

Denman's Forests: Climate Superstars

When it comes to combatting the climate crisis, Denman Island has a special resource: our forests.

These forests have been stewarded for thousands of years by the region's First Nations, who celebrated their life cycles as they sustainably harvested for food, medicine, canoes, masks, clothing, mats, baskets, and ceremonial use. Coastal Indigenous traditions contain a wealth of traditional ecological knowledge (TEK) which honours the forest's cycle of transformation and self-nourishment.

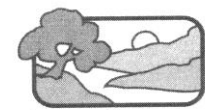
It is this cycle that makes the forest a climate superstar. Forests remove and store carbon dioxide from the atmosphere in a dynamic process of growth, decay, disturbance, and renewal. Their shade keeps the earth cool, their roots stabilize the soil, and their interconnected relationship with rain and groundwater keeps our aquifers healthy.

The forests in the Trust Area actually store and sequester more carbon per hectare than the rest of BC—and the rest of BC works hard: as of 2008, the total carbon stored by BC's forests was 88 times Canada's annual greenhouse gas emissions. (All facts and numbers in this article are taken from the Islands Trust's *Coastal Douglas-fir Protection Toolkit*; see link below.)

In fact, Denman and the whole Trust Area are within a very rare and valuable forest ecosystem, known as the Coastal Douglas-fir Biogeoclimatic Zone (CDF Zone). The CDF Zone occurs on the edge of south-east Vancouver Island, across the Gulf Islands, and along the southwest coast of Vancouver Island. It is found no where else in Canada.

Of the 16 biogeoclimatic zones in BC, the CDF is the smallest and most at risk. It is rich in biodiversity habitat, and contains globally imperilled and provincially identified species at risk and ecosystems at risk. When ranked for sensitivity to climate change, carbon storage capability, biodiversity habitat, and the degree of human impacts, the CDF zone has been identified as the most important ecosystem in BC.

And within this very special ecosystem, the Trust Area islands stand out as exceptional. Trust Area forests sequester unusually high levels of carbon, probably because they contain so much maturing forest, which stores and takes in lots of carbon to support growth. Trust Area forests:



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- Store 82% more carbon per hectare than forests in the rest of the Coastal Douglas-fir zone
- Have the potential to absorb 43% more carbon per hectare over the next 20 years than forests in the rest of the Coastal Douglas-fir zone
- Sequester 190,506 tonnes of carbon per year—about equal to the annual emissions of 40,241 cars (other than electric cars, of course).

Denman Island's forests sequester approximately 9,870 tonnes of carbon per year—equivalent to the annual emissions of over 2085 fossil-fuel powered cars. (Please don't take this as suggesting we don't need to move away from fossil fuels!)

All this means we have a wonderful opportunity to practice "carbon stewardship" by protecting our forests. We can all participate in this. Here are some options:

- Leave the forest standing—plan development to minimize forest disturbance
- Volunteer, donate money, and in other ways support conservation organizations, such as the Denman Conservancy Association and the Islands Trust Conservancy
- Learn about local First Nations traditional ecological knowledge (TEK) related to the forest, and honour First Nations cultural heritage and stewardship
- Practice fire safety
- Respect the aquifer by practicing water conservation and taking care of your septic system
- Protect forested area on your property via a conservation covenant (this may entitle you to a reduction in property taxes; go to www.islandstrustconservancy.ca for more info)

The Islands Trust and the Islands Trust Conservancy are working to protect our CDF forests through a range of initiatives. You can read more about this in the *CDF Toolkit*, on the Trust website at www.islandstrust.bc.ca/media/346674/CDF-toolkit-final-web.pdf.