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THE OCCURRENCE OF THE BOPYRID PARASITE
PSEUDIONE CRENULATA G.O. SARS (ISOPODA, EPICARIDEA)
 IN THE BRANCHIAL CHAMBER OF *MUNIDA TENUIMANA*
 G.O. SARS (CRUSTACEA: ANOMURA)
 FROM NORTH TYRRHENIAN SEA

During a study on the biology of decapod crustaceans of the North Tyrrhenian Sea (western Mediterranean) a pair of bopyrid parasites (male and female) was found inhabiting the left branchial chamber of one specimen of *Munida tenuimana* G. O. Sars, 1872 (Crustacea, Decapoda, Anomura).

The infested individual was a mature male of 24 mm carapace length, collected in August 1995 off Giglio Island (Lat. 42°16.35'N, Long. 10°44.94'E) at 354 m depth. Both the male *Munida tenuimana* and the bopyrid parasites have been deposited in the Museo Civico di Storia Naturale "G. Doria" in Genoa.

REMARKS: the male and female parasites have been ascribed to *Pseudione crenulata* G. O. Sars, 1899 (Figs. 1, 2, 3, 4 and 5) since they agree with the descriptions and figures of this species (SARS, 1899, pl. 86, fig. 1; BOURDON, 1968, figs. 43-49).

Pseudione crenulata has been recorded on two species of decapod crustaceans, namely *Munida rugosa* (Fabricius, 1775) from Norway (SARS, 1886; 1899), Scotland (SCOTT, 1899, 1901; PIKE, 1953), United Kingdom (Plymouth Marine Fauna, 1931, 1957; PIKE, 1953), France (BOURDON, 1968), and in two Mediterranean areas: Cadaqués in Spain (ZARIQUIEY ALVAREZ, 1958) and Neaples in Italy (LO BIANCO, 1888; GIARD & BONNIER, 1890); *Munida tenuimana* from Norway (SARS, 1886, 1899) and Cadaqués in Spain (as *M. perarmata*, ZARIQUIEY ALVAREZ, 1958).

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Bourdon (1968) reports an infestation rate of about 1-2% for *Munida rugosa*. For *Munida intermedia* no infestation rate is known. In *Munida tenuimana* of the North Tyrrhenian Sea this rate seems to be low, because infestation has been found only on one specimen over 834 females and 658 males we have examined.

In agreement with the observations of ZARIQUIEY ALVAREZ (1958) on the modification of some secondary sexual characters of parasited males *Munida rugosa*, the infested male *Munida tenuimana* also showed a light reduction in size of the pleopods III and IV, as compared to the healthy individuals, and mainly a strong modification of the endopodit belonging to the pleopod V (Fig. 3).

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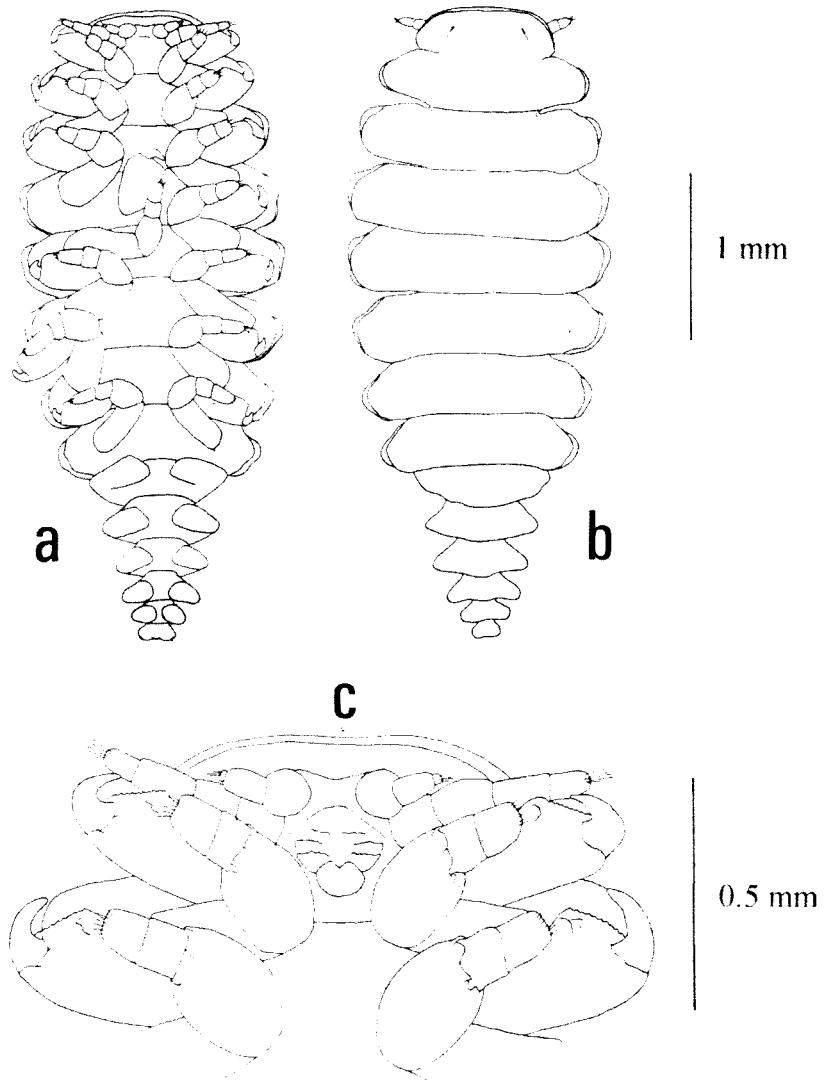


Fig. 1 - *Pseudione crenulata*, male (length 3.8 mm, greatest width 1.6 mm), North Tyrrhenian Sea:
a) ventral view; b) dorsal view; c) ventral view of cephalon. —

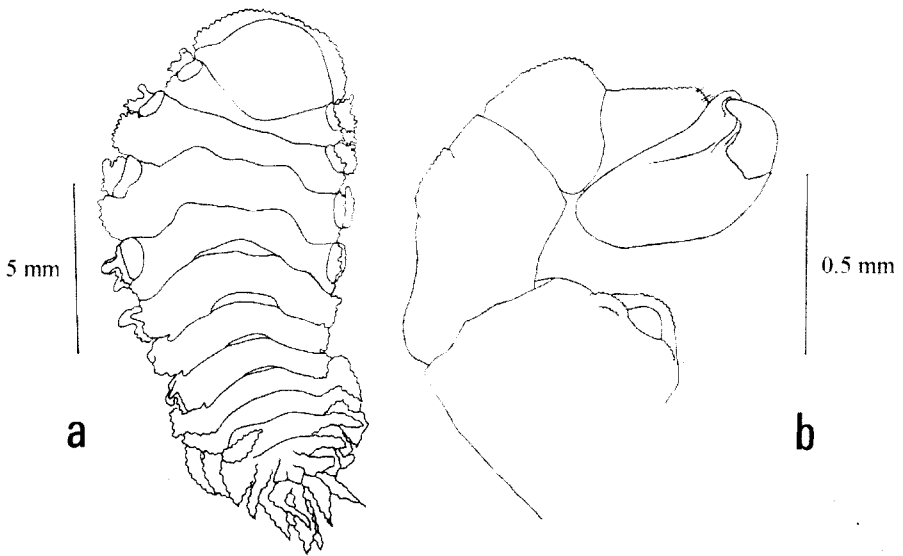
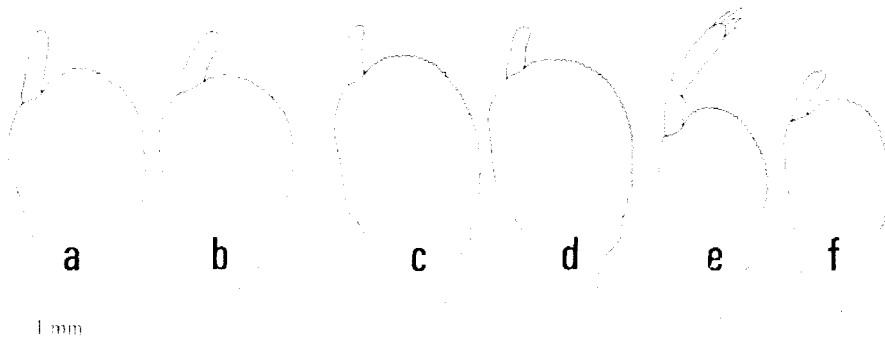


Fig. 2 - *Pseudione crenulata*, female (length 16 mm, greatest width 7.6 mm), North Tyrrhenian Sea: a) dorsal view; b) right pereiopod.



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 Fig. 3 - *Munida intermedia*: a, c, e) III, IV and V pleopod of the infested individual; b, d, f) III, IV and V pleopod of a healthy individual.

SUMMARY

The bopyrid parasite *Pseudione crenulata* G. O. Sars, 1899 was found inhabiting the branchial chamber of a mature male of *Munida tenuimana* G. O. Sars, 1872 (Crustacea, Decapoda, Anomura) from the Isle of Giglio area (North Tyrrhenian, Western Mediterranean). The infestation rate of this parasite seems to be low, since this is the one record over 1492 *Munida tenuimana* specimens. The modification of some secondary sexual characters is reported.

RIASSUNTO

Viene segnalata la presenza di un bopiride parassita, *Pseudione crenulata* G. O. Sars, 1899, nelle camere branchiali di un maschio maturo di *Munida tenuimana* G. O. Sars, 872 (Crustacea, Decapoda, Anomura) raccolto al largo dell'Isola del Giglio (Tirreno settentrionale, Mediterraneo occidentale). Nel tratto di mare indagato, il tasso d'infestazione di questa specie risulta basso in quanto questo è l'unico caso riscontrato su 1492 individui di *Munida tenuimana* esaminati. Vengono anche illustrate le modificazioni di alcuni caratteri sessuali secondari.