# **BARC SUBMISSION**

# Cook's Petrel Pterodroma cookii

# Bremer Canyon, offshore Bremer Bay, WA

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# **Summary**

This submission relates to the sighting of a "cookilaria" petrel that made a single pass of the boat during a pelagic trip to the Bremer Canyon, offshore from the town of Bremer Bay on the south coast of Western Australia. Based on the general paleness of the bird, weak carpal bar, and structure, we consider this bird was a Cook's Petrel (*Pterodroma cookii*), which would likely represent a first confirmed record for Western Australian waters, as another "cookilaria" seen in the same area two years previously initially suspected to be Cook's Petrel may in fact be attributable to Pycroft's Petrel (*P. pycrofti*).

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**SUBMISSION** 

**Species:** Cook's Petrel (*Pterodroma cookii*)

Location: Continental shelf-edge waters at the Bremer Canyon, off Bremer Bay, Western

Australia.

**Date:** Friday 14<sup>th</sup> February 2020, approximately 1400hrs.

**Circumstances of sightings** 

The sighting occurred during a single-day pelagic trip to the Bremer Canyon aboard

Naturaliste Charters' boat *Dhu Force*. In the afternoon, a group of Orca (*Orcinus orca*) were

observed hunting and killing at least one Cuvier's Beaked Whale (Ziphius cavirostris), which

attracted a large number of seabirds to feed in the resultant slick. Most of the authors of this

submission were observing from the upper deck of the boat when SF called a small pale

petrel crossing the bow from left to right. JG, DM and AC subsequently picked up the bird as

it crossed the bow. It crossed the bow rapidly and continued away from the boat, but zig-

zagged several times across the slick rather than continuing directly away, allowing

somewhat more prolonged observation for a minute or two. Several observers on the bow,

including SR, also managed to see the bird, but those on the rear lower deck to our

knowledge unfortunately did not.

**Physical description** 

Refer also to photographs accompanying this submission. Initial impressions of the bird were

a small, very pale-looking petrel with very agile, zig-zagging flight.

Underparts: Initial impression was of all-white underparts, but binocular views and

photographs revealed a weak and slightly broken black carpal bar, a blackish underwing tip,

and thin black trailing edge to the underwing.

<u>Upperparts</u>: Grey upperparts – crown, hindneck, back, and uppertail similar shade of pale

grey, also extending onto inner upperwing. Darker grey "M" across upperwings, though "M"

shape rendered somewhat indistinct by reduced contrast with relatively dark grey primaries

and secondaries.

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<u>Head</u>: Pale grey on crown, extending below level of eye but not forming a collar. Prominent blackish eyepatch. Lores, chin and throat white. Presence and details of pale supercilium not determined in field views and not visible in photographs.

<u>Size and shape</u>: Fairly small bird, considerably smaller than Flesh-footed Shearwaters and Great-winged Petrels in immediate vicinity, though larger than storm-petrels.

#### **Elimination of confusion species**

<u>Barau's Petrel (Pterodroma baraui)</u> is the most regularly recorded *Pterodroma* with white underparts and greyish upperparts in these waters at that time of year, but was readily ruled out by size, the lack of a dark cap and the relatively weak carpal bar. Other extralimital larger *Pterodroma* species with white bellies and grey backs (e.g. White-necked Petrel *P. cervicalis*, Juan Fernandez Petrel *P. externa*) also ruled out by size, lack of dark cap and other plumage features.

<u>Soft-plumaged Petrel (P. mollis)</u> is a common visitor to WA waters, but primarily from May to September, and is much scarcer at the time of year of this record. This species is also readily ruled out by the predominantly white underwings – even the palest Soft-plumaged Petrels have a very extensive dark carpal bar extending to the base of the wing. Flight style and structure of the subject bird was also inconsistent with our experience of Soft-plumaged Petrel.

<u>Gould's Petrel (*P. leucoptera*)</u> is the only "cookilaria" recorded with any regularity from waters off WA (though still yet to be seen on any single-day pelagic trips). It can be ruled out by plumage features such as the paleness of the upperparts and lack of a black hood.

<u>Mottled Petrel (*P. inexpectata*)</u> can be ruled out by the lack of the diagnostic grey belly, and the weak carpal bar.

<u>Black-winged Petrel (P. nigripennis)</u> can be ruled out by the weak carpal bar (very strong carpal bar in Black-winged Petrel) and to a lesser extent, the lack of any grey collar.

<u>Pycroft's Petrel (P. pycrofti)</u> is the most difficult species to eliminate, and the previous "cookilaria" record from the Bremer Canyon is now thought more likely to be referrable to Pycroft's Petrel. However, the subject bird is more typical of Cook's Petrel than that bird, being generally paler, with a paler grey head. Key features for separation of Cook's and

Pycroft's Petrels centre primarily on head and neck pattern and structure. The subject bird shows a pale grey head contrasting prominently with a blackish eyepatch, which is typical of Cook's Petrel, whereas Pycroft's typically has a darker head and therefore a less obvious contrasting black eyepatch. Pycroft's also typically shows a darker and more prominent grey neck patch than the subject bird, and a proportionally shorter bill. Additionally, Pycroft's Petrel is shorter necked and "chestier" on average, whereas the subject bird is longer-necked. Analysis of head projection from photographs indicates that the subject bird shows a head projection typical of Cook's but towards the upper limit for Pycroft's (Fig. 1).

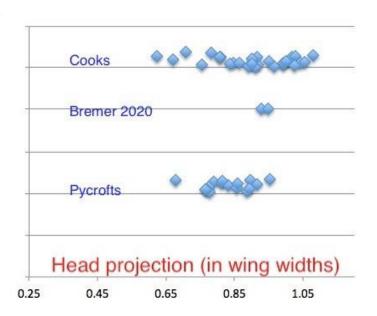


Figure 1 – Comparison of head projection of subject bird with representative Cook's and Pycroft's Petrels (courtesy Martin Cake)

Most other extralimital "cookilaria" are readily excluded by plumage features such as the lack of a dark cap and the weak dark carpal bar. De Filippi's Petrel (*P. defilippiana*) is very similar, but would be very unlikely on range, and would be expected to show a broader dark eyepatch, heavier bill and a more prominent grey neck patch.

Habitat: Pelagic waters over deep ocean canyon at edge of continental shelf.

**Previous occurrence:** This likely represents the first record of Cook's Petrel for Western Australian waters. A "cookilaria" seen in the same area two years' previously on 24<sup>th</sup> February 2018 was initially identified as Cook's Petrel, but is now considered more likely a Pycroft's Petrel. However, it should be noted that observer effort in southern WA waters in

summer has been very limited until the past 4-5 years (as an example, note the resultant increase in Barau's Petrel records from the region).

### **References**

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Menkhorst P., Rogers D., Clarke R., Davies J., Marsack P. & Franklin K. (2019) *The Australian Bird Guide* Revised Edition. CSIRO Publishing, Victoria.

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## **Acknowledgements**

We thank Martin Cake for his work analysing head projection of Cook's and Pycroft's Petrel from photographs, and comparing our bird with his dataset.

## **Images**

All images by Stewart Ford, may be displayed publicly with attribution.







