

FOUR SIGHTINGS OF ZIPHIIDAE (CETACEA, ODONTOCETI) IN
THE CENTRAL TYRRHENIAN SEA

QUATTRO AVVISTAMENTI DI ZIPHIIDAE (CETACEA, ODONTOCETI)
NEL MAR TIRRENO CENTRALE

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ABSTRACT

The sighting of four couples of Ziphiidae in the Central Tyrrhenian Sea has been reported. Some Considerations about geographic distribution of such cetaceans in the Italian seas are set out below.

Key words: *Ziphius cavirostris*, sightings, Mediterranean Sea.

RIASSUNTO

Si riporta l'avvistamento di quattro coppie di Ziphiidae nel Mar Tirreno Centrale. Sono sviluppate alcune considerazioni sulla distribuzione geografica di tali cetacei nei mari italiani.

Parole chiave: *Ziphius cavirostris*, avvistamenti, Mare Mediterraneo.

INTRODUCTION

The family Ziphiidae (Cetacea, Odontoceti) is composed, after Perrin (1988), of 18 species: among them, only *Ziphius cavirostris* G. Cuvier, 1823 and *Mesoplodon densirostris* (de Blainville, 1817) are definitely present in Mediterranean Sea.

The presence of *Mesoplodon bidens* (Sowerby, 1804) in the Italian seas, was reported by Trouessart (1910) and on his authority by Ellerman & Morrison-Scott (1951), Van den Brink (1955) and Toschi (1965). However, Van Bree (1975) emphasized the poor reliability of Rafinesque (1814), on whose report Trouessart's report was founded: though it is impossible to exclude the possibility of an accidental presence of *Mesoplodon bidens* in the Italian seas, Van Bree has no reason to believe that such species belongs to the Mediterranean **fauna**. The opinion of Cagnolaro et al. (1983) is the same.

The presence of *Ziphius cavirostris* in the Italian seas is well-known for the not too frequent strandings of dead or live specimens (Vinciguerra, 1926; Tamino, 1957; **Tortonese**, 1957, **1963**; Cagnolaro, **1965**; Cagnolaro et al., 1983; Cagnolaro et

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al., 1986; Centro Studi Cetacei, 1987, 1988, 1989): the sighting of living specimens in the sea is considered rare (Cagnolaro et al., 1983; Leatherwood & Reeves, 1983).

For what concerns the Central Tyrrhenian sea, out of a total of five stranded and reported specimens of *Ziphius cavirostris* in 1987 in the Italian seas, four, among them a female with a calf, were recovered along the eastern Sardinian coasts (Centro Studi Ceiacei, 1988): the stranding data for the same species in 1988 show three specimens out of a total of four stranded along the Latium coasts, while the other one was recovered along the southern Sardinian coast (Centro Studi Cetacei, 1990). The old report of stranding from Tamino (1957) too, referred to the Latial coast.

The presence of *Mesoplodon densirostris* in the Mediterranean sea is considered absolutely accidental (Cagnolaro et al., 1983) and has been reported only by Casinos (1982).

The total similarity of the surfacing outline of the two last species and the difficulty in approaching close enough to see the characteristic lower jaw make recognition of live specimens of this species uncertain: otherwise, the members of the family are clearly distinguishable from the other cetaceans in Mediterranean because of some peculiarities, like their medium size, massive body and relatively small dorsal fin, which lies in the posterior third of the body.

METHODS

The Sighting Campaign on Cetacean in the Central Tyrrhenian Sea, during which the sightings referred to here occurred, and which is still in progress, consists in weekly transects along the line of ferries between Golfo Aranci (Sardinia) and Civitavecchia (Latium, central Italy), with the collaboration of the National Railway Board (Consiglio et al., 1990).

During the campaign, the sighted specimens are recognized by the help of 10X50 and 12X50 binoculars and are photographed with 35 mm cameras equipped with winder and 135 and 200 mm lenses: 200 ASA slides and 400 ASA black & white prints are employed. Occasionally, a videocamera VHS-C is employed.

At each sighting the fix of the ferry, the time, the angle subtended from the transect line to the animals, the estimated distance, the behaviour of the animals, besides the meteorological conditions, are recorded. Water temperature is recorded four times for each trip. The decks of the ferries, from which these sightings occurred, are between 13 and 15 meters above sea level. Cruising speed is about 16 knots.

DESCRIPTION

A couple of cetacean was sighted on 20th June, 1990, at 1500 hours, about 300 meters from the bow of the ferry, while it was heading towards Sardinia'. The fix

was **41° 25' N - 10° 27' E**, above a bottom of **1200 m**, corresponding to the eastern slope of a submerged ridge that runs in direction north-south and rises from **-1800** to **-600 m**, distant **44** nautical miles from the Sardinian coast and **78** nautical miles from the mainland coast.

One specimen was about 5 m in length, the other one about **3.5 m** in length.

They had massive bodies, light brown, nearly amber-coloured. The dorsal fin, lying in the posterior third of the body, was small, triangular, slightly falcated or not falcated at all.

The two specimens were swimming mostly parallel at a distance of 1 to 15 m from each other, without a definite direction.

They were swimming quite slowly, without apparent fear of the approaching ferry. Only one dive was observed, of about **10** seconds, without the caudal fin emerging. No evident blow was seen,

The sighting lasted about **3-4** minutes, before the animals were overtaken and left astern of the ferry.

Three slides were shot with the 200 mm lens and a short shooting with the videocamera was recorded.

The state of the sea was about **1-2** with few breakers, the wind was blowing from south-south-east, **1-2** on the Beaufort scale, the sky was clear and visibility was good: the water temperature, which had been recorded around 15 minutes before the sighting, was **18 °C**.

Another couple was sighted on 30th August of the same year, at **1210** hours, above a bottom of 1800 m. The fix was **41° 15' 50" N - 10° 11' 60" E**, west of the former sighting.

The characteristics of the specimens were similar in those of the other animals, except for the slightly larger dimensions of the bodies and for the dorsal fin of the smaller specimen, which was quite distinctly falcated.

The state of the sea was calm, without wind; visibility was good. The water temperature, recorded at **1310** hours, was **23 °C**.

The sighting lasted about 3 minutes, during which four slides were shot with the **135 mm** lens.

A third couple, this time composed of two adult specimens, was sighted on 30th April **1991** at **1435** hours. The fix was **41° 37' N - 10° 55' E** above a bottom of **1400** meters. The specimens were both quite large, about **5** meters in length, slightly darker than the foregoing ones. The dorsal fins were small and slightly falcated. The couple was swimming toward the ship, until about **200-300** meters from it, then it veered and slowly moved away. They made no blow nor diving.

The sea and wind were calm, the visibility not perfect; the water temperature was **12 °C**.

Some black and white photographs were shot with the **200 mm** lens (fig. 1).

The last sighting refers to an isolated specimen on 1st June **1991**, at 1255 hours. The fix was **41° 43' N -10° 59' E**, above a bottom of **1400 m**. The sea was calm, the visibility good and the temperature of the water was about **19 °C**.

The specimen, which emerged about 70-100 meters in front of the **ship** swimming slowly, was adult with evident scars along the brownish body: the length was about 5 meters and the dorsal fin was similar to that of the third couple. It came up to about **30** meters from the ferry. Some black and white photographs were taken.

DISCUSSION

The morphology of the specimens and their behaviour coincided completely with the ones described by Cagnolaro et al. (1983) for *Ziphius cavirostris*: moreover, the presence of this species in the Mediterranean Sea, considered as relatively common, makes it likely that the sighted animals belong to this taxon. Since the difference between sexes in this species is not so great as the one observed between the members of the first two sighted couples, we think that they were probably females with their calves. We cannot, however, exclude the possibility, even if remote, that some of the sighted specimens could belong to *Mesoplodon densirostris*.

Our sightings contribute in identifying the presence of this family in the Central and Central-Southern Tyrrhenian Sea, besides that, already suggested, in the Ligurian Sea and in the Northern Tyrrhenian Sea (Cagnolaro et al., 1983).



Fig. 1 — *Ziphius cavirostris*.

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