

BC's Coast Region: Species & Ecosystems of Conservation Concern

Cassin's Auklet (*Ptychoramphus aleuticus*)

Global: G4, Provincial: S2S3B,S4N, COSEWIC: N/A, BC List: Blue, Identified Wildlife



Notes on *Ptychoramphus aleuticus*: A member of the family Alcidae ("auks"), the bird is named for John Cassin, a Pennsylvania businessman, one of the most famous ornithologists of the 1800's and considered to be the first US taxonomist. It is estimated BC supports 75% of the global Cassin's Auklet population. While several of the largest breeding colonies have been well studied this is still one of the most rarely seen seabirds, spending almost its entire life on the ocean, coming to land only to breed. Cassin's Auklet are also unique in that they generally produce only one extremely large egg per year, equivalent to almost 16% of the female's body weight.

Description

Length: 230 mm **Wingspan:** 110-129 mm. Adult birds are stocky, rounded and small with a slate-grey back fading to lighter grey sides and a white belly. The bird has a small white eyebrow above each eye which is only discernable close up. The lower part of the black bill has a small pinkish-white spot at the base. This species has distinct grey-blue legs and feet. Plumage is the same throughout the year and both sexes are similar. Juveniles are pale grey with a white throat. The eyes, which are brown in the young, become a striking metallic grey in the adult. The short rounded wings act like flippers while the bird forages underwater.

Diet

A pelagic (open ocean) seabird, this species feeds throughout the year on krill and other invertebrates. In spring and early summer, auklets readily feed on larval or juvenile forage fish rich in oil and nutrients such as herring. Auklets are pursuit divers, using their wings like flippers to "fly" swiftly underwater (up to 80 meters in depth) in pursuit of prey. Adults possess a "gular" (throat) patch with which they transport food back to the nest to feed their chicks.

Look's Like?

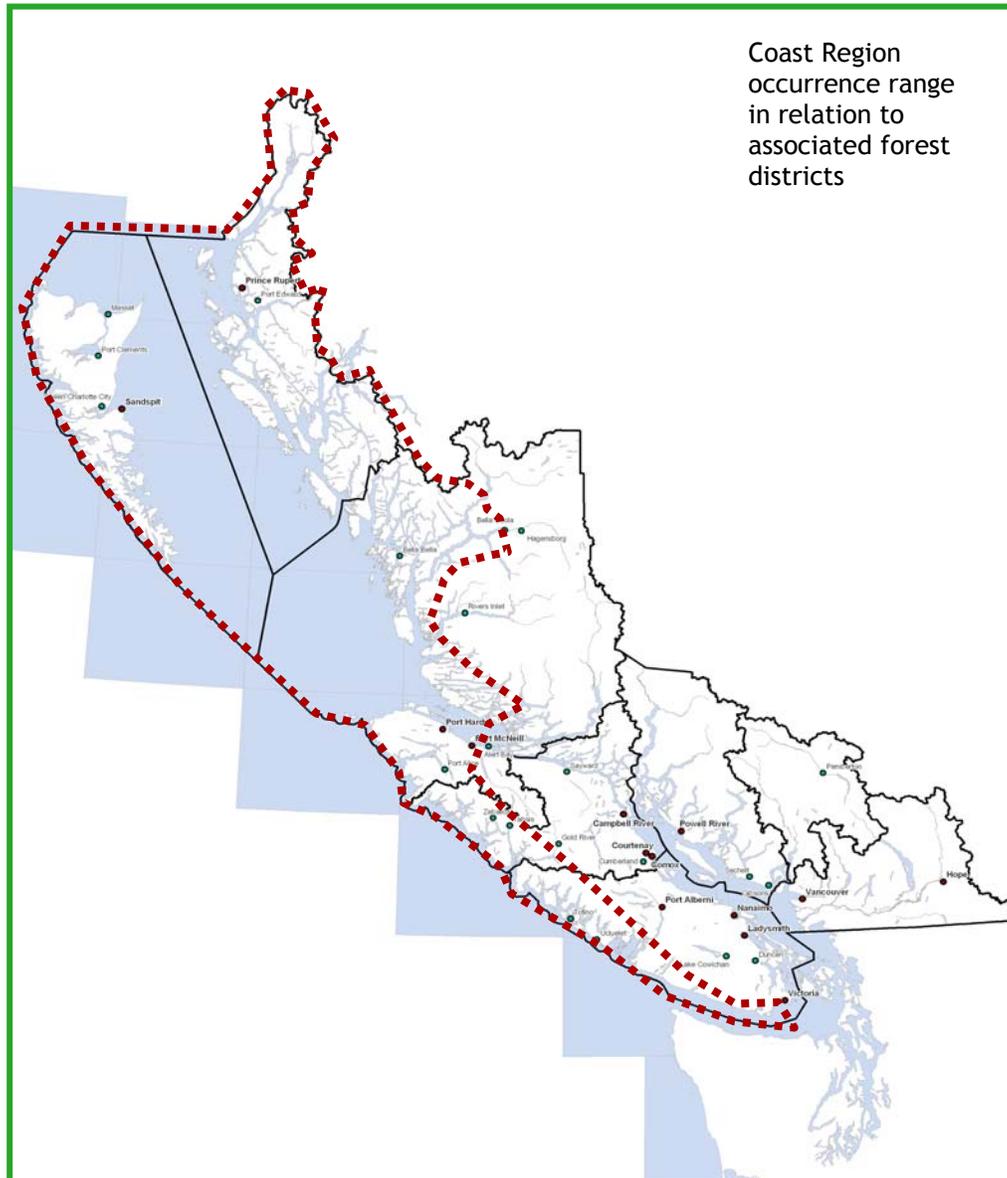
This species may be hard to visually identify in flight as it overlaps in breeding sites with other colonial seabirds such as Common Murre and Pigeon Guillemot and arrives and exits nesting areas under cover of darkness. Cassin's Auklet nest burrows can be identified from other species by the purplish coloured guano deposited by adult birds and chicks at the nest entrance.



Pigeon Guillemot

Distribution

The breeding range of this species extends from the middle of Baja California north along the west coast of North America to southeast Alaska and along the south coast of the Alaska Peninsula west along the Aleutian Islands. The Coast Region supports ~75% of the global population where it is found throughout numerous breeding colonies (~61) on offshore islands along the western and northern coasts of Vancouver Island, the northern mainland coast and Haida Gwaii. Breeding sites are reused annually with Triangle Island in the Scott Island group off northwestern Vancouver Island representing the largest Cassin's Auklet colony in the world. This species utilizes much of the waters off the BC coast throughout its lifecycle though higher densities can be found around the northwestern side of the Haida Gwaii archipelago and the mouth of Juan de Fuca off southwestern Vancouver Island in the winter .



Cassin's Auklet (*Ptychoramphus aleuticus*), potential occurrence range (breeding and foraging) for the Coast Region

Habitat Preferences

Colonial nest burrows (1-5m long) are excavated in soft soils under stumps, fallen logs, large tree roots, grass tussocks, forbs, salmonberry bushes and ferns on steep seaward slopes. While the majority of burrows are excavated within soils of mature forested areas or tussock grass communities, rock crevices or natural cavities under downed woody debris are sometimes used for nesting.



Critical Features

As with other co-occurring seabird species, Cassin’s Auklet has a high fidelity to breeding sites and prefers suitable undisturbed nesting areas within 500 meters of adjacent open-ocean forage areas. The availability of coldwater upwelling zones especially over submerged continental shelf breaks that support high densities of forage fish and zooplankton are key to maintaining local populations

Cassin’s Auklet utilize similar nest burrow sites to Ancient Murrelet (natural cavities under large woody debris and stumps) as well as excavated burrows in seaward bluffs and grass covered slopes. Nest burrows can be identified from other species by the purplish coloured guano deposited by adult birds and chicks at the nest entrance.

Seasonal Life Cycle

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Courtship Breeding Nesting									
			Eggs hatch		Chicks fledge 2-3 days post hatching						
					Fledges, juveniles & adults move to forage and over-wintering areas at sea						

Threats

- ◆ Introduced predators (rats and raccoons) represent one of the most immediate threats to this ground nesting species.
- ◆ Distribution coincides with areas which may be subject to long-term impacts to food resources from climate change (e.g. ocean warming and acidification) and marine industry pollution.
- ◆ Increased coastal windstorms, possibly linked to climate change may also impact nesting colony habitat.
- ◆ Mortality from fishing gear and oil spills.
- ◆ Human disturbance from logging, recreational activities and development of tourism destinations on and around historic nesting colonies.

Conservation & Management Objectives

- ◆ Apply conservation and management objectives as set out in “Accounts and Measures for Managing Identified Wildlife - Accounts V. 2004. Cassin’s Auklet *Ptychoramphus aleuticus*.”
- ◆ Inventory and monitor using standardized methods as set out in Resource Information Standards Committee # 13 draft protocol “Inventory Methods for Seabirds: cormorants, gulls, murrees, storm-petrels, Ancient Murrelet, auklets, puffins, and Pigeon Guillemot.”

Specific activities should include:

- ◆ While still considered widespread and abundant this species requires further study to determine overall breeding success and potential impacts from human disturbance and climate change.
- ◆ Further investigation of adult food preferences is required as present data is limited.
- ◆ Resources should be directed to continued eradication and control programs of introduced predators to protect remaining breeding colonies and provide opportunities for recolonization.
- ◆ Conserve and protect existing and potential preferred nesting habitats from disturbance, especially seaward slopes supporting essential vegetated cover features and soils for burrow excavation.
- ◆ Increase awareness about the sensitivity and value of the unique undisturbed coastal foreshore and mature forests ecosystems. Encourage resort lodges, tourism tenure holders and foreshore landowners to create conservation covenants to buffer critical colonial nesting sites (existing and potential).
- ◆ Ensure proper maintenance of bilge and/or septic systems, fuel storage facilities and disposal of wastes from water craft and shoreline developments/businesses.

This species is subject to protections and prohibitions under the Federal Migratory Birds Convention Act and BC Wildlife Act and is Identified Wildlife under the BC Forest and Range Practices Act. Habitat for this species may also be governed under provincial and federal regulations including the Fish Protection Act and Federal Fisheries Act as well as Regional and local municipal bylaws.

Content for this Factsheet has been derived from the following sources

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- Proulx, Gilbert et al. 2003. A Field Guide to Species at Risk in the Coast Forest Region of British Columbia. Published by International Forest Products and BC Ministry of Environment. Victoria (BC).

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Every effort has been made to ensure content accuracy. Comments or corrections should be directed to the South Coast Conservation Program: info@sccp.ca. Content updated August 2010.

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