

Overlooked first record of Leach's Storm Petrel *Oceanodroma leucorhoa* for Colombia

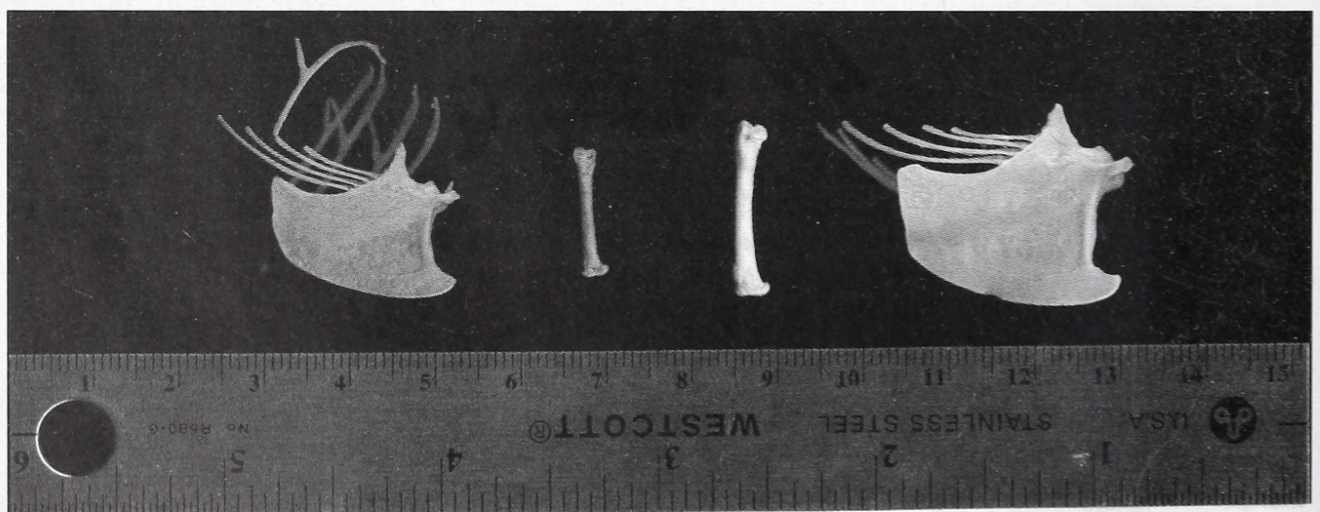
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SUMMARY.—We report the first record of Leach's Storm Petrel *Oceanodroma leucorhoa* for Colombia. The bird is a specimen, held in the Smithsonian Institution, Washington DC, collected 160 miles from the country's west coast in either late April or early May 1941. Analysis of the specimen suggests that it can be assigned to *O. l. chapmani*.

Leach's Storm Petrel *Oceanodroma leucorhoa* is a widespread and relatively well-known pelagic species, found in the Pacific Ocean with breeding populations on islands west of Mexico and Baja California. In the Pacific region, its taxonomy, whilst controversial, has been subject to considerable study (Ainley 1980, 1983, Bourne & Jehl 1982, Power & Ainley 1986, Penhallurick & Wink 2004).

Leach's Storm Petrel disperses south to equatorial regions after breeding and at this time individuals often undergo moult (Crossin 1974, Spear & Ainley 2007). There are a handful of records of *O. leucorhoa* from Costa Rica (Slud 1979) and the Galápagos (Harris 1973). Harrison (1983) stated that the 'limits of southwards dispersal [are] not known but probably S to Peru' but did not show the species occurring in South American waters in his distribution map. Pitman (1986) and Erize *et al.*'s (2006) distribution maps show the species to occur broadly across Colombian Pacific waters, Spear & Ainley (2007) list the distribution of dark-rumped *O. leucorhoa* as far south as 10°S and Hilty & Brown (1986) considered that it 'should be found' in the Colombian Pacific. However, there are no previous published Colombian records (Salaman *et al.* 2008). The larger Markham's Storm Petrel *O. markhami* and Black Storm Petrel *O. melania* have similar plumage to the dark-rumped races of *O. leu-*



O. leucorhoa
USNM 346545

O. markhami
USNM 554848

Figure 1. Skeletons of Colombian Leach's Storm Petrel *Oceanodroma leucorhoa chapmani* (USNM 346545, left) and larger Markham's Storm Petrel *O. markhami* (USNM 554848, right) (James Dean)

corhoa, posing a field identification challenge and meaning that *O. leucorhoa* may have been overlooked in the Colombian Pacific.

Project BioMap (<http://www.biomap.net>) compiled and verified 230,000 records of Colombian bird specimens from 87 collections across the world. Details of a trunk skeleton and study skin prepared from the same specimen labelled Swinhoe's Storm Petrel *O. monorhis socorroensis* and housed at the Smithsonian Institution (USNM 368053 study skin / 346545 partial skeleton) were copied into the BioMap database from the USNM database, but logged onto the database as *O. leucorhoa socorroensis*. Subsequent examination of the study skin and consultation with S. N. G. Howell lead us to consider the specimen to be of *O. l. chapmani* and not *socorroensis* as originally labelled.

The specimen is a male, collected '160 miles off the west coast of Colombia' (04°40'N, 80°08'W) by Carl Ecklund (field no. 85). The USNM catalogue shows the specimen to have been collected late April or early May 1941. The words 'U.S. Antarctic Service' appear on the label. No further details are available and no field notes were deposited at USNM. Friedman (1945) published details of birds recorded during this expedition including specimens collected by Ecklund but did not mention the Colombian *Oceanodroma*. Ecklund published several leading papers on the ecology of southern seabirds (e.g. Ecklund & Charlton 1959, Ecklund 1961) giving us no reason to doubt that the record is genuine.

The USNM *Oceanodroma* skin is somewhat bedraggled and the tail is in heavy moult. Measurements are as follows: wing chord: 150 mm, tail length (to tip of longest feather): 76 mm; tarsus length: 22.9 mm; culmen: 15.8 mm; bill depth at base 5.2 mm; bill depth at gonys 4.5 mm. These measurements all fall within the range for *O. l. chapmani* (Ainley 1980). The culmen length is larger than that known for any *O. l. socorroensis* (Ainley 1980) and other measurements are close to the maximum recorded for that subspecies, strongly suggesting that *O. l. chapmani* is the subspecies involved.

The Colombian specimen can be separated from the possible confusion species *O. monorhis* by the absence of pale markings on the primary shafts and due to the latter's deeper and shorter bill (bill depth at base 6.5–7.0 mm, depth at gonys 5 mm for *O. monorhis* measured at USNM: see Fig. 2). Compared to the other possible confusion species, *O. markhami* and *O. melania*, the Colombian specimen is smaller, has a less deeply forked tail (although tail moult in the Colombian specimen means this is not definitive) and differs in the shade of grey in its plumage (Fig. 3). Compared to *O. melania*, the Colombian specimen also has a shorter tarsus.

The USNM specimen represents the only record of which we are aware of Leach's Storm Petrel for Colombia. It is surprising that the specimen has previously been overlooked (or no attention has been drawn to it) in the considerable literature relating to the species. The collection locality, 160 miles west of Colombia, falls within the 200 nautical miles standard limit set by checklist authorities dealing with the region (Remsen *et al.* 2009) meaning that the species can be added to the Colombian list.

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References:

- Ainley, D. G. 1980. Geographic variation in Leach's Storm-Petrel. *Auk* 97: 837–853.
- Ainley, D. G. 1983. Further notes on geographic variation in Leach's Storm-Petrel. *Auk* 100: 230–233.

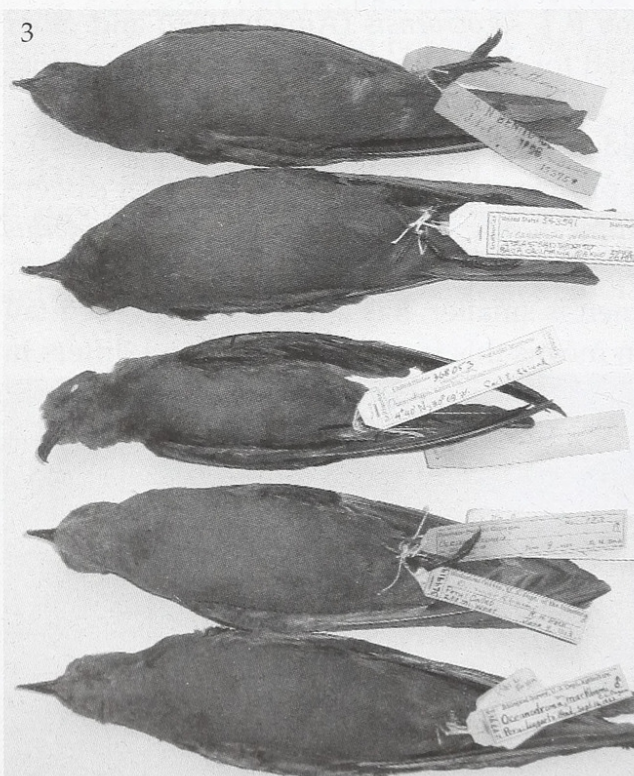
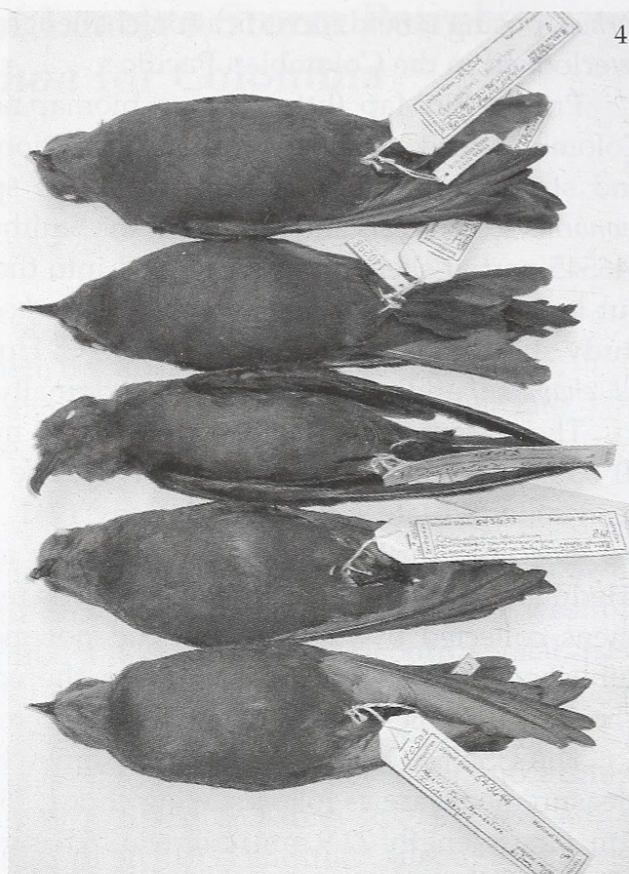


Figure 2. Leach's Storm Petrel *Oceanodroma leucorhoa chapmani* (USNM 368053; top) with two Swinhoe's Storm Petrels *O. monorhis* (USNM 552200; middle, and USNM 552201; bottom), both from ex-USSR localities in the western Pacific, showing differences in bill depth and length (James Dean)

Figure 3. Two Black Storm Petrels *Oceanodroma melania* from Isla San Benito, Baja California, Mexico (top: USNM 153958 and USNM 543591); with Colombian Leach's Storm Petrel *O. leucorhoa chapmani* specimen (centre: USNM 368053); and two Markham's Storm Petrels *O. markhami* (bottom: USNM 364914 from Peru, 200 miles west of Callao; USNM 277919 Peru, at sea off Lagarto Head) (James Dean)

Figure 4. Two Leach's Storm Petrels *Oceanodroma leucorhoa chapmani* (top: USNM 543524 and USNM 543522; both Isla San Benito, Baja California); the Colombian *O. l. chapmani* specimen (centre: USNM 368053); and the paler-bellied *O. l. socorroensis* (bottom: USNM 543675 and USNM 543644; both Isla Guadalupe, Baja California, Mexico) (James Dean)

Figure 5. Dorsal view of Colombian *Oceanodroma leucorhoa chapmani* specimen (USNM 368053) (James Dean)

- Bourne, W. R. P. & Jehl, J. R. 1982. Variation and nomenclature of Leach's Storm-Petrels. *Auk* 99: 793–797.
- Crossin, R. S. 1974. The storm petrels (Hydrobatidae). In King, W. B. (ed.) *Pelagic studies of seabirds in the central and eastern Pacific Ocean*. *Smithsonian Contrib. Zool.* 158: 154–203.
- Ecklund C. R. 1961. Distribution and life history studies of the South Polar Skua. *Bird Banding* 32: 187–223.
- Ecklund, C. R. & Charlton, F. M. 1959. Measuring the temperature of incubating penguin eggs. *Amer. Sci.* 42: 80–86.
- Erize, F., Rodriguez-Mata, J. R. & Rumboll, M. 2006. *Birds of South America: non-passerines*. Princeton Univ. Press.
- Friedmann, H. 1945. Birds of the United States Antarctic Service Expedition 1939–1941. *Proc. Amer. Phil. Soc.* 89(1): 305–313.
- Harris, M. P. 1973. The Galápagos avifauna. *Condor* 75: 265–278.
- Hilty, S. L. & Brown, W. L. 1986. *A guide to the birds of Colombia*. Princeton Univ. Press.
- Penhallurick, J. M & Wink, M. 2004. Analysis of the taxonomy and nomenclature of the Procellariiformes based on complete nucleotide sequences of the mitochondrial cytochrome-*b* gene. *Emu* 104: 125–47.
- Pitman, R. L. 1986. *Atlas of seabird distribution and relative abundance in the eastern tropical Pacific*. Southwest Fisheries Center, La Jolla, CA.
- Power, D. M. & Ainley, D. G. 1986. Seabird geographic variation: similarity among populations of Leach's Storm-Petrels. *Auk* 103: 575–585.
- Remsen, J. V., Cadena, C. D., Jaramillo, A., Nores, M., Pacheco, J. F., Robbins, M. B., Schulenberg, T. S., Stiles, F. G., Stotz, D. F. & Zimmer, K. J. 2009. A classification of the bird species of South America (version 13 January 2009). www.museum.lsu.edu/~Remsen/SACCBaseline.html.
- Salaman, P., Donegan, T. & Caro, D. 2008. Listado de avifauna Colombiana 2008. *Conserv. Colombiana* 5: 3–79.
- Slud, P. 1979. First record of Leach's Petrel in Costa Rica: a correction. *Condor* 81: 102–103.
- Spear, L. B. & Ainley, D. G. 2007. Storm-petrels of the eastern Pacific Ocean: species assembly and diversity along marine habitat gradients. *Orn. Monogr.* 62.

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