



# Koma Kulshan Chapter WNPS Newsletter

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## Find Koma Kulshan Online

**Website:** [www.wnpskoma.org](http://www.wnpskoma.org)  
**Facebook:** WNPSKomaKulshan

## Help Wanted

Please contact Allan if you are interested in any of these jobs.

**Treasurer:** One of four elected offices in our bylaws. The tasks were recently summarized in an email from Angie: "Online banking makes it pretty easy to track spending and deposit checks. The two main tasks are recording and depositing sales from the plant sale and preparing the annual taxes. The taxes take around 4-6 hours to do. I will help the next treasurer with the taxes."

**Membership:** New members are identified on existing membership lists, as are those who have failed to renew their membership. Outreach to the new members and lapsed members is the task that someone could take on.

**Stewardship:** Two years ago we had a temporary stewardship committee to plan the stewardship class offered in the fall of 2017. Allan serves on the state stewardship committee and has overseen the planning for the stewardship class being offered this fall. Other people are needed to evaluate this class and plan future stewardship classes and other stewardship activities. A committee of at least three people is desired.

## Fall (October, November, December) 2019

### President's Corner

by Allan Richardson

Now as we head into fall and winter we can look forward to outings in the lowlands and indoor meetings. Here are some highlights from three of our summer field trips.

**Parnassia in the rain.** Two recent chapter field trips which I led both featured an abundance of fringed grass of Parnassus, *Parnassia fimbriata*, and rain. On August 23 we gave up fighting the rain on Boundary Way trail at a lush meadow with hundreds of blooming fringed grass of Parnassus. We puzzled over the strange name given to this plant, and also puzzled over its new placement with mountain box, *Paxistima myrsinites*, in the family Celastraceae. We also observed an odd Ribes, which gave another reason to plan a return visit to this little travelled route next year. On September 13 the original itinerary of the Chain Lakes trail loop starting at Artists Point was dropped for a hike along Bagley Lakes toward Herman Saddle. It was already raining and there were only four of us in the group. We did keep going for five hours in light off and on rain. In addition to the fringed grass of Parnassus, there was an abundance of leafy aster in bloom, and the butterworts, *Pinguicula*, and copperbush, *Elliottia pyroliflora*, in the rocks by the upper lake. We enjoyed eating blueberries and the berries of alpine wintergreen, *Gaultheria humifusa*, and had a close friendly encounter with a pika.

**High meadows on a sunny day.** On August 3 I led a group of 12 in the sunshine to Grouse Ridge. The non-trail begins at the end of a logging road in a 50 year old forest of silver fir, then soon enters an old growth forest of mostly mountain hemlock and yellow cedar. On the north slope of the ridge there were wet meadows of valerian and lupine, then drier meadows of heather. The top of the ridge is another botanical world with an amazing view of Mt Baker. The many interesting plants included sulfur buckwheat, *Eriogonum umbellatum*, crowberry, *Empetrum nigrum*, and silky phacelia, *Phacelia sericea*.

### Growing Native Plants from Seed

At our September meeting, Bridget McNassar journeyed northward from Oxbow Farm in Carnation, Washington to discuss methods for collecting and starting native plant seeds. Bridget is Native Plant Program Manager at Oxbow farm, which covers 240 acres bordering the Snoqualmie River. It focuses on regenerative farming, growing native plants, and promoting biodiversity. Bridget and her team grow about 160 native species, primarily from seed, and Oxbow sells about 70,000 plants per year. The meeting was followed by a seed exchange, featuring seed that Bridget provided, as well as contributions from Lyle Anderson, Anu Singh-Cundy, and others. There will be an encore seed exchange at the October meeting, so feel free to bring native plant seeds to share. There will be envelopes and pens on hand. The following is a summary of Bridget's talk.

Why grow from seed at all? You can choose plants of particular genetic interest, grow species you might not be able to buy, and you can get a deeper understanding of the species itself. After all, on botanical trips, one rarely if ever spots and identifies seedlings.

When planning collection outings, be sure to secure necessary permissions. Generally, collecting a few seeds requires no authorization, but you need permission or permits if you intend to sell seedlings or plants. Seeds should be taken from populations with 30 or more individuals present, and multiple plants sampled. At most, take seeds from 5-10% of the population. (Cont'd p 2)

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## Seeds (cont'd)

You should consider making multiple scouting expeditions, both to ensure proper identification of target plants and to determine when seeds are likely to be ripe. Consider keeping a journal to track phenology. As a general rule, seeds ripen about one month after flowering.

Fleshy fruit ripeness is often indicated by color change, and softness. Birds and animals feeding on the fruit is also a good sign. Dry fruits may become brittle, and seeds can change color from green, white or tan to brown or black. Dry fruits that split open when mature should be collected at first visual signs of splitting, but they can be collected when a few neighbors have already popped, and allowed to ripen at home. You can also place a net around the immature seed earlier in the season.

Useful tools for seed collecting include cut-and-hold pruners, telescoping pruners, a hand lens, gloves, paper or cloth bags and plastic bags or buckets for fruits, which need to be kept cool. GIS/mapping apps can help keep track of plant locations. Photos help document collection and may mark the location when taken with a smart phone.

After returning home, fleshy fruits can be stored in a refrigerator in plastic bags, which should be kept open to allow oxygen. Dry seeds should be kept in a warm, dry spot to continue the drying process. Some species are recalcitrant – that is, their seeds need to stay humid and moist. Maples and nuts are good examples. Orthodox seeds can be dried and stored at low temperatures and humidity, and this category includes most species in our region. Intermediate species are somewhat tolerant, but it's best not to dry their seeds. Examples here include trillium, wild ginger, and vanilla leaf.

Seed cleaning is important. Fruit may contain germination inhibitors, and mold can damage seed. Chaff can be blown from dry seeds. Fruits can be placed in a blender with tape wrapped around the blades. Pulp will float to the top while viable seeds generally sink. Dry fruits can be hung upside down to allow seeds to drop out, or they can be crushed between the fingers and the lighter chaff removed. Seeds to be dried should be processed in warm, not hot, conditions, and away from direct sun. Once prepared, seeds can be stored for 2-5 years at 40 F. You can add desiccant to air-tight containers.

### Breaking Dormancy

Many seeds are dormant, a condition designed to protect them from germinating too early. Dormancy may be external or internal. External dormancy comes from a tough seed coat that prevents absorption of water. In this case, you can lightly run sandpaper over the seed surfaces, then use a hand lens to confirm damage to the coat, or they can be placed in near boiling water and then allowed to soak until it returns to room temperature. Internal dormancy can take the form of chemicals that inhibition germination, or it may be due to an embryo that isn't mature enough to sprout, or both factors at once. The trick to get these seeds going is a combination of temperature and moisture to leach out chemical inhibitors. The technique to employ here is stratification. Typically, seeds need 30-90 days of cold and moist conditions. The first step is to soak seeds for up to 24 hours. After that, seeds can be kept moist by wrapping with a moist paper towel inside a plastic bag, by mixing with moist media in a plastic bag, or by placing them in a mesh bag inside a container with moist media. Check seeds every 2-3 weeks during stratification to ensure moistness and the absence of mold, and to check for germination. Seeds that germinate can be removed and planted. Stratification can also be done "naturally" by sowing them in the fall, as long as they are protected from drying, extreme weather, and predation.

Some special cases call for adjustments to the stratification method. Warm moist stratification can be useful for seed with immature embryos. The same conditions and setup can be used as for cold stratification, but seeds should be kept at room temperature, which should often be followed by a period of cold stratification. In a few cases, seeds may require multiple cycles of warm and cold stratification. In some cases, the first cycle allows root formation, and the second prompts shoots. These situations call for patience, and it's often a good idea to leave out trays with no visible signs of germination for another year. It will sometimes be rewarded with new growth.

Dormancy can be one of the most frustrating aspects of seed propagation, and growers often feel they must work out the best protocol for each type of seed. But there is help available. The Propagation Protocol database (<https://npr.rngr.net/propagation/protocols>). If your plant isn't there, you can look for plants in the same genus, and make educated guesses based on its ecology. When you're unsure, the best choice is to sow the seed directly.

Options for sowing seeds include flats, which are good for small quantities of seed, and seed with an unknown germination rate, as well as slower growing species. Individual pots are good for species with known germination rates, faster growers, and trees or shrubs. All containers should be thoroughly sterilized before use. You can use any seed starting mix, but it's critical to ensure good drainage. Seeds should only be buried as deep as their diameter, and small seeds can be scattered on the surface. After placing seeds, gently tamp down the soil and mist the trays to dampen them. If planted outside, row cover or grit can help prevent drying out. Most natives will germinate over a period of time, so you can expect seedlings to keep popping up for awhile. They should be kept moist, and transplanted out of flats and into individual containers when they get too crowded. You can fertilize the seedlings once the first true leaves appear.

Useful resources:

Native Plant Propagation Protocol Database has protocols for methods to break dormancy as well as seed collection, cleaning and signs of ripeness: <https://npr.rngr.net/propagation/protocols>

The Woody Plant Seed Manual is an excellent source for woody plants in the US: <https://rng.net/publications/wpsm>

Chapters 7 and 8 of the Tribal Nursery Manual describes low tech and high tech methods for seed propagation: <https://rng.net/publications/tribal-nursery-manual>

## Fall (October, November, December) 2019

### Chapter Meetings

Meetings begin at 7pm in the Sustainable Living Center education room at the ReStore (2309 Meridian St.). The entrance is off the back alley and the SLC is upstairs. For more information, contact Katrina Poppe at (360) 303-7806 or [katrinalee\\_98@yahoo.com](mailto:katrinalee_98@yahoo.com).

#### October 16, 2019: Botanical Survey and Monitor Project Field Season Report

This summer, a cadre of field botanists (undergrads and recent grads from WWU) performed surveys throughout the Pacific Northwest for the Botanical Survey and Monitor (SAM) Project of the Pacific Northwest Herbarium (WWB). The SAM Project uses historic records from the 1800s and 1900s to reveal and document changes in distributions of native PNW plants. Many factors could have impacted plant distributions including urbanization, habitat fragmentation, overzealous collectors, and climatic changes. The data collected in the field will give us a better understanding of how species distributions shifted in response to some of these factors. The project aims to know if some populations or species have gone extinct, and, if populations are declining, estimate when those species may go extinct locally and regionally. For the second year in a row for some, first year for others, the field botanists were paired up and sent off to different counties in Oregon and Washington on the west side of the Cascades to conduct the research. Each pair surveyed 4 or more counties each. The 3 months of data collection has revealed what areas seem to be greatly affected by some of the aforementioned factors. The cadre will share their experience, details about their adventures, what they have learned about field and lab work as botanists, and the multitude of beautiful photographs from the most colorful months of the year.

#### November 20, 2019: Investigating the Bigleaf Maple Decline

DNR Forest Pathologist Dan Omdal began studying bigleaf maple health in 2011 after reports came in from land managers and concerned members of the public documenting crown dieback, thinning, reduced leaf size, and discoloration. Initial surveys did identify several suspicious pathogens, but none could fully explain the extent of the decline. DNR later partnered with a UW research project in 2017 that sampled maples throughout their range in Washington, looking for correlations between maple health and environmental conditions, including potential pollutants, but none could be determined as the primary cause of decline. Dan Omdal will tell us about this investigation and share the latest results.

#### December 18, 2019: Holiday Potluck, 6-9 pm

4682 Wynn Road

Please join us at our annual winter potluck to enjoy a feast of food, and share stories about the year. Mark Turner, Natalie McClendon, and Brian Small have again offered to host. Dinner will begin around 6:30 pm and we will finish off with a slideshow of highlights of the year. Bring a dish and a drink to share. For those with photos to share, bring along a USB drive with up to 10 digital images.

### Field Trips

#### October 11, Friday, 10:00 AM to 2:00 PM: WNPS Native Plant Habitat Garden Work Party at NSEA

Location: Nooksack Salmon Enhancement Association (NSEA), 3057 E. Bakerview Road, Bellingham, WA 98226 The 6-acre site is east of Hannegan Road, down the hill where E. Bakerview Rd. turns north. Join us for a work party to help plant and maintain native plants at the Nooksack Salmon Enhancement Association's (NSEA) Native Plant Habitat Garden, which was created with WNPS support in 2016. WNPS Koma Kulshan Chapter has a partnership agreement to assist with the management and maintenance of the Native Plant Habitat Garden. We'll be weeding the garden and planting more native plants, and install plant signs. Warm drinks and snacks provided! Wear sturdy boots -- the ground is wet and you will be digging -- and weather appropriate clothing to stay warm and dry! Come morning and/or afternoon! If you have any questions, contact Wendy Scherrer at (360) 319-9518 or [bluegreen.northwest@gmail.com](mailto:bluegreen.northwest@gmail.com).

#### November 2, Saturday, 9:00 AM to 3:00 PM: Kelsey Conservation Site Tour and Work Party, Whatcom Land Trust

Visit Whatcom Land Trust's Kelsey site near Ferndale, which is part of the Terrell Creek watershed. We will see how the site is changing from former farmland to wooded wetland including changes made after beavers moved into the site. We will see current conservation work done to diversify the species make up at the site with plantings funded through a WNPS grant and grants from American Forests. After the tour we will work on removing invasive species. Bring loppers or hand clippers and dress appropriately for the weather. The site can be soggy underfoot. Meet at the southeast corner of Sunset Safeway parking lot for a 9 a.m. departure. There is limited parking which makes it necessary to car pool and RSVP. Contact Janet at 718-614-8230, or [jfaymurray@gmail.com](mailto:jfaymurray@gmail.com) with questions and to confirm.



Pam Borso and Vikki Jackson leading the way on an outing at Grouse Ridge Trail trip, led by Allan Richardson.

Photo by Alan Fritzberg

## Koma Kulshan Board

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(360) 671-6851

## Koma Kulshan Chapter WNPS Newsletter

If you would like to join WNPS

Please return the membership application form to:  
Washington Native Plant Society  
6310 NE 74th St., Suite 215E  
Seattle, WA 98115

Please make checks payable to WNPS  
(outside US add \$5 to dues)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Postal Code: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Koma Kulshan Chapter Total Enclosed: \_\_\_\_\_

Membership Category:

\$20 Budget (Senior/Student)  
\$40 Individual  
\$55 Family  
\$75 Club/Institution  
\$100 WNPS Friend  
\$250 Special Friend  
\$500 Best Friend  
\$1000 Sustaining Member

The Koma Kulshan chapter of WNPS is dedicated to the preservation and study of native plants and vegetation of Washington State and the education of the public to the values of native flora and its habitat.

WNPS -- Koma Kulshan Chapter  
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