

SUCCESSFUL BREEDING BY BLACK-LEGGED KITTIWAKES *RISSA TRIDACTYLA* AT THE ONLY COLONY ALONG CANADA'S PACIFIC COAST

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ABSTRACT

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The Black-legged Kittiwake *Rissa tridactyla* is a widely distributed and well-studied northern hemisphere seabird. Authoritative publications document the existence of breeding colonies in Canada's Arctic and Atlantic regions but not in the Pacific region. We visited the small (ca. 50 pairs in recent years) kittiwake breeding colony at Holland Rock, British Columbia, in July and August 2021, and documented what we believe to be the first record of successful breeding at this site. Previous records have documented successful breeding no further south than 58° latitude in Alaska, ~600 km to the north, making Holland Rock the southernmost colony in the eastern Pacific.

Key words: British Columbia, Black-legged Kittiwake, *Rissa tridactyla*, fledgling

The Black-legged Kittiwake *Rissa tridactyla* (hereafter, kittiwake) is one of the most abundant and widely distributed seabirds in the northern hemisphere. The species is intensively studied throughout its range (Coulson & Thomas 1985, Hatch *et al.* 1993, Hátún *et al.* 2017, Vihtakari *et al.* 2018). The global population is estimated to be > 3.79 million breeding pairs, though it is perhaps decreasing across most of its range (CAFF 2020).

Recent accounts (CAFF 2020, Hatch *et al.* 2020) report the kittiwake breeding colonies throughout much of coastal Alaska

(southeastern Alaska to the Chukchi Sea) and in the Arctic and Atlantic regions of Canada. However, neither of these global accounts, nor an authoritative local account (Rodway *et al.* 2016), mention a small breeding colony on Canada's Pacific coast at Holland Rock, British Columbia (54.1732°N, 130.3615°W) (Hearne 2015). Holland Rock is a small (~500 m²) rocky outcrop located in Chatham Sound, approximately 7.5 km south-southwest of the town of Prince Rupert (Fig. 1). The island hosts a weather station consisting of a concrete platform with a small building and several short towers, all owned by Environment and Climate

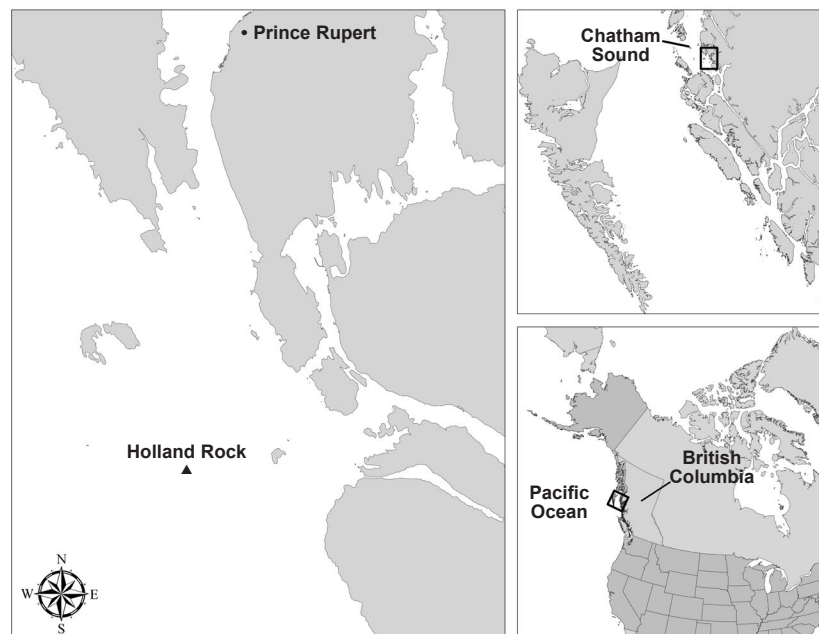


Fig. 1. The Black-legged Kittiwake *Rissa tridactyla* colony at Holland Rock is located ~7.5 km south-southwest of Prince Rupert, British Columbia in western Canada.

Change Canada. Hearne (2015) documented kittiwake pairs attending nests at Holland Rock and has observed nesting pairs since 1997, including nests with eggs. However, due to the timing of colony visits, she has not reported on successful fledging at this small colony (Hearne 2015).

In the mid-afternoon of 21 July 2021 from a small boat circling the island 10–20 m from shore, we counted 54 nests and 101 adults, in addition to 2 sub-adults and 3 young chicks, each in individual nests. Kittiwakes are known to build nests in occupied or abandoned human buildings (Gill & Hatch 2002). The majority of nests were built on ledges between the concrete structure and the supporting bedrock along the western and southern faces (Fig. 2). On the northern side of Holland Rock, there was a small number of nests established on natural rock formations. We later counted from photos a minimum of 27 birds exhibiting incubation behaviour. However, at least one of these birds was seen standing immediately after apparently incubating and no egg was present. This indicates that identifying incubating birds from photos was an imperfect measure of the number of active nests. The colony was revisited on the morning of 13 August 2021 to monitor the status of the chicks observed on the first visit. A total of four chicks were observed by boat, three of which were near fledging. One was approximately two to three weeks younger than the others and thus

must have hatched between our two visits (Fig. 3). While there were approximately 118 adults present on the second visit, we did not see any birds showing incubation behaviour. At one point, birds were flushed from nests by a Bald Eagle *Haliaeetus leucocephalus*, but we did not see any signs of eggs or additional chicks.

This account confirms, for what we believe is the first time, that Black-legged Kittiwakes are breeding successfully in British Columbia. This colony is ~600 km south of the nearest colony in Alaska, at Boussole Head (Hatch *et al.* 2020), making it the southernmost breeding site in the eastern Pacific. Given the relatively late timing of these chicks in 2021, previous visits to the colony, which were typically in May and June, would have been too early to have recorded large nestlings (Hearne 2015). We recommend annual visits to the island in June, July, and August to monitor the status and productivity of this colony.

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Fig. 2. Black-legged Kittiwake *Rissa tridactyla* nests at the Holland Rock colony in the summer of 2021. The majority of nests were located on the rock ledge between the bedrock and the concrete foundation of the weather station, on the southern and western faces of the structure.



Fig. 3. Black-legged Kittiwake *Rissa tridactyla* chicks at the early development (left) and late development stages (right), viewed on 13 August 2021.

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