



Earliest Breeding Records of Black Oystercatcher and Pigeon Guillemot in British Columbia, 1858-1896

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While collating historical breeding records of seabirds at Seabird Rocks, British Columbia (Carter et al. in press), egg specimens of Black Oystercatcher (*Haematopus bachmani*) and Pigeon Guillemot (*Cepphus columba*) were uncovered that had been collected in 1894 and 1896 and partly reported by Macoun (1900), but omitted by Macoun and Macoun (1909). The early collection dates of these specimens prompted us to consider whether they represented the earliest breeding records for British Columbia. In the same manner as for other alcids and storm-petrels in British Columbia (Carter and Sealy 2011a,b), we re-examined literature and unpublished reports, used the Ornithology Information System (ORNIS), and visited museums in search of observational and specimen records. We uncovered several early breeding records for these species from 1858 to 1896.

Black Oystercatcher

Black Oystercatcher (Figure 1) is a shorebird that forages year-round in the rocky intertidal zone along the Pacific coast of North America from Alaska (Aleutian Islands) south to Baja California (Andres and Falxa 1995). It breeds in British Columbia on both the outer and inner coasts, usually on small islands where seabirds also breed (Campbell et al. 1990). We identified the first seven breeding records for Black Oystercatcher at six locations in British

Columbia as follows:

(1) An adult female and chick were collected on “Bare Island” (now known as Mandarte Island), in Haro Strait, BC (Figure 2) by Victoria naturalist James Hepburn on 25 June 1862 (unpubl. field notes; British Columbia Archives [BCA] MS-1077, Volume 30, Folder 2). Hepburn assigned the specimens collection numbers (#1102 and #1103) but we were not able to track them down in a museum collection or find any mention of them in the literature. However, we located a specimen of an adult collected by Hepburn at the “Gulf of Georgia” on 15 June 1861, which is preserved in the Museum of Comparative Zoology (MCZ #73,355); this bird may have been collected at Mandarte Island but there was insufficient information to confirm it as a breeding record. Two undated clutches collected by Hepburn in the 1860s at “Puget Sound, Bird Rock” or “Puget Sound” are preserved in the U.S. National Museum (USNM #B5,196; #B6,096). Baird et al. (1884) reported that Hepburn had collected Black Oystercatcher eggs in Puget Sound without recording details. These eggs apparently were collected at Bird Rocks in Rosario Strait, within the eastern San Juan Islands, Washington, and not at Mandarte Island. Hepburn also collected eggs of Glaucous-winged Gulls (*Larus glaucescens*) at nearby Williamson Rocks, Washington (Baird et al. 1884; USNM #5,195; #6,094). Brown (1868) did not mention breeding by Black Oystercatchers in his synopsis of the birds of



Figure 1. At least one-third of the world's population of Black Oystercatcher occurs in British Columbia. Photo by R. Wayne Campbell.

Vancouver Island, although Hepburn had assisted with this synopsis. Fannin (1891:19) noted that the Black Oystercatcher was "An abundant resident along the coast of the Island and Mainland. Breeds throughout its range. Eggs, generally two, laid on the bare rocks close to the water." The only definite record of nesting before 1891 in southern BC that we located was the 1862 record. Munro and Cowan (1947) listed 1910 as the earliest year with documented breeding by Black Oystercatchers at Mandarte Island.

(2) George M. Dawson, Geological Survey of Canada, described Black Oystercatchers nesting on unnamed islands on the north side of Skincuttle Inlet, east Moresby Island, Haida Gwaii, on 21 June 1878 (Cole and Lockner 1989:456) as follows:

"The red billed plover [Black Oystercatcher] haunts the coast here everywhere & one seldom approaches a rocky point without hearing their cries of alarm as they see one approaching their nests. They are most grotesque birds with their black plumage, heavy bills & clumsy feet, & withal silly, for the anxious noise they make is a certain means of attracting one to their nests. These are built on bare rocks or rocky points, or gravelly spots of islands &c. They are sometimes on the edge of grassy patches, but never among the grass & no attempt at concealment is made. The eggs two in number are deposited either on

some Crumbled portion of the rock where They cannot roll off, or in a shallow nest, if such it may be called, formed of some small rocky fragments collected together, or of broken & rounded pieces of shell from the beach. In some cases the nest is conspicuous from being composed of shelly fragments."

No specimens were located. Rodway et al. (1988) noted seven oystercatcher breeding locations in northern Skincuttle Inlet in 1985-1986: Bolkus Islands, Swan Islands, Pelican Rock, Slug Islet, Rock Islet, Skincuttle Islet and East Copper Island.

(3) Four eggs were collected at Mandarte Island by Dr. Charles F. Newcombe and John Fannin on 7 June 1892. Two eggs are preserved in the U.S. National Museum (USNM #34,714) and two in the Western Foundation of Vertebrate Zoology (WVZ #76,708 [one egg]; #100,344 [one egg]).

(4) Three eggs were collected at Valdes Island, BC by Percie Smith on 1 June 1895 (MCZ #358,913). Also, a clutch was obtained at the same location by T. Smith on 5 June 1895 that is preserved in the Peabody Museum of Natural History (YPM ORN #130,025). The location "Valdes Island" may not be very specific. Oystercatcher breeding locations in the Valdes Island area in 1987 included Canoe Islet, Rose Islet, and Ruxton Islets (Vermeer et al. 1989; see Figure 2).

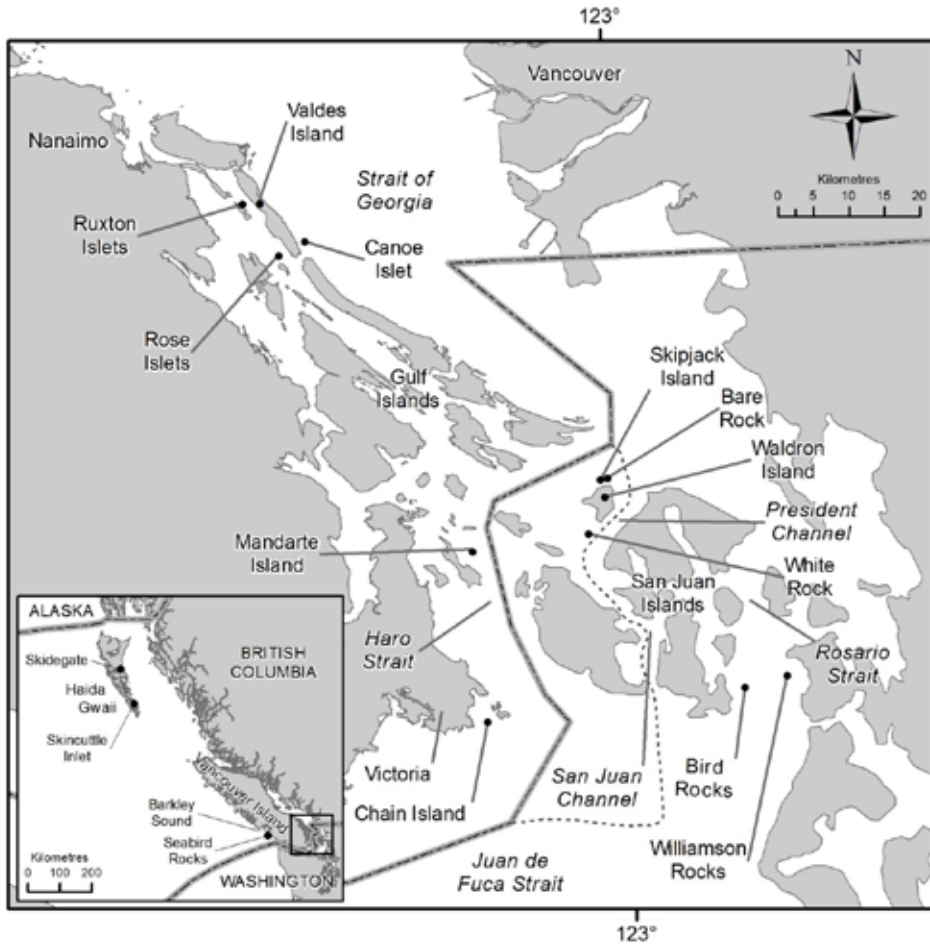


Figure 2. Map of southeast Vancouver Island, British Columbia, and the San Juan Islands, Washington, showing breeding locations (solid dots) mentioned in the text. The dashed line running through the San Juan Islands indicates the border proposed by the United Kingdom between the United States and British North America in 1846 to 1872 (see Mayne 1862:139). The inset shows breeding locations on Haida Gwaii (Queen Charlotte Islands) and southwest Vancouver Island. *Prepared by CloverPoint Cartographics Ltd., Victoria, BC.*

(5) Three eggs collected at Chain Islets [Island] near Victoria, BC by Newcombe on 15 June 1895 are preserved in the Royal British Columbia Museum (RBCM #E1,668) (see Figure 3);

(6) Munro and Cowan (1947:100) noted young at Skidegate, Haida Gwaii in “June, July 1895 (P) [Provincial Museum].” Two large chicks were collected at Skidegate by Kermod on 28-29 July 1895 (RBCM #335, #336). Kermod (1904) noted presence at Skidegate Inlet in August 1895 but did not note breeding. The location “Skidegate” likely is not exact because the village of Skidegate is on Graham Island where nesting has not been recorded. The closest oystercatcher breeding locations to Skidegate in 1986 were Maple Island and Robertson Island, but there are many other breeding locations in Skidegate Inlet (Rodway 1988).

(7) Two eggs were collected at Seabird Rocks, BC, by Newcombe on 1 June 1896 (Macoun 1900, Carter et al. in press). Although at least five clutches of Black Oystercatcher eggs and two chicks were obtained between 1892 and 1896, Fannin (1898) repeated his quote from 1891 regarding the Black Oystercatcher.



Figure 3. Historical information has revealed that Black Oystercatcher has nested on Chain Islets, off southern Vancouver Island, BC, for at least 11 decades. *Photo by R. Wayne Campbell.*

Pigeon Guillemot

Pigeon Guillemot (Figure 4) is a common nearshore alcid that often feeds along rocky coastlines and breeds from the Chukchi Sea, Alaska, throughout most of the Bering Sea, south in the eastern North Pacific to Santa Barbara Island, southern California, as well as in the western North Pacific to the southern Kuril Islands, Russia (Ewins 1993, Gaston and Jones 1998). In British Columbia, eggs (usually two per clutch) are laid in rock crevices, burrows, or under driftwood on small islands (and occasionally in rock crevices in cliffs) on both the outer and inner coasts; it also nests in cavities on human-made structures in protected inlets and bays (Campbell et al. 1990). We identified the first five breeding records for Pigeon Guillemot at three locations in British Columbia as follows:



Figure 4. Pigeon Guillemot is a widespread coastal breeder in British Columbia and feeds mainly on small fishes obtained by diving in nearshore waters. *Photo courtesy Ervio Sian.*

(1) Nine eggs were collected by or for Dr. David Lyall aboard H.M.S. *Plumper* at “Waldron Island, Vancouver Island” in June 1858, with five eggs in “June” and four eggs on “23 June”. These eggs were present in the Natural History Museum (NHM #1859.1.26.82) when HRC visited in 2004. Details of this breeding record have not been published, although Mayne (1862) inferred breeding by Pigeon Guillemots off Vancouver Island and its adjacent islands and he may have known of these specimens (Carter and Sealy 2011b). Waldron Island is located in the western San Juan Islands, Washington. Although most of the border between Washington and British North America had been decided in 1846 by the Oregon Treaty, this part of the San Juan Islands, west of San Juan Channel and President Channel, was still claimed by the United Kingdom in 1858 and was not ceded to the United States until 1872 (Mayne 1862:139; Carter and Sealy 2011b; Figure 2). After 1872, Pigeon Guillemots were recorded breeding at nearby Skipjack Island in 1894 and at Waldron Island and nearby Bare and White rocks in 1949 (Speich and Wahl 1989).

(2) An adult female “showing the bare place” (i.e., with brood patch) was caught by a dog on its nest on “Bare Island” (Mandarte Island), BC by Hepburn on 6 July 1864 (unpubl. field notes; BCA MS-1077, Volume 30, Folder 2). The carcass was given a collection number (#1277) by Hepburn but we were not able to track down this specimen in a museum or find any mention of it in the literature. Drent and Guiguet (1961) and Munro and Cowan (1947) listed 1902 and 1908, respectively, as the earliest years with documented breeding by Pigeon Guillemots at Mandarte Island (Figure 5). Carter and Sealy (2011b) also reported breeding at Mandarte Island in 1903 (MCZ #352,880).

(3) Four eggs were collected on the “west coast Vancouver Island” by Newcombe on 8 June 1892 (RBCM #E1,153 [two eggs], #E1,155 [one egg], and #E1,157 [1 egg]); #E1,157 was dated 8 June 1892, whereas the others were “June 1892”, which we have assumed also was 8 June. Although Seabird Rocks is on the west coast of Vancouver Island and was visited by Newcombe in June 1894 and June 1896, we believe that eggs collected on 8 June 1892 were obtained at Mandarte Island near Victoria. Newcombe and Fannin



Figure 5. On Mandarte Island, BC, Pigeon Guillemots prefer to lay their eggs in cavities in loose jumbles of boulders along the beach (Drent et al. 1964). *Photo by R. Wayne Campbell.*

collected Black Oystercatcher eggs there on 7 June 1892 (see above). Newcombe, most likely spent two days collecting at this location, on 7-8 June 1892, rather than making a long and indirect trip between Mandarte Island and Seabird Rocks in only one day. Travel between these locations likely required at least 2-3 days in 1892. Three adults in breeding plumage also were collected at “Bear Island” or “Sydney Island” (both locations likely refer to Mandarte Island) by F. Foster in May 1896 ($n = 1$) or June 1896 ($n = 2$) (Field Museum of Natural History [FMNH] #137,200, #137,201; USNM #415,732). These birds likely were collected on the water just off the colony and did not clearly constitute a breeding record.

(4) One egg was collected at “Pachena Bay” (i.e., Seabird Rocks), BC by Newcombe on 14 June 1894 (Carter et al. in press).

(5) Two eggs were collected at Seabird Rocks by Newcombe on 1 June 1896 (Macoun 1900, Carter et al. in press).

Discussion

By collating earliest breeding records, we have: (1) extended the published history of breeding in British Columbia by Black Oystercatchers back to 1862 (i.e., 33 years earlier than previously reported by Munro and Cowan 1947) and by Pigeon Guillemots back to 1858 (i.e., 38 years earlier than reported by Macoun 1900); and (2) further demonstrated long-

term, widespread breeding by these species in British Columbia. Additional research may uncover pre-1858 breeding records or more records between 1858 and 1896 but we believe that we have missed few if any records. These species bred at the locations identified above during colony surveys in the 1970s and 1980s (Campbell 1976, Rodway et al. 1988, Speich and Wahl 1989, Rodway and Lemon 1990, Rodway 1991) and changes in breeding ranges in British Columbia are not apparent (Campbell et al. 1990; Rodway 1988, 1991). Interest in these species throughout their ranges increased after the *Exxon Valdez* oil spill in Prince William Sound, Alaska, which resulted in significant impacts to coastal environments and little recovery of these and some other species (e.g., Lance et al. 2001).

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