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RECORD OF THE GENUS *PROGONIADA*
(POLYCHAETA: GONIADIDAE) IN THE MEDITERRANEAN SEA

Riassunto — *Segnalazione del genere Progoniada (Polychaeta: Goniadidae) per il Mediterraneo.* Viene segnalata per la prima volta la presenza del genere *Progoniada* nel Mar Mediterraneo, sulla base di un unico individuo che non consente peraltro un'identificazione specifica. Cenni sulla tassonomia, ecologia e distribuzione delle specie di questo genere integrano la segnalazione.

Résumé — Les auteurs ont trouvé pour la première fois, en Méditerranée, un représentant du genre *Progoniada* (Polychaeta: Goniadidae). L'unique spécimen récolté de cette *Progoniada* sp. présente une morphologie et une écologie différentes des autres espèces connues du genre. Cependant, comme beaucoup de soies composées sont manquantes, une description complète d'une espèce nouvelle n'a pas été possible. Les auteurs discutent, aussi, de la taxonomie, de l'écologie et de la distribution géographique des espèces du genre *Progoniada*.

Abstract — A first record of the genus *Progoniada* (Polychaeta, Goniadidae), with the species *Progoniada* sp. is reported for the Mediterranean Sea fauna. The only specimen available is morphologically and ecologically different from the other known species of *Progoniada*, however it lacked the most of the composite setae and thus a complete description of a new species cannot be made. Taxonomy, ecology and geographical distribution of the species of the genus *Progoniada* are also discussed.

Key words — *Progoniada* (Polychaeta) - Mediterranean Sea.

INTRODUCTION

An investigation on benthos physionomy and distribution along the coast of Apulia (Southern Adriatic Sea, Italy) (ENEA, 1986; BE-

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DULLI *et alii*, 1986), yielded a specimen of *Progoniada* sp. (Polychaeta, Goniadidae). The genus *Progoniada* is new for the Mediterranean Polychaete fauna and it is also poorly known world-wide.

The family Goniadidae, Kinberg 1866, is constituted by ten genera (FAUCHALD, 1977; HARTMANN-SCHROEDER, 1974). Among them, the genus *Progoniada* was first described by HARTMAN (1965) with the species *P. regularis*.

This genus is characterized by having all parapodia uniramous with only composite setae, which can be both falcigers and spinigers. The proboscis terminates with a circle of dark jaw pieces and chevrons are present.

The genera related to *Progoniada* are (see Table 1):

TABLE 1. - Key to the genera of the family Goniadidae Kinberg, 1866 (see also Fauchald, 1977).

1a - All parapodia uniramous	2
1b - Anterior parapodia uniramous, posterior parapodia biramous	
Batyglycinde, Glycinde, Goniada, Goniadella, Ophioglycera, Goniadides, Bookhoutia, Goniadopsis	
2a (1a) - Eversible pharynx with chevrons	<i>Progoniada</i>
2b (1a) - Eversible pharynx without chevrons	<i>Progoniadides</i>
(meiofaunal taxa)	

Key of the known species of the genus Progoniada Hartman, 1965

1a - Few (5-6) V-shaped chevrons in the eversible pharynx; first segment with cirri and a small parapodium <i>Progoniada</i> sp. (our specimen)	
1b - Many (> 10) V-shaped chevrons in the eversible pharynx	2
2a (1b) - Both falciger and spiniger composite setae present; cutting edge of the setae denticulated	<i>P. regularis</i>
2b (1b) - Only spiniger composite setae present; cutting edge of the setae smooth	<i>P. simplex</i>

— *Goniada*, Aud. and M. Edw., 1833, and *Goniadella*, HARTMAN (1950): these genera both differ from *Progoniada* because they have biramous posterior parapodia

— *Goniadides*, HARTMANN-SCHROEDER (1971): this genus differs from *Progoniada* because of the presence of biramous parapodia in the posterior part of the body and because of the absence of the chevrons in the proboscis

— *Progoniadides*, HARTMANN-SCHROEDER (1974): this genus,

represented only by *P. laevis*, differs from *Progoniada* for the absence of the chevron in the proboscis; all parapodia are uniramous.

DESCRIPTION

Material: one whole specimen 8 mm long, and 0.3 mm wide, with 70 segments (the specimen is deposited at the Stazione Zoologica «Anton Dohrn» of Naples).

The color is light brown, the prostomium is long with four biarticulated antennae and two small eyes. The first segment has short parapodia with dorsal and ventral cirri but no setae (Figs. 1a and 1b). The proboscis, seen by dissection, terminates with a circlet of dark jaws, however it was impossible to count the pieces of the jaws and distinguish between micro and macrognaths. Chevrons consist of only 5 V-shaped pieces at the side (Fig. 1c). The parapodia are all uniramous, with triangular dorsal and ventral cirri almost equal in size, and prolonged presetal lobe (Fig. 1d).

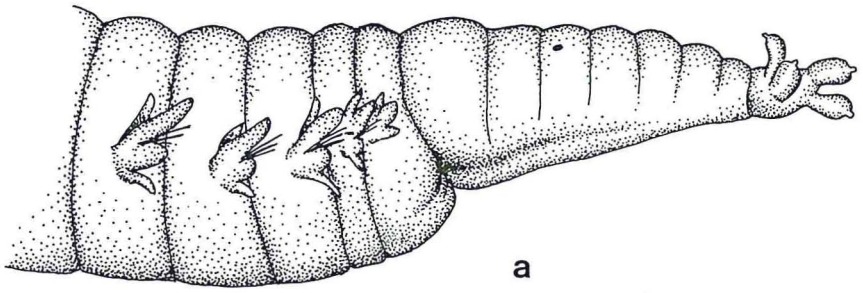
All the setae are composite with the cutting edge of the terminal part strongly denticulated (Fig. 1e). Unfortunately, most of the terminal parts of the composite setae are lacking and the only entire setae are all spinigers. It is therefore impossible establish if falcigers are really absent or lost during sampling. The pigidium is short and rounded (Fig. 1f).

The specimen was found at a depth of 10 m in a bottom covered by the seagrass *Posidonia oceanica* (BEDULLI *et alii*, 1986). The Polychaetes found in the same sample, together with *Progoniada sp.*, are listed in table 2. Other species of Goniadidae found in the same study area were *Goniada maculata* Oersted and *Glycinde nordmanni* (Malmgren) (GAMBI *et alii*, in preparation).

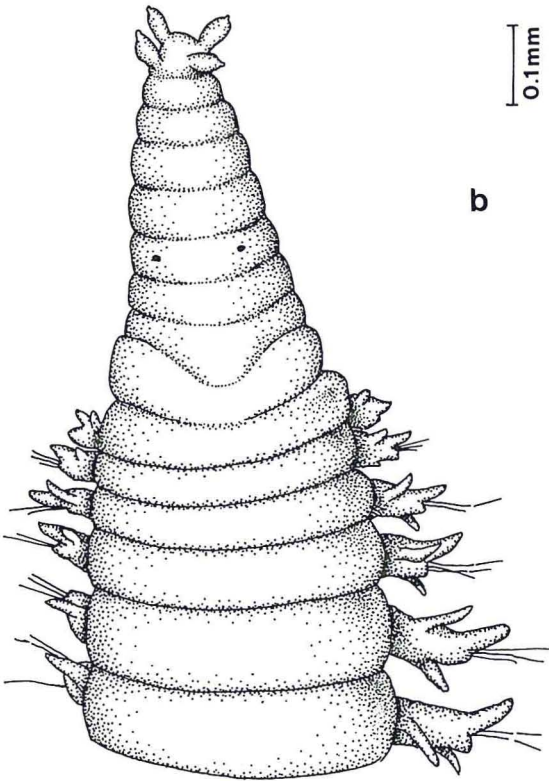
DISCUSSION

To date the genus *Progoniada* is represented by the species *P. regularis*, HARTMAN, 1965, *P. simplex*, HARTMAN, 1971 and *Progoniada sp.* HARTMAN, 1965. *P. regularis* has a first segment with only small lateral cirri and no parapodium. Composite setae are both falcigers and spinigers with denticulated cutting edge. Chevrons consist of 20 V-shaped pieces at the side.

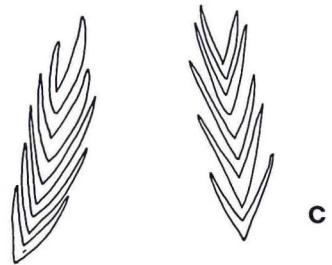
P. simplex differs from *P. regularis* because it lacks falciger se-



a



b



c

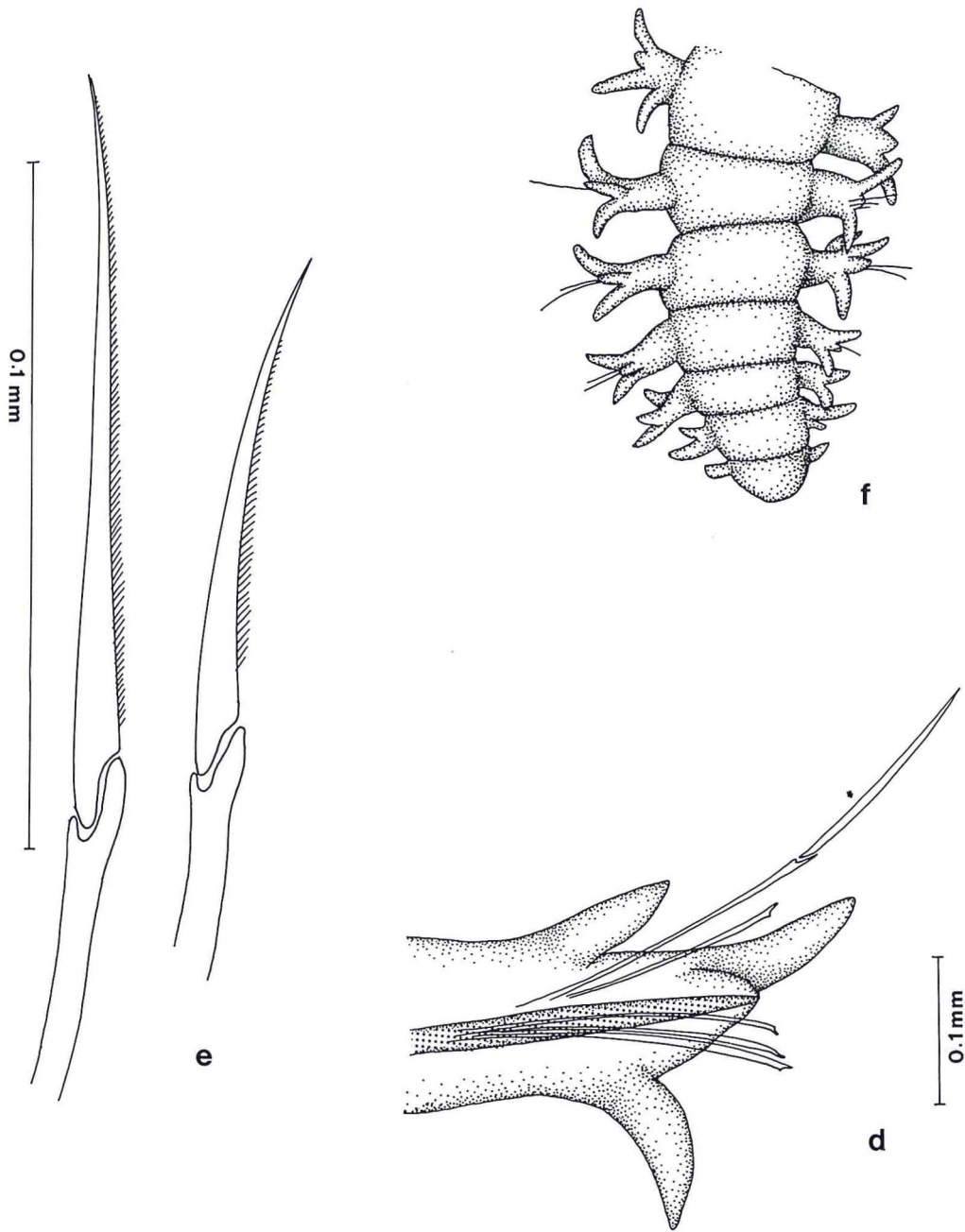


Fig. 1 - Prostomium and first anterior segments of *Progoniada* sp (a=lateral view; b=dorsal view).
 Fig. 1c - Chevrons in the lateral sides of the proboscis of *Progoniada* sp.
 Fig. 1d - Median parapodium of *Progoniada* sp.
 Fig. 1e - Falciger composite setae.
 Fig. 1f - Pigidium and last posterior segments of *Progoniada* sp.

TABLE 2. - List of *Polychaetes* found in the sample together with *Progoniada* sp. (none of them was abundant).

Pontogenia chrysocoma (Baird)	Aponuphis bilineata bilineata (Baird)
Harmothoe lunulata (Delle Chiaje)	Lumbrineris coccinea Renieri
Psammolyce inclusa Claparède	Lumbrineris funchalensis Kinberg
Euphrosine foliosa Aud. & M. Edw.	Lumbrineris latreilli Aud. & M. Edw.
Eulalia tripunctata McIntosh	Protodorvillea kefersteini McIntosh
Syllis garciai Campoi	Prionospio cirriferia Wiren
Syllis truncata criptica Ben-Eliahu	Laonice cirrata Sars
Syllis variegata Grube	Aricidea cerruti Laubier
Odontosyllis ctenostoma Claparède	Paradoneis lyra (Southern)
Gyptis arenicolus La Greca	Tharyx heterochaetus (Laubier)
Nereis rava Ehlers	Serpula concharum Langerhans
Glycera tessellata Grube	Vermiliopsis labiata (Costa)
Eunice vittata (Delle Chiaje)	Hydroides nigra Zibrowius
Lysidice ninetta Aud. & M. Edw.	Protula sp.
Nematonereis unicornis (Grube)	

tae, and the all spinigers have smooth cutting edges. Chevrons consist of about 15 V-shaped pieces at the side.

Progoniada sp. (that of HARTMAN, 1965) is an uncertain taxon found together with *P. regularis*. The author said «It may be a different species (from *P. regularis*); the body is short and squat, and has long natatory setae». No further descriptions are available.

There are a few records of the above-cited species and all findings refer to the abyssal biotope (Fig. 2). *P. regularis* and Hartman's *Progoniada* sp. were found together off the coast of New England at depths from 2900 to 5100 m, off Bermuda at depths from 1000 to 2500 m, and off northeastern South America at depths from 770 to 4525 m. *P. simplex* was found in the Mozambique Basin off Southeast Africa at depth from 440 to 2370 m.

The morphology of our specimen as to the first segment and the number of chevrons in the proboscis is quite different from that of the known species of the same genus. In addition, it is important to point out the differences in habitat: our specimen, is littoral, and the other species are abyssal.

Morphological and ecological differences suggest the possibility that our *Progoniada* sp. is a new species. However, the finding of only one individual, with most of the composite setae lacking, does not permit a complete description of a new taxon.

The rarity of findings of species of the genus *Progoniada* (Fig.

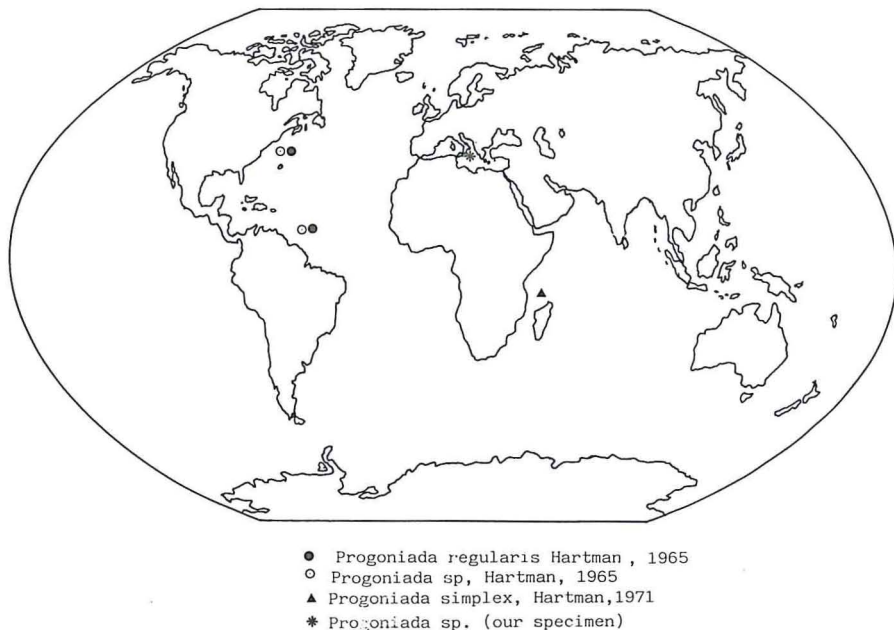


Fig. 2 - Geographical distribution of the species of the genus *Progoniada*

2) is probably due to the fact that most of the species live in abyssal bottoms and this may reflect the old age of the taxon. In the light of this hypothesis, the Mediterranean Sea could be interpreted as a relict area for this genus. On the other hand, the scanty findings could be due also to the fact that the preferential habitats of these species are still poorly studied. Maybe the genus is more widespread than it appears, and only further findings will clarify better its ecology and geographical distribution. In this event, we judged useful to give a first key of identification of the species of the genus *Progoniada*, including our probably new species (Table 1).

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