

ORIGINAL PURPOSE To protect outstanding Garry oak stands and associated vegetation

OVERVIEW

Date established:	2 June 1972	Location:	Facing Sansum Narrows, central west coast of Salt Spring Island
Date amended:	20 May 2004	Latitude:	48°49'N
ORC #:	3037	Longitude:	123°32'W
Map number:	92 B/13		

Total Area:	390 ha	Elevation:	0-475 m
Land:	390 ha		

Access: Access is easiest by water through the Sansum Narrows.

Biogeoclimatic Zones: Coastal Douglas-Fir (CDF); Coastal Western Hemlock (CWH).

Biogeoclimatic Variant: CDF mm CDF Moist Maritime; CWH xm 1 CWH Eastern Very Dry Maritime

Ecosection: Southern Gulf Islands

Region: Vancouver Island

Management Area: Saanich/Southern Gulf Islands

COMPOSITION

Physical: The reserve is on the strongly sloping southwest side of Baynes Peak. Surficial materials are colluvium and weathered bedrock derived from sandstone. Soils are thin, poorly developed, and subject to summer drought. Dominant soils are Brunisols, but small areas of Podzols occur. Streams and wetlands are absent, except for local seepage. The dry summer climate is accentuated by the reserve's southwestern exposure.

Biological: The reserve is largely forested, but due to its aridity and presence of rocky outcrops, the tree stands are fairly open, giving a parkland appearance. Three major habitat types are present, Garry oak stands, Douglas-fir forest, and rocky outcrops. Transitional types occur between these habitat types and a small logged area dominated by bracken fern and Scotch broom. Substrate variability results in frequent vegetation changes over short distances. Garry oak trees may occur in pure stands with a shrubless understory on some dry sites and Douglas-fir -sword fern stands on the most moist areas with good soil development. Rock outcrops are dominated by moss and selaginella. Despite heavy grazing, many species of showy spring wildflowers occur on seasonally moist sites among the oak woods and rocky outcrops. About 140 species of vascular plants and 20 species of mosses have been identified. Several plants that are rare in the province occur here. The reserve has a diverse insect fauna; preliminary surveys have identified 172

species representing 98 families. One species, the western oak looper, periodically defoliates oak and Douglas-fir trees in the reserve.

The vertebrate fauna includes the Pacific Tree Frog, Northern Alligator Lizard, Northwestern Garter Snake, red-sided garter snake, Townsend Vole, Deermouse, Red Squirrel, Mink, Raccoon, Black-tailed Deer and many birds.

Cultural:

The reserve protects a complex network of subsurface shell midden sites and a rock shelter used by First Nations for multiple purposes.

MANAGEMENT CONCERNS

SIGNIFICANT SPECIES/ECOSYSTEMS	BC LIST STATUS	COSEWIC STATUS	CF PRIORITY
yellow montane violet	Red listed	Endangered (2007)	1
California hedge-parsley	Red listed		1
Douglas-fir – arbutus association	Red listed		1
Garry oak – California brome association	Red listed		2
Garry oak – oceanspray association	Red listed		2
Gray’s desert-parsley	Red listed	Threatened (2008)	2
scalegod	Red listed		2
Propertius Duskywing	Blue listed		2
slimleaf onion	Blue listed		2
farewell-to-spring	Blue listed		2
prickly-pear cactus			6
Hooker’s onion			4

THREATS

Climate Change:

Garry Oak ecosystems are highly endangered in British Columbia. If the future climate is drier and warmer, as projected by the IPCC, these endangered forest systems may expand, provided this expansion is not impeded by infrastructure and other development. The vegetation that characteristically grows under the Garry oak canopy, however, may be displaced by aggressive, invasive species.

Forest health:

Fire suppression has caused an ecosystem shift from grassland to a shrub forest community

Non-native species (fauna):

A spraying program for Gypsy moths implemented outside the reserve is affecting a population of rare and endangered native moth species in the reserve.

Non-native species (flora):

Scotch broom and Himalayan blackberry and other extremely invasive weed species are converting the meadows to shrub communities.

Program constraint:	Lack of regular patrolling/monitoring and implementation of management plan threatens preservation of ecosystem.
Recreation:	<ul style="list-style-type: none"> • User-created trails act as attractors for other visitor causing habitat degradation. • Mountain biking on unimproved trails leads to soil compaction and alteration of water drainage patterns. • Quads and horses are beginning to impact the ER.
RESEARCH OPPORTUNITIES	Preliminary reports available on vegetation, insects, and vertebrates.
ER WARDEN ACTIVITIES	<ul style="list-style-type: none"> • Monitor visitation and mountain biking where observed (report prohibited activities to Area Supervisor) • Monitor and report prohibited grazing activity in ER to Area Supervisor • Continue to survey both flora and fauna present in ER • Monitor for invasive plants and animals (control or eradicate where possible)

SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE MOUNT MAXWELL ER ACCOUNT

Flora

cactus, prickly-pear (*Opuntia fragilis*)
 desert-parsley, Gray's (*Lomatium grayi*)
 Douglas fir (*Pseudotsuga menziesii*)
 farewell-to-spring (*Clarkia amoena* var. *caurina* and var. *lindleyi*)
 fern, bracken (*Pteridium aquilinum* ssp. *lanuginosum* and ssp. *latiusculum*)
 fern, sword (*Polystichum munitum*)
 hedge-parsley, California (*Yabea microcarpa*)
 oak, Garry (*Quercus garryana*)
 onion, Hooker's (*Allium acuminatum*)
 onion, slimleaf (*Allium amplexans*)
 scalepod (*Idahoia scapigera*)
 selaginella (*Selaginella* spp.)
 violet, yellow montane (*Viola praemorsa* ssp. *praemorsa*)

Invasive

broom, Scotch (*Cytisus scoparius*)
 blackberry, Himalayan (*Rubus armeniacus*)

Fauna

Deer, Black-tailed (*Odocoileus hemionus columbianus*)
 Deermouse (*Peromyscus* spp.)
 Duskywing, Propertius (*Erynnis propertius*)
 Frog, Pacific Chorus (*Pseudacris regilla*) [formerly Pacific Tree Frog (*Hyla regilla*)*]
 Lizard, Northern Alligator (*Elgaria coerulea*)

Looper, Western Oak (*Lambdina fiscellaria somniaria*)
Mink (*Neovison* spp.)
Raccoon (*Procyon lotor*)
Snake, Red-Sided Garter (*Thamnophis sirtalis*)
Snake, Northwestern Garter (*Thamnophis ordinoides*)
Squirrel, Red (*Tamiasciurus hudsonicus*)
Vole, Townsend (*Microtus townsendi*)