

# On some exogonines (polychaeta, syllidae, exogoninae) from the north coast of Egypt

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## Abstract

Many specimens of Syllidae were sampled during several collection trips to different parts of Egyptian coastline from North to West. Most of these are typical meiofaunal species belonging to the subfamilies Exogoninae, Eusyllinae and Syllinae. In this paper, 9 species belonging to subfamily Exogoninae, genera *Exogone*, *Sphaerosyllis* and *Brania* are described. Two of them (*Sphaerosyllis giandoi* Somaschini and San Martín, 1994 and *Exogone (Parexogone) gambiae* Lanera, Sordino & San Martín, 1994) are endemic to the Mediterranean, while *Brania arminii* Hartmann-Schröder, 1971 is circumtropical species, *Sphaerosyllis* sp. San Martín, 2003, *Sphaerosyllis glandulata* San Martín, 1991 and *Sphaerosyllis sandrae* Álvarez and San Martín, 2008 are amphiatlantic, while, *Prosphaerosyllis fujianensis* Ding & Westheide, 2008 and *Exogone (Parexogone) sexoculata* Hartmann-Schröder, 1979 are Indo Pacific species, they seem to be Lessepsian migrant species.

## 1. Introduction

A study on the taxonomy and distribution of benthic communities in the North Mediterranean Coast of Egypt has recently been carried out. The family Syllidae Grube, 1850 represents the most important polychaete family, both in abundance and species richness in Seas and Oceans (San Martín & Hutchings, 2006; Aguado & San Martín, 2009).

Syllidae is currently divided into 5 subfamilies (Aguado and San Martín 2009): Eusyllinae Malaquin, 1893; Exogoninae Langerhans, 1879; Autolytinae Langerhans, 1879; Syllinae Grube, 1850; and the recently erected Anoplosyllinae Aguado and San Martín, 2009.

This is the fourth paper by the author documenting the Syllidae (Annelida, Polychaeta) from Sidi Barani, El Burrullus (spring, 2010) based on the seasonal collections within the scientific plan of National Institute of Oceanography and Fisheries, Alexandria. The plan is addressed to develop a complete description of aquatic Egyptian fauna. Some new species and newly recorded species of different polychaete families have been sampled including the family Syllidae. Syllid species were identified by Selim (2008a), also Abd Elnaby and San Martín (2010a, b in press). this paper includes some newly recorded species of family Syllidae, belonging to subfamily Exogoninae and three genera: *Sphaerosyllis*, *Exogone* and *Brania* and includes the description of 9 new records for Egyptian waters.

## 2. Materials and Methods

Two trips were carried out on the North Mediterranean coast of Egypt, to collect sediment samples from two stations (Sidi Barani and El Burrullus (spring, 2010), where depth ranged from 20 to 50 m (Figure 1). Sediment samples were collected by a Van Veen grab (0.25 m<sup>3</sup>); samples were washed and sieved through 0.3µm sieve, and sorted under Stereomicroscope. Specimens of Syllidae were extracted and fixed in 10 % formaldehyde in seawater-solution. Identification and examination were done by using compound microscope. Drawings were made by a camera lucida. Specimens were deposited in the Marine Reference Collection Center of National Institute of Oceanography and Fisheries, Alexandria.

## 3. Results

### 3.1. *Sphaerosyllis annulata* Nogueira, San Martín, and Fukuda, 2004 (Figure 2A-E)

*Sphaerosyllis annulata* Nogueira *et al.*, 2004: 50 Figure 1 A-H.

Material examined: El Burrullus, 9 specimens, coarse sand, about 50 m deep, spring 2010.

#### Description:

Body about 4-6 mm in length, with 27 chaetigers. Body divided into four annuli per chaetiger. Palps short, squared and completely fused dorsally (Figure 2A). Antennae short, slightly exceeding the length of palps; lateral pair at the anterior border of prostomium, median antenna larger, situated at the middle of

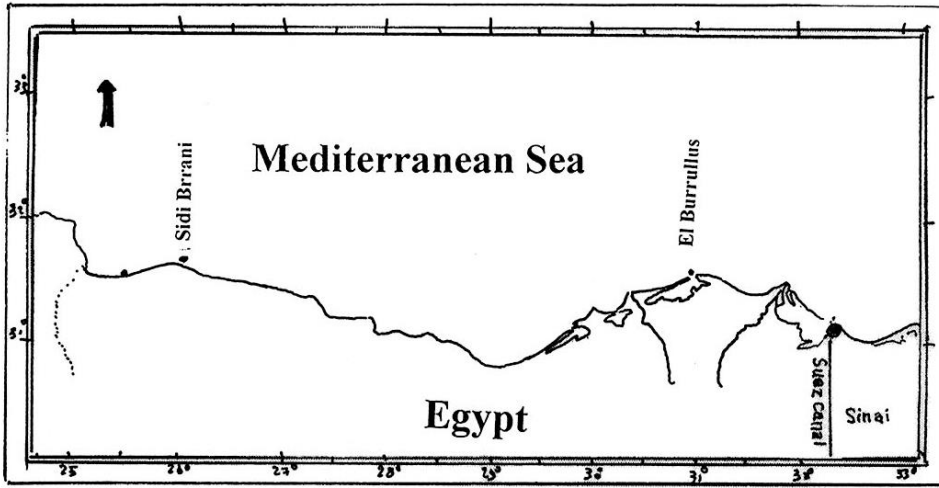


Fig. (1): Map showing locations of sampling sites.

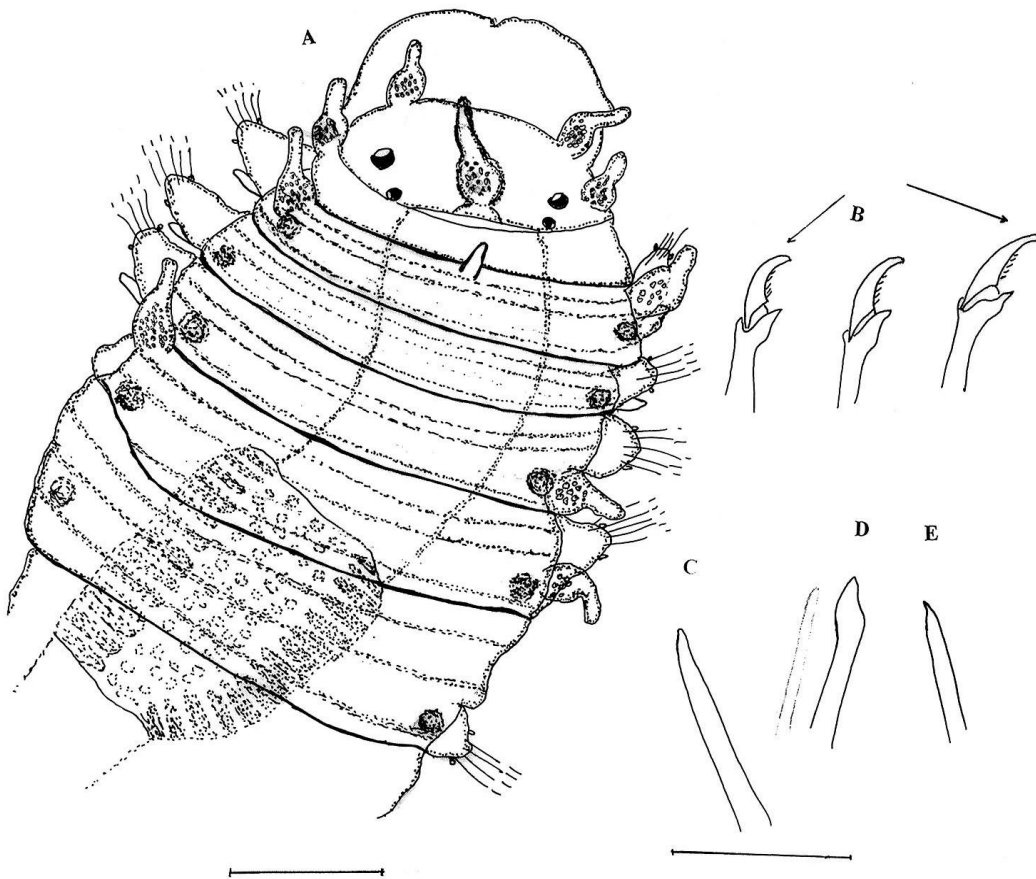


Fig. 2- *Sphaerosyllis annulata* A. Anteriorpart of body, dorsal view; B. Falcigers chaetae; C. Dorsal simple chaeta; D. Acicula; E. Ventral simple chaeta. Scale (A, 0.03mm); (B-E 20  $\mu$ m)

prostomium; four lensed eyes in trapezium arrangement, eyespots absent. Peristomium reduced, pair of tentacular cirri projecting below prostomium, shorter than lateral antennae. Antennae, peristomial cirri, dorsal, and anal cirri with the same shape, their bases distinctly globular to oval, with abrupt transition to cylindrical tips; bases with iridescent inclusion and one gland each (Figure 2 A). Each segment with four annuli, the first the narrowest. In anterior segment; third annulus is the widest, at parapodial lobes, where dorsal cirri and parapodial glands are present with granules. Parapodial lobes with one anterior papilla and another posterior to chaetal bundles. Anal cirri with the same shape as dorsal cirri. Ventral cirri broad, shorter than parapodial lobes. Parapodia with few chaetae each, 3-4 chaetae on anterior parapodia, 3-4 at midbody, and 2-3 on posterior chaetigers. Falcigers short, falcate blades, with basal spines, nearly without dorso-ventral gradation. Blades measuring 15-17.5  $\mu\text{m}$  on anterior chaetigers (Figure 2 B), 10-12.5  $\mu\text{m}$  on posterior ones. Dorsal simple chaetae present from first chaetiger, almost straight, slightly curved distally; short and thin on anterior chaetigers (Figure 2C), becoming longer and thicker than shafts of falcigers from proventricular chaetigers. Ventral simple chaeta starting at chaetigers 18 (Figure 2E). Anterior parapodia with two aciculae, one straight and slightly thinner and the other thick distally oblique with rounded to pointed tip; from mid-body, single acicula per parapodium, distally oblique and rounded tip protruding from parapodial lobes (Figure 2D). Pharynx extending for 4 chaetigers, with small tooth at anterior end; proventriculus occupying 2 segments, rectangular to squared, distinctly wider than pharynx with 14 thick rows of muscle cells.

Distribution: Southeast Brazil.

### 3.2. *Sphaerosyllis sandrae* Álvarez and San Martín, 2009

(Figure 3A-F )

*Sphaerosyllis sandrae* Álvarez and San Martín, 2009: 4 Figures. 3-4 A-I

Material examined: El Burrullus, 50 m depth, 4 specimens, from coarse sand, spring 2010.

Description:

Body about 4-5 mm long with 25-27 chaetigers. Prostomium wider than long, with two pairs of eyes similar in size. Antennae pyriform, central antenna inserted slightly anteriorly to anterior pair of eyes. Lateral antennae are inserted at anterior margin of prostomium. palps fused at base, about as wide as prostomium. Prostomium slightly shorter than anterior segments, covering posterior part of prostomium. Pair

of peristomial cirri directed forwards, similar to antennae in size and morphology (Figure 3A). Dorsal cirri throughout with bulbous bases and short tips, similar to peristomial cirri; dorsal cirri absent on chaetiger 2. Parapodial glands containing hyaline material, always on dorsal side, beginning in chaetiger 4 provide each with a small papillae as long as all other papillae. compound chaetae heterogomph falcigers, posterior chaetae with tips of shafts shorter and thicker than anterior chaetae. Anterior and midbody chaetae with 3 long and spinulated blades and three with smooth blades (12.5-17.5  $\mu\text{m}$ ) (Figure 3B&C), posterior chaetae with smooth blades (7.5-10  $\mu\text{m}$ ) (Figure 3D). Dorsal simple chaetae present on all parapodia, serrated on edge near tips (Figure 3E, F). Ventral simple chaetae on posterior parapodia, smooth, unidentate, sharply curved anteriorly near tips at right angle (Figure 3G). Aciculae, solitary, thick, and end in flared mucronate tips (Figure 3H). Pharynx short occupying three and half segments. mid-dorsal tooth large in anterior end of pharynx. Proventricle short, barrel shaped, extending through 2 segments, with about 16 muscular rows. Few scattered short papillae distributed on dorsum, more abundant laterally. Pygidium short with pair of anal cirri similar in shape to dorsal cirri

Distribution: Cuba. Atlantic Ocean.

### 3.3. *Sphaerosyllis glandulata* Perkins, 1981

(Figure 4A-H)

*Sphaerosyllis (Sphaerosyllis) glandulata* San Martín, 1991: 232, 2003: 193 Figure 100 A-E. Somaschini and San Martín, 1994:361 Figure 3 A-E.

Material examined: Sidi Barani, 20 m depth, 2 specimens, coarse sand, spring 2010.

Description:

Body small, slender, about 3 mm long, for 33 setigers. The dorsum is partially covered by debris, and provided with numerous, conical papillae. Prostomium rectangular, partially covered by the peristomium, with four eyes in an open trapezoidal arrangement. Antennae pyriform, relatively short, with long filiform tips; Median antenna originates between the posterior eyes, lateral antennae in front of the anterior eyes. Palps long, broad, and triangular. They are fused along all their length. Tentacular cirri similar to the antennae but smaller and located ventrally at the level of the anterior eyes. Dorsal cirri also similar to antennae, but smaller and provided with shorter tips. Dorsal cirri absent on setiger 2 (Figure 4A). parapodial lobes, conical, provided with small papillae. Parapodial glands of spherical, yellow granular products and present posteriorly from setiger 4. Each parapodium with four compound heterogomph setae anteriorly (10-12.5  $\mu\text{m}$ ) (Figure 4B), and three posteriorly (7.5  $\mu\text{m}$ ) (Figure 4D), with short, hooked, unidentate blades which are

uniformly similar throughout. Blades of the two most dorsal setae are provided with moderately spines on their margin. The blades of two ventral setae smooth. In midbody, the dorsalmost compound setae blades about 10  $\mu\text{m}$  and the ventral most ones of 8.5  $\mu\text{m}$  (Figure 4C). The solitary dorsal simple chaeta from the proventricular setigers moderately thick, unidentate, and with short spine subdistally (Figure 4E). The solitary ventral simple seta on the posterior setigers sigmoid smooth and unidentate (Figure 4F). Aciculae, solitary, thin anteriorly, thick posteriorly, flared

mucronate at the tips (Figure 4G, H). Pygidium relatively long papillae, bears two long anal cirri which have bulbous bases and long tips; they are about four times as long as the dorsal cirri. Pharynx narrow, through about four segments and the pharyngeal tooth on its anterior margin. Proventriculus, short, barrel-shaped, extending through two setigers, with about 15 muscle cell rows.

Distribution: Florida, Cuba, Mediterranean Sea.

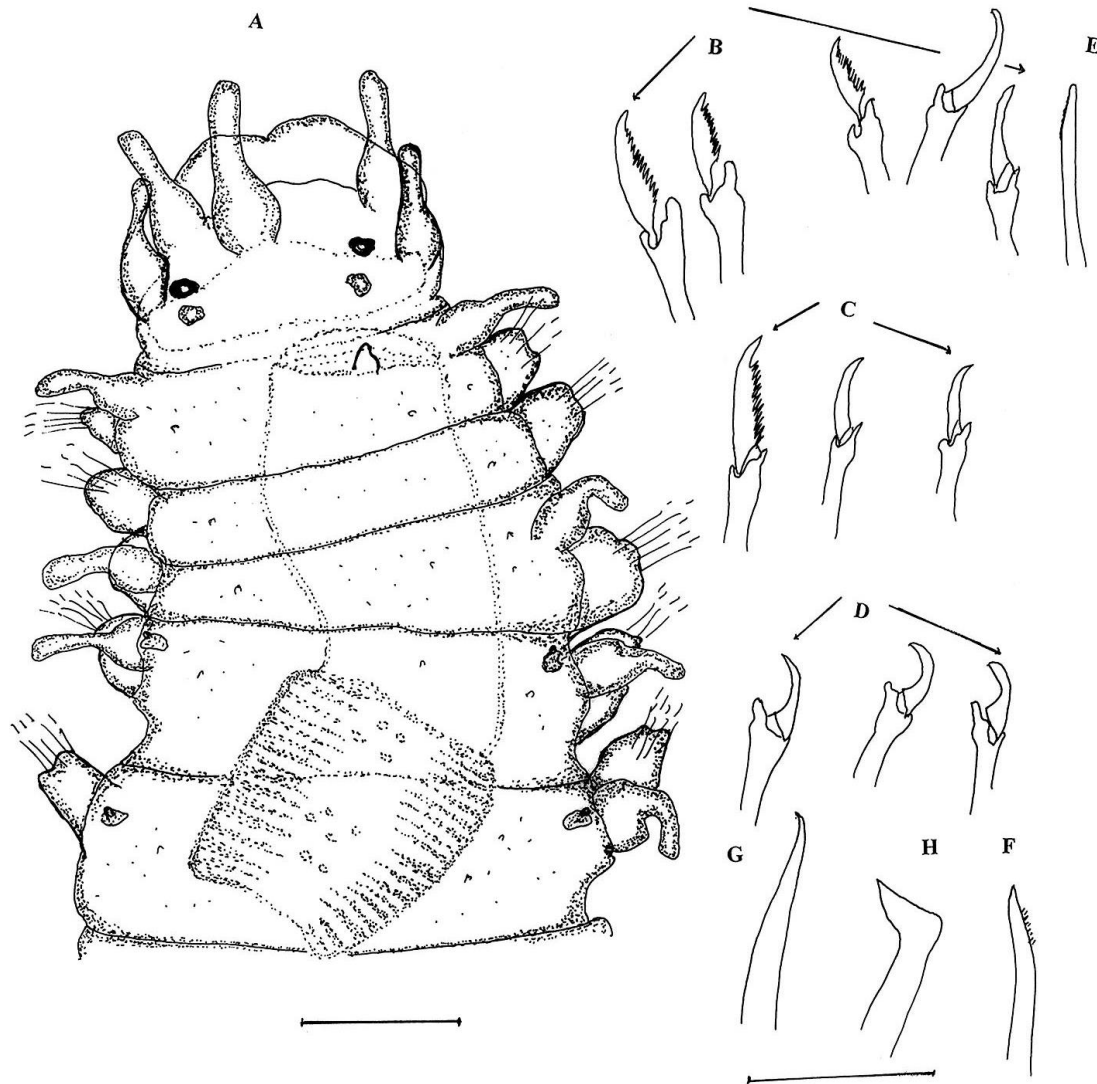


Fig. 3- *Sphaerosyllis sandrae* A. Anterior part of body, dorsal view; B. Anterior compound chaetae; C. Mid-body compound chaetae; D. Posterior compound chaetae; E. Anterior dorsal simple chaeta; F. Posterior dorsal simple chaeta; G. Ventral simple chaeta; H. Acicula. Scale (A, 0.03mm); (B-H 20  $\mu\text{m}$ )

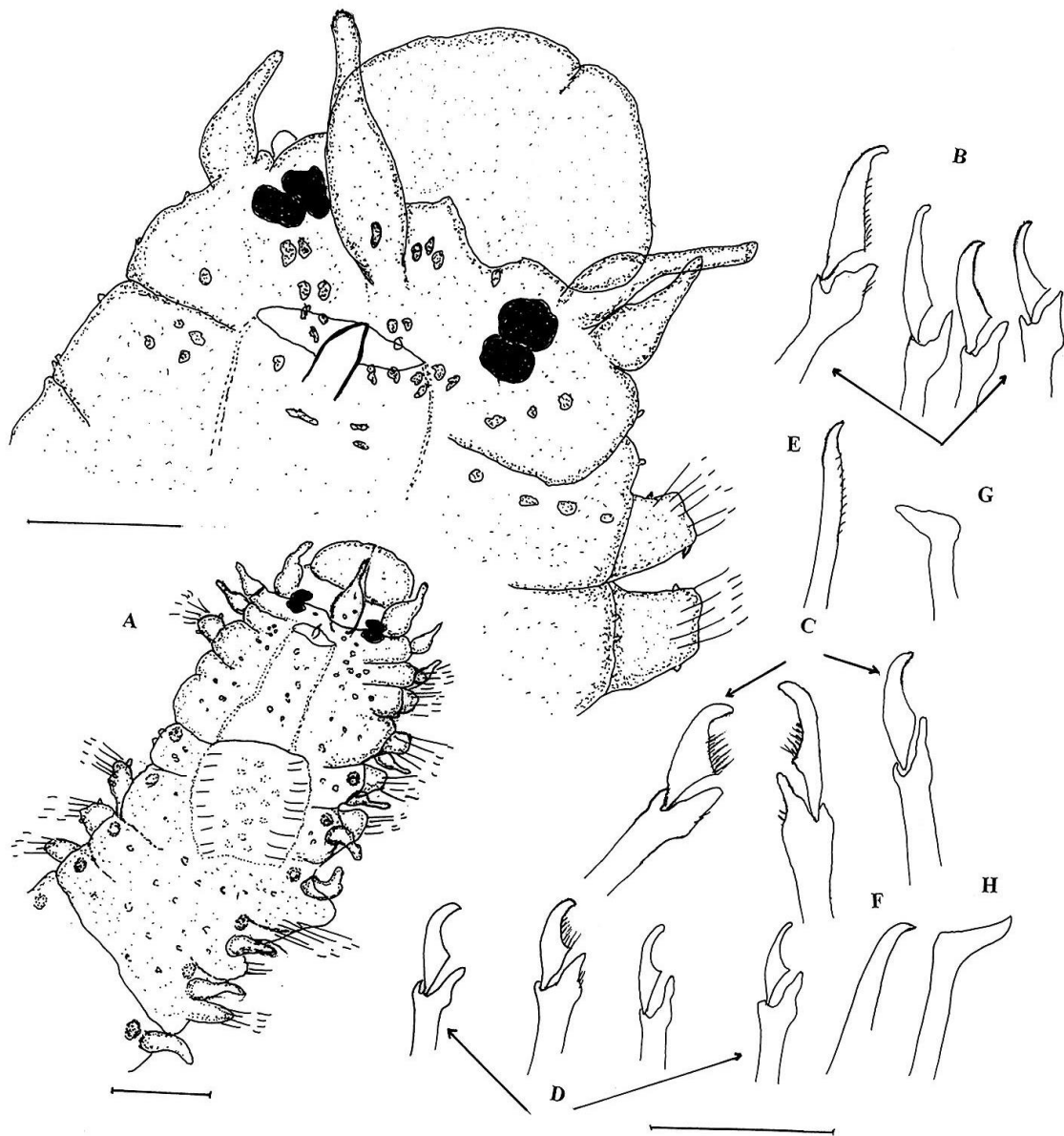


Fig. 4- *Sphaerosyllis glandulata* A. Anterior part of body, dorsal view ; B. Anterior compound chaetae; C. Mid-body compound chaetae; D. Posterior compound chaetae; E. Dorsal simple chaeta; F. Ventral simple chaeta; G. Acicula anterior; H. Acicula posterior . Scale (A, 0.03mm & 0.01mm); (B-H 20  $\mu$ m)

### 3.5. *Sphaerosyllis giandoi* Somaschini and San Martín, 1994

(Figure 5A-H)

*Sphaerosyllis giandoi* Somaschini and San Martín, 1994:363 Figures 4-5 A-F

Material examined: Sidi Barani, 20 m depth, 1 specimen, coarse sand, spring 2010.

#### Description:

Body minute, slender, 2 mm long, for 21 Setigers. There are no papillae in dorsal side, that covered by debris. Prostomium small, oval, fused with palps, with four large, partially fused eyes in an open trapezoidal arrangement. Antennae minute, oval in shape; median antenna lacking or cut; lateral antennae in front of the anterior pair of eyes. Palpes, with papillae, short, broad, folded and fused all along their length. Peristomium shorter than remaining segments. Tentacular cirri papilliform. Dorsal cirri minute papilliform; the base slightly inflated. Ventral cirri short papilliform (Figure 5A). Parapodia, conical, with two papillae, each with 4 compound setae, blades, short, slightly hooked, unidentate, smooth or bearing very short spines in dorsal blades (5-7.5  $\mu\text{m}$ ) (Figure 5B, D). Dorsal simple seta, solitary, starting from setiger 1, slightly hooked distally, sub-distally spinulated (Figure 5C). Ventral simple seta, smooth (Figure 5E). Acicula rounded with papillae tip (Figure 5F). Pygidium with two long anal cirri. Pharynx, wide, long through 3 segments; pharyngeal tooth minute, located in the middle of the pharynx. Proventriculus, long, wide, through 4 segments with 41 muscle cell rows.

Distribution: Mediterranean Sea.

### 3.6. *Sphaerosyllis* sp. San Martín 2003

(Figure 6A-F)

*Sphaerosyllis* sp. San Martín 2003: 195 Figures 101A-F and 102 A-H.

Material examined: El Burrullus, 50 m depth, 4 specimens, from coarse sand, spring 2010.

#### Description:

Body 5 mm in length with 38 chaetigers. Prostomium wider than long, with two pairs of eyes in similar size. Antennae pyriform, median antenna inserted between the second pair of eyes, slightly larger than lateral ones. Lateral antennae are inserted at anterior margin of prostomium above the anterior eyes. Palps fused at base, about as wide as prostomium. Prostomium slightly shorter than anterior segments, covering posterior part of prostomium. Pair of peristomial cirri directed forwards, slightly smaller than antennae in size. Dorsal cirri throughout with bulbous bases and short tips with granules inside, similar to peristomial cirri; dorsal cirri absent on

chaetiger 2. Parapodial, long with 2 papillae one above the bundle of chaetae and the other below, glands containing hyaline material, always on dorsal side, beginning in chaetiger one (Figure 6A). Aciculae, solitary, thick posteriorly, and end in flared mucronate tips (Figure 6G,F). Compound chaetae heterogomph falcigers, posterior chaetae with tips of shafts longer and thinner than anterior chaetae. Anterior and posterior chaetae with 6-7 setae, with spinulated and smooth blades (7.5-10  $\mu\text{m}$ ) (Figure 6B,C). Dorsal simple chaetae present on all parapodia after proventriculus, slightly straight anteriorly, slightly curved posteriorly (Figure 6D). Ventral simple chaetae on posterior parapodia, smooth, thick strong curved at tip (Figure 6E). Pharynx short occupying three segments, pharyngeal tooth small in anterior end of pharynx in right side, with papillae at the margin. Proventricle, barrel shaped, extending through 4 segments, with about 22 muscle cell rows.

Distribution: Atlantic Ocean (Spanish coast).

### 3.7. *Prosphaerosyllis fujianensis* Ding & Westheide, 2008

(Figure 7 A-F)

*Prosphaerosyllis fujianensis* Ding & Westheide, 2008 144 fig 12 A-G

Material examined: Sidi Barani, 20 m depth, 1 specimen, coarse sand, spring 2010.

#### Description:

Body small, about 7 mm long, for 19 chaetigers. Palps broad, dorsally fused except for anterior notch leading to a dorsal median shallow furrow; with several papillae. Palps and anterior part of the body, partially covered with detritus. Prostomium wider than long, posteriorly more or less fused with peristomium. 2 pairs of large, lensed eyes, in an open trapezoidal arrangement. 3 flask-shaped antennae, with broad base. Median antenna originating from the posterior part of prostomium; lateral antennae relatively near anterior margin of prostomium. peristomium with 1 pair of tentacular cirri, similar in shape to lateral antennae and dorsal parapodial cirri but smaller. Ventral cirri finger-shaped, usually not reaching tip of parapodial lobe (Figure 7A). Dorsal simple chaeta, tapering, slightly sigmoid, subdistally slightly serrated on the convex side (Figure 7D). In all parapodia 5 falcigers, blades unidentate, smooth, short (5-8.8  $\mu\text{m}$  long) (Figure 7B). Ventral simple chaeta slightly sigmoid, more slender than dorsal one, present in about 6 posterior most chaetigers (Figure 7E). Solitary acicula, thick, bluntly tapering (Figure 7F). Pharynx extending through more than 3 segments; pharyngeal tooth slightly anterior to the middle of the pharynx. Proventricle with about 27 transverse muscle rings, extending through 2.5 chaetigers.

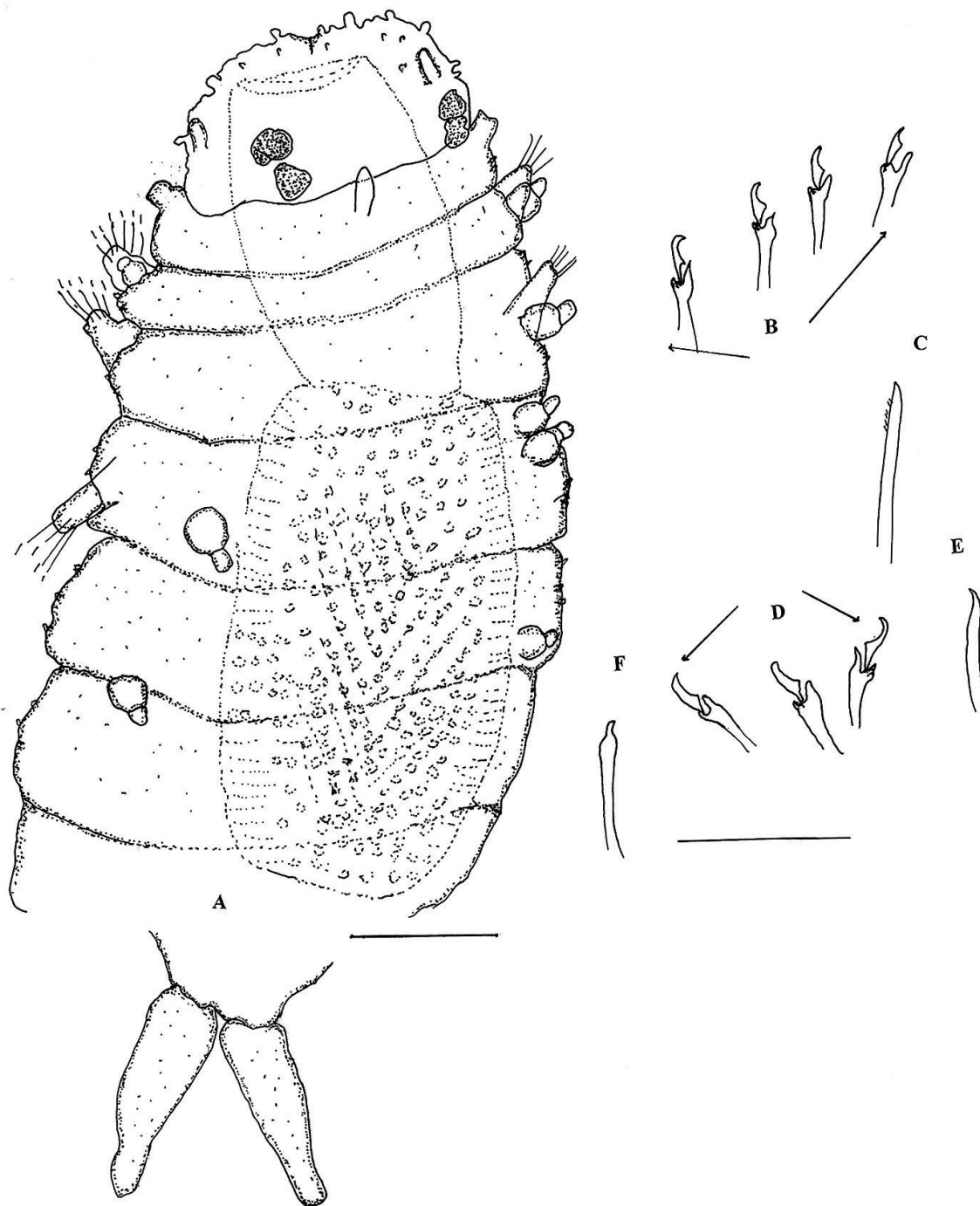


Fig. 5- *Sphaerosyllis giandoi* A. Anterior part of body, dorsal view ; B. Anterior compound chaetae; C. Dorsal simple chaeta; D. Posterior compound chaetae; E. Ventral simple chaeta; F. Acicula. Scale (A, 0.03mm); (B-F 20  $\mu$ m)

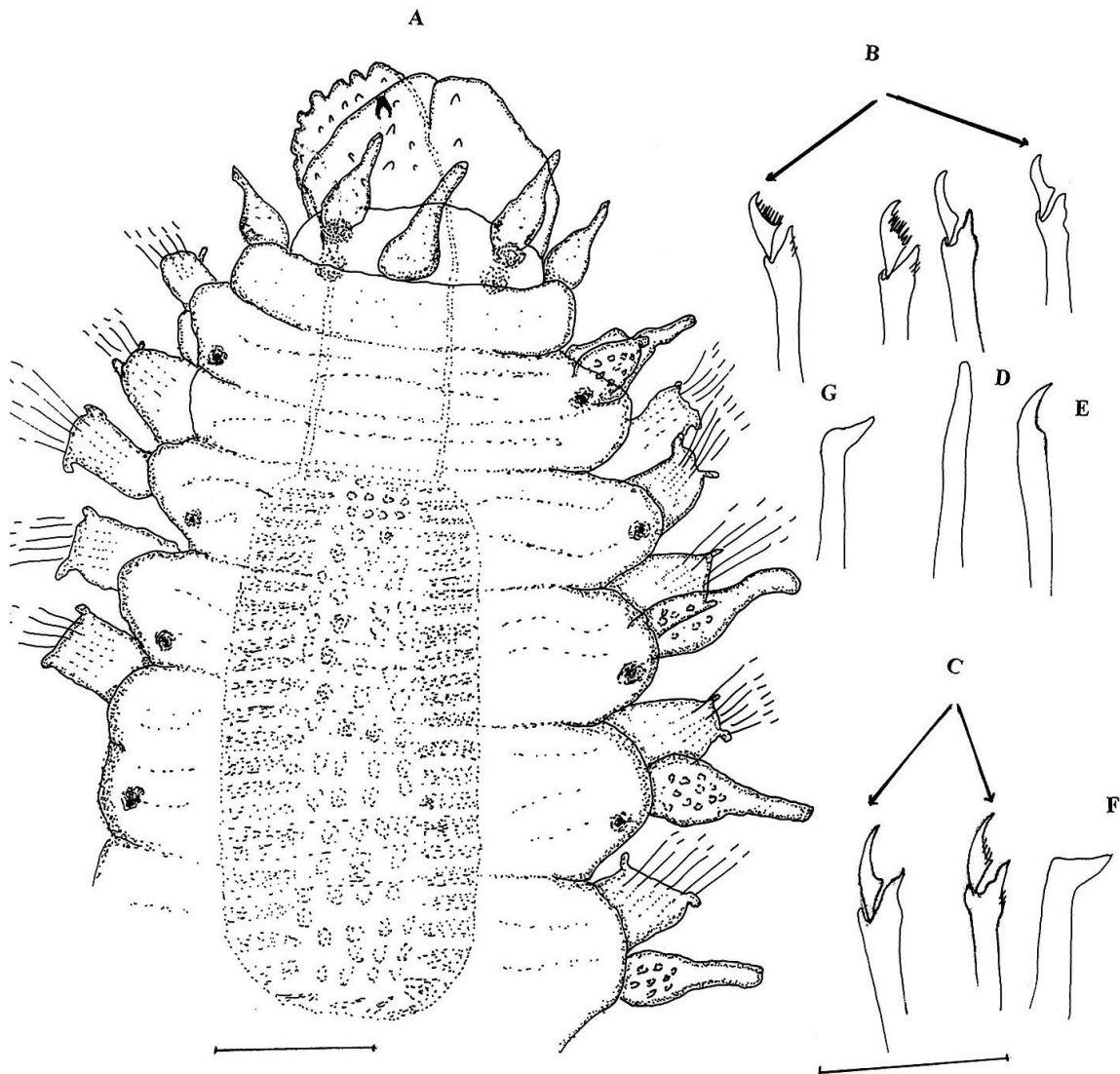


Fig. 6- *Sphaerosyllis* sp. A. Anterior part of body, dorsal view ; B. Anterior compound chaetae; C. Posterior compound chaetae; D. Dorsal simple chaeta ; E. Ventral simple chaeta; F. Acicula posterior; G. Acicula anterior. Scale (A, 0.03mm); (B-G 20  $\mu$ m)



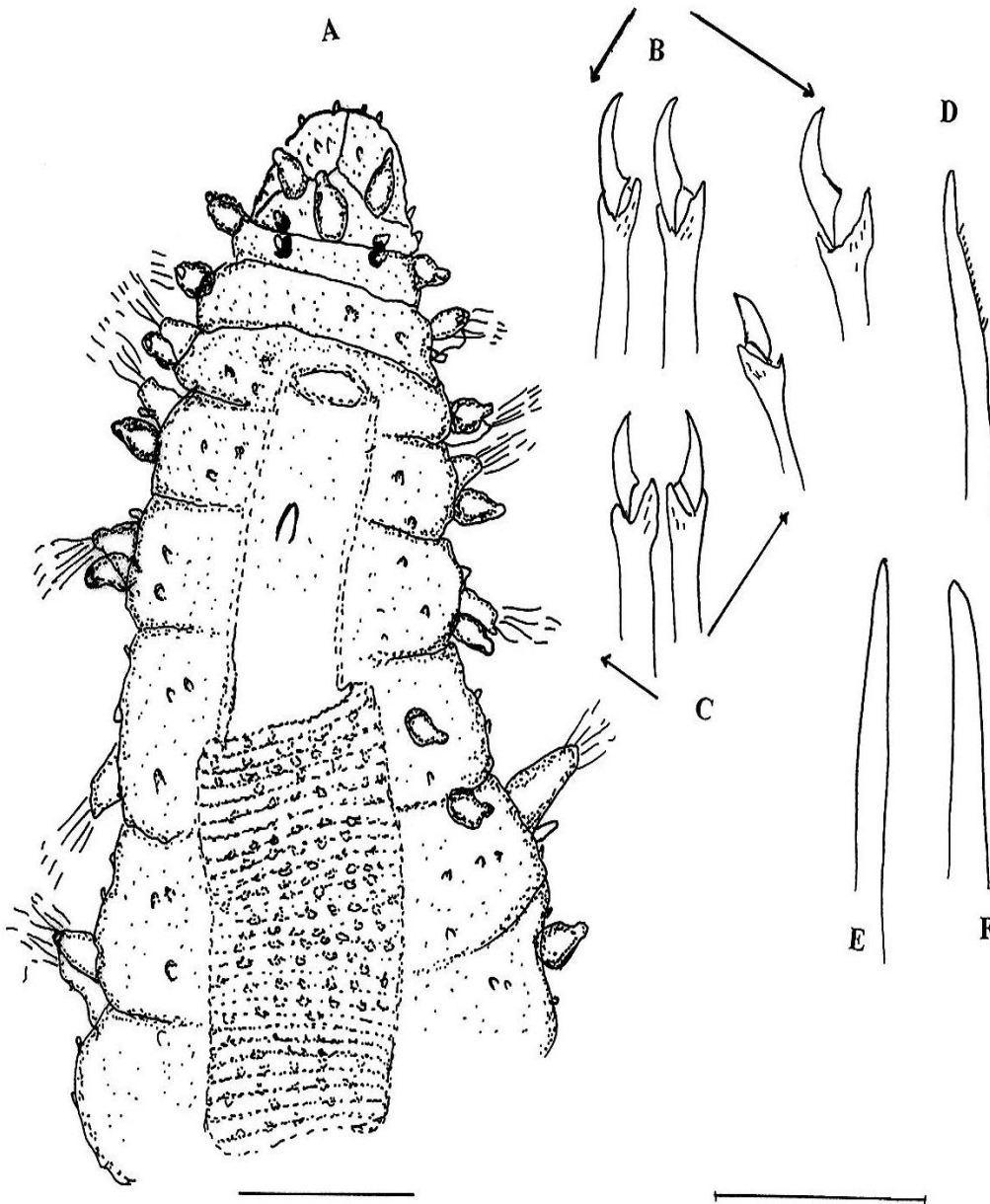


Fig.7 - *Prosphaerosyllis fujianensis* A. Anterior part of body, dorsal view ; B. Anterior compound chaetae; C. Posterior compound chaetae; D. Dorsal simple chaeta; E. Ventral simple chaeta; F. Acicula. Scale (A, 0.03mm); (B-F 20  $\mu$ m)

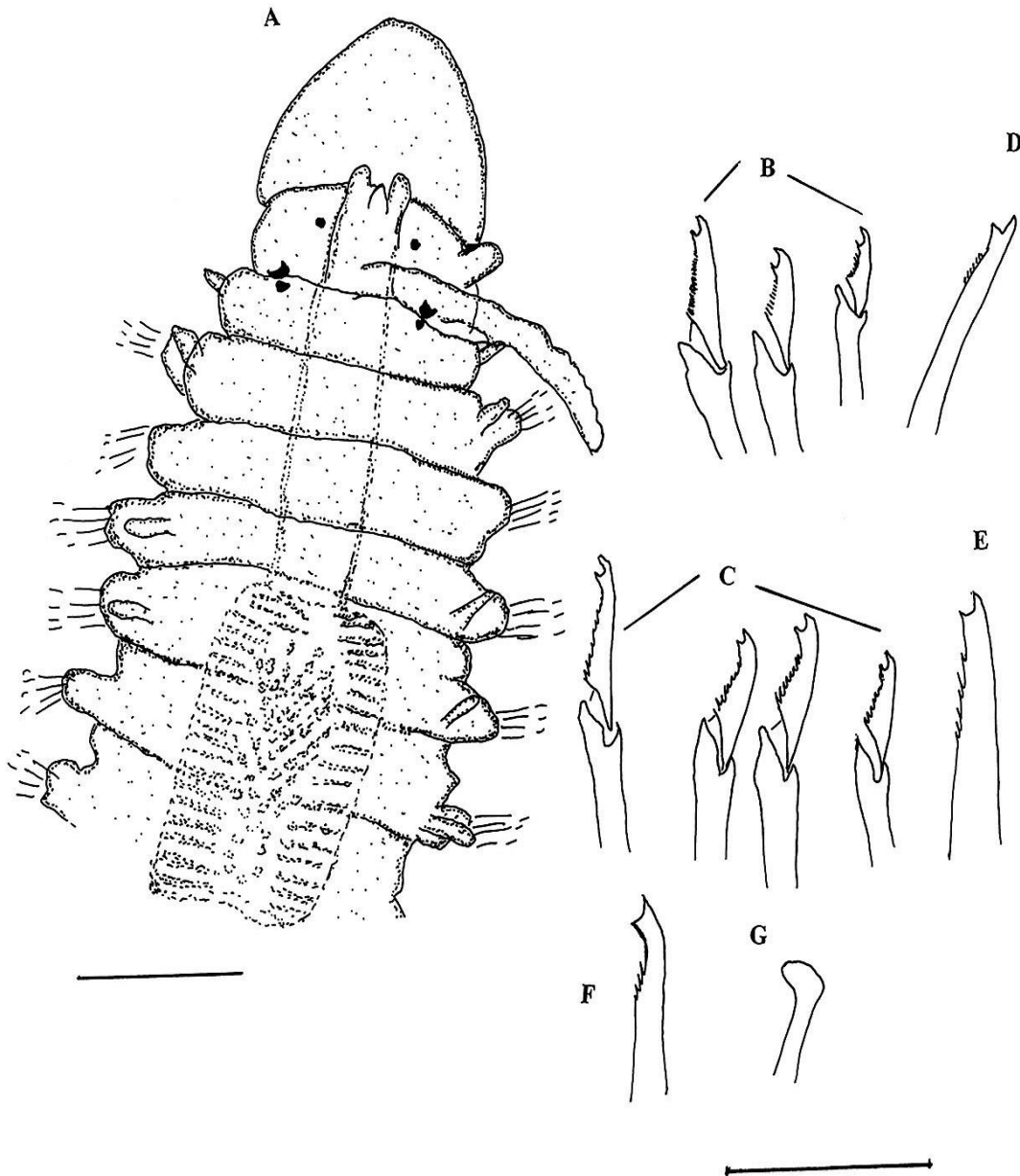


Fig. 8- *Exogone (Parexogone) Sexoculata* A. Anterior part of body, dorsal view ; B. Anterior compound chaetae; C. Posterior compound chaetae; D. Dorsal simple chaeta anterior ; E. Dorsal simple chaeta posterior ; F. Ventral simple chaeta; G. Acicula. Scale (A, 0.03mm); (B-G 20  $\mu$ m)

Distribution: Pacific Ocean, China

Remarks: The Egyptian specimen is similar to Chinese ones; it is likely an Indo-Pacific migrant.

**3.8. *Exogone (Parexogone) sexoculata* Hartmann-Schröder, 1979**  
(Figure 8 A-G)

*Exogone (Parexogone) Sexoculata* Hartmann-Schröder, 1979: 10, Figures 175-177; San Martín 2005:116, Figures 68 A-G.

Material examined: Sidi Barani, 20 m depth, 1 specimen and El Burullus, 50 m depth, coarse sand, spring 2010.

Description:

Body small, slender, 4mm long, 40 segments. Prostomium oval-shape, wider than long, 2 pairs of large eyes in trapezoidal arrangement, anterior pair larger than posterior ones, two anterior eyespots, relatively large; median antenna long, slightly longer than the length of prostomium and palps together, cylindrical, inserted between posterior pair of eyes, lateral antennae small, oval-shape, inserted close inner margin of anterior eyes. Palps fused along their length, longer than prostomium, Peristomium shorter than the segments behind; tentacular cirri smaller than lateral antennae. Dorsal cirri small, shorter than parapodial lobes, absent on segment number 2. Two long anal cirri (Figure 8A). 5-6 compound chaetae similar, all bidentate falcigers, with distinct subdistal tooth, short, thin marginal spines, blades 7.5-17.5  $\mu\text{m}$  (Figure 8B,C). Dorsal simple seta, present from anterior parapodia, distally bidentate, with short marginal spines, thin anteriorly (Figure 8D), thick posteriorly (Figure 8E). Ventral simple seta on posterior segment, sigmoid, bidentate, with short marginal spines (Figure 8F). Acicula distally curved (Figure 8G). Pharynx in about 4-5 segments; pharyngeal tooth in anterior rim. Proventricle through 3 segments, with 20 muscle cell rows.

Distribution: Australia.

Remarks: The Egyptian specimen is similar to Australian ones; it is likely an Indo-Pacific migrant through Suez Canal.

**3.9. *Exogone (Parexogone) gambiae* Lanera, Sordino & San Martín, 1994**  
(Figure 9A-G)

*Exogone (Parexogone) gambiae* Lanera, Sordino & San Martín, 1994:235 figs 2-3 A-J, 2003: 252 Figure 136 A-I.

Material examined: Sidi Barani, 20 m depth, 1 specimen, coarse sand, spring 2010.

Description: Body, cylindrical, thread like, 2.5mm long, 35 setigers. Prostomium, oval, wider than long. Two eyes, large, very close to each other in both sides, beside one pair of small eyespots back of anterior

margin of prostomium. Three antennae, in one line in the middle of prostomium; median one elongated, twice as long as prostomium and palps together; lateral antennae oval shape. Palps completely fused. Peristomium slightly shorter, dorsally covering posterior margin of prostomium. Tentacular cirri ovoid, papilliform, shorter than dorsal cirri (Figure 9A). Dorsal cirri digitiform, shorter than parapodial lobes, lacking on setiger 2. Parapodia long truncate. Ventral cirri similar to dorsal ones but shorter. Anterior parapodia with 2 compound spiniger-like setae; with bidentate blades, distal tooth rounded; provided with fine spines on cutting margin, 20  $\mu\text{m}$  in length, together with 8 falcigers, with short blades (10-12.5  $\mu\text{m}$ ), bidentate, proximal tooth smaller than distal one, with fine spines on margin (Figure 9B). Spiniger-like setae decreasing, lacking from midbody. Blades of falcigers with about 10-17.5  $\mu\text{m}$  in length. Posterior parapodia each with 6 bidentate falcigers, blades with 9-12.5  $\mu\text{m}$  long. Shaft of compound setae, thicker posteriorly (Figure 9C). Dorsal simple seta from setiger 4, strongly bidentate, proximal tooth forming a right angle with distal tooth, provided with short, subdistal spines (Figure 9D). Ventral simple seta s-shape, smooth, thick, strongly bidentate (Figure 9E). Two acicula anterior with rounded tip (Figure 9F); posteriorly, thicker with rounded tip (Figure 9G). Pharynx extending through 5 segments, anteriorly surrounded by soft, papillae; pharyngeal tooth on anterior margin. Proventriculus, cylindrical, long, through about three segments, with about 30 muscle cell rows. Pygidium small with two long anal cirri.

Distribution: Mediterranean Sea.

**3.9. *Brania arminii* (Langerhans, 1881)**  
(Figure 10A-G)

*Brania oculata* Hartmann-Schröder 1971: 131, plate XII, figures 107-110.

*Brania arminii* Núñez *et al.*, 1992: 44-45, De Matos Nogueira and San Martín 2004: 71 Figure 10 A-G; San Marin 2003: 153 Figures 75A-I & 76 A-G.

Material examined: Sidi Barani, 20 m depth, 1 specimen, coarse sand, spring 2010.

Description: Body short, thin, about 2 mm in length, with 16 chaetigers. Palps short, reniform, dorsally fused to its half length. Prostomium subpentagonal, with four eyes in trapezoidal arrangement. Peristomium slightly shorter than following segment; tentacular cirri subulate. Dorsal cirri present in all chaetigers, become digitiform and elongate after proventriculus; Ventral cirri digitiform, shorter than parapodial lobes; 2 parapodial glands are present from the segment number 4 (Figure 10A). Anterior parapodia with 7 falcigers, 6 on midbody, 4 on posterior ones; blades with sharp spines along the cutting edges, and one long subdistal spine. Superior blades, long (20  $\mu\text{m}$ ), remaining blades measure 7.5-

12.5  $\mu\text{m}$  (Figure 10B). Dorsal simple seta present from anterior body, thick, with subdistal spines (Figure 10C); ventral simple seta on posterior chaetiger, short, sigmoid, unidentate, with few spines (Figure 10C). Single acicula per parapodium along the whole body; distally rounded, with hollow con-cavity (Figure 10E).

Pharynx, extending through more than 3 segments; pharyngeal tooth, conical, slightly away from the anterior margin. Proventricle with about 18 rows of muscle cells, extending through 2 chaetigers.

Distribution: Circumtropical.

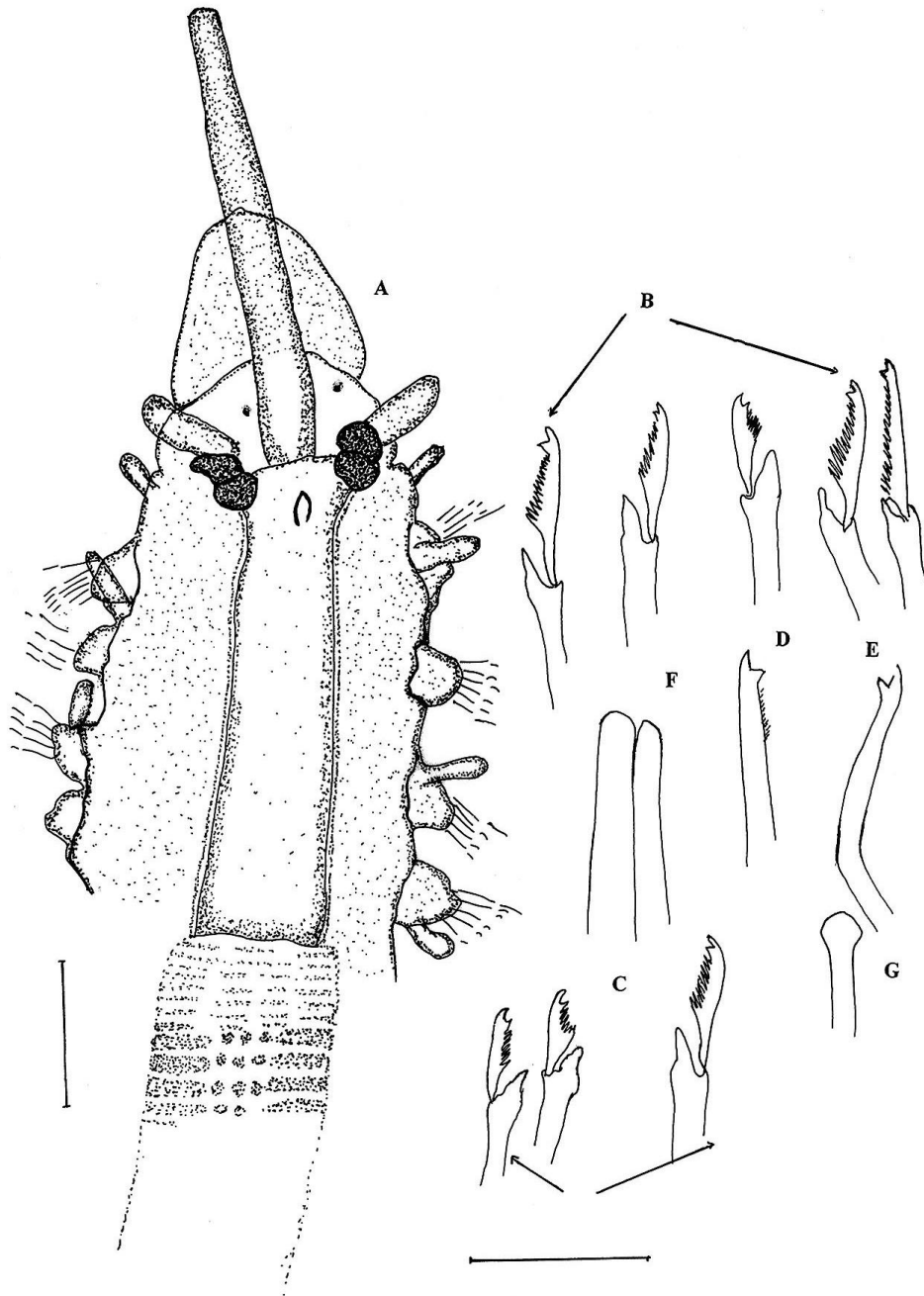


Fig. 9- *Exogone (Parexogone) gambiae*. A. Anterior part of body, dorsal view ; B. Anterior compound chaetae; C. Posterior compound chaetae; D. Dorsal simple chaeta; E. Ventral simple chaeta; F. Acicula anterior; G. Acicula posterior. Scale (A, 0.03mm); (B-G 20  $\mu\text{m}$ )

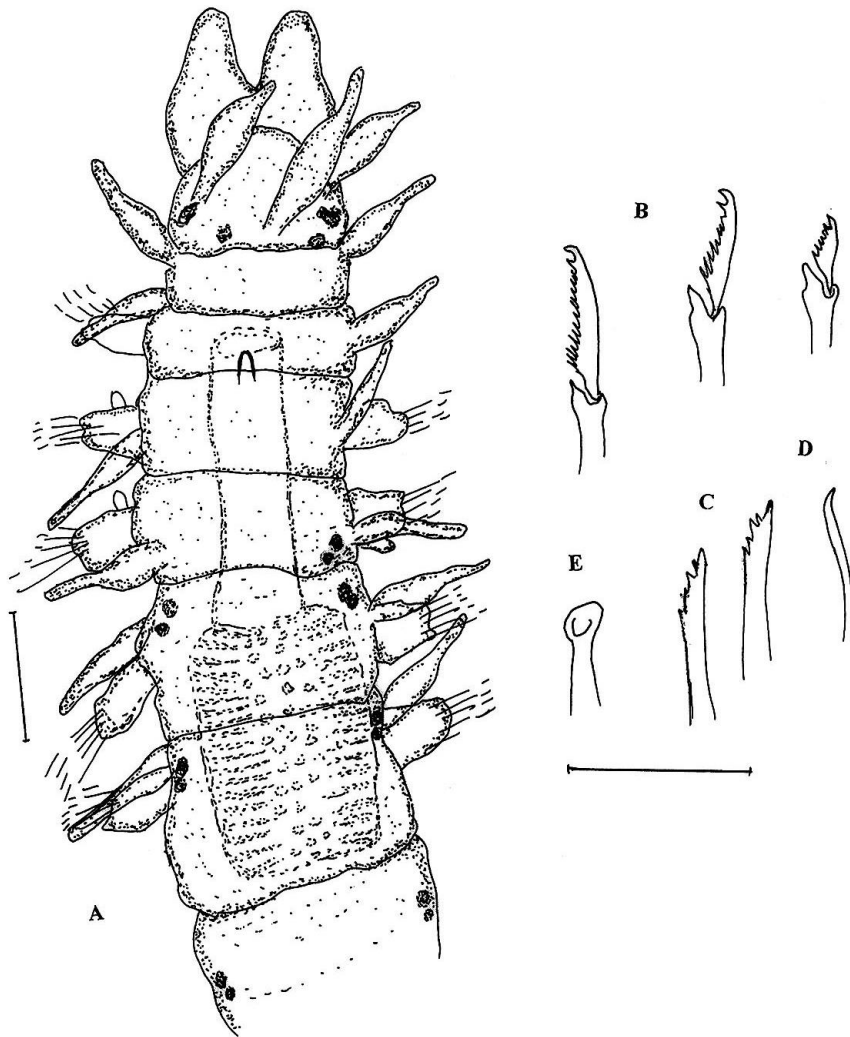


Fig. 10- *Brania arminii* A. Anterior part of body, dorsal view; B. Falcigers chaetae; C. Dorsal simple chaeta; D. Ventral simple chaeta; E. Acicula. Scale (A, 0.02mm); (B-E 20  $\mu$ m)

#### 4. Discussion

Syllid taxonomy originated far back in the 19<sup>th</sup> century; for instance, the exogonian genera *Exogone* Ørsted, *Sphaerosyllis* Claparède and *Brania* Quatrefages were described as early as 1845, 1863 and 1866, respectively. But only during the last few decades it became clear how enormous the taxonomic diversity within these taxa actually is even at the level of the phenotype (Ding & Westheide, 2008). Despite the great similarities between *Sphaerosyllis* species, some structure identify every species, beside the specific characters of this genus, such as the four annuli in *Sphaerosyllis annulata*. There are no papillae on dorsal side of *Sphaerosyllis giandoi*, but it is covered by debris. Prostomium small, oval, fused with palps, also the shape and position of eyes in *Sphaerosyllis glandulata*, dorsal cirri on chaetiger 2 absent in many species. This agrees with the main characters of subfamily exogoninae, as described by San Martín (1984, 1991, 2003 & 2008) also by Böggemann and Westheide (2004) and Russell (1991). *Sphaerosyllis annulata* has several similarities with the species of *prophaerosyllis* in the shape of chaetae but other characters, such as the absence of both eyespots and dorsal cirri on chaetiger 2, and the position of pharyngeal tooth clearly demonstrate that it belong to *Sphaerosyllis*. *Exogone (Parexogone) gambiae* is characterized by having median antenna twice as long as prostomium and palps together. It belongs to a group of species with long median antenna and spiniger like compound setae. This group of species is composed of *E. (P.) molesta* Banse, 1972 from the northeast Pacific Ocean, *E. (P.) convolute* Campoy, 1982 from the Spanish Cantabric Coast, *E. (P.) obtuse* Hartmann-Schröder & Rosenfeldt, 1988 and *E. (P.) obtuse tasmanic* Hartmann-Schröder, 1989 from Antarctica and Tasmania. According to geographical distribution of the reported species, two of them (*Sphaerosyllis giandoi* and *Exogone (Parexogone) gambiae* are endemic to Mediterranean, while *Brania oculata* is circumtropical species. *Sphaerosyllis* sp. San Martín 2003, *Sphaerosyllis (Sphaerosyllis) glandulata* and *Sphaerosyllis Sandrae* and are amphi-Atlantic category (Musco & Giangrande, 2005), while, *Prophaerosyllis fujianensis* and *Exogone (Parexogone) Sexoculata* are indo pacific species, they seems to be Lessepsian migrant species.

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## دراسة بعض الديدان عديدة الأشواك (عائلة السيلليدي، تحت عائلة إكسوجونيني) من الساحل الشمالي لمصر

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تعتبر عائلة السيلليدي من أهم عائلات الديدان عديدة الأشواك من حيث التنوع والسيادة في البحار والمحيطات. تقسم حالياً إلى خمسة أفرع تحت العائلات وهي:

Eusyllinae Malaquin, 1893; Exogoninae Langerhans, 1879; Autolytinae Langerhans, 1879; Syllinae Grube, 1850; and the recently erected Anoplosyllinae Aguado and San Martín, 2009.

تعتبر هذه الدراسة "دراسة تصنيف وتوزيع للديدان عديدة الأشواك" في بعض المناطق علي طول الساحل الشمالي لمصر، جزء من إستراتيجية معهد علوم البحار والمصايد فرع الإسكندرية حيث تهدف الدراسة إلي وصف كامل للحيوانات البحرية المصرية علي طول الساحل الشمالي لمصر. وقد تم إختيار منطقتين أمام البرلس ومنطقة سيدي براني، حيث تم جمع العينات بإستخدام الكباش وتم فرز وفصل وحفظ الديدان عديدة الأشواك ثم تم تصنيف أفراد عائلة السيلليدي ووصف كامل لتسعة أنواع من تحت عائلة أوكسوجونيني، تقع تحت ثلاثة أجناس أكسوجوني، سفيروسيليس وجنس برانيا. إثنان منهم موطنهم الاصلي هو البحر الأبيض المتوسط، هما:

(*Sphaerosyllis giandoi* Somaschini and San Martín, 1994 and *Exogone (Parexogone) gambiae* Lanera, Sordino & San Martín, 1994).

بينما تعد الأنواع الآتية من الأنواع التي تعيش في المحيط الأطلنطي:

*Sphaerosyllis* sp. San Martín 2003, *Sphaerosyllis (Sphaerosyllis) glandulata* San Martín, 1991 and *Sphaerosyllis sandrae* Álvarez and San Martín, 2008

بينما يعيش النوعان الأخران في المحيط الهندي والمحيط الباسفيكي لذا يعتبر رصدهما في المياه المصرية، ساحل البحر الأبيض المتوسط لأول مرة يعني انهما من الأنواع المهاجرة عن طريق قناة السويس وهما:

*Prosphaerosyllis fujianensis* Ding & Westheide, 2008 and *Exogone (Parexogone) sexoculata* Hartmann-Schröder, 1979

كما يعتبر تسجيل هذه الأنواع محل الدراسة رصد جديد لأنواع ترصد لأول مرة في المياه المصرية.