

PROTECTING OUR SEABIRD COLONIES

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ECOLOGICAL RESERVES COLLECTION
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The successful protection of colonial seabirds in British Columbia is one of our greatest conservation responsibilities, but due to their secretive behaviour and inaccessible breeding sites, seabirds are rarely at the centre of public concern. British Columbia holds about 1.5 million breeding pairs of seabirds in eleven species (see Table 1). For three species—Cassin's Auklets, Rhinoceros Auklets, and Ancient Murrelets—those numbers constitute 70 percent of the known North American breeding population. We have a smaller portion of the storm-petrels (5 percent) and the Tufted Puffins (3 percent). More than 80 percent of British Columbia's seabird population is packed into 10 small areas north of Vancouver Island (see Table 2).

The Provincial Ecological Reserves Program is the only security offered to seabirds at the moment. On just five sites, it provides a legal basis for protecting the terrestrial habitat of nearly all the Tufted Puffins, 70 percent of the Cassin's Auklets, and more than 20 percent of the Ancient Murrelets and Storm-petrels. Only 10 percent of the Rhinoceros Auklets nest at protected sites.

The success of this program depends on the activities of volunteer wardens and the common sense of visitors to such isolated sites. Although seabirds spend much of their time in dense flocks close to the colonies, especially during the period when the young are being fed, none of the nearshore marine habitat is protected.

If there were no exceptional threats to colonial seabirds, the present Ecological Reserves program would provide sufficient protection, but in fact, there are several actual or potential threats to significant portions of the seabird populations for which active management and conservation planning are required:

- a) coastal industrialization and competition for space,



Tufted Puffin. Photo: Syd Cannings.

- b) introduced predators,
- c) increased wilderness recreation, and
- d) coastal clearcut logging.

INDUSTRY AND MARICULTURE

Coastal industrialization includes offshore petroleum development. Such industrialization cannot help but increase the frequency of oil spills, alienate or degrade some marine sites, and increase boat traffic through lanes in which seabirds congregate.

The impact of mariculture on colonial seabirds has yet to be evaluated, but clearly segments of coastline that either act as nurseries for seabird prey or serve as staging and foraging sites for the birds themselves may be developed as fish farms. In some cases, the very areas that the birds prefer—channels with moderate currents, abundant natural foods, shallow water, and protection from waves—may constitute the best mariculture sites. At the moment, there is no formal protection for any of the inshore waters around seabird colonies except

that offered by the Canada Fisheries Act and the activities of governmental land-use planning agencies.

PREDATORS

The seabird colonies are spread out far enough so that predators do not threaten them with extinction. However, without active control, racoons and other introduced predators threaten to reduce some species to a small fraction of current levels. In the last fifty years large colonies of puffins and auklets on Langara Island and probably Cox and Lanz Islands have disappeared, and evidence points to the sudden arrival of mammalian predators. Racoons and other introduced species continue to spread through the Queen Charlotte Islands, which form the core nesting area for seabirds in British Co-

lumbia. Consequently the value of remaining sites and the urgent need for effective conservation planning are both increased.

RECREATION POSES A THREAT

The impact of tourist activity is currently minimal, but proposals for a National Park on South Moresby and the long-term increase in wilderness recreation are clear signs that the number of people visiting seabird colonies will increase and that management of the land base will become increasingly complex. The establishment of a National Park would increase control of tourists in many important areas, but the management priorities for recreation and tourism are not necessarily consistent with those of conservation.

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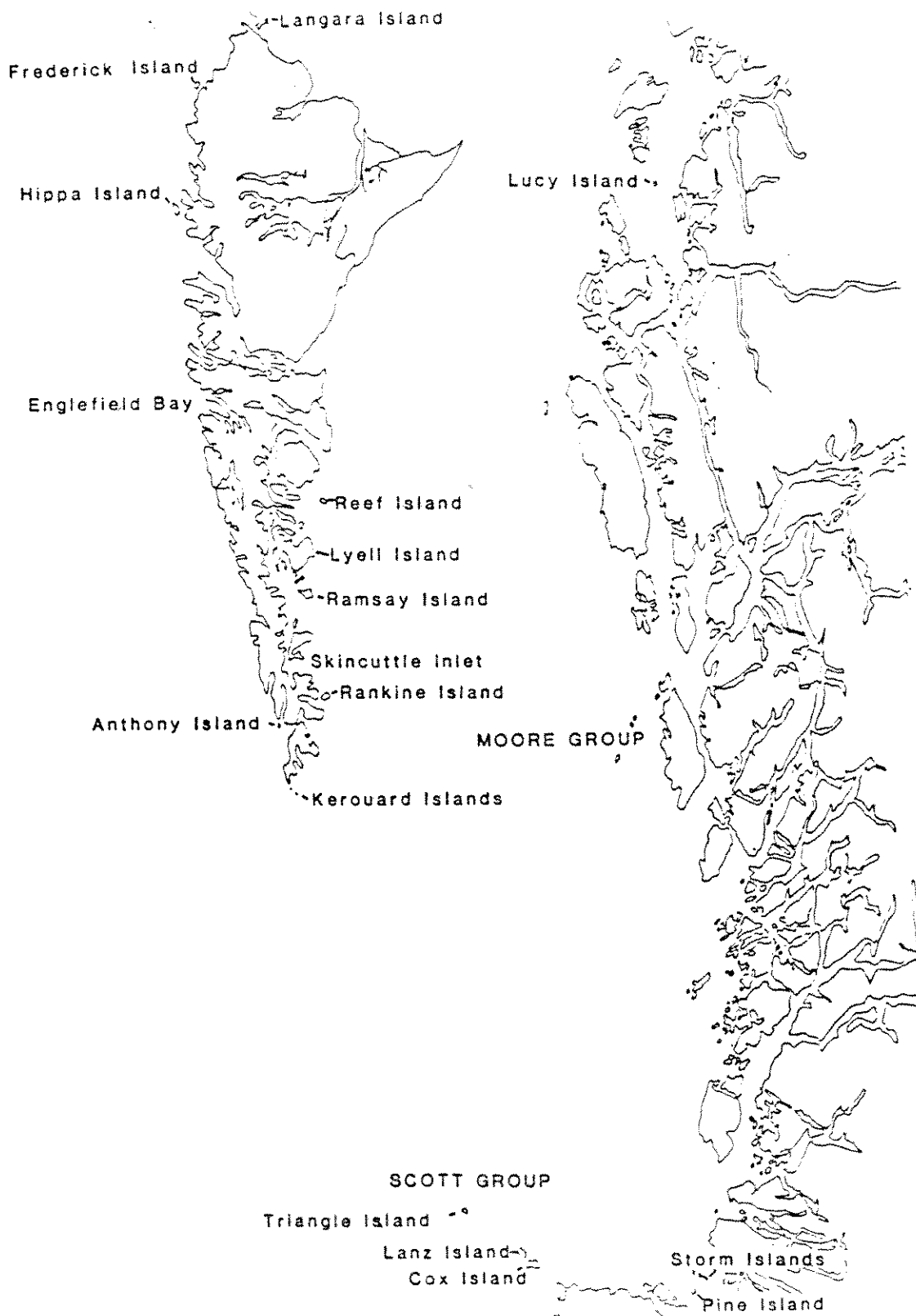
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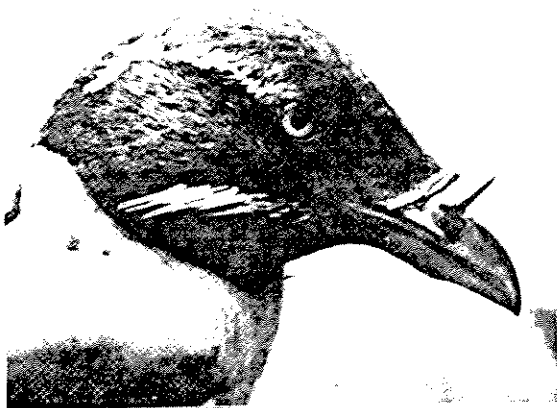
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TABLE 1
Populations of British Columbia seabird colonies in Thousand of Pairs:

Site Name	Storm-petrels	Ancient Murrelet	Cassin's Auklet	Rhinoceros Auklet	Tufted Puffin	TOTAL
Langara Island	—	22.5	—	—	—	22.5
Lepas Bay	8.0	—	0.2	—	—	8.2
Frederick Island	—	68.4	89.2	—	—	158.3
Port Louis-Tian Bay	2.4	—	1.8	—	—	4.2
Hippa Island	25.4	40.1	12.5	—	—	78.0
Marble Island	—	1.0	5.0	0.2	0.3	6.5
Englefield Bay	35.2	19.5	14.1	17.1	—	85.9
Anthony Island	7.3	0.2	25.0	13.8	0.1	46.4
Kerouard Group	—	—	69.6	—	1.5	71.1
Kunghit Island	—	8.8	—	2.5	0.3	11.6
Rankine Island	22.8	26.8	28.0	—	—	77.6
Skincuttle Inlet	12.7	29.2	26.5	—	—	68.4
Alder Group	0.1	14.4	3.0	—	—	17.5
Ramsay Island	0.7	21.4	12.8	—	—	34.9
Agglomerate Group	4.8	2.4	0.5	—	—	7.7
Lyell Island (Dodge Point)	—	10.5	—	—	—	10.5
Reef Island — Skedans	1.5	6.5	2.9	—	—	10.9
Chatham Sound (Lucy Island)	—	—	—	25.0	—	25.0
Moore Group	6.7	—	7.7	1.9	0.1	16.4
Queen Charlotte Strait (Pine and Storm Islands)	114.1	—	2.0	126.6	—	242.7
Scott Group (Triangle Isl.)	0.1	—	360.0	22.0	24.9	407.0
Solander Island	2.0	—	0.2	—	3.0	5.2
Chekleset Bay	15.8	—	—	—	—	15.8
Tieland Island	13.0	—	—	2.7	0.1	15.8
Other sites	8.5	0.7	0.7	0.7	0.1	10.7
Total	281.1	272.4	662.4	212.5	30.4	1458.8
Percent of populations:						
a) of North America	9	77	70	69	4	
b) of the world	5	70	70	35	3	



Major seabird colonies along the B.C. coast. Map by P. Whitehead.



Adult Rhinoceros Auklet, Triangle Island. Photo: Moira Lemon.

COASTAL LOGGING

Coastal logging has aroused a great deal of public interest but rarely in connection with seabird colonies because no actual seabird colony has been logged. At important colonies, such as Dodge Point on Lyell Island, protection has depended on the goodwill of the logging company and the difficulty of the terrain. Although there are no analyses of its impact on colonial seabirds, several sites could be logged—Dodge Point, Frederick Island, and Ramsay Island in particular. Those colonies have been "cruised", and cutting them could form part of the logging plans within the next two years.

Clearcutting has had a spectacular effect on the Marbled Murrelet, a non-colonial species that nests secretly in forests. Usually, this species is seen singly or in small groups but large numbers accumulate on preferred feeding areas immediately offshore of presumed nesting areas. The population can be estimated from those scattered rafts of birds feeding at sea, but they have largely disappeared where the adjacent shore has been clearcut. Numbers have declined sharply off the northeast corner of Moresby Island and off parts of the west coast of Vancouver Island.

MORE PROTECTION IS NEEDED

Formal protection at just five more sites would be a good first step in alleviating the threats posed to seabird colonies and serve notice that an exceptionally valuable natural resource is present and needs protection and management. The ten island groups and adjacent waters in Table 2 contain 83% of the seabirds breeding in British Columbia. Additional ecological reserves or provincial wildlife management areas are one choice, but migratory bird sanctuaries would offer a vehicle for joint federal-provincial management of both the land base and the surrounding waters.

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TABLE 2
Percent of the British Columbia seabird population on the ten most important sites

Site Name	Storm-petrels	Ancient Murrelet	Cassin's Auklet	Rhinoceros Auklet	Tufted Puffin
Frederick Island	—	25.1	13.5	—	—
Hippa Island*	9.0	14.7	1.8	—	—
Englefield Bay	12.5	7.1	2.1	8.0	—
Kerouard Group*	—	—	10.5	—	4.9
Rankine Island*	8.1	9.8	4.2	—	—
Skincuttle Inlet	4.5	10.7	4.0	—	—
Chatham Sound	—	—	—	11.7	—
Queen Charlotte Strait	40.5	—	0.3	59.5	—
Scott Group*	—	—	54.3	10.3	81.9
Solander Island*	0.7	—	—	—	9.8
Total	70.4	67.5	90.9	89.9	96.7
Ecological Reserves*	21.5	24.5	70.9	10.3	96.7

Asterisks indicate ecological reserves

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