

Native Plant Study Group

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Photo by Anne Hansen
Balsamorhiza deltoidea

Edible and Medicinal Plants of British Columbia with

Andy Mackinnon

By: Kristen Harrison

Drawing on his new book "Edible and Medicinal Plants of Canada," Andy Mackinnon gave an informative and interactive talk on a sampling of British Columbia's yummy and curative flora this past April. Though the crowd was large (over 90 people!), Andy managed to create an intimate atmosphere where many members and non-members alike shared personal experiences, recipes and knowledge of different native plants from our region. For example, we learned that *Rosa nutkana* (Nootka rose) can make a lovely perfume by steeping the hips in water, that *Gaultheria shallon* (Salal) makes for a good pancake syrup, and *Mahonia* berries (Oregon-grape) are delicious in martinis, or can be steeped in alcohol to form a rich, syrup-like liqueur.

British Columbia possesses an impressive diversity of edible and medicinal plants. Saskatoon shrubs (*Amelanchier alnifolia*), for instance, possess one of the most delicious local fruits. Historically, this plant was an important food source for First Nations in British Columbia. Berries were eaten fresh but could also be dried and stored for winter use. Edible roots of other plant species were sometime soaked in Saskatoon juice to make them more flavourful. Many British Columbians today eat the fresh berries right off the bush and/or use them in baking and for making wine. Andy was sure to mention that no matter the variety of Saskatoon berries (interior or coastal variety), Saskatoon pie is his favourite.

Like Oceanspray (*Holodiscus discolor*), Saskatoon shrubs have hard wood that can be used for making arrows, digging sticks and spear shafts. First Nations also used Saskatoon sticks to spread out salmon for drying, and for the construction of shelters. Saskatoon bark has medicinal uses too. Primarily, the bark and twigs have been used as a medicine for recovery after childbirth and for curing stomach problems.

Another plant with a delicious berry is Coastal strawberry (*Fragaria chiloensis*), one of the parents of our modern cultivated strawberry. During the early 19th century Coastal strawberries collected from Chile were crossed with *Fragaria virginiana*. To this day Coastal strawberries continue to be used to improve commercial varieties. Many plants from the Rosaceae family also yield delicious berries, particularly from the genus *Rubus*, like salmonberry (*R. spectabilis*), black raspberry (*R. leucodermis*), thimbleberry (*R. parviflorus*) and trailing blackberry (*R. ursinus*). Nootka rose (*Rosa nutkana*) is another useful rose plant on Vancouver Island, as the Salish ate the raw orange outside rind in the fall. The dried fruits, particularly after a frost, are abundant with Vitamin C and can be used as a tea. Other parts of the plant can be ingested too including the petals, leaves, stems and roots. Other First Nations of British Columbia used

The Native Plant Study Group meets on the third Thursday of the month from September through May at the MacLaurin Building, UVic.

Please join us!

The NPSG gratefully acknowledges the support of the Restoration of Natural Systems (RNS) program at UVic in securing the use of the rooms and facilities.

UVic parking policy--pay parking is in effect 24 hours a day. You must purchase a \$2 parking permit for the evening.

Save yourself the trouble by riding your bike or taking the bus!
(<http://www.bctransit.com/regions/vic/>)



Photo by Virginia Skilton
Dodecatheon hendersonii



Photo by Anne Hansen
Zigadenus venenosus



fruits as well, however several elders warned not to eat the seeds because they gave you an itchy bottom on the way out! This is a result of the achenes in the hips that are covered with irritating hairs.

One of my favourite edible native plants is nodding onion (*Allium cernuum*). *Allium* is the genus that contains onions, garlic, leeks and chives, thus nodding onion can be prepared much the same way. Historically, bulbs were pit cooked but were also picked fresh and eaten raw. Onions were dug in the spring just before flowering, being careful not to mistake them for death camas (*Zygadenus venenosus*).

Here I have touched on only a small sampling of the most common wild plant foods, hundreds more remain. Through careful observation and experimentation First Peoples in British Columbia learned to use native flora as an important component of their diets. Today, we are lucky to have much of this knowledge passed down. Anyone interested in harvesting wild foods should always do so in a sustainable and respectful way while avoiding poisonous look-alikes. Growing native food plants in a home garden is an ecologically sound practice because the plants are better adapted to our local climate and have evolved along with native birds and other wildlife. Besides being ecologically sensible, cultivating, harvesting and preparing our own food can increase the pleasure and joy we experience while eating.

For all VNHS events: No pets please.
Bring a lunch and drinks for the all-day
outings.
Wear appropriate attire and footwear.

Contact Agnes | 250-721-0634 |
thelynns(at)shaw.ca | www.vicnhs.bc.ca

Events & Outings

Victoria Natural History Society
(VNHS)

Sunday, May 30

Tour of Haliburton Community Farm
Biodiversity Project

Join Purnima Govindarajulu for a tour to see what the Biodiversity Project has been up to. All the bird and bee nesting boxes will be occupied. We'll peek under the salamander boards and check out who has moved into the wetland.

Location & Time:

741 Haliburton Rd at 9am

(Turn east off Pat Bay Highway on to Haliburton Rd. A laneway located after Rose Ln provides access to the farm gate)

Sunday, June 6

Enjoying the Last of the Season at
Eagle Heights

The area Northwest of Shawnigan Lake needs protection for its unique habitat as it is full of interesting native grasses and other late wildflowers. If time and weather allow, we'll look for those things that Pojar and MacKinnon refer to as "oddballs". Wear sturdy footwear, bring a walking stick if you wish, a lunch, snacks and plenty to drink for an all day outing.

Location & Time:

Helmcken Park & Ride at 9am for car-pool

Contact | Agnes T: 250-721-0634 |
thelynns at shaw.ca

Friday, June 11

Saltspring Botanical Adventure

Last year we saw the southern part of Saltspring Island, this year we will concentrate on the northern section. We'll continue our search for more wildflowers and enjoy the birds along the way as well. Some trails may be challenging but will be taken at a leisurely pace. Wear sturdy footwear and you might wish to bring a walking stick, a lunch, snacks and plenty to drink for an all day outing.

You must pre-register after May 1 for this event to assist in planning. We will carpool to catch the 9am ferry, returning around supper time. Participants will be expected to share in transportation expenses (about \$20 with 4 sharing).



Contact | Agnes T: 250-721-0634 |
thelynns at shaw.ca

Sunday, June 13

High Jordan Ridge Bogs

This area high above Jordan River contains unique bogs usually only found at much higher elevations. Be prepared in case of cold and/or wet weather due to the elevation and bring high rubber boots (hiking boots are not good enough). A hiking stick is a good idea due to the uneven ground. Bring a lunch, snacks and plenty to drink. You must pre-register for this trip after May 1 due to transportation limitations. Preference will be given to those who do not go on the May 16 trip. Guaranteed spot if you are willing to bring your high-clearance or four-wheel-drive vehicle for carpooling.

Location & Time:

Victoria at 8am

Contact | Agnes T: 250-721-0634 |
thelynns at shaw.ca

Saturday, June 19

Botanizing in Gowlland Tod Provincial Park

Join Kristen Harrison on a botany adventure into Gowlland Tod Provincial Park and we will explore the areas around Todd Inlet.

Location & Time:

End of Durrance Rd (turning left off of Wallace Dr) at 10am

Contact | Kristen T: 250-544-0455 |
kristenh@uvic.ca

Sunday, June 27

Portland Island Exploration
Portland Island, also known as
Princess Margaret Island, is now

part of the Gulf Islands National Park Reserve. We'll explore the beaches, see the wildflowers and hopefully sight some birds and add them to the BC Breeding Bird Atlas. Bring a lunch, snacks and plenty to drink. You must pre-register for this trip after May 1. Space on the ferry is limited and the trip will only happen if we get min. 10 people confirmed by May 15. The trip is dependent on good weather as high winds would cancel the outing. Cost is \$26.00 for the ferry.

Location & Time:

We will take a specially-scheduled ferry over to the island at 9am and return at 4:30pm

Contact | Agnes T: 250-721-0634 |
thelynns at shaw.ca

NPS BC Native Plant Society of British Columbia

Friday, June 4 & Saturday, June 5

Grassland Ecology Workshop in Lillooet

Join ecologist Don Gayton to learn more about native grassland ecosystems, grass taxonomy and grass identification. A classroom session takes place Friday night and a field session happens on Saturday. Maximum 25, so register soon!

Saturday, June 12

Field trip to Iona Beach Regional Park

Join trip leader Dawn Hanna for a look at the hardy and unusual plants found in the sand dune habitat at Iona Beach Regional Park in Richmond. Members of this red-listed plant community include the more common dunegrass (*Elymus mollis*), large-headed sedge

Native Plant Nurseries in

Victoria

Cannor Nurseries 4660 Elk Lake Drive 250-658-5415 www.cannor.com	GardenWorks-Colwood 1859 Island Highway 250-478-2078 www.gardenworks.ca
GardenWorks-Saanich 4290 Blenkinsop Rd 250-721-2140 www.gardenworks.ca	Island View Nursery (wholesale) 2933 McIntyre Road 250-544-4802
Lochside Nursery Lochside Drive 250-544-3100 www.csl.ca/lochside.html	Marigold Nurseries 7874 Lochside Drive 250-652-2342 www.marigoldnurseries.com
Thousand Summers Environmental Design 250-727-0229 thousandsummers@shaw.ca	Swan Lake Christmas Hill Nature Sanctuary 250-479-0211 www.swanlake.bc.ca
Nature's Garden Seed Co. Victoria, BC V8P 5S2 250-595-2062 www.naturesgardenseed.com	Russell Nursery 1370 Wain Road 250-656-0384 www.russellnursery.com

Nursery information found at :
<http://www.goert.ca>



Photo by Jim Riley
Fritillaria affinis



(*Carex macrocephala*) and beach pea (*Lathyrus japonicus*) as well as species more rarely seen on the mainland coast such as seabeach sandwort (*Honckenya peploides*) and Canadian sand-spurry (*Spegularia canadensis*).

Location & Time:

Washroom Building of Iona Beach Regional Park at 10am

Saturday, July 24 & Sunday, July 25

Field trip to Manning Provincial Park
Join us for this weekend field trip and wander trails in search of subalpine wildflowers and other plants. The trip will be photographer-friendly (i.e. at a slower pace than usual).

Contact | Dawn Hanna T: 604-831-5069 | dawnhanna(at)telus.net

Coming Soon...

14 August: Field trip to Mount Baker (info to come)

21 August: Digital photography workshop

11 September: Field trip to Cypress Provincial Park (info to come)

Reoccurring Events

Victoria Natural History Society

Botany Night

3rd Tuesday of each month

Go to www.vicnhs.bc.ca to become a member and support our local Natural History Society!

Location & Time

Swan Lake Nature Centre at 7:30pm

Contact | Darren Copley | dccopley(at)telus.net | <http://www.vicnhs.bc.ca/>

Volunteer Opportunities

The Anti-Ivy League of Cadboro Bay

Seapoint Dr., Saanich

Volunteer for great camaraderie, loads of fun and a feeling of satisfaction. Start up early March and finish about early November.

Location & Time:

Konukson Park on 10-Mile Point every Wed. and Sat. from 9am-12pm

Contact Harry Drage | T: 250-477-9544 | hdrage(at)shaw.ca

Brodick/Bow Park

West of Univ. Heights shopping centre off of Cedar Hill Rd

Invasive species removal and site restoration. Training and tools provided.

Location & Time:

Schedule and location may vary every Mon. 10-12pm



Photo by Anne Hansen
Camassia quamash

Members' Presentations

Native Plants in the Urban Landscape

In April Dr. Louise Goulet gave the Native Plant Study Group an inside look into the transformation of her conventional urban garden in Oak Bay into a native plant landscape. Louise stressed the benefits and beauty that the conversion to native flora brought to her home garden. Thank-you Louise!

Member's presentations are always welcome and appreciated. If you would like to present please contact Valerie or Nathalie at co-chair@npsg.ca.



Contact Judy Spearing | T: 250-472-0515 |
 jandd_speaing(at)shaw.ca |
www.mountdouglaspark.ca/calendare.do

Swan Lake Christmas Hill Nature Sanctuary:
 3873 Swan Lake Road, Victoria
 Swan Lake has a wide range of volunteer opportunities
 involving plants: nature interpretation, gardening with native
 plants, and removal of invasive plants.
 Contact Robyn Burton T: 250-479-0211 |
 volunteer(at)swanlake.bc.ca

Glendale Gardens Native Plant Demonstration
 Garden:

505 Quayle Road, Saanich
 Snow, rain or shine! Before coffee we work in the Western
 Woods restoration project and after coffee we work in the
 native garden. Volunteers welcome.

Time:
 Every Wednesday morning
 Contact | T: 250-658-5740



Photo by Kristen Harrison
 Calypso bulbosa

Native Plant Society of British Columbia AGM Update

There was a good turnout by members of the NPSG at the Spring Wildflower Fling and Annual General Meeting of the Native Plant Society of British Columbia, held May 1 and 2 in Duncan. President Dawn Hanna was very pleased that the numbers were much higher than last year's AGM. Rain threatened, but held off during several wonderful hikes in the Cowichan area.

Ecologist Dave Polster took us on a tour of the Somenos Marsh, including the significant deep soil Garry oak preserve where he is leading the community effort to protect the area from a local developer and from the pressure of the growing stands of Douglas fir. We were fortunate to see wood ducks during the hike, and the timing was perfect for a profusion of endangered yellow montane violets (*Viola praemorsa*). We also walked out on the boardwalk, into the marsh, where we saw Northern Shovelers, Great Blue Herons and Violet-green Swallows.

After the meeting at the Maple Bay Rowing Club, we were treated to a guided tour of the Cowichan Garry Oak Preserve by Irv Banman of the Nature Conservancy of Canada. He showed us the results of a decade of work since the Nature Conservancy bought the property from the Elkington family that had owned it since the 1800s. Thanks to thousands of hours of volunteer help meadows that were once forests of Scotch broom (*Cytisus scoparius*) are now fields of camas (*Camassia quamash* and *C. leichtlinii*) and shooting stars (*Dodecatheon hendersonii*). This preserve is home to the largest and oldest Garry oak in Canada. An on-site nursery is filled with seedlings, including numerous native grasses, and helped along by a small herd of sheep the property is becoming a heritage jewel.

On the second day, the group split in half. Some went to Eagle Heights near Shawnigan Lake with Rossalynn Woodgate, the NPSBC board member from Duncan who organized the hikes and information for those who attended. The other half opted for a tour of Mount Tzouhalem where the wildflowers were out in all their splendour, including lots of common camas (*Camassia quamash*), shooting stars, death camas (*Zygadenus venenosus*), sea blush (*Plectritis congesta*), and several showy stands of deltoid balsamroot (*Blasamorhiza deltoidea*). All told, the weekend was a huge success!



Adolf Ceska and Moralea Milne at
 the Cowichan Garry Oak Preserve
 May 1st, 2010



Alpine Flora of Vancouver Island

By: Kristen Harrison

Vancouver Island has nearly 125 km² of alpine area and occurs wherever severe mountain climate precludes tree growth. Conditions are so harsh that tree species are unable to survive except as krummholz (a forest of stunted trees near the timber line on a mountain). Dwarf shrubs are dominated by evergreen species such as *Cassiope* spp. and *Phyllodoce* spp. (mountain-heathers). Herb meadows dominated by broad-leaved forbs are also common. Important Vancouver Island alpine meadow species include *Lupinus arcticus* (arctic lupine), *Senecio triangularis* (arrow-leaved groundsel), *Erigeron peregrinus* (subalpine daisy), *Valeriana sitchensis* (Sitka valerian), and *Cirsium edule* (edible thistle), among many others.

In alpine habitats, the physical environment dictates the vegetation. Patterns of vegetation are usually accentuated in alpine regions because of topographic diversity and often change abruptly due to rapid shifts in environmental gradients. Even a few centimetres difference in microtopography can cause pronounced differences in soil temperature, depth of thaw, wind effects and snow drifting. Snow and wind are extremely important environmental factors in alpine ecosystems and influence plant phenology, growth and species composition. Some vegetation types, such as cushion or mat shaped forms, are specially adapted to windswept habitats. These low growth forms enable plants to take advantage of the more favourable temperatures that prevail near the ground. Species like *Silene acaulis* (moss campion) and several species of sandwort and saxifrage have employed this strategy.

Substrate differences, such as limestone, can also affect species composition in the alpine zone. For example, on 5040 Peak and Steamboat Mountain on Vancouver Island some species are highly correlated with limestone substrates, including *Asplenium viride* (green spleenwort), *Dryas drummondii* (Drummond's mountain-avens), *Dryopteris filix-mas* (Male fern), *Salix arctica* (Arctic willow) and *Zigadenus elegans* (mountain death-camas), as observed by Hans Roemer.

One of the characteristic features of tundra areas is the relatively small flora that is favoured by these severe environments. Ogilvie and Ceska (1984) note the relatively low diversity of the flora on Vancouver Island in some otherwise major families and genera of alpine zone plants, including Poaceae, Asteraceae, Rosaceae and Fabaceae.



Photo by Gordon Neish
Valeriana sitchensis

Furthermore, some otherwise widespread alpine zone species are absent on Vancouver Island such as *Astragalus alpinus* (alpine milkvetch), *Myosotis asiatica* (mountain forget-me-not) and *Salix reticulata* (dwarf willow). Many of the common and widespread alpine zone species of the Rocky Mountains and western Cordillera are of rare occurrence on Vancouver Island such as *Antennaria alpina* (alpine pussytoes) as well (Ogilvie and Ceska 1984).

Another characteristic feature of the vegetation in Vancouver Island's alpine tundra area is the low degree of endemism, which may be attributed to the young age of the landscape due to relatively recent glaciation events.

Documentation of alpine vegetation of the Vancouver Island region has been scant and most of the studies have been done in thesis or report form. Some of the documentation of Vancouver Island alpine flora include Carter and Newcombe (1921) who provided a preliminary catalogue of the flora of Vancouver and Queen Charlotte Islands; Hardy (1955) who completed a checklist for Forbidden Plateau in Strathcona Park and; Ogilvie and Ceska (1984) who surveyed several peaks in northwestern Vancouver Island. More recently, Swerhun et al. (2009) began a long-term alpine vegetation monitoring program following the protocol outlined in the Global Observation Research Initiative in Alpine environments (GLORIA 2006), on Mount Arrowsmith, within the Mount Arrowsmith Biosphere



Reserve, just east of Port Alberni. They established sites at four summits in the Arrowsmith area and inventoried vascular plant species with plans to resurvey at five-year intervals. Their primary objective was to document current plant species composition and allow for a long-term assessment of changes in biodiversity attributable primarily to climate change by creating baseline data. Local botanist Hans Roemer did the plant identifications for this project and has made a number of interesting observations while exploring the alpine vegetation of Vancouver Island in other areas as well. For example, he has compiled comprehensive lists from both sides of the Kennedy River (5040 Peak, Jack's Peak), Steamboat Mountain and Mt. Arrowsmith. Additionally, Hans has recorded a number of rare species from 5040 Peak and has made thorough lists of rare plants and species that prefer limestone or are limestone obligates.

Alpine Flowers of Vancouver Island: The Pamphlet

Recently, Rick Avis, Judith Holm, Hans Roemer and Ken Wong have created a pamphlet of 86 representative native alpine flowers on Vancouver Island. Judith Holm initiated this project with a desire to increase awareness of our Vancouver Island alpine flora. Judith's mountaineering, editing and botanical skills in combination with Hans Roemer's familiarity with alpine vegetation, the photography skills of Ken Wong and Rick Avis and a great design layout by Michael VanInsberghe, they have certainly made this project a success. This project has special appeal because it is specific to the Vancouver Island alpine region rather than to the 'Pacific Northwest' as most of the published material for our region is. Also, the water-proof and tear-proof colour photo identification pamphlet will be a great travel companion for alpine travellers. Of the 86 species of alpine flowers in the pamphlet 7 are officially described as rare (Conservation Data Centre) and an additional 13 rare species are portrayed on the website. The website also has links to other sites of interest and to E-Flora BC, as well as contact information for those who might want to share their alpine floral discoveries.



Photo by Jim Riley
Silene acaulis

NATIVE PLANT STUDY GROUP (NPSG)

(Sub-group of the registered non-profit Native Plant Society of British Columbia and is guided by a steering committee)

The NPSG is a non-political group dedicated to learning about B.C. native plants as wild populations and in garden settings, and to supporting conservation of native plants and their habitats. Participation in outside events, by the group, or by individual members, using the NPSG name is dependent on approval of the steering committee or, where indicated, by the at-large membership. Activities requiring funding must receive approval by the general membership.

Co-Chair	Valerie Elliott co-chair@npsg.ca
Co-Chair:	Nathalie Dechaine co-chair@npsg.ca
Speakers:	Kristen Harrison
Treasurer:	Joan Varley
Newsletter:	Ilana Kronick Kristen Harrison Hilary Stead
Plant Rescue:	Todd Doherty
Membership:	Agnes Lynn
Publicity:	Valerie Elliott
Room Set-up:	Pat & Wayne Robertson
Plant Raffle:	Heather Pass
List-serve:	Linda Beare & John Olafson
Refreshments:	Pat McMahon
Archivist:	Brenda Pilon

Native Plant Study Group members are members of the Native Plant Society of BC.