful control efforts that have been underway in Washington.

Two very familiar invasive weeds have been added to the state weed list as Class C noxious weeds—Himalayan and evergreen blackberry (*Rubus armeniacus*, and *R. laciniatus*). Class C noxious weeds are generally more widely distributed and priorities for control of these species rest at the local weed board level. Both blackberry species were added to the state weed list in order to provide more incentive for, and to facilitate their control, especially in critical areas.

The Washington State Noxious Weed Control Board relies on the State Weed Committee for advice on which species to include on the weed list each year. The committee seeks input from local weed boards, agencies and interested individuals between April and November. We are fortunate to have had Catherine Hovanic serve as the WNPS representative on the advisory committee for many years. Thank you Catherine. I recently accepted the role and hope I can follow in Catherine's footsteps in representing WNPS. I welcome your input.

For more information and photographs about the newly listed, and any other noxious weeds in Washington, please go the State Weed Board's website at <http://www.nwcb.wa.gov/>

Jo

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How to sign up: Email wnps@wnps.org and ask Catherine Hovanic to be added to the list. You must be a current WNPS member. Catherine will forward your request to our list provider who will add you to the list and email you with instructions for posting and unsubscribing.

Information for Contributors

Members and others are invited to submit material for publication in *Douglasia*. Articles, book reviews, poetry, photography or illustrations are welcome. All materials submitted should relate to the study of Washington's native plants. Acceptance will be based on space and appropriateness, and materials are subject to copyediting (substantive editing with author's permission). Contributors are reminded that the *Douglasia* audience ranges from professional botanist to the interested enthusiast. For more information about how to contribute, see http://www.wnps.org/douglasia/douglasia_contributors.html.

Email submissions to: cspurgeon@msn.com

Deadlines for submission

Deadline	Issue	Members receive approximately
January 1	Spring	March 1
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September 1	Winter	November 1

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