

The Status and Occurrence of Emperor Goose (*Chen canagica*) in British Columbia.

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Introduction and Distribution

The Emperor Goose (*Chen canagica*) is largely restricted to the Bering Sea region of the North Pacific throughout the year (Schmutz *et al.* 2011). The species breeds in coastal habitats of western Alaska, including the Yukon-Kuskokwim delta, Seward Peninsula, and St. Lawrence Island, as well as along the coast of Russia from the Chukchi Peninsula south to Anadyr Bay (Schmutz *et al.* 2011). Most of the world's population winters along the Aleutian Islands and the Alaska Peninsula, regularly occurring east to Kodiak Island (Schmutz *et al.* 2011). This Bering Sea species is a rare annual vagrant found south along the Pacific coast of North America, with numerous records south to southern California (Hamilton *et al.* 2007). Most records south of Alaska are from coastal habitats, although there are also many records from inland areas that support large numbers of wintering waterfowl south of British Columbia, including California's Central Valley (Hamilton *et al.* 2007), Oregon's Willamette Valley (Pacific Flyway Council 1998), and the Klamath Basin of northern California and southern Oregon (Hamilton *et al.* 2007). The only U.S. inland record away from the Pacific states is a bird collected in November 2000 in southern Idaho (IBRC 2014). Vagrants have also occurred south along the Pacific coast of Asia to Japan as well as in Hawaii (both singles and small flocks) (Schmutz *et al.* 2011). Although this species experienced population declines between the 1960s and 1980s, recent surveys suggest that populations have stabilized or even increased slightly over 1980s levels (Schmutz *et al.* 2011). Recent surveys at fall staging areas in Alaska, where most the world's Emperor Geese stage, have suggested a population of ~79,000 – 80,000 birds with an annual population increase of ~0.4% (Mallek and Dau 2009). The IUCN status as "near threatened" likely reflects the historic declines coupled with the relatively low population, restricted distribution, and sensitivity to the effects of climate change (IUCN 2013).

Identification and Similar Species

The identification of the Emperor Goose is covered in all standard North American field guides. The following identification criteria are taken from Schmutz *et al.* (2011).

The Emperor Goose is a medium sized, short-necked, stocky goose with gray plumage subtly barred with black and white from the chest to the undertail coverts and on the back and folded wings. The tail is white and sharply contrasts with the dark body and uppertail coverts in all plumages. The average length of the males and females is 65–70 cm. The adults have a white head and hindneck with a black chin and throat. The head is often stained orange-red; these contrast markedly with the dark fore neck. The feet and legs are orange. The juvenile Emperor

Goose is wholly darkish with a scaled back, becoming more adult-like by the first winter, but usually shows dark flecking on the head with dull yellow legs.

The Emperor Goose is a distinct looking species and doesn't present any great identification difficulties to observers. There are a couple of similar looking goose species that should be ruled out if an Emperor Goose is encountered. The blue-morph Snow Goose (*Chen caerulescens*) is similar in overall size, but has a white head, chin and fore neck and chin. The body and breast and upper back are dark with no barring. The undertail coverts are pale white and are not barred. The wing beats are relatively rapid for a goose. Another similar looking species is the dark-morph Ross's Goose (*Chen rossii*) which is smaller and stockier, and has white belly and undertail coverts, and a darker hindneck imparting a white-faced appearance.

Occurrence and Documentation

The Emperor Goose is a very rare, but somewhat regular, vagrant along the entire coast of British Columbia (Toochin *et al.* 2013, Please see Table 1). Seventy-one records of this species are currently accepted from the province, only two of which are not from coastal areas (Toochin *et al.* 2013, Please see Table 1). The Emperor Goose was first reported from British Columbia in November 1894 when a specimen was taken at Chemainus on southeastern Vancouver Island (Fannin 1895). This bird was purchased by J. Fannin at a market and subsequently donated to the collections of the provincial museum. Note that several authors (e.g., Munro and Cowan 1947, Campbell *et al.* 1990) suggest that the specimen may have been taken in December of 1894; however, Fannin (1895) specifically reports the date of collection as November 20, 1894. During the first half of the 20th century, the Emperor Goose was regularly reported from Queen Charlotte Islands, and the frequency at which the species was reported (12 of 19 records from Queen Charlotte Islands are from before 1950) suggests that it may have become more scarce as a vagrant in this region over the past half century (Toochin *et al.* 2013, Please see Table 1). For example, Munro and Cowan (1947) state that the species was reported at Masset every winter between 1940 and 1945, which is in addition to records from Masset in 1936 and 1947. Additional records of the species on Queen Charlotte Islands between 1900 and 1950 at Tlell, Queen Charlotte City, and Port Clements, often including small flocks, suggest that during this period the species was a regular, albeit rare, occurrence on the islands (M. Hearne Pers. Comm.). Although it has occurred on Queen Charlotte Islands on seven occasions since 1950, including occasional small flocks (e.g., six at Sandspit in 1993), it is now a considerable rarity on the islands (M. Hearne Pers. Comm.). The remaining coastal records of Emperor Goose in British Columbia are from the Lower Mainland (12 records) and along the shorelines and islets of Vancouver Island (26 records), particularly in the Victoria/Sooke area (11 records) (Toochin *et al.* 2013, Please see Table 1). Although many occurrences are of individuals seen on only one or two days, a number of birds have remained at, or near, their initial location for

extended periods. An individual that returned for four consecutive winters to the White Rock waterfront, south of Vancouver between January 1968 and February 1971 was particularly noteworthy, as was an individual that returned to the Victoria area for two consecutive winters in the early 1990s; and a bird that spent 143 days at Ladner between November 1977 and April 1978 (Campbell *et al.* 1990). Although a small number of fall migrants have appeared on the south coast in October or have lingered into May, most Emperor Geese in coastal British Columbia occur between mid-November and late April (Toochin *et al.* 2013, Please see Table 1). Peak occurrence is between mid- December and mid-February, with a secondary peak in early March that likely refers to northward-bound migrants from wintering areas farther south along the Pacific coast (Toochin *et al.* 2013, Please see Table 1). Curiously, although no October records existed for B.C. prior to 1998, six of seven records since 1998 have been from October; it is unclear why there has been such a noticeable shift in the occurrence of this species in the fall in coastal parts of the province in recent years (Toochin *et al.* 2013, Please see Table 1). There are two summer records for coastal areas of the province (Toochin *et al.* 2013, Please see Table 1). The first of these was a single bird that was observed on a number of occasions between June and August of 1998 around the mouth of the Fraser River (Toochin *et al.* 2013, Please see Table 1). Although first detected in Ladner, the individual moved north to West Vancouver for a period before being last reported on the Sunshine Coast (Shepard 1998, 1999). The second summer record is of a bird seen at Skonun Point, near Masset, on Queen Charlotte Islands on June 6, 2011 (M. Hearne Pers. Comm.). The Emperor Goose has been recorded only twice in the interior of the province. The first interior record is of an individual that was observed with a flock of Canada Geese at Westbank in the Okanagan Valley in December 24, 1979 (Cannings *et al.* 1987). This is presumably the same individual that was observed seven months later across the lake at Kelowna on July 21, 1980 (Cannings *et al.* 1987). Although Cannings *et al.* (1987) treated these records as pertaining to a potential escapee, citing the unusual summer date as evidence of its potentially unnatural origins, subsequent summer records elsewhere along the west coast of North America (e.g., coastal B.C., Washington) indicate that occasional individuals can occur in summer far south of the breeding grounds. A report of a hybrid Emperor x Canada Goose at Kelowna in February 1981 (Cannings *et al.* 1987), seven months after the latest observation of this Emperor Goose, may be evidence that the bird bred with one of the local Canada Geese during its stay. The only other record from the interior of the province is of an individual that was on the north shore of Shuswap Lake from April 21-28, 1995 (Bowling 1995). This individual had been banded in Alaska, firmly establishing it as a legitimate vagrant (Bowling 1995). With the exception of the two interior records, both of which were from large inland lakes, records of Emperor Goose in British Columbia have all been from marine waters or upland habitats (agricultural fields, playing fields, etc.) immediately adjacent to the shoreline. This species often occurs alone, although individuals have also been observed in the company of other geese such as Canada Geese, Brant, Greater White-fronted

Geese, and Snow Geese. Most records in the province are of single birds, although pairs and small flocks are occasionally reported. A flock of nine birds at Port Clements in 1948 is the largest group reported in the province, while a group of six birds at Estevan Point off western Vancouver Island in December 1930 is the largest group recorded on the south coast (Toochin *et al.* 2013, Please see Table 1). Almost all birds recorded in the province have been in adult plumage; however, the juvenile plumage is lost by late fall or early winter (Hamilton *et al.* 2007), so many apparent adults may have actually been older immatures.

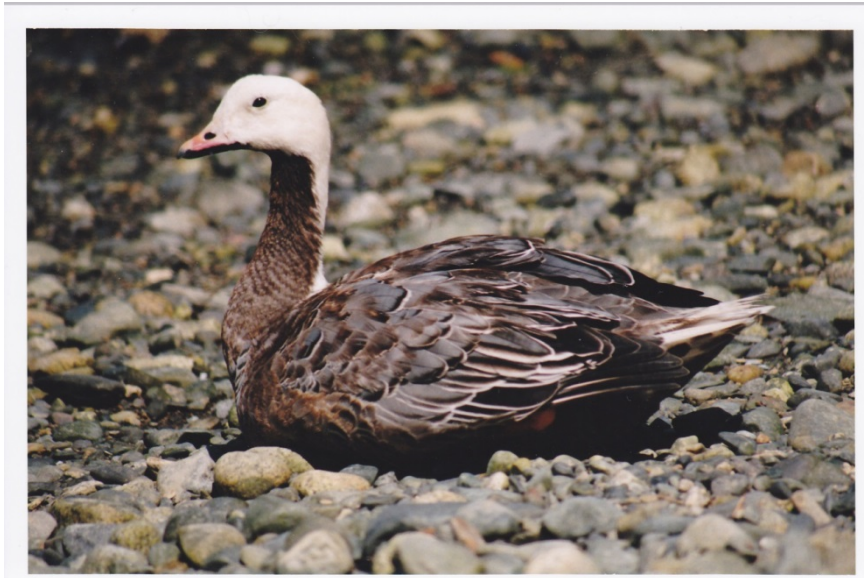


Figure 1: Record # 62: Emperor Goose at Porteau Cove, West Vancouver on August 6, 1998.
Photo © Laurie Savard.

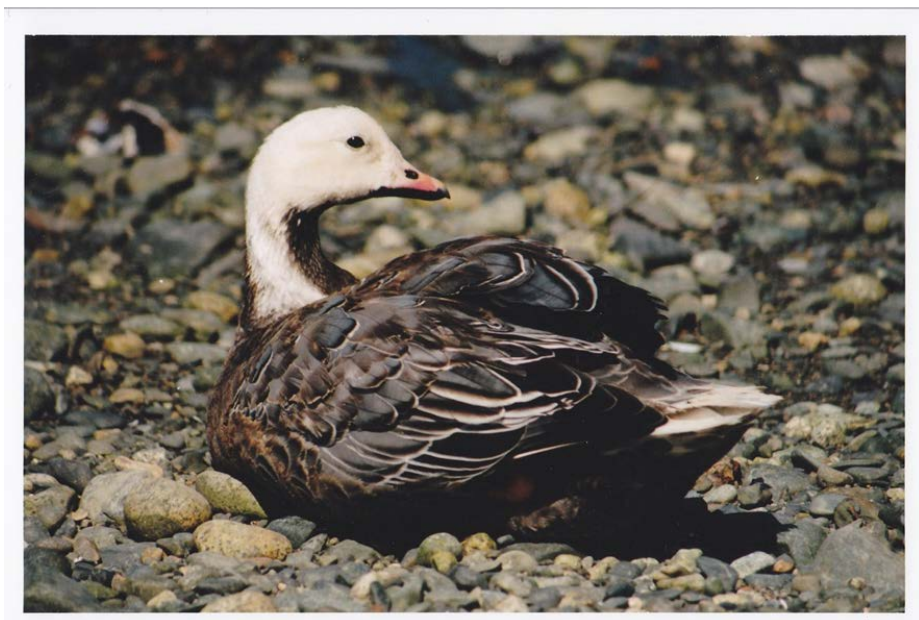


Figure 2: Record # 62: Emperor Goose at Porteau Cove, West Vancouver on August 6, 1998.
Photo © Laurie Savard.

Table 1: Records of Emperor Goose for British Columbia:

- 1.(1) adult male November 20, 1894: (RBCM 1584) Chemanius (Fannin 1895)
- 2.(1) unknown age December 1912: Kenneth Racey (specimen: UBC 3344) Cape Scott, Vancouver Island (Munro and Cowan 1947)
- 3.(several unknown ages) 1920's: *fide Margo Hearne*: Queen Charlotte City, QCI (M. Hearne Pers. Comm.)
- 4.(2) adult / immature November, 1922: R.A. Cumming (immature collected: identified by K. Racey) Mouth of Fraser River (Cumming 1926)
- 5.(2) adults March 18, 1924: R.A. Cumming (collected) off Ladner with flock of Snow Geese (Cumming 1926)
- 6.(6) unknown age December 1, 1930: (specimen: RBCM 4966) Estevan Point, Vancouver Island (Campbell *et al.* 1990)
- 7.(1) unknown age December 7, 1932: Port Hardy (Campbell *et al.* 1990)
- 8.(1) adult female November 20, 1936: (specimen: RBCM 10237) Masset (Campbell *et al.* 1990)
- 9.(1) adult female April 28, 1940: (specimen RBCM 11340) Masset (Campbell *et al.* 1990)
- 10.(1+) adults winter 1940-1941: Masset (Munro and Cowan 1947)
- 11.(3) adult January 1, 1942: Tlell (Munro and Cowan 1947)
- 12.(1) adult January 3, 1942: (specimen: UBC 3345) Masset (Campbell *et al.* 1990)
- 13.(1) adult January 3, 1943: (specimen) Masset (Munro and Cowan 1947)
- 14.(1) adult female March 26, 1943: (specimen: RBCM 8993) Discovery Island, Victoria (Munro and Cowan 1947)
- 15.(1) adult April 29, 1943: Masset (Campbell *et al.* 1990)
- 16.(1+) adults winter 1943-44: Masset (Munro and Cowan 1947)
- 17.(1+) adults winter 1944-45: Masset (Munro and Cowan 1947)
- 18.(6) adults May 6, 1947: *fide Margo Hearne*: Masset (M. Hearne Pers. Comm.)
- 19.(maximum 9) adults February – March, 1948: *fide Margo Hearne*: Port Clements (M. Hearne Pers. Comm.)
- 20.(1) adult male November 1956: (specimen: PMNH 71547) Port Hardy (Campbell *et al.* 1990)
- 21.(2) adults March 3, 1965: David Stirling: Clover Point, Victoria (Stirling 1965)
- 22.(1) adult January 4- April 6, 1968: RWC, KK, mobs (photo: RBCM: 22) White Rock Pier, White Rock, Surrey (Crowell and Nehls 1968, Campbell 1968)
- 23.(2) adults February 24, 1968: Chain Islets, Victoria (Campbell *et al.* 1990)
- 24.(2) adults early March, 1968: Chas Guiget: Victoria (Crowell and Nehls 1968, Campbell *et al.* 1990) (same birds as above?)
- 25.(2) adults March 1968: Campbell River (Stirling 1972, Campbell *et al.* 1990)
- 26.(1) adult March 24- April 6, 1968: GRR, ALG, mobs: Blackie Spit, White Rock *different bird seen at same time (Toochin 2012a)
- 27.(1) adult January 12-March 16, 1969: REL, WCW, JT, mobs (photo) White Rock Pier, White Rock, Surrey (Crowell and Nehls 1969, Campbell *et al.* 1990)
- 28.(1) adult February 1- April 12, 1970: DMM, mobs (photo: RCBM: 133) White Rock Pier, White Rock, Surrey (Crowell and Nehls 1970, Campbell *et al.* 1990)
- 29.(1) adult December 26, 1970-February 5, 1971: MAS, mobs (photo: RBCM: 146) White Rock Pier, White Rock, Surrey (Toochin 2012a)

- 30.(2) unknown ages winter 1970-71: *fide Margo Hearne*: Masset (M. Hearne Pers. Comm.)
- 31.(1) adult March 8, 1971: Ralph Fryer: Esquimalt Lagoon (Hooper and Hooper 1971)
- 32.(1) adult November 19, 1977-April 10, 1978: (photo: RBCM: 546) Reifel Migratory Bird Sanctuary, Ladner (Campbell *et al.* 1990)
- 33.(1) adult February 11-12, 1978: R. Wayne Campbell (RBCM Photo 522) Chain Islets, Victoria (Hunn and Mattocks 1978, Campbell *et al.* 1990)
- 34.(1) adult December 24, 1979: Westbank (Cannings *et al.* 1987)
- 35.(1) adult July 21, 1980: Kelowna (Cannings *et al.* 1987)
- 36.(3) adults May 8-26, 1982: Cleland Island (Campbell *et al.* 1990)
- 37.(1) adult March 2, 1984: Sandspit (Fix 1984, Campbell *et al.* 1990)
- 38.(1) adult April 19, 1984: P. Griffiths, A. Duffus: Race Rocks, Metchosin (Campbell 1984, Campbell *et al.* 1990)
- 39.(1) November, 1987 – January 20, 1988: Tex Lyons: Port Hardy (Tweit 1988, Campbell *et al.* 1990)
- 40.(1) adult Dec 13, 1987 – Feb 16, 1988: Hank Van der Pol, and mobs (RBCM Photo 1197) Esquimalt Lagoon, Victoria (Tweit 1988, Campbell *et al.* 1990)
- 41.(1) unknown age December 17, 1988-January 14, 1989: Duncan (BirdSource 2011, Toochin *et al.* 2013)
- 42.(1) adult December 18, 1988: *fide Margo Hearne*: Queen Charlotte City (M. Hearne Pers. Comm.)
- 43.(1) adult December 18, 1988-January 26, 1989: *fide Margo Hearne*: Sandspit (M. Hearne Pers. Comm.)
- 44.(1) unknown age December 31, 1988: Sooke (BirdSource 2011, Toochin 2012a)
- 45.(1) adult January 20 – February 23, 1990: mobs: Saanich (Siddle 1990)
- 46.(1) adult January 20 – March 16, 1991: mobs: Saanich (Siddle 1991)
- 47.(1) adult April 2, 1992: Rick Toochin: Amphitrite Point, Ucluelet (R. Toochin pers. Comm.)
- 48.(6) adults January 29-April 10, 1993: *fide Margo Hearne*: Sandspit (M. Hearne Pers. Comm.)
- 49.(1) adult December 4, 1994-February 3, 1995: GAP, mobs (photo) Beach Grove Lagoon & Area, Tsawwassen (Davidson 1995, Plath 2000, Toochin 2012a)
- 50.(1) adult December 20, 1994: Alice Cassidy: Roberts Bank Coal Port Jetty (Plath 2000, Toochin 2012a)
- 51.(1) adult January 24-29, 1995: Joanne Dussureault, Rick Swanston (photo) Beach Grove Lagoon, Tsawwassen (Elliott and Gardner 1997, Plath 2000, Toochin 2012a)
- 52.(3) adults March 19, 1995: *fide Margo Hearne*: Sandspit (M. Hearne Pers. Comm.)
- 53.(1) adult April 21-28, 1995: (bird banded in Alaska) Shuswap Lake (Bowling 1995)
- 54.(1) adult May 15-20, 1995: S. & E. Watts, and other observers: Somenos Marsh, Duncan (Bowling 1995)
- 55.(1) unknown age December 9, 1996: *fide Don Cecile*: Courtenay (Bowling 1997)
- 56.(1) adult December 10-15, 1996: Park Warden: Lighthouse Marine Park, Pt. Roberts, Washington (Toochin 2012a)
- 57.(1) adult December 14, 1996: Don Cecile, Kelsi Johnson: Tofino (Bowling 1997)
- 58.(1) unknown age December 21-24, 1996: mobs: Parksville (Bowling 1997)
- 59.(1) unknown age December 21, 1997: R. Wayne Campbell: Chain Islets, Victoria (Bowling 1998)

- 60.(1) adult June 2, 1998: John Ireland, mobs: Reifel Migratory Bird Sanctuary, Ladner (Toochin 2012a)
- 61.(1) adult June 23, 1998: Susan & Jim Lindenberger: Brunswick Point, Ladner (Plath 2000, Toochin 2012a)
- 62.(1) adult July 19-August 6, 1998: Bonnie Plunkett, mobs (photo) Porteau Cove Provincial Park, West Vancouver (Plath 2000, Toochin 2012a)
- 63.(1) adult August 1998: Sunshine Coast (likely same bird as above) (Shepard 1999)
- 64.(1) adult October 17, 1998: Rick Toochin, Dale A. Jenson, mobs: Iona Island South Jetty, Richmond (Toochin 2012a)
- 65.(1) adult October 14, 2000: David Allinson: Rocky Point RPBO, Metchosin (Bain and Shannon 2000)
- 66.(1) adult October 12, 2003: Rick Toochin, Corina Isaac: 72nd St. and 36th Ave., Delta (Toochin 2012a)
- 67.(1) adult October 19, 2007: Rick Toochin: Sooke (Toochin 2012b)
- 68.(3) adults October 4, 2008: Rick Toochin, Louis Haviland: Botanical Beach, Port Renfrew (Toochin 2012b)
- 69.(1) immature October 19-20, 2009: Hank Tseng, mobs (photo) Steveston Dyke, Richmond (Toochin 2012a)
- 70.(1) immature October 25, 2009: Marc Sole (photo) Reifel Migratory Bird Sanctuary, Ladner (Toochin 2012a)
- 71.(1) adult June 6, 2011: *fide Margo Hearne*: Masset (M. Hearne Pers. Comm.)

Hypothetical records:

- 1.(1) unknown age December 15, 2001: Pender Island (BirdSource 2011)
- 2.(1) age unknown October 20, 2009: *fide Victoria RBA*: Victoria Golf Course, Victoria (Toochin *et al.* 2013)

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