

Status and Occurrence of Kittlitz's Murrelet (*Brachyramphus brevirostris*) in British Columbia.
By Rick Toochin, Louis Haviland and Mitch Meredith.

Introduction and Distribution

The Kittlitz's Murrelet (*Brachyramphus brevirostris*) is a small species of alcid that is found in the Beringia Region of Alaska and Russia (Gaston and Jones 1998). It is believed that 95% of the world's population is found in Alaska where the population is estimated to be only 20,000 birds (Gaston and Jones 1998). There is no definitive numbers known about the Russian population due to the lack of census data (Gaston and Jones 1998). In 2004, the U.S. Fish and Wildlife Service designated the Kittlitz's Murrelet as a candidate species under the U.S. Endangered Species Act (USFWS 2004, 2010) due to concerns about population declines related to global climate change, glacial recession, and marine regime shifts, as well as other factors such as mortality in oil spills and gill nets (Carter *et al.* 2011). This is the only alcid that nests on the ground at or near the tops of mountains, particularly near glaciers and in previously glaciated areas, where its cryptic plumage helps it avoid detection (Day *et al.* 1999). In areas that are glaciated it forages near tidewater glaciers and outflows of glacial streams (Day *et al.* 1999). In Alaska, the Kittlitz's Murrelet is found locally from LeConte Bay in southeast Alaska westwards through Prince William Sound, the Kenai Peninsula, Kodiak Island and Afognak Island, along the Alaska Peninsula and sparsely along the Bering Sea coast of Alaska northwards beyond the Seward Peninsula to at least Cape Lisburne in the Chukchi Sea, and very locally through the Aleutian Islands (Sowls *et al.* 1978, Gaston and Jones 1998, Day *et al.* 1999). In Siberia, these birds are most numerous only in the cold waters of the northern Sea of Okhotsk and on the Bering and Chukchi Coasts of the Chukotka Peninsula with birds having been seen in the breeding season as far north as the Russian Arctic off Wrangel Island where they could breed, and as far south as the Kurile Islands (Sowls *et al.* 1978, Gaston and Jones 1998, Day *et al.* 1999, Brazil 2009). The overall range of the Russian population is poorly studied and not well known by scientists (Day *et al.* 1999). The winter range of the Kittlitz's Murrelet is not well studied; however, it is known that the birds found in the northern breeding range along the coastlines of the Bering Sea move south to avoid sea-ice, but birds found in their southern breeding range are thought to stay in the same area as they breed, just further offshore to spend the winter (Gaston and Jones 1998, Day *et al.* 1999). There is evidence that they might move slightly south of their breeding range in Russia in the winter as there are records of birds found in the waters off Japan, near Hokkaido (Brazil 2009). There is very little information available on the southern non-breeding distribution of Kittlitz's Murrelet's in North America (Gaston and Jones 1998, Day *et al.* 1999). It is believed by many scientists that some birds do move a little further south of the breeding range in Alaska into parts of the Alaska Panhandle including sometimes to Juneau and areas to the south (West 2008, Carter *et al.* 2011). This could explain why there are some records along the West Coast south of Alaska, but also why there are so few records of the

Kittlitz's Murrelet which is classified as an accidental vagrant species (Carter *et al.* 2011). In British Columbia, there are less than 10 provincial records from coastal nearshore waters (Toochin *et al.* 2014, see Table 1). In Washington State, there is only 1 accepted record by the Washington Bird Records Committee of a bird photographed in winter plumage at Friday Harbour, San Juan County on January 4, 1974 (Wahl *et al.* 2005, WBRC 2014). In Oregon, there are no accepted state records for the Kittlitz's Murrelet by the Oregon Bird Records Committee, but there are 2 good sight records from 2005 that are listed as hypothetical (Carter *et al.* 2011, OFO 2012). In California, there is only 1 accepted record by the California Bird Records Committee of a juvenile bird picked up on a beach at La Jolla, San Diego County, on August 16, 1969, but it died in captivity the next day and the skin was preserved (Hamilton *et al.* 2007).

Identification and Similar Species

The identification of the Kittlitz's Murrelet is covered in all standard North American field guides. This species is a small alcid with a fairly large, squat head and small, short bill with long, narrow, pointed wings and a short tail (Day *et al.* 1999). In flight, it appears as a small, rapidly flying bird with blurred wing-beats (Day *et al.* 1999). There are no differences in size or in plumage colouration between males and females (Gaston and Jones 1998). The Kittlitz's Murrelet measures 29 cm (11.5 inches) in length with a wing span of 43 cm (17 inches), and weighs 220 grams (8 ounces) (Sibley 2000, Dunn and Alderfer 2011). In the context of British Columbia, this species is most similar looking to the Marbled Murrelet (*Brachyramphus marmoratus*) and the accidental Long-billed Murrelet (*Brachyramphus perdix*) (Toochin 2013a).

Adult birds hold their breeding-plumage from April to September (Sibley 2000). In breeding plumage adults appear speckled or streaked (Gaston and Jones 1998). There is a large amount of variation in breeding-plumage making most birds look grayish overall, but this can make other birds look golden or sandy-coloured (Day *et al.* 1999). The feathers of the upperparts are predominantly dark gray with irregular edges that are highly variable in number and width of light buff or rufous-gold on all feathers except the wings and tail (Day *et al.* 1999). The underparts are a light buff or off-white (Day *et al.* 1999). The front and sides of the head to the upper chest are sparsely streaked with dark gray and thickly marked with dark gray or black U-shaped feather edgings (Day *et al.* 1999). There is a subterminal barring of the feathers on the remaining underparts, creating a barred effect (Day *et al.* 1999). The scapulars are irregularly edged and this amount varies greatly with light buff or rufous-gold (Day *et al.* 1999). The tail has white on all or just the outer rectrices that is visible when the bird spreads its feathers while flushing from or landing on water (Gaston and Jones 1998, Sibley 2000). The dark eye appears abnormally large, but only when at close range (Day *et al.* 1999). Sub-adult birds tend to be more speckled than breeding-plumaged adults and to have varying amounts of white on the head and face, with some of these birds even appearing at a distance to have a white

moustachial stripe (Day *et al.* 1999). Some birds that may be sub-adults are seen in some breeding locations during summer (Day *et al.* 1999).

The Kittlitz's Murrelet holds its winter plumage from October to March (Sibley 2000). These birds appear to look black-and-white at a distance, with upperparts that are dark grayish black and underparts that are pure white (Day *et al.* 1999). The white in the face extends to above the eye (Dunn and Alderfer 2011). The tail, as in breeding-plumage, has white on all or just the outer rectrices which is visible when the bird spreads its feathers while flushing from or landing on water (Day *et al.* 1999). In winter-plumaged adults, the upperparts and sides of the upper breast are slate gray forming a nearly complete dark-gray band across the breast (Day *et al.* 1999). The gray on the head lies above the eye and forms a narrow, dark-gray crescent in front of the eye (Day *et al.* 1999). The feathers of the back and rump are narrowly edged with white (Gaston and Jones 1998). There is a clean white on the face to above the eye and throat, including a complete white collar around the nape, and on the remaining underparts (Day *et al.* 1999). The wings are dark grayish brown (Day *et al.* 1999). The upperwing-coverts are dark grayish-brown and are narrowly edged with white (Day *et al.* 1999). The axillaries and underwing-coverts are a deep brownish-gray with the scapulars white (Day *et al.* 1999). The tail is dark brownish-gray with white tips on the central rectrices, becoming white with small brown spots on the outer rectrices (Day *et al.* 1999). The amount of white on the rectrices can be highly variable (Day *et al.* 1999).

Juvenile birds hold this plumage from August to October (Sibley 2000). Although poorly known, birds in juvenile plumage appear to be similar to adult birds in winter plumage (Day *et al.* 1999). The differences are subtle, but the main differences in plumage markings are that juvenile birds have faint barring or vermiculation on the throat and breast that is often noticeable at a distance as a faintly shaded band across the upper breast (Day *et al.* 1999). This marking is absent in adults in winter plumage (Day *et al.* 1999).

The Kittlitz's Murrelet is most similar to, and most often confused with the closely related Marbled Murrelet and the rare vagrant to British Columbia the Long-billed Murrelet which are the only species within its range with which it is likely to be confused (Mlodinow 1997). The Kittlitz's Murrelet is distinguished from Marbled and Long-billed Murrelet in breeding plumage by its small bill and speckled or streaked grayish, rufous, and/or buffy plumage; also it has great variation in extent of colouration on the breast and belly from almost completely white to heavily streaked (Gaston and Jones 1998, Day *et al.* 1999). The Marbled and Long-billed Murrelet's have a larger bill and have a dark-brown plumage, usually with little speckling (Gaston and Jones 1998, Day *et al.* 1999). The Kittlitz's Murrelet is best distinguished from the Marbled and Long-billed Murrelet's in winter plumage by having a white face extending to

above the eye which is the easiest characteristic to see at a distance, and a complete and fairly wide white collar around the neck, and a complete or nearly complete breast-band (Gaston and Jones 1998, Day *et al.* 1999). The Marbled Murrelet has white in the face extending to below the eye, a narrow white notch that is not complete around the sides of the neck, and essentially no breast-band. Long-billed Murrelet has white in face extending to below the eye, no white collar at all, and essentially no breast-band (Mlodinow 1997). Because all 3 species overlap in overall size, molting birds in late summer may be difficult to separate and should be examined closely (Gaston and Jones 1998, Day *et al.* 1999). In all plumages, Kittlitz's Murrelet is separated from Marbled and Long-billed Murrelet by white on the rectrices that is visible only when the tail is spread, whereas the latter two species have evenly dark-brown rectrices (Gaston and Jones 1998, Day *et al.* 1999).

Occurrence and Documentation

The Kittlitz's Murrelet is an accidental vagrant to British Columbia with 8 provincial records (Toochin *et al.* 2014, see Table 1). The first record for British Columbia was found by Ron Satterfield and seen and well photographed off Ogden Point in Victoria from November 24, 1985-April 12, 1986 (Mattocks 1985, Campbell *et al.* 1990b). Originally identified as an adult in winter plumage, Carter *et al.* (2011) point out that this bird was in fact a first winter bird due to the brownish tips of the primaries and brown feathers scattered on the back. This bird liked to feed in a rip tide channel during the tide change and was photographed by Tim Zurowski from a Sea Kayak on December 7, 1985 (T. Zurowski Pers. Comm.). The second record for British Columbia was of a bird in winter plumage found by C. Husband off Queen Charlotte City in the Queen Charlotte Islands on November 8, 1995 (Toochin *et al.* 2014, see Table 1). The bird was relocated near Sandspit the next day by Peter Hamel (P. Hamel Pers. Comm.). This bird was observed by both observers independently and was seen close to shore in calm water with binoculars for about 30 minutes at a distance of about 80 m (Cater *et al.* 2011). The third provincial record involved 2 adults in breeding plumage found by Burke Korol that were seen in Laredo Sound which is north and west of Price Island located on the north coast from a cruise ship on May 11, 1999 (Toochin *et al.* 2014, see Table 1). The fourth record for British Columbia was found by experienced birders George Holland and Caroline Curtis who had 2 birds together in winter plumage within 100 m of the ferry "Queen of the North" off Lawn Point in Hecate Strait from the Queen Charlotte Islands on October 12, 2001 (Toochin *et al.* 2014, see Table 1). The fifth provincial record was observed by Rick Toochin at 40–50 m from shore while conducting a sea watch at Sheringham Lighthouse in Shirley on June 20, 2006 (Toochin *et al.* 2014, see Table 1). This bird was observed in a telescope for about 10 minutes below the Sheringham Lighthouse near 2 pairs of Marbled Murrelet's before the Kittlitz's Murrelet got up and flew off (Toochin *et al.* 2014, see Table 1). The sixth record for the province was of an immature in 1st winter plumage found by Rick Toochin and Louis Haviland at Botanical Beach in

Port Renfrew on August 24, 2008 (Toochin *et al.* 2014, see Table 1). The bird was seen clearly through telescopes at about 60-80m from the shoreline as it flew past the point during a break in a huge summer storm (Toochin Pers. Obs.). The seventh record for British Columbia was of a winter-plumaged bird found by Rand Rutland near Gibsons on December 18, 2010 (Toochin *et al.* 2014, see Table 1). The bird was found during the Christmas Bird Count and was seen close to shore and well observed through a telescope (R. Rutland Pers. Comm.). The seventh provincial record was of a bird in winter plumage found by Mitch Meredith and Rick Toochin at Skonun Point outside Masset in the Queen Charlotte Islands on October 9, 2014 (R. Toochin Pers. Obs.). This bird was seen through telescopes at about 60-75 m from shore as it flew by and landed on the water before flying east towards Yakan Point (R. Toochin Pers. Obs.). Likely the same bird was relocated the next day by Rick Toochin, Mitch Meredith, Peter Hamel, Margo Hearne and Martin Williams, on October 10, 2014 off Yakan Point and was seen sitting on the water about 65 m from shore near 4 Marbled Murrelet's that also were in winter plumage (R. Toochin Pers. Obs.). The similarity between 1st winter birds and adult birds in winter plumage makes judging the age of some records difficult.

The Kittlitz's Murrelet is an interesting species compared to other alcids as this species tends to occur closer to its breeding areas in the non-breeding season with few moving to waters off the west coast of North America in the winter (Carter *et al.* 2011). This is different from other Alaskan alcids like the Parakeet Auklet that regularly vacates the Bering Sea region and winters far offshore in the central North Pacific, probably south regularly to 40°N, and less commonly to approximately 30°N (Gould and Piatt 1993, Gaston and Jones 1998). The Kittlitz's Murrelet is almost unique amongst Alaskan alcids because it is by far the least numerous of these species and is rarely recorded south of its breeding range at any time of the year (Carter *et al.* 2011). It is unclear if birds that turn up in the waters of northern British Columbia are true vagrants or represent a few birds at the extreme south edge of their winter range (Gaston and Jones 1998, Carter *et al.* 2011). The fact that 3 of the 8 known records for British Columbia are from the Queen Charlotte Islands and all are from the late fall with 2 in mid-October and 1 in early November is very interesting given there are only a few observers in the region (Toochin *et al.* 2014, see Table 1). If in the future more observer coverage and scrutiny is given to the north coast, it is possible that more records of the Kittlitz's Murrelet will occur in British Columbia. It is also possible that if more people sea-watch and scrutinize near-shore alcids that the occasional bird could turn up in the future along the south coast of the province as well.



Figure 1: Record #1: Kittlitz's Murrelet in 1st basic plumage off Ogden Point, Victoria on December 7, 1985. Photo © Tim Zurowski <http://www.timzphotography.com/>.

Table 1: Records of Kittlitz's Murrelet for British Columbia:

- 1.(1) 1st basic plumage November 24, 1985-April 12, 1986: Ron Satterfield, mobs
(RBCM Photo 1081) Ogden Point, Victoria (Mattocks 1985, Campbell *et al.* 1990b)
- 2.(1) winter plumage November 8-9, 1995: C. Husband & Peter Hamel, mobs : Queen
Charlotte City, then by Sandspit Airport, Queen Charlotte Islands (Davidson 1999,
Toochin *et al.* 2014)
- 3.(2) adult breeding plumage May 11, 1999: Burke Korol : Laredo Sound (Carter *et al.* 2011,
Toochin *et al.* 2014)
- 4.(2) winter plumage October 12, 2001: George Holland, Caroline Curtis: off Lawn Point, Hecate
Strait, Queen Charlotte Islands (Carter *et al.* 2011, Toochin *et al.* 2014)
- 5.(1) adult breeding plumage June 20, 2006: Rick Toochin : Shirley (Carter *et al.* 2011,
Toochin *et al.* 2014)
- 6.(1) immature August 24, 2008: Rick Toochin, Louis Haviland : Botanical Beach, Port Renfrew
(Carter *et al.* 2011, Toochin *et al.* 2014)
- 7.(1) winter plumage December 18, 2010: Rand Rutland : Gibsons (Carter *et al.* 2011)
- 8.(1) winter plumage October 9-10, 2014: Mitch Meredith, Rick Toochin, mobs: Skonun Point
and Yakan Point, Queen Charlotte Islands (R. Toochin Pers. Comm.)

Acknowledgements

We wish to thank Tim Zurowski for giving us permission to use his spectacular photograph of a Kittlitz's Murrelet found off Ogden Point in Victoria. Check out Tim's incredible bird and wildlife photographs at <http://www.timzphotography.com/>. All photographs are used with the permission of the photographer and are protected by copyright law. Photographs are not to be reproduced, published or retransmitted on any website without the authorization of the photographer.

References

- Brazil, M. 2009. Birds of East Asia: China, Taiwan, Korea, Japan, and Russia. Princeton Field Guides. Princeton University Press, Princeton, New Jersey. 528pp.
- Campbell, R.W., N. K. Dawe, I. McTaggart-Cowan, J. M. Cooper, G. W. Kaiser, and M. C. E. McNall. 1990b. The Birds of British Columbia – Volume 2 (Nonpasserines [Diurnal Birds of Prey through Woodpeckers]). Victoria: Royal British Columbia Museum.
- Carter, H., S. K. Nelson, S. G. Sealy and G. B. V. Vliet. 2011. Occurrence of Kittlitz's Murrelets south of the breeding range along the west coast of North America. *Northwestern Naturalist* 92: 186-199.
- Davidson, G. S. 1999. B.C. Field Ornithologists Bird Records Committee report for 1996-1997. *British Columbia Birds* 9: 15-18.
- Day, R. H., K. J. Kuletz and D. A. Nigro. 1999. Kittlitz's Murrelet (*Brachyramphus brevirostris*), *The Birds of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology [Online Resource] Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/435> [Accessed: December 12, 2015].
- Dunn, J. L. and J. Alderfer. 2011. National Geographic Field Guide to the Birds of North America. National Geographic Society, Washington D.C. 574pp.
- Hamilton, R. A., M. A. Patten, and R. A. Erickson. 2007. Rare Birds of California: A work of the California rare bird record committee. Western Field Ornithologists, Camarillo, California. 605pp.
- Mattocks, P. W. 1985. The spring migration – northern Pacific coast region. *American Birds* 39: 340-344.

- Mlodinow, S. G. 1997. The Long-billed Murrelet (*Brachyramphus perdix*) in North America. *Birding* 29:461-473.
- OFO. 2012. Oregon Field Ornithologists - Records Committee. [Online resource] <http://www.oregonbirds.org/index.html>. [Accessed: December 14, 2015].
- Sibley, D. A. 2000. The Sibley field guide to birds. Alfred A. Knopf, New York. 545pp.
- Sowls, A. L., S. A. Hatch, and C. J. Lensink. 1978. Catalog of Alaskan seabird colonies. U.S. Dep. of Interior, Fish and Wildl. Serv. Anchorage, AK.
- Toochin, R. 2013a. First Photographic record of Long-billed Murrelet (*Brachyramphus perdix*) in British Columbia. [E-fauna BC online articles] Retrieved from <http://www.geog.ubc.ca/biodiversity/efauna/documents/Long-billedMurrelet-RT-a.pdf> [Accessed: December 9, 2015].
- Toochin, R., J. Fenneman and P. Levesque. 2014. British Columbia Rare Bird List: Casual and Accidental Records: January 1, 2014: 3rd Edition. [Online resource] Retrieved from <http://ibis.geog.ubc.ca/biodiversity/efauna/documents/BCRareBirdListVersionXZABC.pdf> [Accessed: December 9, 2015].
- (USFWS) US FISH AND WILDLIFE SERVICE. 2004. Endangered and threatened wildlife and plants; review of species that are candidates or proposed for listing as endangered or threatened; annual notice of findings on resubmitted petitions; annual description of progress on listing actions; notice of review; proposed rule. Federal Register 69(86):24876–24904.
- (USFWS) US FISH AND WILDLIFE SERVICE. 2010. Endangered and threatened wildlife and plants; review of species that are candidates or proposed for listing as endangered or threatened; annual notice of findings on resubmitted petitions; annual description of progress on listing actions; proposed rule. Federal Register 75(217):69222–69294.
- Wahl, T. R., B. Tweit, and S. Mlodinow. 2005. Birds of Washington: Status and Distribution. Oregon State University Press, Corvallis, Oregon. 436pp.
- WBRC. 2014. Washington Bird Records Committee – Summary of Decisions. Washington Ornithological Society, Seattle, WA. [Online resource] <http://www.wos.org/wbrccaccepteddec2014.pdf> [Accessed: December 16, 2015].
- West, G. C. 2008. A Birder's Guide to Alaska. American Birding Association, Colorado Springs, CO. 586 pp.