BARC SUBMISSION

Cory's Shearwater *Calonectris borealis* – Bremer Canyon (-34.7586,119.6161), 19th January 2019

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Submission note: we believe this sighting constitutes the first record of Cory's Shearwater for Australia.

Taxonomic notes: Cory's Shearwater *Calonectris borealis* is a relatively recent split from Scopoli's Shearwater *Calonectris diomedea* as accepted by the IOC (version 9.2; following Robb & Mullarney 2008, Howell 2012, and Sangster et al. 2012) and the HBW-Birdlife list of birds (version 3.0). However, other taxonomies such as Clements (2019) still consider these two taxa as subspecies (*C. d. borealis* and *C. d. diomedea*, respectively). All three of these major taxonomies accept Cape Verde Shearwater *Calonectris edwardsii* as a distinct species.

Circumstances of sighting: the six of us making this submission were all in Bremer Bay to twitch the Sabine's Gull *Xema sabini* that had been present at the small harbour there for 4 days. Whilst there, we all decided to hop aboard one of the Naturaliste Charters Orca tours that are run daily to the Bremer Canyon. Shortly after arriving at the Bremer Canyon (at the shelf break), we spotted the Cory's Shearwater cross in front of the boat, turn back on itself once, before passing along the side of the boat and disappearing off the stern. The whole sighting lasted less than 35 seconds—the excitement of which was captured on mobile phone video! Note that the Cory's Shearwater is not identifiable in the video. The viewing was in strong sunlight, including strong reflective light from the sea surface that has somewhat blown out the darker feathering in the underwing primaries. A second *Calonectris* shearwater was spotted 30 minutes later, but this turned out to be a Streaked Shearwater *Calonectris leucomelas*, also a very rare bird on the southern coast of Australia!

Description:

- An extremely large shearwater with a thick, dark-tipped yellow bill, pale whitish underparts and dull beige to brown upperparts.
- The yellow bill was notably robust and looked to have a wholly dark tip, however in the photos you can just make out the very tip is paler and thus the dark area is actually a subterminal band.
- The upperparts were a pale grey-brown with a contrast between the coffee/beige-coloured mantle, rump, uppertail, neck, and head and the darker brown wings and rectrices. The mantle, rump and uppertail coverts had paler tips giving a somewhat scaly appearance.
- The undertail coverts, belly, breast, flanks and throat were clean white.
- The underwings were mostly white with a thick dark trailing edge, very thin, irregular dark leading edge, a few scattered, darker secondary coverts and dark under primaries.
- The under primaries are dark (albeit slightly washed out in the bright sun or reflected light off the sea) without any obvious white tongues 'bleeding' into the darker 'hand'.
- There are darker spots on the greater under primary coverts at the base of the two outermost primaries (P9 and P10).
- This bird was much larger than the nearby Flesh-footed Shearwaters with quite a lazy, laboured flight and slow, deep wing beats (consistent with several of the observer's previous experience with this species).

Distinguishing similar species:

Streaked Shearwater *Calonectris leucomelas* is smaller-headed and slimmer (less bulky) bird. It is readily distinguished from Cory's Shearwater by its pale, streaked head, paler, horn-coloured, narrower bill, scalier upperparts and dark underwing primary coverts.

Cape Verde Shearwater *Calonectris edwardsii* is also quite easily eliminated by its finer, duller/darker bill, notably lacking the yellow colour and strongly contrasting dark subterminal band that were clearly obvious on the bird observed at the Bremer Canyon. Cape Verde Shearwater is also a notably slimmer species with narrower wings and a smaller head that may look 'capped'.

Distinguishing the very similar Scopoli's Shearwater *Calonectris diomedea* is much tougher. The very large size, bulbous head, very broad wings and particularly large and robust bill are all good indicators that the Bremer Canyon bird is a Cory's Shearwater and quite likely a male bird (due to its very large size and very robust bill). However, there is some overlap between the bill size and overall weight of both species, mostly overlap between the measurements of female Cory's Shearwaters and male Scopoli's Shearwater. Thus, the single most important distinguishing feature is the fully dark under primaries, lacking the white tongues that extend into the hand as for Scopoli's Shearwater. Although the bright sunlight reflecting off the waves has somewhat blown out the dark under primaries, they can still clearly be seen to contrast strongly with the white primary coverts and lack any white tongues/fingers extending into the underwing primary 'hand'. Although there is some minor variation with this feature (e.g. some Cory's Shearwaters show small amounts of white in p6–P9), it is still considered diagnostic that birds with all dark primaries (particularly p10) are Cory's Shearwaters (read Howell & Patteson, 2008 for a full discussion; also see Howell, 2012 and Fisher & Flood, 2010). A further feature offered by Garner (2012) may also help distinguish these two species: he noted that Cory's Shearwater show dark spots on the two outermost greater under primary coverts, whereas Scopoli's Shearwaters only show a single spot on the outermost greater under primary covert. The Bremer Canyon individual has two dark spots on the outermost greater under primary coverts. The final feature favouring Cory's Shearwater is the dark forehead, a feature that varies considerably with the lighting but is more typical of Cory's than Scopoli's Shearwater.

Distribution of Cory's and Scopoli's Shearwater:

Cory's Shearwater is also far more likely to occur off the southwest of Australia. They breed in the north Atlantic but winter as far south as South Africa and even regularly range into the western Indian Ocean (occurring as far north as Madagascar). This distribution into the Indian Ocean is supported by data logger information that also shows that Scopoli's Shearwaters do not enter the Indian Ocean (Robert Flood, pers comm). Scopoli's Shearwater breed in the Mediterranean and mostly winter off west Africa with smaller numbers ranging across to the waters east of Brazil. There are very few substantiated records of Scopoli's Shearwater from even as far south as South Africa, with tracking records showing the birds largely remain in the Canaries Current (mostly males) and Angola Current (mostly females).

Observer's experience:

Alan Collins has considerable experience with Cory's Shearwaters in the North and South Atlantic and has also seen Scopoli's Shearwater on 3 or 4 occasions. Daniel Mantle has seen Cory's Shearwaters off Ireland, France, Spain and Madeira (Portugal). Plaxy Barratt has seen Cory's on 3 pelagics off Madeira.

References:

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Figure 1a. Cory's Shearwater, Bremer Bay, 19th January 2019 (Dan Mantle). Note the darker wings and rectrices contrasting with the scaly paler brown/beige uppertail coverts, rump, and mantle.

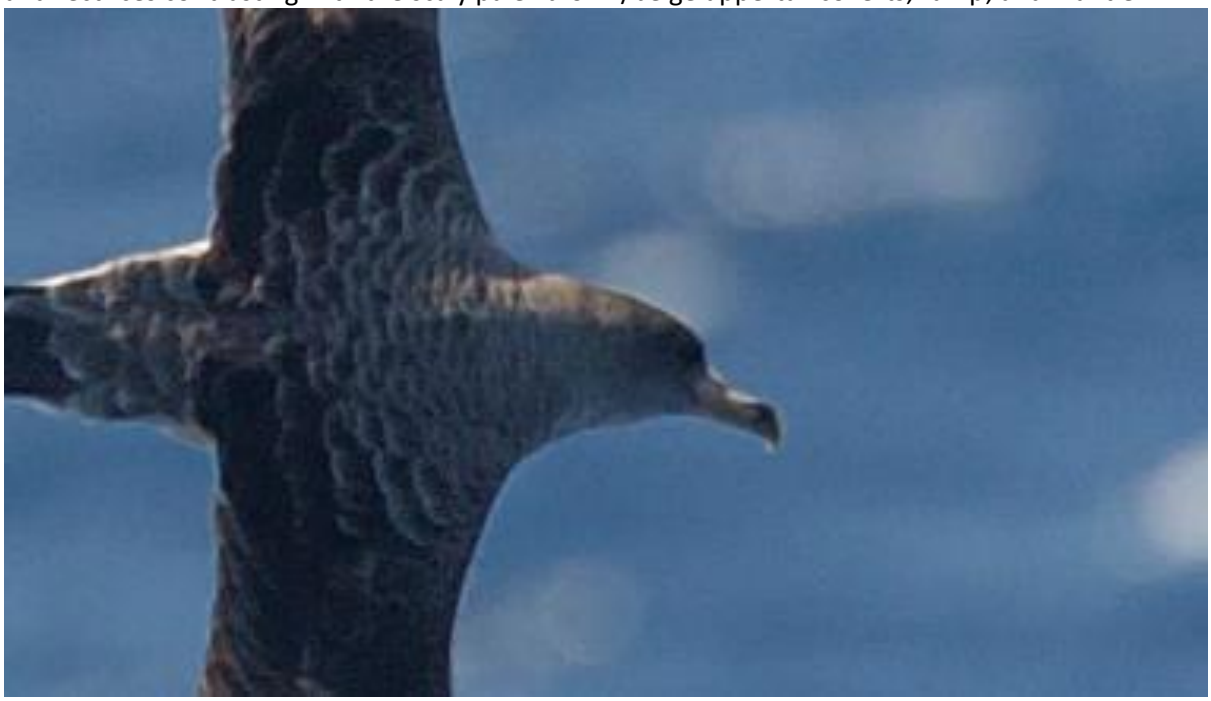

Figure 1b. Cory's Shearwater, Bremer Bay, 19th January 2019 (Dan Mantle). Note the very robust yellow bill with a dark subterminal band.

Figure 2a. Cory's Shearwater, Bremer Bay, 19th January 2019 (Dan Mantle). Note the very heavy build and largely white underparts. The under primaries appear pale here due to the strong reflective sunlight off the waves.

Figure 2b. Cory's Shearwater, Bremer Bay, 19th January 2019 (Dan Mantle). Note again the very robust bill suggesting this is possibly a male bird. Such a thick bill is likely outside the range of most/all Scopoli's Shearwaters.

Figure 3a. Cory's Shearwater, Bremer Bay, 19th January 2019 (Dan Mantle). Note the fully dark under primaries in this image, lacking any paler tongues and thus diagnostic of Cory's Shearwater.

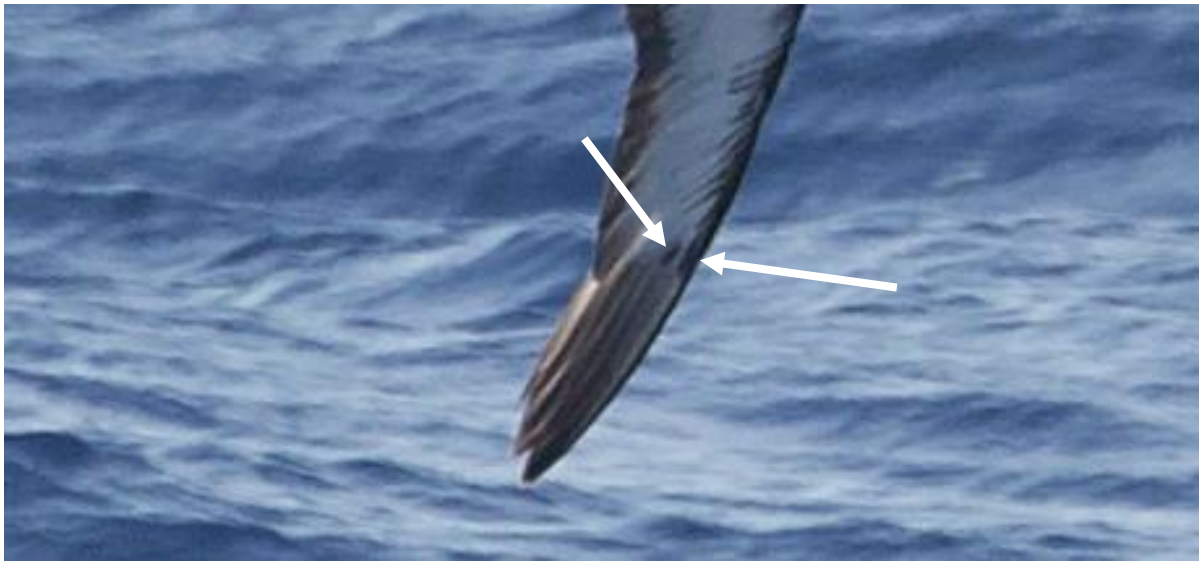

Figure 3b. Cory's Shearwater, Bremer Bay, 19th January 2019 (Dan Mantle). Note the two dark spots on the outermost greater under primary coverts. This feature appears more typical of Cory's Shearwaters; Scopoli's Shearwater are more likely to show only a single dark spot on the outermost greater under primary covert. Although the strong reflective sunlight is washing out the dark under primaries quite considerably, they can still be seen to clearly contrast with the white primary coverts and lack any white tongues/fingers protruding into the dark 'hand'. The apparent paler extension on p10 is actually on the outer web of this feather (the outer web is dark on both Cory's and Scopoli's Shearwaters) and thus confirms this is simply a reflective feature in this photo. This interpretation of the photo was confirmed by Robert Flood, whom also agreed with the identification of this bird as a Cory's Shearwater.