

M.F. GRAVINA (*), A. SOMASCHINI (**)

NEW RECORD OF *MEDIOMASTUS FRAGILIS* RASMUSSEN, 1973
FOR THE ITALIAN FAUNA AND NOTES ON THE GENUS *MEDIO-*
MASTUS HARTMANN, 1944 (POLYCHAETA, CAPITELLIDAE)

Riassunto — *Primo ritrovamento per la fauna italiana di Mediomastus fragilis Rasmussen, 1973 e note sul genere Mediomastus Hartmann, 1944 (Polychaeta, Capitellidae).* Viene segnalato il primo ritrovamento di *Mediomastus fragilis* per le coste italiane. Questa specie è stata solo recentemente segnalata per il Mediterraneo lungo le coste spagnole. Vengono inoltre descritte le principali caratteristiche morfologiche confrontandole con quelle delle altre specie appartenenti allo stesso genere. Vengono infine riportate alcune note sull'ecologia e la distribuzione geografica.

Abstract — The first record of *Mediomastus fragilis* for the Italian fauna was reported. *M. fragilis* was only found recently in the Mediterranean Sea from the Spanish coast. Some morphological features of this species were described in comparison to the other species of the same genus. The ecology of the species together with their geographical distribution were also discussed.

Key words — Polychaeta, Capitellidae, Tyrrhenian Sea.

INTRODUCTION

The genus *Mediomastus* Hartmann, 1944 belongs to the family Capitellidae (Annelida, Polychaeta) and is characterized by 11 thoracic segments, the first one is achetous. Up to segment 5 with capillary setae only and all hooks thereafter. Abdomen with numerous segments bearing hooded hooks or also capillar setae in the notopodia of the last segments (HARTMANN-SCHRÖDER, 1962; FAUCHALD, 1977; AMARAL, 1980). Pygidium with or without ventral cirrus. Branchiae absent, except in *M. branchiferus* H. Schröder, 1962.

(*) Museo Civico di Zoologia - Via U. Aldrovandi, 18 - 00197 Roma.

(**) Dipartimento Biologia Animale e dell'Uomo - Università «La Sapienza» - Viale dell'Università, 32 - 00185 Roma.

According to bibliographic data nine species are referred to this genus and until now *M. fragilis* Rasmussen, 1973 and *M. cirripes* Ben-Eliahu, 1976 are recorded from the Mediterranean Sea, but not from the Italian coast. *M. capensis* Day, 1961 was also found in the Mediterranean and recently collected from Italy (central Tyrrhenian Sea, Salerno Gulf) (GIANGRANDE and GAMBÌ, 1986).

Several specimens belonging to *M. fragilis* and *M. capensis* were collected during benthic investigations on hard and soft bottom in the Tyrrhenian Sea (Latium) and in a coastal lagoon of Sardinia. The record of *M. fragilis* is the first for the Italian fauna.

MATERIALS AND METHODS

Sampling methods

Specimens of *M. capensis* were collected from coastal hard bottom of Latium North of Rome (Civitavecchia) and on an artificial reef (Fregene) (ARDIZZONE and CHIMENZ, 1982). Specimens of *M. fragilis* were collected from muddy bottoms in the Santa Gilla Lagoon (Sardinia).

Sampling on hard bottoms (Latium coast) were carried out scraping off a standard surface of 400 cm², while sampling on soft bottoms (Santa Gilla Lagoon) by means of the Van Veen grab.

Examined material

Mediomastus fragilis Rasmussen, 1973

Fourteen specimens were collected in the Santa Gilla Lagoon (Italy, Sardinia) at 1-2 m depth. The description corresponds to those of RASMUSSEN (1973), WARREN (1979) and CAPACCIONI AZZATI (1985) (Fig. 1-3).

The entire specimens with 40-50 segments measure 5-9 mm long and a ventral cirrus is present on the pygidium.

Mediomastus capensis Day, 1961

Twenty-nine specimens were collected from the central Tyrrhenian coast (Italy, Latium): twenty-eight of them from Civitavecchia at .30 m depth and one specimen from the artificial reef off Fregene at 10 m depth.

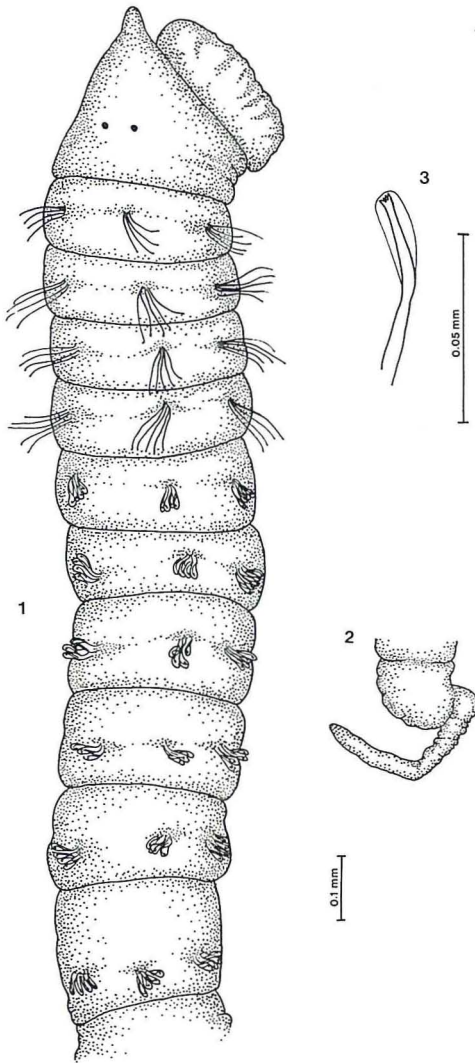
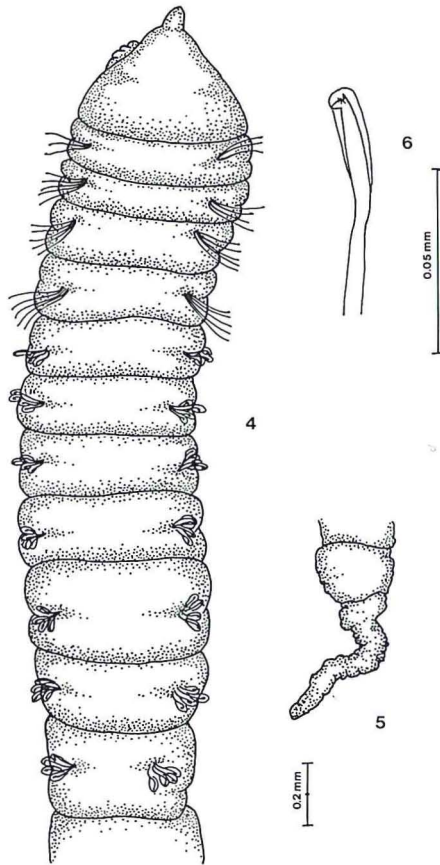


Fig. 1-3 - *Mediomastus fragilis*: (1) Dorso-lateral view of anterior end. (2) Posterior end with caudal cirrus. (3) Thoracic hooded hooks.

All the specimens correspond to the description of DAY (1961; 1967) for those recorded in South Africa in all the morphological features (Fig. 4-6). The entire worms measured 15-20 mm for about 60 segments.



Figg. 4-6 - *Mediomastus capensis*: (4) Dorsal view of anterior end. (5) Posterior end with caudal cirrus. (6) Thoracic hooded hooks.

DISCUSSION AND CONCLUSION

According to the available data, at present in the Mediterranean Sea the genus *Mediomastus* is represented by three species: *M. cirripes* Ben-Eliahu, 1976, from the coast of Israel; *M. capensis* Day, 1961 recorded from the coast of Spain (CAMPOY, 1979) and along the Italian coast from the Salerno Gulf (GIANGRANDE and GAMBI, 1986) and from the coast of Latium (Fregene, Civitavecchia); *M. fragilis* Rasmussen, 1973 from the coasts of Spain (CAPACCIONI AZZATI, 1985) and of Italy (Sardinia).

In addition FEBVRE-CHEVALIER (1969) reported *M. californiensis* from Mediterranean coast of France (Marseille), but specimens identified as *M. cfr. capensis* were recorded from the same area (ABADAGUERRONI and WILLSIE, 1984; WILLSIE, 1986; SALEN-PICARD, 1987). Therefore in the Mediterranean Sea *M. capensis* showed a continuous distribution from the coasts of Spain to Italy (although further investigation would be requested for specimens from France).

Comparison of the species

The most important characters to distinguish the species of the genus *Mediomastus* are reported in table 1.

TABLE 1 - Principal characters distinguishing the species of the genus *Mediomastus* (*)

CHARACTERS SPECIES	Eyes	Capillar abdominal notosetae	Caudal cirrus	Bran- chiaie	Hooded hooks theet (**)
<i>M. acutus</i> Hartmann, 1969	?	—	?	?	2
<i>M. ambisetus</i> Hartmann, 1944)	—	+	+	—	3
<i>M. branchiferus</i> H. Schroeder, 1962	+	—	+	+	?
<i>M. californiensis</i> Hartmann, 1944	—	—	—	—	3
<i>M. capensis</i> Day, 1961	—	—	+	—	3
<i>M. caudatus</i> Hartmann, 1974	—	—	+	—	?
<i>M. cirripes</i> Ben-Eliahu, 1976	+	—	—	—	3
<i>M. fragilis</i> Rasmussen, 1973	+	—	+	—	3
<i>M. setosus</i> H. Schroeder, 1959	?	+	+	—	?

(*) + means present and — means absent.

(**) above main thoot, save *M. acutus*.

As regards the Mediterranean species, *M. fragilis* differs from *M. cirripes* essentially in having a ventral cirrus on the pygidium and from *M. capensis* in bearing the eyes (Fig. 1). *M. cirripes* is also characterized by a cirriform tip of the prostomium. THOMASSIN (1970) observes two orange ocular hacks at the prostomium-peristomium limit in the specimens of *M. capensis*, from South-Western coast of Madagascar, while DAY (1961; 1967) never describes them. Furthermore HOBSON (1974) recorded one specimen of *M. capensis*, from North-Eastern Pacific Ocean, with a ventral cirrus on the pygidium, as DAY (1961) described, while others lack this appendage.

Geographical distribution and ecological notes

According to the available records, *M. fragilis* is distributed only in the Northern hemisphere, in particular it was recorded for the first time from the Isefjord (Denmark) in different sorts of bottom, from muddy to fine sand and stony ground; it was also recorded among the mussel layers preferentially in the shallow intertidal areas (RASMUSSEN, 1973). WARREN (1979) describes the first record of this species from British waters (Shetlands, Scotland, Dublin, Liverpool) with high density in muddy and fine sandy bottom. Then *M. fragilis* was recorded from the Atlantic coast of France (Roscoff) (DAUVIN and GENTIL, 1980). A sharp increase in the density of this species was observed after the perturbation subsequent to the oil spill pollution in the Bay of Morlaix (France) (DAUVIN, 1982). SHIN *et al.* (1982) found *M. fragilis* from the West coast of Ireland. Finally CAPACCIONI AZZATI (1985) recorded this species for the first time in the Mediterranean Sea (Spanish coast) on shallow muddy bottom also with marine phanerogams.

Along the Italian coast, specimens of this species were taken from sandy-muddy bottom in the Santa Gilla lagoon (Sardinia) in a sampling station near the outlet to the sea (G. Carrada pers. comm.).

Our record from the Italian coast is a further contribution to the geographical distribution of this species which may have been subject to some misidentifications as mistaking for *Heteromastus filiformis* (WARREN, 1979; CAPACCIONI AZZATI, 1985). *M. fragilis* appeared an opportunistic species, as DAUVIN (1982) and RASMUSSEN (1973) reported.

M. capensis was firstly found from the South Africa (DAY, 1961; 1967), then from the sandy bottom South-Western to Madagascar

(THOMASSIN, 1970) and from Mozambico (HARTMANN-SCHRÖDER, 1974). HOBSON (1974) reports the first record of this species in the Northern hemisphere from Washington in intertidal and shelf depths. FOURNIER and LEVINGS (1982) report this species from British Columbia in silt-gravel sediment. Its distribution in the Mediterranean Sea was described above. In our records along Italian coast *M. capensis* was found on hard bottom influenced by sediment deposition due to river outputs. Sediment particles were trapped among the valves and byssus of mussels on the artificial reef of Fregene and among algae of photophilic assemblages near Civitavecchia. *M. cirripes* was only found in the Eastern Mediterranean Sea from an intertidal Vermetid reef (Ben-Eliahu, 1976).

These new records for the Italian fauna add to other recent records of Polychaetes species such as *Desdemonia ornata* (LARDICCI and CASTELLI, 1986), *Fabricia filamentosa* (GIANGRANDE and CASTELLI, 1986) and *Podarkeopsis capensis* (GRAVINA and GIANGRANDE, in press), thus improving our knowledge of the biogeography of this taxon.

Acknowledgements

We wish to thank Giovanni Carrada (Dipartimento Biologia Animale e dell'Uomo, University «La Sapienza» of Rome) who carried out the samplings in the Santa Gilla lagoon.

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(ms. pres. il 10 febbraio 1988; ult. bozze il 25 ottobre 1988)

