

## SIGHTINGS OF BEAKED WHALES IN THE FAROE-SHETLAND CHANNEL

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Since 1979, the Seabirds at Sea Team (SAST) of the Joint Nature Conservation Committee (JNCC) has carried out surveys of seabirds in the waters around Britain and Ireland. During seabird surveys, data are also collected on incidental sightings of cetaceans and pinnipeds. Offshore waters in the oil licence blocks to the north and west of the Orkney, Shetland and Western Isles have received an increased level of survey coverage since 1997, funded by the Atlantic Frontier Environmental Network (AFEN) and the Atlantic Margin Group. These deep (> 1,000 m) waters had previously received little survey coverage and the distribution and abundance of cetaceans in the area was poorly known.

A total of 15 species of cetacean have been recorded during SAST surveys in coastal and offshore Scottish waters. Although many of these species are widespread and frequently recorded in the vicinity of the Shetland Islands, SAST has also recorded several offshore sightings of beaked whales (family Ziphiidae) which are among the least known of all cetacean species. Beaked whales are difficult to identify at sea, due to similarities in morphology between the species, and their inconspicuous surfacing behaviour and long dive periods.

In the waters to the north and west of Scotland, SAST has recorded 42 sightings of beaked whale species including the northern bottlenose whale (*Hyperoodon ampullatus*), Sowerby's beaked whale (*Mesoplodon bidens*) and unidentified beaked whales belonging to the genus *Mesoplodon*. Although the majority of these animals were observed in deep water to the north-west of the Outer Hebrides, seven sightings occurred east of 6°W longitude, in the vicinity of the Faroe-Shetland Channel to the north-west of the Shetland Islands. These include two sightings of northern bottlenose whales and five sightings of unidentified *Mesoplodon* species (Figure 1).

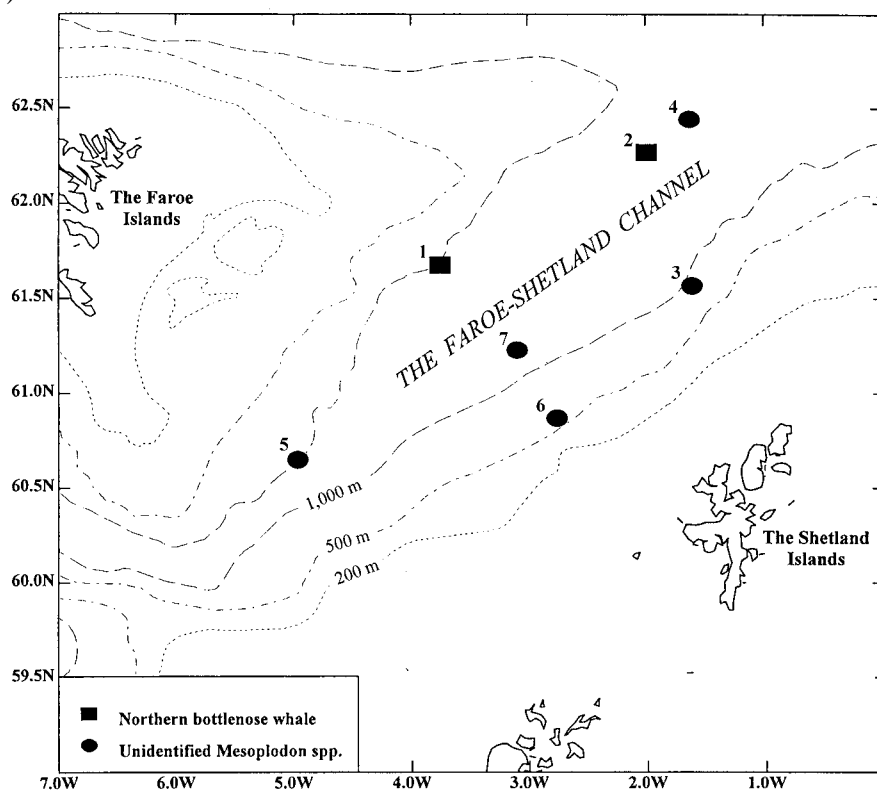


Figure 1. Distribution of beaked whale sightings in the Faroe-Shetland Channel

Sightings occurred as follows (numbers refer to Figure 1):

- 1) Two northern bottlenose whales were transiting slowly southwards on 27<sup>th</sup> May 1997
- 2) A group of three northern bottlenose whales sighted on 30<sup>th</sup> March 1998
- 3) Six *Mesoplodon* sp. were moving northwards on 2<sup>nd</sup> December 1997
- 4) An individual *Mesoplodon* sp. sighted on 5<sup>th</sup> May 1998
- 5) An individual *Mesoplodon* sp. recorded on 15<sup>th</sup> June 1998
- 6) A group of three *Mesoplodon* sp. were moving north-west on 28<sup>th</sup> August 1998
- 7) A single *Mesoplodon* sp. surfaced three times on 7<sup>th</sup> September 1998, and was thought to be a Sowerby's beaked whale due to its long beak and length of approximately 5 metres.

Northern bottlenose whales are normally straightforward to identify at sea. Although they have the general appearance of a minke whale, the more triangular dorsal fin, bulbous forehead and short beak are readily distinguishable. The *Mesoplodon* sp. are usually identified from their long beaks, which typically break the surface at a steep angle after the animal emerges from a dive. The teeth of adult male *Mesoplodon* sp. erupt from the side of the jaw and their position and shape provides the primary feature for species identification. However the presence of groups comprising only females and the difficulties of viewing animals at close distance, usually prevents full species identification from being made at sea. The only *Mesoplodon* sp. that has been positively identified by SAST in Scottish waters was a Sowerby's beaked whale sighted to the north-west of the Hebrides. The similarity in behaviour and morphology of this individual to that of unidentified *Mesoplodon* sp. seen during other sightings, and the frequency of stranding of this species in Scottish waters, suggests that most unidentified beaked whales seen during SAST surveys may also be Sowerby's beaked whale. Strandings of this species are centred around the North Sea (Moore 1966), and it may be the most common beaked whale species to occur in Shetland waters.

All beaked whale sightings made during SAST surveys to the north and west of Scotland have occurred in deep water along the continental slope or, more usually, beyond the 1,000 m isobath. This is probably a result of the feeding habits of beaked whale species, which dive to great depths in pursuit of squid and deep-water fish (Ostrom *et al.* 1993; Hooker and Baird 1999).

Sightings of *Mesoplodon* sp. to the north and west of Scotland have occurred in every month of the year except for February and March, suggesting that they may remain in offshore Scottish waters throughout the year. Northern bottlenose whales were recorded by SAST between March and May and in August and November which indicates that some spring and autumn movements may occur within the region. Bottlenose whales may migrate northwards towards polar regions in the spring and southwards in winter (Evans 1980). The occurrence of all SAST beaked whale sightings in 1997 and 1998, is most likely a result of increased survey coverage in offshore waters over this period.

### Acknowledgements

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### References

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