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Cognetti's syllid collection (Polychaeta: Syllidae) deposited at the Museum of the Stazione Zoologica "Anton Dohrn" (Naples, Italy), with descriptions of two new species of Autolytus

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Cognetti's syllid collection (Polychaeta: Syllidae) deposited at the Museum of the Stazione Zoologica "Anton Dohrn" (Naples, Italy), with descriptions of two new species of *Autolytus*

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Abstract

A total of 36 syllid specimens preserved on permanent slides, which were collected and identified by G. Cognetti, and deposited at the Museum of the Stazione Zoologica "Anton Dohrn" in Naples, Italy, were re-examined. Among the material, two new species of *Autolytus, Autolytus antondohrni* sp. nov. and *A. cognettii* sp. nov., were found and are described. Three new combinations are assigned: *Autolytus mediterraneus* (Cognetti, 1953), *Exogone (Parexogone) meridionalis* (Cognetti, 1955) and *Syllis alternata* Moore, 1908. Four lectotypes are designated for *Autolytus convolutus* Cognetti, 1953, *A. mediterraneus* (Cognetti, 1953), *A. neapolitanus* Cognetti, 1953 and *Exogone (Parexogone) meridionalis* (Cognetti, 1955). *Proceraea scapularis* (Claparède, 1864) is resurrected.

Keywords: Autolytus antondohrni, Autolytus cognettii, Cognetti's collection, Mediterranean Sea, new combinations, new species, Polychaeta, Syllidae

Introduction

The Stazione Zoologica of Naples, founded in 1872 by Anton Dohrn, represents one of the first marine biological stations of the world (Groeben 1984), and a leading institution in the history of research organization (Ghiselin and Groeben 2000; Groeben 2003) and marine life studies on biodiversity, especially for the Mediterranean Sea (Relini 2000). The collections of marine animals were organized very early in the activity of the Institute, and were first set up by the famous curator of the fishing service, Salvatore Lo Bianco, who collected marine organisms not only for specific research needs, but also for aquarium exhibitions and for sale (Relini 2000; Groeben 2003). However, this material has never been organized as a "museum collection", for exchange or cataloguing, but rather as an "organisms reference" for individual research work of different scientists during their stay

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at the Stazione (C. Groeben, personal communication). Nevertheless, the material actually present is of great importance, especially with respect to present-day comparisons of the Gulf of Naples biodiversity, with previous decades (Gambi et al. 2002). It is within this spirit that a project, co-ordinated by the curator of the public aquarium and of the collections, Dr Flegra Bentivegna and her collaborator Dr Isabella D'Ambra, for cataloguing and re-arrangement of the material has been promoted recently and is now in progress (Bentivegna 2000–2001).

The collections actually consist of more than 1500 taxa, belonging to different phyla, from Protozoa to Vertebrata, and were taken from several areas of the Gulf of Naples. Most of the material has been collected and classified by scientists working at the Stazione during their research stages, including some of the most famous taxonomists of their time, such as Dr Sarà (sponges), Drs Stekow and Brickmann-Voss (hydroids), Drs Jatta and Lo Bianco (cephalopods), Dr Ghirardelli (chaetognaths), Drs Tortonese and Montcharmont (echinoderms and fishes), and Dr Salfi (tunicates).

About 1650 different lots have been already re-catalogued, while polychaetes and crustaceans still need sufficient cataloguing numbers. The collection of polychaetes in particular was started around 1899 with the material of Eisig, who left 52 different species, both in jars and on slides. Other scientists who contributed later to the collection of marine worms were Jouin (eight species of interstitial families), La Greca (30 species), Cognetti (36 species), Parenzan (five species), and Lo Bianco, Bhaud and Sacchi (one species each) (Gambi et al. 1982). Among the scientists who contributed to the collections, Prof. Giuseppe Cognetti provided a set of slides of Syllidae, which corresponds to the material used for his monograph published in 1957, and which represents the material revised in this paper.

Prof. Giuseppe Cognetti, currently Professor Emeritus at the University of Pisa, was born in Livorno in 1928, and began his career as a polychaete specialist, working mainly on syllid taxonomy and reproductive biology. He started his studies at the Stazione Zoologica "Anton Dohrn" during three long periods, in the years 1953 (April to December), during the whole of 1954 and again in 1956 (April to December). During these periods he collected a great amount of material for taxonomic work on Syllidae from different areas of the Gulf of Naples and also made some observations on the reproductive biology of Autolytus. Prof. Cognetti then moved to the University of Modena where he worked as Professor of Zoology from 1958 to 1979. Then he moved to the University of Pisa where he organized and directed the "Inter-Universitary Centre of Livorno", and he also contributed to the foundation of the Department of Environmental Sciences, directed by him from 1986 to 1991. He is also one of the founders of the Italian Society of Marine Biology (SIBM), and member of different committees for the protection and conservation of marine habitats, and marine protected area designation. Apart from syllid taxonomy, in which he became a world-recognized specialist in the 1950s and 1960s, his research interest has also been directed to the ecology of marine worms, especially in polluted environments, to biological methodologies to detect environmental impact and pollution effects, and to marine conservation, especially of coastal and lagoonal habitats. For his research on marine organisms he was awarded the "honoris causa" degree in Sciences by the University of Orleans, France.

The aim of this paper is to revise the collection of syllids left by Prof. Cognetti at the Stazione Zoologica, to re-evaluate the role of taxonomic work and the old collections of material for biodiversity studies, and also as a tribute to his long and fruitful career on the occasion of his recent retirement.



Figure 1. Map of the investigated area with location of sampling sites.

Materials and methods

A total of 36 specimens of Syllidae preserved on permanent slides at the museum of Statzione Zoologica "Anton Dohrn" di Napoli (SZN), which were collected and identified by Giuseppe Cognetti during his work in 1953–1955 at 11 stations located in the Gulf of Naples, western Mediterranean (Figure 1), were examined; two specimens (SZN-POL20 and SZN-POL30) are in very bad condition and thus could not be identified to species level. Details of the sampling methods, and characteristics of biotopes and stations were fully described in the paper by Cognetti (1957). The senior author (M.E.Ç.) examined Cognetti's syllid collection deposited in SZN during his scientific visit to the Laboratory of Ecology in Ischia via a NATO-B1 grant supported by TUBITAK (Ankara, Turkey).

Drawings of the specimens were made with the aid of a camera lucida. The length of the worms, the length of the head+first 10 chaetigerous segments (H+10) and the width at proventricular level (excluding parapodia and chaetae) were measured using an ocular micrometer. The museum abbreviations used in the text are as follows: SZN, Statzione Zoologica "Anton Dohrn" di Napoli, Italy; ESFM, Ege Üniversitesi Su Ürünleri Fakültesi Müzesi (Museum of Faculty of Fisheries Ege University), Bornova, Izmir, Turkey; and MNCNM, Museo Nacional de Ciencias Naturales de Madrid, Spain.

Results and discussion

Autolytus antondohrni sp. nov. (Figure 2) Autolytus prolifer: Cognetti 1957 (in part), p 63 (non O. F. Müller 1788).



Figure 2. (A) Anterior and posterior parts of *Autolytus antondohrni* with a stolon; (B) trepan; (C) inferior falciger on anterior parapodium; (D) dorsal simple chaeta. Scale bar: 100 μ m (A); 11 μ m (B); 5 μ m (C, D).

Material examined

SZN-POL6, Holotype, Station 5, Mergellina, September 1953, on algae, 0-2 m, coll. Cognetti.

Description

Specimen complete, with stolon, female.

Stock. Stock 2 mm long, 0.12 mm wide, H+10=0.65 mm, with 26 chaetigers; stolon 1.32 mm long, 0.17 mm wide for 20 chaetigers. Prostomium oval, with two pairs of reddish eyes in a close trapezoidal arrangement; anterior pair larger (20 µm in diameter); one pair of reddish ocular specks (7.5 µm in diameter) on anterior margin of prostomium (Figure 2A). Median antenna originating between anterior eyes, thick, extending to chaetiger 11; lateral antennae next to ocular specks, reaching chaetiger 5. Palps fused, hardly visible dorsally. Nuchal epaulettes reaching posterior margin of chaetiger 1. Peristomium reduced dorsally, with two pairs of tentacular cirri; dorsal ones extending to chaetiger 6; ventral ones to chaetiger 4. Dorsal cirri on chaetiger 1 reaching chaetiger 10; those on chaetiger 2 longer than subsequent ones. Dorsal cirri between chaetiger 3 and 7 slightly shorter than body width; remaining dorsal cirri obviously shorter than body width. Cirrophores less developed; shorter than parapodial lobes. Antennae and cirri with small spherical inclusions. Dorsum of body after proventricular region with dense, relatively large inclusions. Large, conspicuous, yellowish, globular oily inclusions within parapodia and randomly on bases of dorsal cirri. Parapodia conical. Falcigers on anterior parapodia numbering seven, bidentate; distal tooth smaller than proximal one (Figure 2C); blades of superior falcigers 7.5 µm long, those of inferior ones 10 µm long. Falcigers on posterior parapodia morphologically similar to those on anterior ones, but with shorter blades (5-7.5 µm long). Dorsal simple chaeta bayonet-shaped (Figure 2D), slightly curved, serrated distally and subdistally, from chaetiger 4. Acicula numbering one per parapodium, thin, tapering. Proventricle 0.18 mm long, 0.10 mm wide, through 2.5 segments, with 26 muscle cell rows. Pharynx with one large sinuation, between chaetigers 1 and 8; trepan with two large, sharp lateral teeth accompanied by eight small, blunt, equal teeth (Figure 2B).

Stolon. Prostomium subrectangular, with two pairs of eyes (Figure 2A). Median antenna missing, lateral antennae thin, long. Dorsal cirri on chaetiger 1 long, others short; half length of body width; all containing small inclusions. Parapodia rounded, with conspicuous, yellowish oily inclusions. Falcigers numbering five on parapodia, bidentate; blades 5 μ m (superior ones) to 7.5 μ m (inferior ones) long throughout. Pygidium with two long anal cirri.

Remarks

Autolytus antondohrni sp. nov. can be easily distinguished from other Autolytus species by having a trepan with two, long, sharp lateral teeth, accompanied by eight small, blunt, equal teeth; a pair of nuchal epaulettes extending to posterior margin of chaetiger 1; short dorsal cirri, with small, spherical inclusions; two or three very large oily granules within parapodia and bases of dorsal cirri; and large spherical inclusions on dorsum of body after chaetiger 9. The most morphologically similar species to A. antondohrni is A. tyrrhenicus which has a trepan with two long lateral teeth accompanied with eight small ones.

However, the nature of the small teeth is different: sharp and triangular in *A. tyrrhenicus*; blunt and almost rectangular in *A. antondohrni*. The other difference between the two species is the distribution and types of granules within parapodia, cirri and dorsum of the body; dorsal cirri of *A. tyrrhenicus* include sparse needle-shaped granules (Figure 8C), whereas *A. antondohrni* contains dense, spherical, amber-coloured inclusions. Parapodia of *A. antondohrni* contain two or three very large oily inclusions, whereas those of *A. tyrrhenicus* are pouch-like, expanded distally, containing dense, small spherical inclusions. Unlike *A. tyrrhenicus*, the dorsum of the body of *A. antondohrni* bears dense and spherical inclusions. The length and number of muscle cell rows of the proventiculus is another important difference; occupying 2.5 segments and having 26 muscle cell rows in *A. antondohrni* versus occupying two segments and having 20 muscle cell rows in *A. tyrrhenicus*. The median antenna of *A. tyrrhenicus* is longer than that of *A. antondohrni* and bears relatively shorter antennae.

Etymology

The species is named after Anton Dohrn, founder of the Stazione Zoologica of Naples.

Distribution

Known only from the type locality (Mergellina, Gulf of Naples, western Mediterranean).

Autolytus cognettii sp. nov.

(Figure 3)

Proceraea brachycephala: Langerhans 1879, p 580–581, Plate 33, Figure 32 (non Marenzeller 1874).

Material examined

SZN-POL1, Holotype, Station 1, Lago Fusaro, 12 January 1955, on algae, 0-1 m, coll. Cognetti.

Description

Specimen complete, 4 mm long, 0.22 mm wide, H+10=1.06 mm, for 35 chaetigers, yellowish. Prostomium rounded, wider than long, with two pairs of dark reddish eyes; anterior pairs larger and with lenses; one pair of ocular specks located on anterior margin of prostomium (Figure 3A). Median antenna originating between anterior eyes, extending to chaetiger 18; lateral ones inserted in front of ocular specks, reaching chaetiger 7. Palps small, visible dorsally. Nuchal epaulettes distinct, reaching anterior margin of chaetiger 2. Peristomium narrow dorsally, with two pairs of tentacular cirri; dorsal ones two times longer than ventral ones, extending to chaetiger 8. Dorsal cirri on chaetiger 1 very long, subsequent ones longer than body width; cirrophores of all dorsal cirri less developed; shorter than parapodial lobes. Parapodia subtriangular. Falcigers numbering 10 and seven on anterior and posterior parapodia, respectively; shafts coarsely serrated at tip; blades bidentate; proximal tooth longer and thicker than distal one (Figure 3C); blades of superior falcigers 7.5 µm long; those of inferior ones 10 µm long throughout. Dorsal simple chaeta



Figure 3. (A) Anterior and posterior parts of *Autolytus cognettii*; (B) trepan; (C) falcigers on anterior parapodium; (D) dorsal simple chaeta. Scale bar: 100 μ m (A); 17 μ m (B); 4.3 μ m (C, D).

bayonet-shaped, from chaetiger 3, subdistally serrated (Figure 3D). Acicula numbering one throughout, thin, tapering. Proventricle 0.30 mm long, 0.18 mm wide, extending ca three segments, with 35 muscle cell rows. Pharynx between chaetigers 1 and 7, with one sinuation; trepan with a total of 30 teeth, arranged as four large, sharp, triangular teeth separated by seven to nine small, relatively blunt teeth (Figure 3B). Pygidium with two long anal cirri (Figure 3A).

Remarks

Autolytus cognettii sp. nov., which was labelled as A. benazzii Cognetti, 1953 by Cognetti, differs from A. benazzii in the morphology of the trepan (trepan with equal teeth in A. benazzii, trepan with unequal teeth in A. cognettii); length of dorsal cirri (much longer in A. cognettii) and cirrophores (much smaller in A. cognettii); length of median antenna (longer in A. cognetti). The figure of the trepan of the Madeira specimen (Plate 33, Figure 32), which was identified as Proceraea brachycephala Marenzeller, 1874 by Langerhans (1879), seems to be identical to that of A. cognettii. Langerhans (1879) also pointed out the difference between his specimen and Autolytus brachycephalus: "Pharynx mit 30 Zähnen; bei meinem Exemplar waren nur drei davon grösser, bei Marenzeller's wohl 8-10". Gidholm (1966) then considered the Langerhans's record of A. brachycephalus as a synonym of A. langerhansi Gidholm, 1966, which is characterized by having cirrophores longer than parapodial lobes; a trepan consisting of 29-42 unequal teeth separated by three, four and five larger ones; well-developed infradental spines, and relatively large eyes. Autolytus cognettii seems to be similar to A. langerhansi, but differs from it by a number of characters; cirrophores (smaller than parapodial lobes in A. cognettii); median antenna (smaller in A. cognettii); nature of small teeth of the trepan (rectangular with pointed tip in A. cognettii, sharp and triangular in A. langerhansi); nature of large teeth of trepan (associated with small teeth in A. langerhansi; not associated in A. cognettii); and location of pharynx (between chaetigers 1 and 7 in A. cognettii, between chaetigers 3 and 8 in A. langerhansi).

Etymology

The species is named after Professor Guiseppe Cognetti in honour of his contributions to the taxonomy of Syllidae and ecology of polychaetes in the Mediterranean Sea.

Distribution

Madeira? (Langerhans 1879) and Lago Fusaro (Gulf of Naples, Mediterranean Sea).

Autolytus convolutus Cognetti, 1953

(Figure 4)

Autolytus convolutus Cognetti 1953a, p 323, Figures 1, 2; Cognetti 1957, p 71, 72, Figure 15; ?Ben-Eliahu 1977a, p 85–86, Figure 12; San Martín 1984, p 413–415, Figure 111; Pascual and Núñez 1999, p 83–85, Figure 5 a–e.

Autolytus (Regulatus) convolutus: Imajima 1966, p 47-49, Figure 12.



Figure 4. (A) Ventral view of anterior and posterior parts of *Autolytus convolutus*; (B) trepan; (C) superior falciger on anterior parapodium; (D) dorsal simple chaeta. Scale bar: 100 μ m (A); 15 μ m (B); 5 μ m (C, D).

Material examined

SZN-POL2, Lectotype, Station 6, via Caracciolo, 18 October 1953, algae, 0-2 m, coll. Cognetti.

Description

Specimen complete, 2.4 mm long, 0.12 mm wide, H+10=0.72 mm, 41 chaetigers, pale yellowish. Prostomium oval, with two pairs of eyes in trapezoidal arrangement; anterior ones larger, without ocular specks (Figure 4A). Palps small, completely fused to each other. Median antenna originating between anterior eyes, extending to chaetiger 6; lateral ones emerging from anterior margin of prostomium, reaching chaetiger 4. Peristomium distinct on dorsal side, with two pairs of tentacular cirri; dorsal ones longer, extending to chaetiger 5; ventral ones shorter, reaching chaetiger 3. Nuchal epaulettes reaching middle region of chaetiger 1. Dorsal cirri on chaetiger 1 reaching chaetiger 6. Except for dorsal cirri on chaetiger 2, remaining dorsal cirri shorter than body width, with less-developed cirrophores; shorter than parapodial lobes. Antennae, tentacular cirri and dorsal cirri on chaetigers 1 and 2 thicker than the rest; all having small, numerous inclusions within all the appendages; scarcely present within parapodia and dorsum of body. Parapodia, particularly in middle region of body, very thick, triangular in shape and with somewhat pointed tips. Falcigers on anterior parapodia numbering six, bidentate; proximal tooth thicker and longer than distal one (Figure 4C); superior falcigers with blades 5 μ m long and inferior ones with blades 7.5 µm long. Shafts of falcigers with tips coarsely serrated. Posterior parapodia with six falcigers, morphologically similar to those on anterior ones. Dorsal bayonet chaeta from chaetiger 1, slightly curved, with minute spines on tip (Figure 4D). Proventricle 0.17 mm long, 0.11 mm wide, extending ca 2.5 segments, with 24 muscle cell rows. Pharynx with many sinuations, between chaetigers 3 and 7, with trepan consisting of nine equal, triangular, large teeth. Pygidium rectangular, with two small anal cirri.

Remarks

The report of *Autolytus convolutus* in the Red Sea and the Eastern Mediterranean by Ben-Eliahu (1977a) seems to be questionable as Ben-Eliahu's specimens have ocular specks on the prostomium (absent in Cognetti's specimen) and longer proventricle (occupying three segments in Ben-Eliahu's specimens versus two segments in Cognetti's specimen). Ben-Eliahu (1972) also reported this species from the Suez Canal with six eyes.

Distribution

Western Mediterranean (Cognetti 1953a; San Martín 1984), Eastern Mediterranean (?Ben-Eliahu 1977a; Çınar and Ergen 2002), ?Red Sea (Gulf of Elat and Suez Canal) (Ben-Eliahu 1972), Eastern Atlantic (Canary Islands) (Pascual and Núñez 1999), Sea of Japan (Imajima 1966).

Autolytus mediterraneus (Cognetti, 1953) comb. nov. (Figure 5) Autolytus lugens mediterraneus Cognetti 1953b, p 123–125, Figure 1.

Material examined

SZN-POL3, Lectotype, Station 3, Secca della Gajola, on coralligenous substrata, 40 m, coll. Cognetti.



Figure 5. (A) Anterior and posterior parts of *Autolytus mediterraneus*; (B) trepan; (C) inferior falciger on anterior parapodium; (D) dorsal simple chaeta. Scale bar: 100 µm (A); 14.5 µm (B); 6.4 µm (C, D).

Description

Specimen complete, 2.13 mm long, 0.15 mm wide, H+10=0.63 mm, for 24 chaetigers, without colour marking, with small and large inclusions on dorsum of body. Prostomium oval, with small ridges near anterior margin, wider than long; with two pairs of reddish eyes, anterior ones larger; with ocular specks (Figure 5A). Palps small, visible dorsally. Median antenna originating between anterior eyes, extending to chaetiger 9; lateral antennae on anterior margin of prostomium, reaching chaetiger 4. Peristomium distinct, with two pairs of tentacular cirri; dorsal ones longer, reaching chaetiger 7; ventral ones reaching chaetiger 4. Dorsal cirri on chaetiger 1 longer, extending to chaetiger 9; those on chaetiger 2 shorter, reaching chaetiger 6. Remaining dorsal cirri longer or slightly shorter than body width, with less-developed cirrophores. Dorsal cirri on anterior parapodia longer than those on posterior ones, with small, spherical inclusions. Parapodia on anterior region subrectangular, posterior ones triangular. Falcigers on anterior parapodia numbering eight, bidentate; proximal tooth thicker and longer than distal one (Figure 5C); blades of superior falcigers 7.5 µm long, those of inferior falcigers 10 µm long. Posterior parapodia with six falcigers; blades 7.5–10 µm long. Dorsal bayonet chaeta thin, curved, from chaetiger 8 (Figure 5D). Proventricle 0.15 mm long, 0.11 mm wide, through 2.5 segments, with 19 muscle cell rows. Pharynx between chaetigers 1 and 8, slightly coiled, with a trepan of 14 thin, sharp, similar teeth, except for slightly coarser lateral teeth (Figure 5B). Pygidium bilobed, with two short anal cirri.

Remarks

Autolytus mediterraneus comb. nov. is similar to A. quindecimdentatus Langerhans, 1884 and A. hesperidum, Claparède 1864 in terms of pharyngeal armature; all of them have a trepan with 12–14 triangular, small, equal teeth. However, A. mediterraneus differs from A. quindecimdentatus in having relatively long antennae, long dorsal cirri in the middle region of the body (longer than body width), short proventricle (occupying 1.5 segments versus 2.5 segments in A. quindecimdentatus). Autolytus hesperidium, which was originally described from the Gulf of Naples by Claparède (1868) and was erroneously proposed to be conspecific with A. prolifer (O. F. Müller, 1784) by Fauvel (1923), differs from A. mediterraneus in having median antenna as long as lateral ones (median antenna twice as long as lateral ones in A. mediterraneus), dorsal cirri from chaetiger 2 to posterior end of similar size (dorsal cirri on A. mediterraneus are alternating long and short) and long proventricle occupying two segments. However, the pygidium of A. hesperidium, which has two small projections together with two long anal cirri, termed as "cirres spatulaires" (see Claparède 1868, Plate 14, Figure 1A), appears to be similar to that of A. mediterraneus.

Distribution

Known only from the type locality; Secca della Gajola, Gulf of Naples, western Mediterranean (Cognetti 1953b).

Autolytus neapolitanus Cognetti, 1953

(Figure 6)

Autolytus neapolitanus Cognetti 1953c, p 90-92, Figure 1; Cognetti 1957, p 74, Figure 17.



Figure 6. (A) Anterior part of *Autolytus neapolitanus*; (B) trepan; (C) inferior falciger on anterior parapodium; (D) dorsal simple chaeta. Scale bar: 100 µm (A); 28 µm (B), 6 µm (C, D).

Material examined

SZN-POL4, Lectotype, Station 9, Vico Equense, 10 October 1953, 25 m, on coralligeneous substrate, coll. Cognetti.

Description

Specimen incomplete, anterior fragment, 1.75 mm long, 0.25 mm wide, H+10=0.62 mm, for 27 chaetigers. Prostomium oval, with two pairs of reddish eyes in trapezoidal arrangement; anterior pair larger; one pair of ocular specks near anterior margin (Figure 6A). Palps short, hardly visible dorsally. Median antenna originating between posterior eyes, very long, extending to chaetiger 23; lateral ones next to ocular specks, reaching chaetiger 11. Nuchal epaulettes indistinct, reaching anterior region of chaetiger 1. Peristomium distinct, with two pairs of tentacular cirri; dorsal ones long, extending to chaetiger 5. Dorsal cirri on chaetiger 1 very long, extending to chaetiger 2 longer than body width; remaining ones either equal to or shorter than body width. Cirrophores less developed. Large granules present on dorsum of body and within parapodia, but those within cirri and antennae very

small, inconspicuous. Parapodia conical in shape, larger in anterior region. Falcigers numbering 10 on anterior parapodia, with shafts coarsely serrated at tip; blades bidentate, proximal tooth larger and longer than distal one (Figure 6C); superior falcigers with blades 7.5 μ m long; inferior ones with blades 10 μ m long. Falcigers on middle parapodia numbering eight, morphologically similar to those on anterior parapodia but with shorter blades (5–7.5 μ m long). Dorsal simple chaeta bayonet-shaped, from chaetiger 7, thin, slightly curved (Figure 6D). Acicula numbering one per parapodium. Proventricle 0.28 mm long, 0.16 mm wide, through four segments, with 30 muscle cell rows. Pharynx between chaetigers 1 and 10, with one sinuation; trepan with 14 triangular, coarse, equal teeth (Figure 6B).

Remarks

Although morphological features of the specimen of *Autolytus neapolitanus* we examined coincide with its original description, some differences were encountered; the number of teeth on the trepan of the specimen examined are 14, whereas Cognetti (1953c) reported it as 20. However, the morphology of the teeth (long, coarse and triangular) seems to be identical to the description. He also mentioned five red spots at the bases of pharyngeal papillae, but, probably due to preservation, the specimen we examined does not have such spots. However, the location of proventricle and pharynx as well as their relative length are similar to those reported by Cognetti (1953c). The other similarity between the material we examined and the Cognetti's description is the shape and length of antennae and cirri. *Autolytus neapolitanus* resembles *A. quindecimdentatus* Langerhans, 1884 in terms of the shape and the number of teeth of the trepan (see Gidholm 1966, Figure 7f); however, teeth of the former species are larger than those of *A. quindecimdentatus*.

Distribution

Known only from the type locality: Vico Equense, Gulf of Naples, Mediterranean Sea (Cognetti 1953c, 1957).

Autolytus rubropunctatus (Grube, 1860)

(Figure 7)

Sylline rubropunctata Grube 1860, p 87, 88, Plate III, Figures 8a, b. Autolytus ornatus Marion and Bobretzky 1875, p 44–46, pl. 5, Figures 14a–d. Autolytus rubropunctatus: Fauvel 1923, p 314, Figure 120e–i; Cognetti 1957, p 66.

Material examined

SZN-POL7, one specimen, Station 3, Secca della Gajola, 20 November 1953, on coralligenous substrata, 40 m, coll. Cognetti.

Description

Specimen complete, 7.5 mm long, 0.26 mm wide, H+10=0.76 mm, for 96 chaetigers, yellowish, bearing pinkish spots on mid-dorsum of chaetigers 1–3, and on mid- and lateral dorsum of chaetigers 9–22 (Figure 7A). Prostomium rectangular, with two pairs of large



Figure 7. (A) Anterior and posterior parts of *Autolytus rubropunctatus*; (B) trepan; (C) falcigers on anterior parapodium; (D) dorsal simple chaeta; (E) aciculae on middle parapodium. Scale bar: 100 μ m (A); 21 μ m (B); 5 μ m (C–E).

reddish eyes, very close to each other on either side; anterior pairs larger, with lenses, accompanied by small spherical reddish bodies. Palps visible dorsally, small, less than 0.25 length of prostomium. Median antenna originating between anterior eyes, extending back

to chaetiger 10; lateral ones on anterior margin of prostomium, relatively short, reaching chaetiger 7. Nuchal epaulettes could not be seen on the specimen examined. Peristomium reduced dorsally, with two pairs of tentacular cirri; dorsal ones reaching chaetiger 8. Dorsal cirri on chaetiger 1 long, reaching chaetiger 11, subsequent ones longer or slightly shorter than body width, with less developed cirrophores; containing very large, amber-coloured inclusions. Parapodia rounded in anterior region, conical in posterior region. Falcigers on anterior parapodia numbering 14, strongly bidentate; proximal tooth larger than distal one, spines on cutting edge fine, indistinct (Figure 7C); blades of superior falcigers 10 µm long, those of inferior ones 12.5 µm long. Falcigers on posterior parapodia numbering 10, bidentate, distal and proximal teeth almost similar in size but proximal one stronger; blades 5 μ m (superior falcigers) to 7.5 μ m (inferior falcigers) long. Aciculae numbering two per parapodium; one with truncated tip, other with tip bending at right angle (Figure 7E). Dorsal simple chaeta bayonet-shaped, slightly re-curved, serrated distally and subdistally, only seen on posterior-most parapodia (Figure 7D). Proventricle 0.55 mm long, 0.20 mm wide, through seven segments, with 40 muscle cell rows. Pharynx with one sinuation, between chaetigers 3 and 11; trepan with 30 almost equal sharp teeth (Figure 7B). Pygidium with one pair of long anal cirri; wrinkled at base (Figure 7A).

Remarks

The red spots on the dorsum, long dorsal cirri, large eyes, large granules within the cirri and antennae, ca 30 small, equal teeth on trepan, minute distal tooth of blades of falcigers and very long proventricle (occupying seven segments) characterize *Autolytus rubropunctatus*. The original description of this species is rather insufficient, but emphasizes the characteristic pigmentation on the dorsum and the large eyes.

Distribution

Adriatic Sea (Grube 1860), western Mediterranean (Marion and Bobretzky 1875; Cognetti 1957), eastern Atlantic (Fauvel 1923).

Autolytus tyrrhenicus Cognetti, 1953

(Figure 8)

Autolytus tyrrhenicus Cognetti 1953b, p 125–127, Figure 2; Cognetti 1957, p 72–73, Figure 16.

?Autolytus prolifer: Dales 1951, p 119-127, Figure 1 (non O. F. Müller 1788).

Material examined

SZN-POL8, Station 7, Santa Lucia, 17 March 1954, on algae, 0-1 m, coll. Cognetti.

Description

Specimen complete, with stolon, female.

Stock. Stock 2.63 mm long, 0.12 mm wide, H+10=0.82 mm, for 26 chaetigers, pale yellowish. Prostomium almost rounded, with two pairs of reddish eyes in open trapezoidal arrangement; anterior pairs larger, with lenses; one pair of ocular specks (Figure 8A).



Figure 8. (A) Anterior part of *Autolytus tyrrhenicus*; (B) stolon; (C) middle parapodium; (D) trepan; (E) inferior falciger on anterior parapodium; (F) dorsal simple chaeta. Scale bar: 100 μ m (A, B); 22 μ m (C); 26 μ m (D); 4.3 μ m (E, F).

Median antenna originating between anterior eves, thick, extending back to chaetiger 10; lateral ones in front of ocular specks, half length of median one. Palps hardly visible dorsally. Nuchal epaulettes reaching anterior margin of chaetiger 2. Peristomium distinct dorsally, with two pairs of tentacular cirri; dorsal ones reaching chaetiger 6; ventral ones half as long as dorsal. Dorsal cirri on chaetiger 1 thicker and longer than subsequent ones; extending back to chaetiger 10. Except for dorsal cirri on chaetigers 1-3, others shorter than body width; cirrophores less developed. Antennae and cirri without discernible inclusions. Parapodia somewhat conical in anterior region, rounded after proventricular region, with dense spherical inclusions; especially numerous within distal parts of parapodia, giving them a pouch-like appearance (Figure 8C). Falcigers numbering six to eight on anterior parapodia, strongly bidentate, proximal tooth larger than distal one (Figure 8E); blades finely serrated, 7.5 μ m (superior falcigers) to 10 μ m (inferior falcigers) long; shafts of falcigers with coarse spines distally. Falcigers on posterior parapodia morphologically similar to those on anterior parapodia, but with shorter blades (5–7.5 μ m long). Simple dorsal chaeta bayonet-shaped, slightly curved, finely serrated distally, from chaetiger 3 (Figure 8F). Proventricle 0.19 mm long, 0.10 mm wide, through two chaetigers, with 20 muscle cell rows. Pharynx between chaetigers 1 and 7, with one sinuation; trepan with two, large, sharp, triangular lateral teeth and eight small, sharp, equal teeth in between.

Stolon. Complete, 0.98 mm long, 0.12 mm wide, for 15 chaetigers. Prostomium ovalshaped, with two pairs of reddish eyes; anterior eyes larger (Figure 8B). Median and lateral antennae club-shaped, as long as prostomium. Peristomium reduced dorsally, with two pairs of small tentacular cirri. Except for dorsal cirri on chaetigers 1 and 2, remaining cirri shorter than body width. Parapodia rounded with spherical inclusions. Falcigers numbering four to five on parapodia; blades ca 7.5 μ m long throughout. Bayonet-shaped dorsal simple chaeta from chaetiger 2. Pygidium with long anal cirri.

Remarks

Autolytus tyrrhenicus displays close morphological affinity with A. antondohrni sp. nov., but differs from it by a number of characters discussed under "Remarks" section for A. antondohrni. The figure (Figure 1) drawn by Dales (1951) seems to be identical to A. tyrrhenicus in having a similar trepan and dorsal cirri. However, if it exists, the material collected and identified by Dales should be examined in order to reach a reliable conclusion.

Distribution

Known only from the type locality; Santa Lucia, Gulf of Naples, Western Mediterranean (Cognetti 1953b, 1957). Probably on the coast of England; Thames estuary (Dales 1951).

Proceraea scapularis (Claparède, 1864) (Figure 9) Autolytus (Stephanosyllis) scapularis Claparède 1864, p 567–569, Plate 7, Figure 5.



Figure 9. (A) Anterior and posterior parts of *Proceraea scapularis*; (B) trepan; (C) falcigers on anterior parapodium; (D) falcigers on posterior parapodium; (E) dorsal simple chaeta. Scale bar: 100 µm (A); 29 µm (B); 4.2 µm (C–E).

?Proceraea scapularis: Okada 1933, p 647-653, Figure 6b. Autolytus pictus: Cognetti 1957 (in part), p 67 (non Ehlers 1864).

Material examined

SZN-POL5, one specimen, Station 2, Banco d'Ischia, 7 October 1954, on coralligenous substrata and *Posidonia oceanica*, 30 m, coll. Cognetti.

Description

Specimen complete, 12.5 mm long, 0.55 mm wide, H+10=2.50 mm, for 76 chaetigers, yellowish, two black dorsolateral lines along body, from the conjunction of nuchal organs to chaetiger 13; lines becoming thicker towards posterior end; blackish pigmentation present along side of nuchal organs (Figure 9A). Prostomium somewhat trapezoidal, with two pairs

of large reddish eyes, overlapping; anterior eyes larger, accompanied by small spherical reddish bodies. Median antenna missing; its scar between eye pairs; lateral ones emerging from anterior margin of prostomium, tapering, ending with a blackish knob, extending to chaetiger 8. Palps small, visible dorsally. Nuchal epaulettes conspicuous, reaching middle region of chaetiger 2, with dense cilia only along outer margin; cilia on anterior-lateral margin of nuchal organs relatively longer, reaching level of anterior eyes (Figure 9A). Peristomium narrow, with two pairs of tentacular cirri; dorsal ones long, reaching chaetiger 6; ventral ones extending to chaetiger 2. Dorsal cirri on chaetiger 1 long, reaching chaetiger 13, tip missing. Dorsal cirri on chaetiger 2 extending to chaetiger 5, with a blackish knobbed tip. Remaining dorsal cirri on anterior parapodia shorter than body width, relatively thin and without knobbed tip; dorsal cirri on middle and posterior parapodia shorter than those on anterior ones. Cirrophores of tentacular cirri and dorsal cirri on chaetigers 1 and 2 relatively well-developed; those of other dorsal cirri indistinct. Cirri and antennae with sparse spherical inclusions. Anterior parapodia large, somewhat rectangular in shape; posterior ones relatively short. Falcigers on anterior parapodia numbering six, with shafts coarsely serrated distally; blades bidentate, distal tooth shorter and thinner than proximal (Figure 9C); spines on cutting edge indistinct; blades of superior falcigers 7.5 µm long, those of inferior ones 10 µm long. Falcigers on posterior parapodia numbering six, with relatively short blades, 5 μ m (superior ones) to 7.5 μ m (inferior ones) long; bidentate, distal and proximal teeth somewhat similar in size and thickness; blades of superior falcigers with concave cutting edge (Figure 9D). Dorsal bayonet chaeta thick, with an arista 10 µm long, distally serrated, from chaetiger 14. Each parapodium with two distally rounded aciculae. Proventricle massive, 0.90 mm long, 0.47 mm wide, through 2.5 segments, with about 42 muscle cell rows. Pharynx with one sinuation, between chaetigers 3 and 7; trepan with nine larger, sharp teeth alternating with nine smaller, triangular teeth in two circlets; bases of lateral teeth with a prominent, triangular ridge (Figure 9B). Pygidium conical, with two thick, short anal cirri.

Remarks

The morphological features of Cognetti's specimen nearly coincide with the original description and figures given by Claparède (1864). However, the Neapolitan specimen shows some discrepancies; eyes are relatively large and overlapping each other, whereas the figures drawn by Claparède show that eyes are small and in close trapezoidal arrangement; Cognetti's specimen has relatively longer lateral antennae and dorsal cirri on chaetiger 1 than Claparède's specimen; the tips of lateral antennae, tentacular cirri and dorsal cirri on chaetiger 1 and 2 of Cognetti's specimen are bulbous and black-coloured; this feature had not been noted in the original description of P. scapularis. Proceraea scapularis resembles P. picta Ehlers, 1864, which was originally described from the Adriatic Sea (Ehlers 1864), in having the same number of teeth in the trepan. However, P. scapularis differs from P. picta in a number of characters; the former has two black lateral lines on the dorsum of the body, whereas the latter has brown squares along lateral sides of the body; the nuchal epaulettes of P. scapularis have dense black pigmentation, whereas such pigmentation has not been reported on P. picta; in contrast to P. picta, palps of P. scapularis are visible dorsally. Proceraea okadai (Imajima 1966) from Japan has a close morphological similarity with P. scapularis in having two longitudinal black bands on dorso-lateral sides of the body, but P. okodai has shorter nuchal epaulettes (extending to anterior margin of chaetiger 1 in P. okadai versus to anterior margin of chaetiger 3 in P. scapularis).

Distribution

Proceraea scapularis was previously reported from the western Mediterranean; type locality (Port-Vendres, Gulf of Lion) (Claparède 1864). Okada (1933) also reported this species around Plymouth, England. However, the previous records of *Proceraea picta* especially from the western Mediterranean should be re-examined to find out the "true" distributional pattern of *P. scapularis*.

Virchowia clavata Langerhans, 1879

(Figure 10)

Virchowia clavata Langerhans 1879, p 582–583, Figure 31; Fauvel 1923, p 324–325, Figure 125; Cognetti 1957, p 75.



Figure 10. (A) Ventral view of anterior part of *Virchowia clavata*; (B) inferior falciger on anterior parapodium; (C) dorsal simple chaeta; (D) pygidium. Scale bar: $60 \ \mu m$ (A, D); 2.3 μm (B, C).

Material examined

SZN-POL35, one specimen, Station 3, Secca delle Gajola, 10 January 1954, on coralligenous substrata, 40 m, coll. Cognetti.

Notes

Specimen complete, 2.35 mm long, 0.16 mm wide, H+10=0.85 mm, for 35 chaetigers, yellowish with irregular black speckles on body. Prostomium with two pairs of eyes, overlapping on either side; anterior ones larger, with lenses; one pair of ocular specks (Figure 10A). Median antenna emerging at middle of prostomium, six times longer than prostomium; lateral ones from anterior margin of prostomium. Nuchal epaulettes rounded, covered with dense, long cilia, extending beyond prostomium. Peristomium with two pairs of tentacular cirri; dorsal ones longer. Dorsal cirri alternating short and long; longer ones with black speckles. On ventral side of each parapodium, a ciliated ridge present (Figure 10A). Anterior and posterior parapodia with three falcigers and one simple chaeta; falcigers bidentate; distal and proximal teeth somewhat equal; blades ca $5 \ \mu m$ long (Figure 10B). Solitary dorsal simple chaeta expanded distally, with a tip accompanied by one long and five short spines (Figure 10C). Each parapodium with one acicula, tapering. Proventricle 0.13 mm long, 0.10 mm wide, through three segments, with 30 muscle cell rows. Pharynx long, with three sinuations; trepan with short, equal teeth; number of teeth could not be counted due to contraction of tip of pharynx. Pygidium somewhat triangular, with one pair of short anal cirri (Figure 10D).

Distribution

Eastern Atlantic—Madeira (Langerhans 1879) and western Mediterranean—Algeria (Fauvel 1923), Gulf of Naples (Cognetti 1957), Spain (Sardá 1988).

Brania pusilla (Dujardin, 1839)

Grubea pusilla: Fauvel 1923, p 299, Figure 115a–f; Cognetti 1957, p 52 *Brania pusilla*: Ben-Eliahu 1977a, p 65; Campoy 1982, p 248, Figure 14; San Martín 1984, p 181, Figure 38.

Material examined

SZN-POL12, one specimen, Station 1, Lago Fusaro, 21 January 1955, on algae, 0-1 m, coll. Cognetti.

Notes

Specimen complete, 2 mm long, 0.15 mm wide, H+10=0.98 mm, for 21 chaetigers, with a total of 16 embryos of four chaetigers attaching to bases of parapodia after chaetiger 16; 0.25 mm long, 0.06 mm wide. Falcigers numbering eight on anterior parapodia, five on posterior ones; blades unidentate with a subdistal long spine, 10–40 μ m long on anterior parapodia and 10–35 μ m long on posterior parapodia. Proventricle 0.18 mm long, 0.13 mm wide, through two segments, with 26 muscle cell rows. Pharynx occupying ca four segments, with a pharyngeal tooth; coarse (50 μ m long), triangular, sharp.

Distribution

Mediterranean, Atlantic and Indian Ocean (San Martín 1984).

Exogone (Exogone) dispar (Webster, 1879)

Exogone rostrata: Cognetti 1957 (in part), p 60 (non Naville 1933). *Exogone dispar*: Campoy 1982, p 290, Figure 21; San Martín 1984, p 221, Figure 52.

Material examined

SZN-POL11, one specimen, Station 3, Secca della Gajola, on coralligenous substrate, 40 m, coll. Cognetti.

Notes

Specimen complete, 3.35 mm long, 0.14 mm wide, H+10=0.84 mm, for 34 chaetigers. Median antennae longer than lateral ones, expanded distally, reaching tip of palps. Dorsal cirri ovoid, present on all chaetigers. Pseudospinigers numbering one or two, bifid, with a blade 27.5 μ m long on anterior parapodia and 20 μ m long on posterior parapodia. Falcigers numbering eight on anterior parapodia, four on posterior ones, bidentate; blades 7.5 μ m and 5 μ m long on anterior and posterior parapodia, respectively. Dorsal simple chaeta from chaetiger 1, serrated subdistally, pointed distally. Proventricle 0.18 mm long, 0.09 mm wide, occupying 2.5 segments, with 28 muscle cell rows. Pharynx through six segments, with a pharyngeal tooth at opening of pharynx.

Distribution

Mediterranean, Atlantic and Pacific Oceans (San Martín 1984).

Exogone (Parexogone) meridionalis (Cognetti, 1955) comb. nov.

(Figure 11)

Exogone hebes meridionalis Cognetti 1955, p 5–7, Figure 1-3-3b; Cognetti 1957, p 61, Figure 11b.

Exogone parahomoseta mediterranea San Martín 1984, p 204–208, Figure 45; San Martín 1991, p 728, Figure 7h, i; Çınar et al. 2003, p 749.

Exogone mediterranea San Martín 2003, p 239-241, Figures 127, 128.

Material examined

SZN-POL10, Lectotype, Station 4, Capo Posillipo, 1 October 1954, on sand with *Branchiostoma lanceolatum*, 5–10 m, coll. Cognetti; MNCN-16. 01/174, four specimens, 3 October 1980, Cala Sahona, Isla de Formentera, Balearic Islands, coll. and det. by San Martín; ESFM-POL/97-22, one specimen, Izmir Bay, Aegean Sea, 7 November 1997, 76 m, muddy sand, coll. and det. by Çınar; ESFM-POL/97-21, four specimens, northern Cyprus, 35°37'8"N–34°21'1"E, 15 May 1997, sand with *Branchiostoma lanceolatum*, coll. and det. by Çınar.



Figure 11. (A) Anterior and posterior parts of *Exogone (Parexogone) meridionalis*; (B) falcigers on anterior parapodium; (C) dorsal simple chaeta; (D) ventral simple chaeta; (E) aciculum. Scale bar: 100 μ m (A); 3.5 μ m (B–E).

Description

Specimen complete, 1.52 mm long, 0.12 mm wide, H+10=0.53 mm, for 30 chaetigers. Prostomium almost rectangular, wider than long, with two pairs of small eyes in rectangular arrangement; anterior ones larger (Figure 11A); with a pair of large ocular specks. Antennae emerging between anterior eyes on a transverse line; median one thick and long, reaching chaetiger 2; lateral antennae short, club-shaped, less than half length of median antenna, reaching anterior margin of prostomium. Palps thick, sub-triangular, completely fused, ca three times longer than prostomium. Peristomium fused with prostomium, with a pair of digitiform tentacular cirri. Dorsal cirri small, digitiform, absent on chaetiger 2; dorsal cirri on posterior parapodia longer than those on anterior ones. Parapodia conical, with a rounded papilla distally, bearing minute, numerous, shining granules internally. Ventral cirri digitiform, shorter than parapodial lobes. Falcigers on anterior parapodia numbering six, bidentate; blades with four to six coarse spines on cutting edges, ca 8 μ m long (Figure 11B). Falcigers on posterior parapodia morphologically similar to those on

anterior parapodia but with shorter blades (ca 5 μ m long). Dorsal simple chaeta solitary, from chaetiger 1, thicker than shaft of falcigers on posterior parapodia, with a strong subdistal tooth, serrated subdistally (Figure 11C). Ventral simple chaeta solitary, only seen on posterior-most parapodia, sigmoid, strongly bidentate, serrated subdistally (Figure 11D). Acicula numbering one per parapodium, distally rounded (Figure 11E). Proventricle 0.21 mm long, 0.7 mm wide occupying ca 4.5 segments, with 34 muscle cell rows. Pharynx 1.5 times longer than proventricle, with one sinuation; 10 soft papillae at opening of pharynx; pharyngeal tooth large, triangular, placed just behind opening of pharynx. Pygidium with two long anal cirri (Figure 11A).

Remarks

Exogone (Parexogone) meridionalis comb. nov. is similar to the species *E. (P.) hebes* (Webster and Benedict, 1884) and *E. parahomoseta* Hartmann-Schröder, 1974 but differs from them in having six small eyes, long proventricle and dorsal simple chaetae serrated on concave edge.

Distribution

Western Mediterranean; Gulf of Naples (Cognetti 1955, 1957), Balearic Islands (San Martín 1984) and Cala Cerrada, Murcia (Campoy 1982). Eastern Mediterranean; Izmir Bay, Aegean Sea (Çınar and Ergen 2002) and Cyprus (Çınar et al. 2003). Western Atlantic; Florida (San Martín 1991).

Parapionosyllis labronica Cognetti, 1965

Parapionosyllis minuta: Cognetti 1957 (in part), p 45 (non Pierantoni 1903). Parapionosyllis labronica Cognetti 1965, p 68, Figure 2d; San Martín 1984, p 191–194, Figure 41.

Material examined

SZN-POL17, one specimen, Station 4, Capo Posillipo, on sand with *Branchiostoma* lanceolatum, 5–10 m, coll. Cognetti.

Notes

Specimen was placed ventro-dorsally on the slide and nearly dried out; complete, 3.38 mm long, 0.10 mm wide, H+10=1 mm, for 27 chaetigers, pale yellowish with dark spots on dorsum of anterior segments. Falcigers unidentate, with a long subdistal spine, numbering seven and six on anterior parapodia and posterior ones, respectively; blades 7.5–10 μ m long throughout. Swimming chaetae four times longer than body width, from chaetiger 9. Proventricle 0.09 mm long, 0.08 mm wide, occupying one segment, with 18 muscle cell rows. Pharynx through four segments, with a tooth at opening of pharynx.

Distribution

Western Mediterranean (Cognetti 1957, 1965; San Martín 1984), Eastern Mediterranean (Çınar and Ergen 2002).

Eusyllis assimilis Marenzeller, 1875

Eusyllis assimilis: Fauvel 1923, p 294, Figures 112a-g; Campoy 1982, p 333, Figure 26; San Martín 1984, p 82, Figure 10.

Eusyllis lamelligera: Cognetti 1957 (in part), p 48 (non Marion and Bobretzky 1875).

Material examined

SZN-POL13, one specimen, Station 3, Secca della Gajola, on coralligenous substrata, 40 m, coll. Cognetti.

Notes

Specimen complete, 8.75 mm long, 0.40 mm wide, H+10=1.50 mm, for 52 chaetigers. Falcigers numbering 18 on anterior parapodia, bidentate; four superior-most falcigers with long, relatively thin blades; ca 25 μ m long; remaining falcigers with relatively thick blades; 15–17.5 μ m long. Posterior falcigers numbering seven; superior-most with long, thin blade, 22.5 μ m long, remaining falcigers with thick blades; ca 17.5 μ m long. Dorsal simple chaeta from chaetiger 7, very thin, slightly bidentate. Ventral simple chaeta seen on last 14 chaetigers, thick (five times thicker than dorsal one), strongly bidentate. Proventricle 0.65 mm long, 0.28 mm wide, occupying four segments, with 47 muscle cell rows. Pharynx as long as proventricle, with a coarse tooth antero-dorsally. Pygidium with long (1.15 mm) anal cirri.

Distribution

Mediterranean, Atlantic and Pacific Oceans (San Martín 1984).

Odontosyllis ctenostoma Claparède, 1868

Odontosyllis ctenostoma Claparède 1868, p 202–203, Plate 12, Figure 4; Fauvel 1923, p 277, Figures 104e, f; Cognetti 1957, p 33–34; San Martín 1984, p 97, Figure 15. Odontosyllis fulgurans; Cognetti 1957 (in part), p 31 (non Claparède 1864).

Material examined

SZN-POL14, one specimen, Station 1, Lago Fusaro, 20 February 1955, on algae, 0–1 m, coll. Cognetti; SZN-POL15, one specimen, Station 5, Mergellina, on algae, 0–2 m, coll. Cognetti.

Notes

Specimen complete, 10.25 mm long, 0.65 mm wide, H+10=1.07 mm, for 70 chaetigers, with swimming chaetae after chaetiger 15. Falcigers unidentate; inferior ones with blades sickle-shaped; blades 10–17.5 µm long on middle parapodia. Proventricle 0.78 mm long, 0.26 mm wide, through seven segments, with 65 muscle cell rows. Pharynx occupying six segments, with five pharyngeal teeth directed backwards.

Distribution

Mediterranean and Atlantic Ocean (San Martín 1984).

Odontosyllis gibba Claparède, 1863

Odontosyllis gibba: Fauvel 1923, p 275, Figures 104a-e; Cognetti 1957, p 32-33; San Martín 1984, p 91, Figure 13.

Material examined

SZN-POL16, one specimen, Station 11, Punta Tiberio, on *Peyssonnelia*, 50-70 m, coll. Cognetti.

Notes

Specimen complete, 4.13 mm long, 0.40 mm wide, H+10=1.55 mm, for 32 chaetigers, with black pigmentation in anterior region; dorsal cirri with a black ring subdistally. Falcigers unidentate; blades $22.5-32.5 \mu m$ long on anterior parapodia and $22.5-37.5 \mu m$ long on posterior ones. Dorsal and ventral simple chaetae only seen on posterior-most parapodia, thin, slightly bidentate. Proventricle 0.37 mm long, 0.24 mm wide, through 2.5 segments, with 35 muscle cell rows. Pharynx relatively short, occupying half segment; trepan with six rounded teeth directed backwards.

Distribution

Mediterranean, Atlantic and Indian Ocean (San Martín 1984).

Pionosyllis lamelligera Saint-Joseph, 1856

Pionosyllis lamelligera: Fauvel 1923, p 288, Figures 110a-g; Cognetti 1957, p 41, Figure 7; San Martín 1984, p 105, Figure 16.

Material examined

SZN-18, one specimen, Station 5, Mergellina, 29 September 1954, on algae, 2–5 m, coll. Cognetti.

Notes

Specimen incomplete, 4.50 mm long, 0.14 mm wide, H+10=0.80 mm, for 38 chaetigers, dark brownish, with black spots on dorso-median and dorso-lateral sides of chaetigers 1–5, a black transverse broad band at conjunction of segments between chaetiger 5 and 19. Ventral cirri on chaetiger 1 broad, lamella-shaped. Falcigers numbering 14 on anterior parapodia, bidentate; blades 17.5–37.5 μ m long. Falcigers numbering eight on posterior parapodia; superior falcigers similar to those on anterior parapodia, with a blade 35 μ m long, inferior ones with short blade (10 μ m long); proximal tooth coarser than distal one. Proventricle 0.20 mm long, 0.11 mm wide, occupying 3.5 segments, with 20 muscle cell rows. Pharynx through ca six segments, with pharyngeal tooth antero-dorsally.

Distribution

Mediterranean and Atlantic Ocean (San Martín 1984).

Pionosyllis weismanni Langerhans, 1879

Pionosyllis weismanni Langerhans 1879, p 546–547, Figures 11a–d; ?Ben-Eliahu 1977b, p 50–51, Figures 20a–g.

Pionosyllis pierantonii Cognetti 1957, p 42-43, Figure 8.

Material examined

SZN-POL19, one specimen, Station 10, Grotta Azzurra, 4 September 1954, on coralligenous substrata, 100 m, coll. Cognetti; ESFM-POL/97-77, one specimen, Izmir Bay, Aegean Sea, 7 November 1997, 76 m, mud, coll. and det. by Çınar; ESFM-POL/98-28, one specimen, northern Cyprus, off Famagusta, 19 July 1998, 120 m, on sandy mud, coll. and det. by Çınar.

Notes

Specimen complete, male, epitoke, 4.13 mm long, 0.13 mm wide, H+10=0.80 mm, for 54 chaetigers, pale yellowish. Falcigers numbering five on anterior parapodia, bidentate; superior most falcigers homogomph, with a relatively long blade (37.5 μ m long); remaining heterogomph, strongly bidentate, with short blades; 15–22.5 μ m long. Falcigers on posterior parapodia morphologically similar to those on anterior ones but with short blades; blade of superior-most falciger 30 μ m long; lengths of blades of other falcigers ranging from 15 to 17.5 μ m. Solitary dorsal simple chaeta from chaetiger 9, truncated. Solitary ventral simple chaeta from chaetiger 34, thick, curved, strongly bidentate; proximal tooth coarse, with a curved tip. Acicula "T"-shaped. Proventricle 0.25 mm long, 0.11 mm wide, through three segments, with 28 muscle cell rows. Pharynx through five segments, with a conical pharyngeal tooth antero-dorsally. Swimming chaetae from chaetiger 15 to 45, 13 times longer than body width. Pygidium with two long filiform anal cirri (as long as eight posterior segments).

Remarks

The Red Sea specimens of *Pionosyllis weismanni* identified by Ben-Eliahu (1977b) differ from the Mediterranean and Madeira specimens in having only four eyes instead of six, suggesting that they might probably belong to a different species.

Distribution

Mediterranean and Atlantic Ocean (Langerhans 1879; Ben-Eliahu 1977b).

Syllides edentatus (Westheide, 1974)

Syllides japonica edentata Westheide 1974, p 273, Figures 36e, 37. Syllides edentatus San Martín 1984, p 143, Figure 27. Syllides longocirrata; Cognetti 1957 (in part), p 35–36 (non Ørsted 1843).

Material examined

SZN-POL22, one specimen, Station 11, Punta Tiberio, 20 July 1955, on *Posidonia* oceanica, 25–30 m, coll. Cognetti.

Notes

Specimen complete, 2.35 mm long, 0.16 mm wide, for 25 chaetigers. Falcigers bidentate; blades $15-50 \ \mu\text{m}$ long throughout; proximal part of cutting edges of blades of some superior falcigers with relatively coarse spines. Dorsal simple chaetae from chaetiger 1, bifid, subdistally serrated, recurved. Acicula with a crown of fine spines distally. Proventricle 0.19 mm long, 0.10 mm wide, through two segments, with 30 muscle cell rows. Pharynx occupying six segments, without tooth.

Distribution

Mediterranean, Atlantic and Pacific Ocean (San Martín 1984).

Syllides fulvus (Marion and Bobretzky, 1875)

Anoplosyllis fulva Marion and Bobretzky 1875, p 28–32, Plate 2, Figures 8b–f, Plate 3, Figure 8a.
Syllides fulvus: San Martín 1984, 134–139, Figures 24, 25.
Syllides edentula: Cognetti 1957 (in part), p 37–38, Figure 6 (non Claparède 1868).

Material examined

SZN-POL21, one specimen, Station 4, Capo Posillipo, 10 October 1955, on sand with *Branchiostoma lanceolatum*, 5–10 m, coll. Cognetti.

Notes

Specimen complete, 0.88 mm long, 0.11 mm wide, H+10=0.55 mm, for 18 chaetigers. Falcigers numbering six throughout, bidentate; blades $10-22.5 \,\mu m$ long throughout. Dorsal simple chaetae recurved, finely serrated subdistally, with blunt tip, from chaetiger 1. Ventral simple chaetae only seen on posterior-most chaetigers, thin, sigmoid. As the specimen is very transparent, the pharynx and proventricle could not be examined.

Distribution

Mediterranean, Red Sea and Atlantic Ocean (San Martín 1984).

Eurysyllis tuberculata Ehlers, 1864

Eurysyllis tuberculata Ehlers 1864, p 264–268, Plate 11, Figures 4–7; Cognetti 1957, p 29, 30; San Martín 1984, p 264, Figure 60.

Material examined

SZN-POL9, one specimen, Station 3, Secca della Gajola, 22 August 1955, on coralligenous substrate, 40 m, coll. Cognetti.

Notes

Specimen complete, 2.40 mm long, 0.24 mm wide, H+10=0.40 mm, for 56 chaetigers, body dorso-ventrally flattened, with four rounded tubercles on dorsum of each chaetiger.

Falcigers bidentate; blades $8.5-12 \ \mu m \ long$ on anterior parapodia, ca $7.5 \ \mu m \ on$ posterior parapodia. Proventricle $0.12 \ mm \ long$, $0.10 \ mm \ wide$, through four segments, with 19 muscle cell rows. Pharynx long, with two sinuations, located between chaetigers 1 and 8, with a large triangular pharyngeal tooth at opening of pharynx.

Distribution

Apparently cosmopolitan (San Martín 1984).

Haplosyllis spongicola (Grube, 1855) complex

Syllis (Haplosyllis) spongicola: Fauvel 1923, p 257, Figure 95a-d.

Syllis spongicola spongicola: Cognetti 1955, p 1–3, Figure 1-3-1a; Cognetti 1957, p 10–12, Figure 2a.

Haplosyllis spongicola: Campoy 1982, p 363, Figure 31m-p; San Martín 1984, p 318-322, Figure 77.

Material examined

SZN-POL29, one specimen, Station 5, Mergellina, 26 July 1955, on algae, 0–2 m, coll. Cognetti.

Notes

Specimen complete, 5.63 mm long, 0.25 mm wide, H+10=1.25 mm, for 43 chaetigers. Dorsal cirri with 6–12 joints on anterior parapodia, four to seven joints and three to six joints on middle and posterior ones, respectively. Bifid simple chaetae numbering one on anterior parapodia, one to two and three to four on middle and posterior ones, respectively; subdistal tooth large, triangular on anterior chaetae, indistinct on posterior ones. Proventricle 0.65 mm long, 0.23 mm wide, through five segments, with 42 muscle cell rows. Pharynx contracted, occupying ca six segments; pharyngeal tooth not observed because of contraction of pharynx.

Distribution

Apparently cosmopolitan (San Martín 1984).

Syllis alternata Moore, 1908 comb. nov.

Syllis variegata profunda Cognetti 1955, p 3–5, Figure 1-3-3b; Cognetti 1957, p 20–21, Figure 4b.

Syllis alternata: San Martín and Viéitez 1984, p 153-155, Figures 1, 2.

Typosyllis alternata: Licher 1999, p 253-255, Figure 106.

Material examined

SZN-POL31, one specimen, Station 10, Grotta Azzurra, 4 September 1955, on coralligenous substrata, 100 m, coll. Cognetti.

Notes

Specimen anteriorly regenerating, 11.3 mm long, 0.29 mm wide, for 90 chaetigers. Median antenna with 22 joints, lateral ones with 15 joints. Tentacular cirri with 19–10 joints. Dorsal cirri with 25–49 joints on anterior parapodia, 20–40 joints and 28–30 joints on middle and posterior ones, respectively. Parapodia with ca 10 falcigers; strongly bidentate, blades 17.5–42.5 μ m long throughout. Anterior parapodia with three aciculae, posterior ones with two aciculae; one acuminate, the other straight, pointed tip. Anal cirri with 43 joints. As the individual has a regenerated anterior part, proventricle and pharynx could not be examined.

Distribution

Mediterranean, North-East Pacific, North-West Atlantic, Japan Sea (Licher 1999).

Syllis armillaris (O. F. Müller, 1776)

Syllis (Typosyllis) armillaris: Fauvel 1923, p 264, Figures 99a–f. Syllis armillaris: Cognetti 1957, p 24–25; San Martín 1984, p 381, Figures 99, 100. Typosyllis armillaris: Licher 1999, p 189–196, Figure 84.

Material examined

SZN-POL23, one specimen, Station 1, Lago Fusaro, 10 October 1955, on algae, 0-1 m, coll. Cognetti.

Notes

Specimen incomplete, 8.75 mm long, 0.53 mm wide, H+10=1.50 mm, for 59 chaetigers. Dorsal cirri conical, 13–16 joints on anterior parapodia, 10–12 joints on middle ones. Falcigers numbering 16 on anterior parapodia and eight on middle ones, bidentate; blades 17.5–42.5 µm long on anterior parapodia and 17.5–30 µm long on middle parapodia. Proventricle 1.40 mm long, 0.29 mm wide, through 10 segments, with 41 muscle cell rows. Pharynx occupying 10 segments, with a tooth anterodorsally.

Distribution

Apparently cosmopolitan (Licher 1999).

Syllis garciai (Campoy, 1982)

Langerhansia garciai Campoy 1982, p 386, Figure 36–38. Syllis cornuta: Cognetti 1957 (in part), p 25–26 (non Rathke 1843). Syllis garciai: San Martín 1984, p 364, Figure 92. Typosyllis garciai: Licher 1999, p 74–75.

Material examined

SZN-POL24, one specimen, Station 3, Secca della Gajola, 14 July 1954, on coralligenous substrata, 40 m, coll. Cognetti.

Notes

Specimen complete, 5.38 mm long, 0.20 mm wide, H+10=1 mm, for 63 chaetigers. Median antenna with 13 joints, lateral ones with seven joints. Dorsal cirri with six to seven joints, six to eight joints, and five to six joints on anterior, middle, and posterior parapodia, respectively. Anterior parapodia with three pseudospinigers and 10 falcigers; all bidentate, blades of pseudospinigers 75 μ m long, those of falcigers 12.5–22.5 μ m long. Posterior parapodia with one pseudospiniger and four falcigers; bidentate, distal spines on cutting edges of blades surpassing level of proximal tooth; blades of pseudospiniger 85 μ m long, those of falcigers 15–37.5 μ m long. Proventricle 0.40 mm long, 0.11 mm wide, through six segments, with 36 muscle cell rows. Pharynx through seven segments; pharyngeal tooth placed antero-dorsally.

Distribution

Mediterranean and Atlantic (Licher 1999).

Syllis gerlachi (Hartmann-Schröder, 1960)

Typosyllis gerlachi Hartmann-Schröder 1960, p 81–82, Plate 6, Figures 43, 44; Licher 1999, p 127–129, Figure 57.

Syllis (Typosyllis) truncata cryptica Ben-Eliahu 1977b, p 41–43, Figures 16a–e. Syllis truncata cryptica: San Martín 1984, p 352–354, Figure 87.

Syllis hyalina: Cognetti 1957 (in part), p 21-23 (non Grube 1863).

Material examined

SZN-POL26, one specimen, Station 3, Banco d'Ischia, on coralligenous substrata, 20-25 m, coll. Cognetti.

Notes

Specimen complete, 8.13 mm long, 0.25 mm wide, H+10=0.83 mm, for 90 chaetigers. Median antenna with 13 joints, lateral ones with eight joints. Tentacular cirri with 8–11 joints. Dorsal cirri 10–18 joints on anterior parapodia, 10–14 joints and 5–7 joints on middle and posterior ones, respectively. Falcigers bidentate; blades 15–30 μ m long on anterior parapodia, 12.5–22.5 μ m long on posterior one. Dorsal simple chaeta from chaetiger 38, truncated. Ventral simple chaeta on last two chaetigers, thin, unidentate, sigmoid. Proventricle 0.28 mm long, 0.12 mm wide, occupying five segments, with 25 muscle cell rows. Pharynx through eight segments, with a tooth anterodorsally.

Distribution

Mediterranean, Red Sea, Indian Ocean, eastern Atlantic (Licher 1999).

Syllis gracilis Grube, 1840

Syllis gracilis: Fauvel 1923, p 259, Figure 96f–i; Cognetti 1957, p 15–16; San Martín 1984, p 376–381, Figures 97, 98.

Material examined

SZN-POL25, one specimen, Station 6, via Caracciolo, 5 May 1954, on algae, 0–2 m, coll. Cognetti.

Notes

Specimen complete, 4 mm long, 0.20 mm wide, H+10=0.90 mm, for 46 chaetigers, two transverse black lines on dorsum of each anterior chaetiger. Median antennae with seven joints, lateral ones with six joints. Peristomium with two pairs of tentacular cirri; 7–12 joints. Dorsal cirri with seven to nine joints on anterior parapodia, four to six joints and five to six joints on middle and posterior ones, respectively. Anterior falcigers numbering seven, bidentate; blades $20-30 \mu m$ long. After chaetiger 19, only characteristic "ypsoidal" chaetae present on parapodia, numbering two on middle region, one in posterior region; shafts of superior one ca 10 μm in diameter. Proventricle 0.48 mm long, 0.14 mm wide, occupying ca five segments, with 45 muscle cell rows. Pharynx through seven segments, with a sharp, triangular pharyngeal tooth anterodorsally. Anal cirri with six joints.

Distribution

Apparently cosmopolitan (San Martín 1984).

Syllis krohni Ehlers, 1864

Syllis krohni Ehlers 1864, p 233–239, Plate 10, Figures 1–4; Cognetti 1957, p 16–17; San Martín 1984, p 367–370, Figure 93. *Typosyllis krohni*: Licher 1999, p 205–207, Figure 87.

Material examined

SZN-POL27, one specimen, Station 2, Banco d'Ischia, coll. Cognetti.

Notes

Specimen complete, 4.75 mm long, 0.32 mm wide, H+10=0.82 mm, for 64 chaetigers, with a dark brownish transverse line on dorsum of each anterior parapodium, dark reddish irregular speckles on dorsum of body, and a black spot on bases of anterior and middle parapodia. Median antenna thick, with 13 joints, lateral ones with 11 joints. Tentacular cirri with 9–12 joints. Antennae and cirri with expanded subdistal or distal joints. Dorsal cirri on anterior parapodia with 12–20 joints. Anterior parapodia with 12 falcigers, strongly bidentate; blades 20–30 μ m long. Posterior parapodia with 10 falcigers; superior ones finely bidentate, inferior ones unidentate, with sickle-shaped blades; shafts of inferior ones two times thicker than superior ones, with pointed, re-curved tip; blades of superior falciger 17.5 μ m long, those of inferior falcigers 20 μ m long. Dorsal simple chaeta from chaetiger 17, slightly recurved, indistinctly bifd. Ventral simple chaeta relatively thick, bidentate. Proventricle 0.45 mm long, 0.20 mm wide, through six segments, with 40 muscle cell rows. Pharynx through five segments, with a tooth anterodorsally.

Distribution

Mediterranean, North Sea, Eastern Atlantic, (?) Indian and Pacific Oceans (Licher 1999).

Syllis prolifera Krohn, 1852

Syllis (Typosyllis) prolifera: Fauvel 1923, p 261, Figures 97a-g.

Typosyllis prolifera: Campoy 1982, p 441–446, Figures 58, 59; Licher 1999, p 135–140, Figure 61.

Syllis prolifera: Cognetti 1957, p 17-18; San Martín 1984, p 331-335, Figures 78, 79.

Material examined

SZN-POL28, one specimen, Station 5, Mergellina, 19 July 1953, on algae, 0–2 m, coll. Cognetti.

Notes

Specimen complete, with stolon, male.

Stock. Stock 5 mm long, 0.65 mm wide, H+10=1 mm, for 50 chaetigers. Median antenna with 22 joints, lateral ones with 20 joints. Dorsal cirri with 28–37 joints on anterior parapodia, 22–30 joints and 22–28 joints on middle and posterior ones, respectively. Anterior parapodia with 12 falcigers, bidentate; blades 20–30 μ m long. Posterior parapodia with nine falcigers, morphologically similar to those on anterior parapodia but with shorter blades (15–22.5 μ m long). Dorsal simple chaeta from chaetiger 26. Proventricle 0.70 mm long, 0.35 mm wide, through seven segments, with 34 muscle cell rows. Pharynx strongly retracted, occupying four segments, with a tooth placed posterior to opening of pharynx.

Stolon. Stolon 2.03 mm long, 0.55 mm wide, for 17 chaetigers, with one pair of antennae "*Chaetosyllis*". Dorsal cirri 20–23 joints and 11–15 joints on anterior and posterior parapodia, respectively. Anterior parapodia with seven falcigers, bidentate; blades 7–17.5 μ m long. Posterior parapodia with six falcigers; blades 10–17.5 μ m long. Dorsal simple chaeta from chaetiger 14, ventral simple chaeta only on last four chaetigers. Swimming chaetae 0.14 mm long, from chaetiger 2.

Distribution

Apparently cosmopolitan (Licher 1999).

Syllis variegata Grube, 1860

Syllis variegata Grube 1860, p 85–86, Plate 3, Figure 6; San Martín 1984, p 354–360, Figures 88, 89.

Syllis variegata variegata: Cognetti 1955, p 3–5, Figure 1-3-2a; Cognetti 1957, p 20–21, Figure 4b.

Typosyllis variegata: Campoy 1982, p 445, Figure 65; Licher 1999, p 101–108, Figures 10b, 17d, 49.

Material examined

SZN-POL32, one specimen, Station 3, Secca della Gajola, 5 July 1955, on coralligenous substrata, 40 m, coll. Cognetti.

Notes

Specimen complete, 10 mm long, 0.50 mm wide, H+10=1.33 mm, for 98 chaetigers, with a specific colour marking " ∞ " on dorsum of each anterior parapodium. Median antenna with 14 joints, lateral ones with 10 joints. Tentacular cirri with 10–14 joints. Dorsal cirri 17–19 joints on anterior parapodia, 13–18 joints and 10–11 joints on middle and posterior parapodia, respectively. Anterior parapodia with 14 falcigers, bidentate, blades 20–40 μ m long. Posterior parapodia with seven falcigers; blades 15–30 μ m long. Dorsal simple chaeta slightly bidentate, from chaetiger 85. Ventral simple chaeta on last seven chaetigers, thin, bidentate. Proventricle 1.05 mm long, 0.30 mm wide, through nine segments, with 45 muscle cell rows. Pharynx occupying ca 10 segments; pharyngeal tooth placed anterodorsally.

Distribution

Apparently cosmopolitan (Licher 1999).

Trypanosyllis aeolis Langerhans, 1879

Trypanosyllis aeolis Langerhans 1879, p 558, Figure 18. *Trypanosyllis gemmipara*: San Martín 1984, p 282, Figure 66. *?Xenosyllis scabra*: Cognetti 1957 (in part), p 30–31 (non Ehlers 1864).

Material examined

SZN-POL36, one specimen, Station 8, Secca di S. Giovanni, coll. Cognetti.

Notes

Specimen complete, 8.75 mm long, 0.93 mm wide, H+10=1.15 mm, for 91 chaetigers, flattened dorso-ventrally, pinkish, with three dark reddish transverse lines on dorsum of each anterior parapodium. Median and lateral antennae originating from anterior margin of prostomium; median antenna with 11 joints, lateral ones with 11 joints. Tentacular cirri with 10–20 joints. Dorsal cirri pinkish, expanded distally, with 11–21 joints on anterior parapodia, with 9–13 and 6–8 joints on middle and posterior parapodia, respectively. Parapodia conical, with three long digitiform papillae at antero-dorsal and lateral sides. Anterior parapodia with 12 falcigers, slightly bidentate; blades ca 22.5 μ m long. Posterior parapodia with eight falcigers; blades 17.5 μ m long. Proventricle 0.55 mm long, 0.26 mm wide, through six segments, with 32 muscle cell rows. Pharynx occupying 4.5 segments; trepan could not be examined due to dense coloration on dorsum.

Distribution

Apparently cosmopolitan in tropical and subtropical regions (San Martín 1984).

Trypanosyllis zebra (Grube, 1860)

Syllis zebra Grube 1860, p 86-87, Plate 3, Figure 7.

Trypanosyllis zebra: Fauvel 1923, p 269, Figures 101a-e; San Martín 1984, p 277-281, Figures 64, 65; Cognetti 1957 (in part), p 26-27.

Trypanosyllis coeliaca: Cognetti 1957 (in part), p 27-28 (non Claparède 1868).

Material examined

SZN-POL33, one specimen, Station 1, Lago Fusaro, on algae, 0–1 m, coll. Cognetti; SZN-POL34, one specimen, Station 5, Mergellina, on algae, 0–2 m, coll. Cognetti.

Notes

Largest specimen complete, 17.5 mm long, 0.75 mm wide, H+10=1.15 mm, for 174 chaetigers, body dorso-ventrally flattened, reddish with one reddish transverse line on anterior and posterior region of each parapodium. Median antenna with 30 joints, lateral ones with ca 24 joints. Dorsal cirri with 22–34 joints on anterior parapodia, 17–27 joints and 10–13 joints on middle and posterior ones, respectively. Anterior parapodia with 14 falcigers, bidentate; blades $30-45 \mu m$ long. Posterior parapodia with eight falcigers; blades $27.5-35 \mu m$ long. Proventricle 1.15 mm long, 0.45 mm wide, through 10 segments, with ca 42 muscle cell rows. Pharynx occupying 13 segments; pharyngeal tooth placed anterodorsally; trepan with 12 equal teeth.

Distribution

Apparently cosmopolitan (San Martín 1984).

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