

RACE ROCKS

ER #97

ORIGINAL PURPOSE To protect intertidal and subtidal communities that are extremely rich as a result of strong tidal currents

OVERVIEW

Date established:	27 March 1980	Location:	In the Strait of Juan de Fuca, 17 km SW of Victoria, 1.5 km off the extreme southern tip of Vancouver Island
Date amended (boundary revision):	12 Feb. 2001		
ORC #:	3097		
Map number:	92 B/5	Latitude:	48°18'N
Marine chart number:	3641	Longitude:	123°32'W

Total Area:	227 ha	Elevation:	-36.5-10 m
Land:	2 ha		
Marine:	225 ha		

Access: Accessible only by boat, but no sheltered moorage is available.

Biogeoclimatic Zone:	Coastal Douglas-Fir (CDF)
Biogeoclimatic Variant:	CDFmm Moist Maritime
Ecosection:	Juan de Fuca
Region:	Vancouver Island
Management Area:	Juan de Fuca

COMPOSITION

Physical: The reserve is almost entirely subtidal, but includes 11 islets (based on 1:20,000 shorezone mapping) comprising approximately 2 hectares. Intertidal and subtidal zones have substrates primarily of continuous rock, and a rugged topography which includes cliffs, chasms, benches and surge channels. The location at the southern tip of Vancouver Island, plus the rugged shallow seabottom, result in strong currents, eddies, and turbulence.

Biological: Energy and nutrient inputs attributable to the nearly continuous currents are large, and light penetration in these shallow, clear waters is excellent. These factors result in a high production of algae and invertebrates, while the varied topography promotes ecological diversity. Consequently, the marine communities here are unusually luxuriant and rich. Many species of algae have been recorded, including extensive stands of bull kelp. Invertebrate features include long surviving specimens of mussels, an abundance of plumose and proliferating anemones, large numbers of sponges and ascidians, occurrence of soft pink coral, and presence of showy high-current species like the basket star. A complete list of known species is maintained at: www.racerocks.com/racerock/eco/taxalab/taxonomy.htm

Marine mammals sighted in the reserve are the killer and gray whale, harbour seal, Steller and California sea lion, elephant seal, and fur seal. The killer whale is a regular visitor; the gray whale is spotted occasionally. Harbour seals haul-out on rocks here in summer. In recent years both Steller and California sea lions have used Race Rocks as a winter haul-out.

Seabirds nest on eight islets in the reserve including Great Race Rock. Nesting seabirds include pelagic cormorants, glaucous-winged gulls, pigeon guillemots, and black oystercatchers.

Cultural: This area is traditional fishing territory for Coast Salish First Nations.

MANAGEMENT CONCERNS

SIGNIFICANT SPECIES	BC LIST STATUS	COSEWIC STATUS	CF PRIORITY
Killer Whale	Red listed	Endangered (2008)	2
Brandt's cormorant	Red listed		1
Grey Whale	Blue listed	Special Concern (2004)	4
Harbour Porpoise	Blue listed	Special Concern (2003)	4
Steller Sea Lion	Blue listed	Special Concern (2003)	2
Black Oystercatcher			6
California sea lion			6
Dall's Porpoise		Not At Risk (1989)	4
Glaucous-winged Gull		Not At Risk (1989)	5
Peregrine Falcon	Red listed ¹	Special Concern (2007)	1
Harbour Seal			6
Northern Elephant Seal		Not At Risk (1999)	5
Northern Fur Seal	Red listed	Not At Risk (1986)	2
Pelagic Cormorant		Threatened (2006)	5
Western Pearlwort			4

THREATS

- Climate Change:** Raised sea level combined with increased intensity and frequency of storms may lead to habitat degradation/ loss. Raised sea surface temperature may alter phenology, distribution, predator prey dynamics of marine life in intertidal and subtidal communities.
- Harvest:** Illegal harvest of abalone, marine fish, shellfish, ling cod and rock fish occurs.
- Military:** Military activities (demolition of explosives) occur 1.5 km from the northern island in the reserve, disturbing the wildlife.
- Military and coast guard aircraft fly over the reserve and sometimes land within reserve. The noise disrupts the wildlife.
- Recreation:** Whale watching vessels, private boats, and dive charter boats are encroaching on reserve. The reserve currently does not include the water column.

¹ It is not clear which subspecies of Peregrine Falcon has been seen in Race Rocks ER and therefore the most at risk rating/priority between the two (*pealei* and *anatum*) is given in this table.

Transportation:

Commercial overflights and Parks Canada overflights disrupt marine mammals.

There is a threat of an oil spill from tankers and cargo ships travelling in the shipping lane.

Discharge from cruise ships and foreign ballast pose a threat from pollution and exotic species respectively.

RESEARCH OPPORTUNITIES

This is an important teaching site for Lester B. Pearson College. The College maintains a field station with accommodation and lab space for researches. They provide an important monitoring function and have the most comprehensive environmental information on the reserve. Their inventory and monitoring data can be accessed at www.racerocks.com.

SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE RACE ROCKS ER ACCOUNT**Flora**

pearlwort, western (*Sagina decumbens* ssp. *occidentalis*)

rose, baldhip (*Rosa gymnocarpa*)

Fauna

Cormorant, Brandt's (*Phalacrocorax penicillatus*)

Cormorant, Pelagic (*Phalacrocorax pelagicus*)

Guillemot, Pigeon (*Cepphus columba*)

Gull, Glaucous-winged (*Larus glaucescens*)

Oystercatcher, Black (*Haematopus bachmani*)

Porpoise, Dall's (*Phocoenoides dalli*)

Porpoise, Harbour (*Phocoena phocoena*)

Sea Lion, California (*Zalophus californianus*)

Sea Lion, Stellar (*Eumetopias jubatus*)

Seal, Harbour (*Phoca vitulina*)

Seal, Northern Elephant (*Mirounga angustirostris*)

Seal, Northern Fur (*Callorhinus ursinus*)

Whale, Grey (*Eschrichtius robustus*)

Whale, Killer (*Orcinus orca*)