

Status and Occurrence of Brown Booby (*Sula leucogaster*) in British Columbia.

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Introduction and Distribution

The Brown Booby (*Sula leucogaster*) is a large species of seabird that has a significant worldwide distribution between the latitudes 30°N, 30°S, to about 34°S in the central Pacific (Schreiber and Norton 2002). This species has large breeding colonies found throughout the Caribbean Sea, the Atlantic Ocean, Pacific Ocean, the Indian Oceans, the Red Sea, and the seas north of Australia (Schreiber and Norton 2002).

In North America, there are 2 subspecies of Brown Booby that regularly occur with one found on the Atlantic Coast and the other along the Pacific Coast (Schreiber and Norton 2002). Along the east coast of North America, the subspecies (*S. l. nesiotetes*) occurs as a casually occurring nonbreeding species to Florida, Texas, Louisiana, Bermuda, rarely north to New York and Nova Scotia (Schreiber and Norton 2002). This subspecies is found in the Caribbean Ocean south along the coasts of Central and South America (Schreiber and Norton 2002).

Along the west coast of North America, the subspecies (*S. l. brewsteri*) occurs regularly as a rare, but somewhat regular species, off the coast of southern California (Hamilton *et al.* 2007). These are nonbreeding birds from breeding areas in Mexico that regularly move north, especially in the fall (Hamilton *et al.* 2007). There are over 80 accepted records by the California Bird Records Committee (Hamilton *et al.* 2007, Tietz and McCaskie 2014). On the Pacific Coast just south of California, the Brown Booby breeds in the Gulf of Mexico, on islands from Consag Rock and George Island, south to San Ignacio Farallon, Ildefonso Island; offshore of Mexico in the Pacific Ocean on San Benedicto Island and Revillagigedo Island group, Malpelo Island, Clipperton Island, Tres Marias Island, and Isabela Island (Schreiber and Norton 2002). North of California, the Brown Booby is an accidental species, but has been increasing in the past 7 years particularly during El Nino years. In Oregon, there are 4 accepted records by the Oregon Bird Records Committee (OFO 2012). In Washington State, the Brown Booby is also an accidental species with only 6 accepted records by the Washington Bird Records Committee (Wahl *et al.* 2005, WRBC 2014). In British Columbia, the Brown Booby is a recent addition to the Provincial checklist with just over 6 records occurring since 2009 (Toochin *et al.* 2014, see Table 1). The Brown Booby has even been found in Alaska where it is an accidental species with only a couple of recent State records (Gibson *et al.* 2015).

Identification and Similar Species

The identification of the Brown Booby is covered in all standard North American field guides. This species is fairly large measuring 76 cm (30 inches) in length and a wingspan measuring 145

cm (57 inches) (Dunn and Alderfer 2011). There are four other Booby species that have or could potentially occur in British Columbia. These include Masked Booby (*Sula dactylatra*) with one sight record for British Columbia, Nazca Booby (*Sula granti*) with one unpublished photo record for British Columbia, Blue-footed Booby (*Sula nebouxii*) with one sight record and photo record for British Columbia, and Red-footed Booby (*Sula sula*) which has not been recorded in British Columbia (Toochin *et al.* 2014, see Table 1). It is recommended that observers read Dunn and Alderfer (2011) or Sibley (2003) for a more in depth look at separating these species. The identification of these other Booby species is out of the scope of this article and only the identification of the Brown Booby will be covered here.

The adult male Brown Booby has a large triangular bill that is yellow-green (Dunn and Alderfer 2011). At the base of the bill is a blue facial skin that extends around the eye and down around the chin. The eyes are yellowish (Dunn and Alderfer 2011). The head and neck is whitish on males found off Western Mexico and is of the subspecies (*S. l. brewsteri*) (Dunn and Alderfer 2011). The lower neck, back upper wings, rump and tail are dark brown (Sibley 2003). The lower chest is also dark brown and with the breast, belly and undertail coverts gleaming white (Sibley 2003). The legs and feet are bright yellow (Sibley 2003). In flight the wingbeats are deep with long glides (Sibley 2003). The wings are broad, long and pointed at the primary tips (Sibley 2003). The underside of the wings has white axillaries that extend partially up the wing (Sibley 2003). The primaries are dark brown as is the leading and trailing edge of the underside of the wings (Sibley 2003).

The adult female is basically the same looking as the male, but has a brighter yellow bill and yellow facial skin (Dunn and Alderfer 2011).

Sub-adult birds show white on the belly and a sharp line of contrast between the dark neck and white breast (Dunn and Alderfer 2011). Otherwise these birds look similar in facial pattern to the adult females (Dunn and Alderfer 2011).

Juvenile birds are completely dark brown all over and are a dirty-brownish white on the belly and the underwing is pale, not gleaming white (Sibley 2003). The bill and facial skin are greyish (Lewington *et al.* 1992). The feet are drab yellow (Dunn and Alderfer 2011).

The Brown Booby likes warm waters to feed in and can be found both close and far offshore. This species will sit in trees, on navigational towers, channel markers and weather buoys. This species feeds on small fish by performing a shallow, low plunge-dive (Sibley 2003).

Occurrence and Documentation

In British Columbia, the Brown Booby is an accidental species with 7 Provincial records (Toochin *et al.* 2014, see Table 1). All records come from ocean areas, often very close to the coastline. The first published record for British Columbia was an adult bird found and photographed by Gary Krause whereby the bird landed on a fishing boat off the north end of the Queen Charlotte Islands in Dixon Entrance on October 20, 2008 (Morgan *et al.* 2009). Upon further review of the co-ordinates the skipper provided in the report, it appears this bird was actually in Alaskan waters when it first came on board the vessel (P. Hamel Pers. Comm.). Careful analysis of ocean charts clearly shows these co-ordinates as being just across the A-B Dixon Line and that Google Maps is slightly off the mark (P. Hamel Pers. Comm.). It is possible that the co-ordinates were improperly entered into the written account and therefore this record has been left in (Toochin *et al.* 2014, see Table 1). This individual Brown Booby was photographed and properly documented (Morgan *et al.* 2009). The second record was found by two independent parties birding in the same general region. The author found a bird sitting on the mast of a sailing boat as the ship cruised by the Sheringham Lighthouse heading towards Victoria on the morning of August 29, 2009 (R. Toochin Pers. Obs.). Later on the same day Mike and Sharon Toochin found the bird likely near the same sailboat off nearby Tower Point (Toochin *et al.* 2014, see Table 1). The third Provincial record was of a bird photographed from the northwestern part of Hecate Strait off the Queen Charlotte Islands August 23-24, 2013, by Steve Fitzpatrick (Toochin *et al.* 2014, see Table 1). The fourth record for British Columbia was found on September 4, 2013, by Mike and Sharon Toochin from a cruise ship and was photographed 20 NM west off south Nootka Island (Toochin *et al.* 2014, see Table 1). The fifth Provincial record was a bird found and photographed by Robbie Fisher on November 12, 2013 as it landed on board a fishing vessel off Ucluelet and stayed until it left the boat near Port Renfrew the next day (Toochin *et al.* 2014, see Table 1). The sixth Provincial record, and a new species for the Vancouver area, was found and photographed by Tom Forge on a fishing vessel on September 14, 2014, at the mouth of south Arm of Fraser River, north of Sandheads, off Richmond (Toochin *et al.* 2014, see Table 1). The seventh Provincial record was found by Christopher Stevens on a pelagic trip off Tofino on September 20, 2014, and was photographed by Michael Ashbee (M. Ashbee Pers. Comm.). The recent sudden explosion of sightings is likely in part due to the warmer water that has recently been coming north each year on a much more frequent basis (M. Meredith Pers. Comm.). The rise in El Nino, or warm water events is likely helping push these and other tropical ocean species north in search of food prey which are known to also move north during these large scale ocean events (Hamilton *et al.* 2007). As a result of El Nino, in the fall of 2015 there were 4 more photographed records of the Brown Booby in British Columbian waters (See Table 1). The rise in records is also in part to the better communication network that is available to people with access to the internet. In the past, fisherman working offshore would likely have not bothered reporting these types of sightings, but today with the internet it is so much easier to

find and distribute the information. Furthermore, there are also more observers looking along the outer coast and it seems everyone has a digital camera now to document rarities. The occurrence of the Brown Booby as a fall species to British Columbia mirrors the pattern found in California, where nonbreeding birds move northward from Mexico with July through November as the peak time of occurrence (Hamilton *et al.* 2007). It should be noted that in southern California, this species occurs throughout the year, so observers in British Columbia should keep an eye open for this species along the coast at other seasons (Hamilton *et al.* 2007). It seems highly likely that there will be more observations of the Brown Booby in British Columbia in the future. With climate change and the temperature of the world's oceans continually warming up, observers should watch for this elegant visitor when near the coast as it will happen again.



Figures 1 & 2: Record #7: Brown Booby off Tofino on September 20, 2014.
Photos © Mike Ashbee.



Figures 3 & 4: Record #9: Brown Booby immature off East Sooke on October 11, 2015.
Photos © Cathy Carlson.



Figure 5: Record #10: Brown Booby landed on boat off Victoria Harbour and road ship to Campbell Rover before departing on October 18, 2015. Photo © The Some Family.

Table 1: Records of Brown Booby for British Columbia:

- 1.(1) adult female October 20, 2008: Gary Krause, mobs (photo) 12 miles south of the A-B Line Dixon Entrance (Morgan *et al.* 2009)
- 2.(1) adult August 29, 2009: Rick Toochin & Mike & Sharon Toochin, mobs: Sheringham Point & Tower Point, Witty's Lagoon Park, Metchosin (Charlesworth 2010a, Toochin *et al.* 2014)
- (1) adult August 31, 2009: Rick Toochin: Otter Point, Sooke (Toochin *et al.* 2014)
- (1) adult September 1, 2009: *fide Louis Haviland*: sitting on buoy off Whiffin Spit, Sooke (Toochin *et al.* 2014)
- 3.(1) adult August 23-24, 2013: Steve Fitzpatrick (photo) NW. Hecate Strait, off QCI (Toochin *et al.* 2014)
- 4.(1) adult September 4, 2013: Mike and Sharon Toochin, mobs (photo) 20NM west off south of Nootka Island (Toochin *et al.* 2014)
- 5.(1) adult November 12-13, 2013: Robbie Heggelund (photo) caught a ride on a commercial fishing vessel off Ucluelet at the Nitinat outflow, North-east of Port Renfrew (R. Cannings Pers. Comm.)
- 6.(1) adult September 14, 2014: Tom Forge (photo) mouth of south Arm of Fraser River, north of Sandheads, Richmond (R. Cannings Pers. Comm.)
- 7.(1) adult September 20, 2014: Christopher Stevens, mobs (photo) off Tofino (M. Ashbee Pers. Comm.)
- 8.(1) adult August 28, 2015: Derek Kyostia (photo) in Knight Inlet (50 39.854°N, 126 06.694°W)
- 9.(1) juvenile October 11, 2015: Cathy Carlson (photo) off Beechy Head, East Sooke (C. Carlson Pers. Comm.)
- (1) juvenile October 12, 2015: Jeremy Gatten (photo) off Silver Spring, East Sooke (M. Hafting Pers. Comm.)

- 10.(1) adult 2nd year October 18, 2015: *fide* Peter Hamel (photo) landed on fishing boat off Victoria Harbour and road ship to Campbell River (P. Hamel Pers. Comm.)
- 11.(1) adult female October 20, 2015: Alicia Amerson (photo) west of Bamfield [48°47.08 N, 125° 20.62 W] (M. Hafting Pers. Comm.)

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