

Status and Occurrence of Red-faced Cormorant (*Phalacrocorax urile*) in British Columbia.

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Introduction and Distribution

The Red-faced Cormorant is resident throughout the Aleutian Islands and east through the Alaska Peninsula and south coastal Alaska to the Seward Peninsula (Dunn and Alderfer 2011). It is also resident in the southern Bering Sea, including the Pribilof Islands (rarely ranging north to St. Matthew Island) (Causey 2002, Dunn and Alderfer 2011). Outside of Alaska, the species is resident in the Commander Islands and along the eastern coast of Russia's Kamchatka Peninsula, as well as through the Kurile Islands to northern Japan (Causey 2002). Vagrants have occurred in Asia, as far south as Honshu Island in Japan (Causey 2002). The world population of Red-faced Cormorant is estimated at c. 200,000 individuals, with c. 75,000 occurring in the North American (Alaskan) portion of the species' range. Population trends are not fully understood, but the species does appear to be prone to large-scale shifts in the distribution of breeding colonies in response to local oceanic conditions (Causey 2002, Davis 2005). For example, declines in Japan, the Aleutian Islands, and the Pribilofs appear to have been offset by increases in the Kurile and Commander Islands, the Kamchatka Peninsula, and south coastal Alaska (Force 2001, Causey 2002). This species is accidental in southeastern Alaska, where it is known from a single record in February 1980 at Sitka following a decade of explosive range growth (Gibson 1980, Force 2001, Davis 2005). An adult or sub-adult bird in breeding plumage at the Elway River mouth in Clallam County, Washington on May 8, 1999 (Mlodinow and Pink 2000, WBRC 2012) is the only accepted record of the species along the Pacific coast south of British Columbia. Interestingly, this record is from the southern shoreline of the Strait of Juan de Fuca, a location that has produced three accepted records and additional unconfirmed reports on the British Columbia side of the strait (Toochin *et al.* 2014, Please see Table 1). In British Columbia the Red-faced Cormorant is an accidental visitor but this status could easily change with more extensive coverage given by observers to the west coast of Vancouver Island, the north coast of British Columbia and especially the Queen Charlotte Islands (Toochin *et al.* 2014, Please see Table 1). There are no inland records of this species anywhere in northwestern North America (Causey 2002, Dunn and Alderfer 2011).

Identification and Similar Species

The Red-faced Cormorant is shown in all standard North American field guides. Treatment of this species usually shows adults in breeding or (as too referred in the following account) definitive alternate plumage. Birds observed sitting on land or close to shore on the water amongst other Cormorants should be safely identified if good views are obtained. There are less illustrations in most field guides regarding juvenile and basic plumages. It is important to

always rule out the similar looking Pelagic Cormorant when trying to identify any possible out-of-range Red-faced Cormorants. The following descriptions are taken from Causey (2002).

There is no information on the timing or sequence of pre-juvenile molt. The head is dark grayish brown. The head, neck, wings, tail, and nape are grayish brown to dark brown. The breast is a light brown colour. The bill is a grayish brown colour. The forehead is fully feathered with very small, dark brown or grayish brown feathers.

There is no information on the extent of pre-basic I molt. This probably begins soon after fledging. The head, neck, wings, tail, and nape are dark brown. The throat and breast are light brown to almost ivory coloured. The upper tail-coverts are grayish brown, almost black, with a light hair Brown border or scalloping. The forehead is fully feathered with very small, dark brown or grayish brown feathers.

There is no information on the timing or extent of pre-alternate I molt. The head, neck, wings, and tail are dark brown. The throat is grayish brown to brown in colour. The breast is dark brown or even black in colour, often retaining a light brown border. The belly is grayish brown coloured with dark brown or black patches. The black feathers are glossed with an iridescent green colour. The neck and head are variably marked by small white filo plumes, often numerous and patchy in nature. The forehead feathering is thin, resulting from the loss of feathers without replacement.

The first definitive pre-basic molt begins in the spring and is completed by the end of the second calendar year. Definitive basic plumage is retained from the fall to midwinter or early spring. The rectrices and remiges are molted continuously throughout the year. Palmer (1962) reports that the definitive basic plumage acquired in late summer or fall of the second year of life, most of it is replaced in winter or early spring (by definitive alternate), but rectrices and perhaps some others are retained until the following late summer or fall.

The colour of the feathering is black or a grayish brown, variably glossed iridescent emerald, purple, or bronze. The concealed bases of the contour feathers are grayish brown or dark brown in colour. A single crest near the forehead is often present, but is never prominent. The crown and feathered border of the gular pouch is black, glossed with an iridescent emerald colour. The head and body are black, glossed with iridescent purple. The wings and tail are black-coloured, rarely glossed iridescent purple or bronze; colour varies with the angle of light. The wing-linings are dark brown and are rarely glossed in iridescent emerald or purple colours. The forehead is bare and a rich dark scarlet colour, often with scattered small dark brown feathers. The neck will have some (often many) small white filo plumes.

Birds acquire a partial definitive pre-alternate molt but it is unknown whether this plumage is acquired in their second or third year of life (Palmer 1962). This plumage is likely acquired in the winter or in the early spring, and is likely retained until late summer or fall. It differs from definitive basic plumage because of the following features: a higher glossy shine throughout the Red-faced Cormorant's plumage, two crests with one over the forehead and the other at junction of crown and nape; the black crests are glossed with iridescent emerald. The club-shaped filoplumes are 25–40 mm long distributed along front, back, and sides of neck; most birds shed by the time they start egg-laying. There is a large white patch on lower flanks, which begins to disappear as the feathers are shed by end of the breeding season.

The Red-faced Cormorant has a black bill in adults and is a light grayish-brown colour in hatchlings. In juveniles, the lower mandible is a dull spectrum yellow (“horn”) densely mottled with grayish-brown; the upper mandible is similar, usually darker than the lower mandible. In definitive basic plumage, the lower mandible is horn-coloured; the upper mandible is also horn-coloured with the dorsal ridge a very dark grayish-brown; the tips of both bills are dark grayish-brown. The bill coloring is similar in definitive alternate, but the base of the lower bill is an ashy-blue to brownish-blue in some individuals. The mouth-lining is dull blue or gray in definitive basic plumage and sky blue in definitive alternate plumage.

The Iris is brownish in juvenile plumage and remains brown until definitive basic plumage. The iris in the pre-breeding adult is a brownish-green colour and in definitive alternate, the iris colour is yellowish-brown.

In nestlings, the gular pouch is variable in colour and can range from a grayish-brown or a mottled grayish-brown colour to almost pale flesh coloration. Juvenile birds have facial skin that is ashy-flesh colour with a flesh or salmon coloured gular pouch. By definitive basic plumage, the forehead is bare and dark scarlet in colour. The gular pouch is brick red or dark scarlet coloured. In definitive alternate, the forehead and lores are completely bare showing bright scarlet colour, usually engorged and prominent. The skin at base of upper and lower mandibles is sky or cerulean-blue and the gular pouch is bright scarlet colour bordered with spectrum yellow carunculations.

The legs and feet are dark neutral gray or grayish-black coloured in juveniles. This colour gradually darkens to a glossy black as birds mature.

In the case of distinguishing Pelagic Cormorant and other west coast species of Cormorants from Red-faced Cormorant the following descriptions from Causey (2002) succinctly describe the important differences.

Red-faced Cormorant flies in straight profile, with the neck and head outstretched, in line with the body; larger cormorants usually fly with the head lower. Most often confused with Pelagic Cormorant, but in mixed groups, Red-faced is distinguished by a brighter and more extensive red facial skin, a light-brown to dark-yellow bill (blackish or dark gray in adult Pelagic), bare forehead (feathered in Pelagic), brownish wings (blackish in Pelagic), larger size, and stockier build. Red-faced Cormorant is approximately 20–25% greater in mass than Pelagic Cormorant (Palmer 1962, Siegel-Causey 1991). At closer range, feathering at the base of the lower bill is linear in Red-faced Cormorant but triangular in Pelagic; and the bill depth at the base is greater than width in Red-faced Cormorant, but less in Pelagic Cormorant, giving it the appearance of a shorter, deeper bill. In flight, adult Red-faced and Pelagic cormorants appear similar. Immatures are nearly indistinguishable under field conditions.

Red-faced Cormorant rarely occurs with larger Double-crested (*P. auritus*) and Brandt's (*P. penicillatus*) Cormorants in the southeastern part of their range. Red-faced Cormorant is distinguished from these cormorants by reddish facial skin and (in alternate plumage) white flank-patches (very conspicuous in flight). Adults, in winter, do not have a buffy border to the throat pouch (as in Brandt's Cormorant) or an orange gular pouch (as does Double-crested Cormorant). Immatures are distinguished from congeners by their very dark-brown plumage and the impression of a much smaller, flatter head (Siegel-Causey 1988).

Occurrence and Documentation

The Red-faced Cormorant is a casual, to a very rare vagrant along the coast of British Columbia, but untangling its true status in the province from the numerous reports is a challenging undertaking. It is very similar to the common and widespread Pelagic Cormorant (*Phalacrocorax pelagicus*) and, as a result, it is often unclear as to whether a particular report pertains to a true Red-faced Cormorant or a misidentified Pelagic Cormorant. The characteristics that distinguish these two species are relatively poorly known by most observers and, even for those familiar with them, they are often difficult to observe on distant or flying individuals. Further complicating the identification of the species is the presence of the northern subspecies of Pelagic Cormorant (*P.p.pelagicus*) in northern and central coastal regions of the province (presumably ranging southward in winter) (Hobson 1997). These larger Pelagic Cormorants are intermediate in size between the southern subspecies Pelagic Cormorants (*P.p.resplendens*), which range north to southwest British Columbia, and the more northerly Red-faced Cormorant. This subspecies could potentially be misidentified as Red-faced Cormorant if seen in the company of members of the *resplendens* subspecies of Pelagic Cormorant. Due to the issues involved with the identification of this species in British Columbia, only records that are accompanied by photographic evidence or detailed field notes that eliminate Pelagic Cormorant are included in this treatment. The first report of Red-faced Cormorant in British

Columbia is of an immature that was collected at Departure Bay, Nanaimo in 1910. Although Taverner (1927) considered the record valid, subsequent re-evaluation of the specimen determined that it, in fact, was of an immature Double-crested Cormorant (*Phalacrocorax auritus*) rather than of a Red-faced Cormorant (Campbell *et al.* 1990). Another report of the species from Nanaimo in 1987, which referred to a breeding-plumaged adult seen briefly at a colony of Pelagic Cormorants at Hudson Rock Ecological Reserve, was considered hypothetical by Force (2001) due to the brevity of the sighting. Although it was made by an experienced seabird observer, and is almost certainly valid, it is similarly excluded here as the initial observer was hesitant to confirm the identification as Red-faced without a more prolonged view (Force 2001). The first confirmed record of the species in the province is of a breeding plumaged adult that was photographed near Masset on Queen Charlotte Islands on April 10, 1988 (Campbell *et al.* 1990). The species was again reported at Masset on May 7, 1997 (Toochin *et al.* 2014), as well as two years later on June 20, 1999 at Learmouth Bank in Dixon Entrance (Force 2001). Several other records, one of which is accompanied by photographic evidence, have come from Queen Charlotte Islands, with the remaining three records from the Strait of Juan de Fuca off southwestern Vancouver Island. Additional anecdotal reports of Red-faced Cormorant from the Strait of Juan de Fuca, such as from Race Rocks in Metchosin, may also pertain to the species and suggest that the species may occur more regularly in that area than the current records indicate. Reports of the species on the coast of the province away from the Strait of Juan de Fuca and Queen Charlotte Islands, such as those from the Strait of Georgia, have not been properly documented and, as a result, are excluded in this treatment. Most records of Red-faced Cormorant in British Columbia have been during the spring or early summer (mid-April to mid-June), although there are two records of birds during the winter months (December, February). All observations have been made on marine waters, generally within a kilometre of shore, and have been made along both exposed as well as more sheltered coastlines; several observations have been made on deeper waters far from shore (e.g., Strait of Juan de Fuca 5-6 miles south of Victoria; Learmouth Bank in Dixon Entrance). All accepted records have been of single birds, although a report from Hecate Strait on June 8, 1988, which is in all likelihood a valid record but was published by the observer as unconfirmed, referred to a group of three individuals together (Force 2001). Most records of the species have been of birds that were observed on a single day, although two records from Queen Charlotte Islands refer to birds that stayed for five and eight days. Birds have often been observed alone, but also regularly associate with other cormorant species. All confirmed observations have been of adult birds, most of which have been in breeding plumage, although immature birds may be overlooked along the coast of British Columbia due to their close similarity to immature Pelagic Cormorants.

Table 1: Records of Red-faced Cormorants for British Columbia:

- 1.(1) adult breeding plumage April 10-14, 1988: Peter Hamel, mobs (RBCM Photo 1246) Masset Sound, off Haida, QCI (Campbell *et al.* 1990)
- 2.(1) adult breeding plumage April 14, 1988: R. MacIntosh: off Campbell River (Campbell *et al.* 1990)
- 3.(1) adult breeding plumage May 7, 1997: Oakley Dyer, Betsy Williams: with 6 Pelagic Cormorants at Skonum Point, Masset (Toochin *et al.* 2014)
- 4.(1) adult breeding plumage June 20, 1999: Michael Force: Dixon Entrance, 6 miles north west of Learmonth Banks, QCI (Shepard 1999, Force 2001)
- 5.(1) adult breeding plumage Feb 26, 2007: Peter Hamel: the Queen of Prince Rupert, in Halibut Bight, just north of Skidegate (Toochin *et al.* 2014)
- 6.(1) adult breeding plumage May 31, 2008: Rick Toochin, Louis Haviland: Botanical Beach, Port Renfrew (Cecile 2008, Toochin 2012)
- 7.(1) near adult June 6, 2009: Rick Toochin, Louis Haviland: Shirley (Toochin 2012)
- 8.(1) adult breeding plumage April 25 – May 2, 2011: Peter Hamel, Margo Hearne (photo) Alliford Bay, Sandspit, QCI (P. Hamel Pers. Comm.)
- 9.(1) adult winter plumage December 23, 2013: Rick Toochin, Peter Hamel, Martin Williams (photo) Yakuta Bay, QCI (R. Toochin Pers. Comm.)

Hypothetical Records:

- 1.(1) adult breeding plumage June 1987: Michael Force: Hudson Rocks Ecological Reserve, Nanaimo [1 bird in a PECO Colony] (Force 2001)
- 2.(3) adult breeding plumage June 8, 1988: Michael Force: Hecate Strait, QCI [seen as flyby from a boat] (Force 2001)
- 3.(1) adult breeding plumage January 14, 2001: Neil Robins: breakwater at French Creek (Toochin *et al.* 2014)
- 4.(1) ad br pl December 14, 2003: Scott Atkinson: flew by MV Coho Ferry, 6 miles s. of Victoria (Toochin *et al.* 2014)
- 5.(1) adult breeding plumage April 3, 2005: *fide David Allinson*: off Dallas Road just west of Clover Point, Victoria (Toochin *et al.* 2014)

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