



NATIVE PLANT STUDY GROUP

*Revitalizing Nuu-chah-nulth Root Gardens**By Jen Pukonen*

The Nuu-chah-nulth and other First Nations of coastal British Columbia used to maintain gardens of indigenous plants with edible roots on their estuarine tidal flats. Tasty and nutritious, these roots were carefully tended and nurtured to make them as productive as possible. More recently, the Nuu-chah-nulth diet has changed, and these roots are not as well known.

The TI'aaya-as project was inspired by Hawilth (Hereditary Chief) Umeek, Richard Atleo and Nancy Turner to help revitalize these food traditions as a way of promoting and maintaining important traditional knowledge about health and the environment. TI'aaya-as (pronounced - TI'eye-yuh-us) is a Nuu-chah-nulth word, suggested by Trudy Frank and Lena Jumbo of Ahousat, that means "growing in, on, and out of the earth," and refers to a garden.

Jen Pukonen is working together with the Nuu-chah-nulth community of Ahousat on the West Coast of Vancouver Island, on the TI'aaya-as project, as part of her graduate program in the School of Environmental Studies at the University of Victoria. Through the TI'aaya-as project she has been

helping to engage interested students and community members in the research and re-creation of a Nuu-chah-nulth root garden of kuuxwapiihmapt (northern riceroot), tlicy'upmapt (Pacific silverweed) and ?a?iic'uqmapt (springbank clover)*.

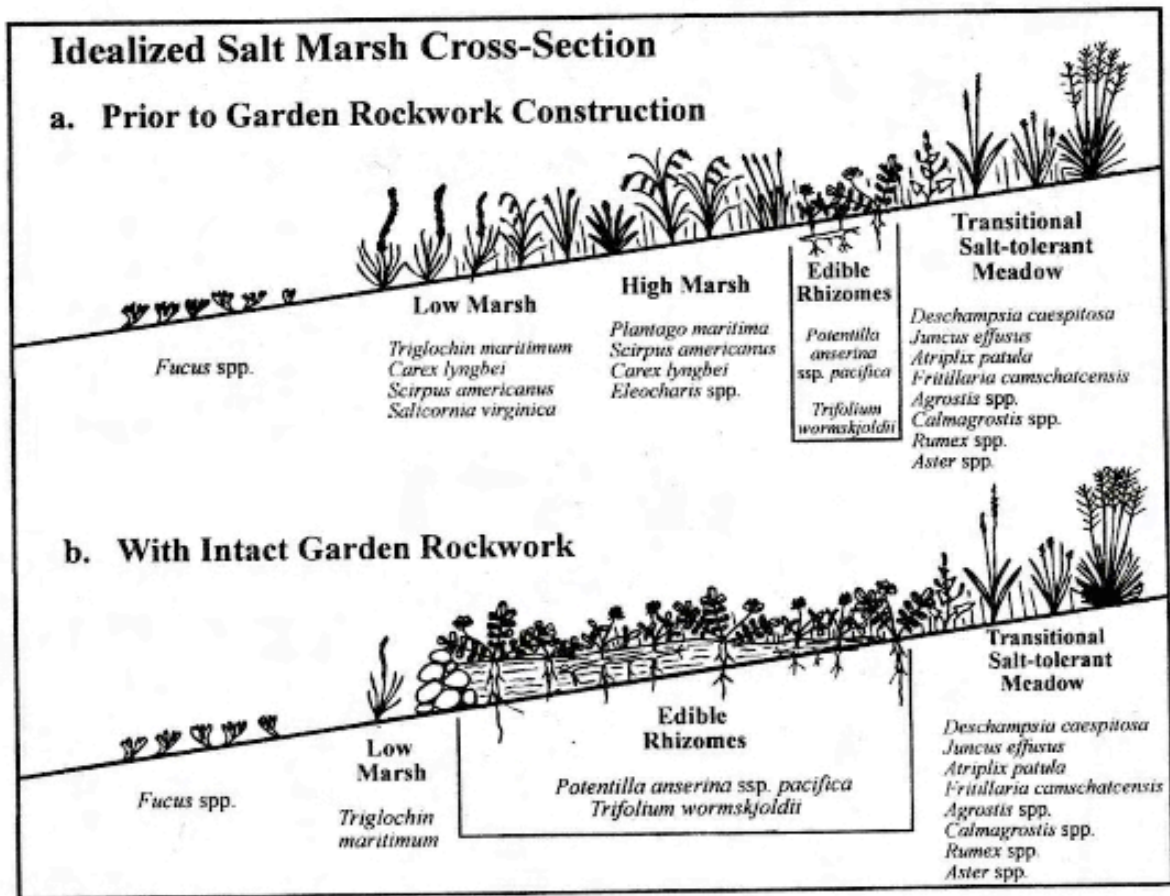
Springbank clover, also known as Indian spaghetti is said to taste like bean sprouts and should be harvested in the fall.

Ahousat community members have guided all stages of the garden's development and have offered many great ideas and suggestions, which have made the project really special. This past summer, five high school students helped with the fieldwork, which included: getting to know local plants; planting, tending and monitoring a root garden; and preparing a poster for the school about root gardens. They also spent time talking to people in the community to learn about traditional plant foods and management techniques and to gather ideas, suggestions, and feedback about the project.

Root gardens like the ones that are being restored were historically important to First Nations all up and down the coast. For the Nuu-chah-nulth, the gardens were part of the hahuulthi system of

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11.5. Idealized salt marsh cross-section (Drawing by D. Deur)

ownership and chief's responsibilities. The roots were highly valued as an important food source, and were often eaten in large quantities at feasts, as well as for everyday meals. To produce enough of these roots to feed the communities, the Nuu-chah-nulth would carefully tend their gardens, weeding out other plants, churning the soil with special digging sticks (made of yew or crabapple wood), and selectively harvesting and replanting rootlets to grow for the next years' harvests. Like most Nuu-chah-nulth food practices, this type of gardening was sustainable in the long-term, producing an abundance of food without degrading the land. Those involved in the project hope that raising awareness and appreciation of the respectful relationships with the natural environment reflected by the root gardens and their use can help provide a model for local stewardship and conservation and in turn will support vibrant communities, a healthy envi-

ment and a more sustainable society.

The sustainable harvesting of these roots vegetables required a great deal of knowledge and respect that was developed over many generations. Many of these plants are now quite rare in their natural habitat, and their populations can be severely harmed by just a few wild harvesters. In addition, mistaken identification or misuse of wild plant foods can be very dangerous. Always be careful eating wild plants!

A great way to enjoy rare wild foods is to grow them at home. Growing native plants can be a really rewarding experience. To enjoy native plants in your own garden, grow them from seed or cuttings, or buy them from a reputable nursery. Native plants are best adapted to our local climate and once established, seldom need much care. They also provide habitat for wildlife, especially birds, butterflies, and insects.

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SCHEDULE OF SPEAKERS

November 15

Garry Oak Gardener's Handbook

Carolyn Masson is the Outreach Specialist with the Garry Oak Ecosystem Recovery Team (GOERT). They are in the process of publishing a handbook on gardening in our Garry Oak ecosystem.

January 18, 2008

Invasive Plants of Southern Vancouver Island. Strategies and Identification

Wendy Tyrell is a director with VNHS, a member of the Invasive Species Steering Committee of GOERT and Coordinator for the Coastal Invasive Plant Committee, a group concerned about the increase of non-native plants in the coastal region of BC. The CIPC formed to: a) raise awareness and educate the public about invasive plants and their impacts; b) prevent the further introduction and spread of these species; c) promote coordinated and collaborative management between agencies and land occupiers; d) work towards the management of highly invasive non-native plants; and, e) provide a conduit for information and a source of expertise.

February 21

Dr Richard Hebda Topic TBA

An expert on native plants, Richard is Curator of Botany and Earth History at the Royal BC Museum, a beloved instructor in the Restoration of Natural Systems program at UVic, author of more than 90 scientific papers and author of many articles on native flora and ethnobotanical studies.

THE LANGUAGE OF PLANTS

Plants speak to us in a variety of ways. Victorians found a means around their stultifying rules of decorum by creating a floral language where each flower and colour had a significance: a simple primrose could declare "I can't live without you!" or an orange lily announced hatred; to the Chinese, lotus flowers symbolize perfect truth and purity. These days we rely on plants to speak a less romantic language, one that has many ecological and scientific connotations, sometimes with visual and olfactory clues that are more easily discerned by their predators and pollinators. Gardeners have long realized that certain plants demand high levels of nutri-



Spotted Knapweed
Centuarea biebersteinii

ents, moisture or light, while others are less finicky of their requirements.

Finding these plants in the wild would give you clues as to the surrounding conditions.

Indicator species are plants that tell us about the characteristics of the place in which they reside and their interactions among species. Some plants are such generalists that they don't offer many clues to ecological status while some plants are very site specific and from them can be inferred a history of an area. A number of you will have a handy, dog-eared copy of Indicator Plants of Coastal BC, which relates the conditions under which you will normally encounter a particular species. Dagger-leaved rush (*Juncus ensifolius*) or hardhack (*Spiraea douglasii*) shout out, "this is (or was) a wetland!", while woolly sunflower (*Eriophyllum lanatum*) or prickly-pear cactus (*Opuntia fragilis*) whisper of extremely dry, sunny conditions.

Observant mineral prospectors since medieval times have identified heavy metal accumulations through geobotanical or biogeochemical indicator species: *Minuartia verna* in the Harz Mts of Germany and *Lychnis alpina* in Scandinavia. *Silene latifolia* is an indicator for zinc in New Jersey; and in the Pacific Northwest, *Aspidotis densa* (pod fern) is known to occur on serpentine soils (which have toxic quantities of nickel and magnesium) and *Minuartia rubella* (boreal sandwort) can be a hypaccumulator of nickel. Apparently plants of the *Astragalus* and *Oenothera* genus have been used to find uranium.

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In a recent (wonderful natural history!) trip to Grand Cayman I came across another instance of plant communication, if we can but read the signs. Two species of plants, *Ficus aurea* (strangler fig) and *Piper amalago* (rough-leaved pepper), when found together, indicate a nearby cave that is usually populated by either of two species of fruit bats: *Artibeus jamaicensis* (Caribbean fruit bat) or *Brachyphylla nana* (Antillean fruit and nectar bat). Find the plants together and sure enough, there is a small, easily overlooked opening into the limestone caves that serve as their daytime habitat. How many more stories do plants have to tell us? Maybe they will help decode a universal language...

Indicator Species for Fruit Bat Caves in Grand Cayman

Ficus aurea

Piper amalago



NATIVE PLANT STUDY GROUP

(Sub-group of the Victoria Horticultural Society)

The NATIVE PLANT STUDY GROUP 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. The group is guided by a volunteer steering committee. Members are encouraged to volunteer for this committee. 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.

Native Plant Study Group members are required to become members of the Victoria Horticultural Society. Fees are \$25.00/yr and help pay for insurance to cover field trips. Send \$ to Box 5081 Stn. B, Victoria, V8R 6N3

The NPSG Newsletter is edited by Moralea Milne

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EVENTS AND OUTINGS

For information on many environmental activities in our area check the Green Diary from the EcoNews website at <http://www.earthfuture.com/greendiary/>

For all VNHS activities, please contact Agnes at 721-0634 or email her (thelynn at shaw.ca). No pets please. Bring a lunch and plenty to drink for the all day outings. Check website at vicnhs.bc.ca

CRD Parks outings and explorations for all ages. 478-3344 <http://www.crd.bc.ca/parks>

TLC Conservation Holidays - see <http://www.conservationholidays.ca>

Every Sat, 1:30pm Tour of Merve Wilkinson's Wild-wood Forest, Ladysmith. Jay, 250-245-5540

4th Tues, Regular Monthly meeting of Van. Is. Rock & Alpine Garden Society (VIRAGS) 7:30-9:30 pm at Gordon Head United Church Hall 4201 Tyndall Ave.

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◆Sat 20, 2pm Key Permaculture Plants for Our Region Workshop. Compost Education Centre, 1216 North Park St. \$15. 386-WORM

◆Sat 20, 7pm Mad Hatter's Social – HAT Musical Fundraiser. An evening of Great Music, Drinks, Food and Prizes. \$20/\$15 students & HAT members. White Eagle Hall, 90 Dock St. 995-2428

◆Sat 20 & Sun 21, 9am-5pm Royal Roads: "Can I

◆Eat That Mushroom? A Mycological Adventure" with Jim Jones. \$155. 391-2600, ext. 4801,

<http://www.royalroads.ca/continuing-studies/GLNA1305-Y07.htm>

◆Wed, 24 VNHS The Coastal Dune Ecosystem of Cordova Spit are an extremely rare ecosystem that have been heavily impacted by human interactions, Meet in room 159 of the Fraser building at University of Victoria at 7:30 p.m.

◆Fri 26 - Sun 28 A Weekend of Mosses and Mushrooms We are jointly hosting a weekend of mosses and mushrooms with the VNHS and the NPSBC. UNFORTUNATELY, THE MOSS WORKSHOP IS FULL. However, we encourage you to join us for the free Saturday evening presentation by author Laurie Ricou on his book "Salal, Listening for the Northwest Understory". The NPSBC AGM starts at 6:30 pm, Fisher Rm 338, Camosun College campus, 3100 Foul Bay Rd. As well, on Sunday at 10 am,

◆there will be a free hike into Royal Roads with Dr Terry McIntosh and Dr Richard Winder to search for mosses and mushrooms. Contact Angela Deering at 595-5820 or angeladeering@shaw.ca for more information.

◆Sat 27 CRD Parks 1pm. Witty's Lagoon walk. Find out the strategies First Nations used to survive the winter.

◆Mon 29 VNHS Hot vents of Pacific Ocean volcanic arcs - Mariana and South Tonga. Dr. Kim Juniper will describe the unusual hot vent habitats and biological communities on underwater volcanoes associated with arc volcanism in the western and southern Pacific Ocean. 7:30 p.m. Room 159, Fraser Building, University of Victoria.

NOVEMBER

◆Sun 4 CRD Parks 10-2pm. East Sooke Park ramble. Meet at Pike Rd parking lot.

◆Tues 13 VNHS The Cariboo Chilcotin Grasslands. Photographer Chris Harris will talk about these grasslands and his recently published book on them called Spirit in the Grass. We meet at 7:30 p.m. in room 159 of the Fraser Building at UVic.

◆Tue 20 VNHS BOTANY NIGHT Oluna and Adolf Ceska have found more than 500 species of "macrofungi" on Observatory Hill since November 2004. Swan Lake Nature House, 7:30 p.m.

◆Sun 25 CRD Parks 1 pm. Horth Hill Hike. Meet at info kiosk off Tatlow Rd

DECEMBER

◆Sun 9 CRD Parks 10-noon. Craigflower Ck Trail. Meet at trailhead off Highlands Rd, off Watkiss Way.

◆Sat 15 CRD Parks 1 pm. Wintergreen Wonders. Meet at Francis King Nature Centre off Munn Rd

◆Sun 30 CRD Parks 10-2pm. Sooke Potholes hike. Meet at info sign in parking lot 1

◆Mon 31 CRD Parks 10-1pm. 10 km. Natural and cultural history hike around Elk/Beaver Lakes.

VOLUNTEER OPPORTUNITIES

The Anti-ivy League of Cadboro Bay is fighting an ongoing battle. Is your warrior spirit ready to tackle the soul-sucking expanse of this pernicious weed? Contact Agnes at 721-0634 or thelynn at shaw.ca for more info.

Hospital Rock: Contact Agnes as above

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Volunteer at Swan Lake Christmas Hill Nature Sanctuary For further details contact Joan at 479-0211 or email volunteer@swanlake.bc.ca.

Beacon Hill Park Ivy Pull, Saturdays (except long weekends), 9 am-Noon southeast woods near Cook and Dallas. Bring gardening gloves. No dogs. Call Cornelia, 920-3556 or kacy@islandnet.com.

Oak Bay Native Plant Garden meet every Fri. morning from 9-11, weather permitting. Corner of Beach Drive and Margate Avenue.

Brighton Avenue Walkway Restoration. Work each Sun. 9:30 - 11:30. Meet at Hampshire and Brighton, 2 blocks south of Oak Bay.

Every Mon, 10-12pm Brodick, Feltham, and Bow Parks Invasive Species removal, just off Beam Cres. in Saanich. Bring gloves and secateurs (if you have them). Volunteers welcome. No dogs. Judy 472-0515 or jandd_spearing@shaw.ca

Most Sundays 9am-noon, Nov through Feb, meet at Devonian Regional Park on William Head Rd in Metchosin to remove broom. Contact Moralea at 478-3838 or moralea at telus.net for info.

GORP Schedule

All activities are scheduled for 9:30-11:30 am unless otherwise specified (Sun Nov 4 TBA). Contact Jennifer Eastman for more information at: 744-1710

Sat Oct 20 Chatterton Hill Park
Sat Oct 27 Camas Park
Sun Oct 28 Feltham Park
Sat Nov 3 Playfair Park
Sun Nov 4 Wetherby Park
Sat Nov 17 Mahon Brook
Sun Nov 18 Playfair Park
Sat Nov 24 Chatterton Hill Park
Sat Dec 1 Camas Park
Sat Jan 12 Feltham Park
Sat Jan 19 Chatterton Hill Park
Sat Jan 26 Camas Park

Sat Oct 20 and Sun 21, 1-4pm Community Broom Bash. Uplands Park at Beach Drive. Bring tools to remove invasive plants. Refreshments.
Sat Oct 20, 27 and Nov 3 CRD Parks
Get Out & Give Back! Volunteer with a team to remove invasive species at Mill Hill Regional Park.

See the blooms of your labour in the spring! 250-478-3344 parksvolunteer@crd.bc.ca

Contact Nancy Field at 598-2909 or 217-9550 if you are interested in being involved in projects to develop school gardens at

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

The Native Plant Study Group meets on the third Thursday of the month from Sept through May except Dec at 7 pm in the MacLaurin Building, UVic. Please join us. Membership fees are \$15.00 annually or a \$2.00 charge for drop-in. Check Room Schedule for new meeting locations.

NPSG Room Schedule for 2007/2008

15 Nov MacLaurin D116
17 Jan MacLaurin D116
21 Feb MacLaurin D288
20 Mar MacLaurin D110
17 Apr MacLaurin D116
15 May TBA

Other Related Organisations

Victoria Natural History Society www.vicnhs.bc.ca
Native Plant Society of BC www.npsbc.org
South Vancouver Island Mycological Society svims.ca

Contact Jean Forrest if you would like to be involved in a member's only garden tour in Spring 2008. 658-5740 or jforrest@telus.net

Native Plant Society of BC 2008 Calendars

These ever popular and beautiful calendars of BC native plants will be available again this year. At \$17.50 they make great Christmas gifts for the botanically inclined or anyone who appreciates beauty, plus you help support a worthwhile organisation. Find order forms will at www.npsbc.org

***Salt marsh cross section drawing by Doug Deur from p.313 in his chapter 'Tending the Garden, Making the Soil - Northwest Coast Estuarine Gardens as Engineered Environments', In: Keeping it Living. Deur & Turner 2005. This is an excellent book if you would like to increase your knowledge of estuarine root gardens.*