From: Bruce Pendergast <

**Sent:** Sunday, July 4, 2021 9:37 AM

To: Islands2050

**Subject:** Island Biodiversity

To Pender Island Trustees

Thank you for the work you are putting into the 2050 plan for the Gulf Islands.

I worked for the B.C. Ministry of Environment for almost thirty years initially as a habitat protection biologist and later as manager of the Habitat Inventory Section.

I have Lived part time on North Pender since 1990 and am very familiar with the Islands ecology as I have repeatedly hiked most of the trails and hunted in the Roe lake area before it was made a park.

I am deeply concerned with the recent planning documents as they do not recognize the extreme deterioration of the ecology of the "natural areas" on the Island. Many species of plants, for example camas and blueberries and many others are now gone from forested areas. Even offshore islands, many of which are now posted with do not access signs, are now devoid of almost all native plants except small trees. Forested areas on the island with oak, alder, arbutus, douglas fir, balsam fir and cedar have almost no regeneration. In future the islands, but especially the parks, will become ecological deserts with only larger trees and almost no regeneration especially of short lived trees like alder.

The reason for this deterioration on the islands is due to the uncontrolled explosion of deer numbers which in a natural system would be controlled by predators, such as wolves and cougars, which are extirpated from the island. The offshore Islands on the other hand have been devastated by Canada geese introduced in the 1950's but controlled by hunting until a few decades ago. The geese not only devastated the original ground cover but introduced seed from grasses and weeds from mainland sources.

Studies to describe these effects have been published by Peter Arcese at UBC who published articles on the impact of deer on the ecology of islands. These studies included blacktail as well as Fallow deer on Mayne Island.

I am afraid that the biodiversity of Pender and the other gulf islands will continue to decline unless something is done to control the populations of deer and geese in particular. I understand that hunting has become unpopular with most public in parks, but perhaps a short season could be considered later in the fall when park use is lowest. Other means could be employed such as sterilization of does as is being attempted in Oak Bay. Perhaps the first nations could be consulted on this as well.

In conclusion, I hope the plans going forward address this dramatic ecological imbalance that is diminishing biodiversity on all the larger islands.

Bruce Pendergast