Status and Occurrence of Arctic Loon (*Gavia arctica)* in British Columbia.
By Rick Toochin and Louis Haviland.

Introduction and Distribution

The Arctic Loon (*Gavia arctica*) is a Eurasian species found breeding from Scandinavia across northern Europe through northern Russia to Siberia (Clements *et al*. 2012). There are two populations of Arctic Loon. The western population is subspecies (*G.a.artica*) which is found in Western Europe and breeds from Scotland across to Norway and across northern Russia to the Lena River (Clements *et al*. 2012, Mullarney *et al*. 2009). These birds winter from coastal areas of Norway south through coastal areas of Great Britain south to the Atlantic coast of northern Spain and along the northern coastline of the Mediterranean Sea (Mullarney *et al*. 2009). The eastern population of Arctic Loons is the subspecies (*G.a. viridigularis*) and is found in Asia with birds breeding from Transbaikalia, and the Lena River estuary east the Chukotka Peninsula, south along the Kamchatka Peninsula south to the Amur River and north Sakhalin Island (Brazil 2009, Clements *et al*. 2012). These birds winter from the coastline of the Kamchatka Peninsula south along the Kuril Islands to coastal Japan, the coasts of both North and South Korea, south to the Yellow Sea and the coastline of east China where it is rare (Brazil 2009). Arctic Loon is considered an accidental vagrant to Taiwan (Brazil 2009). The Asian subspecies of Arctic Loon is the only subspecies that has been found in North America (Dunn and Alderfer 2011).
Arctic Loons are a regular migratory species to western Alaska in both the outer Aleutian Islands and in the Bering Sea regions including St. Lawrence Island (Sibley 2000, Sibley 2003, West 2008, Dunn and Alderfer 2011). This species breeds on the Seward Peninsula with most birds returning to Asia to spend the winter (Brazil 2009, Dunn and Alderfer 2011). Along the West Coast of North America, Arctic Loon is a casual vagrant with 4 accepted records for California, 2 accepted records for Oregon and 3 for Washington State (Hamilton *et al*. 2007, OFO 2012, Wahl *et al*. 2005, WBRC 2012). There have been many good sight records in British Columbia that lack photo documentation (Toochin and Fenneman 2008, Please see Table 1). To date there are only 2 records with identifiable photographs and both records likely involve the same bird recorded in the Juan de Fuca region of Vancouver Island (Toochin and Fenneman 2008, Toochin 2012b)

Identification and Similar Species

The identification of Arctic Loon is complicated because of this species similarity to Pacific Loon (*Gavia pacifica*). Arctic Loon is a larger bird than Pacific Loon and has a larger, longer bill with a more angular shaped forehead and large flaring white flank patches in all plumages (Birch and Lee. 1997, Brazil 2009, Dunn and Alderfer 2011). Adults in breeding plumage have a heavier, thicker head and neck that is blue-gray in color (Brazil 2009, Mullarney *et al*. 2009, Dunn and

Alderfer 2011). The throat patch is a dark green color in perfect light (Sibley 2000, Sibley 2003, Brazil 2009, Mullarney *et al*. 2009). The sides of the neck have thick vertical white lines that go down the side of the neck and onto the side of the chest above the water on sitting birds (Dunn and Alderfer 2011). The back has large white square markings with black lower back and black colored wings (Brazil 2009, Dunn and Alderfer 2011). Not matter what the water conditions; the large white flaring flank patch is highly visible (Birch and Lee. 1997, Sibley 2003, Dunn and Alderfer 2011). The bill is held straight and horizontal to the water surface and is long and blackish-gray in color (Brazil 2009).

In adult winter plumage birds are pale overall with a dark ridge that runs along the upper mandible and encompasses the bill tip (Brazil 2009, Mullarney *et al*. 2009, Dunn and Alderfer 2011). The crown is dark and this runs from the top of the bill base straight through the top of the eye outside of the auricular area down the back of the neck to the back (Brazil 2009, Mullarney *et al*. 2009, Dunn and Alderfer 2011). The area around the eye is very dark and is noticeable at longer range (Sibley 2003, Dunn and Alderfer 2011). The throat area is all white lacking any chin strap. (Sibley 2003, Brazil 2009, Mullarney *et al*. 2009, Dunn and Alderfer 2011). The lower sides of the neck have fine dark vertical lines with the dark extending to the front of the sides (Dunn and Alderfer 2011). Importantly from the mid-section of the sides to the flanks is white and this flares up before the legs and encompasses the under tail coverts (Sibley 2003, Brazil 2009, Mullarney *et al*. 2009, Dunn and Alderfer 2011). The belly and underside of birds is white (Sibley 2003, Brazil 2009, Mullarney *et al*. 2009, Dunn and Alderfer 2011). The mantle has dark tipped scapulars that give the appearance of darkish bars the run across the back (Sibley 2003, Brazil 2009, Mullarney *et al*. 2009, Dunn and Alderfer 2011). In flight the underside of the wings is all white except a dark line that runs from the primary tips down the entire secondary edge (Sibley 2003, Brazil 2009).

Juvenile birds are similar looking to winter plumaged adults but have more defined light back bars with a lighter color to the back of the neck (Sibley 2003, Brazil 2009, Mullarney *et al*. 2009, Dunn and Alderfer 2011). The white in the face flares more behind the eye on the auricular area (Sibley 2003, Brazil 2009). It is important to note that no plumages of Arctic Loon show a chin strap and this is true of juvenile bird as well (Birch and Lee. 1997, Brazil 2009, Dunn and Alderfer 2011).

Breeding plumaged Pacific Loon has a silver, almost whitish looking, nape (Sibley 2003, Dunn and Alderfer 2011). The throat color is purple in perfect light and can have greenish tones (Sibley 2003, Brazil 2009, Dunn and Alderfer 2011). These white lines that run vertically on the side of the throat are narrower than Arctic Loons (Dunn and Alderfer 2011). The white square patches on the back are smaller in overall size to white patches found on Arctic Loons (Sibley 2003, Dunn and Alderfer 2011). The back is otherwise black and so are the sides and the flanks (Sibley 2003, Brazil 2009, Dunn and Alderfer 2011). Observers should be careful when birds are seen preening because the white on the sides of the bird is lifted up out of the water and this

can give the illusion that the bird has white flanks (Sibley 2003, Brazil 2009, Dunn and Alderfer 2011). In these situations it is important to note that Pacific Loons only will show an extra amount of white along the sides of the bird and will always lack large flaring white flanks of all plumages of Arctic Loons (Sibley 2003, Brazil 2009, Dunn and Alderfer 2011). The bill of a Pacific Loon is thin, straight but small looking (Sibley 2003, Dunn and Alderfer 2011). In overall size, the Pacific Loon is smaller than the Arctic Loon and Common Loon (Sibley 2003).
In adult winter plumage Pacific Loons are dark overall with a reduced white auricular area and dark sides and flanks (Dunn and Alderfer 2011). There is a distinct chin strap across the lower throat that should be visible on almost all birds (Brazil 2009, Dunn and Alderfer 2011). Watch for the odd bird that lacks this field mark and any identification of a possible Arctic Loon should not be based solely on this marking but a combination of many field marks (Dunn and Alderfer 2011). Juvenile birds look similar to winter adults but have distinct white scaling on the scapulars (Sibley 2003, Brazil 2009).
Adult breeding plumaged Common Loons are very different looking from Arctic and Pacific Loons and are covered in all standard field guides. In adult winter plumage, distant birds can be mistaken for Arctic or Pacific Loons as they share a dark overall plumage (Sibley 2003). Common Loon has the steep forehead like Arctic Loon but should be distinguished by the much larger silver colored bill and larger body size (Dunn and Alderfer 2011). Common Loons sit higher in the water than Arctic or Pacific Loons (Brazil 2009, Dunn and Alderfer 2011). Winter plumaged birds have an uneven line of separation of the white and dark on the neck (Sibley 2003, Dunn and Alderfer 2011). There is white on the face but is not a clean line that clearly separates the auricular area as seen on Arctic Loon and to a lesser degree on Pacific. Normally, on winter plumaged Common Loons, there is a light white line above the eye (Sibley 2003, Dunn and Alderfer 2011). Most Common Loons should not have white on the sides or on the flanks (Sibley 2003, Dunn and Alderfer 2011). But this can vary depending on the position the bird is taking or if the bird is preening or sitting in heavy waves (Sibley 2003, Dunn and Alderfer 2011). Juvenile Common Loons are browner looking to adults in winter plumage and have white vertical lines on the back on the scapulars (Sibley 2003). The Common Loon is a bigger bird than Arctic Loon and Pacific Loon in overall body size and shape (Sibley 2003, Dunn and Alderfer 2011).

Occurrence and Documentation

Arctic Loon reports have increased along the west coast in the past 20 years since the Arctic Loon was split from the Pacific Loon by the American Ornithologist's Union (also known as the AOU) in 1985 (AOU 1985). The identification of these two species is not easy and as a result photographs are essential documentation. There are several reports seen by good observers that are likely valid. (Toochin and Fenneman 2008). Due to how rare this species is for the Province, we have excluded these records and are only discussing photo documented records.

The only photographed records to date come from the same small area over a few winters which likely refer to one individual bird being involved in all sightings. The first identifiably photographed bird was to an adult found by the authors in breeding plumage on May 21, 2007 close to shore off the Shirley Lighthouse in the company of a breeding Pacific Loon and Common Loon (Toochin and Fenneman 2008, Toochin 2012b). Direct comparisons of the bird where made of both species and distant pictures were obtained. Despite extensive searches by the authors and a few other observers this bird was not relocated in the following days. The next observation was of a winter plumaged bird found at a local "loon hotspot" at Gordon's Beach just outside of Sooke on December 27, 2007 and January 1 & 6, 2008 (Toochin and Fenneman 2008, Toochin 2012b). This bird was viewed in the direct comparison to winter plumaged Common and Pacific Loons, including a single juvenile Yellow-billed Loon. Digi-scope pictures were taken of this bird but were far too blurry to be of use. Likely the same Arctic Loon was seen in basic plumage off the Shirley Lighthouse at close range on June 13 and October 30, 2009 (Toochin 2012b, Please see Table 1). It is impossible to know for sure but given the small distances and repeated sightings in a localized area, the last videotaped sighting from the Surfer's Parking lot at Jordan River, involves possibly the same bird from April 15-21, 2012 (Toochin 2012b).

The Juan de Fuca Strait has a large Pacific Loon migration in the spring and fall with small numbers of birds summering over and huge numbers of birds wintering in the region (Campbell *et al*. 1990a). It isn't surprising that Arctic Loon has been found in this region. They prefer coastal habitats not that different from Pacific Loons (Brazil 2009). With more recent records of birds turning up from Washington to California it very likely that this species will be found again in the future. It is not impossible for an Arctic Loon to turn up on an inland lake in the interior of the Province. Observers should pay close attention to inland "Pacific Loons" encountered. To date there is at least one confirmed inland record for Arctic Loon from Washington State at Priest Rapids Dam along the Columbia River from January 16-April 15, 2000 and another confirmed inland Oregon record from Brownsmead in Clatsop County from December 9, 2007 to 9 February 9, 2008 (Wahl *et al*. 2005, OFO 2012). With more coverage and better understanding of how to separate Arctic Loon from Pacific Loon it is only a matter of time before another record will occur in British Columbia.

Table 1: British Columbia Photographed Records of Arctic Loon (All Records likely of the same bird)

1.(1) adult near breeding plumage May 21, 2007: Rick Toochin, Louis Haviland (photo) Shirley (Cecile 2007b) (Toochin 2012b)
(1) adult December 29, 2007: Rick Toochin, Louis Haviland: Shirley (Toochin 2012b)
(1) adult January 1, 2008: Rick Toochin, Louis Haviland: Gordon's Beach, Otter Point (Toochin 2012b)

(1) adult January 6, 2008: Rick Toochin, Louis Haviland: Gordon's Beach, Otter Point (Toochin 2012b)
(1) adult in winter plumage June 13, 2009: Rick Toochin, Louis Haviland: Shirley (Toochin 2012b)
(1) adult winter plumage October 30, 2009: Louis Haviland: Shirley (Toochin 2012b)
2.(1) adult winter plumage April 15-21, 2012: Louis Haviland (photo/video) Jordan River (Toochin 2012b)

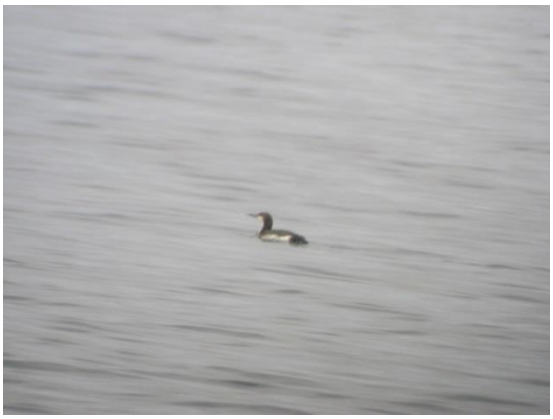
Table 2: Sight Records without Identifiable Photographic Evidence:

1.(2) adult December 20, 1999: John B. Sprague: Ganges Harbour, Saltspring Island (Toochin and Fenneman 2008)
2.(1) adult February 7, 2001: Guy Monty, Candace Boyle, Colin Bartlett: off Lantzville (Cecile 2001b) (Toochin and Fenneman 2008)
3.(1) adult March 18 & 23, 2001: Russ Tkachuk, Rand Rudland: Roberts Creek (Tkachuk 2002) (Toochin and Fenneman 2008)
4.(1) adult March 9, 2002: David Allinson: off BC Ferry in Active Pass, Victoria (D. Allinson Pers. Comm.) (Toochin and Fenneman 2008)
5.(1) adult November 14 & 17 & December 7, 2003: John B. Sprague (photo) Ganges Harbour, Saltspring Island (Toochin and Fenneman 2008)
6.(1) juvenile October 5, 2007: Jukka Jantunen: Cape Lazo, Comox (J. Jantunen Pers. Comm.) (Cecile 2002a) (Toochin and Fenneman 2008)
7.(1) adult December 12, 2007: Marika Ainley (photo) Willows Beach, Victoria (Yahoo message # 6095 BCVIBIRDS) (Toochin and Fenneman 2008)
8.(1) adult December 26, 2007: Jo Ann and Hue MacKenzie: Kanish Bay, Northern part of Quadra Island (Toochin and Fenneman 2008)
9.(1) adult winter plumage February 7, 2008: Keith Riding: Iona Island, South Jetty, Richmond (Toochin 2012a)
10.(1) adult winter plumage June 5, 2009: Carol Murray (photo) Kanish Bay, Quadra Island (bcvanbirds: no longer exists)
11.(1) winter plumage December 21, 2012: Garrett McDonald, Jon Isacoff (photo) Powell Beach Park, Summerland (Yahoo message #29494 bcintbird)
12.(1) adult winter plumage January 29, 2013: Neil Robins, and other observers: mouth of the Little Qualicum River (N. Robins Pers. Comm.)

Photographed Records of Arctic Loon for British Columbia

Figure 1: Record #1: Adult Arctic Loon on May 21, 2007 off the Lighthouse at Shirley, BC. Photo © Rick Toochin.

Figures 2 & 3: Record #2: Adult Arctic Loon on April 15, 2012 off Jordan River, BC. Photos © Louis Haviland.



Figures 4 & 5: Record #2: Adult Arctic Loon on April 15, 2012 off Jordan River, BC. Photos © Louis Haviland.

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