

Douglasia

Washington Native Plant Society
1976 **40th** 2016
Anniversary

VOLUME 40, NO.1 Spring 2016



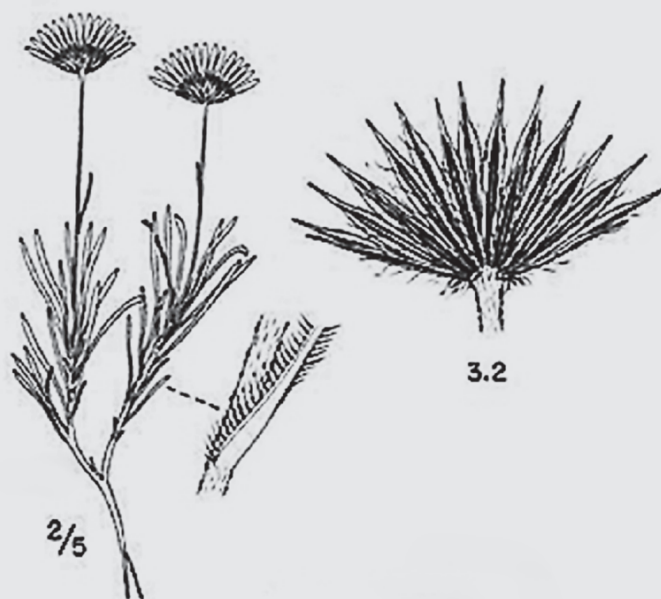
Journal of the
WASHINGTON
NATIVE PLANT
SOCIETY

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

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Erigeron piperianus

Illustration by Jeanne R. Janish

About This Issue

Get ready to botanize and socialize! You'll have plenty of time to do both—plus the opportunity to enjoy beautiful scenery—at this year's WNPS Study Weekend in the Wenatchee Mountains and Botany Washington on the Olympic Peninsula. Check inside this issue to learn more about these not-to-be-missed trips (complete event information is on the WNPS website).

Also in this issue you'll learn how to distinguish the different species of our native high-bush cranberry. Be forewarned that after reading the article, you'll want to head out on the trail in search of the delicious berries. Among the other articles are those that take you on a wildflower hike in the channeled scablands, shed new scientific light on two paintbrush species, and explain why sometimes the best way to honor a fragile ecosystem—in this case, Rattlesnake Mountain—is not to visit it in the first place.

Finally, you may have noticed the anniversary logo that appears on the cover of this issue in honor of the Washington Native Plant Society's 40th year of existence. The WNPS traces its roots to 1976, when a small group of individuals envisioned an organization dedicated to the appreciation, conservation, and study of the state's native plants and their habitats. Since then, the WNPS has grown to nearly 1,400 members and has 12 chapters throughout the state. To celebrate this milestone, the articles in the summer issue of *Douglasia*—a special anniversary issue—will focus on WNPS's history and accomplishments. Here's to the next 40 years!

Mary Johnson
Managing Editor

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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 the professional botanist to the interested enthusiast. For more information about how to contribute, see http://www.wnps.org/publications/douglasia/douglasia_contributors.html.

Email submissions to Douglasia@wnps.org.

Advertise in Douglasia

Douglasia reaches 1,300 members of the Washington Native Plant Society (WNPS). Content is geared to botanists, gardeners, and others interested in native plants. We welcome advertising for products, information, and services relevant to these audiences, of benefit to WNPS members, and to the advancement of native plants in Washington State. If you already know that advertising interests you, please visit our web site at www.wnps.org for printable ad rates, printing specifications, and editorial deadlines.

Douglasia is a primary and tangible benefit to WNPS members. Because of the educational nature of the articles, advertisers can expect permanent shelf life of the issues distributed.

Front Cover: The illustration of *Erigeron piperianus* by Jeanne R. Janish was reprinted from *Vascular Plants of the Pacific Northwest* by C. Leo Hitchcock, Arthur Cronquist, Marion Ownbey, and J.W. Thompson.

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President's Message: The View from Here

A Native Plant Society Network?

Clay Antieau

Dear fellow WNPS members,

You would expect native plant societies to collaborate and communicate frequently. Native plant societies across the United States face many of the same challenges, including managing aging memberships and volunteer burnout, maintaining revenue streams, keeping up with the rapidly changing media landscape, and just plain staying relevant in a world of myriad urgent issues and competing needs.

Further, native plant societies from coast to coast have exemplary programs and efforts that are worth sharing. For example, the California Native Plant Society (CNPS) has an aggressive communications effort, including the excellent journal *Fremontia*. The Iowa Native Plant Society organizes a popular annual conference that's open to the public. The New England Wildflower Society formed the nation's first regional integrated conservation program, which focuses on rare plant species.

Our own Washington Native Plant Society has notable education, stewardship, and fund-raising efforts that other societies might easily replicate. These efforts include Native Plant Awareness Week (a formerly cooperative venture with the Native Plant Society of Oregon and the Idaho Native Plant Society), our Native Plant Stewardship Program, and a long and successful history of native plant sales. That's stuff worth talking about! However, the reality is that native plant societies rarely talk to one another.

That's why a conference call on November 13, 2015, was so remarkable. It was the first time in my long association with WNPS that I've seen a national invitation for native plant societies to convene, share, and discuss. The call was organized by Emily Roberson of the Native Plant Conservation Campaign (NPCC), an organization started by CNPS in 2002 to ensure equal protection for both plants and animals under the Endangered Species Act.

Over the years, NPCC has evolved to focus on building constituencies for native plant conservation through collaboration, education, and advocacy. Emily recently stepped back into the fray to reenergize NPCC (<http://plantsocieties.cnps.org/>), and she's starting by getting native plant societies to come together. During the call, representatives of 18 native plant societies and plant conservation organizations shared

their organization's history along with their successes and challenges. Becky Chaney and I represented WNPS.

I was invigorated to learn about the many varied programs, publications, and creative ideas that have been and are being used to engage members and the American public in the enjoyment and conservation of native plants. I was sobered to hear tales of the organizational and conservation challenges that many of these organizations are facing.

Henry Ford is sometimes credited with saying, "Coming together is a beginning; keeping together is progress; working together is success." NPCC's renewed community-building effort is a first step in an important direction. I'm confident that such collaboration will assist WNPS and our sister organizations in responding to the variety of challenges we face in the future, while offering new and exciting opportunities to implement our missions. Ultimately, success in this national partnership is expected to underpin a strong collaborative native plant conservation community in the United States.

So



Clay and his dog, Kona, at the channeled scablands of Escure Ranch, Whitman County, Washington. PHOTO: NAOMI CHECHOWITZ

Fishtrap Lake: Springtime Wildflowers in the Channeled Scablands

by David Giblin, University of Washington Herbarium, Burke Museum

A common lament among western Washington travelers heading east on I-90 between the Columbia River and Spokane is that it is flat, boring, and offers little in the way of natural interest. As the French say, *au contraire mon ami, au contraire*. Yes, the stretch cuts through some of Washington's most intensely cultivated agricultural areas, but tucked among these plowed and grazed lands are some interesting parcels of sand dune, shrub-steppe, and scabland habitat. This article is about the scabland.

The creation of Washington's channeled scablands by Ice Age floods from the repeated draining of Lake Missoula is one of the most fascinating stories in Pacific Northwest history. There isn't space to cover that story here, but you can find an excellent overview at <http://hugefloods.com/Scablands.html>. Long story short: These floods created today's pockmarked landscape of buttes and potholes interspersed with swaths of soil that supports today's flora. Go to Sprague on Google maps (satellite view) to get a full appreciation of this.

One such example of the channeled scabland habitat is the area around Fishtrap Lake in Lincoln County. There is an exit at Sprague from which you can navigate to Sprague Highway

Road East on the south side of I-90. The road courses through seemingly nondescript blue-bunch wheatgrass (*Pseudoroegneria spicata*) and basin wildrye (*Leymus cinereus*) grasslands dotted with low, basalt rimrock outcroppings. It doesn't look like much, but go there in May and wander through the



Flowers and bracts of prairie-smoke (*Geum triflorum*).
PHOTO: RON BOCKELMAN

scalped lands to discover a rich diversity of annual and perennial spring wildflowers.

The slight depressions scattered about retain water from winter and spring rains but ultimately dry out by late spring. Think vernal pools. Here you'll find remarkable displays of Geyer's onion (*Allium geyeri*), blue camas (*Camassia quamash*), Cusick's shooting-star (*Dodecatheon pulchellum*), and several diminutive annual species, including dwarf montia (*Montia dichotoma*), bristly mousetail (*Myosurus apetalus*), and purslane speedwell (*Veronica peregrina* var. *xalapensis*).

Ringed and scattered among the depressions are raised and mounded areas of loess, a light, rich soil that makes parts of eastern and central Washington some of the most productive agricultural lands in the country. On the mounds you'll find an incredible diversity of mostly perennials that include prairie-smoke (*Geum triflorum*), sticky purple crane's-bill (*Geranium viscosissimum*), velvet lupine (*Lupinus leucophyllus*), Missouri iris (*Iris missouriensis*), Nuttall's larkspur (*Delphinium nuttallianum*), Douglas' brodiaea (*Triteleia grandiflora*), and slender woodlandstar (*Lithophragma tenellum*). Swaths of showy annuals can be found here as well, including Torrey's cryptantha (*Cryptantha torreyana*), white plecritis (*Plectritis macrocera*), and tarweed fiddleneck (*Amsinckia lycopsoides*).

The basalt rimrock outcroppings are worth checking out as well. Here you can find tower mustard (*Turritis glabra*), miner's lettuce (*Claytonia perfoliata*), and thread-leaf phacelia (*Phacelia linearis*). On a north-facing outcropping I even came across fragile fern (*Cystopteris fragilis*) and one-flowered broomrape (*Orobanche uniflora*).

Small ponds are sprinkled about the area where you can find the aquatic yellow water buttercup (*Ranunculus flabellaris*) along the margins. You'll also find stands of Ponderosa pine (*Pinus ponderosa*) here, which are some of the first ones you'll encounter after leaving Ellensburg when heading east. I always watch for these trees as a marker that I'm gaining elevation and entering a different biome.

The US Bureau of Land Management, which oversees the area, has a web page with general information for the Fishtrap Recreation Area, including trailheads for hiking: http://www.blm.gov/or/resources/recreation/site_info.php?siteid=272. A visit to this area will give you an appreciation for the natural beauty of the channeled scablands, both in terms of looking deep into our region's past and more immediately at the ground around you.



High-Bush Cranberry Befuddling No More

by T. Abe Lloyd, Koma Kulshan Chapter Chair

High-bush cranberries are one of the most confusing groups of edible plants in our region because of their poorly understood identifying characteristics and unimaginative common names. In Washington, we have two native species: *Viburnum edule* and occasionally *V. opulus* var. *americanum* (synonym *V. trilobum*), as well as an introduced European species, *V. opulus* var. *opulus*. (Note: oval-leaved viburnum (*V. ellipticum*) is also native to Washington, but since it is not likely to be confused with the high-bush cranberries, it is not covered here.) Though they lack specificity, the common names of our two native species are descriptive. They both have fruit that look and taste like cranberries, and they both grow on bushes (certainly higher than bog cranberries). The introduced species has such a similar appearance to the native species that I've been fooled into eating it twice and frequently see it sold in nurseries or planted in restoration projects as either of our two native species; however, the taste



The tasty ripe fruit of high-bush cranberry (*Viburnum edule*). PHOTO: T. ABE LLOYD

is terrible enough to motivate proper identification. If you are already having trouble keeping the three plants separated in your mind, read on because in this article, I provide an in-depth description of *V. edule* with simple features and close-up photographs to help distinguish it from the nasty *V. opulus* var. *opulus*. Also included is a dichotomous key I developed for the analytically minded. Finally, I provide an ethnobotanical summary of *V. edule*, which is widely eaten across Canada and along the Northwest Coast by the indigenous peoples.

Description

Viburnum edule is a trailing to upright deciduous shrub that can reach 8 feet in height. New shoots are smooth, green, and sporadically covered with lenticels; older stems are light brown, maroon, or reddish brown. Leaves are opposite, 1–4 inches long, and often equally as wide with three forward-pointing lobes (occasionally unlobed) and coarsely toothed margins; the lower surfaces can be sparsely hairy and dull green throughout the spring and summer but turn yellow to bright red in the late summer to early fall. Flowers are white and borne in flat-topped cymes on lateral branches with one pair of leaves. All the flowers are fertile, unlike *V. opulus* and *V. opulus* var. *americanum*, which have a peripheral ring of large, showy but infertile flowers. Flowers usually bloom from May to July. The fruit are initially green, then turn to yellow, and then assume streaks of red until they ripen to a solid, vibrant red color in late August. The fruit are ovate to round, 9–11 mm tall and 8–10 mm wide with a slight dimple at the attachment point. When first ripe they are firm, but they can persist on the bush for several months and soften with frost.



Flowers (left), leaves (middle), and fruit (right) of our native *Viburnum edule*. PHOTOS: T. ABE LLOYD



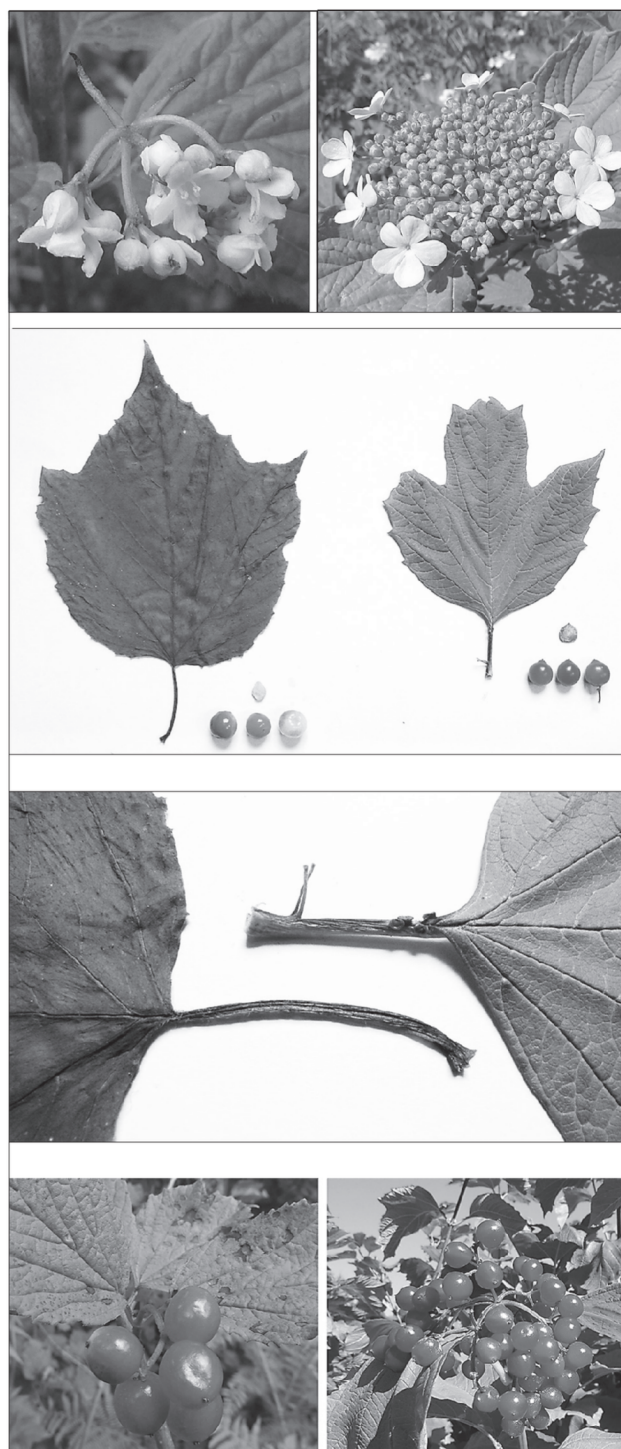
Pacific Northwest distribution of *Viburnum edule*. MAP: T. ABE LLOYD

Viburnum edule is found in the Pacific Northwest from Alaska to northern Oregon. The plant is common in Alaska and British Columbia and extends southward sporadically through the Cascades and foothills to US Route 20 in Oregon. It also occurs from the Olympic Peninsula and as far east as Montana (see map). Though *V. edule* is widely distributed throughout the Pacific Northwest, it is often difficult to locate because it prefers to grow in swamps, the edges of wet meadows, flood plain forests, and other very wet forests. I commonly find it with Sitka spruce (*Picea sitchensis*), devil's club (*Oplopanax horridus*), and Pacific yew (*Taxus brevifolia*).

When the fruit are just starting to redden, they have a nice, fresh cranberry-like crunch and mildly sour flavor. Fully red berries have a more complex flavor that is both sweeter and sourer. Nibbling raw, you must use your incisors to scrape the flesh from the large flat seeds, which is easier than eating whole sunflower seeds. Their flavor is amazingly refreshing, rejuvenating tired eyes and a cloudy mind instantaneously. They are a perfect snack for the late summer when you're sunburned and dehydrated from too much ultimate Frisbee or beach volleyball. Cook and strain the seeds to make a wonderful, mildly sweet sauce that goes well on fish or game, or juice and sweeten them to make an excellent jelly. For more cooking ideas and detailed recipes, check out the University of Alaska's Cooperative Extension Service flyer on high-bush cranberries (<https://www.uaf.edu/files/ces/publications-db/catalog/hec/FNH-00112.pdf>).

Native or Imposter?

High-bush cranberries are frequently misidentified in field guides, online photographs, nurseries, and even native plant demonstration gardens. In our area, most people confuse *Viburnum opulus* var. *opulus* (European high-bush cranberry) for our native *V. edule*, so on the right I have included side-by-side photographs of important plant features for these two species. I also include *V. opulus* var. *americanum* in my dichotomous key. The take-home message: if you are looking



Comparison of *Viburnum edule* (left) and *V. opulus* var. *opulus* (right) flowers, leaves, petioles, and fruit. PHOTOS: T. ABE LLOYD

at a 15-foot tall shrub with a 4-inch trunk, large flower clusters with a peripheral ring of large sterile flowers, and leaf petioles with wart-like glands and long pointy stipules, you are probably looking at an imposter.

Ethnobotany

Viburnum edule berries don't appear in the ethnographic record very far south of Puget Sound. They were not

Abe's Key to Pacific Northwest High-Bush Cranberries

- 1a Leaf petioles lacking glands; leaves with dentate margins and shallow lobes; flowers all fertile and opening at the same time, cymes (flower clusters) usually less than 1 inch across with less than 50 flowers, on lateral branches with only 1 pair of leaves; fruit borne in small clusters (usually less than 10), sour but very palatable; reclining to upright shrub rarely exceeding 7 feet tall, inhabiting wet forests, swamps, and lakeshores:
- *Viburnum edule*, high-bush cranberry, squashberry, mooseberry.
- 1b Leaf petioles with glands near the base of the leaf blade; leaves deeply lobed with +/- dentate margins; cymes 2–3 inches across with a marginal ring of larger sterile flowers (3/4 inch across) that open before the central fertile flowers (1/4 inch across), on terminal branches with 2 pairs of leaves; fruit borne in large clusters (usually more than 10); shrubs 8–15 feet tall.
- 2a Petiole glands convex, slightly stalked (may become deformed or shrink as the season progresses); petiole groove broad and shallow; stipules small and deciduous; leaves larger at 2–4 inches across with sharply pointed lobes with scattered to no dentations on the margins; underside of the leaves pubescent; fruit sour but edible; limited in our area to eastern British Columbia (and possibly the lower Fraser Valley) and northeastern and eastern Washington:
- *Viburnum opulus* var. *americanum* (synonym *Viburnum trilobum*), Am. high-bush cranberry, Am. cranberrybush.
- 2b Petiole glands concave, sessile; petiole groove deep and narrow; stipules long, conspicuous and persistent; leaves smaller at 1–3 inches across with more rounded lobes and more dentate margins; pubescence usually limited to the veins on the underside of the leaf; fruit bitter, sour, and mildly toxic; growing throughout our area in or near urban areas and old fields:
- *Viburnum opulus* var. *opulus*, Eur. high-bush cranberry, Eur. cranberrybush, guelder rose, cramp snowball tree.

commonly eaten by the Coast Salish, and Erna Gunther did not include them in the *Ethnobotany of Western Washington* (Gunther 1973), although George Gibbs did record a Nisqually name for the berries (Gibbs 1877). Along the Fraser River, the Squamish and Sto:lo have names for the plant and likely picked the fruit, but the ethnographic record is sparse (Turner and Bouchard 1976; Galloway 1982). Further upriver, the Nlaka'pamux (previously known as the Thompson) traditionally ate the fruit fresh, dried, or cooked into a soup or made into jelly (Turner et al. 1990). Just over the Cascades the Okanagan and Colville traditionally harvested the berries after a frost and ate them fresh (Turner et al. 1980). The more northern Salish on eastern central Vancouver Island collected high-bush cranberries, and often cooked and served them with oil at large feasts or ate them raw after a frost had softened the fruit (Turner and Bell 1971). On the other side of Vancouver Island, the Nuu-chah-nulth ate the berries fresh with grease (Turner and Efrat 1982). Northward, the Kwakwaka'wakw steamed partially unripe berries until they became soft and red and stored them in bentwood boxes filled with water and sealed with grease for family use throughout the winter. Only ripe, fresh cranberries served with eulachon grease were eaten at feasts (Turner and Bell 1973). All the indigenous groups on the North Coast of British Columbia traditionally used



Partially ripe *Viburnum edule* fruit. PHOTO: T. ABE LLOYD

the berries. Hanaksiala and Haisla families owned productive bushes and stored the berries in water-filled barrels sealed with grease for winter use. They were sometimes prepared with crabapples (*Malus fusca*), kinnikinnick (*Arctostaphylos uva-ursa*) berries, and false Solomon's seal (*Maianthemum*



Seeds of *Viburnum edule*. PHOTO: T. ABE LLOYD

racemosum) juice (Compton 1993). The Gitga'at used the berries extensively. They were traditionally stored in barrels or boxes filled with water or whipped grease and served at feasts throughout the winter, often with crabapples. Today people make jam or jelly from the fruit.

According to Ernie Hill, Jr., if the berries are carefully simmered for many hours, the seeds will separate from the pulp and float to the surface where they can easily be skimmed off the top (Turner and Thompson 2006). Further north along the coast, the Haida hold these berries in high esteem. Berry patches were traditionally owned and managed by families, and permission was needed to pick from these productive areas. Slightly underripe berries are often picked and canned, or in historic times placed in bentwood boxes filled with water and sealed with grease for use in the winter. The berries are frequently mentioned in Haida mythology and are believed to be the food of supernatural beings (Turner 2004). *Viburnum edule* are similarly used by the Iñupiat in Northwest Alaska, who occasionally eat the seeds and all (Jones 1983).

Many indigenous people believe that the plants are becoming scarcer, possibly because of higher deer populations (deer over-browse the vegetation (see Turner 2004)), lower bear populations (bears break limbs off the bushes, stimulating new growth (see Compton 1993), and the disruption of traditional management practices.

Other common names for *V. edule* include mooseberry (because the shrubs are universally loved by North American ungulates) and squashberry (because the flat seeds resemble those of squash). Whether by beast or human, the plants are definitely deserving of the specific epithet *edule*, which means "edible" in Latin.

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♫

Study Weekend 2016: The Wenatchee Mountains, June 17–19

This year's study weekend will explore the Wenatchee Mountains in north central Washington. Your hosts are the Wenatchee Valley and Central Washington chapters. Activities will be based in Leavenworth and include field trips both days, a Friday evening reception, and a Saturday evening barbeque dinner and program.

The Wenatchee Mountains run down the Chelan-Kittitas county line from near Stevens Pass to nearly the Columbia River. A broader definition is the mountains east of the Cascade crest between the Wenatchee River on the north (US Route 2) and the Yakima River on the south (I-90). Known for rugged peaks and popular hiking destinations, such as Tronson Ridge and Esmeralda Basin, the mountains are also home to a diverse flora. These include rare, endemic, and disjunct species such as Wenatchee Mountains checker-mallow (*Sidalcea oregana* var. *calva*), Tweedy's lewisia (*Lewisiopsis tweedyi*), and alpine springbeauty (*Claytonia megarhiza*).

What makes the Wenatchee Mountains so interesting (botanically speaking)? Terry Lillybridge, Wenatchee Valley Chapter member and co-author of the *Field Guide to Forested Plant Associations of the Wenatchee National Forest*, offers the following:

- The climate varies from moist and nearly maritime on the western, sub-alpine end of the range to dry on the eastern, shrub-steppe end of the range.
- There is a mixture of geologic types, including igneous, sedimentary, and metamorphic rocks. Especially interesting are the serpentine formations, which host an adapted flora.
- During the Ice Age, continental glaciers stopped north of what we now call the Wenatchee Mountains, which themselves had alpine glaciers. This area likely provided a refuge for species that were ice-covered to the north.
- Another effect of continental glaciation was a unique "paraglacial" climate, which had far-reaching effects on hybridization and speciation.

All these factors contributed to many different habitats where plant species could thrive.



Downtown Leavenworth. PHOTO: LEAVENWORTH CHAMBER OF COMMERCE

We are trying something different this year. Because some field trips are snow-level dependent, we will set the final activity schedule at the end of February when we know more about the snowpack. Since that information won't be available for this issue of *Douglasia*, we will post the entire Study Weekend program at www.wnps.org on March 1. Members without web access can request a copy of the program by mail



Alpine springbeauty (*Claytonia megarhiza*). PHOTO: TED ALWAY



Tweedy's lewisia (*Lewisiopsis tweedyi*) (note the new genus name).
PHOTO: TED ALWAY

by calling 206-527-3210 or by mailing in the accompanying coupon.

Our headquarters will be the Wenatchee River Institute, which is a short walk from downtown Leavenworth. We will begin with a reception on Friday from 5:00 to 7:00 p.m. where you can register, get reacquainted with old friends, meet new friends, and learn about the area. Field trips will leave from Wenatchee River Institute on both Saturday and Sunday mornings. We will have a barbeque dinner and program on Saturday evening at Red Tail Canyon Farm just outside of town.

Leavenworth has lots of motels, B&Bs, vacation rentals, campgrounds, and RV facilities, so participants can choose



Hanging baskets of flowers in downtown Leavenworth. PHOTO:
LEAVENWORTH CHAMBER OF COMMERCE

accommodations that suit their tastes and budgets. We will provide a list of possibilities to help you plan. You can also find information at www.leavenworth.org. In Leavenworth it is always best to make your reservations early.

We also encourage members to bring along your non-botanizing family members. While you are enjoying a botanical field trip, they can raft, hike, shop, go to a wine tasting, golf, and more. They can even participate in the annual Leavenworth Accordion Celebration that weekend! And for the dads, whether they are botanizing or not, the Boy Scouts have an annual Father's Day pancake breakfast on Sunday morning starting at 7:00 a.m. So much to do . . .

Jo

2016 WNPS Study Weekend Information Mailed Packet Request

Study Weekend field trip descriptions and registration form will be available after March 1 at <http://www.wnps.org/studyweekend/index.html>.

If you do not have access to the Internet, complete this coupon and mail to:

2016 Study Weekend Packet Request
Washington Native Plant Society
6310 NE 74th Street, Suite 215E
Seattle, WA 98115-8171

Name

Street Address

City, State, Zip Code

A Recent Addition to Washington's Flora: *Castilleja chambersii*

by Mark Egger, University of Washington Herbarium, Burke Museum

[Editor's Note: This article on Chamber's paintbrush was excerpted with permission from the journal *Phytoneuron*. The original publication can be found here: <http://www.phytoneuron.net/2015Phytoneuron/64PhytoN-Castillejachambersii.pdf>.]

In the early 1970s, noted Oregon botanist Kenton L. Chambers explored extensively in the Coast Range of Clatsop County, Oregon, with an emphasis on the several volcanic peaks representing the highest elevations in this older range. During these studies, Chambers noted the presence of an undescribed *Castilleja* species on exposed basalt rocks near the summits of two of the peaks, Onion Peak and Sugarloaf Mountain. The identity of these plants remained largely unexplored until the late 1990s, when Robert J. Meinke and I independently began to study Chamber's specimens and located a third population near the summit of Angora Peak, a basaltic summit ca. 4.0 km south of Onion Peak. Subsequently, we formally described *Castilleja chambersii* J.M. Egger & Meinke (Chamber's paintbrush) based on a collection from Angora Peak (Egger and Meinke 1999).

In more recent years, several local botanists in Clatsop County, including Michael Patterson and Kathleen Sayce, spent considerable time looking for additional populations of *C. chambersii*, as have employees of several agencies, timberland companies, conservation groups, and amateur botanists. Patterson, in particular, has contributed to a better understanding of the geographical extent and the population numbers on Onion and Angora peaks and Sugarloaf Mountain. I've also returned to Clatsop County on several occasions to observe the known populations and to attempt to locate and verify some of the 10 additional populations of *C. chambersii* reported by other botanists. However, Patterson, Sayce, and I have been unable to verify any additional populations in Clatsop County or in adjacent Tillamook County, Oregon.

In June 2015 Weyerhaeuser Company forester Kristi Tausch located and photographed live, vigorous specimens of *C. chambersii* in a still-moist basalt seep on company lands on a relatively high-elevation ridge in the Coast Range of the state of Washington. In early July 2015 I accompanied Tausch, Patterson, Sayce, Laura Six, a Weyerhaeuser plant ecologist, and

Nancy Peckman on a visit to two of the sub-populations located by Tausch, from which I collected a herbarium voucher. This collection is the first vouchered occurrence of *C. chambersii* in the state of Washington and extends its known range to the north-northeast by about 70 km.



Chamber's paintbrush (*Castilleja chambersii*) from a site in southwestern Washington. PHOTO: KRISTI TAUSCH

Thus far, *C. chambersii* is known in Washington from five small sub-populations, all within a kilometer of each other along the same ridge system and at elevations ranging from about 610–715 m. This is very similar to its elevational range in Oregon, 632–950 m. In both states the vast majority of the plants occur between 680–900 meters of elevation. The Pacific County populations occur further from the coast, about 21 km from Gray's Bay near the mouth of the Columbia River and 27 km from the outer coastline, while the populations in Oregon range in distance from the coast from 3.9 km on Angora Peak to 8.7 km on Sugarloaf Mountain.

The habitat of *C. chambersii* populations in Washington is closely similar to the Oregon populations, with most plants in both areas found in and around seeps with a basalt substrate in thin turf or in rocky crevices or benches of similar slope and aspect. One small sub-population was found on a relatively flat, gravelly ridgetop at a seemingly more xeric site, but this is very atypical for this species. The formations on which the Oregon plants occur are Miocene flood basalts, while those of the Willapa Hills in Washington are uplifted Eocene seafloor basalts about twice the age of the former (Sayce 2010 and pers. comm. 2015). Apparently suitable habitat for *C. chambersii* appears to be relatively extensive in this part of Pacific County, and further fieldwork on seeping, rocky slopes in the correct elevational range may well uncover additional populations.

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***Castilleja lutea*: A Resurrected Species from Idaho, Oregon, and Washington**

by Mark Darrach

Having wandered about as a botanist in the Blue Mountains region of northeast Oregon and southeast Washington for about 20 years now, one does tend to stumble upon floristic surprises now and again—and floristic mysteries as well. Such was the case in the late spring of 2009. While doing some work for the US Forest Service in the Idaho fescue grasslands of Asotin County, Washington, I encountered a beautiful and distinctive paintbrush species (*Castilleja* sp.) with white-tipped bracts and wine-red blush and veining that I did not recognize.

Immediately intrigued, the “intrigument” deepened further as available keys led to *Castilleja viscidula*—sticky Indian paintbrush. Previous Forest Service botanists had also apparently encountered this species, since *C. viscidula* was on our forest plant list for the area. However, applying this name to the plants I had found made little sense; *C. viscidula* is strictly a high-elevation species and, counter to the prevailing

keys, is not particularly close morphologically to the plants I was examining.

Ultimately I contacted *Castilleja* experts Mark Egger (University of Washington) and Dr. David Tank (University of Idaho), shared observations and photographs, and learned that these plants had been recognized previously under the name *Castilleja cusickii* ‘forma’ *lutea*. As might be expected, the taxonomic history of a name such as this comes with a bit of complexity and a certain amount of “how could this not have been recognized as a distinct species unto itself before?” musings. These plants’ significant departure from what I knew to be “good” *C. cusickii* was clearly apparent in color, morphology, and habitat preferences.

As it turns out, the plant had indeed been recognized as a species back in 1898 by botanist and prolific western US plant collector Amos Heller under the name *Castilleja lutea*. Thomas Howell’s *Flora of Northwest America* in 1901 recognized and accepted the validity of the name, but just a few years later Heller backed away from his initial interpretation and synonymized *C. lutea* with what is now known as *C. cusickii*. It is not clear why he changed his thinking, but Heller, working largely in California, most probably had little experience with this plant in the field and was very likely primarily working with pressed material.

From this time forward, confusion settled in with Morton Peck’s *Manual of the Higher Plants of Oregon*, which reestablished the name *C. lutea* as a good species (most probably at the suggestion of influential botanist Francis Pennell). Pennell himself then reestablished the synonymy of *C. lutea* and *C. cusickii* in Leroy Abrams’s 1951 *Illustrated Flora of the Pacific States*. Hitchcock et al. in the 1955–1969 *Vascular Plants of the Pacific Northwest* and Hitchcock and Cronquist in the 1973 *Flora of the Pacific Northwest* perpetuated the synonymy and brought the taxonomic history up to the present date.

The clear conservation significance of this species and the approaching deadline for the *Castilleja* treatment in the *Flora of North America* combined to intensify the need for resolution of the taxonomic issues with these plants.

Recent morphological analysis on a suite of collections of both the typical form of *C. cusickii* and forma *lutea* was conducted at the University of Idaho by



Castilleja lutea. Abels Ridge, Columbia County, Washington. PHOTO: MARK DARRACH

Dr. Tank's undergraduate student Samuel Torpey. Additional soon-to-be-published concurrent molecular genetic analysis was recently completed by PhD candidate Sarah Jacobs and has revealed that our collective intuition was accurate and Amos Heller's original treatment was correct: *C. lutea* is a distinct species.

While clearly quite rare, the distribution and ecology of this species are not yet fully understood, and further study is clearly warranted. *C. lutea* is known, to this author, from a closely spaced cluster of populations in grasslands and mesic vernal wetlands in Garfield and Asotin counties in Washington, and a few scattered sites in Wallowa and Union counties in Oregon. It is also reported from western Idaho near Moscow (David Tank pers. comm.). I have personal knowledge of nine small populations that vary from a few individuals to perhaps 250 plants, although the apparent occurrence of at least some dormancy in the species suggests that getting accurate population counts will require careful monitoring efforts.

I strongly suspect that *C. lutea* is sufficiently rare and under threats significant enough—foremost among them being aggressive invasive weeds such as North Africa grass (*Ventenata dubia*)—to warrant listing under the federal Endangered Species Act. It is a beautiful species that deserves our attention in a world of biodiversity in decline.

Acknowledgements

The author would like to thank Mark Egger for providing a detailed history of the complex taxonomy of the species.

Mark Darrach is a botanist and geologist who works for the Forest Service on the Umatilla National Forest in northeast Oregon. He also runs a small consulting company, Corydalis Consulting, which conducts plant taxonomy research and survey work.

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Managing Your WNPS Membership

by Denise Mahnke, WNPS Business Manager

As a recipient of *Douglasia*, you are a member of the Washington Native Plant Society (WNPS) in current standing. Annual renewal of membership will keep you on the mailing list for WNPS publications and eligible to attend the Study Weekend, as well as other membership benefits.

In 2014, WNPS changed the way it handles the membership cycle. In order to establish a common renewal date for all WNPS member, membership is now gathered annually with a June 30 expiration date in each year.

- If you become a member between January 1 and September 30, your membership is current until the following June 30. Example: a membership processed on February 19, 2016 expires on June 30, 2017.

- If you become a member between October 1 and December 31, your membership is current until the second June 30 thereafter. Example: a membership processed on November 24, 2016 expires on June 30, 2018.

Your expiration date is listed on the mailing label of your WNPS publications.

In 2016, the annual membership renewal reminder will be mailed by April 13. Renewals can be done via mail, with the renewal mailer, or online with electronic payment at www.wnps.org/join. Please be sure to clearly update any contact information, including your email address, and select your preferred method of communication from WNPS. You can also email the office at www.wnps.org/join.html to request that your contact information be updated. New memberships are always encouraged.

We hope members will remember to remain current, renewing their membership prior to June 30.

Botany Washington 2016: Spring on the Olympic Peninsula, Jefferson County, May 13–15

Botany Washington is cosponsored by the Washington Native Plant Society (WNPS) and the University of Washington Herbarium at the Burke Museum (WTU). Our goal is to provide an outstanding learning opportunity for participants of all botanical skill levels. This year we will be exploring the floristic and taxonomic diversity of the eastern Olympic Peninsula lowlands.

Topics

Participants choose one field trip each day from the following topics:

- **Taxonomic Study.** The focus is on the classification and identification of particular plant families or genera.
- **Plant Keying.** Participants improve their skills using Hitchcock and Cronquist's *Flora of the Pacific Northwest*.
- **Wildflower Walks.** Designed for individuals who have less technical botanical backgrounds but who are interested in learning more about wildflowers of the area.
- **Habitat Restoration.** Participants will visit various projects in the Port Townsend area.

Taxonomic Study

Participants in these sessions have some prior experience with technical botanical terminology and want to deepen their knowledge of specific genera or families. On Saturday, WNPS President and WTU Research Associate Clay Antieau will lead a session on grasses (Poaceae). On Sunday WTU's Ben Legler will lead a session covering challenging groups in the Fabaceae (pea family), Caryophyllaceae (rose family), and Ranunculaceae (buttercup family), with special attention given to the genera *Cerastium*, *Lathyrus*, *Trifolium*, *Ranunculus*, and *Vicia*.

Plant Keying

You will join others who want to hone their technical keying skills using the draft versions of keys for the revised *Flora of the Pacific Northwest*. The keying sessions will be offered on both Saturday and Sunday and will be led by a professional botanist. Session leaders assume that participants have basic knowledge of both botanical terminology and how to use a technical plant identification key (i.e., dichotomous key). Opportunities are provided for keying as a group and individually. You will be provided with draft versions of the new keys to be published in the revised *Flora of the Pacific Northwest*, but you are welcome to bring along your copy of the original *Flora*.

Wildflower Walks

These walks are intended for participants interested in exploring and appreciating the native flora in a more informal setting. Field trips with knowledgeable botanists will be held on both Saturday and Sunday. There will be two trips each day: (1) **Ebey's Landing** (ferry trip and reservation required; price not included in registration, though we will carpool where possible), and (2) **Quimper Peninsula wildflower (and wild plant) hot spots**, which will mostly visit the coastal strand area from Fort Worden State Park to just south of Fort Townsend State Park. The latter trip will include a stop to see *Kopsiopsis hookeri* (Vancouver groundcone, formerly in the genus *Boschniakia*).

Habitat Restoration

The Port Townsend area has several ongoing habitat restoration projects that include prairie, salt marsh, and estuarine sites. This Saturday field trip will focus on recent projects at Point Wilson, Kai Tai Prairie, and Discovery Bay.



Botany Washington participants keying plants. PHOTO: DAVID GIBLIN



Cusick's shooting star (*Dodecatheon pulchellum*). PHOTO: DAVID GIBLIN

Base Camp

Our center of operations will be Fort Worden State Park on the eastern edge of the Olympic Peninsula and adjacent to Port Townsend. From here we will have ready access to a diversity of habitats to explore the flora, including beach strand, prairie-like grasslands, and lowland forest understory. Fort Worden conference center (<http://fortworden.org/>) is a privately run facility and will be providing lodging (rooms or camping) and meals for the weekend. Six meals are included as part of the Botany Washington package, from Friday evening dinner through Sunday lunch (Saturday and Sunday lunches are sack).

Evening Programs

On Friday evening, Dr. Eric DeChaine, associate professor at Western Washington University, will discuss his research on evolution of the arctic and alpine tundra flora. Eric has done extensive field work throughout Alaska and northeastern Russia as part of his research.

Dr. Catharine Copass, vegetation inventory project coordinator at Olympic National Park, will be Saturday's presenter. She will discuss her work classifying and mapping plant communities at Ebey's Landing Historical Reserve. This work has resulted in the mapping of more than a dozen rare or imperiled plant communities at the reserve.

Why Register?

Botany Washington provides botanists, plant ecologists, restoration ecologists, conservation biologists, and other professionals with access to experts and an opportunity for in-depth study of selected taxonomic groups. It is also an opportunity for individuals new to the *Flora of the Pacific Northwest* to gain additional practice in technical keying with the support of expert guidance. The interested enthusiast who wants to learn more about regional floras of Washington will have two days

in the field with knowledgeable local experts. Finally, it is an opportunity for botanists and others interested in our native flora to work together in a shared community of botanical learning. WNPS membership is not required.

Registration Information

Registration will take place on the WNPS website, where you'll find complete event information. To register online with payment or download a registration form to mail in with payment by check, go to http://www.wnps.org/botany_wa/index.html. For questions or to request a hard copy registration packet by mail, please contact the WNPS Office at 206-527-3210.

Registration opens February 1. Registration deadline is April 15. No refunds after April 30.

Cost

The cost of the weekend is \$250.00. This fee includes two nights' rustic lodging, six meals, and the opportunity to explore the flora of the eastern Olympic Peninsula lowlands with knowledgeable botanists who will help you enhance your botanical skills no matter where on the botanical spectrum you reside.

Field Trip Leaders and Presenters

- Clay Antieau, WNPS President, University of Washington Herbarium Research Associate
- Joe Arnett, Rare Plant Botanist, Washington Department of Natural Resources
- Catharine Copass, Vegetation Inventory Project Coordinator, Olympic National Park
- Eric DeChaine, Associate Professor of Biology, Western Washington University
- David Giblin, Collections Manager, University of Washington Herbarium, Burke Museum
- Ben Legler, Informatics Specialist, University of Washington Herbarium, Burke Museum
- Ann and Fred Weinmann, WNPS Fellows, Olympic Chapter



Vancouver groundpine (*Kopsiopsis hookeri*). PHOTO: ANN WEINMANN



Tall Bugbane (*Cimicifuga elata*)

Washington State Sensitive Species

Rare Care note: For the past few years, Rare Care has been making a concerted effort to monitor every known population of tall bugbane in Washington, except for those on private lands. This project will provide a comprehensive view of how the species is doing in our state. Thanks to the efforts of David Selk and more than 20 other Rare Care volunteers, we're nearing completion of the project. Across national forests and state parks, trust lands, and natural area preserves, volunteers have relocated 12 populations and searched unsuccessfully for 7 populations. Two populations have been determined to be extirpated.

by David Selk, Rare Care Volunteer

Tall bugbane (*Cimicifuga elata*) shines like a beacon in the forest. Since it flowers from mid to late summer from the top of 3- to 5-foot stems, its white panicles are easily spotted in the dense understory when most other native plants are busy setting seed. The flowers lack petals and have a spray of sta-



Tall bugbane (*Cimicifuga elata*) flowers from mid to late summer from the top of 3- to 5-foot stems. PHOTO: LISA HINTZ



The flowers lack petals. PHOTO: NANCY MORRISON

mens that give the inflorescence a bottlebrush appearance. The plant has pinnately compound leaves, the leaflets of which are often compared to maple leaves in shape. It prefers moist forests at low elevations.

The tall bugbane I found had an interesting habit of growing beneath a deciduous canopy in a forest dominated by conifers. The plants growing nearby are familiar, including swordfern (*Polytichum munitum*), snowberry (*Symphoricarpos albus*), big-leaf maple (*Acer macrophyllum*), and oceanspray (*Holodiscus discolor*). Recent literature has placed bugbane in the genus *Actaea* although there is a lack of universal consensus on this.

This member of the buttercup family (Ranunculaceae) is not common in any of its range, which stretches from south-

ern Oregon to just across the British Columbia border. It is considered Sensitive by the Washington Natural Heritage Program and is a candidate species in Oregon. The US Endangered Species Act lists it as a Species of Concern, which doesn't confer any legal protection. Tall bugbane has the distribution pattern of a fairly high number of occurrences of relatively few individuals in each. The populations I have been monitoring are in the western Columbia Gorge in Skamania County.



Tall bugbane (*Cimicifuga elata*) shines like a beacon in the forest. PHOTO: RON KLUMP

Incorporating Native Plants in Your Home Garden

by Casey Leigh, WSU Chelan-Douglas County Master Gardener

In 2010, the Master Gardeners of Chelan-Douglas County planted the first of several themed educational gardens in the Community Education Garden located at the corner of Western and Springwater Avenues in Wenatchee. This Native Plants 'N More Garden contains a mixture of native and non-native plants that can be grown in our north-central Washington climate. Although most of the plants were labeled with their common and scientific names, the labels weren't helpful in determining which plants are native. In addition, no educational materials were available that could help a home gardener incorporate the native plants into his or her garden.

With the grant funds provided by the Washington Native Plant Society, we have published a 15-page, full-color booklet designed to give the home gardener helpful information for choosing native plants for the home landscape. It contains pictures of 22 native plants found in the Native Plants 'N More Garden. Accompanying each picture is information about the plant, including the common, scientific, and family names; whether the plant is a perennial or an annual; mature size and habitat; flowers and berries; species attracted to the plant, such as insects and birds that pollinate the plant; potential problems (for example, disease or damaging insects that pose problems for the plant); and maintenance (high, medium, or low). This booklet is available at the Native Plants 'N More Garden and on the Master Gardeners of Chelan and Douglas County website. A companion poster has been produced that will be used at Master Gardener public events.



Poster designed by WSU Master Gardeners of Chelan-Douglas County showing native plants for the home garden. PHOTO: CASEY LEIGH

We are in the process of ordering color-coded signs for the native plants that will have a green background with white lettering and updating the plant inventory on the website to specifically identify the native plants.

As a result of this project, the educational value of the Community Education Garden and the Master Gardener Program website has increased. Home gardeners who visit the garden or consult our website now have easy access to helpful information on incorporating native plants into their landscapes, thereby increasing the number of native plants in our area, as well as the public's understanding of native plants.



WNPS Member Donations at Work.

This research project was supported in part by a grant from the Washington Native Plant Society.



Tall Bugbane (*Cimicifuga elata*) (continued from previous page)

Rare Care volunteers work from historic records to locate rare plant populations, often putting clues together from several sources to solve a puzzle. Sometimes we find the plants and sometimes we don't. Monitoring these plants has given us a great opportunity to see parts of the state and hike trails we otherwise would not know even existed. Despite the stinging nettles and sometimes having to scramble up scree slopes, it

is great fun and highly recommended as a way to help plant conservation.

Learn more about Rare Care's efforts to conserve Washington's rare plants at www.uwbotanicgardens.org/rarecare. To inquire about volunteering or to receive our semiannual print newsletter, email rarecare@uw.edu or call 206-616-0780.



In Memoriam: Arthur Kermoade

by Pam Pritzl, *Salal Chapter*

Art Kermoade, a WNPS fellow who was widely acknowledged as the driving force behind the Salal Chapter's native plant garden in Mount Vernon, died May 12, 2015, at age 92. He was a teacher by training, and in many ways the creation of the garden was just another way he could continue his teaching career.

Art grew up in southeastern Nebraska. After graduating as valedictorian of his high school class in Brock, he attended college for a year before enlisting in the US Coast Guard Regulars, where he served for five years over a period that included World War II. After the war, he attended Bradley University and Peru State and received a bachelor of arts

The Scoop on Salal

[Editor's Note: The following is an excerpt from a piece that Art Kermoade wrote for a now out-of-print book that benefited the Conservation Easement Program for the Anacortes Community Forest, *At Home on Fidalgo* (2000), edited by Evelyn Adams. A slightly longer version was published in *Douglasia*, volume 25(1) Winter 2001, p. 11. Reprinted here with permission.]

Anyone who aspires to become a resident of Washington State should be required to satisfactorily complete an in-depth class on the history of the Pacific Northwest. In such a class I learned about pemmican, and learning about it changed my life. Pemmican led me to a native berry-producing plant called "salal."

"Pemmican" was a name for an early people's food prepared by pounding meat or fish with whatever fruit was available. The combination was pressed into cakes, dried, and stored for eating at times when the ingredients were not freshly available.

Botanically, salal is in the same family as the madrone, kinnikinnick, Indian pipe, blueberries, and huckleberries. Its technical name is *Gaultheria shallon*, of the family Ericaceae.

Over the years I often read about salal and its berries. I talked to people who claimed the berries were edible; however, "edible" is not synonymous with "palatable."

So, some twenty years ago, only moments after I had turned 55, I said to myself, "Arthur you've led a good life. It's time to put salal to the test . . . At one of my best patches, finally, where the berries were the fattest, I gorged myself. I pigged out!

I hereby vouch for the salal berry. It may be eaten raw, dried, or cooked. The flavor is unique . . . But it may not be for everyone.



Art Kermoade eyeing violets. PHOTO: PAM PRIZL

degree in education. Later he earned a master of education degree from the University of Washington. Art and his wife, Helen, spent their careers teaching in the Seattle Public Schools before retiring to Fidalgo Island in 1984.

After retirement, Art tutored mathematics students at Anacortes Middle School and volunteered as an educational aid at the Padilla Bay Interpretive Center. While there, under the supervision of Judy Friesem, he learned about plant and animal life on and near the shores of Puget Sound. He became especially interested in the native flora, which for the next 20 years or so became his major field of study. He gave much credit for his interest in plant life to the writings and teachings of Eugene Kozloff. After having mastered the Pacific Northwest flora keys of Hitchcock and Cronquist, Art was ready for his "new" teaching career. His mission: "to put as many people in touch with Northwest native plants as I can in the time I'm here on this planet." For five years Art led weekly field trips to the local parks and forest lands for the Anacortes Parks and Recreation Department, introducing many people to native plants.

In 1991, Art was instrumental in founding the Salal Chapter of the Washington Native Plant Society and served as its first chairperson. He also served three years on the WNPS state board and was the Salal Chapter's chief instigator in the establishment and development of the native plant garden at the WSU Northwestern Washington Research and Extension Center (NWREC) in Mount Vernon. The demonstration garden is highly visible and a landmark in WNPS's involvement in gardening with native plants.

In 2001, WNPS named Art a fellow for his great contribution to WNPS's mission: to promote the appreciation and conservation of Washington's native plants and their habitats through study, education, and advocacy.

I met Art shortly after I joined WNPS/Salal. He was recruiting volunteers to help develop a honeysuckle garden in the southwest corner of the Master Gardener's Discovery Garden at the WSU NWREC. During this time, Art was also

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In Memoriam: Susan Alaynick

by Kathy Murray, Salal Chapter

Susan Alaynick's interest in native plants began in 1991 when she and her friend Lucie Johns were with a birding group in Washington Park, Anacortes, that was hosting a plant walk. In 1995 she joined WNPS, became an active member, and served as Salal Chapter chair from 2004 until her death in November 2015.

Her interest in plants might have been anticipated. Susan had a scientific mind. She was born in Indiana, grew up in New Orleans, graduated as a pathologist from the University of Texas Medical School at San Antonio (and gave birth to her daughter the next day). She moved to the Pacific Northwest in 1973 where she worked as a pathologist at several institutions, including Group Health.

In her quest to learn about plants, Susan enrolled in a course, Plants of the Pacific Northwest, which was taught at Everett Community College by WNPS Education Committee Chair Fayla Schwartz. Fayla recalled that Susan, who as an auditing student was not required to complete assignments or take exams, had a "lust for learning and appealing and competitive nature [that] pushed her to assimilate every name, taxonomic rank, and botanic term mentioned in class." Soon Susan developed a set of cheat sheets so she didn't need to pack more weighty materials, and according to Fayla, "Very soon she had surpassed my knowledge of our native species and I was the one asking her for the names."

After Susan retired in 1998, she devoted much of her time to native plants and to the elimination of invasive species. She spent countless hours removing herb-Robert (*Geranium robertianum*), Scot's broom (*Cytisus scoparius*), English ivy (*Hedera helix*), and others in Washington Park and Deception Pass State Park as well as on Anacortes Community Forest Lands. She also was a volunteer for the Washington Trails Association and helped maintain and rebuild trails.



Susan Alaynick at Hart Lake. PHOTO: LUCIE JOHNS

I met Susan at WNPS study weekends and an occasional Salal Chapter meeting. In the summer of 2013, she and Lucie graciously invited me to accompany them on a WNPS backpack to the Yellow Aster Butte in the Mount Baker wilderness. Susan was a tiny person with phenomenal stamina and an enormous knowledge of native plants that she shared with all who were interested. Because she had a bad back, she carried a folding aluminum chair attached to her pack. I was impressed.

Her favorite hike was the Chain Lakes Loop from Artist Point at Mount Baker. According to Lucie, Douglas' grass-widow (*Olsynium douglasii*) was likely her favorite wildflower. They looked for it every spring.

Susan had a distinct dislike of modern technology. The Salal Chapter newsletters were distributed with her email address, but it was Lucie who sent them out and read incoming email messages to Susan over the phone.

Susan's death was unexpected. She had smoked for 50 years but stopped seven years ago. In November, severe shortness of breath caused her to seek medical treatment. She was diagnosed with lung cancer and died 13 days later at age 72. She is survived by her daughter, a son, and five grandchildren, one of whom she took hiking shortly before she became ill.

Susan wanted to come back as a marmot because they spend summers in beautiful alpine areas, eat flowers, sleep all winter, and awake with adorable babies.

In Memoriam: Arthur Kermode (continued from previous page)

propagating native plants (WSU gave Art some space in one of its greenhouses) and I worked alongside Art, Pat Young, and Arleen Mesman; I thought this would be a good opportunity to learn more about native plants and I did learn a lot.

Art's dream of having a native plant display garden came to fruition a few years later. He was instrumental in the development of the native display garden and in offering native plants for sale to the public. Art's plants always sold

out first because no one else propagated these unique plants, which were of the highest quality.

Thank you, Art, for all you have taught me and others about native plants. Your dream lives on in the magnificent native garden that everyone can view today; it is located south of the Discovery Garden.

Art is survived by his wife, son (Kerman), daughter (Sheryl), and five grandchildren.

JS

Climb Every Mountain – Access to Rattlesnake

by Becky Chaney, WNPS Conservation Committee Chair

Rattlesnake Mountain is a spectacular and moving place. I know, as Joe Arnett tells me so! Beyond the view, it is significant for its high-quality plant communities. A botanizer climbing up the mountain is rewarded with the discovery of increasingly valuable ecosystems as the elevation rises. The landscape includes native shrub-steppe, lithosol, and spring-fed ecosystems, which support uncommon and endemic plants such as Piper's daisy (*Erigeron piperianus*), Rickard's locoweed (*Astragalus conjunctus* var. *rickardii*), and others. Why shouldn't such a place be on every botanizer's bucket list?

Rattlesnake Mountain, on the Fitzner-Eberhardt Arid Lands Ecology Reserve (ALE) in Benton County, is part of the Hanford Reach National Monument. The 2015 Defense Appropriations Act requires providing motorized, non-motorized, and pedestrian public access to its summit for educational, recreational, historical, scientific, cultural, and other purposes. The mountain's ecosystems and plants are highly threatened. Nez Perce and Yakama Nations have rights to the ALE and consider the mountain sacred. How do we balance these competing usages, rights, and desires?

The US Fish & Wildlife Service (USFWS) is working toward implementing public access while protecting threatened and endangered species and being consistent with existing laws, agreements, and treaties (including the National Historic Preservation Act (NHPA), National Environmental Policy Act (NEPA), Presidential (Monument) Proclamation 7319, and the National Wildlife Refuge System Improvement Act). It is not an easy task. During a recent USFWS comment period, suggestions regarding use ranged from taking a strict no-touch approach to calling for a summit gift shop and observatory.

WNPS has a long history with this site. Our members have participated in research and field trips on the mountain. Members that have not been able to visit would love a chance to experience this unique place. Although increasing public access opportunities would facilitate this, providing them comes at a high cost. Major threats to the mountain's unique ecosystems include annihilation by fire or soil disturbance. Public access escalates the likelihood of fire ignition. An open road adds to the temptation of off-road exploration.



Rattlesnake Mountain, from the north side, looking southwest, in a year when Bingen lupine (*Lupinus bingenensis* var. *subsaccatus*) was blooming. PHOTO: MIKE MARSH

Additional trails or structures permanently alter existing systems of connectivity.

WNPS is determined that public access to the ALE must recognize the fragility of the site and include direct USFWS supervision (WNPS Conservation Committee 2015) and monitoring of impacts. Without additional funding it is difficult to see how this can be accomplished by the agency. Currently the entire Mid-Columbia River National Wildlife Refuge Complex has fewer than 30 year-round employees and includes just one visitor services manager. What to do?

As an alternative, the trails of the adjacent Rattlesnake Slope Wildlife Area (managed by the Washington Department of Fish and Wildlife), Badger Mountain (managed by Benton County Parks), and the nearby Horse Heaven Hills (managed by the Bureau of Land Management) offer a similar, less fragile environment with sweeping views and the added value of knowing that your presence is not impacting some of the most unique and fragile ecosystems in the state. I recommend checking them out.

Climb every mountain. It's exciting, offers a challenge, and may even lead to the discovery of another endemic species. However, it may not be the most important thing we can do to honor the right of existence of our most fragile ecosystems. For now, consider experiencing Rattlesnake Mountain from afar and telling the USFWS you support ensuring its denizens continue to survive.

Becky can be reached via email at becky@chaney.org. She welcomes responses to her articles and is particularly interested in knowing about the conservation advocacy efforts of WNPS members from around the state.

Reference

WNPS Conservation Committee. 11/11/2015. Rattlesnake Unit Access Comments. Available on the WNPS Advocacy - Reports, Statements, Letters and Distribution page: http://www.wnps.org/conservation/conservation_reports.htm



Fall 2015 WNPS Board Meeting Highlights

by Don Schaechtel, Secretary

The fall meeting of the WNPS Board of Directors was held on Saturday, October 17, at the Cedar River Watershed Education Center in North Bend. Twenty directors attended and were joined by Denise Mahnke, our new business manager, and Jim Evans, stewardship program manager. The board consists of the elected at-large directors (including the four officers), the past president, chapter presidents or their representatives, and standing committee chairs. They meet twice annually to conduct WNPS-related business.

Here are the highlights of the meeting:

Newly elected at-large directors are Rory Denovan, Don Schaechtel, and Mark Turner. Each will serve a three-year term ending in October 2018. Only 48 ballots were received.

The following board officers were elected by the board to serve one-year terms:

President: Clay Antieau

Vice-President: Wendy McClure

Secretary: Don Schaechtel

Treasurer: Rob Smith

Don Hardin and Don Schaechtel were elected to serve on the Executive Committee along with officers Clay Antieau, Wendy McClure, and Rob Smith.

Directors Joe Arnett and Brigitte Ranne have resigned since the last board meeting, leaving two vacant at-large positions. Clay asked board members to recommend people who may be interested in filling the vacancies.

Gary Smith, outgoing treasurer, presented the society's financial statements, audit report, IRS Form 990, and recommendations from the Financial Advisory Committee. The board voted to:

- Accept the reports and IRS return
- Change the calculation date for the endowment to September 30 so payout decisions can be made at fall board meetings
- Approve a \$6,000 payout from the endowment for 2016 to be used to fund grants
- Apply up to \$15,000 from a recent estate gift to the operating reserve to bring that account closer to recommended levels
- Approve the proposed budget for 2016

Rob Smith thanked Gary for the outstanding job he has done as Treasurer.

Chapter presidents or their representatives presented highlights from their annual reports.

Rob Smith provided an update on the work of the Office Practices Improvement Team. He noted that new contracts have been awarded for ongoing support for office PCs, the WNPS website, and the membership database.

Kathy Murray, Editorial Board chair, presented recommendations for society publications. She will be developing a communications strategy for review at the spring board meeting.

Jim Evans introduced himself and described plans for expanding the Native Plant Stewardship Program statewide. The South Sound and Wenatchee Valley chapters have been selected for pilot programs in 2016. A third chapter will be selected for a pilot program.

Becky Chaney, Conservation Committee chair, reported on activities including:

- An excursion to Bumping Lake to conduct a plant inventory for the area that would be flooded if the level of the lake is raised. The inventory includes 230 species.
- Sending a letter to Seattle Parks Commissioners and Council members opposing proposed changes to use guidelines for Seattle's green spaces that would allow active recreation. Many of these green spaces have areas that WNPS native plant stewards have been or are now restoring.
- Sending a letter to US Senators Murray and Cantwell opposing SB 1691, which would suspend NEPA protections on certain national forest lands.

President Clay Antieau appointed a committee comprising Gary Smith, Chrys Bertolotto, Bill Brookreson, Kathy Murray, and Denise Mahnke to review staff human resources practices and make recommendations at the spring board meeting.

Mark Turner volunteered to be the board contact for production of the 2017 WNPS calendar.

The Wenatchee Valley and Central Washington chapters confirmed that they will cohost the annual study weekend on June 17–19, 2016.

Don Schaechtel reported that the Nominations and Governance Committee will be reviewing the society bylaws and will bring any recommendations to the spring board meeting. If the board approves revisions, a vote of the membership is required to enact them. This vote would coincide with annual elections of directors next summer.

The board agreed to hold a special board meeting on February 20, 2016, to provide time to discuss strategic issues. Clay will develop an agenda for this meeting. The regular spring board meeting will be held on April 9, 2016, in Ellensburg.



Meet the WNPS Staff

by Kathy Murray, *Salal Chapter*

The year 2015 saw dramatic changes in WNPS staffing with several people departing and three others coming on board to handle WNPS business matters and to create a statewide stewardship program. All three have strong environmental ties and a love of Washington and its flora.

WNPS office staff coordinate such statewide activities as Study Weekend and Botany Washington. They also support the state board in numerous ways, including strategic planning, updating the society's website, billing membership renewals, keeping chapter and state financial records, ensuring the society complies with state and federal laws, investing endowment funds as directed by the state board, and filling orders from the WNPS online store. When you call the office you will speak with Denise Mahnke, the business manager, or Barrie Moss, the

office and program coordinator. Both work 30 hours a week. Office hours are generally Monday–Thursday, 9:00 a.m. to 4:30 p.m.; Friday (by appointment), 9:00 a.m. to 12:30 p.m.

Denise Mahnke, who became business manager in October, began work at WNPS as the office and program coordinator a month earlier. She was born in Toronto and moved to western Washington at age 11. Her high school senior project focused on water and exposed her to statewide wetland habitats. As a student at Western Washington University, her curiosity about native plants began in earnest. She has a strong interest in the management of healthy waterways and the conservation of small stream systems. For 16 years she worked for the Girl Scouts of Western Washington, where she created partnerships with outside organizations and programs to enable year-round use of Girl Scout properties when they weren't being used by campers. Denise has traveled widely but still marvels at Washington's biodiversity. As a program manager, business owner, and volunteer for the environment, Denise brings lifelong experience in outdoor and nonprofit management to WNPS.



Denise Mahnke and Barrie Moss, WNPS business manager and office and program coordinator, respectively. PHOTO: KATHY MURRAY



Jim Evans, WNPS state stewardship program manager. PHOTO: LISA YOUNGER

Barrie Moss, the WNPS office and program coordinator, started work on November 2. Her position is divided equally between supporting the state office and the Central Puget Sound Chapter, which pays half her salary. When Barrie moved to Seattle two years ago from Hawaii, perhaps not surprisingly, WNPS was the first organization she joined. For 20 years, she and her former husband ran a native plant nursery on the Big Island of Hawaii. Initially, they operated a nursery focused on selling introduced tropical plants, but after they were approached about raising native plants if given seeds, they established the first native plant nursery on the Big Island. Barrie said the timing was fortuitous: in 1988, native Hawaiians, who viewed endemics as a part of their lost culture, helped create the demand for native plant seedlings. Barrie grew up on Oahu, majored in theater in college, and worked in New York for 15 years as a stage manager for Broadway, Off-Broadway, and touring productions before returning to the Big Island.

The third new person at WNPS is Jim Evans, who began work August 1 to develop a statewide stewardship program made possible by a bequest from the estate of Jane Titland (see “WNPS State Board Approves Statewide Stewardship Program Honoring Jane Titland” *Douglasia*, 38(3):15, Fall 2015). Jim is working on training programs that celebrate each chapter's human and natural communities and conservation foci. He said the programs need to be sustainable, regardless of a chapter's size or the urban or rural character of their service area, so there will be unique aspects to each chapter's program. Stewards will be expected to return volunteer service equal to the training hours received. But as shown by stewards trained in Puget Sound area programs, many will continue to be engaged in stewardship-related activities for the rest of their lives.

Jim grew up in Pennsylvania and earned his undergraduate degree in Vermont before moving to Washington and receiving an MS in botany (plant ecology) from the University of Washington. He previously was a stewardship coordinator, a shrub-steppe and dry forest field biologist, a shrub-steppe ecologist for The Nature Conservancy, and a project coordinator for the Starflower Foundation. He lives on Vashon Island and because he works largely from home, you are not likely to see his face at the WNPS office.

Jim said his mission is to “give stewards tools to engage in native plant restoration, conservation, and education in their communities” and to make the process “fun and inspiring.” The first pilot stewardship programs will begin in 2016 in South Puget Sound (spring) and in the Wenatchee Valley (fall).

Contact information for Denise, Barrie, and Jim is on the inside front cover of this and every *Douglasia* issue.



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(Donations received January 1 through December 31, 2015)

We gratefully acknowledge contributions to WNPS from the following supporters, whose generous donations make our programs possible and keep our voice strong on behalf of Washington's native plants and their habitats.

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Each year WNPS offers grants for projects that educate the public about native plants and for research in such areas as the biology of native species, conservation, and plant inventories of little-studied areas.

Application deadlines for education grants are May 15 and Nov 15 of each year. For more information, see http://www.wnps.org/education/education_grant.html.

The deadline for applying for research grants is January 15 of each year. More information is available at <http://www.wnps.org/research/research.html>.



Join the Washington Native Plant Society

Membership in WNPS entitles you to:

- A subscription to *Douglasia*
- A special price on Occasional Papers
- A chapter newsletter with local news and information
- Field trips to see wildflowers and unusual plant communities
- Classes by expert botanists
- Annual study weekends
- Conservation and restoration activities
- The fellowship of plant lovers from all over Washington State

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For more information visit: [//www.wnps.org](http://www.wnps.org). Or send this form with your name, address, e-mail, chapter affiliation, and payment to:

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Please make checks payable to WNPS.

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Did you know that contributions fund nearly a third of our operations—even more than dues? Consider the following ways to support WNPS programs.

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Workplace Giving: Federal and State Employees and Retirees. Federal and state employees and retirees can sign up during open enrollment periods for payroll donations that will begin the next year. WNPS's designated number for the Combined Federal Campaign (CFC) is 69374; for the Combined Fund Drive (CFD) for state employees, 0315051.

Give Big. An online giving campaign supported and matched by The Seattle Foundation. The 2016 event takes place on May 5. Be sure to consider WNPS in this annual campaign.

Amazon Smiles Foundation. Shopping on Amazon? Consider Smiles.Amazon.com to support WNPS with your purchasing dollar.

Botanical Rambles

Join the conversation on the Washington Native Plant Society blog, Botanical Rambles. You can find posts about botanical destinations, pollination, edible plants, events and opportunities, weeds, and whimsy at wnps.org/blog. Other topics include book reviews, gardening tips, and an annual look at botany in the movies. Sarah Gage, curator of the blog, is a past president of WNPS and managed the University of Washington Herbarium from 1988 to 2001.

Botanical Rambles welcomes your ideas, your contributed pieces, and especially your comments. Take a look at wnps.org/blog and sign up for notification of the weekly posts. Let's ramble!

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*WNPS Fellow is the highest honor given to a member by our society. This title is given to those who have made outstanding contributions to the understanding and/or preservation of Washington's flora, or to the success of WNPS.

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