

Status and Occurrence of Hawaiian Petrel (*Pterodroma sandwichensis*) in British Columbia.

By Rick Toochin. Submitted: April 15, 2017.

Introduction and Distribution

The Hawaiian Petrel (*Pterodroma sandwichensis*) is a seabird that is an Endangered Species that breeds on Hawaiian Islands (Simons and Hodges 1998). This species is in the deep ocean Pterodroma family of seabirds also called “gadfly” petrels (Onley and Scofield 2007). Breeding extends from March to October. Current breeding population estimates from known nest sites on the islands of Maui and Hawai‘i range from 450 to 650 pairs (Simons and Hodges 1998). Total population estimates, based on observations of birds at sea and birds flying inland on Kaua‘i Island, range from several thousand to 34,000 birds (Coulter 1984). New research employing microwave telemetry shows that the birds travel as far as Alaska and Japan during two-week-long feeding trips. Away from breeding grounds, occurs primarily in equatorial waters of the eastern tropical Pacific, generally between 20°N and 10°S (Pitman 1986). This species is usually encountered as solitary birds that are not actively feeding (Simons and Hodges 1998). Feeding most often noted when birds join mixed-species flocks feeding on live prey (Pitman and Ballance 1997). In spring, found to 25°N (King 1970); in July and August to 50°N in southern Gulf of Alaska (Bourne 1965, Bourne and Dixon 1975). Formerly lumped with Galapagos Petrel (*Pterodroma phaeopygia*) and was called Dark-rumped Petrel, until it was split by the A.O.U. into 2 species in 2002 (A.O.U. 2002). This decision follows research that showed the two taxa differed in vocalizations, morphology, and breeding seasons (Tomkins and Milne 1991), and biochemically (Nunn *et al.* 2000).

The very similar Galapagos Petrel (*Pterodroma phaeopygia*), nests on 5 islands within that archipelago, with an estimated breeding population of 35,000 pairs (Coulter 1984). This species is listed as critically endangered on the IUCN Red List of Threatened Species. These 2 species are almost impossible to separate in the field and are often later identified by good quality photographs (Lehman 2016). In recent years, it appears that birds that have been positively identified to species in North American waters have all been Hawaiian Petrels (Lehman 2016). Any that haven’t, are assigned to the classification Hawaiian/ Galapagos Petrel (*Pterodroma sandwichensis/ phaeopygia*) (Lehman 2016).

Along the west coast of North America, the Hawaiian Petrel is a casually occurring species that appears to have increased in records mostly due to pelagic trips carried out on deep ocean Cruise Ship tours (Lehman 2016). Records have been found in North American waters in the spring between late March and early June, and in the fall between mid-July and early September (Lehman 2016). In California, this species is an uncommon visitor with 30 accepted records by the California Bird Records Committee (Hamilton *et al.* 2007, Tietz and McCaskie 2017). There are also 36 accepted records of birds not identified to species, but rather classified

under the category Hawaiian/ Galapagos Petrel (*Pterodroma sandwichensis/ phaeopygia*) (Hamilton *et al.* 2007, Tietz and McCaskie 2017). In Oregon, this species is very rare with 7 accepted records of the Hawaiian Petrel by the Oregon Bird Records Committee (OFO 2016). There are also 2 accepted records of birds not identified to species, and classified under Hawaiian/ Galapagos Petrel (*Pterodroma sandwichensis/ phaeopygia*) (OFO 2016). In Washington State, this species is currently listed as accidental, as there are only 2 accepted records by the Washington Bird Records Committee (WBRC 2016). In British Columbia, the Hawaiian Petrel is an accidental species with only a handful of very recently discovered provincial records (Lehman 2016). The Hawaiian Petrel is listed as casual in the waters off Japan where they have been recorded on a few occasions (Brazil 2009)

Identification and Similar Species

The identification of the Hawaiian Petrel is complicated due to its similarity to the closely related Galapagos Petrel and is not well covered in most standard North American Field Guides (Force *et al.* 2007). The Hawaiian Petrel is a mid-sized petrel species measuring 43 cm in length, with a wingspan of 97-98 cm, and weighing 448 grams (Onley and Scofield 2007). The identification issues of these 2 species are complex and hard to work out in the field (Pyle *et al.* 2011). It is recommend that keen observers read Force *et al.* (2007), Onley and Scofield (2007), or Pyle *et al.* (2011), to understand the advances in knowledge that are continuing to happen in the identification between Hawaiian Petrel and Galapagos Petrels.

Occurrence and Documentation

The Hawaiian Petrel is currently listed as an accidental species in deep pelagic waters off British Columbia with only 4 provincial records (Lehman 2016). All known and published records of the Hawaiian Petrel in provincial waters have come from Cruise Ships, normally travelling well offshore in the deep pelagic zone (Lehman 2016). The records for British Columbia have come from the peak times when this species might be encountered with 2 records from the month of May and 2 records from the month July (Lehman 2016). Three have been seen over 100 km offshore, but the fourth record was found an incredibly close 27 km from land, showing the potential for this species to be encountered on a summer pelagic trip (Lehman 2016). There are 25 published records of “Dark-rumped Petrels” found during deep ocean seabird surveys well outside the EEZ of Canadian waters with the records falling between the months of June and September (Kenyon *et al.* 2009). Future records are likely to found on either deep ocean research vessels or from Cruise Ships that are conducting repositioning cruises.

Table 1: Records of of Hawaiian Petrel for British Columbia:

1.(1) adult July 11, 2013: Paul Lehman, Steve Ritt: 213 km SW of Brooks Peninsula, off northern Vancouver Island [49.23 N, 130.51 W](Lehman 2016)

- 2.(1) adult May 25, 2014: Paul Lehman, mobs: 238 km S SW of Estevan Point, Vancouver Island [47.50°N, 128.10 °W] (Lehman 2016)
- 3.(1) adult July 8, 2014: Paul Lehman, mobs: 318 km SW of Estevan Point, Vancouver Island [47.10°N, 129.15 °W] (Lehman 2016)
- 4.(1) adult May 19, 2015: Peter Candido, mobs: 27 km SW of Brooks Peninsula, Vancouver Island [49.91°N, 128.13 °W] (Lehman 2016)

Acknowledgements

I wish to thank Don Cecile for editing this manuscript.

References

- American Ornithologists' Union (A.O.U.). 2002. Forty-third supplement to the American Ornithologists' Union's Check-list of North American Birds. *Auk* 119: 897-906.
- Bourne, W. P. R. 1965. The missing petrels. *Bull. Br. Ornithol. Club* No. 85: 97-105.
- Bourne, W. R. P. and T. J. Dixon. 1975. Observations of seabirds 1970-1972. *Sea Swallow* No. 24: 65-88.
- Brazil, M. 2009. *Birds of East Asia: China, Taiwan, Korea, Japan, and Russia*. Princeton Field Guides. Princeton University Press, Princeton, New Jersey. 528pp.
- Coulter, M. C. 1984. "Seabird conservation in the Galapagos Islands., Ecuador." In *Status and conservation of the world's seabirds.*, edited by J. P. Croxal, P. G. H. Evans and R. W. Schreiber, 237-244. ICBP Tech. Publ. No. 2.
- Force, M., S. Webb, and S. N. G. Howell. 2007. Identification at sea of Hawaiian and Galapagos Petrels. *Western Birds* 38: 242–248.
- Hamilton, R. A., M. A. Patten, and R. A. Erickson. 2007. *Rare Birds of California: A work of the California rare bird record committee*. Western Field Ornithologists, Camarillo, California. 605pp.
- Kenyon, J. K., K. H. Morgan, M. D. Bentley, L. A. McFarlane Tranquilla, and K. E. Moore. 2009. *Atlas of Pelagic Seabirds off the west coast of Canada and adjacent areas*. Technical Report Series No. 499. Canadian Wildlife Service Pacific and Yukon Region, British Columbia.

- King, W. B. 1970. The trade wind zone oceanography pilot study Part VII: observations of seabirds March 1964 to June 1965. U.S. Fish Wildl. Serv. Spec. Sci. Rep. Fish. No. 586.
- Lehman, P. 2016. Pelagic Birds from Cruise Ships along the Pacific Coast: Southern California to Southeastern Alaska, 1995-2016. *North American Birds* 69(4): 316-341.
- Nunn, G. B., Flesicher, R., and Anderson, D. J. 2000. Phylogenetic relationships of Pacific *Pterodroma* petrels. Abstract at 2d Internat. Conf. on Biol. & Conservation of Albatrosses and other Petrels, 8-12 May 2000, Honolulu, HI.
- OFO. 2016. Oregon Field Ornithologists - Records Committee. [Online resource] <http://www.oregonbirds.org/index.html>. [Accessed: December 24, 2016].
- Onley, D. and P. Scofield. 2007. Albatrosses, Petrels & Shearwaters of the World. Princeton Field Guides. Princeton University Press, New Jersey. 240pp.
- Pitman, R. L. 1986. Atlas of seabird distribution and relative abundance in the eastern Tropical Pacific. La Jolla, CA: Southwest Fisheries Center.
- Pitman, R. L. and L. T. Ballance. 1997. Feeding ecology of the Dark-rumped Petrel in the eastern Pacific: two perspectives as different as night and day. *Pacific Seabirds* No. 24:21.
- Pyle, P., D. L. Webster, R. W. Baird. 2011. Notes on petrels of the Dark-rumped Petrel complex (*Pterodroma phaeopygia/sandwichensis*) in Hawaiian Waters. *North American Birds* 65(2): 364-367.
- Simons, Theodore R. and Cathleen N. Hodges. 1998. Hawaiian Petrel (*Pterodroma sandwichensis*), *The Birds of North America* (P. G. Rodewald, Ed.). Ithaca: Cornell Lab of Ornithology [Online Resource] Retrieved from the Birds of North America: <https://birdsna.org/Species-Account/bna/species/hawpet1> [Accessed: March 14, 2017].
- Tietz, J. and G. McCaskie. 2017. Update to Rare Birds of California: 1 January 2004 – 3 January 2017. [Online Resource] Retrieved from http://www.californiabirds.org/cbrc_book/update.pdf [Accessed: March 2, 2017].
- Tomkins, R. J., and B. J. Milne. 1991. Differences among Dark-rumped Petrel *Pterodroma phaeopygia* populations within the Galapagos Archipelago. *Notornis* 38: 1-35.

WBRC. 2016. Washington Bird Records Committee – Summary of Decisions. Washington Ornithological Society, Seattle, WA. [Online resource]
<http://www.wos.org/wbrcaccepteddec2016.pdf> [Accessed: December 16, 2016].