

# First Record of Ringed Storm-Petrel (*Oceanodroma hornbyi*) for North America

PETER PYLE • THE INSTITUTE FOR BIRD POPULATIONS • P.O. BOX 1346 • POINT REYES STATION, CALIFORNIA 94956 • EMAIL: ppyle@birdpop.org | GARY FRIEDRICHSEN • 1521 BUTTERMILK LANE • ARCATA, CALIFORNIA 95521 | THOMAS STAUDT • 1511 EAST HAMPTON STREET • TUCSON, ARIZONA 85719 | CORNELIA OEDEKOVEN • 8070 LA JOLLA SHORES DRIVE • PMB182 • LA JOLLA, CALIFORNIA 92037 • EMAIL: coedekoven@yahoo.com | LISA T. BALLANCE • ECOSYSTEM STUDIES PROGRAM • SOUTHWEST FISHERIES SCIENCE CENTER, NOAA FISHERIES • 8604 LA JOLLA SHORES DRIVE • LA JOLLA, CALIFORNIA 92037 • EMAIL: Lisa.Ballance@noaa.gov

## Abstract

We observed a Ringed Storm-Petrel (*Oceanodroma hornbyi*) off San Miguel Island, Channel Islands, California, on 2 August 2005, representing the first record of this South American species for North America. This paper discusses the species' distributional history and puts the discovery into an oceanographic context.

## Field Encounter

On 2 August 2005, the authors observed and photographed a Ringed (or Hornby's) Storm-Petrel (*Oceanodroma hornbyi*) 22.2 km (12.0 nautical miles [nmi]) west-southwest of the westernmost point of San Miguel Island, Channel Islands, California. This represents the first confirmed record of this South American species in the North American region as defined by the American Ornithologists' Union (A.O.U. 1998).

We recorded this storm-petrel while aboard the NOAA Ship *David Starr Jordan*, as part of the Southwest Fisheries Science Center's CSCAPE project (<http://swfsc.nmfs.noaa.gov/PRD/PROJECTS/CSCAPE/default.htm>), a five-month survey for marine mammals and birds covering waters up to 552 km (300 nmi) off the Pacific coast of North America (see additional article in this issue). At 1756 PDT on 2 August, the ship

was on a west-northwesterly course (285° true heading) at position 33.57° N, 120.40° W, over the coastal slope off the Channel Islands. The bottom depth was 1704 m, sea surface temperature was 17.03° C, and salinity was 33.58 psu. A low sea-surface-height anomaly was centered at 33° N, 120° W, marking the presence of a cold-core eddy in surrounding waters. Mean backscatter intensity was strong, indicating high ocean productivity within the eddy, while just to the west of the observation location there was a front between the boundary of the eddy and a less-productive water mass.

The Ringed Storm-Petrel was observed from the flying bridge of the vessel, which is situated approximately 10 m above the water surface. The bird flew parallel to the ship at distances of 40-80 m for approximately 2 minutes, before transecting the ship's path approximately 75 m in front of the bow and veering northward. A high marine layer was present and seas were light, affording excellent observation conditions. We observed the storm-petrel through 8x, 10x, and mounted 25x binoculars, and Oedekoven obtained 44 digital images (Figures 1-3) with a Canon 20D camera and 400mm lens. Descriptions of the storm-petrel and copies of all 44 images have been archived by the California Bird Records Committee, which has accepted the record as the first for California (Hamilton et al. 2006).

## Identification

The storm-petrel appeared similar in size to several Black Storm-Petrels (*O. melania*) observed during the afternoon. It had proportionately broad wings and a long, forked tail. No projection of feet or toes was observed beyond the tail tip (Figure 1). It flew in a continuously flapping manner within 2 m of the water surface, with deep wing beats. It maintained a horizontal aspect for

much of the observation, with occasional turns to the side. Its bill was small and black, with fused naricorns visible on the upper surface. Its plumage was distinctive, with white forehead and loreal region; distinct dusky "hood" over the crown and auriculars; grayish-brown nape becoming browner posteriorly and toward the scapular region; prominent pale brown carpal bars in the upperwing through the distal lesser, median, and proximal greater secondary coverts; blackish secondaries, primaries, and rectrices; grayish rump and uppertail coverts; white underparts with a distinct brown collar through the breast; and dark underwing coverts (Figures 1-3). These features are characteristic of Ringed Storm-Petrel and combine to rule out all other storm-petrels and other species within Procellariiformes (Harrison 1983, 1987). The primaries were in molt, with p1-p4 new or growing, p5 missing or just developing, and p6-p10 older and browner (Figures 1-3). The remainder of the plumage was worn and slightly disheveled, indicating that it may have been undergoing body molt as well.

## Discussion

Ringed Storm-Petrel is frequently observed at sea in the Humboldt Current from central Chile north to Ecuador (Murphy 1922, 1936; Mills 1968). It is thought to breed in arid regions of Peru and northern Chile (Murphy 1936, Mills 1968, Spear and Ainley, in press); recent records from Huaraz to Arequipa at 2300-3400 m elevation in the central Andes of Peru (N. Hidalgo, E. Malaga, M. Ugarte, pers. comm.) suggest breeding in this area, but thus far no colony has been located. A female collected by Spear and Ainley (in press) with a partially formed egg off Peru in late November, coupled with records on land of grounded fledglings in June and July, indicate a protracted breeding season spanning the austral fall.

During extensive surveys in the Humboldt Current, Spear and Ainley (in press) recorded over 1800 individuals between 32° S and 3° S and found higher densities to the south during the austral spring and to the north during austral fall, indicating seasonal migration to winter grounds closer to the equator. Spear and Ainley also found them more abundantly over coastal



Figure 1. Ringed Storm-Petrel, 2 August 2005, 22.2 km west-southwest of San Miguel Island, California. Note the long forked tail and distinct upperpart coloration diagnostic of this species. Images presented here have been cropped and enlarged but are otherwise unaltered from the original. Photograph by Cornelia Oedekoven, ©Protected Resources Division, Southwest Fisheries Science Center.



Figure 2. Ringed Storm-Petrel, 2 August 2005, 22.2 km west-southwest of San Miguel Island, California. Note the dark underwing coverts and distinct brown breast collar. Photograph by Cornelia Oedekoven, ©Protected Resources Division, Southwest Fisheries Science Center.

Continental Shelf waters than over pelagic waters and found increasing densities with increasing salinities >33.5 psu and decreasing sea-surface temperatures between 12° and 23° C. Overall, at-sea records are confined to waters between 33° S and 1° S (Murphy 1936); a specimen collected in July 1979 from Isla Gorgona (03° 07' N, 78° 15' W), off Columbia (Hilty and Brown 1986), is the only published record north of the equator.

The type specimen of Ringed Storm-Petrel is of an undated individual reportedly collected from "the northwest coast of America" (Gray 1853) by Rear-Admiral Sir Phipps Hornby, who had supposedly commanded the "Pacific Station on Vancouver Island" (Bent 1922). E. W. Nelson later reported sight observations of this species south of the Aleutian Islands during May and October 1887 (Bent 1922). A lack of subsequent records in the North Pacific has caused ornithologists to question both the collection locality of the type specimen and the identification of the birds reported by Nelson (Murphy 1922, A.O.U. 1998). Admiral Hornby commanded the Pacific Station in Valparaiso (rather than Vancouver) during 1847-1851, from which he returned to England in 1852, whereas his son, Geoffrey Thomas Phipps Hornby, helped settle a dispute between England and the United States at Vancouver and the San Juan Islands in 1859.

The eastern boundary current system waters of the Humboldt Current, where Ringed Storm-Petrels occur, are similar to those found off southern California, and the xeric coastline of Peru and Chile is similar in topography to that of the Channel Islands. It is possible that the individual we observed was attracted to the area of observation by similar geographic (including coastal shelf) and oceanographic conditions as those found in its indigenous range. The storm-petrel's state of plumage wear and timing of molt

was typical of other adult seabirds on a boreal breeding cycle, perhaps indicating that it had been in the Northern Hemisphere for some time. It also could have represented an adult or subadult that had strayed across the equator during the post-breeding phase of the annual cycle.

Storm-petrels and other seabirds are known to land on ships and become stranded for days or even weeks, after which they might be released in ports far from their normal

range. It is possible that the Ringed Storm-Petrel was transported to California in this manner. We suggest, however, that this and other Southern Hemisphere seabirds reported from California—including Shy Albatross (*Thalassarche cauta*), Light-mantled Albatross (*Phoebastria palpebrata*), Wandering Albatross (*Diomedea exulans*), Great-winged Petrel (*Pterodroma macroptera*), and Little Shearwater (*Puffinus assimilis*)—be treated in a consistent manner and, without evidence to the contrary, as naturally occurring vagrants.

### Acknowledgments

We thank the officers and crew of the NOAA Ship *David Starr Jordan* for accommodating us during the CSCAPE Survey, cruise Chief Scientist Karin Forney for support and information, Holly Fearnbach and Tim O'Toole for accompanying us in the observation, and Elizabeth L. Zele and Candice Hall for information on the oceanography at the observation location. Nataly Hidalgo and Mauricio Ugarte (Colección Científica del Museo de Historia Natural, Universidad San Agustín, Arequipa) and Ernesto Málaga (Reserva Nacional de Lachay) provided unpublished information on records of Ringed Storm-Petrel in Peru, and Wayne Hoffmann and Angus Wilson provided background on the type specimen. We also thank Larry Spear and David Ainley for information and reviews of the man-

uscript, and Debi Shearwater and Leslie Lieurance for posting images of the bird on <ShearwaterJourneys.com>, helping to communicate the observation.

### Literature cited

- American Ornithologists' Union [A.O.U.]. 1998. *The American Ornithologists' Union Check-list of North American Birds*. Seventh edition. American Ornithologists' Union, Washington, D. C.
- Bent, A. C. 1922. *Life Histories of North American Petrels and Pelicans and their Allies*. U. S. National Museum Bulletin 121: 1-335.
- Gray, G. R. 1853. On a new species of *Thalassidroma*. *Proceedings Zoological Society of London* 21: 62.
- Hamilton, R. A., M. A. Patten, and R. A. Erickson, eds. 2006. *Rare Birds of California: A Publication of Western Field Ornithologists and the California Bird Records Committee*. Western Field Ornithologists, Camarillo, California.
- Hilty, S. L., and W. L. Brown. 1986. *A Guide to the Birds of Columbia*. Princeton University Press, Princeton, New Jersey.
- Harrison, P. 1983. *Seabirds: An Identification Guide*. Houghton Mifflin, Boston, Massachusetts.
- . 1987. *Seabirds of the World: A Photographic Guide*. Princeton University Press, Princeton, New Jersey.
- Mills, E. L. 1968. Observations of the Ringed Storm-Petrel off the north-west coast of South America. *Condor* 70: 87-88.
- Murphy, R. C. 1922. Notes on tubinares, including records which affect the A.O.U. *Checklist*. *Auk* 39: 58-65.
- . 1936. *Oceanic Birds of South America*. Volumes 1 and 2. American Museum of Natural History, New York, New York.
- Spear, L. B., and D. G. Ainley. in press. Storm-petrels of the eastern Pacific Ocean: abundance, distribution, habitat use, and behavior. *A.O.U. Monographs*.



Figure 3. Ringed Storm-Petrel, 2 August 2005, 22.2 km west-southwest of San Miguel Island, California. Note the distinct upperwing pattern and molt of primaries, with p1-p4 new, p5 missing or growing, and p6-p10 older and worn. Photograph by Cornelia Oedekoven, ©Protected Resources Division, Southwest Fisheries Science Center.