

## **The Status and Occurrence of Common Eider (*Somateria mollissima*) in British Columbia.**

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### **Introduction and Distribution**

The Common Eider (*Somateria mollissima*) is one of the widest ranging of all eider species, and is the only one to regularly occur in temperate regions of the northern hemisphere (Goudie *et al.* 2000). All other eider species are largely confined to arctic and subarctic regions (Goudie *et al.* 2000). In North America, it breeds from south-coastal Alaska and throughout the Bering Sea, including the Aleutian Islands, east across the arctic coast of Alaska and Canada to Hudson Bay, Quebec, Labrador, Newfoundland, and the Maritime provinces (Goudie *et al.* 2000, Dunn and Alderfer 2011). It also breeds along the coast of the northeast United States, south to Massachusetts, as well as throughout most of the islands of the Canadian arctic, north to Ellesmere Island, and along the coasts of Greenland (Goudie *et al.* 2000, Dunn and Alderfer 2011). It retreats south in winter, with western arctic populations wintering in the Bering Sea, Aleutian Islands, and south coastal Alaska and eastern populations wintering in Hudson Bay and along the Atlantic coast from Labrador south to North Carolina (Goudie *et al.* 2000, Sibley 2000). It is rare but regular on the Great Lakes, and casual inland in eastern and central North America during winter and migration (Mlodinow 1999). Outside of North America, the Common Eider also occurs in Iceland, along the coasts of northwest Europe: including the United Kingdom, Ireland, and Scandinavia, and in eastern Russia along the eastern Siberian coast, Bering Sea coast, and the Kamchatka Peninsula (Brazil 2009, Mullarney and Zetterstrom 2009). Populations of Common Eider are generally very large and stable and, due to its occurrence at lower latitudes, it is the most commonly encountered eider species in both North America and Europe (Mullarney and Zetterstrom 2009, Dunn and Alderfer 2011). The Alaskan and western Canadian arctic populations, which are the source of vagrants to British Columbia, are estimated at c. 25,500 and c. 81,500 individuals, respectively (Goudie *et al.* 2000); the entire wintering population in North America is estimated at between 600,000 and 750,000 individuals (Goudie *et al.* 2000). Despite a large global population that does not warrant conservation concern, the western arctic populations which are birds found in Alaska and the western Canadian arctic have experienced dramatic declines due to accumulation and biomagnifications of heavy metals (i.e., lead) and excessive traditional harvest (Suydam *et al.* 2000). For example, the number of Common Eiders migrating past Point Barrow, Alaska declined by 53% (from c. 156,000 to c. 72,500) between the 1970s and 1990s (Suydam *et al.* 2000). These declines have been mirrored in all three other eider species in the western North American arctic, particularly in Alaska, suggesting that the factors responsible for these declines are widespread and having significant consequences (Suydam *et al.* 2000). If the western arctic population of Common Eider continues to decline, it is anticipated that the frequency at which the species is detected as a vagrant in British Columbia and elsewhere along the Pacific coast

will similarly decline. The Common Eider occurs year-round in south-central Alaska, ranging east regularly to Cook Inlet and Kachemak Bay; small numbers occasionally breed and winter farther east to Glacier Bay (West 2008). The species is strictly casual elsewhere along the Pacific coast of North America, where it is known from two recent records (2004, 2005) in Washington (WBRC 2012) and a recent (2004) record from northern California (Hamilton *et al.* 2007). Records south of British Columbia have occurred during the spring (April in Washington State) and summer (July in California; August in Washington State), and have involved several birds that lingered for weeks after their initial discovery (Wahl *et al.* 2005, Hamilton *et al.* 2007, WBRC 2012). Two independent records of ten Common Eiders at Nisqually Flats in Puget Sound, Washington in January and February 1906, which were both made by experienced observers, were rejected by the Washington Bird Records Committee (Mlodinow 1999, WBRC 2012) despite a widespread belief that the records, though incredible, are likely valid (Mlodinow 1999). These records were rejected because, unfortunately, there are no details associated with either of them (Mlodinow 1999). The records do indicate, however, that the species could potentially occur in flocks where it occurs as a vagrant (a position that is strengthened by the previously mentioned report of five “eiders” at Alkali Lake, B.C. in 1950 [Jobin 1952]). The only inland records in northwest North America outside of B.C. are from Alberta where, in addition to a single sight record at Cold Lake near the Saskatchewan border in 1993 (Mlodinow 1999), an individual of this species was recently observed during three consecutive falls at the same Cold Lake location in 2000, 2001, and 2002 (Hudon *et al.* 2006). The Common Eider is an accidental vagrant to British Columbia and is most likely to occur in the Queen Charlotte Islands.

### **Identification and Similar Species**

The identification of the Common Eider is covered in all standard North American field guides. Adult males of this species are spectacular looking and obvious; however, female and immature birds have subtle markings and need great care and attention to distinguish this species from the smaller, but similar, looking King Eider (*Somateria spectabilis*). The following identification criteria was taken from Goudie *et al.* (2000).

The Common Eider is a large diving duck that is 50.0–71.1 cm in length and a mass of 1,300–2,611 g. The male is somewhat larger than the female. It is important to note that size also varies depending on the subspecies. The Common Eider is a heavy-bodied duck with a relatively short, stout neck, and distinctive long triangular or wedge-shaped bill and head profile.

The adult male in definitive alternate plumage (fall through early summer) is largely white on the upperparts, except black on the crown, which is variably divided by a narrow whitish line. The nape has a line below the black of the crown and the feathers around the eye are tinged in emerald or lime green. The breast is white, often exhibiting a slight rosy or buff hue (color fades with wear); the belly and rear-end (rump, tail, under tail) are black, interrupted by rounded

white flank-patches, which may be partially covered by elongated, downward-curving inner secondaries (sometimes called tertials). The elongated lower scapulars sometimes show an erectile "sail"; the flight feathers and a portion of the greater-coverts are black. The feathering at sides of the face extends forward into the loreal region and nearly to, or even past, a line with the rear of the nostril, but the feathering on the top midline of the bill ends far short of this. The frontal processes of the bill are variable in shape and can appear broad and rounded to narrow and pointed extensions from bill up onto the head. The bill and frontal processes vary in color from gray-green to bright yellow or yellow-orange, depending on subspecies. The brightest color is usually found on the frontal processes, the lower edges and the distal portion of the bill, and is generally paler and more grayish green. The shape and extent of the frontal processes, as well as the outline of feathering around the bill, also vary with the different subspecies.

The adult female is overall a brownish bird with black bars, especially noticeable on the sides and flanks with a dark speculum (patch on the secondaries) bordered by white. The profile is similar to the male, with corresponding similar differences in the shape of the frontal processes and feathering around the bill. The bill color varies depending on the subspecies, but usually is a pale greenish-gray to olive-green or is dark. The coloration of the plumage varies amongst the various subspecies from reddish-brown to a pale grayish-brown, but these colours can be highly variable. The older females may acquire paler plumages (Palmer 1976), and eventually male-like plumages as they molt (Swennen *et al.* 1989).

The adult male in definitive basic plumage (midsummer into early fall) has overall a dark-brown to blackish appearance with a pale-brown median stripe through the eye. The breast is medium brown with white flecking, and the anterior part of the back is white with black edgings. The secondaries and the wing-coverts are white. The females in definitive basic are more muted in coloration than birds in definitive alternate. The crown is less well defined with broader feathers on the sides and flanks with longer transverse barring, and paler edgings on all contour feathers of the body.

Adult plumages are not acquired until at least the second year of age in females and the third year of age in males. This difference, along with individual variability and more or less the continuously progressive molt in immatures, leads to considerable plumage variation in flocks of eiders when juvenile and sub-adult birds are present. Young females can be distinguished by the darker dull-brown plumage, shorter (and frayed later in season) tails, and lack of an anterior white speculum-bar (infrequently lacking in older females). Juvenile males appear brownish-black with varying degrees of white at the base of the neck and breast. There is some white flecking evident in the scapular area. The head of the male is dark with large frontal processes

relative to the females and a dark-brown cheek coloration. Immature (sub-adult) males contain various degrees of black feathering and edging on the wing-coverts and on the scapulars respectively. The median white head-stripe in immature (sub-adult) males is generally obscured or flecked with black. Discrimination of age classes based on plumage has not been well documented, although Palmer (1976) proposed a tentative key. Our current understanding is that changes in juvenile and immature (sub-adult) plumages are progressive over the fall-winter-spring season, making succinct descriptions difficult.

The most similar looking species to Common Eider is the female and immature King Eider. The King Eider is identified by its rounded head shape with a shorter and darker slaty gray bill. The King Eider has a more compact body and shorter neck, and feathering around the bill, which shows a rather noticeable upturned, almost “smiling,” gape-line. The Common Eider has a paler bill and straighter, shorter, less distinct gape-line (Harris *et al.* 1996). The frontal processes of the bill are much shorter on the King Eider, which also has feathering along the midline of the forehead extending forward to above the nostril which is far short of the nostrils on the Common Eider. This looks about even with the forward extension of the feathering in the loreal region. The Common Eider has a long and wedge-shaped loreal region rather than the short and rounded shape of the King Eider. It is important to note that the *S. m. v-nigrum* race of the Common Eider from western Canada and Pacific regions has a more rounded forward edge of loreal feathering. The King Eider typically shows contrasting pale areas around the base of the bill, chin and anterior cheeks; the under wing-coverts are whiter with a more contrasting dark leading edge than the Common Eider, on which the axillaries show as the whitest area of the underwing (Harris *et al.* 1996). Although the adult female King Eider is generally more reddish-brown than a female Common Eider and with more scalloped (V-shaped with dark central spot) dark markings on the flanks (barred on Common Eider), the colour of the juvenile King Eider is more similar to the Common Eider, but is rusty, and less gray-brown. The pattern of dark markings is simpler and more like barring; the overall coloration also is not useful due to the variation in the female Common Eider depending on age, wear, and the subspecies involved in the sighting. It is important to note that some *S. m. borealis* are reddish or more so than female King Eiders. In species composition surveys by Canadian Wildlife Service, it was discovered that measurements overlapped in length of the immature Common and King Eider in wing-chord, and complete discrimination was possible only by additionally measuring the diagonal across the secondaries, this measurement being shorter on King Eiders.

The female Spectacled Eider (*Somateria fischeri*) shows a large, very pale patch around the eye; dark lores that contrast with the pale eye-patch, chin, and throat; the back shows more obvious regular barring; the bill has a saddle of feathers across the top. The males are completely different looking. Common and King Eiders should not pose any identification issues.

## Occurrence and Documentation

The Common Eider is an accidental vagrant to coastal British Columbia and is accidental in the central interior (Toochin *et al.* 2013, see Table 1). All provincial records for which the subspecies has been identified, including the single inland record, are placed into the western arctic subspecies *S. m. v-nigra*, which is highly distinctive and is often known as the “Pacific Eider” (Toochin *et al.* 2013, see Table 1). Although this is the expected subspecies to occur in the province, inland records elsewhere in central Canada of both *S. m. borealis* (which breeds in the eastern arctic of Canada) and *S. m. sedentarius* (which occurs in Hudson Bay) (Mlodinow 1999) suggest that either of these subspecies could potentially occur in the interior of the province, particularly in areas of northeastern British Columbia that are east of the Rocky Mountains. *S. m. borealis* has also occurred as a vagrant in coastal northern Alaska (Mlodinow 1999), indicating that the subspecies could potentially occur west into the North Pacific with migratory groups of *S. m. v-nigra*. In addition to the six accepted records for the province, a number of additional sight records have been rejected due to a lack of available details as well as a history of misidentifications in this species. Misidentifications are often attributable to female scoters, particularly White-winged Scoters (*Melanitta fusca*) which share the long, sloping bill and forehead profile of female Common Eiders. The paler buffy-brown colouration, bold dark barring, and lack of white wing patches should serve to distinguish female Common Eiders from female White-winged Scoters under good viewing conditions. Another record that pertains to a female “eider” (either Common or King) from Crofton, Vancouver Island on 15 December 1990 (Siddle 1991, Mlodinow 1999) is also excluded, as the individual was not identified to species. The first record of the species for the province was an immature female collected by A. Peake at Port Hardy on northern Vancouver Island in October 1934 (Brooks 1942). A subsequent specimen from Masset on Queen Charlotte Islands in December 1945, which would have represented the second provincial record (Munro and Cowan 1947), was later identified as a female King Eider (*Somateria spectabilis*) (Campbell *et al.* 1990). The species was not recorded in the province again until October 1949, when an adult female was collected “6 miles east of Prince George” in the central interior by L. Jobin (Jobin 1952). This record is particularly remarkable in that it is the only record of any species of Eider in the interior of the province. Incredibly, the author states that he observed a group of five Eiders at Alkali Lake in the Chilcotin region in the fall of 1950, but was unable to collect a voucher specimen due to the thin ice that covered most of the lake (Jobin 1952). Although the species of Eider was not specifically mentioned in the article, it is likely that these birds were Common Eiders due to the mention of the observation within the article that is otherwise devoted to the Common Eider, and that this species is the most prevalent Eider in Europe, and simply referred to as “Eider” until relatively recently; Nonetheless, as no additional information is available for review, this unusual record must be excluded from the account of the species in the province. Most other records of Common Eider in British Columbia have been single day occurrences in

marine waters of the coast, including both Vancouver Island (Port Renfrew) and Queen Charlotte Islands (Skidegate Inlet, Rose Spit) (Toochin 2012b, Toochin *et al.* 2013, see Table 1). The most widely observed individual, by far, was a male that spent nearly 16 months along the Vancouver waterfront between November 1996 and April 1998 (Toochin 1997, Wright 1997, Plath 2000). This bird arrived at the location in immature plumage (Figures 1-4), but over the course of its stay, moulted into full adult plumage (Figure 5). It was seen by hundreds of birders during its long stay, often associating closely with large wintering and migratory flocks of sea ducks (especially Scoters) that inhabited the area. The bird ranged widely, and was seen as far north as West Vancouver, and as far south as Iona Island, which covers a linear distance of more than 15 km. With the exception of this individual, records of Common Eider in British Columbia have occurred primarily in either spring (April-May) or late fall (Oct-Nov). There is but a single summer record (July) from Rose Spit on the Queen Charlotte Islands. Although the Common Eider is still an extremely rare bird in British Columbia, observers should look for it.

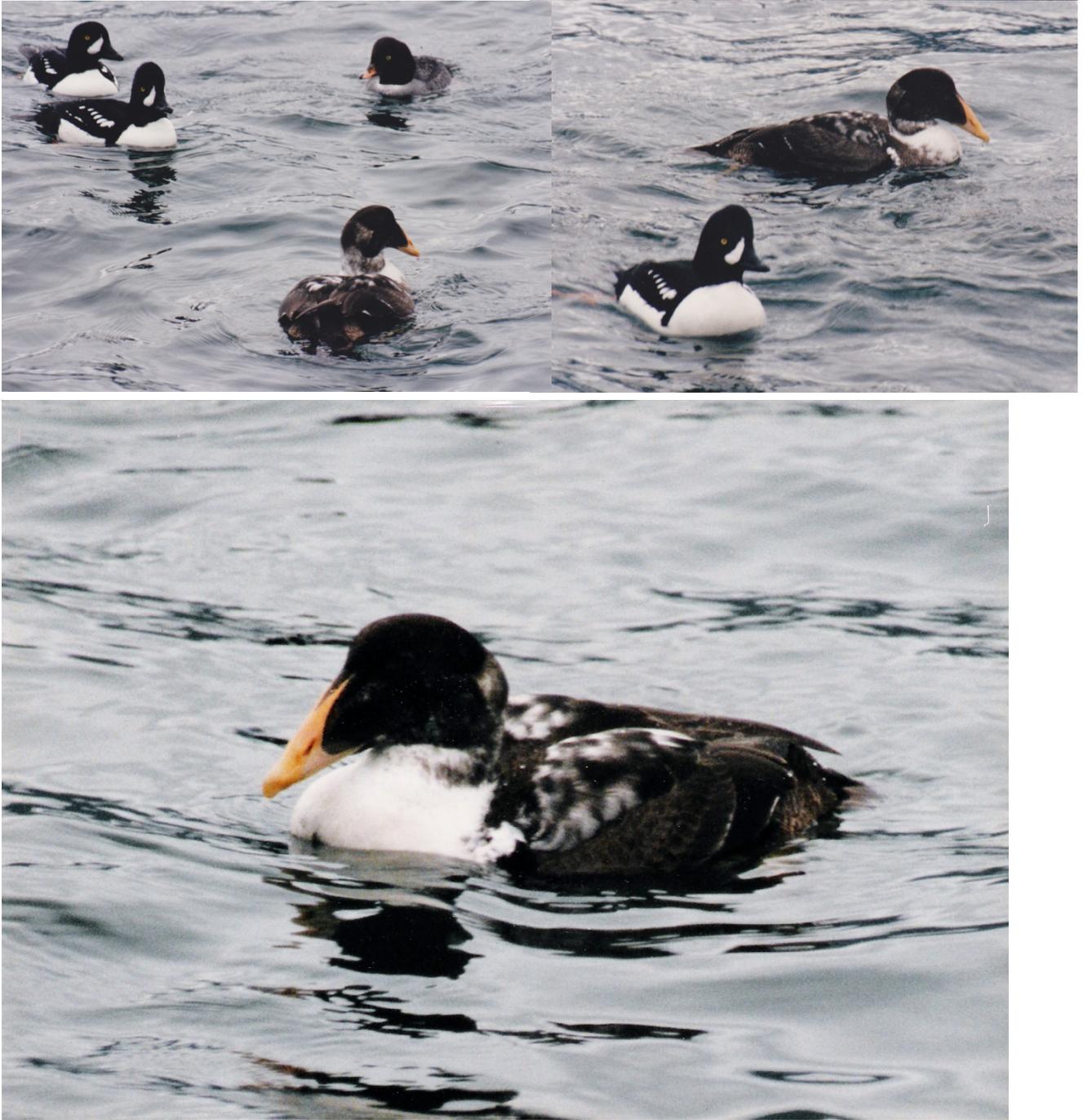


Figure 1, 2 & 3: Record #5: Common Eider immature male off Brocton Pt., Stanley Park, Vancouver on January 2, 1997. Photos © Evelyn Whiteside.



Figure 4: Record #5: Common Eider immature male off Kitsilano Beach, Vancouver on January 12, 1997. Note the white chest, large orange bill and large overall body size. Photo © Evelyn Whiteside.



Figure 5: Record #5: Common Eider adult male in English Bay, Vancouver on December 29, 1997. Photo © Laurie Savard. [Same bird as above images only now a full adult male].

**Table 1: Records of Common Eider for British Columbia:**

- 1.(1) immature female October 26-27, 1934: (specimen: MVZ 99537) Hardy Bay, Port Hardy (Munro and Cowan 1947)
- 2.(1) male October 31, 1949: Leo Jobin (specimen: NMC 47595) 6 miles east of Prince George (Jobin 1952)
- 3.(1) adult female April 6, 1996: Gavin Bieber: off Botanical Beach, Port Renfrew (Toochin *et al.* 2013b)
- 4.(1) adult female May 13, 1996: Peter Hamel: Skidegate Inlet, QCI (Toochin 1997a, Toochin *et al.* 2013a)
- 5.(1) immature to adult male November 11, 1996- April 6, 1998: KW, RTo, TB, mobs (photo) West Vancouver – Iona Island South Jetty Tip (Toochin 1997, Wright 1997, Toochin 2012a)
- 6.(1) adult male July 12, 2001: Judith King and Steven King: Rose Spit, QCI (Toochin *et al.* 2013b)
- 7.(1) adult female August 16, 2007: Roger Taylor: Shirley (Toochin 2012b)
- 8.(1) adult female October 28, 2014: Peter Hamel: on Ferry at Dogshead Shoal near Oval Bank Buoy (P. Hamel pers. comm.)

Hypothetical Records:

- 1.(1) adult September 8, 2004: unknown observer: Columbia Beach (Toochin *et al.* 2013b)

- 2.(1) adult female August 8, 2007: Neil Robins: Columbia Beach in front of the Pebbles Beach Condos (Toochin *et al.* 2013b)
- 3.(1) adult male February 25, 2008: *fide Guy Monty*: Little Qualicum Estuary, Qualicum (Toochin *et al.* 2013b)
- 4.(1) adult female December 27, 2010: Jon Carter: Clover Point, Victoria (Toochin *et al.* 2013b)

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