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Coastal Douglas-fir

ECOSYSTEMS

What are Coastal Douglas-fir ecosystems?

The Coastal Douglas-fir (CDF) zone describes a unique set of ecosystems found only on southeast Vancouver Island, the Gulf Islands, and the southwest coast of BC.

CDF ecosystems are rare and highly endangered. These ecosystems include Douglas-fir forests, as well as Garry oak woodlands, wetlands, estuaries, and other unique communities of plants, animals, and fungi found nowhere else in the world.



Barred Owl | photo by Kristine Mayes



Pender Islands Forest | photo by Alex Harri

Why are Coastal Douglas-fir ecosystems important?

CDF ecosystems have:

- the highest diversity of plant species in BC
- the highest diversity of over-wintering bird species in Canada
- the highest number of species-at-risk in BC, including 24 globally imperiled species

Yet **98% of the 45** ecological communities in the CDF zone are at risk of being lost.

Coastal Douglas-fir ecosystems benefit our communities by:

- Mitigating climate change through the capture and storage of CO2
- Supporting cultural and spiritual values of First Nations that have lived in the region since time immemorial
- Cleaning the air: forests reduce pollution and improve public health by removing dust, pollen, and smoke
- Controlling and filtering stormwater runoff into lakes and streams, which protects drinking water and reduces flood risk
- Supporting resilient food systems by providing habitat for a diversity of native pollinators
- Adding value to properties and communities: proximity to trees and parkland can increase property value
- Providing recreational opportunities such as hiking and environmental education, as well as providing spaces for relaxation to foster well-being



Douglas Squirrel | photo by Alex Harris

Why are Coastal Douglas-fir ecosystems at risk?

Since European settlement, almost half of the historically forested land in the Coastal Douglas-fir zone has been lost due to land uses such as forestry and development. Of the remaining forests, **less than 1% of old-growth (>250 years) CDF forests remain**. Most old-growth forests have been replaced by second growth forests that are not as biodiverse or resilient. Other CDF ecosystems, including wetlands and estuaries, have also been damaged or destroyed. The remaining CDF forests are under increasing pressure: 75% of British Columbia's population currently lives in the CDF zone and the population is growing.

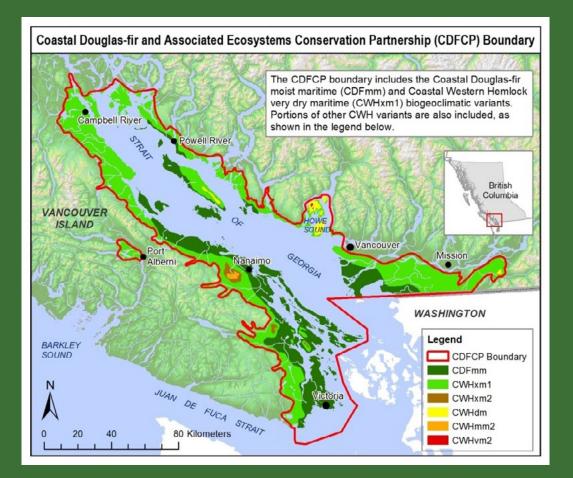
Climate change will have significant impacts on CDF forests, as intensifying summer droughts stress trees. Work is ongoing to understand these changes and adapt to conservation of CDF ecosystems.

CDF forests and associated ecosystems are among the most endangered in Canada. Only 11% of land in the CDF zone is under some form of protection and 80% of the land in the CDF zone is privately owned.

Permanently protect your land with a conservation covenant

A conservation covenant is a voluntary, legal agreement between you and a conservancy or land trust that protects your land from development—not just while you own and live on the land, but even after your property is sold or transferred to new owners. Conservation covenants registered through the Islands Trust's **Natural Areas Protection Tax Exemption Program** (NAPTEP) are eligible for a 65% reduction in property taxes on the portion of land protected. To qualify for NAPTEP, you must own land in the Islands Trust Area, with eligible natural features, and be willing to protect that land with a conservation covenant.

Create a nature reserve through a donation of land to a conservation or parks organization. If you donate land with significant ecological value, you may be eligible for additional tax benefits through the federal **Ecological Gifts Program.**



What You Can Do: Become a land steward

- Leave large patches of natural forests and meadows intact and connected
- Leave standing dead trees (snags) and fallen trees in place to provide homes and food for wildlife; allow natural disturbance and decay to occur
- Restrict vehicle and livestock access
- Control invasive species, such as ivy, holly, daphne, and broom
- Keep cats indoors
- Garden with native species
- Fire is a natural and important part of CDF ecosystems. Protect your home from fire through FireSmart home maintenance and by landscaping with fire-resistent native plants. Help protect your community from fire by protecting mature old-growth forests: their high moisture-holding capacity makes them a natural fire break.
- Become a citizen scientist add your observations to a growing global database using the app iNaturalist or keep a nature journal

Consider how your community can protect CDF ecosystems through Environmental Development Permit Areas and conservation measures in your Official Community Plan and Land Use Bylaws.

The **Farmland Advantage** and **Environmental Farm Plan** Programs help farmers in BC to identify and preserve natural features on their land.



Douglas Fir Cones | photo by Alex Harris

RESOURCES

For information on CDF ecosystems please contact:

Coastal Douglas-fir Conservation Partnership: www.cdfcp.ca or email info@cdfcp.ca

For information about conservation covenants, land donations and stewardship program, contact your local conservation organization or visit The Land Trust Alliance of BC's Land Trusts Directory at:

www.ltabc.ca/land-trusts/directory

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