

## Second Record of the South Trinidad Petrel (*Pterodroma arminjoniana*) for North America

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ON AUGUST 20, 1978, a field party from the North Carolina State Museum of Natural History (hereafter, N.C.S.M.) collected a single dark phase South Trinidad Petrel, *Pterodroma arminjoniana*, 74 km ESE of Oregon Inlet, Dare County, North Carolina. The only previous North American record is of a hurricane-driven specimen taken near Ithaca, New York (Allen 1934), although there is another reported occurrence in the Northern Hemisphere — an individual struck the rigging of a yacht December 31, 1905, in the mid-Atlantic, at 21° 51' N, 43° 35' W (Lowe 1911).

The North Carolina bird was observed at 9:20 a.m. for approximately 20 seconds as it glided 2-5 m above a calm sea toward a chum slick put out at 35½ 35' N 74° 48' W (53968-71516 Loran C) about 20 minutes previously. Several dozen Wilson's Storm-Petrels, *Oceanites oceanicus*, had already accumulated around the slick. Unlike the scent-attracted Storm-Petrels, the larger “gadfly” petrel was apparently visually attracted to the slick, as it appeared from an upwind position. The South Trinidad Petrel banked with tail fanned and appeared to be landing just prior to its collection. However, numerous observations of Black-capped Petrels, *P. hispidata*, in similar situations, suggest that this bird may have been simply surveying the area, as we have never seen gadfly petrels feed on chum slicks. Although this observation was made within the Gulf Stream, the edge of the stream and associated tide lines were poorly defined. There were no major areas of bird or fish concentrations (a locally common situation at this time of year). Other seabirds encountered on this date in the same general area include Greater Shear-

water, *Puffinus gravis*; Audubon's Shearwaters, *P. lherminieri*; Northern Phalarope, *Lobipes lobatus*; Bridled Tern, *Sterna anaethetus*; and Black Tern, *Chlidonias niger*. A Black-capped Petrel was seen in the Gulf Stream south of Cape Hatteras on the same day (R. Rowlett, pers. comm.). Bridled Tern were particularly numerous off Cape Hatteras and Oregon Inlet.

The specimen (N.C.S.M. 6651) was a female (gonad 5 x 7 mm, with largest ova about 1 mm in diameter). It weighed 392.0 g. with little fat. Other measurements (wing cord 280 mm; tail 113 mm, exposed culmen 31.5 mm, tarsus 36.5 mm, total length 371 mm, and wing-spread 884 mm) closely approximate measurements provided by Murphy (1936). The tail and wings were completing molt, and there was some body and neck molt. All primaries were new and those outermost on each wing were still sheathed, while on the head there was a mixture of old and new feathers. Palmer (1962) has remarked that there are no molt data for this species. The stomach contained the partial skeleton of one fish and beak fragments of many squid. External parasites included Mallophaga (*Trabeculus* sp. 63, *Halipeiuses* sp. 20) and Acarina (*Freyanidae* 10). Internal parasites included unidentified progloids and a single cestod of the genus *Tetrabothrius*.

MOST LITERATURE IMPLIES that *P. arminjoniana* is a sedentary species. Murphy (1936) cited the New York (August 26, 1933) *Pterodroma arminjoniana* as a classic example of a storm-driven waif captured inside the swirl of a hurricane. The disturbance, which originated southwest of the Cape

Verde Islands approximately August 14, moved westward and northeast of the Lesser Antilles, turned and passed close to Bermuda, and crossed the United States coast near Cape Hatteras the night of August 22. It later reached Washington, D.C., and then recurved north-northeast toward the mouth of the St. Lawrence River. (This same storm left a Harcourt's Storm-Petrel, *Oceanodroma castro*, in Ottawa, a Wilson's Storm-Petrel in Malone County, New York, and numerous Leach's Storm-Petrels, *Oceanodroma leucorhoa*, scattered over the middle Atlantic states.) If the New York *Pterodroma* was carried within the “eye” of the storm, it could have been captured well within the North Atlantic. United States Weather Bureau maps for the two weeks prior to the collection of the North Carolina specimen indicated no abnormal weather systems that could account for the bird's presence.

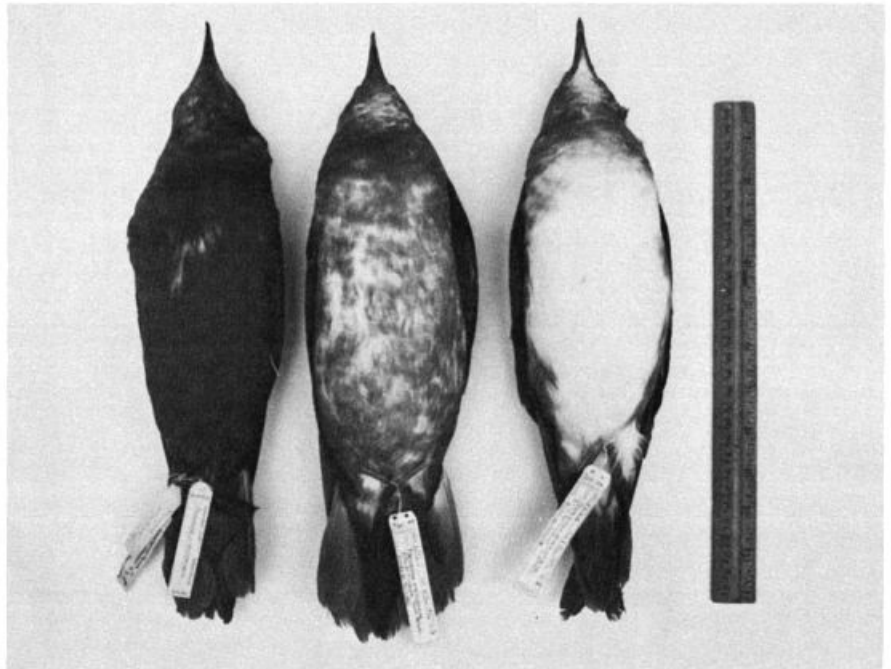
Palmer (1962) and Murphy (1936) discuss and describe variation in coloration. Individuals from the known South Atlantic nesting site, exhibit extreme variability, including a light phase with white and black feet and legs, an intermediate phase with pink and black feet and legs, and a dark phase with all black feet and legs (Lowe and Kinnear 1930). The North Carolina and New York specimen are both dark phase birds with black feet and legs.

This note will undoubtedly create additional interest in Heintzelman's controversial 1959 photographic record of a Kermadec Petrel, *Pterodroma neglecta*, at Hawk Mountain, Pennsylvania (Heintzelman 1960, 1961; Eisenmann 1961, and Palmer 1962). Although the presence of a subtropical South Pacific sea bird is difficult to explain on the basis of a North Atlantic hurricane, George Watson (pers. comm.) recently reviewed Heintzelman's film and concurs with Murphy's original identification of the bird photographed as *P. neglecta*.

SINCE THE OCCURRENCE of the South Trinidad Petrel was unexpected in the North Atlantic, it is possible that other observers have occasionally encountered this species unknowingly. When first seen the August 20, North Carolina individual was thought to be a Sooty Shearwater *Puffinus griseus*. Its

all dark breast and sooty gray dorsal and ventral surfaces showed no conspicuous field marks. The flight style was more suggestive of a shearwater, than a gadfly petrel, but this may have been owing to the low wind velocity (0-2 mph). After the bird was collected, its wings flexed open and the light areas of the underwing gave an appearance suggestive of a small dark phase jaeger (*Stercorarius*). Not until the bird was in hand were we aware that it was not a Sooty Shearwater or a jaeger. Under normal conditions the high direct, flight of jaegers would eliminate any possible confusion with this petrel. The more similar Sooty Shearwater is abundant off the Carolinas only during spring migration, from late May to early June, with extreme dates of occurrence May 13 and June 29. They do not occur at these latitudes in summer, and there are few fall records for the western Atlantic, since this species normally returns to its southern hemisphere nesting grounds via a different route. For North Carolina there are only three published reports of Sooty Shearwater during the fall migration period (August 6, 1977, September 13, 1974, and October 28, 1974), plus two aberrant reports on January 8, 1972 and March 11, 1973. None of these reports is supported by a specimen, and their identities are perhaps suspect.

**T**HE INNER EDGE of the Gulf Stream and the edge of the continental shelf in the Hatteras-Oregon Inlet area appear to provide an area of regular sea bird concentrations, at least during the warmer months. An interesting diversity (Lee and Booth, *in prep.*) and modest densities have been documented. The South Trinidad Petrel is one of several species that have recently been added to the growing list of North Carolina sea birds. During the last three years Northern Fulmar, *Fulmarus glacialis*, Manx Shearwater, *Puffinus puffinus*, Black-capped Petrel, White-faced Storm-Petrel, *Pelagodroma marina*, South Polar Skua, *Catharacta maccormicki*, Long-tailed Jaeger, *Stercorarius longicaudus*, and Arctic Tern, *Sterna paradisaea*, have all been collected from the Hatteras-Oregon Inlet region (Lee 1977; Lee and Rowlett *in press*). In addition, other species pre-



Plumage variation in the South Trinidad Petrel, *Pterodroma arminjoniana*. Dark specimen on left is 1933 New York specimen. (All specimens from U.S. Nat'l Mus.). Photo/D. S. Lee.

viously assumed to be transients are now known to be regular offshore summer or winter residents (N.C.S.M. records). Although it is pointless to discuss the possible regularity of occurrence of apparently vagrant sea birds in the area, it is obvious that the region provides favorable conditions that attract and support species of wide geographic origin. Even though time may prove the presence of the South Trinidad Petrel to be accidental in the North Atlantic, students of sea birds should be alerted to the possibility of future occurrences, since to date there have been only limited surveys of offshore avifauna in the warmer portions of western North Atlantic.

Trip participants aboard the charter boat the "Gal-O-Mine" (Captain Allen Foreman, Oregon Inlet, NC) included Pat Ashton, Ray Ashton, Micou Browne, Dave Lee, and Ron Mobley (all N.C.S.M. and/or N.C.S. Univ.). Browne and Mobley, respectively, provided tentative identification of the external and internal parasites. I would like to thank George Watson, U.S.N.M., for making various *Pterodroma* species available and for verifying identification of the bird.

#### Literature Cited

- ALLEN, A. A. 1934. A new bird for North America. *Univ. of the State of N.Y. Bull. to the Schools*. 20(13):134-135.
- EISENMANN, E. 1960. Further comments on the Hawk Mountain petrel (in part) *Linnaean News-Letter* 13(7).
- HEINTZELMAN, D. S. 1960. Further comments on the Hawk Mountain petrel (in part) *Linnaean News-Letter* 13(7).
- \_\_\_\_\_. 1961. Kermadec Petrel in Pennsylvania. *Wilson Bull.* 73(3):262-267.
- LEE, D. S. 1977. Occurrence of the Black-capped Petrel in North Carolina waters. *Chat.* 41(1):1-2.
- \_\_\_\_\_. and J. Booth, Jr. (in ms.) Seasonal distribution of offshore and pelagic birds in North Carolina waters.
- \_\_\_\_\_. and R. Rowlett. (in press) Additions to the seabird fauna of North Carolina. *Chat.*
- LOWE, P. R. 1911. A naturalist on desert islands. London, 300 pp., 32 pls., 3 maps.
- \_\_\_\_\_. and N. B. Kinnear. 1930. British Antarctic ('Terra Nova') expedition 1910. *Zoology* 4(5): Birds: 103-193.
- MURPHY, R. C. 1936. Oceanic Birds of South America. American Museum of Natural History, New York.
- PALMER, R. S. 1962. Handbook of North American Birds. Vol. I. Yale University Press. New Haven.

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