A Tahiti Petrel (*Pseudobulweria rostrata*) off Hatteras, North Carolina USA

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The Tahiti Petrel (*Pseudobulwaria rostrata*) occupies warm waters of the tropical Pacific Ocean and (although listed as IUCN Near Threatened) is the most numerous of the extant *Pseudobulweria* species (Brooke 2004, BirdLife International 2019). The genus *Pseudobulweria* is the most endangered genus of seabirds and includes three critically endangered species — Fiji Petrel (*Ps. macgillivrayi)*, Beck's Petrel (*Ps. becki*) and Mascarene Petrel (*Ps. aterrima)* (Rauzon, M.J. & Rudd, A.B. 2014). Tahiti Petrel breeds in the southwest and central Pacific and ranges from as far west as Taiwan east to waters off Middle America, and is often found in waters exceeding 25° C (Brooke 2004, Howell 2012).

Field observation

On 29 May 2018 the authors and spotter Ed Corey along with 15 pelagic participants headed out from Hatteras, NC, on a pelagic trip run by Brian Patteson, Inc. aboard the *Stormy Petrel II*. Our destination was the continental shelf edge, deeper waters beyond the shelf edge and (when reachable) the variable western edge of the Gulf Stream approximately 25-35+ miles ESE of Hatteras Inlet.

As we jogged out past the shelf break on 29 May, it became clear that conditions had changed from the previous couple of days. The wide band of blended greenish water was gone, and we found bright blue Gulf Stream water pushing 80° F (27° C) just 27 miles offshore under mostly overcast conditions.

Around 11:40 EDT in the vicinity of 34° 55.06' N, 75° 11.47' W, sea surface temperature (SST) 26.89° C, Peter Flood observed a distant petrel flying up the chum slick toward the boat from astern. The bird possessed a dark hooded-like appearance, white belly, darkish underwings, and darkish under-tail coverts. From a distance, initial thoughts on the identification of this petrel leaned towards a light morph Trindade Petrel (*Pterodroma arminjonina*) as the plumage aspect between the two species is superficially similar – particularly at a distance. However, as the petrel came in closer, we realized it was something different. It was a bit too large for Trindade Petrel, appearing as large and longer winged than two nearby Black-capped Petrels (*Pterodroma hasitata*), and the underwings were quite dark.

Tahiti Petrel, dorsal view. Offshore from Hatteras, NC 29 May 2018. Photo by Carol Hare

Our next thought was Atlantic Petrel (*Pterodroma incerta*), but it didn't look right for that species either. The petrel continued flying up the chum slick with relatively smooth, languid wing beats and at times sailed around with its wings held out straight, not looking right for a *Pterodroma*. A few of us onboard were able to snap some photos before the petrel glided away and upon review, its identification as Tahiti Petrel became apparent. It was a species we had not seen before in life, but were familiar with based on pictures and video. However, it was in the wrong ocean, so it was not on our radar initially.

We feel confident in ruling out Beck's Petrel as a candidate given the direct comparison and relative size of our petrel with nearby Black-capped Petrels. Brooke describes Beck's Petrel as a "miniature" Tahiti Petrel with wing and tail measurements being 15% smaller and other measurements as much as 25% smaller (Brooke 2004). Upon careful assessment of our photos, literature review and much discussion, we settled on Tahiti Petrel as the correct identification.

Tahiti Petrel, showing underparts. Offshore from Hatteras, NC 29 May 2018. Photo by Peter Flood

Molt as an identification key

The timing of molt in birds may be helpful in establishing age and possibly separating species (Howell 2010). Moreover, Howell (2012) noted wing molt in Tahiti Petrels in the Pacific region occurring March-October.

Tahiti Petrels breed throughout the year with apparent peaks that differ between localities. (Villard *et al.* 2006). This suggests a Tahiti Petrel may be in wing molt at any time of year. Observations of our Tahiti Petrel indicate that it was in approximate mid-primary molt at the time of our sighting. Unfortunately, with year-round breeding populations, there is little we can conclude about the age or origins of our petrel based on the observed molt timing.

Provenance of our petrel

While this individual's pathway to the North Atlantic will never be known, it is interesting to consider the possibilities. Given the current portions of its range off Middle America, it is not unreasonable to imagine a Tahiti Petrel being swept up ahead of a tropical weather system, carried over the narrow landmass of Central America, and deposited into the western Caribbean Sea. From there, it seems plausible that one could find its way to the warm Gulf Stream waters off the southeastern United States.

Alternatively, our bird may have approached North America from the east. Lambert (2004) noted what were most likely Tahiti Petrels approximately 45-110 km off the coast of southern Mozambique, in the southwest Indian Ocean, on five separate occasions during November 1987 and December 1990. More recently, and quite intriguing, was an apparent Tahiti Petrel that was photographed during a pelagic trip on 11 November 2018 off Durban, South Africa, in the southwest Indian Ocean (Allan and Perrins 2019).Is it possible that a Tahiti Petrel may have followed some warm water around the southern tip of South Africa and worked its way into the North Atlantic?

Although a few records of Tahiti Petrel have been documented in Hawaii, as far as we are aware, this is the first occurrence and photographic documentation of a Tahiti Petrel in the North Atlantic and perhaps the first sighting anywhere in the Atlantic Ocean.

Literature Cited

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