

# Craveri's Murrelet: Confirmed Nesting and Fledging Age at San Pedro Mártir Island, Gulf of California

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**Abstract.**—We describe a Craveri's Murrelet (*Synthliboramphus craveri*) nest from San Pedro Mártir Island (Gulf of California, México) and present the first documented fledging time as <31-38 hours after hatching. Received 1 September 1992, accepted 4 February 1993.

**Key words.**—Alcidae, Craveri's Murrelet, fledging, Gulf of California, nest site, *Synthliboramphus craveri*.

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The Craveri's Murrelet (*Synthliboramphus craveri*) is the most tropical in the alcid family (Harrison 1985), and one of the three smallest (Dunning 1984). It breeds on islands in the Gulf of California (DeWeese and Anderson 1976) and probably the Pacific coast of Baja California (Jehl and Bond 1975). Although a number of nests have been found, and eggs and birds have been collected (Jehl and Bond 1975 and references therein, DeWeese and Anderson 1976), more information is needed on their breeding biology. Like other *Synthliboramphus* relatives, Craveri's Murrelets are semiprecocial and are thought to fledge within a few days of hatching. In a letter published by Bent (1919), W. Brown writes "the young take to the sea two days after being hatched", but beyond this, fledging age has not been documented. Here we report a Craveri's Murrelet nest from an offshore rock adjacent to San Pedro Mártir Island, Gulf of California (28°23'N, 112°20'W) which was checked almost daily from its discovery until the chicks fledged.

Based on sightings very near the island as well as calls heard in the night from island anchorages, van Rossem (1945) and DeWeese and Anderson (1976) speculated that Craveri's Murrelets nest on San Pedro Mártir Island. However, despite extensive searches we found no Craveri's Murrelet nests on the main island where introduced roof rats (*Rattus rattus*) are abundant (pers. observ.). On 17 March 1991, we found a

Craveri's Murrelet nest on one of San Pedro Mártir's rat-free offshore rocks. The nest cavity was on the near vertical southwest face of the rock ~40 m above sea level, considerably higher than the nests reported by DeWeese and Anderson (1976) (N = 9,  $\bar{X}$  = 3 m, range = 0.3-5.5 m). The 13.5 cm high x 15.3 cm wide cavity was formed by two rocks wedged above a narrow shelf. The nest was an oval scrape ~0.6 m back in the cavity. A dusty, faded, and desiccated Craveri's Murrelet egg was wedged into a crack in the nest cavity, and fragments of another egg suggest the nest had been used in a previous year.

The chronology of our visits to the nest after discovery on 17 March is as follows. On 18 March, we measured and weighed the eggs and the incubating adult (mass 152 g, tarsus 22.0 mm, wing 116 mm, culmen length x depth 21.5 x 6.0 mm, tail 30 mm, right wing area 82 cm<sup>2</sup>). The larger and darker of the two eggs had several small cracks and the chick could be heard tapping against the shell. On 21 March, we could see an adult in the nest incubating two eggs. On 23 March, an adult was incubating the two eggs and we could hear the chicks calling loudly from inside the eggs when we were >2 m from the nest. On 25 March, 1500 h, we removed the eggs from under the incubating adult for <2 min. Both eggs had pipping holes ~0.8 and 0.4 cm in diameter (eggs #1 and #2, respectively). On 26 March, 1915 h, we removed the two chicks from the nest for

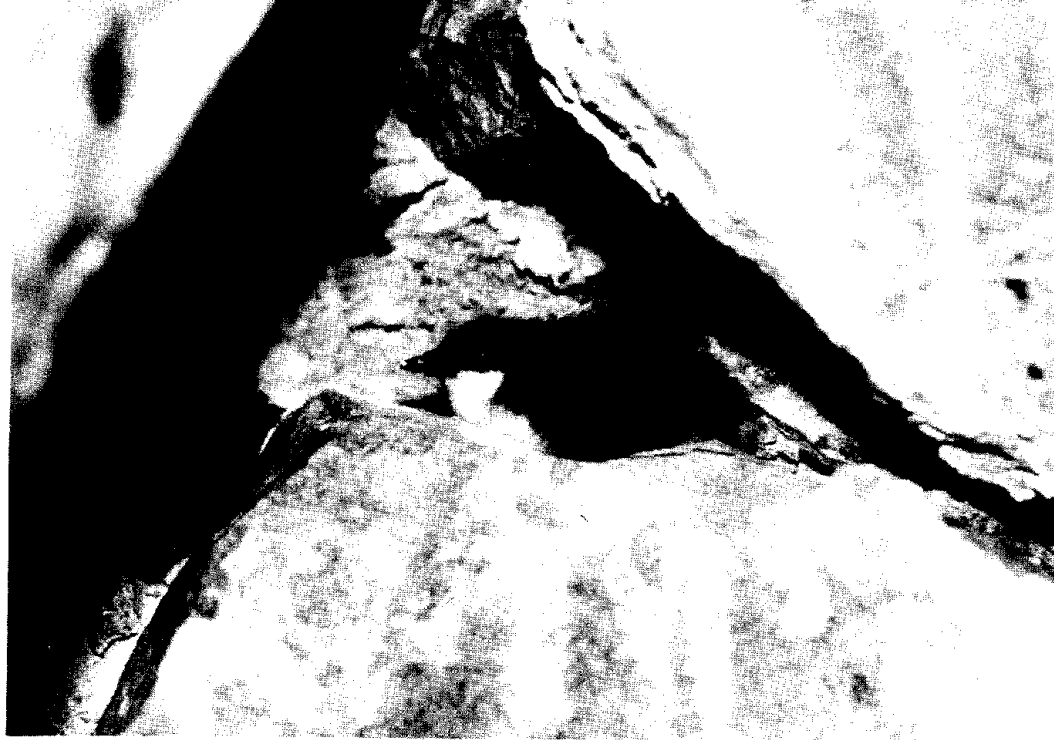


Figure 1. One Craveri's Murrelet chick at the nest entrance. Second chick on nest in shaded area to left.

<10 min to measure and weigh them (mass 26 and 23 g, tarsus 21.4 and 21.5 mm, wing 26.0 and 25.8 mm, culmen length x depth 8.2 x 4.1 and 9.1 x 4.0 mm, respectively). The chicks were covered in thick down and had no vaned feathers (Fig. 1). Their coloration was similar to that of an adult, including the sooty underwing and white eye ring. Their legs were disproportionately well developed and about adult size. On 27 March, 1730 h, the nest cavity was empty. Since neither of the potential predators (Yellow-footed Gull, *Larus livens* or Common Ravens, *Corvus corax*) could have reached the chicks in the confines of the ~0.6-m deep nest cavity, we presume the chicks had fledged.

Like other small alcids, Craveri's Murrelets only move to and from nests under darkness, apparently to avoid avian predators (DeWeese and Anderson 1976). Thus, the chicks probably fledged some time between 26 March, 2100 h and 27 March, 0400 h, <31-38 h after hatching. Sea surface temperature during this period was 17.1-17.5° C, and winds were calm.

This observation suggests that Craveri's Murrelets are one of the most precocial of all alcids. Additional observations of fledging period, especially in less disturbed nests, are needed to compare the Craveri's Murrelet with the two other highly precocial alcids, the Xantus' (*S. hypoleucus*) and Ancient (*S. antiquus*) Murrelets (Murray *et al.* 1983, Jones *et al.* 1987).

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