

# Islands Trust Area Biodiversity

Delegation to Islands Trust Council

David Dunnison

8 March 2022

# Talking Points for Trustees

4 February 2022

“What makes the Islands Trust Area so unique?”

*“the Trust Area is home to an exceptionally high biodiversity of rare and culturally significant species”*

Talking Points for Trustees, 4 February 2022

Also:

[Draft New Policy Statement](#), pages 5 and 6.

# Unsupported by Evidence

## Not as Biodiverse

- 17 of 69 CDF Indicator Plants absent or largely absent

*Alaskan blueberry, Black gooseberry, Claspig Twisted Stalk, Copperbush, Crowberry, Deer fern, Green false-hellebore, Lanky moss, Narrow-leaved cotton grass, Partridge-foot, Pink mountain-heather, Pipecleaner moss, Queen's cup, Sitka alder, Sitka valerian, Vine maple, Youth-on-age*

- Many CDF mammals absent or largely absent

*Cougar, Coyote, Douglas squirrel, Elk, Ermine, Red fox, Marten, Opossum, Porcupine, Skunk, Townsend's Chipmunk, Olympic Shrew, Trowbridge's Shrew, Water shrew, Grey Wolf*

“...the island nature of most CDF habitat, on both Vancouver Island and the smaller Gulf Islands, means that it will have fewer wildlife species than had it occurred on the mainland”

“The lower number of species on Salt Spring is attributable to the smaller area of the island. Biodiversity typically declines with island size...”

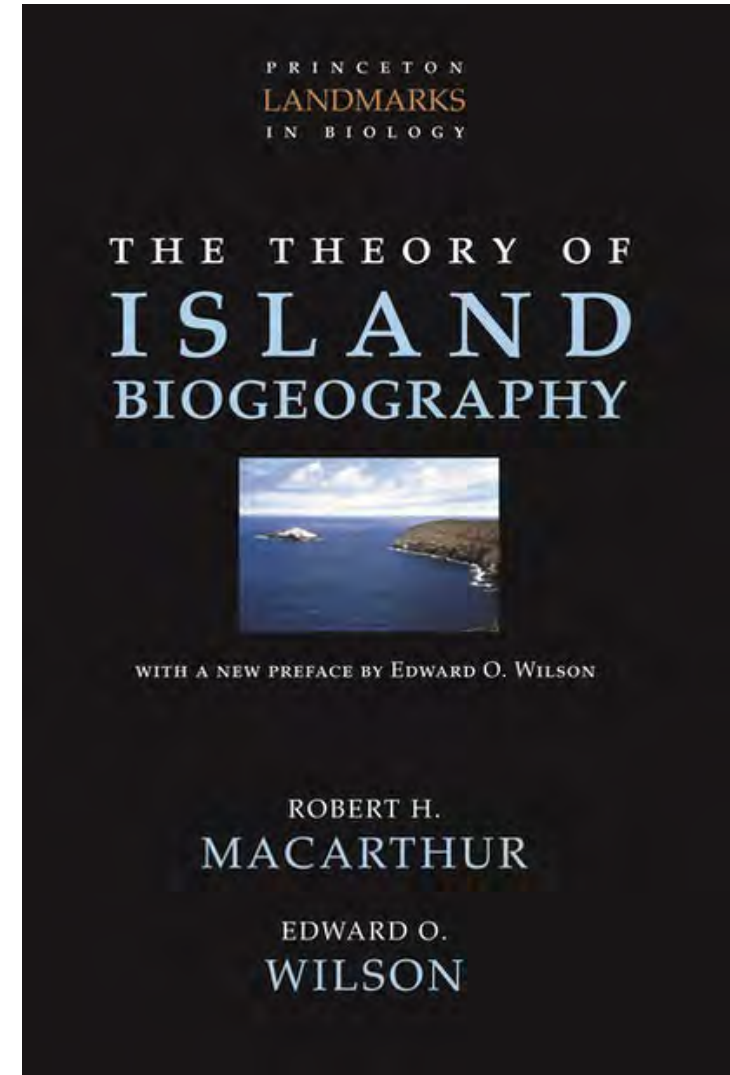
Sources: [Ecosystems of BC](#); [Coastal Indicator Plants of BC](#); [e-Flora BC](#); [What animals does Vancouver Island not have?](#); [e-Fauna BC](#); [Nature Guides B.C.](#); [Salt Spring Island Conservancy](#)

# Islands Have Lower Biodiversity

Distance and size regulate species

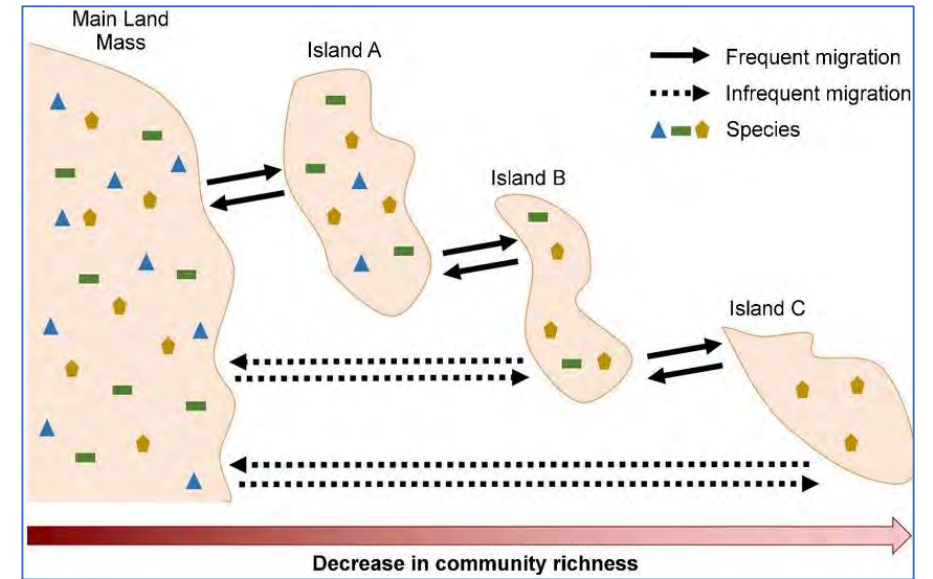
- Islands have fewer species than the main land masses
- Smaller islands have fewer species
- Islands further away have fewer species

MacArthur, R. H., & Wilson, E. O. (2001). The Theory of Island Biogeography. Princeton: Princeton University Press.

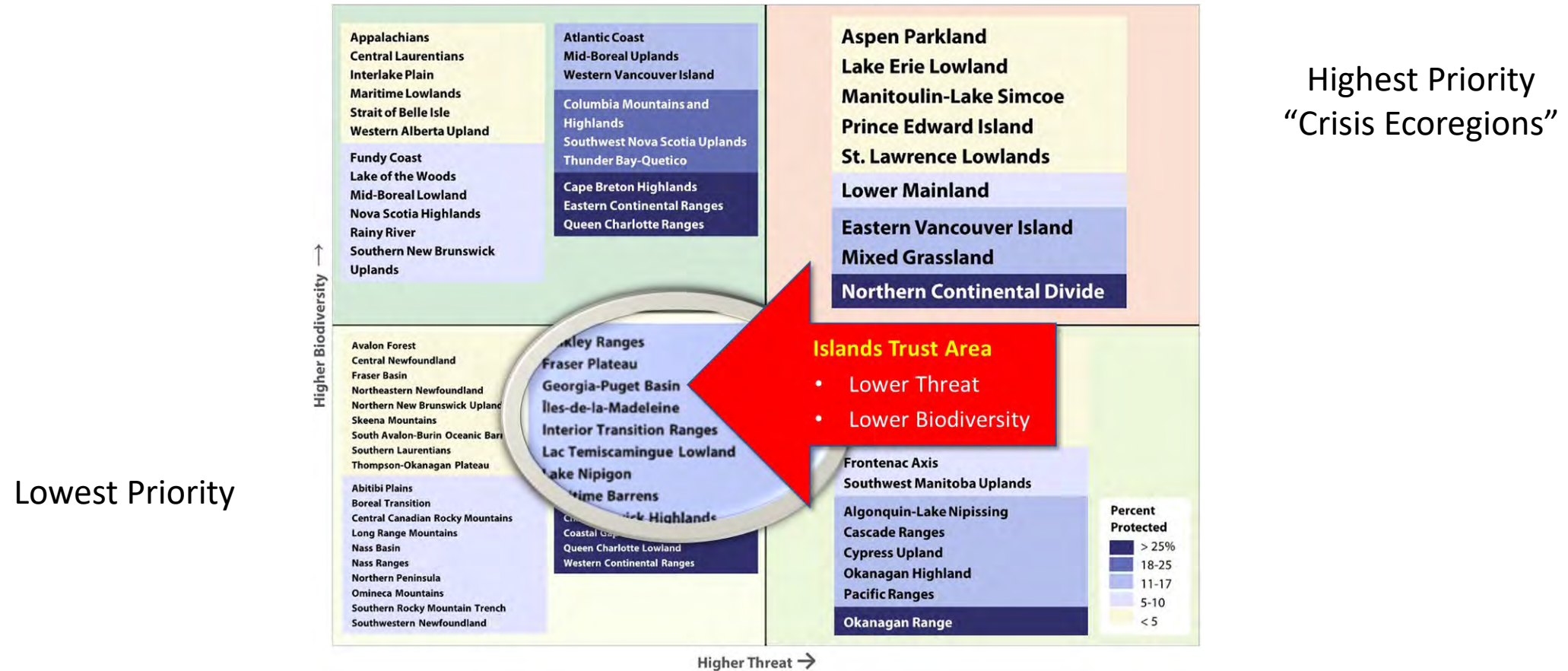


# Decrease in Biodiversity

Glendinning, Laura. (2017). [Sheep lung microbiota](#).



# Islands Trust Area: 65<sup>th</sup> of 77 Ecoregions



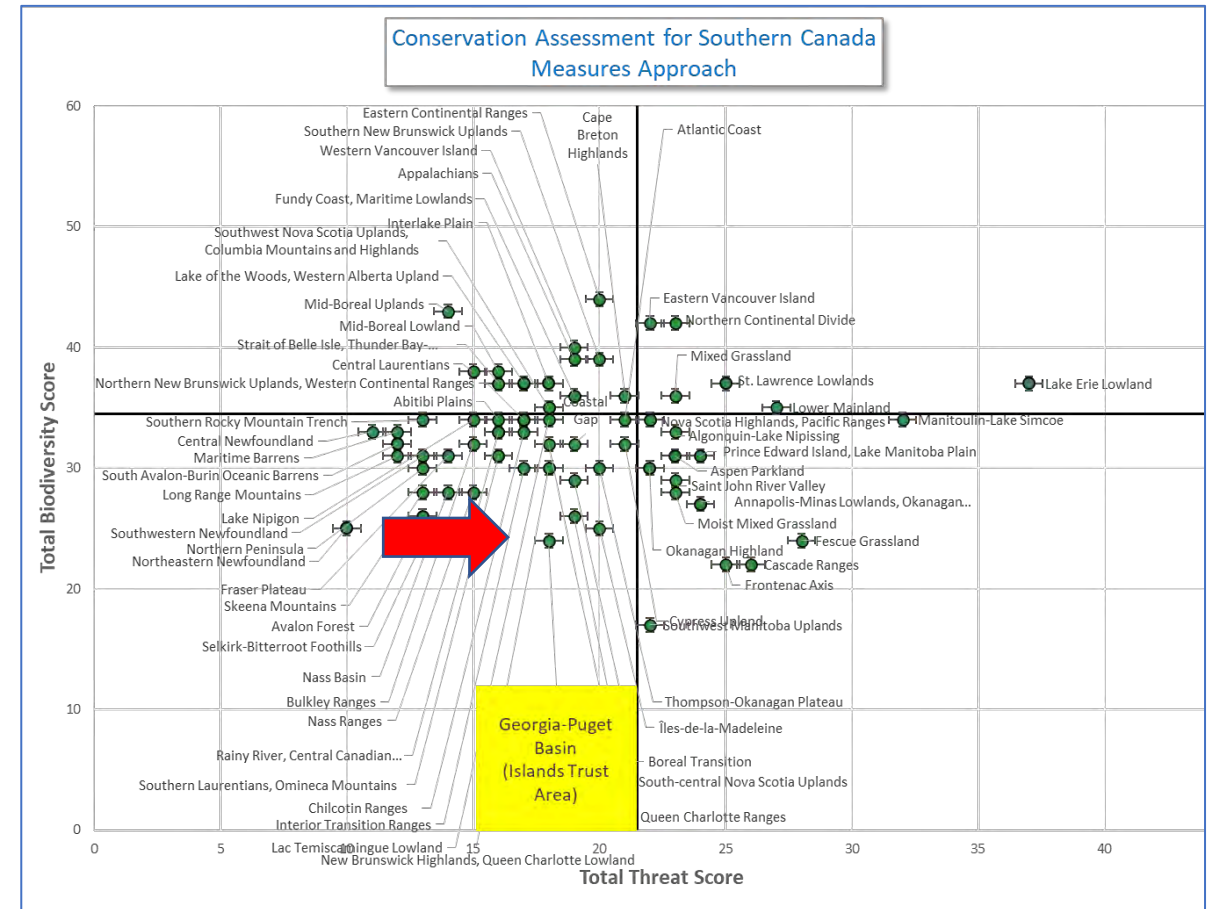
Kraus, D., Hebb, A. (2020). [Southern Canada's crisis ecoregions: identifying the most significant and threatened places for biodiversity conservation](#). *Biodivers Conserv* 29, 3573–3590.

# Biodiversity and Threat Scores

## Island Trust Area

- Biodiversity Rank: 73/77
- Threat Rank: 44/77

Kraus, D., Hebb, A. (2020). [Southern Canada's crisis ecoregions: identifying the most significant and threatened places for biodiversity conservation](#). Biodivers Conserv 29, 3573–3590.





# Georgia-Puget Basin Ecoregion

“This coastal ecoregion incorporates the numerous Gulf Islands of the Strait of Georgia”

Sources:

Agriculture and Agri-Food Canada (1999) [A National Ecological Framework for Canada: Ecoregions](#).

Demarchi (2011). [An Introduction to the Ecoregions of British Columbia](#). Ministry of Environment. Victoria.

Statistics Canada. [Georgia-Pacific Basin \(ecoregion\)](#).





# Biodiversity Hotspots

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The Islands Trust Area does not meet this international standard of 1500 or more unique/endemic vascular plants

There are 308 unique/endemic species in all of Canada, 105 in BC.

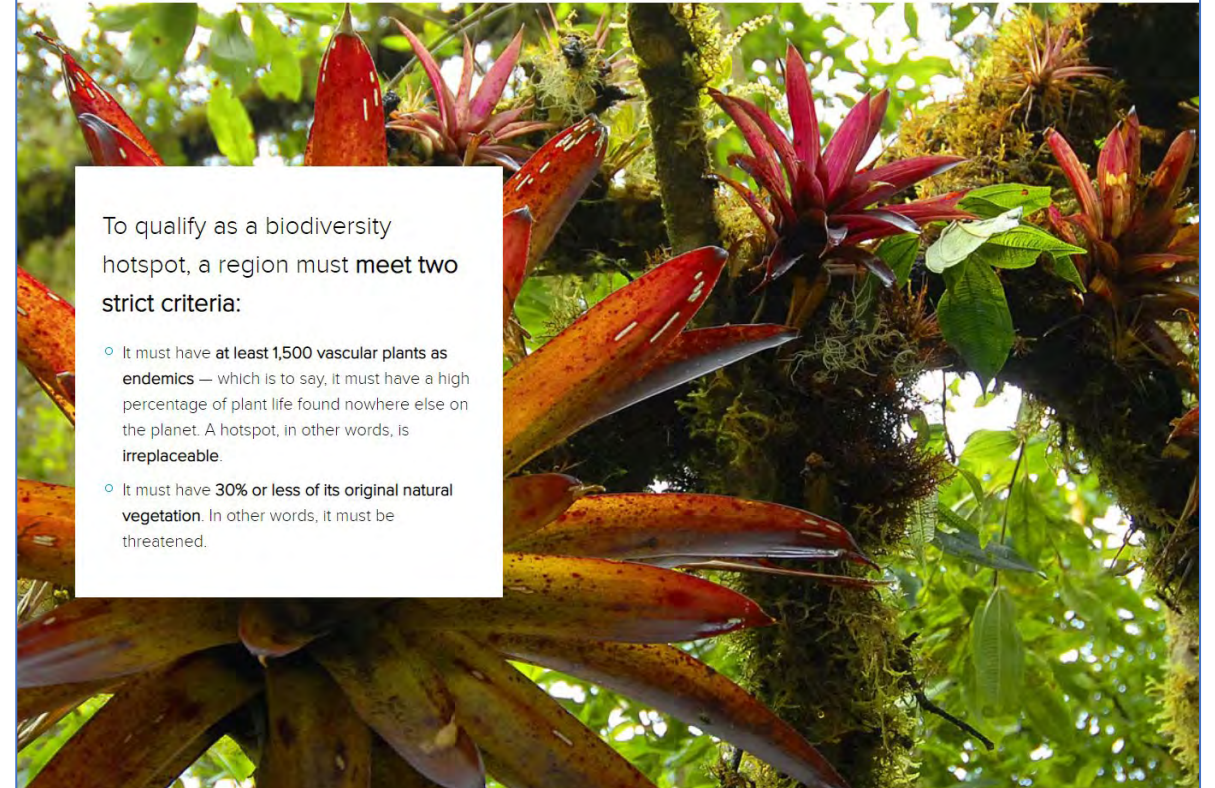
Sources:

[Biodiversity Hotspots](#). Conservation.org

[Myers et al \(2000\)](#)

[Nature Conservancy of Canada and NatureServe Canada](#), 2020

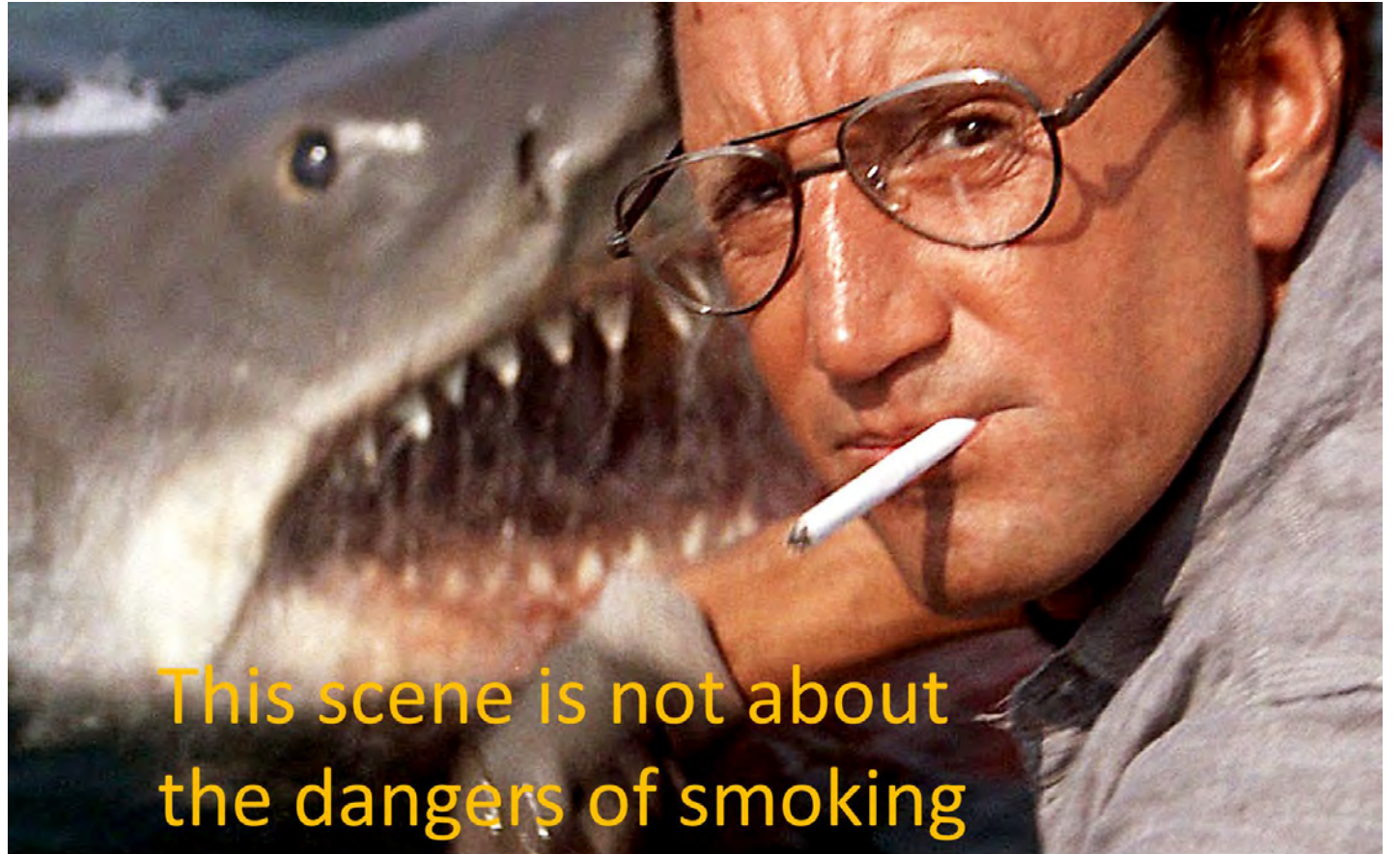
## WHAT ARE BIODIVERSITY HOTSPOTS?



To qualify as a biodiversity hotspot, a region must meet two strict criteria:

- It must have **at least 1,500 vascular plants as endemics** — which is to say, it must have a high percentage of plant life found nowhere else on the planet. A hotspot, in other words, is **irreplaceable**.
- It must have **30% or less of its original natural vegetation**. In other words, it must be **threatened**.

## Policy Focus



Source: Darer. [A brief history of sharks in pop culture](#). Entertainment Weekly. 2015.





Concerns  
About Our  
Environment?



## Deer Browse



## Wildfire Risk



[Area of B.C. burned by wildfires at a 56-year high](#). CBC. 2017.

## Abandoned Boats



# Our Environmental Concerns

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# It Can Happen Here

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“On average 40% of wildfires in British Columbia are person-caused”

Source:

[Wildfire Causes](#). BC Wildfire Service







# Needs Policy Direction

## The Elephant in the Room

“Deer populations will have to decrease greatly if Mayne Island’s biodiversity is to recover and flourish”

“deer have over-browsed native vegetation and reduced the diversity and abundance of birds”

Kushneryk. [Identifying Signs of Deer Overbrowsing](#). Mayne Island Conservancy. 23 September 2021.

[Black-tailed deer](#). Salt Spring Islands Conservancy.



# Recommendations

- Consider Public Input
- Use Fact-first Approach
- Rely Less on Advocacy Group Promotions
- Align with Federal Support for Ecoregions (vs BEC/CDF)<sup>1</sup>
- Due Diligence on Status of Environment Risk and Biodiversity
- Focus on 3 Major Problems

<sup>1</sup>[Canada's Conservation Vision: A Report of the National Advisory Panel](#)





# Update: Extent of CDF 1 Dec 2021 Delegation

**Question:** Though the US does not use our BEC, is it true that virtually identical forest communities to the CDF extend through the Puget lowlands of Washington and into the Willamette valley of Oregon?

**Answer:** “Yes, it is true that ecosystems/ecological communities that we describe as the CDF Zone using the BEC system exist south of the Canadian boarder. This is the case for hundreds of species/ecosystems whose distribution does not have relevance to jurisdictional borders, but rather geographical or ecological boundaries. The “CDF zone”, just like many plant and animal species, exists throughout a distribution that is ecologically rather than politically relevant.”

Private Correspondence, 31 January 2022

Ecosystems Biologist

Ministry of Forests, Lands, Natural Resource Operations & Rural  
Development