



Photo by Brian Klinkenberg
Argentina egedii



Photo by Brian Klinkenberg
Fritillaria camschatcensis



Photo by Neil L. Jennings
Camassia leichtlinii



Photo by Matt Fairbarns
Trifolium wormskjoldii

Gardening with Nature

By: Kristen Harrison

Gardening in collaboration with nature by using native plants can not only mean making your garden look beautiful and in harmony with local ecosystems, but native plants can also be a rich food source. Abe Lloyd is a masters student in ethnoecology at the University of Victoria; advised by Dr. Nancy Turner and Kwakwaka'wakw elders, Chief Adam Dick (Kwaxsistala) and Daisy Sewid Smith. Abe studies estuarine root gardens of the Northwest Coastal First Nations with an emphasis on learning how traditional management affects the root productivity and palatability of certain native species. He is particularly interested in traditional management effects on Silverweed (*Argentina egedii*).

During Abe's talk in January he emphasized that the Northwest Coast First Nations are not hunter-gatherers that passively take advantage of nature's bounty, but rather are managers that actively tend nature's ecosystems for higher productivity. For example, historical accounts reveal that First Nations modified the landscape through routine diggings, soil cultivation, pruning, cutting back, burning, weeding and clearing.

In order to get a better understanding of these interactions Abe has been doing work in t'aki'lakw root gardens on the estuarine flats of the Kingcome River on the central coast of British Columbia. Historically, Kwakwaka'wakw families had plots of edible root gardens in the estuaries. Labour was divided accordingly to ensure the plots were gardened seasonally. Some species were cultivated for their edible roots such as xúkwem 'Northern Rice root' (*Fritillaria camschatcensis*), tuxsús 'springbank clover' (*Trifolium wormskjoldii*), dlexsém 'Pacific silverweed' (*Argentina egedii*; syn. *Potentilla pacifica*) and qw'éni 'Nootka lupine' (*Lupinus nootkatensis*).

The bulbs of *F. camschatcensis* resemble clusters of white rice and were highly prized by the Kingcome Inlet people. The bulbs can be dug in spring before flowering or in summer or fall after flowering and processed by steaming or boiling. Often they were eaten with oil, usually oolichan grease. The rhizomes of *T. wormskjoldii* are long and fleshy and were harvested and prepared together with *A. egedii*. Both were usually dug in the fall and, like *F. camschatcensis*, were often pit-cooked and eaten with oolichan grease. Also, the roots of Nootka lupine were roasted and pit-cooked by the Kwakwaka'wakw.

Like the estuarine plants of Kingcome Inlet, *Camassia* spp. (blue camas lily) has been an extremely important root vegetable for First Nations along the Pacific Coast. Local indigenous peoples intentionally burned certain sites to promote camas growth. They harvested camas on both a local and intensive scale. Recurrent fires in these ecosystems were necessary to prevent the succession to *Pseudotsuga menziesii* (Douglas-fir) forest and ensure long-term productivity of this significant food resource.

First Nations' historical accounts confirm that extant ecosystems are often part of a culturally modified landscape. The activities we associate with gardening such as weeding, pruning, and crop selection have been practiced by First Nations to enhance crop yields for thousands of years. More recently, human intervention has put native plants under stress and danger but these historical examples demonstrate that well managed disturbance can sometimes have beneficial results.



Digging Sticks (Kellaqw), carved by Abe Lloyd and Chief Adam Dick (Kwaxsistala). These sticks are made of Yew wood (*Taxus brevifolia*) and are used for tilling the soil and prying up edible roots.

It was particularly interesting to see the digging stick (Kellaqw) carved by Abe and Chief Adam Dick (Kwaxsistala) in person and speakers who gave us bulbs and seeds are always particularly welcome! Thank you Abe!



Events & Outings

7th Annual GOERT Restoration Colloquium

Thursday, March 4

A Colloquium of brief presentations for those planning or conducting research and restoration connected with Garry oak ecosystems. This event also aims to facilitate discussion, strengthen networking and accelerate research and its application to restoring Garry oak ecosystems. Proceedings will be distributed via email following the event.

Location & Time:

Pacific Forestry Centre, 506 West Burnside Road, Victoria, BC

9 am to 4 pm

Pre-registration required, attendance is free

Contact info@goert.ca | www.goert.ca

NPS BC Native Plant Society of British Columbia

Thursday, March 4

Women botanists of western North America with Linda Jennings

Learn a few rules of "sex" nomenclature and how to recognize if a plant is named after a male or female. Then, hear the stories about some of the earliest and most known North American female botanists such as Kate Brandegee, Alice Eastwood and Lilia Leech, their plant discoveries and how they changed our understanding of the botanical world.

Linda Jennings is the Herbarium collection manager at the University of BC's Beaty Biodiversity Centre.

Location & Time:

Van Dusen Botanical Garden, Cedar Room- 7pm

5251 Oak Street @ 37th Avenue

Vancouver, BC

Free Admission; Free parking

Invasive Plant Council of BC (IPCBC) & Coastal Invasive Plant Committee (CIPC)

Free outreach and education opportunities to horticultural groups throughout Vancouver Island and the upper Sunshine Coast.

Contact Dave Johnson | [outreachisland1\(at\)invasiveplantcouncilbc.ca](mailto:outreachisland1(at)invasiveplantcouncilbc.ca)

Or

Sarah York | [outreachisland2\(at\)invasiveplantcouncilbc.ca](mailto:outreachisland2(at)invasiveplantcouncilbc.ca)



Photo by Ian Gardiner
Fritillaria pudica

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](mailto:thelynns(at)shaw.ca) | www.vicnhs.bc.ca

Thursday, April 1

Hotspots for spring wildflowers

Want to learn some of the best places to see fawn lilies, western trillium and other spring wildflowers in BC? Native Plant Society of BC members will show images of spring wildflower species and share their knowledge about where and when to go for a great spring wildflower show.

Location & Time:

Van Dusen Botanical Garden, Cedar Room- 7pm

5251 Oak Street @ 37th Avenue

Vancouver, BC

Free Admission; Free parking

Saturday May 1st & Sunday May 2nd Spring 2010 AGM being held in Duncan

Join us for:

- a tour of Somenos Marsh and Garry Oak Protected Area
- a tour of the Cowichan Garry Oak Preserve
- lunch at Maple Bay
- field trips to Mount Tzouhalem Ecological Reserve and/or Honeymoon Bay Wildflower Reserve

Watch for details in the spring issue of *Menziesia* and on the website at www.npsbc.org

James Bay Market Society

Seedy Saturday

Saturday, February 20

Victoria's 17th annual seed & garden show

Celebrate SEEDS - open-pollinated, speciality & heritage varieties. Love of gardening, food security & sustainable growing practises bring together the public & vendors of seeds, plants, shrubs, bulbs, small fruits, garden products, mushroom kits, worms & more. Master Gardeners are present, along with garden club & environmental group displays. Bring your



Volunteer Opportunities

saved seeds to share at the seed exchange & take one of the free educational sessions. For the novice to the expert! Check our website for more details.

Location & Time:

Victoria Conference Centre from 10am-4pm
720 Douglas St., Level 2

Admission \$7; children under <12 free

Contact | 250-381-5323 |

<http://www.jamesbaymarket.com>

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- 7:30 pm

Contact: Darren Copley|

dccopley@telus.net|

<http://www.vicnhs.bc.ca/>

Swan Lake Nature Sanctuary

Native Plant Workshops

Tue, Feb 16th

1 – 4 p.m.

Sat, Apr 10th

9:30 a.m. – 12:30
p.m.

Sun, Mar 7th

1 – 4 p.m.

Sun, Apr 11th

1 – 4 p.m.

Sat, Mar 20th

9:30 a.m. – 12:30
p.m.

Native Plant Sale

Sat, Apr 17th

10 a.m. – 3 p.m.

Sun, Apr 18th

10 a.m. – 3 p.m.

The Anti-Ivy League of Cadboro
Bay

Seapoint Dr., Saanich

Volunteer for great camaraderie, loads of fun and a feeling of satisfaction every Wed. and Sat. from 9:00a.m.-12:00 p.m. Startup early March and finish about early November. Currently working in Konukson Park on 10-Mile Point

Contact Harry Drage | T: 250-477-9544 |

hdrage@shaw.ca

Brodick/Bow Park

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

Invasive species removal and site restoration - every Monday 10:00a.m.-
Noon p.m. Training, tools, and equipment provided.

Contact Judy Spearing |T:250-472-0515 |

jandd_spearing@shaw.ca

Mt. Douglas Park

Alien, invasive species removal and site restoration. Schedule and location may vary.

For full details go to:

www.mountdouglaspark.ca/calendar.do

Contact Judy Spearing | T: 250-472-0515 |

jandd_spearing@shaw.ca

Glendale Gardens Native Plant

Demonstration Garden:

505 Quayle Road, Saanich

Meet every Wednesday morning, 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.

Contact | T: 250-658-5740

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@swanlake.bc.ca

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
Teesdalia nudicaulis



Plant Nurseries in Victoria

Cannor Nurseries
4660 Elk Lake Drive
250-658-5415
www.cannor.com

Lochside Nursery
Lochside Drive
250-544-3100

www.csl.ca/lochside.html

Russell Nursery
1370 Wain Road
250-656-0384

www.russellnursery.com

GardenWorks- Colwood
1859 Island Highway
250-478-2078

www.gardenworks.ca

Marigold Nurseries
7874 Lochside Drive
250-652-2342

www.marigoldnurseries.com

Thousand Summers
Environmental Design
250-727-0229

thousandsummers@shaw.ca

GardenWorks- Saanich
4290 Blenkinsop Rd
250-721-2140

www.gardenworks.ca

Nature's Garden Seed Co.
Victoria, BC V8P 5S2
250-595-2062

www.naturesgardenseed.com

Swan Lake Christmas Hill
Nature Sanctuary
250-479-0211

www.swanlake.bc.ca

Island View Nursery (wholesale)
2933 McIntyre Road
250-544-4802

Queenswood (wholesale & retail)
6458 Central Saanich Road
250-652-1443

www.queenswoodnursery.com

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

Local Native Plant Gardens

Glendale Gardens Native Plant Demonstration Garden

505 Quayle Road, Saanich

The native plant garden at Glendale Gardens was begun in 2000 by members of the Native Plant Study Group, and features rocky outcrops, native shrubs, trees, flowers and a Garry oak meadow. It covers nearly an acre, with a variety of habitats.

Contact | T: 250- 479-6162 | info@hcp.bc.ca

Gonzales Bay Native Plant Garden:

1843 Crescent Road, Victoria

A residential seaside native plant garden that includes Garry oaks, western crab-apple, red-osier dogwood, woolly sunflower, mock-orange, sedum, western hawthorn, hairy manzanita, native grasses and bulbs. There is also a small Garry oak restoration area to the east of the Boyle property, beside the walkway to Gonzales Beach. The restoration area is accessible from the sidewalk along Crescent Road.

Contact Pat Boyle | T: 250-370-1812

Kings Road Native Plant Garden:

Kings Road at Roseberry Avenue, Victoria

This site is a residential native plant garden in the Oaklands neighbourhood of Victoria. Garry oak habitat was restored over a period of four years by volunteers meeting once a week.

Contact | info@goert.ca

Oak Bay Native Plant Garden:

Beach Drive at Margate Street, Victoria

This Oak Bay landmark was donated by Mrs. Ada Beaven in 1939 for the purpose of developing a native plant garden. The site is of great ecological value as a



Photo by Virginia Skilton
Penstemon albertinus

green space and nature reserve. It acts as a preserve for plants indigenous to southern Vancouver Island, many of which are endangered by development. The garden includes more than 120 plant species from all areas of lower Vancouver Island as well as a restored Garry oak meadow.

Contact Carol Davies | T: 250-475-4412 | ecdavies@juvic.ca
or

Contact Parks and Recreation,
Oak Bay | T: 250-592-7275

Saanich Community Church Native Plant Garden:

4566 West Saanich Road, Saanich

The garden is being developed under existing mature oak and fir trees and aims to reintroduce species that may have grown on the site before it was developed.

Contact Burl Jantzen | 250-475-0406 |
info@saanichcommunity.ca |
www.saanichcommunity.ca

Royal BC Museum

675 Belleville Street, Victoria

One of the oldest Native Plant Gardens in western Canada (begun in 1967) and features approximately 300 native species.

Contact Ken Marr | T: 250-356-8176 |
kmarr@royalbcmuseum.bc.ca



Brenda Beckwith is Back to the Future in March

Dr. Brenda Beckwith returns on March 18th to discuss the future history of camas in a talk called "Back to the Future: The Re-storying of Camas Landscapes." She will also help answer some of our most pressing questions about *Camassia* spp. (blue camas lily) in an open discussion period. Brenda completed her doctoral research on the ethnoecology of the edible root food, camas, in Garry oak ecosystems at the University of Victoria in 2004. Her research and teaching interests include landscape theory and reconstruction, eco-cultural restoration, ecological gardening, and environmental education. She teaches in the School of Environmental Studies, UVic, and also for Continuing Studies, Royal Roads University, and the Pacific Horticulture College. She has been consulting with private landowners and grassroots conservation organizations in the fields of ecological restoration and ethnobotanical gardening and landscaping for nearly 20 years. When not teaching, she can be found working on her small organic farm in North Saanich.



Photo by Virginia Skilton
Triteleia grandiflora

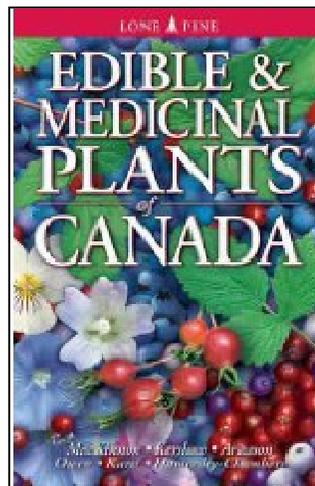
Andy MacKinnon

Coming soon to the NPSG...

Andy MacKinnon is a local biologist and author of five plant identification guides including 'Plants of Coastal British Columbia'. His interests include BC's native plants, fungi and lichens, and Sasquatch ethnobotany!

Andy specializes in ecosystem classification and mapping for coastal BC, land use and old growth issues, and forest conservation. He is currently working as Research Ecologist, Coast Region for the BC Forest Service.

Andy will speak about his newest book 'Edible and Medicinal Plants of Canada' for the Victoria Native Plant Study Group April 15th 2010.



An Award for the NPSG

The Native Plant Study Group was recently honoured with a 2009 Saanich Environmental Award. The group was chosen to receive the Biodiversity Conservation Award, one of seven annual awards chosen by the Saanich Environmental Advisory Committee.

The committee recognized the NPSG's work raising awareness about the beauty and value of native plants and bringing together gardeners, horticulturalists, botanists and others who share a passion and curiosity for native plants. They noted that the group's sessions are open to the public and that the NPSG schedules garden tours, field trips and social events and coordinate a volunteer native plant salvage program in the CRD.

Also recognized was members' participation in restoration projects in the CRD and Saanich and the many educational and 'in the ground' activities that help to protect and restore regional biodiversity and ecosystems.

Also recognized for their positive contributions to the natural environment in the 10th Annual Saanich Environmental Awards were Dick Battles, Glendale Gardens Native Plant Garden Group, EY Properties, Royal Oak Middle School, Rob Hagel and Royal Oak Burial Park. The NPSG award was accepted at a special awards ceremony by co-chair Nathalie Dechaine.



Answers to your Questions

Sexual reproduction in *Oemleria cerasiformis*

Plants employ many different morphological adaptations involving sexual reproduction. Specifically, gender expression in plants is complex and varied. The most common type of gender expression in plants is hermaphroditism. Hermaphroditic plants have perfect flowers containing both functional stamens and stigmas (both male and female parts). An individual that has both male and female reproductive units on the same plant are called monoecious, from the Greek "one household". In contrast, populations having separate male and female plants are called dioecious from the Greek "two households". Under dioecy, individual plants are referred to as either gynoeceous (female plants) or androeceous (male plants).

Oemleria cerasiformis (Indian-plum) is an example of a dioecious population of plants. Male and female flowers are on separate plants and are easily distinguishable. The male flowers possess anthers, located at the end of a stalk called the filament (collectively called the stamen). Pollen grains develop on these male structures and are transferred to female flowers where they germinate after landing on the female stigma, the receptive region of the ovary. Fertilization results in the ovary maturing into a fruit with seeds inside (ovules develop into the seeds). To distinguish between male and female plants peer into an open flower of Indian-plum. The stamens (male parts) look like fuzzy, yellow heads attached to the end of a delicate thread, while the ovaries (female parts) look like a cluster of lime green bowling pins.



Photo by Kevin Newell

Male flowers of *Oemleria cerasiformis* showing the stamens

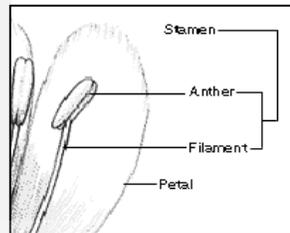
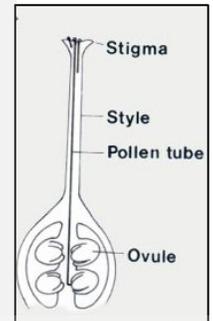


Photo by Jeanne Ross

Female flowers of *Oemleria cerasiformis* showing the ovaries



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.