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## **SOUTH CAROLINA'S FIRST, SECOND, THIRD, AND FOURTH FEA'S PETRELS (*Pterodroma feae*): SOUTHERNMOST SIGHTINGS OFF NORTH AMERICA**

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Until recently the species called Fea's Petrel (*Pterodroma feae*) was considered to be comprised of breeding populations on both the Desertas Islands and the Cape Verde Islands of the North Atlantic. The species is being split in recognition of marked differences in breeding phenology, vocalizations, and genetics between the two breeding populations, which are separated by about 2,000 km. The new taxa are Cape Verde Petrel (*Pterodroma feae*) and Desertas Petrel (*P. deserta*). *P. deserta* breeds on Bugio Island in the Desertas, and lays eggs in July and August. *P. feae* breeds in the Cape Verde Islands and lays eggs in December and January (Howell 2012, Robb et al. 2008). The vocalizations of the two forms differ (Robb et al. 2008), increasing the likelihood that the two forms will not interbreed. Recent DNA studies have indicated that separate species status is warranted (Jesus et al. 2009).

A recent publication discusses a tracked individual overwintering off the southeastern United States (Ramírez et al. 2013). Based on these differing breeding periods, and since records in North American waters exist in spring, summer, fall, and winter, the sum of North American records may include members of both taxa. Due to the near-inseparability of these two species on the wing—except perhaps by molt timing (Shirihai et al. 2010, Howell 2012)—the cryptic species *P. feae* and *P. deserta* shall be referred to as “Fea's Petrel” in this article.

At 09:52 EST on 22 June, 2012, a pelagic birding trip I organized was 139 kilometers southeast of the Charleston Harbor entrance, at 31° 37.60' 7 N, 79° 10.337' W, the closest point of land to this location is Kiawah Island, South Carolina. We were exploring the eastern portion of a cold-core eddy, at the western edge of the Gulf Stream over the northwest corner of the Charleston Bump. The Charleston Bump is an



**Figure 1. Two views of Fea's Petrel, 22 June, 2012, at station 2 in Fig. 4.**

underwater ridge and trough feature that deflects the Gulf Stream and creates nutrient-rich upwellings which promote plankton production, producing food for fishes and cephalopods (Sedberry 2001). At the time, we had a mixed-species flock of Shearwaters (including a Sooty Shearwater), Storm-Petrels, and Black-capped Petrels (*Pterodroma hasitata*) following the boat and taking chum.

Then I spotted a small, grayish-looking *Pterodroma* petrel (Fig. 1) flying in from the north. It lacked the pale collar of a Black-capped Petrel (*P. hasitata*), and had a uniformly pale gray rump and tail. It had a stout bill—not so stout as a Black-capped Petrel, yet not nearly as thin and delicate as that of a Zino's Petrel (*P. madeira*) (Patteson and Brinkley 2004, Zino et al. 2008, Howell 2012). As the bird banked and displayed all-dark underwings with slightly paler crescents at the bases of the greater primary coverts, its identity became clear: Fea's Petrel. The petrel made a single pass over our chum slick and then faded back from the boat and away to the southwest. Despite being due east of northern Georgia, the 22 June, 2012 bird constitutes South Carolina's first documented Fea's Petrel, as the Georgia Bird Records Committee has endorsed the legally correct "closest point of land rule" in determining Georgia's pelagic birding borders.

On a 10 June, 2013 pelagic trip I organized to the same general area, we encountered two different Fea's Petrels. Like the June 22, 2012 individual, their stout, thick bills differentiated them from Zino's Petrel. The birds were distinguished by significant time and distance between the observations, as well as plumage differences. I spotted the first bird (Fig. 2) not long after 08:00, well inshore from the Gulf

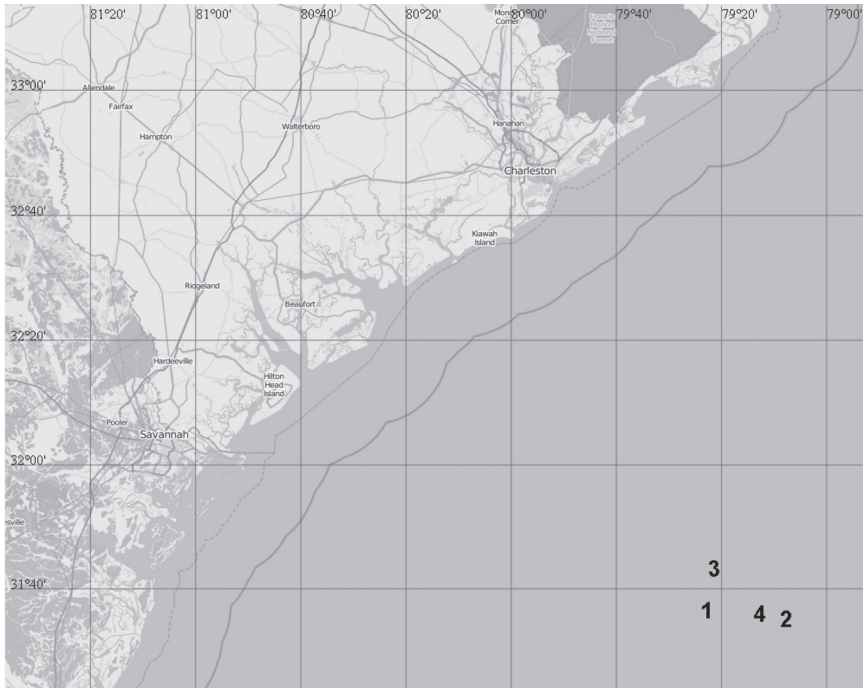


**Figure 2.** Fea's Petrel, 10 June, 2013, at station 3 in Fig. 4.



**Figure 3.** A second individual of Fea's Petrel, 10 June, 2013, at station 4 in Fig. 4.

Stream proper at  $31^{\circ} 44.983' N$ ,  $79^{\circ} 21.817' W$ . It presented a darker gray "hooded" appearance than the second bird, and was not completing outer primary molt.



**Figure 4. Locations of the four Fea's Petrels observed off South Carolina / Georgia: 1 = 9 November, 1984, 2 = 22 June, 2012, 3 = 10 June, 2013 first individual, 4 = 10 June, 2013 second individual.**

I spotted the second individual (Fig. 3) between 12:10 pm and 12:40 pm. It was over the eastern edge of a cold core eddy, adjacent to the western edge of the Gulf Stream at coordinates  $31^{\circ} 37.972' N$ ,  $79^{\circ} 13.453' W$ . It did not present a clearly “hooded” appearance, it appeared to have a paler nape, and was completing primary molt (note p10 growing in) with a less ‘crisp’ appearance than the first individual.

What appears to be South Carolina's first reported Fea's Petrel was a bird Chris Haney and Craig Faanes observed on 9 November 1984 (Haney et al. 1993). The coordinates for the 1984 bird were  $31^{\circ} 39.0' N$ ,  $79^{\circ} 24.0' W$ —also due east of Georgia but closest to South Carolina in of distance.

These four Fea's Petrel encounters constitute the southernmost sightings off North America. However, a recent study using geolocators attached to Fea's Petrels indicates that one of the tagged birds spent time wintering off Florida, and perhaps southern Georgia (Ramirez et al. 2013). This may constitute the southernmost documentation of this species off North America.

Fea's Petrel was first observed in North American waters off Hatteras, North Carolina on 24 May 1981 (Howell 2012), and has been observed annually off North Carolina since 1992 (Patteson and Brinkley 2004, Patteson et al. 2013). To date, there have been nearly 100 observations off the North Carolina Outer Banks (Patteson et al. 2013).

Waters off the state of Virginia have produced the second-highest total of Fea's Petrel sightings – including the Norfolk Canyon bird found by a Patteson and Brinkley pelagic trip on 9 September 1995 (Kain 1998), an inland bird at Kerr Reservoir on 6 September 1996 just after Hurricane Fran (Cross 1999), and multiple birds seen on NOAA AMAPPS research cruises (eBird data, T. Johnson, pers. comm.).

Two Fea's Petrels have been observed in waters off New York State. The first was observed by Pusser and Vogel on a NOAA research cruise on 14 June 2011 (unpublished). The second was observed and photographed 12 kilometers southeast of Montauk by Anthony Collerton on 19 June 2012 (Accepted by the NY State Avian Records Committee, publication pending in the 2012 NYSARC annual report).

Canada has three reports of Fea's Petrel – a July 1997 bird photographed off Nova Scotia (Hooker and Baird 1997), a 13 August 2000 bird 107 km south of the Burin Peninsula of Newfoundland (NAB 55:21), and a bird on 9 July 2007 south of the Burin Peninsula, seen well by Brennan Mulrooney and Kim Eckert on a VENT tour (NAB 61:560).

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