

# TO THE RESCUE: PROTECTING B.C.'S RICH BIODIVERSITY

British Columbia is well known across Canada for being a biologically rich province. It's the very reason many of us love to live here, and why many more come from all over the world to visit.

What tends to shock people is the fact that our province lacks legislation to protect our abundant biodiversity. In reality, B.C laws protect only 5% of our species at risk and none of them receive essential habitat protection.

A recent report produced by the David Suzuki Foundation and Ecojustice Canada (formerly Sierra Legal) called Rich Wildlife, Poor Protection: the urgent need for strong legal protection of British Columbia's biodiversity, found 1,300 species and subspecies are at risk from disappearing from our province. This is in addition to the already 49 known species and subspecies which have been lost since presettlement (e.g., Dawson Caribou and Greater Sage-Grouse). How can we stop squandering B.C.'s unique biological inheritance? Home to 76 per cent of Canada's bird species, 70 per cent of its freshwater fish species, 66 per cent of its butterfly species, 60 percent of its conifer species and 41 percent of its orchid species, we need to safeguard this diversity for our own well being and for that of future generations. The loss of biodiversity across the globe is resulting in the degradation of ecosystem services, or our very life support system. And it's not only economic commodities like the production of food, fuels and fibers that will suffer, but also services that regulate our climate, disease outbreaks, and wastes. Then there are those services many take for granted like nutrient cycling and water purification. Perhaps most near and dear to people's hearts are the aesthetic, recreational and spiritual opportunities afforded by biodiversity. Over 3,600 species and subspecies are found in B.C. and keep in mind that this is a gross underestimate. Using B.C. Conservation Data Centre data we found that 1,300 of these species and subspecies are at risk of local extinction. By major wildlife groups the following are at risk:

- ....67 per cent of reptiles and turtles;
- •....47 per cent of amphibians;
- •....43 per cent of vascular plants and;
- •....34 per cent of butterflies.

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Not surprisingly, the distribution of species at risk we analyzed was not spread evenly across the province. Instead, they appear as 'hotspots". The highest numbers of endangered species in B.C. are found in the Forest District of Okanagan Shuswap or the Okanagan Valley at 273 species and subspecies at risk. The other three prominent "hotspots" are Southern Vancouver Island, Lower Mainland and the southern

Rocky Mountain Trench (a full color map can be found on page 5 of Rich Wildlife, Poor Protection). B.C. laws and policies are failing our species. We need stronger laws and policies that require protection of species and their habitats. It's that simple. Provincially, 99 per cent of our land base is under provincial jurisdiction. This means that the federal Species at Risk Act (SARA) cannot address our dilemma, because it only applies to migratory birds and aquatic species, or species that reside on fed-

eral lands.

SHARP-TAILED SNAKE (CONTIA TENUIS)



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.

# **MEETING SCHEDULE**

May 15.....Rm D116 Fran Benton No Love for Langford

> How living in Langford changed Lindsay from a mild mannered botanist into a Garry Oak Meadow activist. Fran Benton teaches at Malaspina University College in the visual arts, recently she has been working in film and digital media. Her work as a field biologist and park naturalist has become an important source for her work and interest in ecologically sustainable development.

*The Native Plant Study* Group meets on the third

*Thursday of the month from Sept through May except Dec* In concert with an improved protected areas strategy, at 7 at the MacLaurin Building, UVic. Please join us. Membership fees are \$15.00 annually or a \$2.00 charge for and conservation-based land-use planning in species at risk "hotspots", we would like to see the provincial drop-in. Check Room Schedule for new meeting locations. government adopt strong endangered species legislation.

To learn more about our campaign to get strong endangered species legislation for B.C., visit the David Suzuki Foundation website:

www.davidsuzuki.org/Conservation/Endangered\_S pecies/British\_Columbia/default.asp

WRITTEN BY Lindsay Coulter, Conservation Policy Analyst for the David Suzuki Foundation and can be reached at lcoulter@davidsuzuki.org or 604-732-4228

## Links:

Victoria Natural History Society: www.vicnhs.bc.ca Native Plant Society of BC: www.npsbc.org Swan Lake Nature House : www.swanlake.bc.ca South Van. Island Mycological Society: www.svims.ca Garry Oak Ecosystems Recovery Team: www.goert.ca

Please visit our lovely website: www.npsg.ca Designed and maintained by NPSG member Valerie Elliott, co-owner of the design company iD2 (id2.ca)

## **EVENTS AND OUTINGS**

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

Check the CRD parks website for detailed information on their many programs; wear appropriate clothing for the weather and sturdy footwear for all outings: www.crd.bc.ca/parks

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

# Fri Apr 18 VNHS Visit to Honeymoon Bay Wildflower Reserve

You must register for this event as the number of visitors is limited. VNHS members get preference. Meet at Helmcken Park and Ride at 9:00 a.m. to car-pool. Contact Agnes as above

Sat & Sun Apr 19 & 20 10-3 Swan Lake Native Plant Sale and Presentations. Admission is \$3 per day or \$5/weekend pass. View the website at: www.swanlake.bc.ca/plantsale.htm for more info Sat Apr 19 VNHS

# Enjoy All that Jocelyn Hill Has to Offer

Join Rick Schortinghuis to enjoy the wildflowers and the birds as well. Trailhead is on Millstream Rd just past Emma Dixon Rd and the Stonecrest sign. Park on the right-hand side of the road. Meet there at 9:00 a.m. Call Rick at 652-3326 for more info.

**Sun Apr 20** at 1:00 p.m. **The NPSG Garden Visits**. We will start in Colwood at 274 Belmont, not as previously announced, then go on to 1320 Rudlin, then to 961 Pembroke and finish up at 1272 Topaz. There is no need to register, just show up at 1:00 p.m. Call Jean Forrest (658-5740) for more info.

## Sun Apr 20 VNHS

# Enjoy the Wonders of Thetis Lake Park

Botanist Hans Roemer will be there to help us to enjoy the spring wildflowers. Meet at the main parking lot at 9:30 a.m.

Sun, Apr 20 CRD Parks Lone Tree Hill Wildflower Walk, meet at parking lot off Millstream Rd at 1 pm Sat Apr 26, John Dean Park tour lead by Lynn Irons, a longtime NPSG member, former owner of a native plant nursery and the native plant expert at Russell Nursery in North Saanich. She knows where all the plant treasure are in this park. We will meet Lynn Irons at 1 pm at the park entrance off Dean Park Road, which runs off East Saanich Road. Call Jean Forrest (658-5740) or Pat Johnston (595-5600) Sat Apr 26 CRD Parks Thetis Lake Wildflower Hike. 1 pm. Meet at info kiosk above main parking lot Sat Apr 26 Photography of Native Plants Burl Jantzen is an experienced photographer and a veteran science educator.

This intensive workshop will appeal to anyone who wants to improve their plant photography, including both beginning and experienced photographers. The focus will be on native plants, from mosses to maples, with an emphasis on practical strategies for creating "images with impact." See:

www.swanlake.bc.ca/adults.htm for details and preregister at 479-0211. Cost is \$44 (Friends of the Sanctuary \$40) 9:00 a.m. to 12:30 p.m.

#### Sun Apr 27 VNHS

## Mount Tzouhalem Ecological Reserve

It has been said that this ecological reserve in the Duncan area is one of the most well preserved examples of a Garry Oak Ecosystem. You must register for this event as the number of visitors is limited. VNHS members get preference, contact Agnes as above.

Fri May 2 VNHS Saltspring Botanical Adventure

Please note some trails may be steep and challenging but will be taken at a leisurely pace. We will carpool to catch the 9:00 a.m. ferry, returning around supper time. Participants will be expected to share in transportation expenses. Bring a lunch and drinks for the day. You must register for this event to assist in planning. Contact Agnes as above.

#### Sat, May 3

## 17th Annual Camas Day in Beacon Hill Park

Co-sponsored by the VNHS and the Friends of Beacon Hill Park, this celebration of one of our region's special places starts at 7 a.m. and continues all day.

This event will include guided walks for Birds at 7:00 and 9:00 a.m., Wildflowers at 11:00 a.m. or 1:00 p.m. and Archaeology at 11:00 a.m. or 1:00 p.m. Walks are about one hour each. Meet at the flag pole atop Beacon Hill. Contact Helen at 592-6659 or email Agnes as above. **Sun, May 25, NPSG** will make a trip to an area west of Shawnigan Lake where there is a natural grove of our native Rhododendron macrophyllum. We will meet at the Helmcken Park & Ride at 10:00 a.m. to carpool. We access the area from the junction of West Shawnigan and Renfrew Roads and drive along a logging road to the rhododendron site. Bring a lunch. For more info call Jean Forrest (658-5740)

## **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 thelynns@shaw.ca for more info.

•....Hospital Rock: Contact Agnes as above

•....Every Saturday at 1:30 pm: Tour of Merve Wilkinson's Wildwood Forest, Ladysmith. Jay, 250-245-5540 or www.ecoforestry.ca/WildwoodMap.htm

• ....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 at the southeast woods near Cook and Dallas. Bring gardening gloves. No dogs Volunteers welcomed. 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. New members welcome. Guided walks in March and April.

• ....Brighton Avenue Walkway Restoration. Removal of invasives and re-planting of native species in a Garry Oak rocky outcrop situation. Work each Sun. 9:30 - 11:30. Meet at Hampshire and Brighton, 2 blocks south of Oak Bay.

•....Garlic Mustard Removal - Sun - April, 20th, 27th. (10:00 to Noon) Wed- April 23rd, 30th (\*\*9:30 to 11:30) Thurs - 24th. (10:00 to Noon) Come out and help as time permits! We work rain or shine. Please meet by 9:50 a.m. (9:20 on Wednesdays) at south entrance to Mt Douglas Park in the Glendenning Rd parking lot. Contact Judy Spearing at 472-0515 or email to jandd\_spearing@shaw.ca

#### DOCTORS OF THE EARTH

One of the things I appreciate about red alders (Alnus rubra) is their ability to create an almost instant forest. When I first moved to Metchosin, almost twenty years ago, the drive through the Colwood gravel pit took a different path. When it was rerouted to the location I drive through now, it was a forbidden, barren landscape. Almost immediately, at the bottom of the hill, some alders sprang up on both sides of the road and I watched with interest as they quickly grew tall and robust. From nothing but bulldozed devastation there sprang a forest. I haven't been into that forest, to see what other plants might have been able to transplant themselves, but the trees themselves have been fascinating to watch. At first they were growing tooth by jowl, thick as promises in an election year. Then, as they grew and began crowding each other, some have succumbed to competition and started to die off. Fungi and bacteria are quick to find an alder in distress and they further weaken a struggling tree. The softened wood allows woodpeckers to drill holes and use them for a short while, followed by other cavity nesting birds and small mammals. The trees provide food for the magnificent anise swallowtails and the green comma caterpillar, the juvenile form of a relatively long-lived, spotted, orange butterfly.

Alders are considered a pioneering species, able to quickly colonise disturbed sites such as burnt areas, roadsides and avalanche tracks. They act as healing doctors to the earth, repairing wounds left by the disturbance. Alders are nitrogen fixing plants; they have an association with a bacteria that allows them to capture nitrogen from the air and eventually increase soil fertility through their roots but also from decomposing leaf litter and branches, rotting roots and trunks and through leaching from the leaves. In pure stands that can amount to 320/kg per hectare (290 lb/acre). They cover the exposed mineral soils, shad ing them from the harsh effects of the sun and weather conditions. Their leaf litter adds valuable organic matter to impoverished soils and provides habitat for insects, mice and amphibians.

As they rapidly age, they relinquish their hold on the landscape, allowing other tree species to dominate, in a process known as succession.

Douglas-firs or western red cedars, depending on site conditions, will now find the landscape more to their preference.

Alders are sometimes found in pure stands in floodplains that experience fluctuating water tables and have nitrogen rich soils. Here their dense fibrous root systems hold fast the soil deposits and streambanks, reducing the effects of erosion and sedimentation. Walking along an alder lined creek you can often observe the firm overhanging bank, tied in place by alder roots and providing crucial hiding places for cutthroat trout, among other fish. The nitrogen rich leaves fall into the water, decompose, and increase the productivity of the water, enabling more insects and fish to survive. The shading provided by the trees re-

duces the harmful effects of too much sun and cools the water, making it more salubrious for water dwelling creatures.

Alders are fast growing trees, one metre in their first year and by two to five years they can produce three metres of growth per year. Some trees can reach 30-40 m in height and generally average out at about 55-75 cm in diameter, although some record trees have topped out at almost two meters in diameter! They have short life spans, not dissimilar to our own, usually dying off by seventy-five years with occasional ones making it to a venerable one hundred years. All these wonderful qualities have finally been recognized and alders are planted in restoration efforts at coal mine sites and along destroyed rivers, pro moting soil fertility and reducing erosion at the sites. Formerly, forest companies had been quick to denigrate alders and considered them a weedy plant that should be removed, now they are sometimes used as a nurse species for shade tolerant conifers, especially on nitrogen deficient sites. They also offset some of



the more detrimental effects of logging, particularly near streams and waterways. Because the trees are self pruning and the branches rot easily, they are quite fire retardant and are planted as fire breaks. In alder stands, the interlocking of branches and roots, the deep rooting habit and the absence of leaves in winter, makes them resistant to windthrow.

In his co-authored book, Wildlife and Trees, local writer and forest ecologist Todd Manning explains the value of various trees to native wildlife populations. Huge old trees that are starting to rot and die, such as veteran Douglas-firs rate high on the list and the book suggests that we should cut down alders preferentially over these slower growing conifers, when cutting for firewood. It takes many hundreds of years to replace a huge,

wildlife friendly conifer and a relatively short time to replace an alder. The cut alder pieces are also an excellent stratum if you wish to try growing oyster mushrooms at home.

First Nations people harvested alder cambium tissue as a food and used the bark in preparation of steamed camas bulbs, which would impart a red tint to the food, the bark was also used as a dye. Alder catkins are said to be high in protein and edible, but not very tasty and used only as a survival food. The bark is reportedly the best material for imparting that indefinable West Coast flavour when smoking salmon. Alders are said to possess strong antibiotic properties and have been used in the treatment of tuberculosis and other lung ailments. The wood is

light, soft and porous and is utilized in furniture making, for pulp, as well as firewood.

By mid-March, the alder catkins have appeared and turned a rusty-red, about to discharge their pollen upon the upright, female, pine cone-like "flowers". When ripe, they will release seeds that are dispersed widely by the wind. If they land in some bare mineral soil, in full sun, they stand a good chance of germinating. As I write this, I can look from my window to a small stand of alders, the myriad straight, grey trunks covered in a tapestry of whitish lichens, the small crowns glowing a soft pink from the thousands of pendulous catkins and I wonder how we have come to be so dismissive of such a valuable tree, as if to imply they are worthless...

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#### **References:**

www.na.fs.fed.us/pubs/silvics\_manuałvolume\_2/alnus/r ubra.htm

Wildlife and Trees by Fenger, Manning et al. 2006 Plants of Coastal BC by Pojar and MacKinnon. Edible and Medicinal Plants of the West by Tilford. 2003 Food Plants of Coastal First Peoples by Nancy Turner. 2003

Indicator Plants of BC by Klinka et al. 1995 reprint.

#### WELCOME NEW MEMBER!

William **Jonah** Underwood Born Mar 26, 2008 at 7 lbs 11 oz to longtime NPSG member and recent co-chair Angela Deering!

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 atlarge membership. Activities requiring funding must receive approval by the general membership.

Co-chair:	Valerie Elliott
Co-chair:	Nathalie Dechaine
Speakers:	Moralea Milne
Treasurer:	Catherine Fryer
Newsletter:	Moralea Milne
Plant Rescue:	Todd Doherty
Field Trips:	Jean Forrest
-	Pat Johnston
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	
VHS Liaison:	Heather Pass



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 written and produced by Moralea Milne