

ORIGINAL PURPOSE To protect the most outstanding known assemblage of rare and endangered plant species in British Columbia

OVERVIEW

Date established:	5 July 1990	Location:	1 km south of Anderson Hill, Oak Bay
ORC #:	3132		
Map number:	92 B/6	Latitude:	48°23'N
Marine chart number:	3423	Longitude:	123°18'W

Total Area:	14 ha	Elevation:	0-20 m
Land:	14 ha		

Access: Landing on the islands is restricted to protect sensitive plants and ecosystems. A permit is required to access the reserve. Accessible by boat, but no docking facilities.

Biogeoclimatic Zone:	Coastal Douglas-Fir (CDF)
Biogeoclimatic Variant:	CDFmm Moist Maritime
Ecosection:	Strait of Georgia
Region:	Vancouver Island
Management Area:	Saanich/Southern Gulf Islands

COMPOSITION

Physical: The reserve comprises parts of two elongate rocky islands and associated islets. Marine waters are not included. Shorelines on the southwest side are mostly steep and dissected but the rest of the shoreline is gently sloping with a few small pocket beaches, comprised mostly of gravel. The islands are of considerable interest for the interpretation of local and regional geology, being situated at or adjacent to a major suture between two crustal blocks, the Leach River Complex and Wrangellia Terrane. Soil cover is thin and incomplete on much of the island, consisting mostly of Brunisols lying on bedrock. Small areas of Regosolic soils and considerable exposed bedrock are present. The climatic regime here is the mildest in the province, and characterized by frequent wind and summer drought.

Biological: Twenty-eight species of vascular plants listed as rare in British Columbia are present in the reserve, 15 of which are in the categories of greatest rarity in the province. The latter are mostly plants of a more southerly distribution, centred in northern California and in Oregon, and are at or near the northern limit of their range in the Victoria area. Many were once scattered along the Victoria waterfront prior to urbanization but are now found in only a few sites outside of the Trial Islands.

Shallow soils, summer drought and strong winds combine to prevent tree growth on these islands. Plant communities consist of herbaceous meadows, shrub thickets and sparse growth of lichens and other plants on bedrock.

Nine plant communities have been described. Two are dominated by lichens growing on bedrock, but contain other dry-site plants like stonecrops and a few

species tolerant of salt spray. A community characterized by dune wildrye and beach pea occurs on gravel beaches and among driftwood. A small area of salt marsh contains salt-tolerant plants like Pacific glasswort, seashore saltgrass, Nutka alkaligrass and sea plantain. Four meadow communities occur on upland sites having the best soil development. The most important of these, a vernal pool community characterized by Bigelow's plantain and Scouler's popcornflower, contains 13 species of rare plants. Other meadow communities support showy stands of spring wildflowers such as common camas, death-camas, chocolate lily, shootingstar, sea blush, Hooker's onion and blue-eyed Mary. Dense, wind-pruned shrub thickets are dominated by Garry oak, aspen, snowberry and rose.

One glaucous-winged gull nest has been reported, but the island is not a significant seabird site. A turkey vulture nest was found in the early part of the century (mid-2000s) but it has not been occupied since. Terrestrial birds and mammals have not been surveyed.

Cultural: The reserve encompasses a traditional First Nations and Songhees bulb harvesting site. There are no known archaeological sites on the islands.
The island has been the site for a lighthouse for over a century.

MANAGEMENT CONCERNS

SIGNIFICANT SPECIES	BC LIST STATUS	COSEWIC STATUS	CF PRIORITY
Western Meadowlark (Georgia Depression population)	Red listed		1
Common Ringlet, ssp. <i>insulana</i>	Red listed		1
Carolina meadow-foxtail	Red listed		3
golden paintbrush	Red listed	Endangered (2007)	1
Macoun's meadow-foam	Red listed	Threatened (2004)	1
dense-flowered lupine	Red listed	Endangered (2005)	1
seaside birds-foot trefoil	Red listed	Endangered (2000)	1
snake-root sanicle	Red listed	Endangered (2001)	1
purple sanicle	Red listed	Threatened (2001)	2
creeping wildrye	Red listed		1
rosy owl-clover	Red listed	Endangered (2004)	2
Garry oak – California brome association	Red listed		2
coastal Scouler's catchfly	Red listed	Endangered (2003)	1
Victoria's owl-clover	Red listed	Endangered (2010)	1
banded cord-moss	Blue listed	Special Concern (2005)	2
chaffweed	Blue listed		2
white-top aster	Red listed	Special Concern (2009)	1
Nuttall's quillwort	Blue listed		2
Henderson's checker-mallow	Blue listed		2
pigmyweed (<i>Crassula aquatica</i>)			2
seashore lupine			4
dwarf montia			4
chocolate lily			6
common camas			2
dune bluegrass			4
Garry oak			6

THREATS

Climate Change:	Raised sea levels may reduce the habitat area protected in the reserve and increased storm intensity and frequency may degrade the habitat. Other climatic factors such as warmer temperatures and increased annual precipitation may alter the community composition on the islands.
Non-native species:	Aggressive invasive Scotch broom, English Ivy, and Gorse are present in reserve.
Recreation:	Trampling of extremely rare plant species and micro habitats occurs.
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Transportation:	Threat of oil spill due to tanker traffic and cargo ships.
Utilities and utility corridors:	Reserve is bisected by CFAF communication lease property and Coast Guard property adjacent to southern boundary.
Utilities and utility corridors:	A corridor exists on the map.

RESEARCH OPPORTUNITIES

Reports listing flora are available.
Reserve offers potential for research and use as a seed bank for species reintroductions.

SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE TRIAL ISLANDS ER ACCOUNT**Flora**

alkaligrass, Pacific (*Puccinella nutkaensis*)
 aspen, trembling (*Populus tremuloides*)
 aster, white-top (*Aster curtus*)
 blue-eyed Mary, small-flowered (*Collinsia parviflora*)
 bluegrass, dune (*Poa macrantha*)
 brome, California (*Bromus carinatus*)
 camas, common (*Camassia quamash*)
 catchfly, coastal Scouler's (*Silene scouleri* ssp. *grandis*)
 chaffweed (*Anagallis minima*)
 checker-mallow, Henderson's (*Sidalcea hendersonii*)
 cord-moss, banded (*Entosthodon fascicularis*)
 death-camas, meadow (*Zigadenus venenosus*)
 glasswort, American (*Sarcocornia pacifica*)
 lily, chocolate (*Fritillaria affinis* var. *affinis*)
 lupine, dense-flowered (*Lupinus densiflorus*)
 lupine, seashore (*Lupinus littoralis*)
 meadow-foam, Macoun's (*Limnanthes macounii*)
 meadow-foxtail, Carolina (*Alopecurus carolinianus*)

montia, dwarf (*Montia dichotoma*)
oak, Garry (*Quercus garryana*)
onion, Hooker's (*Allium acuminatum*)
owl-clover, rosy (*Orthocarpus bracteosus*)
owl-clover, Victoria (*Castilleja victoriae*)
paintbrush, golden (*Castilleja levisecta*)
pea, beach (*Lathyrus japonicus* var. *maritimus*)
pigmyweed (*Crassula aquatica*)
plantain, Bigelow's (*Plantago bigelovii*)
plantain, sea (*Plantago maritima* ssp. *juncooides*)
popcornflower, Scouler's (*Plagiobothrys scouleri*)
quillwort, Nuttall's (*Isoetes nuttallii*)
saltgrass, seashore (*Distichlis spicata*)
sanicle, purple (*Sanicula bipinnatifida*)
sanicle, snake-root (*Sanicula arctopoides*)
sea blush (*Plectritis congesta*)
shootingstar, broad-leaved (*Dodecatheon hendersonii* ssp. *hendersonii*)
snowberry, common (*Symphoricarpos albus*)
trefoil, seaside birds-foot (*Lotus formosissimus*)
wildrye, creeping (*Leymus triticooides*)
wildrye, dune (*Leymus mollis* ssp. *mollis*)

Fauna

Gull, Glaucous-winged (*Larus glaucescens*)
Meadowlark, Western, Georgia Depression population (*Stumella neglecta* pop. 1)
Ringlet, Common, ssp. *insulana* (*Coenonympha tullia* ssp. *insulana*)
Vulture, Turkey (*Cathartes aura*)