

European Storm-petrels diving for food

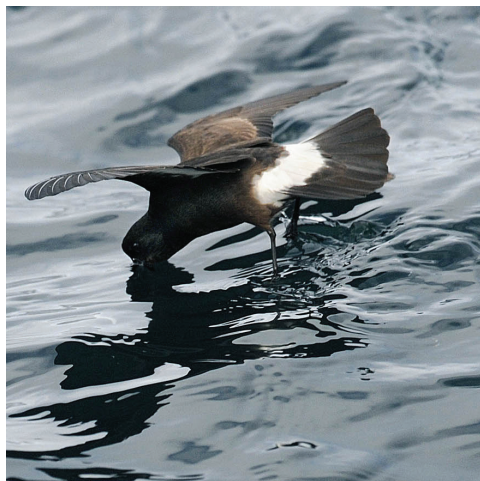
There are several documented sightings of storm-petrels diving to collect food items. Madeiran Storm-petrels *Oceanodroma castro* off the Azores were studied by Bried (2005), who found that the average maximum dive depth was 0.85 m and that such diving was part of typical feeding behaviour. Wilson's Storm-petrels *Oceanites oceanicus* off South Georgia and South Shetlands were seen to make short, shallow dives, timed using video at 1–2 seconds (Flood & Thomas 2007). European Storm-petrels *Hydrobates pelagicus* were recorded diving to collect food items off South Africa by Griffiths (1981).

European Storm-petrels breed on uninhabited islands in the Isles of Scilly, where the most recent population estimate is 1,398

pairs (Heaney *et al.* 2008). Between 2000 and 2008, European Storm-petrels were recorded on every one of more than 350 short-range pelagic trips off Scilly during the breeding season. Storm-petrels were attracted to the vessel using chum, typically of mackerel (several days old) mixed with cod-liver oil, although fish liver seemed particularly attractive to storm-petrels. Prior to August 2008, European Storm-petrels were observed diving for food items on just three or four occasions.

During 9th–10th August 2008, force seven southwesterly winds gave us no option but to drift just a few kilometres off the northeast coast of St Martin's, in the lee of the islands. Even here, the sea state was challenging, with a 3-m

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177 & 178. European Storm-petrel *Hydrobates pelagicus* diving for food, Isles of Scilly, 10th August 2008.

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179 & 180. European Storm-petrel *Hydrobates pelagicus* diving for food, Isles of Scilly, 10th August 2008.

swell. A chum of dogfish liver mixed with popcorn was deployed at regular intervals and was quickly churned up in the sea, with many fragments below the surface; we also dripped cod-liver oil. The chum odour dispersed downwind, away from the islands, and on both days European Storm-petrels arrived in force, building into uncountable numbers that we estimated at 500+.

We noted that many of the European Storm-petrels were diving to collect fragments of dogfish liver below the surface. Some dived close to the vessel, making it possible to watch them swim underwater. Gauging dive depth was difficult, but dives probably did not exceed 0.5 m. Assessing horizontal distance travelled was confounded by drift, though most birds appeared to surface near the dive point, with a few travelling possibly up to 1 m. Video footage taken on 10th August captured 16 incidents of

diving where the whole body was submerged, and two examples of partial submersion. The video permitted timing of the full-submersion dives to the nearest 0.04 seconds and showed them to vary between 0.72 and 1.96 seconds, with a mean of 1.28 seconds (standard deviation 0.48, $n=16$). It seems likely that the particular combination of sea conditions and type of chum used produced the unusually high frequency of dives observed on these trips.

References

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 Heaney, V., Lock, L., St Pierre, P., & Brown, A. 2008. Breeding seabirds on the Isles of Scilly. *Brit. Birds* 101: 418–438.

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A newly discovered colony of European Storm-petrels in Italy

On 31st May 2008, on the north coast of Lampedusa Island (a small island in the Mediterranean, about 20 km² in extent, c. 120 km from Tunisia and c. 195 km from Sicily, Italy), I noticed the characteristic musty odour associated with a storm-petrel breeding colony. The avifauna of Lampedusa is well known, and Moltoni (1970) found just one nest of European Storm-petrel *Hydrobates pelagicus*, on the neighbouring islet of Lampione, 18 km ENE of Lampedusa.

On 6th June 2008, I returned to the site, a large cave, at night and discovered a large colony of European Storm-petrels breeding in small cavities in the cave walls. Although I could not estimate the total number of birds present, many tens of individuals were entering the cave and milling around at the cave entrance. Subsequent daytime visits in August 2008 failed to provide any further information on numbers present.

Two subspecies of European Storm-petrel occur in Europe, distinguishable in terms of both biometrics and genetics: nominate

pelagicus breeds in the eastern North Atlantic, while *H. p. melitensis* (see editorial comment, below) is restricted to a small number of islands in the Mediterranean. The latter is characterised by its larger size and the fact that it breeds at a younger age, including some at one year old (Hemery & D'Elbée 1985; Catalisano *et al.* 1988; Bretagnolle 1992; Lo Valvo & Massa 2000; Lalanne *et al.* 2001; Cagnon *et al.* 2004). The population is much smaller than that of the North Atlantic, believed to be in the range of 8,500–15,200 pairs, compared with 430,000–510,000 pairs in the North Atlantic (BirdLife International 2004). The breeding range of *H. p. melitensis* includes the Balearic Islands (1,800–4,000 pairs), Corsica (c. 100 pairs), Sardinia (c. 500 pairs, including c. 300 pairs on a single islet off the northwest coast; Paddau *et al.* 1997), Sicily (1,700–2,500 pairs, mostly on the island of Marettimo; Lo Valvo & Massa 2000, Albores-Barajas *et al.* 2008), and Filfla, Malta (5,000–8,000 pairs), together with