

BARC SUBMISSION

Barau's Petrel – Bremer Canyon, Western Australia, 27th February, 2020.

Nathan Piesse and Machi Yoshida

*corresponding person: master_piesse@hotmail.com

Date and time of sighting: a single Barau's Petrel *Pterodroma barau* was photographed by Nathan Piesse at the Bremer Canyon from 14.25–14.26 on the 27th February 2020. Later that day Machi Yoshida also photographed this bird from the other Naturaliste Charter's vessel (only a few km apart) at 16.42.

Description: A long and slender-winged, medium-sized *Pterodroma* with mostly white underparts with a black carpal bar, grey upperparts with a dark 'M-pattern' across the upperwings, a longish dark tail, and a darker cap.

Upperparts: The upper wings are mostly darker charcoal grey that contrast with the mid grey mantle, scapulars and innermost lesser secondary coverts. The tail and uppertail coverts are dark grey/black with limited or no contrast.

Underparts: The underwings are mostly white, framed by a well-defined black trailing edge, mostly dark grey primaries (with minor bases and very thin white tongues extending into the 'hand') and with a substantial black carpal bar that runs from the base of the primaries to the carpal joint and then diagonally back towards the body. The undertail coverts are clean white and the undertail feathers are dark charcoal grey.

Head: A noticeably darker grey cap, extending below the eye, and kinking sharply upwards behind the eye. This dark cap merges with the paler grey nape and neck sides. The throat and chin are white, as are the lores and lower forehead and this contrasts markedly with the darker grey cap.

Bare parts: moderate-sized, all dark bill. Feet and legs not apparent in photos.

Distinguishing similar species:

White-necked Petrel *Pterodroma cervicalis*: The lack of a white hind neck and the substantially thicker black carpal bar (particularly the long and thick diagonal carpal bar extending towards the body) and thicker dark trailing edge to the underwing of the submitted bird all help to rule out White-necked Petrel.

Vanuatu Petrel *Pterodroma occulta*: Vanuatu Petrel is marginally smaller and slighter than White-necked Petrel and is thus also very difficult to separate structurally from Barau's Petrel. However, it is distinguished herein for the same reasons as White-necked Petrel—principally the lack of a white hind collar, and the longer, thicker carpal bar and the broader dark trailing edge to the underwing of the submitted bird.

Juan Fernandez Petrel *Pterodroma externa*: again, structurally quite similar but perhaps slightly broader winged. However, distinctive plumage differences include the much-reduced black carpal bar and thinner black trailing edge that would be expected for a Juan Fernandez Petrel.

All similar mid-large *Pterodroma* with white underparts, grey to greyish-brown upperparts and darker 'M pattern' across the upperwing, can be separated by substantial underwing differences; this includes various Atlantic and Pacific taxa that are not dealt with in detail here as they would also be very unlikely confusion species in this part of the world (but they are all distinctive in their own right).

All the smaller cookilaria petrels can be separated on structural jizz alone, even from these photographs. They are all substantially smaller with shorter, broader wings with more rounded hands. The thick black carpal bar also eliminates many of the cookilaria with reduced carpal ticks (e.g. Cook's and Stejneger's Petrel) whilst other regular Australian cookilaria such as Gould's and Black-winged Petrel may both be distinguished by differing head/neck patterns (Gould's is distinctively 'hooded', whilst Black-winged typically lacks the dark cap and has a more pronounced grey half collar). The latter also has notably thicker black carpal bars and trailing edge to the underwings.

Observer's experience: Machi has now seen several Barau's Petrels at the Bremer Canyon but this was a new bird for Nathan.

References:

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- PINET, P., JAQUEMET, S., PINAUD, D., WEIMERSKIRCH, H., PHILLIPS, R.A., & LE CORRE, M. (2011). Migration, wintering distribution and habitat use of an endangered tropical seabird, Barau's Petrel *Pterodroma barau*. Marine Ecology Progress Series 423: 291-302.

Figures 1–7. Barau's Petrel *Pterodroma barau* at the Bremer Canyon, Western Australia on the 27th February 2020 (Nathan Piesse). 2.25 pm.

Figures 8–9. Barau's Petrel *Pterodroma barau* at the Bremer Canyon, Western Australia on the 27th February 2020 (Machi Yoshida). 4.42 pm and several km from first sighting.



Fig. 1 (Nathan Piesse)



Fig. 2 (Nathan Piesse)



Fig. 3 (Nathan Piesse)



Fig. 4 (Nathan Piesse)



Fig. 5 (Nathan Piesse)



Fig. 6 (Nathan Piesse)



Fig. 7 (Nathan Piesse)



Figs. 8 & 9 (Machi Yoshida)