

## SOLANDER ISLAND

ER #14

**ORIGINAL PURPOSE** To protect large colonies of breeding seabirds and their habitat

### OVERVIEW

<b>Date established:</b>	4 May 1971	<b>Location:</b>	1.5 km W of Brooks Peninsula, northwest coast of Vancouver Island
<b>ORC #:</b>	3014		
<b>Map number:</b>	92 L/4		
<b>Marine chart number:</b>	3680	<b>Latitude:</b>	50°06'N
		<b>Longitude:</b>	127°56'W

<b>Total Area:</b>	7.7 ha	<b>Elevation:</b>	0-90 m
<b>Land:</b>	7.7 ha		

**Access:** Closed to the public to protect nesting birds and their habitat. A permit is needed to land on the island. It is accessible by boat, but landing is difficult.

<b>Biogeoclimatic Zones:</b>	Coastal Western Hemlock
<b>Biogeoclimatic Variant:</b>	CWFvh1 Southern Very Wet Hypermaritime
<b>Marine Ecosection:</b>	Vancouver Island Shelf
<b>Region:</b>	Vancouver Island
<b>Management Area:</b>	Nootka

### COMPOSITION

**Physical:** The reserve comprises a small, irregularly shaped, steep-sided island with associated offshore rocks and reefs. The frequently indented shoreline consists of rock rising directly from the water. Beaches of cobble or smaller material are absent. Soil cover sufficient for burrow-nesting birds is present on some upper slopes and the summit.

**Biological:** The low-growing vegetation is adapted for extreme weather conditions. Trees are absent, and photographs indicate that shrub growth is limited. Salmonberry is present, as well as the blue-listed hairy goldfields. The most extensive plant cover is grass, probably tufted hairgrass.

Based on preliminary surveys, burrow-nesting seabirds include the Tufted Puffin (3000 pairs), Leach's Storm Petrel (2000 pairs), and Cassin's Auklet (100 000 pairs). Other nesting seabirds are the Pelagic Cormorant (400 pairs), Glaucous-winged Gull (300 pairs) and Pigeon Guillemot (400 pairs). Non-nesting seabirds seen on or near the island include the Horned Puffin, Rhinoceros Auklet, Common Murre, Black-legged Kittiwake, Sooty Shearwater and Brandt's Cormorant. Bald Eagles and Peregrine Falcons have been recorded, but nesting is not confirmed. Winter Wrens and Song Sparrows are present in summer and probably nest here.

Land mammals are absent. Prior to the mid-1960s this island was a year-round haul-out site for 100 to 350 Steller Sea Lions. Since that time it has been used as a winter haul-out only, by up to 70 Steller and 50 California Sea Lions, and according to 2003 Ecological Reserve Management Plan sea otters have also

been observed.

**Cultural:** The island is named after Dr. Daniel Charles Solander, a Swedish botanist and pupil of Linnaeus.

The ER is fully within the Ka:’yu:’k’t’h’/Chek’tles7et’h’ and Quatsino First Nations territory. There may be First Nations’ culturally significant sites within this reserve.

The reserve covers areas that may have been used for subsistence hunting, fishing, food gathering, botanical harvesting etc.

The ER is one of several protected areas covered by an active memorandum of understanding for collaborative management between BC Parks and the Ka:’yu:’k’t’h’/Chek’tles7et’h’ First Nations.

## MANAGEMENT CONCERNS

SIGNIFICANT SPECIES	BC LIST STATUS	COSEWIC STATUS	CF PRIORITY
Tufted Puffin	Blue listed		2
Cassin’s Auklet	Blue listed		2
hairy goldfields	Blue listed		3

## THREATS

**Climate Change:** The IPCC has projected an increase in sea surface temperature and raised sea levels, both of which could result in changes in the presence and life cycles of marine species which are important food sources for the protected seabird populations. The loss of synchrony between seabird phenology and seasonal food source availability has already been documented on Triangle Island in developing Cassin’s auklets and their marine food sources, as well as decreased tufted puffins population due to the growing absence of their main food source, the sand lance. (source: based on research by Dr. Colleen Cassidy St. Claire from University of Alberta and Doug Bertram from Simon Fraser University)

**Recreation:** Marine vessels disrupt marine mammals and sea/shore birds.

**Pollution:** Plastic garbage is an increasing problem in marine sites.  
  
There is a constant threat of oil spills in the marine environment.

## RESEARCH OPPORTUNITIES

Some information on sea-bird and marine mammals populations is available, as well as a kelp inventory. Environment Canada maintains a weather station on the island.

A comprehensive biodiversity inventory would be worthwhile on this island.

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**WARDEN ACTIVITIES**      Monitoring vegetation cover and shoreline erosion.

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**SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE SOLANDER ISLAND ER ACCOUNT**

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**Flora**

goldfields, hairy (*Lasthenia maritima*)  
hairgrass, tufted (*Deschampsia cespitosa* ssp.)  
salmonberry (*Rubus spectabilis*)

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**Fauna**

Auklet, Cassin's (*Ptychamphus aleuticus*)  
Cormorant, Brandt's (*Phalacrocorax penicillatus*)  
Cormorant, Pelagic (*Phalacrocorax pelagicus*)  
Eagle, Bald (*Haliaeetus leucocephalus*)  
Falcon, Peale's Peregrine (*Falco peregrinus*)  
Guillemot, Pigeon (*Cephus columba*)  
Gull, Glaucous-winged (*Larus glaucescens*)  
Kittiwake, Black-legged (*Rissa tridactyla*)  
Murre, Common (*Uria aalge*)  
Puffin, Horned (*Fratercula corniculata*)  
Puffin, Tufted (*Fratercula cirrhata*)  
Sea Lion, California (*Zalophus californianus*)  
Sea Lion, Steller (*Eumetopias jubatus*)  
Sea Otter (*Enhydra lutris*)  
Shearwater, Sooty (*Puffinus griseus*)  
Sparrow, Song (*Melospiza melodia*)  
Storm-petrel, Leach's (*Oceanodroma leucorhoa*)  
Wren, Winter (*Troglodytes troglodytes*)