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By Kirsten Grove-White, Swan Lake Christmas Hill Nature Sanctuary Administrative Assistant

As the daylight wanes and blustering breezes blow us inside you can still appreciate what the natural world has to offer! Visit the Nature House at Swan Lake Christmas Hill Nature Sanctuary for take-home nature activities, available in our Gift Shop (Monday – Friday 9am -3pm and every third Sunday 12pm – 3pm). All proceeds support conservation efforts of both the low wetland ecosystem around Swan Lake and the shallow and deep soil Garry Oak ecosystems of Christmas Hill, as well as educational programming for visitors of all ages to the Nature Sanctuary.

Uncover the secrets of an owl's dinner with an Owl Pellet Dissection Kit! Your child can become a nature detective, pulling apart and identifying what the owl ate that day. The kits contain three sterilized owl pellets, a bone chart, dissection tools, and an information guide. Nature investigators can follow along with an owl pellet dissection video on our website for extra support.

Harness the power of the sun and reveal the shapes of nature with a cyanotyping kit. This classic photographical technique is a wonderful way to create art from natural shapes. Leaves, feathers, and any other outdoor treasure can be transformed into artful prints and ethereal silhouettes.

Explore the fantastic world of fungi with Oyster Mushroom Grow Kits. Oyster mushrooms are edible and beginner-friendly and once fully-grown have a hearty texture that is excellent in a stir-fry or stew. They will begin to fruit 7 – 10 days after starting the kit, making them a quick, fun, and tasty home growing experience.

These interactive and educational kits will delight the budding scientist, artist, and cook of any age and will grow your connection to nature from the comfort of your own home.



Oyster Mushroom Kit. Photo: Kirsten Grove-White



Demonstrating a sheet mulching technique for preparing a bed for planting.

Coordinator at the Compost Education Centre

The fall months mark the time where people all over our region are harvesting fruit from trees. If you have been longing for a fruit tree of your own, now is the time to plant one (or prepare your soil for a spring planting). Because the soil is still warm, and the rain is returning, this time of year is perfect for young, vulnerable trees that need support in their first years of growth; and you will not have to be as diligent with watering, as the winter rains will keep them moist!

When you are planning your space to accommodate your new fruit tree, one idea is to focus on mimicking natural forest ecosystems in the way that forests have layers and are self-sustaining. For example, picture a yard, garden or boulevard featuring a dwarf apple tree with two varieties grafted on it to support pollination and offer food for humans. Below it is a small goumi bush that fixes nitrogen to feed other plants and provides delicious food for humans and birds and below that are bunches of comfrey

to offer an abundance of fast growing plant matter that can be used as mulch, to attract pollinators, and to provide beauty: yarrow, calendula, and lavender.

If autumn feels too soon for your grand garden plans, you can order a tree now for spring planting while you get your soil ready over the winter by sheet mulching (an in-situ compost pile/soil building project). In the first two years of your fruit tree's life be sure to care for it well by scratching in some balanced organic fertilizer in spring, watering it in the hot summer months, keeping it pruned and mulched, and monitoring it for any disease or pests. To get a new garden bed ready for planting a tree and to learn how to build good soil where there previously has been lawn or poor soil, check out the Compost Education Centre's website (compost.bc.ca) for free workshops on Sheet Mulching, Composting Basics, and Advanced Composting. In no time, you will have an abundant harvest from your tree.



By Frances Litman, on behalf of the Creatively United for the Planet non-profit society

Two Creative Collaborations Filmed in Saanich

National Tree Day (September 22, 2021), marked the launch of the world premiere of <u>Trees Matter</u>, a seven-minute film produced by Creatively United for the Planet non-profit society, a member of One Planet Saanich.

Through music, dance, song, and stunning visuals, the importance of protecting, preserving, and planting trees is artfully expressed in this unique collaboration involving members of the Victoria Symphony, the Victoria Philharmonic Choir, the Emily Carr String Quartet, and Ballet Victoria.

In addition to showing *Trees Matter*, this half hour <u>launch event</u>, included **Leq'á:mel** First Nation (**Stó:lō** Nation) Indigenous Leader, **Patrick Kelly**, plus a Fairy Creek old growth forest update with popular singer/songwriter, **Luke Wallace** and ecoforestry advocate, **Kathleen Code**. The outdoor footage in the film was shot in Mount Douglas Park in Saanich and over Elk and Beaver Lake.

This is the second of two films produced in the past year by Creatively United for the Planet Society and filmed in Saanich, thanks to a City of Victoria's Strategic Plan Grant and support from the Gail O'Riordan Climate and the Arts Legacy Fund. The first, <u>Awaken - A Forest Ballet</u>, features members of Ballet Victoria dancing in the Mountain Road forest in Saanich to original music composed, sung, and orchestrated by Canada's multi award-winning legend, Ann Mortifee, in collaboration with former Chilliwack band member, Ed Henderson (guitar), and Finn Manniche (cello).

Awaken debuted at Ballet Victoria's live opening night performance of *The Little Prince* this past year and was successfully used in campaigns to protect and preserve the 49-acre pristine urban forest in the heart of Saanich in which it was filmed. The story follows the delightful journey of a young girl and her dog who discover the magical wonders of the forest thanks to guidance from forest sprites enacted by Ballet Victoria dancers.

For further information, please visit the free community solution hub at www.CreativelyUnited.org



By Sarah Stelte, Coastal Collaborative Sciences Intern

With the fall season upon us, not only does it bring beautiful changing colours, but it also brings migrating salmon. With this in mind, Victoria Small Watersheds (VSW) project interns have been involved in preparing for the busy season ahead.

The interns have assisted in the installation of the fish counting fences on the Colquitz River and Goldstream alongside Salmon in the City and Goldstream Salmon Enhancement Association volunteers. The fish counting fences allow migrating Pacific Salmon to be counted before continuing their big adventure upstream to their spawning grounds. Note: the fence panel has been removed on the Colquitz due to otter predation of the salmon.

Instream restoration has also been a large focus

for the interns as they
have been assessing
multiple reaches of
different streams
in the Greater
Victoria area.
They were
recently
given
the task

of restoring a section of Goward Springs A. This required assessing the stream with the goal of enhancing salmonid habitat, budgeting, report writing, and finally carrying out the restoration process under the guidance of the Peninsula Streams Society. In order to enhance this habitat, riffles were improved to create cooler, more oxygenated water, proper sized spawning gravel was added, eroding banks were armored with boulders, and invasive plant species were removed. This instream restoration was completed with the hope to enhance habitat for Coastal Cutthroat Trout, a species of Pacific Salmon whose population numbers are declining.

Interns will continue with more such restoration, stewardship, and educational activities through fall as part of the VSW project. The VSW project team is led by Coastal Collaborative Sciences (CCS), a Division of World Fisheries Trust, in partnership with the Peninsula Streams Society (PSS). These activities are funded under the Conservation Economic Stimulus Initiative (CESI) administered by the Habitat Conservation Trust Foundation (HCTF). For general inquiries about the Victoria Small Watersheds CESI project please reach out to Heather Wright at info@coastalcollabsci.org or through the WFT office at 778-430-7585.



By Darren Copley, Environmental Services, District of Saanich

This past May, the CRD hosted a Biodiversity Challenge to encourage more use of the free application called iNaturalist and for residents to learn more about the region. They received more than 5000 observations, and some of them were by watershed stewards in Saanich.

In partnership with the CRD, Saanich Environmental Services offered training to local Saanich watershed stewardship groups in advance of the challenge.

Several "Friends of" groups participated in the training: Maltby Lake, Todd Creek Watershed, Bowker Creek, and the Beaver Elk Environmental Stewards. Not only did they learn the ins and outs of using iNaturalist, they received assistance in setting up projects that capture information about the area they steward. The projects range from figuring out the current spread of an invasive species, monitoring increases in biodiversity after completing a restoration project, and discovering overall diversity.

The results are important, measurable, useful, and the opportunities to add information are endless. A lot of biodiversity information can be gathered while Saanich residents are getting outdoors and enjoying nature. Another side benefit is to attract interest in the group's work through the friendly social aspect of iNaturalist.

Friends of Bowker Creek Society

>1000 observations collected, 342 species recorded from 137 observers

https://www.inaturalist.org/projects/bowker-creek-biodiversity-corridor-project

Friends of Maltby Lake Watershed Society

>225 observations collected, 127 species recorded from 16 observers

https://www.inaturalist.org/projects/tod-creekwatershed-biodiversity

Friends of Tod Creek Watershed

>5600 observations collected, over 1170 species recorded from 414 observers https://www.inaturalist.org/projects/maltby-lake-watershed

Beaver Elk Environmental Stewards

biodiversity

>2000 observations collected, over 550 species recorded from 254 observers https://www.inaturalist.org/projects/beaver-elk-

You don't need to download the app to view the projects, so if you are interested in seeing the projects and observations, please see the links opposite.



Pulling Together Volunteer Profile:

Stuart Macpherson Falaise Park

By Katie Turner, Park Stewardship Coordinator District of Saanich



Our warmest thanks to Stuart and the team of Pulling Together volunteers at Falaise Park for their work. Saanich's **Pulling Together Volunteer Program** involves community volunteers in hands-on ecological restoration in more than 40 parks in Saanich. We welcome people of all ages and abilities. Visit https://www.saanich.ca/EN/main/parks-recreation-community/parks/natural-areas/volunteer-for-pulling-together.html to learn more about what we do and how to help care for your parks.

Saanich's Falaise Park is a Garry Oak woodland ecosystem nestled in the Falaise neighborhood. The management of Scotch Broom and other invasive species has been so successful that Stuart Macpherson, the volunteer *Pulling Together* lead steward, and his crew have turned their attention to invasive Orchard Grass. Their goal is to "one day match the Camas meadow at Playfair Park", Stuart beams with a chuckle. A restoration highlight for Stuart was removing a blackberry thicket enabling the formerly suppressed Fawn Lilies' glorious appearance. Park visitors can keep an eye out next spring for the reemergence of Camas where clumps of Orchard Grass have been carefully dug and areas mulched with oak leaves.

Spring wildflowers in this Garry Oak woodland will no doubt be beautiful, but it is the trees that initially drew Stuart to the park. Prior to retirement, he worked as a forestry consultant in the Caspian Oak forests of Northern Iran and so had a natural propensity to care for oaks. His love of trees goes even further back to an arboretum that he helped plant as a young boy scout in New Zealand. As we walk around the park, Stuart speaks about each of the Garry Oaks, when they were planted, why the site was carefully chosen and how carefully paced cages gives the oaks a fighting chance against the many urban deer. Twenty oaks and some other native tree species have been planted and cared for by volunteers and Saanich Parks staff.

Community volunteer efforts in small neighborhood parks like Falaise places them in the heart of the community. Not only do efforts of invasive species removal and planting improve biodiversity but also stewardship action connects people, and helps people to know they can make a difference by giving back to the land that supports us. Stuart says that "restoration work is appreciated by the community" and his team always encourage others to join in caring for the natural areas that we are blessed with in Saanich.

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Invasive Species: Knotweeds (Japanese, Giant, Bohemian, and Himalayan Knotweed)



By Heidi Grant from Coastal Invasive Species Committee

There are four species of invasive knotweed present in BC: Himalayan Knotweed (Polygonum polystachyum), Japanese Knotweed (Reynoutria japonica), Giant Knotweed (Reynoutria sachalinensis), and the hybrid, Bohemian Knotweed (Reynoutria x bohemica). These knotweeds rank among the top 100 worst invasive species worldwide because they can grow almost anywhere, including through building foundations and driveways; causing significant property damage and even lowering the resale value of homes. Knotweeds are listed as a noxious weed under the Weed Control Act (https:// www.bclaws.gov.bc.ca/civix/document/id/complete/ statreg/96487 01) and land owners are legally required to control it on their properties.

Knotweeds are recognizable by hollow, bamboo-like stems, often with reddish-brown speckles, and large heart-shaped leaves, except for Himalayan with its elongated, tapered leaves. Growing up to five metres tall, Japanese Knotweed has a distinct zig zag alternating leaf pattern. The flowers are white or pink and found in small clusters.

Knotweed is best controlled professionally through herbicide application. If you think you have knotweed on your property contact the CRD at invasive@crd. bc.ca or, if your property is in Saanich, planning@ saanich.ca. For more information, check out the "Knot on my property" program from the Coastal Invasive Species Committee (https://www. coastalisc.com/wp-content/uploads/2014/06/ KnotOnMyProperty.pdf).

The best solution is prevention. Do not plant invasive species and be wary of any plant that is a super spreader and heavy self-seeder. You can also encourage your local nurseries to become "plant wise" https://bcinvasives.ca/play-your-part/ plantwise/ (click on the link to learn more about what's involved) and to stop selling invasive plants. Grow Me Instead (https://bcinvasives.ca/play-yourpart/plantwise/grow-me-instead/) is a very useful guidebook to help gardeners find non-invasive alternatives.

Instead of knotweed, consider planting native plants like Red-osier Dogwood (Cornus stolonifera), Black Elderberry (Sambucus racemosa var. melanocarpa). or False Solomon's Seal (Maianthemum racemosum subsp. amplexicaule).



Get Ready to Go Electric: Electric Vehicles in Saanich

By Glenys Verhulst, Sustainability Planner District of Saanich

More and more Saanich residents are deciding to go electric each year. In fact, the Capital Region has the highest rate of new electric vehicle (EV) registrations per capita in Canada.

Transportation is the largest source of climate pollution in Saanich, mainly from personal vehicles. Switching to low-carbon electricity, and choosing to walk, cycle, and use public transit, are all important ways to reduce our climate impacts on the road.

There is a lot of support for residents to go electric, including rebates for new and used electric vehicles and for electric vehicle charging in single-family homes, multi-unit buildings, and workplaces. This fall, the District of Saanich launched top-up rebates to the existing CleanBC Go Electric EV Charger Rebate program to help residents of multifamily buildings plan for and install electrical upgrades for EV charging. To learn more about rebates for electric and active transportation from many sources, visit saanich.ca/rebates.

Electric Vehicle Facts

- The District of Saanich requires all new buildings to be EV charging ready.
- There are over 200 public EV chargers in the Capital Region.
- EVs are better for the environment and produce less greenhouse gas emissions than gas vehicles
 including the impacts of producing the vehicle.
- Most new EVs have a range of 250 to 600 km per charge – plenty enough for in-town driving, and for road trips where chargers are available along the way. Check out plugshare.com to see where the EV chargers are for your North America-wide road trips!
- Visit saanich.ca/ev for more info.



"My favorite way to travel is by bike. It's fun, keeps me in shape, and I never have to sweat about parking. My backup is an EV. How can you beat a car that doesn't have mechanical issues and avoids all use of carbon fuels? I bought a second-hand Leaf and with the money left over was able to put solar panels on my house to fuel my car."

Tory Stevens, Saanich resident, retired biologist, urban farmer.

saanich.ca/ev



Saanich is one of five international communities participating in Bioregional UK's One Planet Cities Initiative (https://www.bioregional.com/projects-and-services/influencing-wider-change/one-planet-cities). Led locally by sustainability practitioners from the BC-based NGO OneEarth (https://www.oneearthweb.org/),

One Planet Saanich (https://www.oneplanetsaanich.org/) engages schools, businesses, and community groups in a peer network to learn, act, and advance 'One Planet Living'. Action centers on the creation of Sustainability One Planet Action Plans. These plans create a path for organizations to reduce their ecological and carbon footprint in ways that contribute to health, well-being, and equity.

The One Planet Saanich community includes the District of Saanich, schools, a church, a shopping mall, a local farm, a development project, social enterprises, and an electric vehicle company. Participants have implemented some great initiatives, advancing One Planet Living:

- BEESPOT Neighbourhoods broke ground on their passive house net zero development
- The First Unitarian Church launched EcoGames to engage their congregation in competitions to reduce their footprint
- Artemis Place is helping at-risk youth in engaging with the natural environment through a new outdoor learning space
- Reynolds Secondary School has planted market food gardens, in addition to their on-going in-school salad bar, are organizing clothing + book swaps, and re-purposing food waste
- Mount Douglas Secondary School convened 'Dragon's Den' events focused on advancing circular economy practices

- Power to Be is integrating One Planet Principles into their programs, and in the construction of their new facility
- **Supply Victoria** is advancing material re-use in the arts
- Community engagement in One Planet Living and climate action is increasing, through
 Creatively United's webinar series (https://creativelyunited.org/climate-artists-series/) and festivals, and Conversations for a One Planet Region's (https://oneplanetconversations.ca/schedule/) ongoing speaker series
- And more!

BEESPOT Neighbourhoods

"Sustainable Places of Tomorrow" A One Planet Living Project in Saanich

By Nino & Enrico Barbon

Construction of the first Net-Zero Certified Passive House on the BEEPSPOT Passive House enclave is well underway at 801 Yole Place in Cordova Bay.

The recently completed air barrier membrane and exterior insulated wall system create a super insulated and airtight building envelope required to meet the Passive House certification threshold of 0.60 air changes per hour, exceeding Step Code 5 performance. The extended overhangs combine with the high-performance triple-glazed Tilt 'n Turn windows to prevent heat loss and maximize cooling to create a living space with comfortable consistent temperatures.

It is an energy efficient building designed to consume up to 90% less heating energy than conventional builds. Ducting for the home's 24/7 heat recovery ventilation (HRV) system will deliver constant fresh air to the home through an efficient heat exchanging core while exhausting stale air from the home. There will be zero emissions from gas burning, and no noisy heat pumps on site. The BEESPOT home will be an ALL ELECTRIC clean energy home.

The electrical rough-in has been completed and incorporates a grid-tied 11 KW solar panel array mounted on the flat roof facing south. As a true Net-Zero home, the solar panels will generate sufficient electricity to power the entire home over the course of the year. The TESLA GATEWAY electrical system has been installed to deliver solar power to a TESLA Powerwall battery storage system from on-site generated clean energy, for the emergency backup of the critical load circuits. The home burns NO fossil fuels for home heating or water heating.

Construction is scheduled to continue through the fall with completion & occupancy estimated in 2022.

Special thanks so far to: Peter Shultze General Contractor, Mark Bernhardt Passive House Consultant & Energy Advisor, Grant & Michael Healy Construction, Santino Barbon, Belltech Electric 5/ High Tide Solar Energy & Tesla installation team, and Mark Granger Plumbing team



July 2021:

Air barrier wrapping complete before exterior TGI vertical wall assembly



September 2021:

Insulated and weather barrier wrapped exterior wall & window installation





Keep up to date on local community stewardship projects and environmental issues.

Subscriptions to this quarterly newsletter are free and available in electronic or paper version.

To subscribe, please send your contact information to the editor or visit saanich.ca/ourbackyard.

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