The Status and Occurrence of Smew (*Mergellus albellus*) in British Columbia.
By Rick Toochin and Jamie Fenneman.

Introduction and Distribution

The Smew (*Mergellus albellus*) breeds across northern and temperate regions of Eurasia from Scandinavia east across Russia to northeastern Siberia, including the Kamchatka Peninsula (Jonsson 1992, Brazil 2009). It winters throughout much of Europe, including the United Kingdom and Ireland, as well as in scattered locations throughout southwestern Asia (east to the Caspian Sea; rare farther east) (Jonsson 1992, Mullarney *et al*. 2007). A separate population winters in eastern Asia: including Japan, the Korean Peninsula, and in eastern and southern China (Brazil 2009). Populations are generally large throughout its extensive range, although it is locally susceptible to hunting pressure, habitat degradation, and coastal oil pollution so that the overall population trend appears to be decreasing slightly (IUCN 2014). Populations in Europe declined during the 19th and 20th centuries due to large-scale habitat loss (particularly the removal of mature snags and trees which it required for nesting) (IUCN 2014). The current global population is currently estimated at c. 130,000 mature individuals (IUCN 2014). It is a rare, but regular vagrant in the Aleutian Islands of Alaska, and is casual elsewhere in the Bering Sea (e.g., Pribilofs) (Roberson 1980, West 2008). It is also casual south along the Pacific coast of North America and throughout in eastern North America. Vagrant Smews have been documented in south-coastal Alaska as far east as Kodiak Island and Cordova as well as along the Pacific coast of North America south to California (West 2008, Hamilton *et al*. 2007). There are three accepted records of Smew for Washington, Oregon, and California (Hamilton et al. 2007, OFO 2011, Tietz and McCaskie 2014, WBRC 2011). The Smew is an accidental winter visitor to British Columbia with six Provincial records (Toochin *et al*. 2013a, see Table 1). Unlike in B.C., records farther south have often been from inland locations such as Oregon's Willamette Valley and Klamath Basin, and California's Central Valley (OFO 2011, Hamilton *et al*. 2007). Occurrences of the species in the Pacific states have all occurred during the December-March period, which is consistent with observations in British Columbia (which have occurred between November and March) (Toochin *et al*. 2013a, see Table 1). This suggests that this species occurs primarily during the winter months along the Pacific coast. The only inland record from northwestern North America is a male that returned to southwest Alberta for two consecutive springs in 2007 and 2008.

Identification and Similar Species

The identification of the Smew is covered in most standard North American field guides. The adult male Smew is a spectacular looking duck, and is one of North America's most sought after species of waterfowl. In size the Smew is 38-44cm in length and has a wing span of 56-69cm (Mullarney and Zetterstrom 2009).

The adult male is identified by its black and white plumage, unique amongst North American waterfowl. On adult males the crown is mostly white with a large bushy crest (Dunn and Alderfer 2011). There is a black spot around the eye which is also black (Jonsson 1992). The bill is small and black, but serrated on the inside like other Mergansers (Mullarney and Zetterstrom 2009). There is a thin black line on the nape that separates the crest from the white nape (Jonsson 1992). The rest of the face, throat and breast are white (Mullarney and Zetterstrom 2009). There is a thin black line on the side of the neck that runs from the folded wing down the side (Dunn and Alderfer 2011). On sitting birds, the folded wing is white with a black thin border, with black on the mantle, and black primaries (Mullarney and Zetterstrom 2009). The sides are gray with white undertail coverts and a dark tail (Dunn and Alderfer 2011). Adult male birds go into eclipse plumage from July to early November (Larsson 1992, Mullarney and Zetterstrom 2009). The top of the crest on the crown is white with the rest of the head brownish (Larsson 1992). There is a black spot around the dark eye (Mullarney and Zetterstrom 2009). The throat is white and is sharply defined where it meets the brown on the face and neck (Mullarney and Zetterstrom 2009). The chest is white, but the rest of the body is gray with a thin white line on the back, and on the lower edge of the folded wing (Larsson 1992). In flight, the upper wing of the adult male has black primaries, a dark secondary edge with a thin white inner border and a secondary dark line (Dunn and Alderfer 2011). The shoulders are white with a dark leading edge to the wing (Mullarney and Zetterstrom 2009). The underwing is dark (Mullarney and Zetterstrom 2009). In flight, Smews are long and slender in shape, and fast and agile in flight style (Larsson 1992).

The adult females are overall, dull brown-grey with a white throat and a dark chestnut-brown forehead and crown (Mullarney and Zetterstrom 2009). The lores are blackish, becoming more brownish during the breeding season (Mullarney and Zetterstrom 2009). There is no crest on the top of the head (Larsson 1992). In flight, the upper wing is similar to that of the adult male, but the white on the shoulder is more restricted (Mullarney and Zetterstrom 2009, Dunn and Alderfer 2011).

There are no ducks in North America that look like the Smew; however male Barrow's and Common Goldeneye hybrids can fool people as they are generally not shown in field Guides and often confuse unknowing observers (J. Fenneman pers. obs.).

Occurrence and Documentation

The Smew is an accidental species in coastal British Columbia, where it is known from five records from the Vancouver area (Toochin *et al*. 2013a, see Table 1). There are additional records of this species that have been reported in other areas of the Province, but only one recent report was confirmed (Toochin *et al*. 2013a, see Table 1). The only recent substantiated

sighting is of an adult male found by Martin Williams in Masset on the Queen Charlotte Islands on December 27, 2012 (Toochin *et al*. 2013a, see Table 1). This observation was made under good conditions at close range leaving no doubt as to the identity of the bird (P. Hamel pers. comm.). With any sighting, it is very important for observers to take field notes and try to document such occurrences with photographs. Male Bufflehead (*Bucephala albeola*) and Bufflehead x goldeneye hybrids in particular are the primary identification pitfalls with this species. Bufflehead x goldeneye hybrids are known to occur sporadically in British Columbia and, in one case in the early 2000's, a male of this hybrid combination was known to frequent the waters near Comox which is an area in which a male Smew was reported but was not photographed (N. Hentze pers. comm.). This species likes to feed on fish and insect larvae (Jonsson 1992). This is a species of freshwater ponds, sloughs, lakes, estuaries, and shallow, sheltered coastal waters such as harbours, bays and lagoons, and thus any reports of this species from deep or exposed marine waters are particularly suspect (Brazil 2009). This species is occasionally kept in captivity and, as with many vagrant waterfowl, the origin of all potential vagrants must be considered suspect to some degree. Contrary to Weber and Campbell (1978), who reported the species to be rare in captivity, it is now known to be relatively frequent in collections. A December 2011 query of the International Species Information System (ISIS) listed a total of 63 individuals at 20 different zoos and other participating institutions across North America, including collections as close to British Columbia as Seattle, Washington (ISIS 2012). Similarly, Siddle (1992) reports that in the early 1990s approximately eight to ten people kept captive Smews in British Columbia and Washington, some of which were known to occasionally escape; nonetheless, it appears that at least five to six of the records pertaining to British Columbia represent genuine vagrants which are here treated as such. This is consistent with the treatment of the species elsewhere along the Pacific coast. The first record of the Smew that is considered to represent a legitimate vagrant is of an adult male that was found by Ed Moody at Lost Lagoon in Vancouver's Stanley Park and was seen by several observers during November 14-23, 1970 (Weber and Campbell 1978). This individual was observed to associate with flocks of goldeneyes which apparently used the lagoon as a night roost; the daytime whereabouts of the bird as well as the goldeneye flock with which it associated were unknown (Weber and Campbell 1978). Although Lost Lagoon has often supported exotic waterfowl species, such as Mandarin Duck (*Aix galericulata*) and Mute Swan (*Cygnus olor*), it is also a well-known location for vagrant waterfowl, particularly species that inhabit freshwater and sheltered marine waters such as Tufted Duck (J. Toochin pers. comm.). As a result, this record is considered to represent a vagrant, rather than escaped individual. The second report of Smew in British Columbia is a male that apparently returned for two consecutive winters to George C. Reifel Bird Sanctuary in Ladner, south of Vancouver, from February 28-March 21, 1974 and January 14- March 30, 1975 (Weber and Campbell 1978). During its initial stay, this bird was observed to be in immature plumage, but during its second visit it had moulted into full adult plumage (Weber and

Campbell 1978). Although the bird was initially reported to be a female, the occurrence of a male at the same location during the following winter very strongly suggests that these were indeed the same individual (Weber and Campbell 1978). The plumage of females and immature males is similar so that they could easily be confused, particularly given the limited understanding of plumages of Asian waterfowl in the 1970s (Roberson 1980). The similarity of the dates of occurrence between the two years (February 28- March 21, 1974 and January 14 – March 30, 1975) also supports the idea that these occurrences pertain to the same individual (Weber and Campbell 1978). There are several other occurrences of vagrant waterfowl returning for multiple years in British Columbia, such as an Emperor Goose at White Rock and a Falcated Duck at Tofino, so this situation is not unprecedented (Toochin *et al*. 2013a). The final report accepted here as pertaining to a vagrant Smew in British Columbia is an adult male that was observed at Sunrise Lake, Langley between December 30, 1989-February 1, 1990 (Siddle 1990, Weber 1992, Toochin 2012). A solitary male again appeared at the same lake two winters later that was presumably the same individual and was seen from February 16-23, 1992 (Siddle 1992, Dorsey 1996b, Toochin 2012, see Table 1), although Siddle (1992) suggested that this second record pertained to an escaped individual, citing third-hand here-say reports from a couple of observers that local waterfowl collectors had lost an individual bird. None of these reports were ever confirmed or substantiated (T. Plath pers. comm.). The coincidence involved with the occurrence of two separate individuals on the same otherwise nondescript lake two winters apart seems significant. More likely, these reports pertain to the same individual that was of natural origin (a suggestion supported by the wary behaviour of the bird) that returned for multiple winters to the same location. It is not unusual for vagrant birds, particularly waterfowl, to return to the same wintering area multiple years in a row. Examples of this include a Falcated Duck at Tofino (returned for three consecutive winters) and an Emperor Goose at White Rock (returned for at least four consecutive winters). Although the doubts surrounding the second Smew record at Sunrise Lake caused the Vancouver Rare Bird Records Committee to reject the record, it is felt that the record likely pertains to the same individual that was present between December 30, 1989-February 1, 1990, and it is here treated as such. There have been recent photographed occurrences of this spectacular duck from California with an adult male found at Soulsbyville between January 20-29, 2007; and, presumably the same returning bird was found at nearby Groveland between December 29 2007-February 2, 2008 (Tietz and McCaskie 2014). Observers in British Columbia should be on the lookout for this species in the future as it is possible anywhere in the Province.

Table 1: Records of Smew for British Columbia:

1.(1) adult male November 14-23, 1970: Ed Moody, RWC, KK, mobs: Lost Lagoon, Stanley Park (Campbell *et al*. 1972, Campbell *et al*. 1990)

2.(1) immature male February 28-March 21, 1974: WCW, mobs (photo) Reifel Migratory Bird Sanctuary, Ladner (Campbell *et al*. 1990)

3.(1) adult male January 14- March 30, 1975: C.J. Trefry, mobs (RBCM Photo 395) Reifel Migratory Bird Sanctuary, Ladner (Weber and Campbell 1978, Campbell *et al*. 1990)
4.(1) adult male December 30, 1989-February 1, 1990: E. Poirier, Bubsie Hopkinson, mobs (photo) Sunrise Lake, Langley (Siddle 1990, Weber 1992, Toochin 2012)
5.(1) adult male February 16-23, 1992: Carlo Giovanella, mobs (photo) Sunrise Lake, Langley (Siddle 1992, Dorsey 1996b, Toochin 2012)
6.(1) adult male December 27, 2012: Martin Williams: Masset, QCI (P. Hamel pers. comm.)

Hypothetical Records:
1.(1) female September 28, 1979: Ralph Fryer: Portage Inlet, the Gorge, Victoria (Toochin *et al*. 2013b)
2.(1) adult male January 16, 1986: Brian M. Kautesk: Beach Grove Lagoon, Tsawwassen (Toochin 2012)
3.(1) adult male March 27, 1987: St. Mary's Lake, Saltspring Island (Toochin *et al*. 2013b)
4.(1) adult male November 15, 2001: Pierre Geoffrey: Little River, Comox (Cecile 2002, Toochin *et al*. 2013b)
5.(1) adult male October 24, 2010: Andre LePoint: Keats Island, Plumper's Cove Park, Howe Sound (Toochin *et al*. 2013a)

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