

Garry Oak Ecosystem

Information Sheet

Environmental Protection and Stewardship

What is a Garry Oak Ecosystem?

Garry oak ecosystems include relatively open forests dominated by twisted, gnarled Garry oak trees. Garry oak trees can be up to 25 metres tall and are usually in small groups or scattered. The forest understory is composed of shrubs, wildflowers and other plants. The widely spaced trees leave open areas for these understory plants to form meadows and grasslands between the trees. In the spring, these meadows are often carpeted with colourful blooming wildflowers.



Where are Garry oak ecosystems?

Garry oak ecosystems are among the most endangered ecosystems in Canada with only three percent remaining in a natural state. In Canada, they are only found in British Columbia, on the southeastern tip of Vancouver Island, some of the Gulf Islands and a few spots on the mainland.

Garry oak ecosystems are a subcomponent of Coastal Douglas-fir ecosystems. Garry oak trees are often found at low elevations, on dry, rocky slopes or bluffs. Within the capital region some places to find Garry oak ecosystems include:

- Regional Parks such as East Sooke, Thetis Lake, Mill Hill, Francis King;
- Fort Rodd Hill and Fisgard Lighthouse National Historic Site;
- Victoria and Esquimalt Harbours;
- Mt. Tolmie;
- Christmas Hill.

Threats to Garry Oak Ecosystems.

Garry oak ecosystems were once common throughout southeastern Vancouver Island and have experienced significant declines. These valuable and diverse ecosystems are threatened by:

- **Habitat loss.** Due to residential, agricultural and other developments, much of the original Garry oak ecosystem lands have been destroyed.
- **Invasive species.** Introduced species often out compete native species for food, growing sites and habitat.
- **Forest fire suppression.** Forest fires are a natural part of some ecosystem cycles. Historically, fires would periodically sweep through Garry oak ecosystems burning dry grasses, shrubs and young trees without harming the older, fire resistant Garry oaks. After the fire new plants would sprout in open areas filling the meadows and grasslands.



Invasive scotch broom



Invasive English ivy

Importance of Garry Oak Ecosystems.

Garry oak ecosystems play an important role in cultural heritage. Vancouver Island Coast Salish peoples managed the land and periodically used prescribed burns to manage meadows, clear underbrush and cultivate camas, which provide an important food rich in carbohydrates. Food and medicines have been harvested from this ecosystem for hundreds of years.

Due to its unique nature, Garry oak ecosystems provide important habitat to a large diversity of plants and animals — particularly species at risk.

Garry oak ecosystems support biodiversity.

Garry oak ecosystems are rich in biodiversity. Some plants and animals that are found in Garry oak ecosystems include:

- Trees such as Garry oak, arbutus and Douglas-fir.
- Shrubs like snowberry, oceanspray, Nootka and baldhip rose.
- Wildflowers including camas, shooting star, chocolate lily, white fawn lily, nodding onion, Western buttercup, red columbine and sea blush.
- Mammals such as black-tailed deer, black bear, moles and shrews.
- Birds, including the endangered Western bluebird, Western meadowlark and coastal vesper sparrow.
- Reptiles including the Northern alligator lizard and endangered sharp-tailed snake.



Endangered sharp-tailed snake (*Contia tenuis*). Only found on the southern tip of Vancouver Island and the Gulf Islands.



Western bluebird



Great camas

We all have a role to play in protecting the environment.

There are simple ways that you can help Garry oak ecosystems:

1. Learn about Garry oak ecosystems and how to recognize them.
2. When visiting Garry oak ecosystems:
 - Stay on designated paths or trails;
 - Be mindful of fragile understory plants;
 - Do not damage tree bark or branches;
 - Pack out any waste.
3. Take Action.
 - If you have Garry oak trees on your property allow some young acorns to grow and add some native wildflowers to recreate a Garry oak ecosystem.
 - Remove invasive species from your yard.
 - Garden with native plants to support local biodiversity.
 - Volunteer with groups that pull invasive species in parks and natural areas.

Visit crd.bc.ca/biodiversity for more resources.

Capital Regional District

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