

# Scopoli's Shearwater off Scilly: new to Britain

E. Ashley Fisher and Robert L. Flood

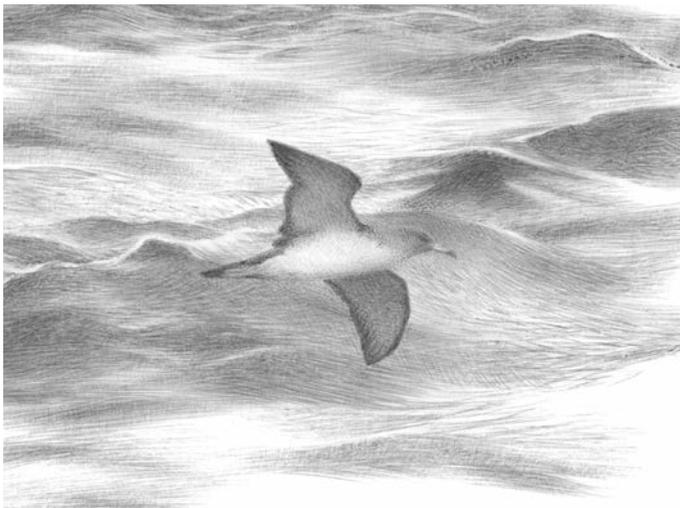
**Abstract** A Cory's Shearwater *Calonectris diomedea* of the nominate race *diomedea*, often referred to as 'Scopoli's Shearwater', was seen and photographed from a boat approximately 10 km south of the Isles of Scilly on 2nd August 2004. This sighting constitutes the first accepted record of Scopoli's Shearwater for Britain. Although there had been several previous claims of this distinctive race, they lacked sufficient supporting documentation and proved to be inconclusive. The sighting described here was brief and light conditions poor but a set of photographs proved the bird's identity. Elimination of the much commoner Cory's Shearwater *C. d. borealis* is discussed. The status of Scopoli's Shearwater off Scilly is considered.

On the evening of 2nd August 2004, along with two other birders, John Higginson and Bryan Thomas, we were on board MV *Sapphire*, approximately 10 km south of the Isles of Scilly. At about 20.00 hrs, a large shearwater appeared from the west, directly in line with the setting sun. It was initially called as a Great Shearwater *Puffinus gravis* and then as a Cory's Shearwater *Calonectris diomedea*. We turned around to see it approach the starboard side when, at about 30 m range, it banked to our left and headed off past the bow. As it banked, we scrutinised the underwing pattern, looking for the only diagnostic

feature that separates the nominate race *C. d. diomedea* ('Scopoli's Shearwater') from the regularly occurring Cory's *C. d. borealis* (Gutiérrez 1998). EAF momentarily thought he saw the Scopoli's pattern. Although we were concentrating on the underwing, we did register a relatively slim bill, head, body and wings; it is not surprising that the bird in silhouette was first called as a Great Shearwater. It then banked through 180° and flew back alongside the boat at a distance of about 40 m, moving directly in line with the sun again, before banking left once more. We continued to study the underwing, but were severely hindered by the harsh light conditions.

As far as we could see, the pattern seemed to 'ghost' that of Cory's and this swayed our thinking away from Scopoli's at the time. The bird then headed off to the southwest and was not seen again.

Without a photographer on board, the bird's departure would have been the end of the story. However, BT managed to take a series of seven digital photographs; the first to last separated by just 80 seconds, spanning



Ren Hathway



Bryan Thomas



Bryan Thomas

**394 & 395.** 'Scopoli's Shearwater' *Calonectris d. diomedea*, 10 km south of Scilly, August 2004.

the entire duration of the sighting. After the event, BT's skills at the computer revealed the bird's underwing pattern, and he e-mailed one image to RLF for his comments. RLF was immediately able to confirm that the shearwater showed the unambiguous and diagnostic underwing pattern of Scopoli's. The identification was supported by other plumage and structural features, discussed below.

### Description

#### Plumage

Our bird closely resembled Cory's Shearwater but had dark-bordered white inner webs to the primaries, forming white 'fingers' that extended beyond the underwing-coverts, along much of the length of the primaries, and were especially obvious on all of the longer outer primaries. Cory's is not known to show this pattern.

Howell & Patteson (2008) studied primary pattern variation on the underwing of Cory's and Scopoli's Shearwaters and concluded that: birds with distinct white fingers on three or more primaries, including P10 (the outermost), might be presumed to be Scopoli's; yet those with less distinct pale fingers on two or three primaries among P8–10 could be either Cory's or Scopoli's; those with a short whitish finger on P9 or P10, with other primaries dark, may be pre-

sumed to be Cory's; while those with all-dark primaries are certainly Cory's.

In addition, our bird showed one dark spot at the base of the outermost primary, as do most Scopoli's, whereas Cory's usually shows two (Robb *et al.* 2008). There are also subtle plumage differences but these are subject to changes in light conditions and human interpretation. Nevertheless, our bird appeared to be paler or even greyer on the head and neck than a typical *borealis* Cory's, and the head plumage faded into, rather than contrasted with, the pale sides of the neck.

#### Structure

The relatively slim bill, head, body and wings of our bird will be evident to any birder who has scrutinised the more bulky, typically fierce-looking Cory's Shearwater, with its stout bill, thick neck and heavy body. The wings appeared relatively short and slim compared with Cory's.

#### Flight behaviour

Scopoli's Shearwater is, on average, smaller and lighter than Cory's, with shorter and slimmer wings. In our opinion, this translates into differences in travelling flight between the two under the same wind conditions. We both agreed that, given the circumstances, our bird had a faster, less heavy flight than we would expect of a Cory's. Indeed, flight jizz

has attracted our attention to three probable Scopoli's seen off Scilly (see below).

### Discussion

As described above, the plumage and structure of the August 2004 bird were outside the range of Cory's Shearwater, with which we are extremely familiar, and leave no doubt that it was a Scopoli's Shearwater. Moreover, the combination of petite, slim bill, head and body is suggestive of a female; male Scopoli's are, on average, larger in these respects and can overlap with female Cory's (Howell & Patteson 2008). In August, breeding adults are typically in heavy primary and secondary moult (e.g. [www.rarebirdspain.net/arbsi027.htm](http://www.rarebirdspain.net/arbsi027.htm)). As our bird showed no primary or secondary moult, this suggests that it was not an adult, while juvenile Scopoli's Shearwaters do not fledge until October (R. Gutiérrez *in litt.*). In most Procellariiformes, immatures moult earlier than adults and progressively synchronise moult by the time they breed (Brooke 2004). An immature Scopoli's (i.e. a bird hatched in the previous calendar year or earlier) will probably complete primary and secondary moult before August. All things considered, the Scilly Scopoli's seems most likely to have been an immature female.

### Previous observations

During c. 450 short-range pelagic trips off Scilly, made between June and September, 2000–09, we observed what we considered to have been two certain Scopoli's (one accepted by BBRC, the other submitted and under consideration) and three probable Scopoli's (see below). Although the sample size is small, these may indicate the most likely period for vagrancy by Scopoli's off southwest England. To date, there has been no suggestion of a Scopoli's moving among a strong passage of Cory's. The vast majority of the nearly 300 *Calonectris* shearwaters sighted from our pelagic trips were undoubtedly Cory's. Thus, our experience suggests that Scopoli's is both rare and irregular off Scilly.

Date	Comment
2nd August 2004	Accepted by BBRC
4th August 2004	Probable (two)
4th July 2009	Submitted to BBRC
27th July 2009	Probable

The accepted/submitted sightings were made at point-blank range making it possible to record the diagnostic underwing pattern. The three probable records, at moderate range, showed extensive white on the outer primaries of the underwing but the details of the actual pattern remained uncertain.



Bryan Thomas

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However, all three were convincing, appearing small, slender, greyish on the upper surface, and had the flight jizz of Scopoli's. In addition, a few less convincing sightings not mentioned above could have been of Scopoli's, or Cory's near the extremes of the ranges of plumage, size and/or structure.

### Distribution

Outside the breeding season, both taxa range widely in the Atlantic as far south as South Africa and South America, mainly between November and February, though the distribution of each is uncertain owing to identification problems at sea. The entire breeding range of Scopoli's Shearwater lies within the Mediterranean basin apart from a small outpost on the Atlantic coast of France (Mays *et al.* 2006). The breeding range of Cory's Shearwater covers the Northeast Atlantic islands with a small colony reported in the Mediterranean (Gómez-Días *et al.* 2006). Cory's Shearwater, with 96,500–136,500 breeding pairs, is more numerous than Scopoli's, which has a population of 63,000–70,000 breeding pairs (Thibault *et al.* 1997). Scopoli's thus represents c. 30–40% of the combined population. Yet, off North Carolina, USA, in May and June it is estimated that no more than 5–10% of *Calonectris* shearwaters appear to be Scopoli's, though in August 10–20% may be Scopoli's (Howell in prep.). Off Scilly from June to September the percentage of Scopoli's is very small, much smaller than that recorded off the eastern seaboard of the USA. Conclusions drawn in the recent literature regarding at-sea distri-

bution may need to be reconsidered (i.e. Gutiérrez 1998, Camphuysen & van der Meer 2001).

### Acknowledgments

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E. Ashley Fisher, Trehill, Silvester's Lane, St Mary's, Isles of Scilly TR21 0NA  
 Robert L. Flood, 14 Ennor Close, Old Town, St Mary's, Isles of Scilly TR21 0NL;  
 e-mail [tubenose@tiscali.co.uk](mailto:tubenose@tiscali.co.uk)



**Editorial comment** Adam Rowlands, Chairman of BBRC, commented: 'This record completed full circulation around BBRC in February 2006 (although the images of the bird were awarded the Carl Zeiss Award before the assessment process had been completed – reinforcing the value of this documentary evidence – see *Brit. Birds* 98: 600–603). There had been two previous claims of this form from land-based seawatchers, on the Yorkshire coast in July and August 2002, which had encouraged the Committee to determine the acceptance criteria for field observations. This research (developed from extensive field experience of both forms within their respective breeding ranges, and reference to museum material at the BMNH, Tring) indicated that relatively close-range views in optimum conditions would be required to confirm the salient features of Scopoli's Shearwater in British waters and the circumstances of the Scilly claim reinforced that opinion.

'BBRC research recommended that the key features for acceptance were (in order of importance):

- **Underwing pattern** Crucial to determining the identification of Scopoli's. The coloration of the under-surface of the outer primaries must be observed, assessed and described carefully, and preferably photographed. In optimal views the white tongues on the longest primaries of Scopoli's (outer 3–5 and potentially more on some individuals) appear as pale "fingers", giving the impression of a more extensive area of white on the underwing than the solidly dark area of Cory's. Caution is required when light conditions cause the dark areas to appear paler grey on Cory's, and prolonged observation may be required in such circumstances.
- **Structure** Scopoli's tends to have a slimmer body and wing shape, although it was felt that these differences could be difficult to appreciate on a lone individual and at distances exceeding 400 m. According to figures presented in BWP Update Vol. 1(2) (1997), Cory's is typically 46% heavier than Scopoli's, which would explain some of the difference in perceived body bulk between the two forms, but, equally, the heaviest (presumably male) Scopoli's overlap in weight with the lightest female Cory's, which suggests that there could be an overlap in the structural differences between the two forms. The situation is further complicated by geographical variation, with populations of Scopoli's in the eastern Mediterranean tending to be smaller than western and central Mediterranean populations, and variation in size among Cory's from different island groups.
- **Bill shape** The slimmest-billed Scopoli's can be quite striking compared with the typically heavier-billed Cory's, although it was considered that this feature should be used with caution owing to individual variation and is difficult to determine at viewing ranges greater than 200 m.
- **Head and breast pattern** Though hard to observe and very dependent upon light conditions, Cory's can appear darker-headed or with a dark area around the eye, so that the head contrasts with the paler upperparts. It would appear that this is not typically the case on Scopoli's, where the head frequently looks the same colour as the rest of the upperparts. It was also suggested that Scopoli's tend to show less solidly dark markings on the breast sides than Cory's. Both of these distinguishing features were considered to be supportive rather than diagnostic.
- **Upperwing pattern** A suggestion that Scopoli's tends to show a more conspicuous dark diagonal line across the upperwing-coverts compared with the more uniform upperwing of Cory's was not reinforced by the BBRC research. However, in flat light or overcast conditions this feature may be more prominent in Scopoli's and may support the identification.
- **Flight behaviour** Field observations of the two forms for the initial BBRC research did not support the proposed differences in flight behaviour between the two. However, further observations suggest that, although the feeding flight may be similar, the direct flight of Scopoli's may be more "flappy", with typically 5–7 flaps between glides compared with about three flaps for Cory's. As with many seabirds, the flight action is dependent upon the wind conditions, but no consistent differences in similar wind conditions were identified. We note the comments regarding flight action by the observers of the Scilly bird with interest and it clearly remains to be determined whether this will prove to be a useful distinguishing character.

'Our analysis determined that the Yorkshire claims did not meet the criteria for acceptance (*Brit. Birds* 96: 606), but made the assessment of the Scilly claim relatively straightforward. It was accepted unanimously on the first circulation. As described by the observers, the Scilly individual was relatively striking and the structural features relatively clear-cut, which may indicate that it was indeed a smaller female. A full comment on this record accompanied its publication in the 2008 BBRC Annual Report (*Brit. Birds* 102: 539–540), where further references may be found. The 2009 Scilly record referred to above is currently in circulation with BBRC.

'Observers of future potential Scopoli's are reminded of the pitfalls highlighted by Howell & Patteson (2008), who pointed to significant overlap in key features as a consequence of individual variation within the two forms, concluding that a proportion of individuals will be unidentifiable "at sea". They established that some Cory's have white tongues in the 7th–9th outermost primaries, demonstrating that even the most significant feature separating the two forms needs

to be used with caution.'

Martin Collinson, Chairman of BOURC, commented: 'The criteria that must be fulfilled in order to secure the identification of Scopoli's Shearwater *C. d. diomedea* has been carefully researched by BBRC and others, as described above. Many nominate individuals will not be identifiable under field conditions, and it is difficult to imagine circumstances that would have allowed the acceptance of a first record without supporting photographs. On the basis of the extensive white or greyish-white 'tongues' on the outer 4–5 primaries, producing an impression of a dark trailing edge on the outer wing, together with the small-billed, slim-bodied appearance of this individual, the identification appeared sound. The range of individual variation in the mostly North Atlantic *C. d. borealis* has, perhaps, not yet been fully documented. Some *borealis* also show more white or grey on the primary bases than others (for example, a short pale 'tongue' on P9) but there is nothing to suggest that any ever approach the entirely typical *diomedea*-like appearance of the Scilly bird in this regard.

'Given that the submitted images were backlit (which can make the primaries of Cory's Shearwater appear translucent) and had been enhanced, BOURC had to consider whether the photographs were misleading. However, six of the seven images showed the underwing, from a variety of angles and with different relationships to the incident light, and it was clear that the observed primary pattern was no mirage. The bird was obviously wild, and BOURC was happy to add this taxon to the British List.

'Genetic data suggest that *borealis* may be more closely related to the morphologically distinct Cape Verde Shearwater *C. d. edwardsii* than to nominate *diomedea* (Gómez-Díaz *et al.* 2006). It is arguable that the complex should be split into three species, and there will be continued interest in further records of this "insurance tick". It is, however, too early to speculate on the status of Scopoli's Shearwaters in British waters, or on potential patterns of occurrence. As stated above, they are not necessarily going to be found among large movements of Cory's Shearwaters. The available evidence suggests that nominate *diomedea* and *borealis* show some degree of separation in foraging ranges and dispersal strategy. In particular, where the two taxa breed sympatrically in the Chafarinas archipelago (southwest Mediterranean), preliminary satellite-tracking data have suggested that *borealis* pass through the Strait of Gibraltar and forage along the Atlantic coasts of Portugal and Spain, in contrast to nominate *diomedea*, which forage only around the breeding colonies (Navarro *et al.* 2009). Satellite tracking outside the breeding season localised *borealis*, but not *diomedea*, off South America, and found a tendency for *diomedea* to disperse to western Africa (González-Solís *et al.* 2007). In contrast, both taxa winter off South Africa, associated with the Benguela and Angulhas Currents. It is possible, therefore, that *diomedea* and *borealis* migrate substantially independently. A small colony of Scopoli's Shearwaters has been identified on the Atlantic coast of France (Mays *et al.* 2006), and if these are the primary potential source of British records, then the statistics suggest that the taxon may remain extremely rare in comparison with *borealis*.'

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