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FIRST RECORD OF ATLANTIC SPOTTED DOLPHINS, *STENELLA FRONTALIS* G. CUVIER, 1829 (CETACEA: DELPHINIDAE) FROM THE ARCHIPELAGO OF MADEIRA.

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With 1 figure

ABSTRACT. In this paper we report for the first time in the Archipelago of Madeira, the presence of Atlantic Spotted Dolphins, *Stenella frontalis* (G. CUVIER, 1829).

RESUMO. No presente artigo os autores assinalam pela primeira vez para o Arquipélago da Madeira a presença de Golfinhos-Malhados-do-Atlântico, *Stenella frontalis* (G. CUVIER, 1829).

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INTRODUCTION

Atlantic Spotted Dolphins (*Stenella frontalis* G. CUVIER, 1829) are distributed in tropical, subtropical and warm temperate Atlantic (PERRIN *et al.*, 1987). The species is not known to occur in the Indian and Pacific Oceans, and until now it was not known from any specific location in the Eastern Atlantic north of the Canary Islands (PERRIN *et al.*, 1994 a). It is common in the Western North Atlantic and Gulf of Mexico and it also occurs in the Central North Atlantic at the Azores, where it is the most abundant dolphin species during the summer (MARTIN, 1986). As mentioned in PERRIN *et al.* (1987), early workers, for example CUVIER (1812), stated that spotted dolphins occur on the coast of Europe, but there are no verified records. A reported sighting record from the Mediterranean in 1982 (DUGUY, 1989 in PERRIN *et al.*, 1994 a) remains unconfirmed (PERRIN *et al.*, 1994 a).

SIGHTINGS AND DISCUSSION

In August and September 1997, specimens of *Stenella frontalis* were seen for three times off the coast of Madeira, during sea turtles surveys, made aboard a 5 meter inflatable dinghy equipped with a Magellan DLX-10 GPS. The first sighting was made on the 16 August 1997 when a group of 7 individuals was seen and photographed (Fig. 1) at 032° 35,79'N / 017° 02.93'W, 4 miles south of Cape Girão. The second group was seen on the 27 August 1997 at 032° 32,01'N / 016° 44.61'W, 9 miles off Santa Cruz. The pod consisted of over 20 individuals and at least one calf. The third sighting occurred the 24 September, 8 miles south of Caniçal (032° 36.01'N / 016° 42,53'W). Group size was over 30 individuals. All three groups were very social, swimming in the bow wave and allowing us to photograph them underwater. In all cases, a large percentage of individuals had no spots (around 50%), indicating the presence of many juveniles. PERRIN *et al.* (1994 a) state that this species occurs in two forms, a large, heavily spotted inshore form over the U.S. American continental shelf, and a smaller and less spotted form that inhabits more pelagic offshore waters and oceanic islands. Our observations surely represent the latter form.

We have been recording marine mammal sightings in all sea turtle surveys since June 1994. All surveys were made at a distance of over 2 miles along the south coast of Madeira and search time ranged from 1 to 5.5 hours. These are the first confirmed spotted dolphin sightings. In a total of 68 surveys, carried out between June 1994 and October 1997, we saw 50 cetacean groups: 15 *Tursiops truncatus* (bottlenose dolphins) groups, 13 *Delphinus delphis* (common dolphins) 3 unidentified *Stenella*, 2 confirmed *Stenella coeruleoalba* (striped dolphins), 3 *Stenella frontalis* (Atlantic spotted dolphins), 2 *Globicephala sp.* (pilot whales), 3 *Mesoplodon densirostris* (Blainville's beaked whales) and 9 groups remained unidentified.

Data on Cetacean sightings and strandings at the Madeira Archipelago have been provided by SARMENTO (1936, 1948), NOBRE (1938), SILVA e MENEZES (1940, 1946), MAUL and SERGEANT (1977) and MATHIAS (1988). According to MAUL and SERGEANT (1977),

both *Tursiops truncatus* and *Delphinus delphis* are common along Madeiran coasts. *Stenella coeruleoalba* has not been mentioned previously in published reports, but there are about four records of stranding of this species at the Museu Municipal do Funchal (História Natural). The occurrence of *Stenella coeruleoalba* at Madeira is expected according to its range of distribution. In the Eastern Atlantic, it is found from South Africa up to the North Sea (PERRIN *et al.*, 1994 b). The species is common in the Mediterranean (Leatherwood *et al.*, 1983) and it also occurs with regularity off the Portuguese coast (TEIXEIRA, 1979) and at the Azores (H.R. MARTINS, *pers. com.*, 1997). Both pilot whales and Blainville's beaked whales are occasionally seen by various boat crews off Madeira. Further research is needed to state which of these cetaceans are resident or transient.

This first record of *Stenella frontalis* in Madeira increases the range of the species to the Eastern North Atlantic. According to big game fishermen, dolphins with spots have been sighted previously around Madeira. The species might also have been seen before by other observers, but confused with *Stenella coeruleoalba*, since many individuals do not carry these spots and some have a spinal blaze below the dorsal fin. We do, however, think it is not a common species in these waters, since it was observed in one year only of a total of four years of sea turtle surveys. This would make it an occasional visitor, frequenting Madeiran waters only when factors like water temperature and food availability are favourable.

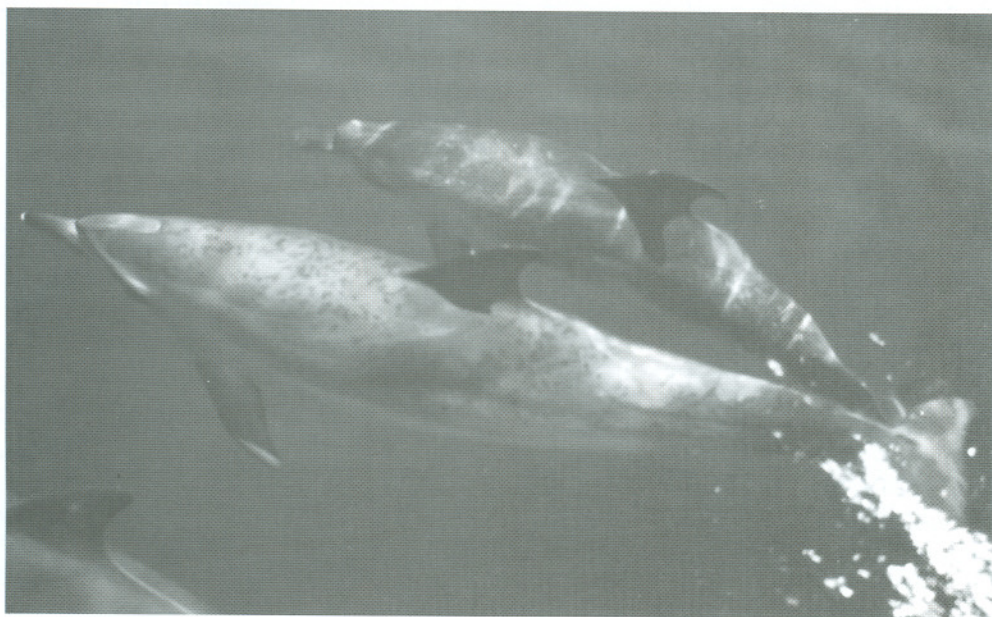


Fig. 1 - *Stenella frontalis* photographed through the water surface, on the 16 August 1997, 4 miles off Cape Girão (032°35,79'N / 017°02.93' W). Photograph from CARLA FREITAS.

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