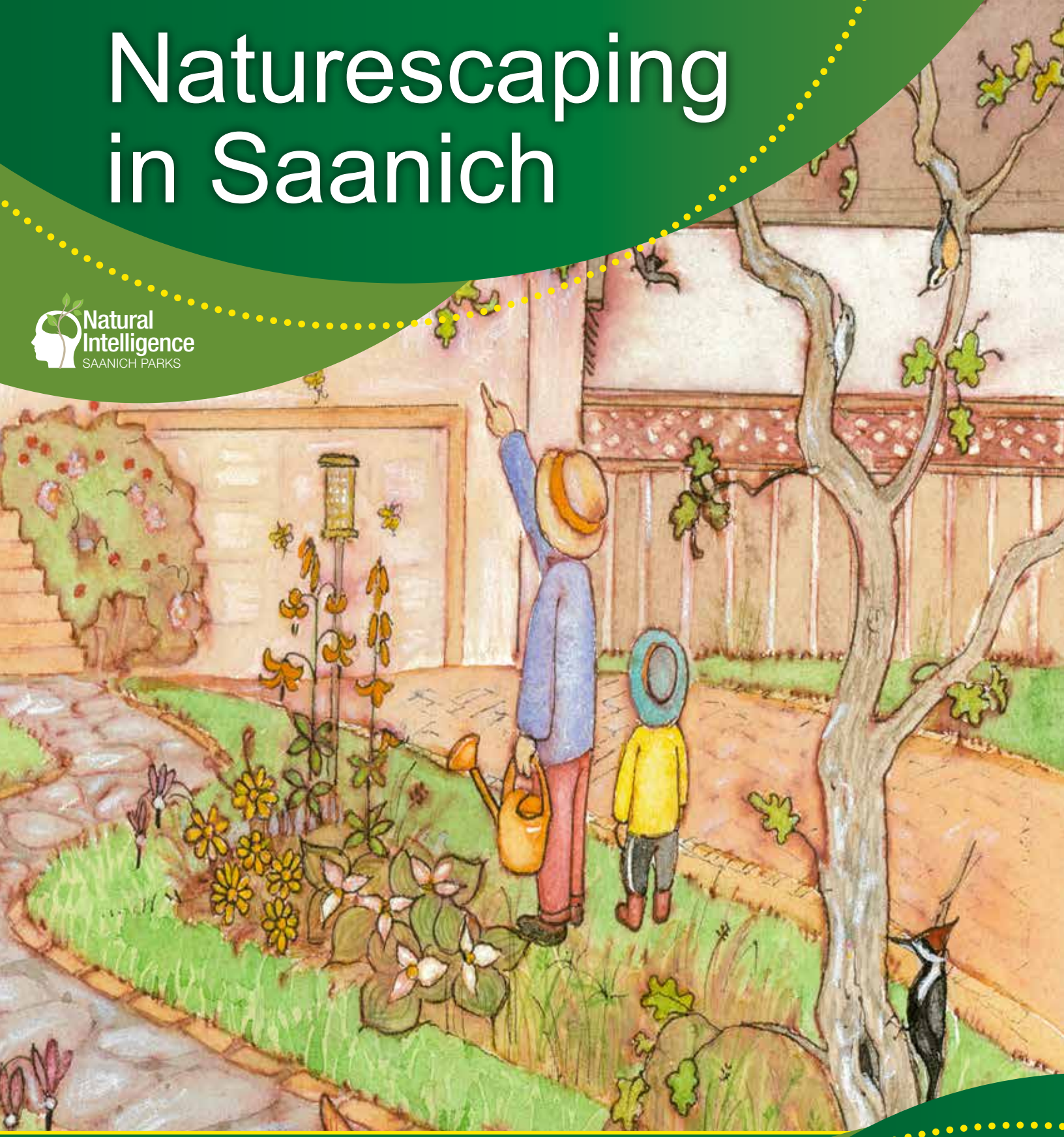
Naturescaping in Saanich

Natural Intelligence
SAANICH PARKS



Supporting Nature at Home

Saanich

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This booklet serves as a resource to support residents to be stewards of nature, especially on private lands. It also includes other great resources to help you begin or expand your naturescaping efforts. Here's what you'll find in this guide:

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Satinflower

More information and resources are available at:
saanich.ca/naturescape

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This booklet builds on the excellent work of the Naturescape BC program and resources, first developed in 1995. The BC resources are currently managed by Habitat Conservation Trust Foundation (HCTF) and their HCTF Education program.

What is Naturescaping?

Naturescape is a concept and program that aims to protect, maintain, and enhance wildlife habitat and native biodiversity. It encourages creating diversity, layers and edges, as well as using native plants on your property and in the re-design of landscapes.

In 2000, Saanich Council endorsed the principles of Naturescape and a plan for implementation. Since that time, additional policies and practices have been formalized. Council passed an Official Community Plan policy in 2008 to "encourage the use of native species and climate change resistant plants for landscaping on both public and private lands and continue to promote the principles of Naturescape". In addition, many Local Area Plans and Bylaws also promote Naturescaping.

Naturescaping Principles:

- **Stewardship:** be a steward of the natural environment and local wildlife
- **Habitat:** protect, restore and enhance natural habitat
- **Biodiversity:** protect local biodiversity
- **Conserve water:** plant native species and reduce or eliminate lawn areas

Naturescape programs can be found in many jurisdictions around Canada and the US. In British Columbia, the Habitat Conservation Trust Foundation hosts the Naturescape BC guides that were developed (~1995), including regional booklets. Since that time, the concepts and resources have been used to support local initiatives and programs.

> *"Each private outdoor space is unique, each is important, and each is potentially part of a much larger network of private and public green spaces."*
>
> Naturescape BC Provincial Guide, 1995, p. 55

Why Naturescaping?

Naturescaping is about natural landscaping, supporting nature and benefiting from an increased connection with nature. Naturescaping benefits include ecosystem services such as climate regulation, purification of air and water, pollination of crops and natural vegetation, flood control, soil health and much more (see page 19).

Naturescaping supports native biodiversity within the region and provides wildlife habitat and corridors in both urban and rural areas. Saanich is located within the Coastal Douglas-fir (CDF) biogeoclimatic zone, which is the least protected zone. This zone is located mainly on private land (80%), which is why the help of private landowners is so important. All 36 ecological communities in this zone are ranked both globally and provincially as critically imperiled with hundreds of wildlife and plant species at risk.

This booklet provides information to help you get started or expand your naturescaping efforts. It also links you to further information and resources. Naturescaping has many benefits aside from ecological values, including economic, human health and well-being, fun and inspiration!

Some specific benefits include:

- Biodiversity conservation
- Water conservation
- Provide habitat for wildlife
- Reduce stormwater run-off
- Lower yard maintenance
- Save money on yard maintenance
- Personal and public health benefits
- Reduce climate impacts from mowing
- Reduction of toxic chemicals on the landscape and contamination of aquatic systems
- Eliminate the use of chemical fertilizers and imported peat moss
- Reduce impacts of invasive plant species

Naturescaping for Kids

Naturescaping has wonderful benefits for the young people in your life. Studies show that spending time in nature, playing and connecting with nature, has many health, as well as developmental benefits for children, including:

- Supporting creativity and problem solving
- Improved academic success
- Increased physical activity
- Improved social relationships
- Increased self-discipline
- Reduced stress and anxiety
- Increased confidence
- Building a sense of wonder

...and all these benefits apply to all ages!

Good Neighbours

Through Naturescaping you are being a great neighbour to wildlife and natural areas, but please remember your human neighbours as well! In urban areas, residents have concerns with weeds and tall grasses, which can be unsightly, and invasive. In order to be a good neighbour, we recommend:

- **Maintain a tidy perimeter:** mow a 1 metre strip around your yard (for long grass or weedy areas) if there is a potential edge conflict with your neighbour(s)
- **Address weeds:** remove or mow all areas containing weeds (including grass areas) before they go to seed
- **Control invasive plants:** control or eliminate invasives to stop spread beyond your property
- **Create islands:** of native plant habitat (can include grasses) to reduce or eliminate mowing
- **Edge treatments:** use native ground cover vegetation, mulch, and/or low growing native shrubs at the property frontage or a hedgerow
- **Safety:** make sure water features, plant choices, and other features are not dangerous
- **Talk to your neighbours:** about your naturescaping plans and efforts

Saanich Naturescape Program
Naturescape Yard Checklist

There are many ways you can create habitat in your outdoor spaces. It can take as little or as much space as you like – from an apartment patio to a rural farm. We've created this checklist to help you get started.

1. Water Sources – aim for 2 sources

I have:		I plan to add:
☐	bird bath	☐
☐	pond	☐
☐	flowing stream (natural or constructed/circulating)	☐
☐	natural or constructed wetland	☐
☐	raingarden	☐
☐	muddy/ damp spot for birds, butterflies & other insects	☐
☐	other:_____	☐

2. Food for All Seasons – aim for at least 5 sources

I have:		I plan to add:
	Spring/Summer	
☐	nectar plants	☐
☐	flowering trees, shrubs, plants (especially native)	☐
☐	berry/ fruit producing trees/ shrubs (especially native)	☐
☐	other:_____	☐
	Fall/Winter	
☐	seed/nut bearing trees/ shrubs	☐
☐	seed bearing plants left to overwinter, including grass	☐
☐	bird feeder (seeds & nuts)	☐
☐	suet bird feeder	☐
☐	other:_____	☐
	Year-Round	
☐	hummingbird feeder (Anna's Hummingbird overwinters)	☐
☐	undisturbed leaf litter	☐
☐	rotting log(s)	☐
☐	grass mowed high	☐
☐	other:_____	☐

3. Shelter

I have:		I plan to add:
☐	native shrubs and trees	☐
☐	overlapping heights of trees, shrubs, & ground cover	☐
☐	thicket/ hedge (dense area of medium to tall shrubs)	☐
☐	wildlife tree (standing, dead /dying, topped for safety)	☐
☐	rotting log	☐
☐	brush pile	☐
☐	rock pile or open stone wall	☐
☐	bird nest box(es)	☐
☐	bat roosting box	☐
☐	Mason bee box/ pollinator shelter	☐
☐	leaf piles or leaves under shrubs	☐
☐	other:_____	☐

4. Sustainable Practices

I have:		I plan to add:
☐	pesticide-free space	☐
☐	reduced water use (water-wise landscaping)	☐
☐	reduced lawn	☐
☐	removed invasive plants	☐
☐	composting	☐
☐	rainwater capture	☐
☐	other:_____	☐

A Thriving Garden Starts with Healthy Soils

Healthy soil is alive and full of billions of organisms we can and can't see. Soil can be viewed as a living ecosystem. For gardeners and aspiring gardeners, attractive and abundant gardens start with maintaining healthy soil. If you have a natural ecosystem on your property, note that ecosystems maintain healthy soils naturally.

Healthy Soil

Plants need soil for support, air, water, and nutrients.

A few ideas to maintain the health of the soil in your garden:

- **Add organic material:** compost, aged manure and decomposed saw dust are great additions
- **Leave your leaves:** they are important for soil health and also provide habitat for organisms
- **Sand:** improves drainage for clay heavy soils
- **Lime:** raises pH for acidic soils
- **Sulphur:** reduces pH of alkaline soils

Bringing soil to your garden can be a great boost for your landscaping, but it can also bring problems, such as invasive species and contaminants. When purchasing soil, source it from reputable suppliers. See the Ministry of Agriculture handout (in the next section on this page) for tips on buying topsoil, including purchasing, choosing healthier soil products, and inspecting before delivery. If you end up with an invasive outbreak, follow up with your supplier (and in some cases local authorities).

Please be aware that dumping soil and garden waste into natural areas is illegal and the leading cause of invasive plants spreading into local ecosystems and public parks.

Resources

BC Ministry of Agriculture has the following handouts for gardeners

- Soil Management and Composting (https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/animal-and-crops/plant-health/gardenguide-7-soils-composting.pdf)
- Soil Management for Home Gardens (https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/agricultural-land-and-environment/soil-nutrients)
    - Tips for Buying Topsoil
    - Managing Clay Soils for Backyard
    - Materials for Improving Garden Soil Structure
    - Soil Improvement Methods for the Home Garden

Victoria Compost Education Centre
compost.bc.ca

- Fact Sheet #11: Soil Contamination
- Fact Sheet #12: Best Practices for Healthy Urban Gardens

Beware!

A few priority invasive species to be aware of in our region that can spread via soils:

Knotweeds: spread primarily by extensive rhizomes and can start new infestations from very small fragments.

European Fire Ants: (very small red ants that swarm and sting) usually spread by the movement of infested soil such as potted plants.

Blessed Milk Thistle: a high-priority invasive that spreads through infected soils.

Blessed Milk Thistle

Gardening with Native Plants

Red-flowering Current

Native plant gardens celebrate the unique natural beauty of our region while providing valuable habitat for wildlife, important ecosystem services, as well as reducing costs and maintenance.

Native plants are adapted to our local soils and climate, and are critical to our local wildlife. Native wildlife and plants evolved together and many animals are dependent on native plants for their survival. A thriving native plant garden attracts and supports native birds, butterflies, pollinators and more. Your native plant garden can be your personal sanctuary, contribute to your family's health and well-being, and also provide valuable benefits to the health of local ecosystems and biodiversity conservation.

Whether you are slowly beginning to add native plants to your garden, restoring biodiversity to existing ecosystems on your property or starting from scratch with a new garden design, there are lots of resources to help you. On pages 20-21 a native tree listing is included with planting tips. On page 22 you will find links to other resources, such as the Naturescape BC guides and native gardening resources from the Garry Oak Ecosystems Recovery Team. In addition, there are local books to support you in your naturescaping endeavours, including: *Native Plants in the Coastal Garden: A Guide for Gardeners in B.C. and the Pacific Northwest* (Pettinger & Costanzo, 2002) and *Gardening with Native Plants of the Pacific Northwest* (Kruckeberg & Chalker-Scott, 2019). *Plants of Coastal BC* (Pojar & MacKinnon, 2016) is a critical field guide for identifying and learning about native plants in our region.

When you plan your native garden (or ecosystem restoration on a larger property), consider what ecosystem was originally on your property or perhaps still remains in some form. For example, if you are in an area of Garry Oak ecosystems, Douglas-fir forest communities or wetlands, this will serve as a guide to what is best suited on your property (including what plants will grow best there). If you are next to a park or a relatively intact ecosystem, the habitat you provide on your property will extend and help buffer those ecosystems. As you plan your native plantings, consider recommendations from other sections of this guide, to provide habitat for birds, butterflies, pollinators and other wildlife.

Tip:
horticultural plants chosen for their beauty are often inedible to wildlife

Native Plant Sources

It is important not to take plants from the wild, as removing them can damage the ecosystem (and is likely illegal, especially if the "wild" is park or crown land). Luckily, there are some excellent local sources of native plants, including a private native plant nursery. In addition, Saanich offers a program with free membership (including orientation) that provides native plant salvage opportunities from development sites where native plants will be lost unless salvaged (saanich.ca/plantsalvage).

Native planting lists: (especially for marine backshore and riparian areas) can be found on our website https://www.saanich.ca/EN/main/community/natural-environment/publications-tools/plant-list.html

The following websites maintain lists of local sources of native plants, though you may want to call ahead to those nurseries who don't specialize in native plants to find out what kind of species they are currently carrying:

- GOERT: https://goert.ca/gardeners-restoration/buying-native-plants/
- Native Plant Study Group: http://npsg.ca/where-to-buy-native-plants/

You can also propagate your own native plants by gathering seeds and/or stem cuttings. Propagation information is available online, including through the Garry Oak Ecosystems Recovery Team (GOERT) in partnership with Saanich at: https://goert.ca/

Planting

Plan to do your planting in the wetter seasons: fall or spring. Even native plants will likely need extra water during dry periods for the first few years. Before planting, consider how much space each plant will need to grow into, giving extra room especially for trees and shrubs. You can always fill in the gaps later. For new, young plants, you may want to protect them with temporary wire mesh (create a circle and secure with rebar or a stake of some kind).

Maintenance

You can help your native plant garden thrive and reduce maintenance by saving leaves and using leaf mulch under your native plantings. This mulch helps reduce water evaporation, moderates the soil temperature and helps control weeds. Leaves are an important resource! Leaves and leaf mulch help build healthy soils and increase the habitat value as beneficial insects and other organisms move in to this rich environment. On that note, keeping fallen or cut branches from trees and shrubs in your garden also adds habitat value and helps build soil. Native plants need water too. To establish new plants, plan on watering them for at least three dry seasons.

More Resources

Page 22: you will find more resources for naturescaping and native plant gardening. Also listed are community native plant gardens that you can visit for inspiration.

Water for Wildlife

"Water transforms an average wildlife habitat into an extraordinary one. Water may be offered in free-standing or hanging bird baths and in ponds and streams, either natural or constructed. Moving water is particularly attractive — dripping, spraying, bubbling, or flowing — and should be recirculated to reduce consumption. Locate water beyond the reach of lurking cats, with protective cover two or three metres away"

- Naturescape BC (Provincial Guide, 1995, p. 15)

Local naturalists and naturescape enthusiasts will tell you: if you don't do anything else, provide water in your garden! Water is not only an essential element of habitat, but can add to the aesthetics and your own enjoyment of your garden.

There are many options ranging from very simple, small "baths" to streams and ponds. The first consideration for adding a water feature is the source of water, whether you have existing natural water on your property or are constructing a water feature that you will add water to or facilitate the use of stormwater. (Please note that if you are going to make changes on your property using existing surface water, contact Saanich first.) The next consideration is location. Wildlife need a safe place to drink or bathe. Nearby shrubs and low tree branches are important for shading the water and providing some shelter or protection from predators. The following information provides ideas and tips to get you started.

Bird Baths

Bird baths can be very simple – using a hanging terracotta pot, a concrete pedestal or even a metal lid. Birds do not like slippery surfaces, so if you use something like a glazed pottery or smooth plastic, try adding a rock or two in the middle for perching. Make sure there are shallow areas (1-2 cm deep) for birds to stand and have a bath, even in winter.

If you add a dripping water feature to your bird bath you may be amazed by the wildlife you attract with the sound.

Flowing Streams

When thinking of water features in your garden, you may automatically think of a pond. Alternatively, you can create a small recirculating stream in your garden that brings the sound of flowing water to the enjoyment of your yard, but also is a big attraction for birds and other wildlife. With a few basic materials such as liners, rocks and a recirculating water pump, you can create an amazing garden feature. Consider locating a flowing stream close to an electrical outlet to power the pump if you aren't using solar. You especially want to build it in a spot where you can enjoy your stream and all the wildlife watching!

Here is a resource to help you get started:

Recirculating Streams & Artificial Ponds (Paul McLellan, Canadian Wildlife Federation) https://cwf-fcf.org/en/news/articles/a-garden-stream_resource.html

Ponds

The addition of a pond to your garden can have so many benefits, including: wildlife habitat, moderating temperature, growing aquatic plants, and adding a beautiful place to sit. You can add a pond by purchasing a pond "tub" or by excavating and using a pond liner with rocks, plants and even logs to complete the pond. A pond is possible to build on your own, or there are many local companies to help with projects like this.

Here are some resources for creating a pond on your property:

Habitat Acquisition Trust: Creating a Wildlife Pond
https://hat.bc.ca/wildlife-pond

Canadian Wildlife Federation: Ponds
https://cwf-fcf.org/en/explore/gardening-for-wildlife/tools/recreating-natural-habitats/ponds.html

Wetlands and Riparian Areas

Wetlands (marshes, swamps, etc.) and riparian areas (beside streams, lakes, and wetlands) are important ecosystems that provide habitat, biodiversity, and help to moderate climate. If you are lucky enough to have wetland or riparian habitat on your property, you have a golden opportunity for naturescaping! Please contact Saanich Parks to find out more about how you can protect and enhance these vital, protected habitats (parks@saanich.ca).

It is also possible to construct a new wetland, for instance as on a disturbed area of land. There are many things to consider and plan; the documents below provide useful guidance.

Information about constructing wetlands on private lands:

Ducks Unlimited guide to maintaining and restoring wetlands on private lands: https://cvc.ca/wp-content/uploads/2011/06/Wetlands_on_my_Lands_Brochure.pdf

CRD design guidelines: Constructed Wetlands, Wet Ponds & Dry Ponds: https://www.crd.bc.ca/docs/default-source/es-watersheds-pdf/green-stormwater-infrastructure-crd/appi-constructedwetlands-final.pdf?sfvrsn=348ed0ca_2

Wetland Ways: Interim Guidelines for Wetland Protection and Conservation in British Columbia (created wetlands page 14): https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/best-management-practices/wetland_ways_ch_11_enhancement.pdf

Rain Gardens

Rain Gardens are designed to receive stormwater run-off from roofs and other impervious surfaces. Naturescape designs can incorporate stormwater management and wildlife habitat as well other benefits. These are best used on relatively flat sites that are heavily planted with vegetation adapted to fluctuating water levels, such as Canada Rush. A nicely designed rain garden, using naturescape principles and elements, can add to the esthetics of a garden and make a positive contribution beyond your property. Raingardens allow rain water to be absorbed on-site, preventing the rapid release of excess stormwater into the municipal water system, reducing flooding and filtering pollutants. Stormwater flowing into a raingarden can become an attractive, valuable habitat feature for birds, butterflies and other pollinators.

Local Information about Rain Gardens:

Saanich information on Rain Gardens
https://www.saanich.ca/assets/Community/Documents/Rain%20Garden.pdf

and more information: https://www.saanich.ca/EN/main/community/natural-environment/environmental-planning/stormwater-management.html

CRD resources for constructing and planting up a Rain Garden https://www.crd.bc.ca/education/green-stormwater-infrastructure/rain-gardens

Wildlife Trees

"A wildlife tree is any standing dead or living tree with special characteristics that provide vitally important habitat for the conservation or enhancement of wildlife. These characteristics, such as large trunks (sometimes hollow), large branches, deformed and broken tops, internal decay and sloughing or loose bark, are becoming increasingly scarce..." (Fenger et al, 2006)

At different stages of the life of a tree, it offers food, shelter and resting places for animals and plants. Dead and dying trees are vital habitat. They provide essential habitat to about 80 BC species (15% of birds, mammals and amphibians in BC). In addition, many insects, plants, lichens and other organisms use or are dependent on dead and dying trees.

The location of wildlife trees can be especially important, such as along watercourses, riparian and wetland areas where they are used by wildlife for feeding, nesting, perching and cover. Wildlife trees and coarse woody debris that fall into water provide important habitat for fish, basking turtles and other aquatic species.

Protecting dead and dying trees on the landscape is critical for the protection of biodiversity in BC. In Saanich, where 66% of lands are privately owned, protecting wildlife trees on private lands is an important contribution to ecosystems and biodiversity – thus an important consideration for landowners interested in naturescaping provided there are no health and safety risks.

Wildlife tree features that are great for habitat include:

- Loose bark
- Large branches
- Wide trunk
- Natural cavities and hollowed trunks
- Feeding holes (then used as shelter/nesting)
- Spiked top for perching

Wildlife tree habitat and the species that use them are part of the complex ecological web around us and that includes us. Humans are part of this web of life, including benefiting from ecosystem "services" such as those connected with wildlife trees: control of pests and pathogens, nutrient cycling, soil health, biodiversity and more.

Natural Garry Oak tree cavity

If you have a large wildlife tree on your property that you would like to protect, but are concerned about safety, an arborist can assist in making the tree safe to continue standing at some level. If a tree must come down, it is valuable habitat to leave on the ground in your naturescape. Many native species use downed trees to display, to feed on, for shelter and for overwintering.

Wildlife trees are valuable in your garden either standing or on the ground. You can also use dead and dying trees to support nestboxes or feeders for birds. The activity around wildlife trees can add to the enjoyment of your garden and may provide habitat to species who help to control populations of insect pests.

Resources

Fenger, M., Manning, T., Cooper, J., Guy, S. & Bradford, P. (2006). Wildlife & trees in British Columbia. Lone Pine Publishing.

Wildlife Tree Committee of BC https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/wildlife/wildlife-habitats/wildlife-tree-committee

Post, K., MacDonald, A., & MacDonald, C. (1996). Wildlife trees of British Columbia. Province of British Columbia. https://resourceroom.hctfeducation.ca/products/wildlife-trees-of-british-columbia (*Educator's guide)

Silver-haired bat

Wildlife Enhancements

Rocket style bat box

Once you have considered essential habitat elements in your naturescape such as healthy soil, native plants, water, wildlife trees, layers and edges of trees and plants, you can also consider "enhancements" to support different types of wildlife. Below are some ideas, but you can find more throughout this guide and in our resource section at the end. On pages 12-14 you will find ideas for enhancing your yard for birds, followed by ideas for pollinators and butterflies on pages 15-18.

Bats

We have nine local bat species in this region, which play important roles in the ecosystem, especially as insect eaters. Bats face a lot of challenges including habitat loss, predation by cats and the White Nose Syndrome (a fungal disease that has resulted in serious decreases in bat populations). You can help our local bats by providing wildlife trees (especially with loose bark) or installing bat boxes. This can be a fun family project to build and install or you can purchase a bat box from a local source.

A few important facts about our local bats:

- they only eat insects (no local bats eat fruit or blood)
- they can live quite long (over 30 years for some)
- they usually have only one baby a year

We have many at-risk bat species, including the Little Brown Bat which is endangered in Canada. You can help by providing habitat and participating in local programs that support bats.

If you are interested in bats, check out these local programs, information and resources:

Habitat Acquisition Trust (HAT):
https://www.hat.bc.ca/bats

Community Bat Programs of BC website:
https://bcbats.ca

Rock Piles

Providing a pile of rocks or creating a garden edging with rocks provides habitat for all kinds of creatures including reptiles and insects like bumble bees. A rock pile near water can provide shelter for amphibians. A sunny spot with rocks is great for reptiles – and you can enjoy watching them enjoying the heat on the rocks. For the best reptile habitat, bury most of the rockpile, which especially provides habitat for overwintering.

Rotting Logs and Brush Piles

Creating or leaving a pile of branches and/or rotting logs can become a great habitat feature for all kinds of creatures including birds, native bees, garter snakes, frogs (like the Pacific Chorus Frog) and salamanders (like the Western Red-backed Salamander).

One of the best locations for placing wildlife enhancements is close to sources of water. Check out the Naturescape BC guides and other resources on page pages 22 for more wildlife enhancement ideas.

Propertius Duskywing and Garry Oak leaves

Leave those leaves! The Propertius Duskywing is at risk due to loss of habitat, including oak leaf litter. You can see this butterfly mainly in April and May and possibly into July. They are found in Garry Oak ecosystems and are dependent on Garry Oak trees and the habitat provided by the oak leaves. Propertius Duskywing lay their eggs in oak leaves. Larvae make shelters using leaves, and feed on the oak leaves (mainly at night). In autumn when the leaves fall, the larvae in their shelters are still attached. If you are lucky enough to have Propertius Duskywings in your yard, it is probably because you have left the fallen oak leaves in your naturescaped yard, and they will emerge from this habitat in the spring.

Attracting Birds to Your Garden

Many people in our region enjoy watching birds in their gardens. There are many easy things you can do to attract and support them in your garden. In this guide you will find tips for providing nestbox habitat (pages 13-14), water features (pages 9-10) and wildlife trees (page 8). In addition, you can also consider what you plant in your garden to create bird habitat and provide extra food for birds.

Designing Your Garden

The plants and trees you select for your garden have a big impact on the habitat value you provide. In addition, the arrangements of the plantings and other gardening practices can add to the attraction and value for birds. On pages 5-6 there is more information about gardening with **native plants**, which are critical for birds. The following are some planting tips for birds:

- Provide natural layers of plants: groundcovers, small and large shrubs, and trees
- Plant a variety of native species to provide nutritional foods all year round, including plants that provide seeds, nuts, berries and nectar
- Plant clumps of the same species of fruiting native plants to boost the yield from more effective pollination and increase attractiveness to birds
- Provide at least one area of conifer trees if possible. These are important shelter in storms as well as roosting and nesting sites
- Save or even install a dead tree for nesting, perching and insect feeding
- Reduce or eliminate your lawn, replacing it with native wildflowers, grasses, shrubs, and/or groundcover plants (promoting local insects, which are good for birds)
- Minimize non-native plants and completely avoid invasive plants
- Provide or leave leaf litter piles for ground feeding
- Instead of cleaning up branches, pile them into one area to provide bird habitat (especially good as safety from predators and storm shelter)
- Encourage insects in your naturescape, which birds feed their young, by not using pesticides and leaving your garden more natural such as with fallen leaves and branches.

For more information, see the Naturescape BC Georgia Basin Plant and Animal Guide: https://www.hctfeducation.ca/community-education/

Impact of Pets

Cats and dogs can have negative impacts on birds. More information on studies and impacts are available through the Stewardship Centre for BC: *https://stewardshipcentrebc.ca/cats-and-birds/cats-and-birds-resources/ and https://www.protectnatureto.org/dogs-in-natural-areas/

"By taking action as responsible pet owners, we can save millions of wildlife and birds' lives and protect species populations for years to come."*

You can help by keeping cats indoors and dogs under control, especially during bird nesting season.

Feeding Birds

Native plants provide year-round nourishment. Providing extra food for local birds is a popular hobby for people who enjoy seeing wildlife around their homes. For some, it may be enough to place a store-bought bird feeder outside the kitchen window, while others enjoy having all types of feeders, bird baths, nest-boxes, and even keep a list of all the different birds that have been seen in their yard. No matter what your idea of attracting birds involves, here are some general guidelines to support you in enjoying birds in your garden. Recommendations for setting up bird feeding stations:

- To attract a variety of birds: place feeders on a tree or post at eye height
- To protect from predators: place feeders near enough to shrubs for refuge but far enough away to reduce opportunities for predators
- Starting new feeders: place near the most natural area in the yard and over a few weeks, move it closer to your preferred viewing area
- **It is very important to commit to keeping all feeders and sources of water clean.**

Protecting birds from your windows:

- Feeders close to windows can reduce collisions at higher speeds
- Add bird silhouettes or other anti-collision devices to your windows
- Make a bird saver (www.birdsavers.com)

If you are interested in attracting certain birds, you will need to consider what food you are providing: seeds, suet and/or nectar. You can also reduce waste by carefully selecting your seeds. Wild birdseed mixes often have seeds that many birds won't eat, so they can be quite wasteful and messy.

Feeding options:

- Recommended seed: black oil sunflower seeds (eaten especially by finches, grosbeaks, chickadees, and nuthatches)
- Recommended seed: white millet (eaten by sparrows and quail)
- Suet cakes (eaten by woodpeckers, chickadees, nuthatches and Bushtits)
- Nectar feeders (for hummingbirds)

The most economical way to buy seed is in the 20 kg bag from a local feed dealer. This can be stored in a large metal garbage container with a tight lid. If you buy only one type of seed, black oil sunflower seeds are the most valuable food for the widest variety of birds.

Suet cakes are a popular way to feed birds. When placed in a plastic-coated wire cage attached to a tree trunk, it will appeal to four species of local woodpeckers. Fat can also be hung upside down in mesh to deter larger birds like crows and starlings while enabling feeding by smaller chickadees, nuthatches, and Bushtits.

An important way to attract and support birds is by providing water. Birds need water for drinking, feather maintenance and parasite control, so it is important year-round. See page 9 for tips on water features for birds.

While we can offer important habitat for birds in our yards, most birds don't need our supplementary feeding to survive. We attract them mainly to enjoy their company. Once you do start feeding, it is important to provide a regular source of food. For non-migratory birds, your feeder is an asset that a dominant male of a species might incorporate into their breeding territory in the spring. If you stop feeding as things warm up, an important asset is suddenly gone and that breeding territory may actually be inadequate. This could be very disruptive to the birds living in your yard and neighbourhood.

Hummingbird nest

Providing Nestboxes for Birds

One of the easiest ways to help some of our native birds is to provide them with a nestbox. Birds who use nestboxes would otherwise nest in a tree cavity (such as a woodpecker hole) in a dead or dying tree (wildlife tree). Unfortunately in urban settings wildlife trees are not common. In BC there are approximately 50 species of cavity nesting birds, including the woodpeckers who build them. Half of these species are found in the Greater Victoria area. So if you can't provide a wildlife tree in your yard for nesting habitat, the next best thing is a nestbox. (For information about wildlife trees, see pages 9-10.)

Providing Habitat

Nestboxes do not eliminate the need for preserving wildlife habitat and wildlife trees. The use of nestboxes enhances existing habitat and is increasingly important as the availability of natural cavities decreases. If you have the opportunity to preserve habitat and wildlife trees, this is extremely valuable.

Locations

When deciding the location of a nestbox, look at the habits of the birds you are trying to attract. Chickadees and nuthatches prefer a mixture of trees and edge areas; good locations for their nestboxes are on coniferous trees. Swallows need unobstructed access to the entrance hole and prefer locations with open areas to forage for insects, so under the eaves where your roof peaks is a perfect location. Other options are utility poles, or a 2x4 attached to a fence. House Wrens also require open areas with a mixture of trees and dense shrubbery, while Bewick's Wrens prefer a lower, secretive area.

All boxes should be firmly attached at a height of 2 to 5 metres ensuring safety from cats. To avoid territorial conflicts, space the nestboxes at least 10 metres apart. Consider locations were you can enjoy viewing the nestbox as that is part of the fun!

Seasonal Care

Nestboxes should be installed as early as possible in the spring and kept out all year because some birds will use them to roost at night. Clean out the nestboxes each year to eliminate parasites. This should include removing the nest material, scraping and washing the inside thoroughly with soap and water. Do not use pesticides.

Unintended Use

Sometimes unintended animals take up residence in nestboxes. These include wasps, bumblebees, and the introduced Eastern Grey Squirrels, House Sparrows and European Starlings. If a bumblebee chooses a nestbox, this is a good thing – they need our help too! If your boxes end up being used by the invasives mentioned above, this may bring more harm than good to our native birds. To ensure your boxes are used by the intended native birds, make sure you use the correct size of hole and regularly maintain the box.

Nestboxes for Local Birds

Woodpeckers excavate their own nest cavity every year in dead or dying trees. These cavities are then available in future years for cavity nesters that can't excavate their own. These secondary cavity nesters (such as swallows, wrens, chickadees, owls, and even some ducks) are the birds we target with nestboxes. See below for information on how to construct your own nestbox.

- Choose rough cedar (best wood) as it is durable and doesn't need any preservative
- Choose a nestbox design without a perch so predators don't use it to get inside and eat the birds
- It is important to be able to open the box for annual cleaning

Nestbox Instructions for Victoria Birds
https://www.saanich.ca/assets/Community/Documents/Environment/naturescape/Nestbox_plans.pdf

Swallow and Wren Nestbox https://www.saanich.ca/assets/Community/Documents/Environment/naturescape/Swallow-Wren_nest-box_information.pdf

Chickadee and Nuthatch Nestbox
https://www.saanich.ca/assets/Community/Documents/Environment/naturescape/Chickadee-Nuthatch%20nest-box%20information.pdf

Platforms: Rural Properties

Rural areas may have space to provide platforms for owls (such as Barn Owls and Great Horned Owls) or osprey.

For more information on building nesting platforms:

http://www.osprey-watch.org/learn-about-osprey/build-an-osprey-nest/

nestlings

Purple Martins

Gardening for Pollinators

"...the number one threat to pollinators (like all plants and animals at risk of extinction) is habitat loss. So, considering how you can create habitat in your backyard or on your balcony is a great place to start."

- Dr. Elizabeth Elle, Simon Fraser University

Pollinators include all creatures that visit flowers for pollen and nectar and are part of the system that allows flowering plants to reproduce. They include bees, butterflies, flies, beetles, wasps, and hummingbirds. Globally it is estimated that an average 87.5% of flowering plants need this support from pollinators*. That means this "service" is vital to biodiversity, ecosystems and for food production. Pollinators are part of the intricate web that sustains life. Unfortunately, native pollinators are declining, threated by habitat loss, climate change, disease and excessive/inappropriate use of pesticides. Pollinators need our help and we need them!

When you consider pollinators, make sure you are providing sources of food and water as well as shelter. You can make your garden more inviting and supportive for pollinators by providing:

- **Native plants:** attract insects
- **Layers:** landscaping, from groundcovers, different sized plants to shrubs and trees
- **Variety:** choose a variety of plant species providing nectar and pollen throughout the growing seasons
- **Groupings:** group plantings to make the work of pollinators more efficient
- **Larval plants:** include plants needed for butterfly larval (caterpillar) development (see table on next page)
- **Wildlife trees:** leave dead trees standing and fallen logs, branches and leaf litter for shelter and nesting sites
- **Boxes:** install bee boxes to encourage native bees
- **Soil:** leave areas of soil uncovered for ground nesting insects
- **Water:** provide clean, reliable sources of water with a shallow or sloping side

Bees

Did you know that there are almost 500 species of bees in BC? That is more than all the bird species that breed in Canada! Bees are the busiest pollinators in our region... and "native bees visit the widest range of flowers and crops of any pollinator group"[1].

You can support bees in your naturescape by:

- providing different habitat for a variety of bee species such as dead trees, branches and mud, plus a water source
- protecting areas of ground nesting bees (avoid foot traffic)
- resisting the urge to use pesticides to get rid of bee colonies

Butterflies

If you have open, sunny areas in your garden, adding or increasing native plants will make your garden very attractive for butterflies. In addition, consider adding stones for basking and muddy/ moist soil areas for minerals. See page 17-18 for more information about gardening for butterflies.

Swallowtails

Moths

It may surprise some people to consider that moths are also pollinators. Moths are distinguished from butterflies by their hairy, stout bodies and antennae. They are mainly active at night and are attracted to flowers that are strongly sweet smelling and open later in the day and evening. A few native plant suggestions for moths: Chokecherry (*Prunus virginiana*) and Twinflower (*Linnaea borealis*). See more information in the Selecting Plants for Pollinators guide (below).

> "...the annual value of global crops that depend on pollinators is estimated to be worth $577 billion" – UN, 2016[2]

Resources

[1]Selecting Plants for Pollinators: A Guide for Gardeners, Farmers, and Land Managers In the Eastern Vancouver Island Ecoregion

https://www.pollinator.org/pollinator.org/assets/generalFiles/E.Vancouver.Isl.2017.ver6.pdf. This guide includes a plant chart for attracting pollinators on pages 16-19.

[2]UN: information on pollinators globally
https://www.un.org/sustainabledevelopment/blog/2016/12/pollinators/

Island Pollinator Initiative
https://islandpollinatorinitiative.ca/

Pollinators of Southern BC
https://www.sfu.ca/people/eelle/bee_info.html

Southern Vancouver Island Bee Identification Guide
https://hcp.ca/wp-content/uploads/CSM-BeeIDguide-SVancouverIsland-Aug2017.pdf

Pollinator Partnership: register your garden (North America-wide project)
https://www.pollinator.org/SHARE

Pollinators: What's the Buzz? (David Suzuki Foundation)
https://feedthebees.org/wp-content/uploads/2011/03/DSF-Pollinators-Whats-the-buzz.pdf

[3]Garry Oak Gardener's Handbook (Garry Oak Ecosystems Recovery Team)
https://goert.ca/documents/GOERT_Gardeners_Handbook.pdf

* Ollerton, J., Winfree, R., & Tarrant, S. (2011). How many flowering plants are pollinated by animals?. Oikos, 120(3), 321-326.

Garry Oak Ecosystems & Pollinators

Garry Oak ecosystems, one of the rarest ecosystems in Canada, are found only in BC. They are located primarily on the southeast coast of Vancouver Island and the Gulf Islands. With the highest plant diversity in coastal BC, these ecosystems support a **wide diversity of pollinators**. If you have a remnant of Garry Oak ecosystem in your garden or nearby, you have an important role to play in naturescaping to support this valuable biodiversity. See the Garry Oak Gardener's Handbook[3] to learn more about naturescaping in Garry Oak ecosystems.

Naturescaping for Butterflies

Cedar Hairstreak

Woodland Skipper

Lorquin's Admiral

"Self-propelled flowers" is how Robert H. Heinlein referred to butterflies. Many people are interested in landscaping to attract these beauties. Butterflies are a joy to watch, add colour to a warm day, and can create a sense of peace as they flutter around your garden. Naturescaping can definitely increase your enjoyment of butterflies in your yard.

To create a welcoming habitat for butterflies, the most important thing to consider are food plants for caterpillars (the larval form of butterflies). Many butterfly species will accept only one or a few species of plants at this life stage. The adult butterflies are more flexible, taking nectar from horticultural plants, but native plants are essential for supporting caterpillars and thus increasing butterfly populations.

It might surprise you to learn that 51 species of butterflies are resident and native to southern Vancouver Island. Unfortunately, many are uncommon and some only exist as historic records and museum specimens. This means humans (settlers) have changed the region enough that there are species that can no longer live here. It isn't possible to reverse all of this by simply changing our gardens, but we can still help some species through our landscape choices. The following highlights some charismatic species to start a bona fide butterfly garden: the swallowtails, Lorquin's Admiral, and the nettle-eaters.

Swallowtails

Three species of swallowtails live in our region. These are big and boldly patterned black and yellow butterflies that have characteristic tails on their hind wings. Swallowtails are a great place to start as you identify and welcome butterflies into your garden.

Anise Swallowtails *(Papilio zelicaon)* are easy to plant for, using anise *(Pimpinella anisum)* from your herb garden and many species from the carrot family (Apiaceae). Native plants from this plant family that provide habitat for Anise Swallowtail include: Barestem Desert-parsley *(Lomatium nudicaule)*, Spring Gold *(Lomatium utriculatum)*, and Pacific-water Parsley *(Oenanthe sarmentosa)*. Be cautious of plants in this family that are highly invasive in this region (such as Poison Hemlock, Giant Hogweed, Goutweed and others).

Two other swallowtail species, also found here, can be attracted and supported by including different native plants. Western Tiger Swallowtail *(Papilio rutulus)* caterpillars eat willows *(Salix spp.)*, poplars *(Populus spp.)*, and cherry *(Prunus spp.)*, including Bitter Cherry *(Prunus emarginata)*. The Pale Swallowtail *(Papilio eurymedon)* also are noted to prefer cherry *(Prunus spp.)*, as well as Pacific Crab Apple *(Malus sylvestris)* and Red Alder *(Alnus rubra).*

Lorquin's Admiral

This species (*Limenitis lorquini*) is also relatively common and easy to attract. Because it is territorial, it may come right towards you and even flutter around your face. The preferred host plants for the caterpillar are similar to two of the swallowtail preferences: cherry (especially the native Choke Cherry *Prunus virginiana*), willows, poplars, cottonwood, and Oceanspray. The Lorquin's Admiral disguises itself from being eaten by predators by looking remarkably like a bird poop!

The Nettle Eaters

If you can set aside an area of your garden for a patch of stinging nettle (*Urtica dioica*), you will be offering a host for the caterpillars of five species of butterfly: Satyr

Anglewing (*Polygonia satyrus*), Milbert's Tortoiseshell (*Aglais milberti*), West Coast Lady (*Vanessa annabella*), Painted Lady (*Vanessa cardui*) and the Red Admiral (*Vanessa atalanta*). That is a lot of butterfly value in one plant! That said, plant it in an out-of-the-way spot as the nettle sting is something you will want to avoid touching.

When you go to a garden centre and ask what to plant for attracting butterflies you will often get the same answer: Butterfly Bush (*Buddleja*). This is not recommended as it does not provide food for caterpillars and it is a non-native invasive plant in this and other regions of BC. Try Mock Orange (*Philadelphus lewisii*) instead!

In order to really help butterfly populations in Saanich, we need to grow plants that provide food for the larval (caterpillar) stages. If a butterfly is found near your area, you can probably attract it and help increase its population by planting the correct food-plants for the caterpillars. Below is a list of native butterflies and their caterpillar food/ host plants to help get you started on your butterfly garden.

Butterflies	Caterpillar Host-Plant
Anise Swallowtail *(Papilio zelicaon)*	*Lomatium sp.*, including Barestem Desert-parsley *(Lomatium nudicaule)*, Pacific Water-parsley *(Oenanthe sarmentosa)*, Angelica sp. *(Apiaceae family)*, and Cow parsnip *(Heracleum maximum)*
Brown Elfin *(Callophrys augustinus)*	Common Bearberry *(Arctostaphylos uva-ursi)* and Salal *(Gaultheria shallon)*
Juniper Hairstreak *(Callophrys gryneus)*	Western Red Cedar *(Thuja plicata)*
Lorquin's Admiral *(Limenitis lorquini)*	Oceanspray *(Holodiscus discolor)*, Saskatoon *(Amelanchier alnifolia)*, Pacific Crab Apple *(Malus fusca)*, Black Hawthorn *(Crataegus douglasii)*, willows *(Salix sp.)*, and Black Poplar *(Populus nigra)*
Mourning Cloak *(Nymphalis antiopa)*	Willow *(Salix sp.* such as *Salix scouleriana)* and poplar *(Populus sp.* such as Black Cottonwood/*Populus trichocarpa)*
Painted Lady *(Vanessa cardui)*	Thistles
Pale Swallowtail *(Papilio eurymedon)*	Red Alder *(Alnus rubra)*, Saskatoon *(Amelanchier alnifolia)*, Birch *(Betula sp.)*, Redstem Ceanothus *(Ceanothus sanguineus)*, Oceanspray *(Holodiscus discolor)*, and Bitter Cherry *(Prunus emarginata)*
Pine White *(Neophasia menapia)*	Douglas-fir *(Pseudotsuga menziesii)* and other conifers
Propertius Duskywing* *(Erynnis propertius)*	*Garry Oak (Quercus garryana)*
Red Admiral *(Vanessa atalanta)*	Stinging nettle *(Urtica dioica)*
Sara's Orangetip *(Anthocharis sara)*	Mustard family (such as *Turritis glabra)*
Satyr Comma *(Polygonia satyrus)*	Stinging Nettle *(Urtica dioica)*
Western Spring Azure *(Celastrina echo)*	Oceanspray *(Holodiscus discolor)*, Western Flowering Dogwood *(Cornus nuttallii)*, and Hardhack *(Spiraea douglasii)*
Western Tiger Swallowtail *(Papilio rutulus)*	Willows (especially *Salix hookeriana* and *S. scouleriana)*, Bitter Cherry *(Prunus emarginata)*, Hardhack *(Spiraea douglasii)*, Oceanspray *(Holodiscus discolor)*, poplar *(Populus sp.)*, and alder *(alnus sp.)*.
Woodland Skipper *(Ochlodes sylvanoides)*	Native grasses

*this species is endangered in British Columbia. Don't remove your Garry Oak leaves from your yard: they overwinter tucked among them!

For the complete list of all the butterfly species that live here, check out the butterfly chapter written by James Miskelly in *The Nature Guide to the Victoria Region* (2012) or *Vancouver Island Butterfies* by Mike Yip and James Miskelly (2014). Host-plant information can be found online for most species. Two other great resources are **butterfliesandmoths.org** and E-fauna BC **https://ibis.geog.ubc.ca/biodiversity/efauna/**.

Ecosystem Services in Your Garden

The crises of climate change and biodiversity loss are issues of global and local concern. **Saanich's Climate Plan** includes ecosystem strategies and actions in the region for climate mitigation and adaptation. Here are some ways you can help with those strategies and actions through naturescaping on your property:

- Contribute to the climate plan action item to double the planting of urban trees
- Help protect existing urban tree cover
- Help protect and enhance local biodiversity
- Help expand, connect and restore natural areas
- Prevent planting and spread of invasive plants

The ongoing reduction of ecosystems and the services they provide are part of the interconnected issues and impacts of climate change and biodiversity loss. Biodiversity hotspots are often located in urban areas, with urban expansion having global impacts[1]. In Canada, over 80% of Canadians live in cities where the loss of biodiversity and ecosystem services are a critical issue[2]. Some of the key challenges include ongoing habitat loss, fragmentation and degradation of ecosystems that impact the current and future well-being of life on earth.

In Saanich, 66% of lands are privately owned. This means that what happens on privately owned lands is important to biodiversity conservation and ecosystem services. In addition, Saanich and other Canadian municipalities are prioritizing **nature-based solutions** to help address climate change mitigation and adaptation. That means Naturescape elements, such as increasing the native vegetation and trees on your property and supporting biodiversity, is also contributing to local efforts to mitigate and adapt to the changing climate.

Ecosystems and natural areas in our region provide us with **valuable ecosystem services** such as climate regulation, purification of air and water, pollination of crops and natural vegetation, flood control, soil health and much more. Ecosystems services are services gained from nature that are essential for life on earth. We consider these services free, but once these services are destroyed or reduced, there are huge costs associated with restoring them. Naturescaping efforts on your property are not only important to protect local biodiversity, but it also provides value to you, your neighbours and your community by increasing ecosystem services.

[1] Seto, K. C., Güneralp, B., & Hutyra, L. R. (2012). Global forecasts of urban expansion to 2030 and direct impacts on biodiversity and carbon pools. Proceedings of the National Academy of Sciences, 109(40), 16083-16088.

[2] ICLEI - Local Governments for Sustainability. (2015). BiodiverCITIES: A Handbook for Municipal Biodiversity Planning and Management. Toronto: ICLEI-Local Government for Sustainability (Management) Inc. Retrieved from: https://icleicanada.org/project/biodivercities-a-handbook-for-municipal-biodiversity-planning-and-management/

Nature-based Solutions (NbS)

In recent years there has been increasing interest in nature-based solutions (NbS) from international to local levels, including in climate and biodiversity planning. A UN Environment Programme resolution (March 2022) has recently provided an updated international definition of NbS: "actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits". Naturescaping is one way citizens can contribute to local nature-based solutions.

More information on NbS: https://www.naturebasedsolutionsinitiative.org/what-are-nature-based-solutions

Benefits of Trees

Trees provide many benefits and ecosystem services. The list of benefits and services increases when you plant native trees. Some of these benefits include:

- intercepting rainfall through their leaves
- taking up water through their roots
- providing shade for plants, soil, wildlife and humans
- fallen leaves and branches provide soil nutrients and protection
- contribute to the levels of organisms living and working in the soil
- reduce soil erosion
- moderate climate and store/ sequester carbon
- close to buildings can reduce home heating and cooling costs
- provide habitat for wildlife
- maintain and increase biodiversity
- add to the beauty and enjoyment of your garden

Native Trees in Saanich

The following table provides information about trees native to Saanich. Note that native trees provide critical habitat for native insects, birds, and other animals. Whether you are planting new trees or you are nurturing an existing tree seedling, pay close attention to its location and how its maximum height/spread will affect other structures and infrastructure on your property. We recommend checking with a professional about the best native tree choices for your property and consider tree viability with the changing climate.

Common Name Scientific Name	Characteristics	Max Ht./Spread (metres)	Growth Rate	Dry	Moist	Seasonally Wet	Full Sun	Part Sun	Full Shade	Butterfly Food Plant	Pollinator Friendly	Drought Resistant	Food/Medicine	Propogation
LARGE Evergreen Trees														
Grand Fir* *Abies grandis*	Tolerates full sun to full shade on dry to moist sites; grows best on fresh to moist, nutrient-rich sites.	50 12	med	✓	✓	✓	✓	✓		✓	✓	✓		Cones
Douglas-fir *Pseudotsuga menziesii*	Prefers drier sites; roots provide stability in eroding areas and help create fish habitat.	70 18	fast	✓	✓	✓	✓	✓		✓				Cones
Western Redcedar* *Thuja plicata*	Grows best on seepage or floodplain sites, common along streamsides.	60 10	med		✓	✓	✓	✓	✓	✓	✓			Cones
Western Hemlock *Tsuga heterophylla*	Tolerates full sun to full shade on moist to dry slopes; grows best on river terraces and flats. Not common in our region.	60 12	fast		✓	✓	✓	✓	✓		✓			Cones
SMALL/MEDIUM Evergreen Trees														
Arbutus *Arbutus menziesii*	Large broadleaf evergreen tree; reddish peeling bark, white flowers and red fruit (in fall).	30 15	very slow	✓			✓	✓		✓	✓	✓		Berries
Shore Pine *Pinus contorta*	To 30m if straight; often has crooked form; tolerant of low-nutrient conditions and exposed windy coastal sites.	20 5	med	✓			✓	✓				✓		Cones
Western White Pine *Pinus monticola*	Full sun to part shade; prefers moist to dry slopes in the lowland and montane zones.	40 10	med	✓			✓	✓			✓	✓		Cones
Western Yew *Taxus brevifolia*	Tolerates partial sun to full shade on moist sites; grows best in productive older forests.	15 8	very slow		✓	✓	✓	✓	✓		✓			Cones

*trees that have been declining in the changing climate.

Common Name Scientific Name	Characteristics	Max Ht./Spread (metres)	Growth Rate	Dry	Moist	Seasonally Wet	Full Sun	Part Sun	Full Shade	Butterfly Food Plant	Pollinator Friendly	Drought Resistant	Food/Medicine	Propogation
LARGE Deciduous Trees														
Bigleaf Maple *Acer macrophyllum*	Large deciduous tree; dry to moist sites; deep wide root system provides good erosion control on slopes.	35 18	fast	✓	✓	✓	✓	✓			✓	✓	✓	Seed
Red Alder *Alnus rubra*	Fast growing hardy deciduous tree; nitrogen fixer that seeds prolifically on bare soil; typical 40-50 year lifespan.	25 10	very fast	✓	✓	✓	✓	✓		✓				Seed
Western Flowering Dogwood *Cornus nuttallii*	Medium deciduous tree; moist, well-drained sites; grows best along streams or gullies in mixed forest.	20 6	med		✓	✓	✓	✓	✓	✓	✓	✓		Seed
Oregon Ash *Fraxinus latifolia*	Medium deciduous tree; On low elevation wet to moist sites; prefers streams and estuaries in the lowland zone.	20 8	med		✓	✓	✓	✓	✓		✓		✓	Seed
Black Cottonwood *Populus balsamifera*	Fast growing deciduous tree; prefers moist to saturated soils including floodplains; good for streambank stabilization.	60 12	very fast	✓	✓	✓	✓	✓		✓				Cutting
Trembling Aspen *Populus tremuloides*	Moist to moderate soils including moist ravines and some floodplains; pioneer species increasing soil nutrients.	25 6	fast	✓	✓	✓	✓	✓		✓				Cutting
Garry Oak *Quercus garryana*	Much smaller on exposed sites; associated with many native wildflowers; very drought resistant.	25 14	very slow	✓			✓	✓		✓				Seed
SMALL/MEDIUM Deciduous Trees														
Douglas Maple *Acer glabrum*	Usually an understorey tree in moist areas; showy fall colour; good for shore stabilization.	10 8	med	✓	✓	✓	✓	✓	✓		✓	✓		Seed
Black Hawthorn *Crataegus douglasii*	High resistance to beaver damage, good choice for streamside; long sharp spines have a human buffering value.	10 8	med	✓	✓	✓	✓	✓	✓		✓			Seed
Pacific Crab Apple *Malus fusca*	Shrub or small tree; prefers moist areas near standing or flowing water; small apples are edible but tart.	10 10	med	✓	✓	✓	✓	✓			✓	✓	✓	Seed
Bitter Cherry *Prunus emarginata*	Shrub or small tree; prefers moist areas and along streams; bright red cherries are great for attracting wildlife.	15 6	med		✓	✓	✓	✓			✓	✓	✓	Seed
Cascara *Rhamnus purshiana*	Good for slope stabilizing and erosion control; fruits are good for birds; bark is a strong laxative which deters beavers.	12 8	slow		✓	✓	✓	✓	✓					
Hooker's Willow *Salix hookeriana*	Lance to egg shaped leaves; valuable restoration species for slope and streambank stabilization.	8 6	fast		✓	✓	✓	✓		✓	✓			Cutting
Pacific Willow *Salix lucida*	River banks, wet meadows, even standing water; valuable restoration species for stabilization.	11 8	fast		✓	✓	✓	✓		✓	✓			Cutting
Scouler's Willow *Salix scouleriana*	Common in streamsides, clearings, forest edges; valuable for slope and streambank stabilization and bioengineering.	12 12	fast		✓	✓	✓	✓		✓	✓			Cutting
Sitka Willow *Salix sitchensis*	Deciduous shrubby tree; grows quickly in moist to saturated soils; excellent choice for streambank stabilization.	12 6	fast		✓	✓	✓	✓		✓	✓			Cutting

Local Naturescaping Programs and Support

Saanich Naturescape Program

For more tips and resources, visit our website at saanich.ca/naturescape

HCTF Education: Naturescape BC Resources

For more information about Naturescaping in BC, including specific regional resources, see the HCTF Education Naturescape resources and booklets at the links below.

Resources (plus more) include:

- Attracting Backyard Beneficials (insects)
- Bird Friendly Backyards
- Bee Homes
- Naturescape Habitats
- Naturescape BC Guides (booklets: free download)

https://www.hctfeducation.ca/in-your-backyard/
https://www.hctfeducation.ca/community-education/

Habitat Acquisition Trust (HAT): Caring for Nature at Home

Check out the resources available on the HAT website.

Resources include:

- Container Gardening with Native Plants
- Plants to Attract Butterflies to your Yard
- Top Ten Native Plants
- Tips for transforming your lawn
- Create a Wildlife Pond
- Plus more, such as wildlife habitat projects and growing specific native plants.

https://hat.bc.ca/gardeningwithnature

Species at Risk on Private Lands in British Columbia

http://www.sccp.ca/sites/default/files/species-habitat/documents/Species_at_Risk_on_Private_Land_in_BC.PDF

Garry Oak Ecosystem Recovery Team (GOERT)

GOERT has many resources available to support naturescaping, including:

- Garry Oak Gardener's Handbook
- Guide to Native Plant Gardening
- Buying native plants
- Planting and caring for Garry Oak trees

https://goert.ca/gardeners_restoration/index.php

Capital Regional District (CRD) Natural Gardening

Find lots of information about gardening with native plants in different conditions in our region. Resources include native plant suppliers and landscapers, native plant lists for different benefits, gardening for wildlife and information about free native plant gardening workshops hosted by the CRD and Swan Lake Christmas Hill Nature Sanctuary.

https://www.crd.bc.ca/education/natural-gardening

Native Plant Study Group

For a list of local native plant gardens and restoration sites to visit:

http://npsg.ca/where-to-see-native-plants/

Saanich Native Plant Salvage Program

Free membership, includes an orientation session

https://www.saanich.ca/EN/main/community/natural-environment/native-plant-salvage-program.html

Visit Native Plant Gardens

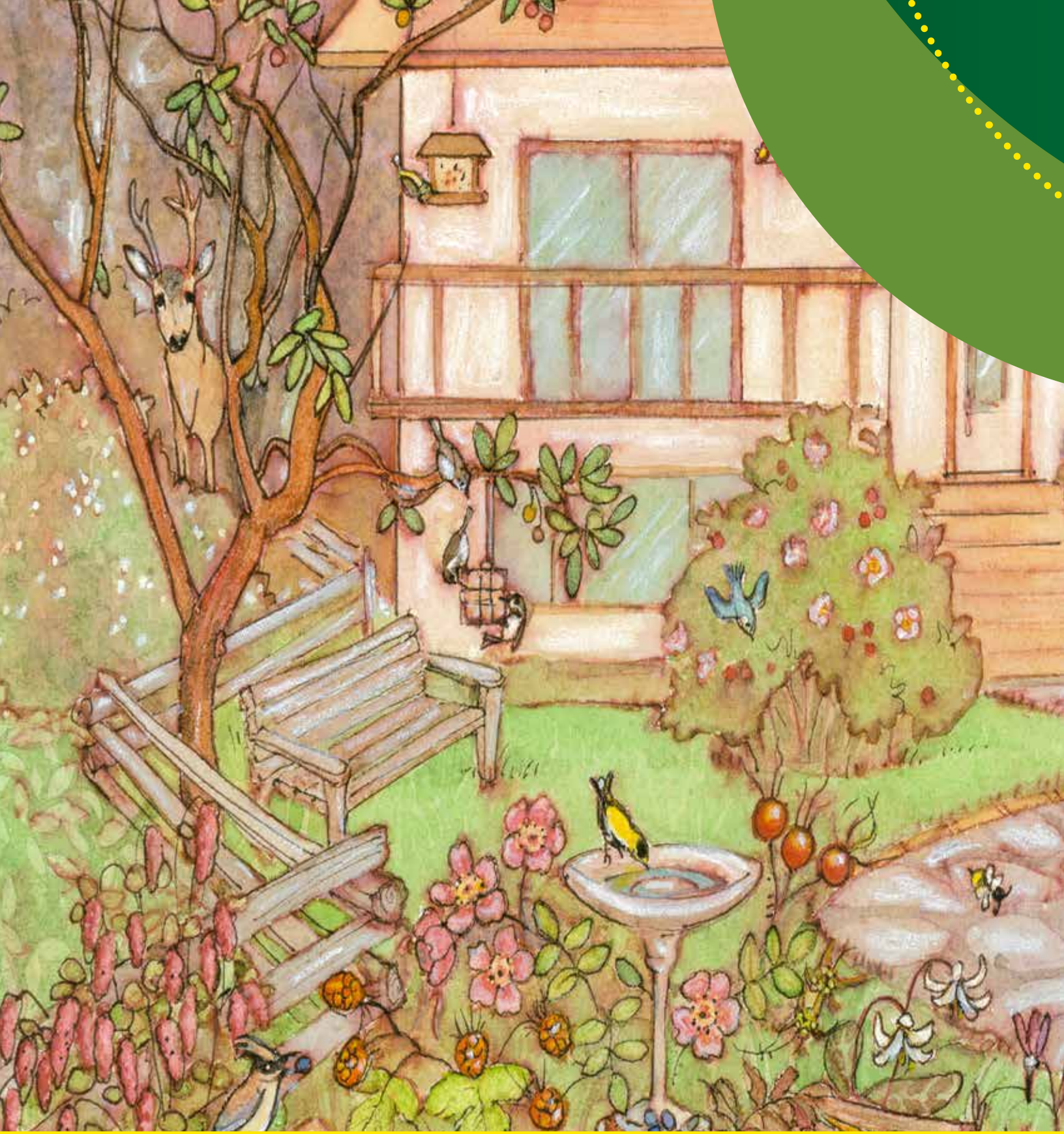
On Southern Vancouver Island there are wonderful examples of native plant gardens in the community. Get inspired and learn more about native plant gardening while enjoying a garden stroll!

Royal BC Museum Native Plant Gardens:
https://royalbcmuseum.bc.ca/visit/exhibitions/native-plant-garden

Swan Lake Christmas Hill Nature Sanctuary
(native plant garden around the nature house)
https://www.swanlake.bc.ca/

Oak Bay Native Plant Garden
https://www.oakbay.ca/parks-recreation/parks-playgrounds/parks-listing/native-plant-garden

The Horticulture Centre of the Pacific (includes a native plant garden) https://hcp.ca/gardens_hcp/



Thank you for your environmental stewardship contributions in Saanich and beyond!

Find out more about naturescaping on the Saanich Naturescape Program website:

saanich.ca/naturescape

This website includes naturescaping resources and links and will be continually updated.