

The genus *Branchiomma* (Polychaeta: Sabellidae) in the Mediterranean Sea, with the description of *B. maerli* n. sp.

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SUMMARY: The genus *Branchiomma* (Annelida: Polychaeta: Sabellinae) from the Mediterranean Sea is revised based on material collected during several surveys and preserved in the Zoological Laboratory of Lecce University (South Italy). *Branchiomma maerli* n. sp. is described as a new species and compared with the previously reported *B. bombyx*, *B. lucullanum*, *B. luctuosum*, and *B. cf. moebii*. *Branchiomma maerli* n. sp. resembles *B. lucullanum*, but differs in the shape of the collar and in the length of the dorsal lips. *Branchiomma boholensis*, reported as the only Mediterranean species with macrostylodes, is not here described because it has not been possible to obtain adequate material. Finally, *Branchiomma* sp. (similar to *B. violaceum*, but having the dorsal collar fused to the faecal groove) is not formally described as a new species because there is only one available specimen.

Keywords: Sabellidae, *Branchiomma*, Mediterranean Sea, *B. maerli* n. sp.

RESUMEN: EL GÉNERO *BRANCHIOMMA* (POLYCHAETA: SABELLIDAE) EN EL MEDITERRÁNEO, CON LA DESCRIPCIÓN DE *B. MAERLI* N. SP. – En este trabajo se revisa el género *Branchiomma* (Annelida: Polychaeta: Sabellinae) del mar Mediterráneo a partir de material recolectado durante varias campañas y conservado en el Laboratorio Zoológico de la Universidad de Lecce (sur de Italia). *Branchiomma maerli* n. sp. se describe como una nueva especie y se compara con especies previamente reportadas *B. bombyx*, *B. lucullanum*, *B. luctuosum* y *B. cf. moebii*. *Branchiomma maerli* n. sp. se parece a *B. lucullanum*, pero difiere en la forma del collar y en la longitud de los labios dorsales. *Branchiomma boholensis*, reportada como la única especie Mediterránea con macroestilodes, no se describe aquí ya que no fue posible obtener material adecuado. Finalmente, *Branchiomma* sp. (parecida a *B. violaceum*, aunque con el collar dorsal fusionado al surco fecal) no se describe formalmente como nueva especie porque sólo se dispone de un único ejemplar.

Palabras clave: Sabellidae, *Branchiomma*, mar Mediterráneo, *B. maerli* n. sp.

INTRODUCTION

The genus *Branchiomma* K  lliker, 1858 includes about 30 species mostly distributed in sheltered shallow waters (bays, lagoons and harbours) (Tovar-Hern  ndez and Knight-Jones, 2006). The genus is characterised by the presence of paired stylodes (epithelial flaps) occurring at regular intervals along the outer side of each rounded radiolar rachis (Knight-

Jones, 1994). The shape and size of these structures are very important for distinguishing species within the genus.

To facilitate species comparisons, two artificial categories were proposed: group A, including species having the collar fused to the dorsal faecal groove, and group B, including species having the collar with widely separated dorsal margins (Knight-Jones, 1994; Tovar-Hern  ndez and Knight-Jones,

2006). The latter, which contains most of the species, is subdivided into group B1, with macrostylodes on radioles, and group B2, with a length gradation of simple stylodes along the radiole. The species of group B2 may have a thoracic uncinal crest with either numerous or sparse teeth, while the species of group A always have numerous teeth.

Five species are currently known for the Mediterranean Sea: *B. bombyx* (Dalyell, 1859), the most common; *B. lucullanum* (Delle Chiaje, 1828), much more abundant in the past; *B. luctuosum* (Grube, 1870), introduced from the Red Sea (Bianchi, 1983) and at present one of the most abundant species along the Italian coasts; *B. moebii* Knight-Jones, 1994, previously identified as *B. lucullanum* and *Branchiomma* species A from the Adriatic Sea and the Aegean Sea respectively (Knight-Jones *et al.*, 1991); and *B. bohollensis* (Grube, 1878), a fairly common species in the Indo-West Pacific, recorded by Knight-Jones *et al.* (1991) from the eastern Mediterranean and previously identified as *Dasychone cingulata* Grube, 1870 and *Dasychone lucullana* (Delle Chiaje, 1828).

In this paper the species of the genus *Branchiomma* from the Mediterranean Sea are revised on the basis of the material collected during several surveys along the Italian coasts since 1989 and preserved in the authors' collection at the Zoological Laboratory of Lecce University (southern Italy). As a result, one new species is described, namely *B. maerli*, and another is not formally named due to the lack of sufficient available material.

MATERIAL AND METHODS

The holotype of *Branchiomma maerli* n. sp. is deposited at the Museo Nacional de Ciencias Naturales in Madrid (MNCN). The paratype is preserved in the collection of the Laboratory of Zoology of Lecce (PCZL), along with all the other examined material which comes from ecological studies conducted along the Italian coasts.

The external morphology of the specimens was examined using a stereomicroscope. Detailed observations of structures such as chaetae, uncini and dorsal lips were performed under a light microscope and measured with an ocular micrometer. For all the species, the description of the number of thoracic chaetae and uncini refers to the third chaetiger, while that of the abdomen refers to the middle part of the abdomen.

The photographs were taken with a digital camera (Nikon, Coolpix 990) attached to the stereomicroscope. Drawings were made with the aid of a camera lucida.

TAXONOMIC ACCOUNT

Family SABELLIDAE Latreille, 1825
Subfamily SABELLINAE Latreille, 1825
Genus *Branchiomma* K  lliker, 1858

Diagnosis. Medium-size sabellid species (except the large *B. luctuosum*), with numerous radioles. Palmate membrane present, radiolar flanges absent. Stylodes well developed, regularly spaced along the outer side of each rounded radiolar rachis. Radiolar compound eyes paired, distributed along the radiole length. Dorsal lips with radiolar appendages. Ventral lips and parallel lamellae present. Thoracic and abdominal interramal eyespots present. Superior thoracic notochaetae elongate, narrowly hooded. Inferior thoracic notochaete spinelike, fascicles arranged in bundles, with irregular, longitudinal chaetal rows. Abdominal neurochaetal tori as conical lobes, chaetal fascicles arranged in a partial C-shaped configuration formed by outer chaetae geniculate, around a cluster of capillary chaetae. Thoracic uncini avicular with small teeth above the main fang and very short handle. Companion chaetae absent. Abdominal uncini similar to the thoracic ones.

Type species. *Branchiomma bombyx* Dalyell (1853)

Remarks. The genus *Branchiomma* was erected by K  lliker (1858) with *Amphitrite bombyx* as the type species. However, up to 1938 many authors used *Dasychone* (Sars, 1862), while *Branchiomma* referred to species presently ascribed to *Megalomma* (Saint-Joseph, 1894). Johansson (1927) restored *Branchiomma* K  lliker, for the species resembling *B. bombyx* in having many paired compound eyes along radioles, while those with single terminal compound radiolar eyes were placed in *Megalomma* Johansson, 1927. Recently Knight-Jones (1994) transferred some species to *Pseudobranchiomma* Jones, 1962, based on the presence of distinctive radiolar appendages.

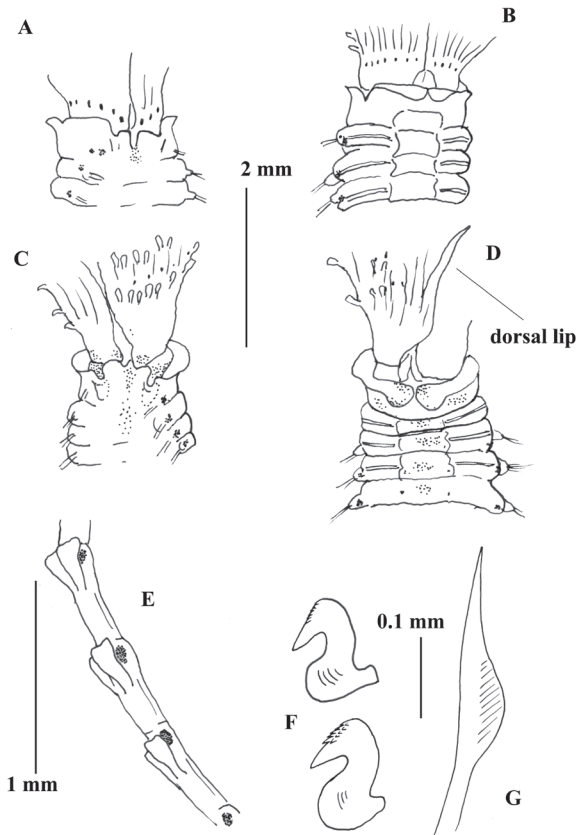


FIG. 1. — *Branchiomma bombyx*: A, C, anterior end, dorsal views; B, D, anterior end ventral views; E, detail of radiole, showing stylodes and radiolar eyes; F, thoracic uncini in different views; G, thoracic inferior notochaeta.

***Branchiomma bombyx* Dalyell (1853)**
(Fig. 1)

Amphitrite bombyx Dalyell, 1853 (= *Branchiomma dalyelli* Kölliker, 1858)
Sabella argus Sars, 1862
Sabella polyzonos Grube, 1870
Dasychone polyzonos Lo Bianco, 1893
Dasychone bombyx Saint-Joseph 1894; Rioja, 1923; Fauvel, 1927
Dasychone polyzonosa Iroso, 1921

Material examined. Ischia, Naples (Tyrrhenian Sea): 9 specimens, in the harbour, 1 m deep, 1983, 2 specimens on *Cystoseira*, 1 m deep, 1983; 2 specimens on *Posidonia*, 1 m deep, 1991; Livorno (Tyrrhenian Sea): 6 specimens, on hard bottom with algal cover, 6 m deep, 1985; Brindisi (Adriatic Sea): 14 specimens on *Cymodocea*, 2 m deep, 1987; 15 specimens on algae, 13 m deep, 1987; Otranto (Adriatic Sea): 5 specimens on algae, 20 m deep, 2000; Torre Guaceto (Adriatic Sea): 1 specimen on hard substrate, 5 m deep, 2000; Torre Inserraglio (Ionian Sea): 6 specimens on hard bottom, 5 m deep, 2002.

Description. Small species (from 10 to 20 mm in total length), up to 13 mm body length and 7 mm crown length, with 8 thoracic and about 30 abdominal chaetigers. About 13 pairs of radioles, each with about 10 pairs of well-developed foliaceous stylodes covering the radiolar eyes (Fig. 1E). Interramal eye-

spots present along the body. Collar fused to the dorsal faecal groove, forming two lappets lower than the lateral collar margin (Fig. 1A, C). Collar margin with ventro-lateral notches (Fig. 1B). Collar slightly higher ventrally, with rounded non-overlapping ventral lappets (Fig. 1B, D). Dorsal lips long, about 1/3 of the branchial crown. Superior thoracic notochaetae slender weakly geniculate, 6-7 per fascicle. Inferior thoracic notochaetae short spinelike with knee region up to twice wider than shaft (Fig. 1G), 7-8 per fascicle. Thoracic uncini avicular, with well-developed breast and short handle, 42 per torus, with numerous teeth (6 rows in profile) over the main fang (Fig. 1F). Abdominal neurochaetae geniculate, 10 per fascicle, forming compact tufts arranged in C-shaped arcs around a cluster of capillary chaetae. About 16 abdominal avicular uncini, similar to the thoracic ones.

Remarks. The material collected along the Italian coast corresponds quite well with the description by Rioja (1923), especially in the collar features and in the shape of the stylodes, even if the specimens examined by this author were slightly larger and with longer dorsal lips. The species, the most common within the Mediterranean Sea, is often confused with *B. lucullanum* from which it can be distinguished by the shape of the shorter stylodes, the lower dorsal and ventral lappets of the collar and the longer dorsal lips. However, the shape of the stylodes is not a satisfactory character in small specimens, which may be better distinguished by the shape and length of the dorsal lips (shorter and blunter in *B. lucullanum*), as already pointed out by Knight-Jones *et al.* (1991).

***Branchiomma lucullanum* (Delle Chiaje, 1828)**
(Fig. 2)

Sabella lucullana Delle Chiaje, 1828
Dasychone lucullana Claparède, 1868; Lo Bianco, 1893; Iroso, 1921; Fauvel, 1927.

Material examined. Porto Cesareo (Ionian Sea): 6 specimens, hard bottom with algal cover, 10 m deep, 1989.

Description. Small species, 15 mm in total length, up to 5 mm of crown length, with 8 thoracic and about 50 abdominal chaetigers. About 10 pairs of radioles, each with about 10 pairs of digitiform stylodes covering the radiolar eyes (Fig. 2C). Interramal small pigmented spots present along the body. Collar fused to the dorsal faecal groove, with dorsal lappets having similar height than the lateral collar

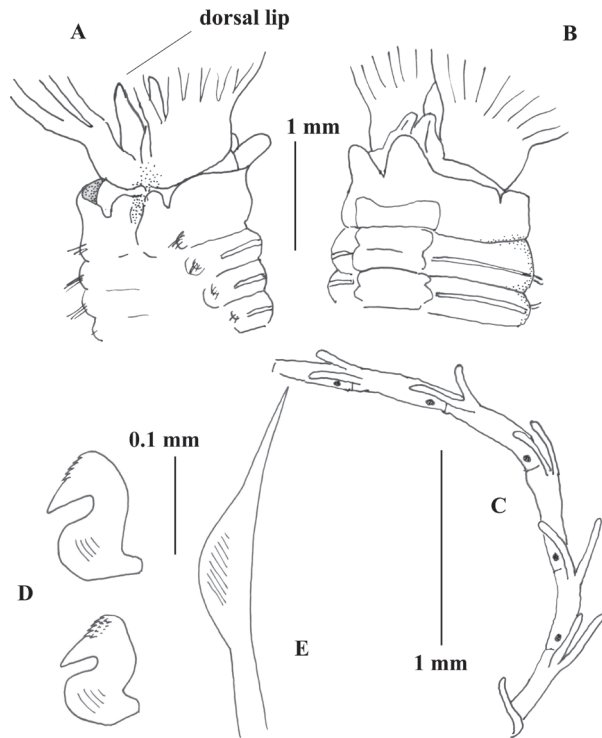


FIG. 2. – *Branchiomma lucullanum*: A, anterior end, dorsal view; B, anterior end, ventral view; C, detail of radiole, showing stylodes and radiolar eyes; D, thoracic uncini in different views; E, thoracic inferior notochaeta.

margin (Fig. 2A), collar higher ventrally with well-developed ventral lappets (Fig. 2B). Collar margin with ventro-lateral notches (Fig. 2B). Dorsal lips short and blunt (Fig. 2A). Superior thoracic notochaetae slender, weakly geniculate, 7 per fascicle. Inferior thoracic notochaetae short spinelike with knee up to twice as wide as shaft, 8 per fascicle (Fig. 2E). Thoracic uncini avicular, with well-developed breast and short handle, 32 per torus, with numerous teeth (5 rows in profile) on the thoracic uncinal crest (Fig. 2D). Abdominal neurochaetae geniculate, 8 per fascicle, forming compact tuft arranged in C-shaped arc around a cluster of capillary chaetae. Abdominal uncini avicular, 15 per torus.

Remarks. The examined material corresponds quite well to the description by Rioja (1923), except for the smaller size and more slender appearance. This species, very common in the past, is now rarer, particularly in the Gulf of Naples where it used to be very abundant and is now absent (authors' pers. obs.). This could be the result of either normal fluctuations of abundance or changes in the environmental conditions during the last 100 years, after Claparède's studies. Another cause of regression could be the

introduction, apparently from the Red Sea, of the invasive *Branchiomma luctuosum*, which became the most abundant species in the Gulf of Naples.

***Branchiomma luctuosum* (Grube, 1870)**
(Figs. 3, 4A)

Sabella (Dasychone) luctuosa Grube, 1870; Gravier, 1908.
Branchiomma luctuosum Bianchi, 1983; Sordino and Gambi, 1992;
Licciano *et al.*, 2002; Nogueira *et al.*, 2006.

Material examined. Taranto: a large population up to 8 m deep on hard and soft bottom, 1988; Naples: a large population, 1 m deep on *Caulerpa*, 1989; 2 specimens 2004 (Capo Miseno) 5 m deep on *Caulerpa*.

Description. Large species, from 60 to 120 mm in total length, up to 60 mm crown length, with 7-8 thoracic and about 60-100 abdominal chaetigers. Up to 26 pairs of spiralled radioles, each with 21-26 pairs of small digitiform stylodes not covering the small radiolar eyes (Fig. 3C). Body and crown brown- or dark velvet-coloured. Collar with a large dorsal gap, (Fig. 3A), higher ventrally with well-developed ventral lappets (Fig. 3B). Dorsal lips (Fig. 3A, B) about 1/3 of the branchial crown. Superior

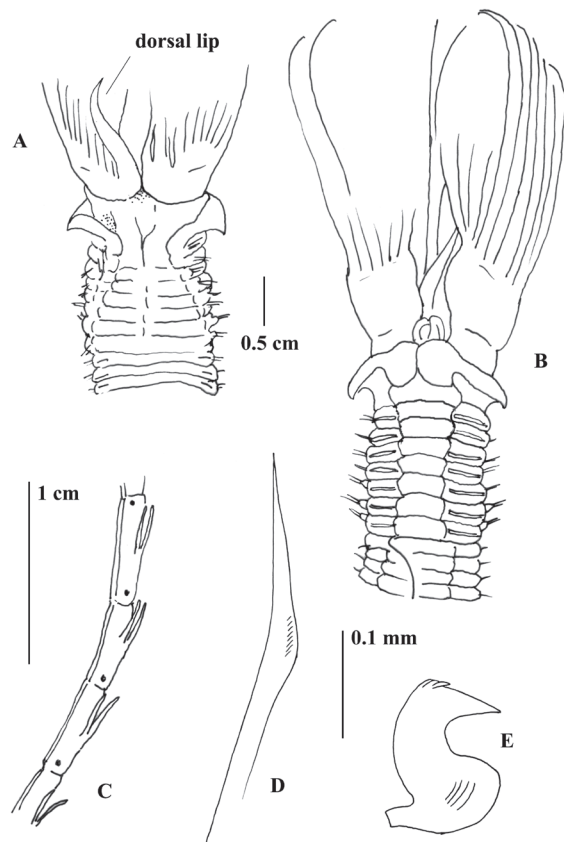


FIG. 3. – *Branchiomma luctuosum*: A, anterior end, dorsal view; B, anterior end, ventral view; C, detail of radiole, showing stylodes and radiolar eyes; D, thoracic inferior notochaeta; E, thoracic uncinus.

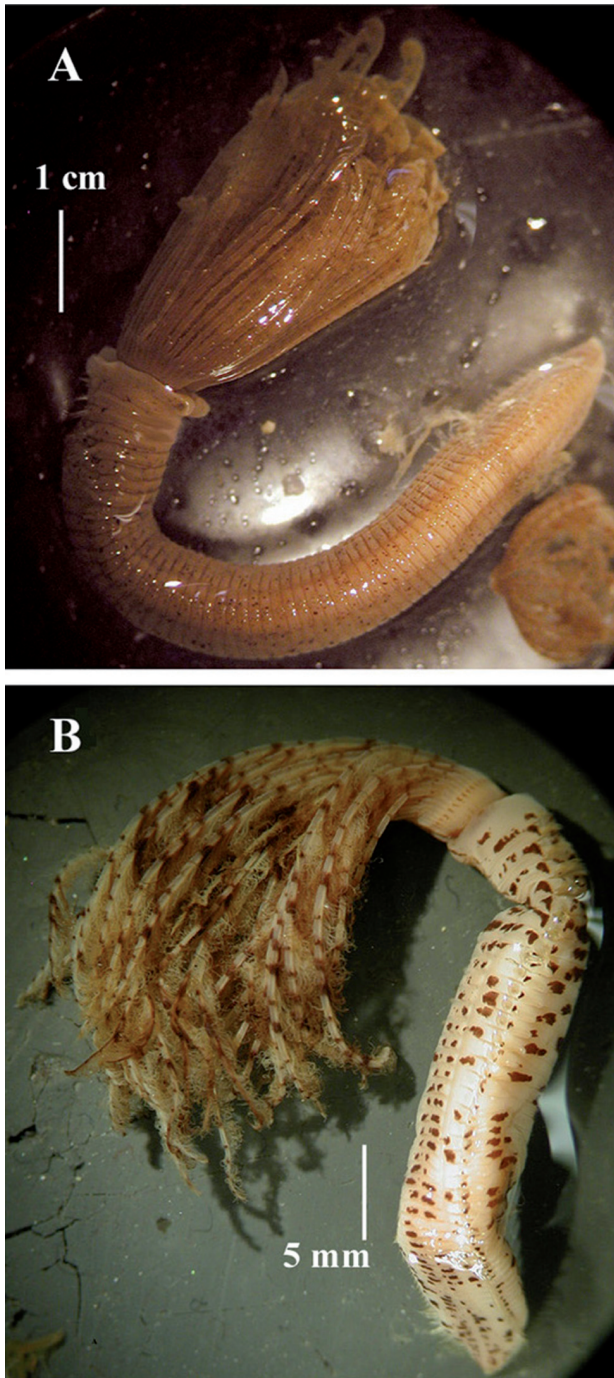


FIG. 4. – A, *Branchiommma luctuosum*; B, *Branchiommma maerli*.

thoracic notochaetae slender, weakly geniculate, 12 per fascicle. Inferior thoracic notochaetae spinelike with knee slightly wider than shaft, 15 per fascicle (Fig. 3D). Thoracic uncini avicular, with well-developed breast and short handle, up to 100 per torus, 3 teeth in profile on the thoracic uncinal crest (Fig. 3E). Abdominal neurochaetae geniculate, 18 per fascicle, forming compact tuft arranged in C-shaped arc

around a cluster of capillary chaetae. Abdominal uncini avicular, 30 per torus.

Remarks. Originally described for tropical waters (Grube, 1870), this species represents a possible Lessepsian migrant from the Red Sea. The first finding in the Mediterranean Sea was in the western basin (Tyrrhenian Sea) (Bianchi, 1983), but later it was reported also for the eastern basin (Aegean Sea) (Simboura and Nicolaidou, 2001), and more recently in the eastern Atlantic (Daniel Martin, pers. com.). At present, this species seems to have invaded most of the Italian coast and is considered a pest (Licciano *et al.*, 2002). It is also present on the Brazilian coasts (Nogueira *et al.*, 2006), where it seems to have been introduced recently. For these reasons, *B. luctuosum* is one of the most investigated sabellid species (Licciano *et al.*, 2002).

Our material agrees with the original description (Grube, 1870) and with that provided by Knight-Jones *et al.* (1991). However, these authors reported the uncini as having a single row of secondary teeth, contrasting with the 3 rows of our Italian material, and the 2-3 of the Brazilian material examined by Nogueira *et al.* (2006). In the studied population from Ionian Sea a variable development of stylodes was observed among individuals, some having shorter stylodes than those represented in Figure 3C.

***Branchiommma cf. moebii* Knight-Jones 1994**
(Fig. 5)

Branchiommma lucullanum, Gambi *et al.*, 1983-84; Giangrande *et al.*, 2004

Material examined. Salerno Gulf (Tyrrhenian Sea): 1 specimen on *Caulerpa*, 20 m deep, 1980; Otranto (Adriatic Sea): 1 specimen, 15 m deep, 2000.

Description. Small species, 19 mm in body length, up to 15 mm of crown length, with 8 thoracic and about 30 abdominal chaetigers. 12-15 pairs of radioles, each with about 20 pairs of digitiform stylodes not covering the small radiolar eyes (Fig. 5C). Collar with a large dorsal gap, (Fig. 5A), higher ventrally with well-developed ventral lappets pointed and not overlapping (Fig. 5B). Dorsal lips enlarged, about 1/3 the length of the branchial crown (Fig. 5A). Superior thoracic notochaetae slender weakly geniculate, 5-6 per fascicle. Inferior thoracic notochaetae spinelike with knee slightly wider than shaft (Fig. 5E), 7 per fascicle. Thoracic uncini avicular, with well-developed breast and very short handle, 38 per

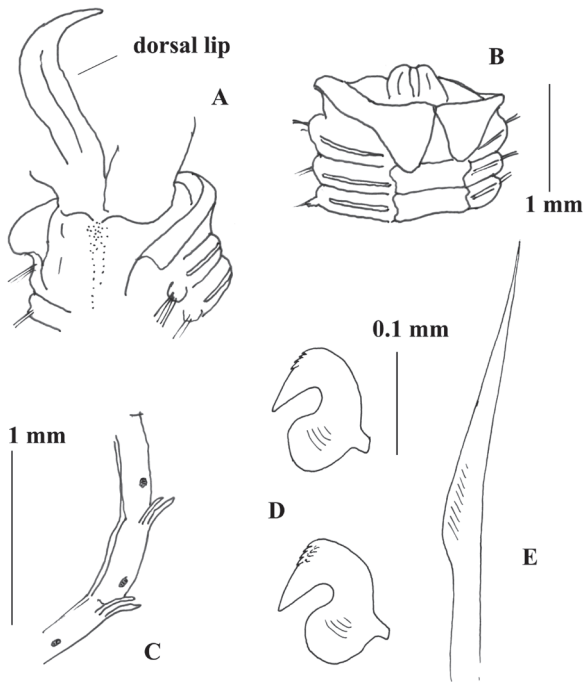


FIG. 5. – *Branchiomma* cf. *moebii*: A, anterior end, dorsal view; B, anterior end, ventral view; C, detail of radiole, showing stylodes and radiolar eyes; D, thoracic uncini in different views; E, thoracic inferior notochaeta.

torus, with 4 rows of teeth over the main fang (Fig. 5D). Abdominal neurochaetae 11 per fascicle, forming compact tuft, outer chaetae geniculate arranged in C-shaped arc around a cluster of capillary chaetae. Abdominal uncini avicular, 19 per torus.

Remarks. The description of *B. moebii* is available in Knight-Jones (1994), who examined material from the Turkish coasts and emended old material from the northern Adriatic Sea and Ligurian Sea previously identified as *B. lucullanum*. This was probably due to the similarity in the shape of the stylodes, which are digitiform. However, in *B. moebii* stylodes show a gradation along the radiole, with larger pairs more tongue-shaped towards the bases of dorsal and lateral radioles. Moreover, this species is easily distinguishable from *B. lucullanum* in having the dorsal margin of the collar not fused to the faecal groove and longer dorsal lips.

The PCZL material differs from *B. moebii*, especially in the shape and development of stylodes, which are less developed and tongue-shaped dorsally and laterally at the base of the crown than *B. moebii*, being digitiform and equally developed along the radiole (similarly to *B. lucullanum*). On the other hand, the dorsal margin of the collar, not fused to the faecal groove, and the length of dorsal lips, differ

from *B. lucullanum* and more closely resemble *B. moebii*.

Moreover, the PCZL material has a smaller number of thoracic chaetae per fascicle, and ventral collar lappets more prominent than in *B. moebii*, thus resembling the North Atlantic species *B. inconspicuum* (Sars, 1862). This species was also discussed by Knight-Jones (1994) as similar to *B. moebii*. However, the number of radioles, the number of chaetigers and the body size more closely resemble *B. moebii* than *B. inconspicuum*.

Branchiomma sp. (Fig. 6)

Material examined. Port of Sierasmo, Sicily: 1 specimen on artificial substrate, 10 m deep, 1987, Badalamenti legit.

Description. Large species, 50 mm in body length, up to 20 mm crown length, with 8 thoracic and about 70 abdominal chaetigers. 45 pairs of spiralled radioles, each with about 20 pairs of large tongue-shaped stylodes covering the radiolar eyes (Fig. 6C). Collar dorsally widely separated (Fig. 6A), ventral lappets rounded, poorly developed and not overlapped (Fig. 6B). Dorsal lips long, about 1/3 of the branchial crown (Fig. 6A). Superior thoracic notochaetae slender weekly geniculate, 15 per fascicle. Inferior thoracic notochaetae short spinelike with knee slightly wider than shaft, 8 per fascicle. Thoracic uncini avicular, with well-developed breast and very short handle, 70 per torus, with 2-3 teeth over the main fang (Fig. 6D). Abdominal neurochaetae geniculate, 14 per fascicle, forming a compact tuft arranged in C-shaped arc around a cluster of capillary chaetae. Abdominal uncini avicular, 42 per torus.

Remarks. This taxon is very similar to *B. violaceum* (Schmarda 1861) and to *B. natalensis* (Kinberg 1867) from South Africa, especially in the shape and development of stylodes and in the number of rows of secondary teeth over the main fang in the thoracic uncini. Both species, however, differ from *Branchiomma* sp. in having the dorsal collar fused to the faecal groove. *Branchiomma infarctum* (Krøyer, 1856) also resembles *Branchiomma* sp. in having the collar margins ventrally separated and in the presence of large tongue-shaped stylodes. However, this species has a northern distribution, ventro-lateral notches in the collar, a thoracic uncinal crest with numerous teeth, and tongue-shaped stylodes developed only at the base of the radiole.

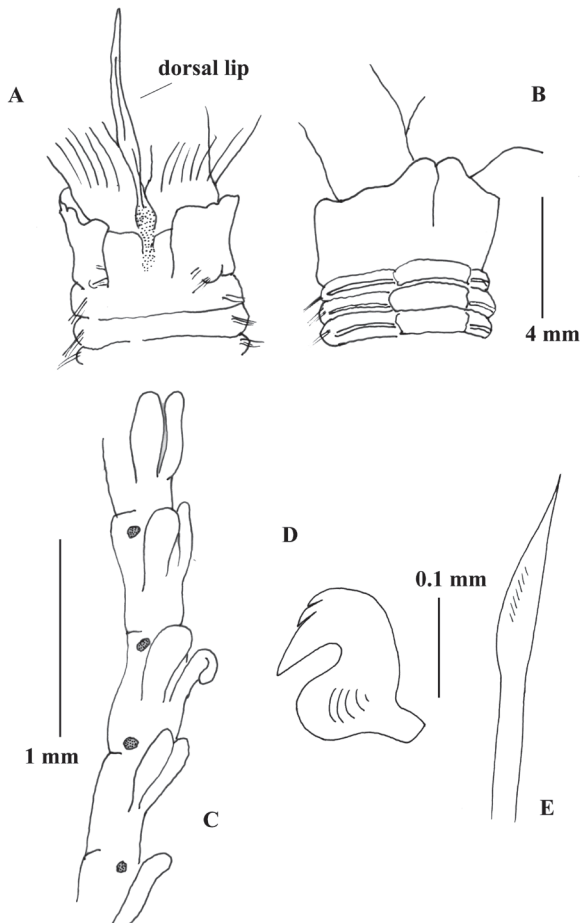


FIG. 6. – *Branchiommma* sp.: A, anterior end, dorsal view; B, anterior end, ventral view; C, detail of radiole showing stylodes and radiolar eyes; D, thoracic uncinus; E, thoracic inferior notochaeta.

A single specimen in bad conditions was available for examination, and this prevented any further systematic inference. A large population seemed to be present at the collecting dates on artificial substrates in a harbour area of southern Italy (Fabio Badalamenti, pers. comm.), allowing us to suggest that it could be another introduced species. However, the original population seems to have disappeared from the collection's site, and further sampling is needed in order to confirm its presence and to clarify its taxonomy.

***Branchiommma bohollensis* (Grube, 1878)**

This species, fairly common in the Indo-West Pacific, was reported from the southeastern Mediterranean basin based on material previously identified as *Dasychone cingulata* and *Dasychone lucullana* (Knight-Jones *et al.*, 1991) as the only Mediterranean *Branchiommma* having macrostylodes. The spe-

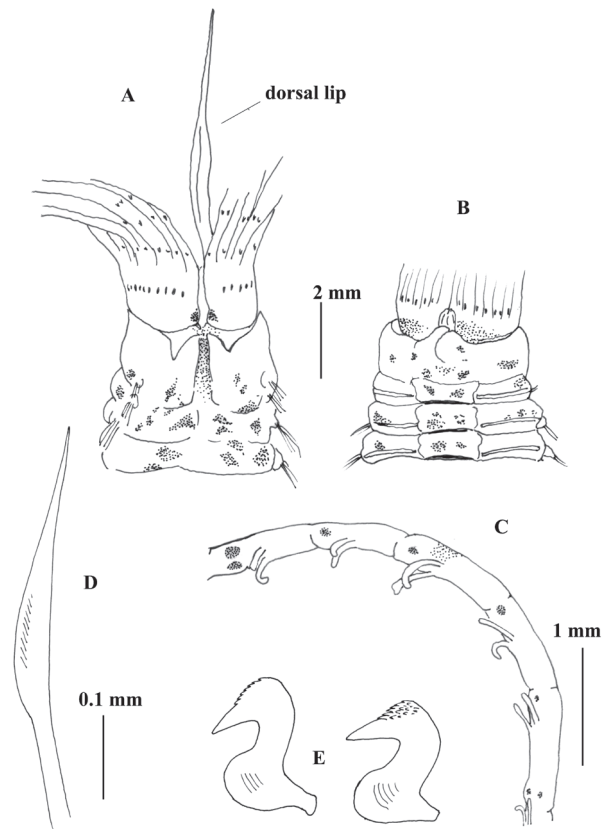


FIG. 7. – *Branchiommma maerli* n. sp.: A, anterior end, dorsal view; B, anterior end, ventral view; C, detail of radiole showing stylodes and radiolar eyes; D, thoracic inferior notochaeta; E, thoracic uncini in different views.

cies was not present in the studied collections, but a good description was provided by Knight-Jones *et al.* (1991).

***Branchiommma maerli* n. sp.**
(Figs 4B, 7)

Material examined. Holotype: Forio Ischia Naples (Tyrrhenian Sea), on *maerli* bottom, 65 m deep, July 2004, Gambi legit, MNCN catalog number 16.01/11021. Paratype: Aegean Sea: 1 specimen on soft bottom, 60 m deep. November 1983, Simbora legit, PCZL catalogue number 304.

Description. Holotype a complete specimen, 25 mm in body length, up to 20 mm crown length, with 8 thoracic and 50 abdominal chaetigers. 30 pairs of radioles, each with about 10 pairs of small, digitiform stylodes, becoming slightly larger and covering the eyes in the middle part of the radiole (Fig. 7C). Eyes small and compound. Large spots present in the crown and along the body (Figs. 7A, B, 4B). Collar fused to the dorsal faecal groove, with dorsal lappets ending at the same height of the lateral col-

TABLE 1. – Comparative analysis of the main taxonomic characters of *Branchiomma* species from the Mediterranean Sea. The indication “short-long” in the column “stylode size” indicates the presence of different sizes along the radiole (gradation) or the presence of macrostylodes.

Species	Crown / Body	N. of radioles per lobe	Stylode shape	Stylode size	Pairs of stylodes for radiole	Stylod gradation	Macro-stylodes	Dorsal lip /crown	Dorsal collar margin	N. of abdominal chaetigers	N. of crest teeth rows	Crest /main fang
<i>B. bombyx</i>	1/2	13	foliaceous	long	10	absent	absent	1/3	fused	30	many	1/2
<i>B. lucullanum</i>	1/3	10	digitiform	long	10	absent	absent	1/6	fused	50	many	1/2
<i>B. luctuosum</i>	1/2	20	digitiform	short	21	absent	absent	1/3	not fused	60	3	1/3
<i>B. moebi</i>	1/3	25	digitiform	short-long	25	present	absent	1/4	not-fused	40	many	3/4
<i>B. cf. moebi</i>	1	15	digitiform	short	20	absent	absent	1/3	not-fused	30	many	1/3
<i>B. boholensis</i>	1/2	24	digitiform	short-long	14	absent	present	1/3	not-fused	?	1	1/2
<i>Branchiomma</i> sp.	1/2	45	tongue-shaped	long	20	absent	absent	1/3	not-fused	70	3	1/2
<i>B. maerli</i> n. sp.	1	30	digitiform	short-long	10	present	absent	1/2	fused	50	many	2/3

lar margin (Fig. 7A). Collar slightly higher ventrally, with poorly developed ventral lappets rounded and overlapped (Fig. 7B). Collar chaetae slender, narrowly hooded, arranged in compact fascicles. Dorsal lips long and tapered, about 1/2 of the branchial crown (Fig. 7B). Thoracic notochaetae within each fascicle as irregular oblique rows of superior and inferior chaetae, with 20 superior and 18 inferior spinelike chaetae with knee region twice as wide as shaft (Fig. 7D). Thoracic tori abutting ventral shields (Fig. 7B). 50 thoracic uncini per torus, avicular, with well-developed breast and short handle. Each uncinus with numerous teeth (7-8 rows in profile) over the main fang (Fig. 7E). 15 abdominal chaetae per fascicle, forming compact tufts with the outer geniculate chaetae arranged in C-shaped arcs around a cluster of capillary chaetae. Abdominal uncini avicular, similar to the thoracic ones, 23 per torus.

Etymology. The specific name refers to the habitat of the species, the mäerl, unusual for the genus.

Remarks. The new species belongs to group A together with *B. bombyx*, *B. violaceum*, *B. pseudo-violaceum* Augener, 1922 and *B. natalensis*, but can be distinguished by the shape and development of stylodes, which are digitiform and not foliaceous. This makes *B. maerli* n. sp. more similar to *B. lucullanum*, even though the former has shorter stylodes, a larger size and a higher number of radioles, lower dorsal and ventral collar lappets, a collar with ventro-lateral notches, and longer dorsal lips, which are even longer than those of *B. bombyx* (Table 1).

Branchiomma maerli n. sp. can also be clearly distinguished from the remaining Mediterranean species of *Branchiomma* (Table 1), and a very peculiar feature is also the pigmentation of the body (Fig. 3A). A similar pattern is only present in an extra-

Mediterranean species, *Branchiomma nigromaculatum* (Baird, 1865), and, although less evident, in *B. luctuosum* (Fig. 3B).

Finally, the new species differs from the other known Mediterranean species, which are characteristically shallow-water species, in that it has only been found on mäerl bottoms. The peculiar habitat where the species has been collected must be stressed. The mäerl is a typical biocoenosis, whose bathymetric distribution in the Mediterranean ranges from 20 m deep in the Gulf of Cadiz to about 180 m deep in the eastern basin (Bellan-Santini *et al.*, 1994).

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