

SHORT NOTE

La Niña signal? Unusual inshore sightings of black petrel (*Procellaria parkinsoni*) in Santa Elena Province, Ecuador

ENZO M.R. REYES

Museo de Ballenas, Av. Gral.Enriquez Gallo 11-09, Salinas, Ecuador

GIOVANNY SUAREZ-SPIN

American Bird Conservancy

ELIZABETH A. BELL

Wildlife Management International Limited, PO Box 607, Blenheim 7240, New Zealand

The black petrel (*Procellaria parkinsoni*) is an endemic Procellariiform species from New Zealand, classified as Vulnerable by BirdLife International (2016) and Nationally Vulnerable in New Zealand (Robertson *et al.* 2013). Black petrel only breed in the subtropical zone of Great Barrier Island / Aotea and Little Barrier Island / Te Hauturu-o-Toi in the Hauraki Gulf (Marchant & Higgins 1990), with an estimated population of 2,750 breeding pairs in both colonies (Richard & Abraham 2015).

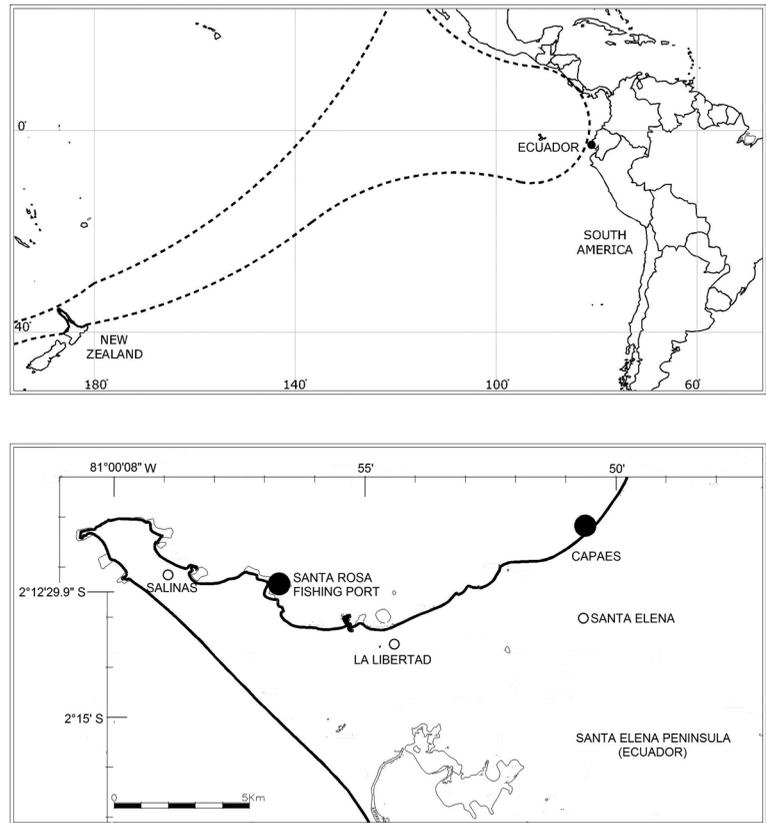
After the breeding season, black petrel migrate to the Eastern Tropical Pacific to spend the juvenile (Imber *et al.* 2003) and non-breeding periods feeding in the waters of the Equatorial front and the Humboldt Current (Fig. 1), an area characterized by high upwelling and productivity. This species is commonly reported offshore of the Ecuadorian

mainland (Haase 2011). Here we report unusual inshore sightings of black petrel in two localities of Santa Elena province, southwest Ecuador.

On 7 June 2016 during a monthly seabird census carried out by personnel of the Whale Museum, one dark tubenose bird was seen swimming on the ocean at least 50 m from the shore, close to Capaes area (2°11'15.48"S 80°50'29.90"W, Fig. 1) at 1230 h. Detailed observation with a Swarovski telescope 20x60 confirmed diagnostic features of a black petrel: all dark brown body, strong bicolored bill (yellow at base and black at the tip), bigger than a sooty shearwater. The bird appeared to be emaciated. The area was revisited later that day at 1530 h to search for the bird but it wasn't seen at sea, nor found on the beach.

On June 8 2016, at least 8 black petrel in similar condition as that recorded in Capaes were reported in Santa Rosa Fishing Port (2°12'34.43"S 80°56'57.06"W, Fig. 1). During the afternoon of 9

Fig. 1. Above: map of the black petrel distribution in the Southern Pacific Ocean. Below: map of Santa Elena Peninsula (Ecuador) showing the areas (black dots) where black petrels were found close to the shore.



June, 2 black petrel (presumably belonging to the group of 8 reported the previous day) were rescued from drowning by GSE in Santa Rosa Fishing Port area. Both birds were emaciated, light and dehydrated with no waterproofing. One of these birds had been banded (H-33487) as an adult in 2006 on Great Barrier Island / Aotea (EAB, unpublished data). This bird had been recaptured in 2013 on Great Barrier Island / Aotea as a breeding adult. The mostly blue-gray bill coloration and darker plumage of the second bird indicated that it was likely an immature bird. Morphometric measurements and moult scores of primary feathers were taken of both birds following Ginn & Melville (1983) (Table 1). On the 26 June 2016 another black petrel was seen in Capaes area (Fig. 1), this was the last observation of this species close to the shore.

Beach patrols from 12-25 June 2016 in Santa Rosa, San Pablo, Mar Bravo and Olon beaches (covering an area of 7.14 km) did not record any

Table 1. Morphometric measurements and moult score of the two black petrel found in Santa Rosa area. *Juvenile plumage.

Body parts	H-33487	Unbanded
Culmen (mm)	39.9	38.9
Tarsus (mm)	56.5	59.0
Wing chord (mm)	346	324
Right primary moult	P1-P2:5; P3:4; P4-P5:3; P6-P10:0	P1-P9:5; P10:0*
Left primary moult	P1-P2:5; P3:4; P4:3; P5:2; P6:1; P7-P10:0	P1-P8:5; P9:4; P10:0*

black petrel. Previous records of this species in the province have include 2 banded birds (Imber *et al.* 2003), 357 birds 20 km offshore south of Salinas (Haase 2011) and 52 birds (including 6 in March 2016) reported between 1986-2016 offshore of the Santa Elena (eBird 2016).

The exact cause of the unusual inshore records reported here is unknown and we have not found any carcasses to necropsy. However, based on our observation of the birds' body condition, it is possible that this could be associated with cooler than normal sea surface temperatures related to La Niña events (NOAA 2016). During La Niña events strong winds occur, causing high energetic costs to gliding seabirds when travelling or foraging (Thorne *et al.* 2016). As shown for Cory shearwater (*Calonectris borealis*), this can influence adult survival rates when birds are away from the breeding grounds (Brichetti *et al.* 2000).

As shown by the banded adult bird, we confirm that adult black petrel visit the offshore waters of Central and South America in June, proving that not only juveniles and immatures black petrel are present in Ecuadorian waters during June to November as suggested by Haase (2011). In addition, the 10 individuals reported close to the shore of Santa Elena Province is unusual if we consider that the black petrel is a mainly pelagic species in Central and South America.

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