

RACE ROCKS Ecological Reserve



Ministry of
Environment
and Parks

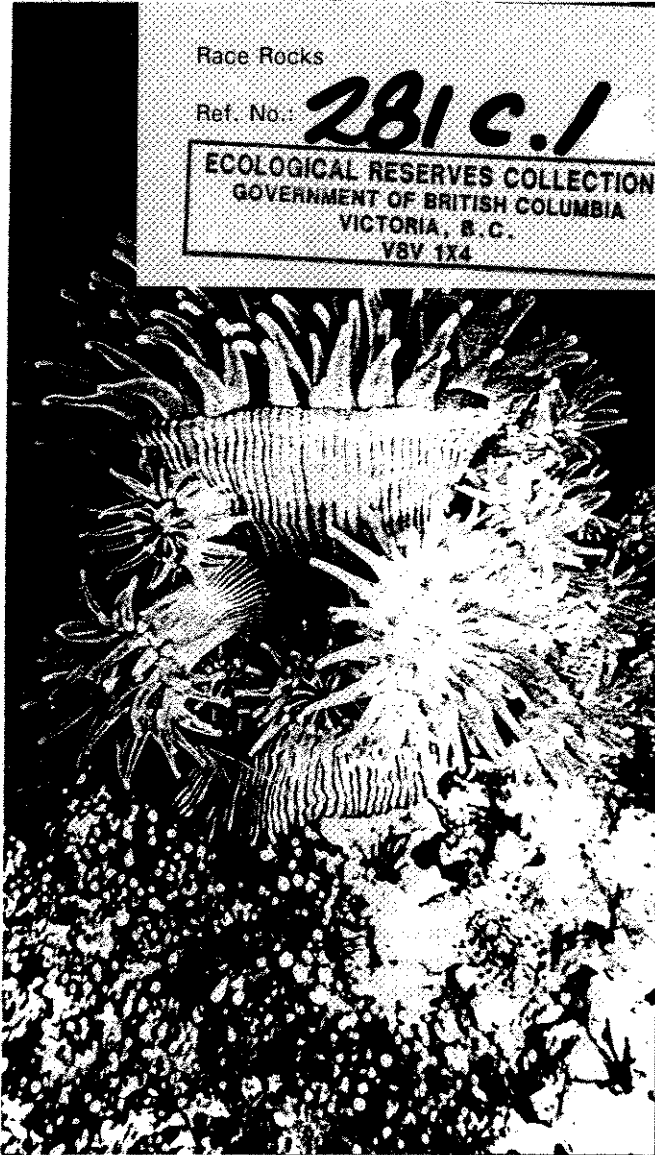
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Race Rocks

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**ECOLOGICAL RESERVES COLLECTION
GOVERNMENT OF BRITISH COLUMBIA
VICTORIA, B. C.
V8V 1X4**



WHAT IS AN ECOLOGICAL RESERVE ?

Ecological reserves are areas set aside for the conservation of both exceptional and representative natural features of scientific and educational significance. Ecological reserves maintain the option for present and future researchers to study ecological communities in an undisturbed, natural state. They serve as benchmarks against which changes induced by man's actions can be measured. Many ecological reserves also serve as banks of genetic material and protect rare and endangered native plants and animals in their natural environment.

THE RACE ROCKS MARINE ECOLOGICAL RESERVE

The Race Rocks Ecological Reserve was established in 1980 following a proposal from students and staff of Lester B. Pearson College, located nearby in Pedder Bay.

The 220 hectares of the reserve include an area of ocean, rocks and reefs bounded by the 20-fathom (36.6-metre) contour. The reserve surrounds the Race Rocks Lighthouse, but excludes the land area of Great Race Rocks with the lighthouse itself.

This area was chosen for ecological reserve status because of its unique richness and diversity of marine life.

Race Rocks is ideally located to receive a constant supply of plankton swept past by almost continuous strong currents. This provides nourishment for a complex group of organisms underwater. The ebb tide twice a day funnels water rich in nutrients from coastal rivers and tidal marshes along the Strait of Georgia and Puget Sound through this narrow part of the Strait of Juan de Fuca. Also twice a day, flood tides bring water from nutrient-rich upwellings of the Pacific Ocean. The result is that Race Rocks becomes a transition zone between the inner coastal waters and the open ocean. This contributes to the exceptional variety of marine life that we see here.

Marine Mammals: The larger predators in this ecosystem are the transient pods of Orca (killer) whales that frequent the waters. California and Northern sea lions haul out on the rocks between the months of September and May in numbers often well over one thousand. Several hundred harbour seals make the islands their home the year round, bearing their young on the islands in June. A family of river otters has also taken up residence in the reserve. Other marine mammals that are occasionally observed at the islands are elephant seals and Alaskan fur seals. Dall's porpoises and grey whales are also seen in the local waters on rare occasions.

Sea Birds: The islands serve as nesting colonies for about 500 sea birds and as a stopover during migration. Glaucous-winged gulls and pelagic cormorants are the most abundant nesting birds in the summer months. Cormorant nests can be seen on the cliffs below the helicopter pad, gulls nest in the high spray zone around the perimeter of the main island. Pigeon guillemots and black oyster-catchers also nest on the islands

in smaller numbers. Bald eagle, harlequin ducks, black turnstones and a number of other species can be observed occasionally. In the fall and winter most abundant large birds are Brandt's cormorants on the islands and common murre on the surrounding waters.

Fish and Marine Invertebrates: Underwater at Race Rocks is a dive paradise if proper precautions are taken. Divers have for years made friends with individual wolf eels and, because spearfishing has been prohibited, lingcod, greenling, rockfish, and sculpin are easily approached underwater. In areas not frequented by fishermen, lingcod can also be approached easily. The group that is most interesting to many divers is the invertebrates. Large populations of sponges, sea anemones (especially brooding anemones), hydrozoans, molluscs, barnacles, tunicates, sea urchins, sea cucumbers and basket stars adorn the underwater cliffs. If one takes their time and looks at this world closely, it provides a fascinating view of complex interrelationships.

Marine Algae: In the intertidal zone around the islands, clearly defined zones of red, brown and green algae (about 20 species) can be observed. The rock walls of tide pools and the shallow subtidal areas are encrusted with the pink alga Lithothamnion and large populations of coralline algae live at several metres depth. Over 20 species live subtidally and a rich canopy of bull kelp (Nereocystis) rings all of the islands.

at least 100 metres between your boat and killer whales if you are observing them in the reserve.

4. Anchoring

Anchor in the reserve only in emergencies. Delicate sea life covers every piece of rock underwater and is easily ripped apart by anchors. Use the docks if possible.

5. Fishing

The Ecological Reserve Act applies to the land and to land under water, including all marine life associated with the sea bed. Fishing for bottom fish, in particular speargun fishing, is not permitted. Open-water fishing is subject to the federal Fisheries Act. Salmon fishing is thus not prohibited, but we recommend you do it outside the reserve.

6. Collecting and Harvesting

Collecting and any kind of harvesting, including shellfish, in the reserve is prohibited under Ecological Reserve Act regulations. You are encouraged to use your camera, but please do not disturb or "rearrange" marine life in the process. Always display a dive flag when divers are underwater.

7. Research

Studies in the reserve are welcome. For those interested in doing projects or research on the reserve, a permit must be obtained from the Ecological Reserves Coordinator.

8. Diving

The best time to dive at Race Rocks is on a slack tide that changes to a

flood. It is best to avoid strong ebb tides, especially when diving from the docks. Fly a dive flag from the docks and please inform the station-keeper, but remember that he is not responsible for your safety while in the reserve. Divers especially should have adequate boat cover if they are diving on the reserve, as strong currents can easily make it impossible to return to shore. Underwater, divers should take care to weight themselves properly and maintain proper trim in the water so that their fins are not always kicking the organisms they are passing over. It is also important to refrain from grabbing at kelp to control themselves in current, as masses of life can be torn away from the bottom.



9. Weather

The following information may be useful in judging weather conditions, but exceptions can always be anticipated. In the summer, westerly winds of under 20 knots and an ebb tide will allow you to approach and dock. If the winds are above 20 knots then they may increase severely. A westerly swell can result from high winds and it can be reflected into the harbour making docking impossible. On a flood tide the conditions are variable.

If winds are easterly and over 20 knots in any tidal conditions, avoid Race Rocks. Winds are often from this direction during the winter months. Docking is difficult when the wind blows from the northeast. On days with no wind, swell from old storms may restrict your access to the island.

Between July and September a fog bank may move down the Strait rapidly, blanketing the area completely and making navigation by chart and compass necessary. Tug boats with log booms in tow can make the Race Passage area hazardous in such conditions.

For tidal levels consult the Victoria tide table. When tidal levels fall below 1 metre, there is very little, (if any) water depth at the docks, the end of the dock being at 0 metres tide level.

