



Kinnikinnick Journal

Volume XXVII Number 5

November-December 2023

Kinnikinnick Native Plant Society, Inc. / PO Box 1092 Sandpoint, Idaho 83864

www.nativeplantsociety.org

Upcoming Programs

November's program will be in-person at Sandpoint Community Hall, 204 South 1st Ave. The program begins at 10:00 a.m., with coffee, tea and treats available at 9:30. Programs are co-sponsored by the East Bonner County Library District and Sandpoint Parks & Recreation, and are free and open to the public. This program will not be offered virtually on Zoom.

Saturday, November 18

Bob Wilson, John Hastings, Gail Bolin, Preston Andrews

Down the Rabbit Hole: Native Plants are Important, But What is a Native Plant?

Native plants are the foundation of our ecosystems. They support wildlife and provide us with ecosystem services for our wellbeing. Still, defining a native plant is fraught. Even more so since they have become increasingly popular in the nursery/landscape trade. And now there are even natives. Huh?

Join this expert panel from KNPS as they answer these questions, and more:

- What is the difference between a species, a variety, a cultivar, and a hybrid?
- How might climate change effect what is native?
- What is an exotic plant, and are all of them bad?
- Why and how should we use native plants in our gardens?

Program Summaries: Sept. and Oct. 2023

The Ice Age Megafloods and the Inland Temperate Rainforest

Summary by Preston Andrews

The September and October programs were “hand-in-glove” companions explaining the unique physical geography and distinctive flora of northern Idaho. Tony Lewis, President of the Coeur du Deluge Chapter of the Ice Age Floods Institute, talked about the Ice Age megafloods that swept our region about 15,000 years ago. In September, I talked about the inland temperate rainforest of North America, the largest inland temperate rainforest in the world, with flora more typical of the coastal rainforests of the Pacific Northwest.

Tony showed that during the Pleistocene ice age, the Cordilleran Ice Sheet extended from present-day Hudson Bay in Canada southwest to Lake Pend Oreille, which was covered with a sheet of ice over 4000 feet thick. One lobe of this continental ice sheet extended down the Purcell Trench from present-day Bonners Ferry to Sandpoint. Only the summits of the Selkirk and Cabinet Mountains stood above this enormous continental glacier. The Pend Oreille sub-lobe of the glacier, extending from east of Clark Fork, south past Farragut State Park, created an ice dam that held back glacial Lake Missoula.

Repeated breaching of this ice dam had substantial impacts on our landscape when over 500 cubic miles of flood waters were released from glacial Lake Missoula. This slurry of mud, rocks, ice, trees and animals emptied Lake Missoula in just three days, traveling at over 65 mph, across east-

ern Washington, before reaching the Pacific Ocean. These massive floods occurred repeatedly as the ice dam reformed and failed again and again. The results are remnants of shoreline high above the city of Missoula, huge rock glacial erratics scattered across the landscape, the Rathdrum Prairie Outburst Plain and aquifer that supplies water to Spokane and vicinity, the Channeled Scablands of eastern Washington, and 1000 feet of sediment filling the bottom of present-day Lake Pend Oreille. These monumental events clearly altered the landscape of our region, making it what it is today.

I showed that following the retreat of the Cordilleran ice sheet, the climate changed to support the largest inland temperate rainforest



(Continued on page 3)

President's Message November-December 2023

Submitted by Shawna Parry

REMEMBERING

My father was a talented, avid fly fisherman. Though the fishing interest skipped me, I loved the camping trips we shared as a family in the Sierra Nevada mountains – especially on a particular small, trout-filled stream. It was a two-mile backpack jaunt to the campsite. Over the years we packed in items to use in the “kitchen,” like pots, skillets, utensils, and even a steel stove lid that fit over a couple of rocks as the camp stove. A toilet seat was hauled in, which fit on top of two fallen logs over a deep hole. Each year a new hole was dug, developing a trench between the fallen trees. All these items were cached in granite crevices near the campsite and topped with rocks, tree limbs, and pine bark. No one ever discovered the secret cache.

In 2004, the one nephew who inherited my father’s fishing talent, was asked by my then 85-year-old dad to take him back to this favorite fishing spot “for one last time.” Burke, only 19 years old, was delighted to oblige. They had a marvelous, special time together, and Burke wrote a detailed account of the expedition, which was recently rediscovered while cleaning out the old home for sale. The well-written, six-page story vividly brought back mind-pictures of the area, campfire smells of trout cooked in bacon grease, early morning sunrises seen from a sleeping bag stretched out on a tarp, rattlesnake sightings, crisply clear air, rumblings of the creek over granite boulders, and wild flowers pretty in the meadow.

Experiences in nature-filled settings, whether in the back country or the backyard or the KNPS Arboretum, are a tonic to our souls. Remembering these experiences is a joy.

KNPS Landscape Committee Report

by Nancy Britton

Our long warm fall brought us two consultations. On September 22nd we visited new members, Jenny and David Fister, and their family, in Oldtown. Their undeveloped five acres is currently predominately ponderosa and lodgepole pine with some larch; a variety of groundcovers, including bunchberry, wild strawberries, Oregon grape and pussytoes, amid serviceberry; a large road-facing field of grasses; and kinnikinnick, as well as a variety of commonly found weeds. Their plans are long-ranging and include locating a house and developing surrounding gardens. We enjoyed an ample lunch and good conversation with the entire family.

Two weeks later we visited Steven and Karen Hempstead on Fry Creek in Sagle. Their recent custom home sits on the site of a former house, and the land behind slopes down to the original boathouse. While some plantings from the former owners remain around the perimeter of the property, Karen and Steven envision an integrated landscaping design encompassing a pergola and dry creek bed with a variety of gardens amid walking paths. Steady progress is already being made, and they are now refining selected aspects and are interested in thinking through the fine points of the various areas. The day was a lovely mix of listening to ideas, garnering specifics, contributing insights, offering resources, and sharing the joy of exploring and imagining what could be in their outdoor spaces. Then, of course, there was the wonderful lunch and getting to know one another.



The picture is of the landscape committee members Bob Wilson, Jason Smith, Gail Bolin, Nancy Britton and Dave Britton taken by Karen Hempstead at our most recent consult.

For more information or to schedule a home landscape consultation email:

landscape@nativeplantsociety.org

Arboretum News

Arboretum Put to Bed for the Season

Submitted by Ann Torpie, Arboretum Leadership Team (ALT)

Our treasured Arboretum has closed out 2023 after a successful growing season, attended to by volunteer helpers and our new coordinator, Riley Chapin. Last month's column summarized all the events and programs held over the summer at the Arb (as we call it), so this wrap up to 2023 will button up the end-of-the-year doings.

Those who amble through the Arb may have noticed a generous rock and dirt pile across from our new moon gate. Riley Chapin's neighbor donated it, and many hours have been spent separating the rocks, those large enough to qualify as edging on our paths from smaller ones used to fill in our meandering 'riparian' rock creek that bisects the Arb. The remaining dirt pile may eventually become a new rock garden. Stay tuned.

Ken Thacker, ALT member, continues his care of the compost bins, which require attention from early spring through late fall. Thank you, Ken!

The downed 20-foot Douglas Fir log next to the shed is slated for cut up and donation as firewood. It had been diseased and threatened the shed with its leaning to the east.

Fall Cleanup was attended by about a dozen hearty volunteers on Sunday, October 1. While current garden wisdom suggests we leave most of the growing season's glory—fallen leaves, needles, seed heads, etc. to allow food and shelter for overwintering beneficial insects and pollinator larvae, there is always weeding to be done at the Arb. The many satisfyingly-full bins of weeds were testimony of a successful endeavor. Thank you to our stalwart volunteers; you know who you are!

Our Little Library was, sadly, twice the victim of vandals. The door will be repaired and the opening covered with plywood for the winter. We estimate that well over 300 books circulated through it this season. Children's books seem to be especially popular. We will be soliciting more books starting next spring through fall. If you cull your bookshelves over the winter, do think of us and box up your books for us until next summer. Thank you.

Important note to all members: kindly be on the lookout for an online survey that will be sent out shortly, soliciting input from members on what the Arboretum should or could be in the years ahead. With the City's upcoming review of Lakeview Park (within which the Arb exists), they are requesting our ideas regarding the Arboretum's future. We want to know your thoughts!



(Continued from page 1)

in the world along the western slopes of the Rocky Mountains from British Columbia to the Clearwater River in northern Idaho. As a result, our region has closer ecological affinity with rainforests on the Pacific Coast than with the more drought-tolerant forests of the Rocky Mountains. Key rainforest species that occur here are western red cedar, western hemlock, and the highest diversity of lichens in any inland temperate forest. Evidence suggests that these species migrated here either from coastal forests or from a refugium south of the former ice sheet in the Clearwater watershed, or by a combination of both.

Unfortunately, the presence of young forests, created by logging, has contributed to the loss of all mountain caribou, who depend on tree lichens in old-growth rainforests for their winter food, from the U.S.. Western red cedars are also dying back due to hotter springs from climate change. The bottom line is that protected areas, like the Ross Creek Cedars, need to be established in old-growth forested valleys to preserve the rainforest habitats unique to our region and shaped by the humongous, Ice Age megafloods.

Education Committee Report

Submitted by Bonnie Jakubos

By the time you read this, the Education Committee hopes to have a calendar showing education programs and activities for 2024. We have identified four goals for the year:

- Maintain and improve existing education activities during the school year.
- Expand adult education opportunities.
- Increase summer activities for children and families.
- Raise funds for educational activities.

We will be working with the Board, ALT, Fundraising, and Publicity to consolidate classes, workshops, tours, and anything else that is educational into the timeline. Having a calendar should avoid any last-minute surprises and allow time to publicize, publicize, and publicize.

Our current Education Committee includes Preston Andrews, Pam Duquette, John Hastings, Cindy Hayes, Bonnie Jakubos, and Julie Reister-Keaton. As it happens, we are all retired educators with the combined experience of teaching all ages from preschool to college students. Our Tango breakfast meetings are on the second Monday of the month at 9:00 am. Have breakfast with us! I promise we won't make you join the committee.

History of the Landscape Book

By Carol Jenkins and Patty Ericsson

The KNPS publication, *Landscaping with Native Plants in the Idaho Panhandle*, celebrated its 12th anniversary on October 22. Even though it hasn't made the NY Times Best Seller's list, if there was a Bonner County Best Seller's list, the KNPS Landscape book would likely be in the top ten.

The impetus for this book was Bonner County's updated Land Use Regulations. Working with the County in 2008, KNPS members were influential in the Bonner County's Planning Group. Nine KNPS members worked diligently for two months to establish "Native Plants Recommended for Landscaping," a comprehensive list with botanical information to guide property owners in the selection and use of native plants.

The Planning Department then formed the Native Plant Advisory Group, which included several KNPS members as well as Department planners. This group established the "Grow Native" theme beginning with a series of "Grow Native" articles in the Bonner Daily Bee. KNPS created buttons, banners, displays, and started the annual Grow Native Plant Sale, landscape consultations for members, and the KNPS Grant program.



Based on this work, KNPS decided to turn the research members had done with the County into a book which became our ever-popular publication *Landscaping with Native Plants in the Idaho Panhandle*. Starting in 2009, ten KNPS members dedicated two years to the writing of this 264-page full-color book. As the project developed, sections were added or expanded, and several lists, such as fire resistant and deer resistant plants, and lists of plants by color, light and moisture requirements were added.

Retail sales of the book began on October 22, 2011. The original 370 copies sold so quickly that by November KNPS ordered another 109 copies. By the end of December, nearly 400 copies were in circulation. In January 2012, the book was evaluated for a possible second edition, and by July 2012, a second edition of 500 copies was printed. The second edition has an expanded landscape design section, additional plants, an expanded and improved index, and a cover laminated on both sides to prevent curling. As of September 2023, nearly 2500 books have been sold. KNPS still sells the book to retailers at the cost of printing and shipping with profit kept by the retailer.

Of all KNPS educational outreach projects, *Landscaping with Native Plants* is arguably one of the most successful. It is still a strong seller in bookstores from Bonner's Ferry to Moscow, regularly contributing to peoples' awareness and use of native plants.

Plant Notes from the Arboretum

Camas, *Camassia quamash*

By Robin Campbell and Cindy Hayes

Throughout human history people have fought and died over natural resources. In the mid-nineteenth century, Camas (*Camassia quamash*) was just such a resource. This perennial native in the Lily family grew abundantly in moist meadows and grasslands from southern British Columbia to northern California on both sides of the Cascade Crest and into Montana, Wyoming, Nevada and Utah.

Camas was a food staple for many of the native American tribes inhabiting these areas. It was gathered annually and even cultivated by some tribes. Camas was much more than an important food; it was celebrated and the annual harvest brought communities together. One Nez Perce origin story depicts Camas as a gift of the Gods, left behind by Coyote to make the people glad.



As whites moved west, they trampled traditional Camas prairies. Those who settled plowed the land and let cattle and pigs roam, eating plants, digging up the bulbs and destroying the habitat. Along with anger at the U.S. government over broken treaties, this threat to native peoples' cultural and physical existence was a driving factor in the 1863 Nez Perce reservation break-out and the Bannock Wars of 1877.

Camas was unknown to science until it was collected by Meriwether Lewis. In 1805, members of the Lewis and Clark party, near starvation, were befriended by the Nez Perce who provided them with Camas bulbs on Quawmash Flats (Weippe Prairie, in present-day Clearwater County, Idaho). Lewis later noted that blooming meadows of Camas “resemble lakes of fine clear water.”

The scientific name for Camas is a bit redundant. The genus name *Camassia* is derived from the Nez Perce Indian word “camas” or “quamash” (which is its species name) meaning sweet. It has many common names including small camas, blue camas, prairie camas, and wild hyacinth.

Camas flowers are light blue-lavender to rich purple-blue appearing in late spring to early summer. They are arranged in loose racemes on stalks reaching from eight inches to two feet. The star-shaped flowers are symmetrical, with six narrow, inch-long tepals (three petals and three sepals that are indistinguishable from each other). In the center of the flower is a three-part stigma (a female part of the flower) surrounded by six stamens (a male part of the flower) on slender stems topped by pollen-bearing anthers. A Camas bed makes an impressive display of spring color, both in the wild and in the garden.

Flowers, when fertilized, produce a three-part capsule with five or more hard, black seeds inside. The capsule splits open releasing the seeds when they are ripe. Leaves emerging in early spring are grass-like with long, thin basal blades, which

(Continued on page 6)

(Continued from page 5)

often die back after flowering.

Characteristic of lilies, Camas plants grow from fleshy bulbs with fibrous roots, important to Native tribal cultures as a food source. Most commonly, Camas bulbs, ranging in size from a dime to a quarter, were dug using an elk horn tool in early summer after lower flowers wilted. Harvesting Camas while flowers are still evident makes it unlikely to accidentally confuse it with Death Camas, a similar looking bulb which can be fatal, but with white flowers.

Camas bulbs were cooked in every imaginable way, but the favored technique was roasting in earth ovens, pits dug in the ground and lined with rocks. After heating the rocks with a fire in the pit, moist vegetation was used to line the pit, and the bulbs were placed inside. They were then covered with bark and soil, and another fire was constructed on top. Bulbs were left to slowly roast for up to two days.

This long, slow cooking time is important to turn inulin (a starch difficult for humans to digest) into easily digested fructose, giving Camas a sweet taste not unlike that of sweet potatoes. Camas is highly nutritious with a protein content higher than salmon, another northwest food staple.

Camas harvesting and roasting was a time of celebration, and people living away from Camas fields traveled great distances to participate. What wasn't consumed at the party was dried for later use or used to barter. Today, some northwest tribes are reviving Camas cultivation and its traditional uses.

Camas prefers rich soil that is moist in the spring but dry through the summer. It is sun loving, but will tolerate partial shade. In the garden it makes an attractive addition to moist garden beds, water features and open meadows. It can be propagated by seed or by bulblets, which grow several seasons before blooming. Once established Camas beds will create a blanket of spring color for many years.

Camas grows in the Riparian Habitat of the North Idaho Native Plant Arboretum, 611 S Ella St. in Sandpoint. Pictures and a description are found in "*Landscaping with Native Plants in the Idaho Panhandle*," a KNPS publication available at local bookstores and the Bonner County History Museum.

KNPS Holiday Party

To kick off the holiday season, KNPS will hold its annual holly, jolly holiday party on Sunday, Dec. 10, 1:00 p.m. at the Sandpoint Senior Center (820 Main. St., Sandpoint). Note day and time change from previous holiday parties as the Senior Center had conflicting events. Please, bring your favorite appetizer, entree, salad, or dessert to share with your fellow KNPS members. Holiday attire will be welcomed although not required!



Curious Lifestyle of Plants

Viola adunca

By Jill Wilson

Early blue violet, *Viola adunca*, is common in our area, growing in a variety of sites both open and wooded, dry to moist. Plants are small, four inches or less in height. It is one of the earlier blooming species in our area. *Viola adunca* has some interesting life history characteristics which is how it came to be the subject of our column this month.

First, the flowers we typically associate with this species, seen in spring, have pale to dark violet petals, five in number. The lower three petals have white bases along dark violet lines that serve as guides for bees. The upper two petals are solid in color. The two side petals have a group of hairs at the base and are referred to as being bearded. Interestingly though, these are not the only flowers produced by this species. The pretty purple flowers produced in spring are pollinated by insects thus allowing cross pollination. Later in the season, a different type of flower is produced. These do not have petals, nor do they produce nectar or large amounts of pollen. These flowers, which are closed, are self-fertile and are known as cleistogamous flowers, meaning closed marriage. The earlier blooms which allow cross pollination are referred to as chasmogamous flowers. Cleistogamy is advantageous because it requires fewer plant resources to produce seed than chasmogamy. The downside is that without cross pollination there is no chance for gene exchange and production of genetically superior offspring. Further, self-pollination can lead to the expression of deleterious recessive mutations in progeny. It is reported that the production of cleistogamous flowers is useful for seed production on unfavorable sites or adverse conditions. Producing both perhaps gives this species certain advantages over one or the other.



Another interesting adaptation of this species, as well as some other species of violet, is in the manner seeds are dispersed. In the early blue violet, there are two methods to ensure that seeds are dispersed beyond the location of the parent plant. The first adaptation is that the seed capsules have evolved a mechanism to explosively release the mature seeds. As the seed pod matures and dries, the capsule dehisces (bursts) along three lines. As the capsule dries the seeds are then explosively released, dispersing the seeds up to several meters. In addition to this mechanism of seed dispersal, the early blue violet is also myrmecochorous. Myrmecochory refers to seed dispersal by ants. Ants are encouraged to carry seeds back to their nests by the presence of an elaiosome, an attachment that is rich in lipids, amino acids and other nutrients attractive to ants. Diplochory is the use of two different means of dispersal or two-phase seed dispersal. You may remember that we first discussed myrmecochory in our column on wild ginger! Diplochory is an energetically expensive means of seed dispersal for this species. It must give the plants a significant advantage to be worth the additional expenditure of resources!



Photo credit: Walter Siegmund

Creative Commons Attribution-Share Alike 3.0

Board of Directors 2023

President: Shawna Parry
Vice President: Preston Andrews
Secretary: Rae Charlton
Treasurer: Robin Campbell
Board Member: Sherry Ennis
Board Member: Bonnie Jakubos
Board Member: George Gehrig
Board Member: John Hastings
Board Member: Phil Hough
Arboretum Liaison: Rae Charlton

Additional Committee Chairs and Positions

Arboretum: Rae Charlton, Sue Gervais,
Ken Thacker, Ann Torpie
Education: Bonnie Jakubos
Landscape: Gail Bolin, Jason Smith
Conservation: Preston Andrews
Lois Wythe Grant: Patty Ericsson
Historian, mailchimp: Patty Ericsson
Hospitality: Isabel Hollriegel, Vicky Johnson
Newsletter: Jill Wilson, Sherry Ennis
Programs: Preston Andrews
Website Administrator: Vacant

Upcoming Events:

- **November 18: KNPS Program—What is a Native Plant (page 1)**
- **December 10: Holiday Party (page 6)**

Join or Renew KNPS

Membership Rates

July 1st through June 30th

___ Individual	\$30.00
___ Household	\$40.00
___ Student/Senior (65+)	\$25.00
___ Patron—Syringa	\$100.00
___ Patron—Lupine	\$200.00
___ Patron—Goldenrod	\$300.00

KNPS is a 501(c)(3) non-profit organization.

Membership Information

(make check payable to KNPS or
Kinnikinnick Native Plant Society)

Name _____

Name _____

Address _____

City _____ State _____ Zip _____

Home Phone _____

Email _____



Mail to:

Kinnikinnick Native Plant Society
PO Box 1092
Sandpoint, Idaho 83864

OR

Payment by credit card is available on our
Website: nativeplantsociety.org