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RESEARCH ARTICLE

Faiza A. Abd-Elnaby

NEW RECORD OF LESSEPSIAN SYLLID POLYCHAETES IN THE NORTH MEDITERRANEAN COAST OF EGYPT

ABSTRACT:

Streptosyllis aequiseta Hartmann-Schröder 1981 and *Dentatisyllis junoyi* López and San Martín 1992 are tropical Indo-Pacific Syllid species that have been recorded in sediment bottom in Australia (San Martín and Hutchings, 2006) and West Africa (López and San Martín, 1992). They were collected during Salsabeel cruises to the North Eastern and Western Mediterranean Coast of Egypt (Sidi-Barrani, El-Hammam, Rashid, and El-Bourrlus Coast) in spring 2009 and 2010. Eight Syllid species belonging to Subfamily Eusyllinae and Syllinae were reported, five species namely; *Streptosyllis pterochaeta, Plakosyllis brevipes, Pionosyllis Serratisetosa, Syllis streptodonta and Syllis torquata* are new for Mediterranean Egyptian waters, and one species was identified as *Typosyllis benguellana* (Day, 1963), though it needs further examination to be confirmed as *Typosyllis* sp., and the two Indo-Pacific species were recorded for the first time in the Mediterranean waters, and seem to be Lessepsian migrant species.

KEY WORDS:
Polychaeta, Syllidae, North Mediterranean, Egypt, Lessepsian species

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INTRODUCTION:

The global warming has promoted the northward spreading of warm-temperate and tropical species. This natural process is favored by anthropogenic activities (aquatic farming, ballast water, ship transport, and trade of exotic species). New records of alien syllid species have been recently reported in Egypt by Abd-Elnaby and San Martín (in press).

Syllids represent one of the best diversified and evolved families, Aciculata within the Polychaeta. Their ecological sensitiveness makes this taxon a useful bioindicator of environmental quality and habitat change (Giangrande *et al*., 2005). Some studies on this family have been performed on the Mediterranean coast of Egypt and the Suez Canal. Fauvel (1927)) recorded 8 Syllid species dwelling the Suez Canal waters of which 6 belong to the genus Syllis, namely *Syllis gracilis, S. zonata, S. (Haplysyllis) spongicola, S. (Typosyllis) bouvieri, S. (Typosyllis) exilis and S. (Typosyllis) variegata*. In his work on the polychaetes collected from the fishery grounds near Alexandria, Fauvel (1937) gave a checklist for these animals without any illustrative taxonomical structures. The number of recorded species belonging to the family Syllidae was 16 species. Then several species of Syllids were reported by Selim (2008), of which 11 new records belonging to the Syllids Eusyllinae and Exogoninae, while 16 species were reported from the Northern part of the Suez Canal by Abd Elnaby (2009b),the author also reported several species (2005, 2009a). A more detailed study comprising Syllids in the area was carried out by Abd-Elnaby and San Martín (2010a&b). The present paper is focused on the subfamily Syllinae Grube, 1850. In a series of Syllid papers from North Coast of Egypt, search about new recorded species and new species for science is the aim of the present study. Herein are reported the presence of *Streptosyllis aequiseta* (San Martín and Hutchings, 2006); *Dentatisyllis junoyi* (López and San Martín, 1992) for the first time in Mediterranean waters.

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MATERIAL AND METHODS:

Sediment samples were collected within two cruises carried out on the Northwestern and Northeastern Mediterranean coast of Egypt (Sidi-Barrani, El-Hammam, Rashid and El-Bourrlus), during Spring 2009, also one collection in Spring 2010, at depth ranging from 10 to 50 m (Fig. 1). Sediment samples were collected by a Van Veen grab. They were washed and sieved through o.3µm sieve, then sorted under Stereomicroscope. Specimens of Syllidae were fixed in 10 % formaldehyde in sea water-solution. Identification and examinations were done by using a 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. Identifications were carried-out according to López and San Martín (1992), Cinar and Ergen (2003), San Martín (2003), and San Martín and Hutchings (2006).

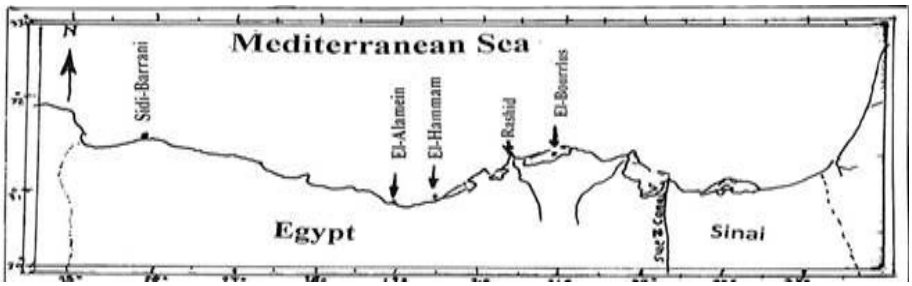


Fig. 1. Map of north Egypt showing the location of sampling sites.

RESULTS:

Streptodonta pterochaeta (Southern, 1914)

Opisthodonta pterochaeta (Fauvel, 1923): 274, figure 10 2D-I; Parapar *et al*. (1993): 370, figure 4. San Martín (2003): 51, figures13 & 14.

Streptodonta pterochaeta (San Martín and Hutchings, 2006): 353, figure 81A-E.

Material examined: Two specimens from Sidi Barrani at 20 m depth, among coarse sand in spring 2010.

Description (Fig. 2A-F, Pl. 1):

Body slender, 4 mm long, with 27-33 chaetigers. Prostomium pentagonal, with 2 pairs of eyes arranged in open trapezoidal pattern, and 2 anterior eyespots. Median antenna inserted between anterior eyes, slightly longer than both length of prostomium and palps. Lateral antennae in front of anterior eyes. Palps small, triangular, basally fused, shorter than prostomium. Peristomium slightly shorter than following segments; dorsal tentacular cirri longer than lateral antennae, shorter than median, ventral tentacular cirri shorter than dorsal ones (Fig. 2A). Dorsal cirri similar in shape to antennae and tentacular cirri, smooth, long and short. Ventral cirri triangular, relatively similar in length to parapodial lobes. Seven to nine compound chaetae heterogomph falcigers, blades with indistinct distal tooth and longer than proximal tooth (Fig. 2C), increasing to 11 on midbody and posterior parapodium, blades about 7.5-12.5 µm in length, with more prominent distal tooth, shorter ones, with distal tooth poorly developed (Fig. 2E). Dorsal simple chaetae begin from segment number 12 on midbody parapodia, unidentate, with distal, translucent hood (Fig. 2D). Ventral simple setae far posterior (Fig. 2F). Aciculae of chaetigers 1, and chaetiger 10 onwards slender, knobbed distally; aciculae of chaetigers 2-9, larger, distally strongly knobbed, with terminal button (Fig. 2B). Pharynx long, through 10 segments; pharyngeal tooth small, located laterally, close to proventricle, far from anterior rim of pharynx. Proventricle through 7 segments, with about 50 muscle cell rows.

Distribution: Eastern Atlantic Ocean, from North Sea to Strait of Gibraltare, Australia (New South Wales) and Mediterranean Sea (San Martín, 2003).

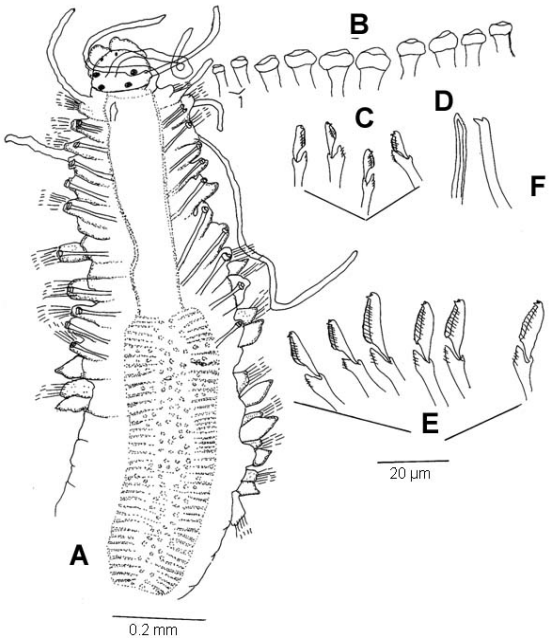
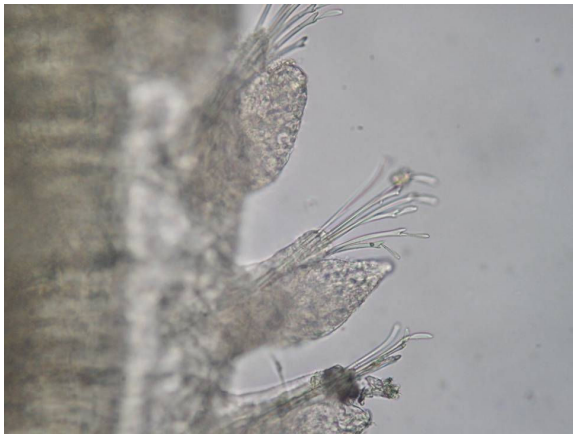


Fig.2. *Streptodonta pterochaeta* A. Anterior part of body, dorsal view; B. Enlarged acicula; C. Compound chaetae, anterior parapodium; D. Dorsal simple chaeta; E. Posterior compound chaetae; F. Ventral simple chaeta. Scale (A, 0.2 mm); (B-F, 20µm)



Parapodia of *Streptodonta pterochaeta* with dorsal cirri 10x100

Plate 1

***Streposyllis aequiseta* Hartmann-Schröder, 1981:**

Streptosyllis aequiseta (Hartmann-Schröder, 1981): 32, figures 53-58; San Martín and Hutchings (2006): 355, figures 82A-I, 83A-F.

Material examined:

One specimen from Sidi Barrani at 20 m depth, among coarse sand in spring 2010.

Description (Fig. 3A-F):

Body up to 2 mm long for 22 chaetigers; fragile. Prostomium oval, with 4 eyes arranged in an open trapezoidal pattern and 2 anterior eyespots. Antennae smooth, club-shaped, longer in length than prostomium, median antenna inserted between anterior eyes, lateral antennae inserted near eyespots. Palps reduced to 2 small indistinct papillae. Peristomium shorter than subsequent segments; tentacular cirri similar to antennae, dorsal ones slightly longer than ventral tentacular cirri (Fig. 3A). Dorsal cirri similar in shape and size to antennae with distinct cirrophores. Parapodial lobes elongated, subrectangular, ending as rounded lobe, those of chaetigers 2-6 enlarged and truncated distally. Ventral cirri digitiform, elongated, longer than parapodial lobes. Compound chaetae with homogomph articulations on anterior parapodia, and hemigomph on mid to posterior parapodia, provided with distinct subdistal spines on shafts, and bidentate blades, with short spines on margin. Anterior parapodia with 2 compound chaetae with elongate blades, about 21 µm long, distinctly bidentate, both teeth well separated, and 6 compound chaetae with shorter blades, within fascicle blades 10-6 um in length (Fig. 3B); difference between 2 types of chaetae becoming progressively less marked along body; posterior parapodia with 6 compound chaetae, bidentate with short spine on margin, dorsoventral gradation in length of blades within fascicle, 25-9 µm long (Fig. 3C). Dorsal simple chaetae from chaetiger1, unidentate, with minute serration on margin and distinct concave, translucent hood, covering tip of chaetae (Fig. 3E&F). Aciculae knobbed at tips, enlarged on chaetigers 2-6 (Fig. 3D). Pharynx extending through 2-3 segments. Proventicle large, extending through about 5 segments and 42 indistinct muscle cell rows.

Distribution:

Australia (Western Australia, South Australia, Tasmania, New South Wales), possibly Seychelles Islands (San Martín and Hutchings, 2006). First report to the Mediterranean Sea. It is Tropical Indo-Pacific species, so it could be a Lessepsian migrant species.

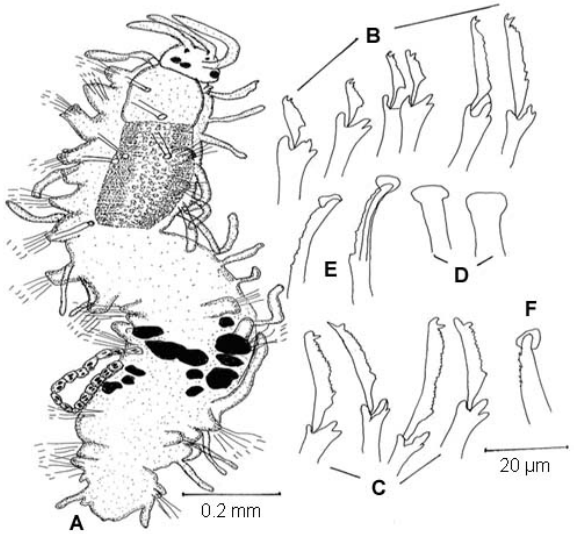


Fig. 3. *Streptosyllis aequiseta* A. Anterior part of body, dorsal view; B. Compound chaetae, anterior parapodium; C. Posterior compound chaetae; D. Enlarged acicula; E. &F. Dorsal simple chaetae. Scale (A, 0.2 mm); (B-F, 20µm)

***Streptosyllis templadoi* San Martin, 1984:**

Streptosyllis templadoi (San Martin, 1984): 120 figure 20; San Martin (2003):121, figure 56 A-J; Selim (2008):164, figure 3 A-Q.

Material examined:

Four specimens from Sidi Barrani at 20 m depth, among coarse sand in spring 2010.

Distribution:

Atlantic Ocean, Mediterranean Sea.

Remarks:

This species was recorded before by Selim (2008).

***Dentatisyllis junoyi* López and San Martín, 1992:**

Synonyms: *Dentatisyllis junoyi* (López and San Martín, 1992):219, figure 1A-M.

Material examined:

One specimen from Sidi Barrani at 20 m depth, among coarse sand in spring 2010.

Description (Fig. 4A-J, Pl. 2):

Body, 9 mm long, slender, without color markings, 82 setigers. Prostomium oval, wider than long, with 4 eyes in open trapezoidal arrangement and 2 eyespots. Palps triangular, fused dorsally at bases, longer than prostomium. Median antennae originating on about middle of posterior half of prostomium, nearly twice as long as lateral antennae and longer than prostomium and palps together, with 16 articles, on short ceratophore; lateral antennae with 12 articles, originating near anterior margin of prostomium. Peristomial segment, dorsally covered by first setiger; dorsal tentacular cirri 2 times longer than ventral tentacular cirri, with 16 articles; ventral tentacular cirri, with 9 articles (Fig. 4A). Dorsal cirri of first setiger longer than median antenna, with about 18 articles (Fig. 4B). Dorsal cirri of midbody segments, alternating in length; short cirri with 4-9 articles; long cirri with 14-17 articles. Articles of dorsal, tentacular, anal cirri and antennae with greenish, spiral-shaped inclusions. Parapodia short and cylindrical. Ventral cirri digitiform, longer than parapodial lobes. Anterior parapodia each with about 8-10 compound heterogomph, blades slender, bidentate, with distal teeth, hooked, and margin provided with short spines; 2-3 uppermost spines very long extending to proximal tooth; blades of setae of anterior segments markedly differing dorsally to ventrally in length and shape; 17.5-21.5 µm, diminishing to 10µm below; proximal tooth of blades of setae longer than distal tooth, even longer ventrally (Fig. 4C). Toward midbody uppermost 1-2 blades of compound setae, more slender and longer, becoming spiniger-like, distally becoming rounded and indistinctly bidentate, with spines on margin short accept distally. Blades of falcigers of midbody segments numbering 4-6 per parapodium, with short distal tooth and longer, hooked proximal tooth, with slight dorso-ventral gradation in length, 17µm above, 13 µm below (Fig. 4D&E). Anterior parapodia each with 2-3acicula (Fig. 4F); posterior parapodia with single, acuminate acicula (Fig. 4H). Posterior acicula similar to posterior ones but more thick (Fig. 4G). Solitary dorsal simple seta on posterior parapodia, thin, with 2 similar teeth and short subdistal spines (Fig. 4I); ventral simple seta on far posterior setigers, solitary, bidentate with small distal tooth and large proximal tooth (Fig. 4J). Pharynx long, extending through about 6 segments; anterior mid-dorsal tooth on anterior margin; anterior end of pharynx surrounded by 20 teeth. Proventriculus similar in length to pharynx, extending through about 8 segments, with about 31rows of muscle cells.

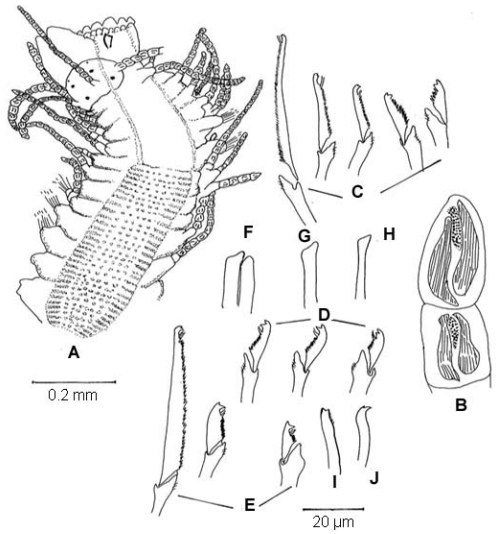


Fig. 4. *Dentatisyllis junoyi* A. Anterior part of body, dorsal view; B. Dorsal cirri; C. Falcigers, anterior parapodium; D. Falcigers, middle parapodium; E. Falcigers, posterior parapodium; F. Acicula, anterior parapodium; G. Acicula, middle parapodium; H. Acicula, posterior parapodium; I. Dorsal simple chaeta; J. Ventral simple chaeta of far posterior parapodium. Scale (A, 0.2 mm); (C-K, 20µm)

***Dentatisyllis junoyi* 10x40**

Plate 2

Distribution:

Cape Verde Islands, West Africa (López and San Martín, 1992), first report to the Mediterranean Sea. It is a tropical Indo-Pacific species, so it could be a Lessepsian migrant species.

***Plakosyllis brevipes* Hartmann-Schröder, 1956:**

Plakosyllis brevipes (Campoy, 1982): 302; San Martin (2003): 300, figures 165&166; Cinar and Ergen (2003): 777.

Material examined:

One specimen from El Bourllus at 50 m depth, among sandy mud bottom in spring 2010.

Description (Fig. 5A-C, Pl. 3):

Body strongly flattened, oval-elongated (Fig. 5A), up to 3 mm long, with 32 segments. Prostomium large, wide, pentagonal, laterally ciliated; with 1 pair of dorsal and 1 pair of ventral eyes. Antennae spherical, inserted on anterior margin of prostomium. Palps ventrally located not visible dorsally, spherical, separated from each other (Fig. 5A). Nuchal organs not observed. Peristomium shorter than following segments, anterior margin ciliated; dorsal tentacular cirri similar in size to dorsal cirri, ventral tentacular cirri smaller than dorsal ones, only visible ventrally. Dorsal cirri with distinct cirrophore and spherical, unarticulated cirrostyle; ventral cirri conical, longer than parapodial lobes (Fig. 5A). Parapodial lobes acute. About 10-12 compound chaetae on parapodia, with short shafts, some distally with short spines, and short, unidentate blades; most blades smooth, but 1-3 dorsal ones with long spines decreased posteriorly reach 5 chaetae (Fig. 5B). Acicula solitary, stout, almost straight (Fig. 5C), protruding from parapodial lobes. Dorsal and ventral simple chaetae not seen. Pharynx short, slender, through 4-5 segments; pharyngeal tooth located on anterior margin in the middle. Proventricale short, barrel-shaped, with 14 muscle cell rows, through two segments. Pygidium incised, with 2 anal cirri similar to dorsal cirri but smaller and oval.

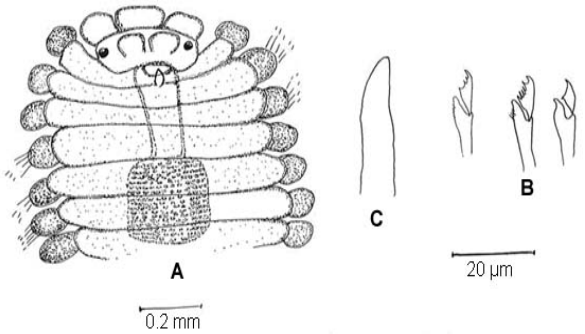


Fig. 5. *Plakosyllis brevipes* A. Anterior part of body, dorsal view; B. Compound chaetae; C. Acicula. Scale (A, 0.2 mm); (B-E 20µm)

***Plakosyllis brevipes* 10x10**

Plate 3

Distribution:

Mediterranean Sea, NE and NW Atlantic Ocean, Red Sea, Indian Ocean, New Caledonia, Australia "Western Australia, New South Wales" (Cinar and Ergen, 2003).

Remarks:

In San Martín's specimens, the trepan with 10 small teeth surrounding anterior border of pharynx, but it was not observed in the present specimen, this may be due to the using of Scanning electron microscope, which gives San Martín more details for description, also nuchal organs were not observed in our specimen.

***Pionosyllis serratisetosa* López San Martín and Jiménez, 1997:**

Pionosyllis sp.: Baratech and San Martin (1987), 44.

Pionosyllis serratisetosa López *et al*. (1997): 293, figure1 A-H.

Material examined:

One specimen from El Bourllus at 50 m depth, among sandy mud bottom, in spring 2010.

Description (Fig. 6 A-E, Pl. 4):

Incomplete specimen 2 mm, 11 setigers. Prostomium oval, wider than long; four eyes in open trapezoidal arrangement, anterior pair larger than posterior one. Palps fused at bases, broad, with tips downwards. Median antennae originating in middle of prostomium, lateral antennae originating in front of anterior pair of eyes, weakly articulated distally. Smooth basally, longer than prostomium and palps together. Two pairs of tentacular cirri, ventral pair smooth and much shorter. Dorsal cirri of setiger 1 very long, weakly articulated in distal half; dorsal cirri from setiger 2 alternating between short and long, smooth from setiger 4; inserted on a short cirrophore slightly above parapodial lobe (Fig. 6A). Ventral cirri shorter than parapodial lobe. Parapodial lobe short and rounded. Anterior Parapordial with up to 18 compound heterogomph setae; strong dorso-ventral gradation in length of blades 21.5-10 µm in length, all blades bidentate, with subdistal tooth strongly curved, a slight serration on the cutting edge of the blade, and fine spinulation at the end of shaft (Fig. 6B). Solitary dorsal simple seta begins from setiger 10, very narrow and slightly serrated (Fig. 6D). Ventral simple seta, bidentate (Fig. 6E). Acicula straight, with subterminal fine spines; paired until setiger 10, solitary posteriorly (Fig. 6C). Pharynx broad, extending through 6 setigers; pharyngeal tooth near anterior margin. Proventriculus barrel shaped, extending through about 4 segments, with 16 rows of muscle cells.

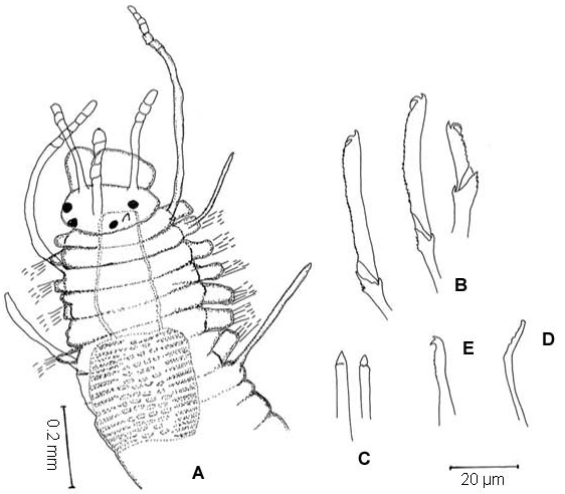


Fig. 6. *Pionosyllis serratisetosa* A. Anterior part of body, dorsal view; B. Compound chaetae; C. Acicula; D. Dorsal simple chaeta; E. Ventral simple chaeta. Scale (A, 0.2 mm); (B-E, 20µm)

***Pionosyllis serratisetosa* 10x10**

Plate 4

Disribution:

Mediterranean Sea (López, 1997).

Remarks:

Description of the Egyptian specimen is similar to the original description given by López, San Martín and Jiménez, (1997).

***Syllis cruzi* Nůñez and San Martín, 1991:**

Syllis cruzi: Nůñez and San Martín (1991): 238-240, figure 2; Nůñez *et al.* (1992): 118, figures 1e& 4g- i.

Material examined: One specimen from El Bourllus, at 50 m depth, among sandy mud bottom, in spring 2010.

Description (Fig. 7A-H, Pl. 5):

Body 18 mm long for 85 segments. Prostomium pentagonal, with two pairs of eyes in rectangular arrangment. Palps broadly triangular, folded ventrally. Middle antenna, 14 articles; lateral antennae, 12 articles. Peristomium narrow. Two pairs of tentacular cirri; dorsal pair with 19 joints, ventral pair with 14 articles. Dorsal cirri thin, longer than body width, with 17-26 joints on anterior parapodia, 20-25 and 15-23 joints on middle and posterior parapodia respectively. Parapodia conical. Ventral cirri oval on anterior parapodia, slightly longer than parapodial lobes in anterior region (Fig. 7A). Falcigers numbering 10-12 on anterior parapodia, bidentate; blades of inferior falcigers becoming thick on posterior parapodia, with proximal tooth much larger than distal one, distal spines prominent; blades 30-17.5 µm long on anterior parapodia (Fig. 7B). 27.5-16µm and 24-17.5 µm long on middle and posterior ones, respectively (Fig. 7C). Dorsal simple chaeta with truncated tip, subdistally serrated (Fig. 7G). Ventral simple chaeta sigmoid, relatively thick, strongly bidentate (Fig. 7H). Acicula numbering 3 on anterior parapodia (Fig. 7D), 2 on mid body (Fig. 7E) and one on posterior parapodium; acuminate (Fig. 7F). Proventriculus through 8 segments, with 32 muscle cell rows. Pharynx occupying 8 segments; pharyngeal tooth triangular, small, located at opening of pharynx.

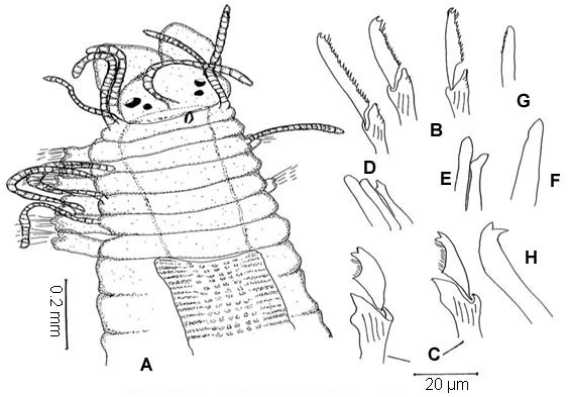


Fig. 7. *Syllis cruzi* A. Anterior part of body, dorsal view; B. Compound chaetae, anterior parapodium; C. B. Compound chaetae, posterior parapodium; D. Acicula, anterior parapodium; E. Acicula, mid body; F. Acicula, posterior parapodium; G. Dorsal simple chaeta; H. Ventral simple chaeta. Scale (A, 0.2 mm); (B-H, 20µm)

***Syllis cruzi* 10x40**

Plate 5

Distribution:

Mediterranean Sea, Atlantic Ocean "Canary Is-lands" (Nůñez *et al.,* 1992).

Remarks:

The number of articles of middle, lateral antennae and dorsal cirri are different from those reported by Nůñez and San Martín (1991) which may be due to more length of the present specimen (18 mm) while their specimen was 6.5 mm in length.

***Typosyllis* sp.:**

Material examined:

One specimen from Sidi Barrani, at 20 m depth, among coarse sand, in spring 2010.

Description (Fig. 8A-J):

Largest specimen complete, 4.5 mm long, 1 mm wide, with 43 chaetigers, without colour marking, with a group of granules on both sides of each segment.. Prostomium oval (75 µm); four eyes in trapezoidal arrangement. Palps elongated (105 µm). Median antenna inserted in middle of prostomium, with 11 joints, slightly longer than prostomium and palps together; lateral antennae inserted infront of anterior pair of eyes, with 9 joints (Fig. 2A). Dorsal tentacular cirri similar in length to median antenna, with 11 joints; ventral tentacular cirri with 7 joints. Dorsal cirri relatively short, delicate, slender, with few (4-8), elongated joints (Fig. 2B), dorsal cirri on chaetiger 1 longer than subsequent ones, with 11 joints. Blades of compound chaetae short, with moderately long spines on cutting edge, distinctly bidentate (7-10 µm anteriorly), shorter posteriorly (5-7.5 µm), with thick shafts (Fig. 2C,E&H). Dorsal simple chaetae from chaetiger 19, relatively thick, smooth, unidentate (Fig. 2F&I). Ventral simple chaeta thick, smooth, bidentate (Fig. 2J) on posterior parapodia. Anterior parapodia with two aciculae (Fig. 2D); middle and posterior parapodia with solitary, thick acicula, with acuminate tip (Fig. 2G). Pharynx through 5 segments (200 µm long); pharyngeal tooth near middle of pharynx. Proventricle extending through 5 segments (230 µm long) with 27 muscle cell rows.

Remarks:

Egyptian specimens agree quite well with Licher's description of *Typosyllis benguellana* (Day, 1963). Having short, delicate dorsal cirri and almost identical compound and simple chaetae, as well the aciculae (Licher, 1999). There are some differences between the original description of Day (1963&1967) and the Licher (1999) re-description, where Day described the compound chaetae as unidentate, while Licher discribed it as bidentate. Also, our specimens differ from both in the position of the pharyngeal tooth, near the middle of the pharynx instead of the anterior rim. Our specimens are probably juveniles, because are smaller than those of Day, so this report is provisional without formal identification, waiting for more specimens in future collections.

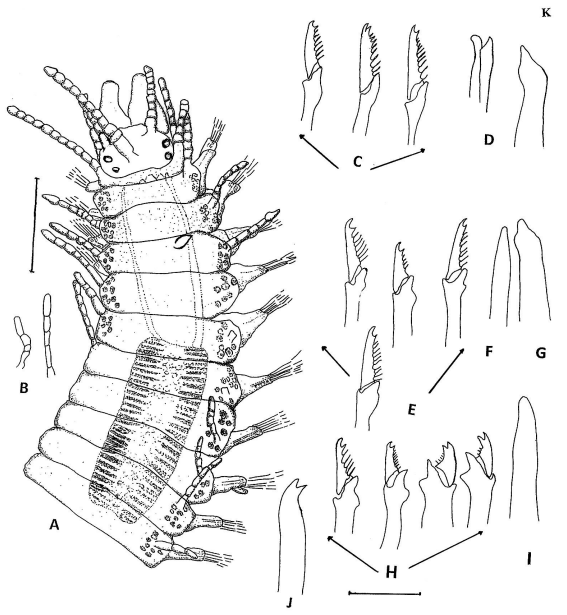


Fig. 8. *Typosyllis* sp. A. Anterior part of body, dorsal view; B. Dorsal cirri; C. Falcigers, anterior parapodium; D. Anterior aciculae; E. Falcigers, middle parapodium; F. Dorsal simple chaeta, middle parapodium; G. Acicula, middle parapodium; H. Falcigers, posterior parapodium; I. Dorsal simple chaeta, posterior parapodium; J. Ventral simple chaeta; K. Acicula, posterior parapodium. Scale (A, B ,0.2 mm); (C-K, 20µm)

***Syllis torquata* Marion and Bobretzky, 1875:**

Syllis (Typosyllis) torquata (Fauvel, 1923): 264, figure 98d-h.

Syllis torquata (Martín and San Martín, 1988): 31-35, figures 1&2; 2003: 394, figure 215 A-J.

Material examined:

One specimen, from Rashid Coast, at 30 m depth, among muddy sand and three specimens, from El-Bourllus Coast, at 50 m depth, among sandy mud bottom, in spring 2010.

Description (Fig. 9 A-L, Pl. 6):

Body 10 mm long for 56 chaetigers, dark brownish, with dense deep red pigmentation on posterdorsal margin of prostomium, dorsum of peristomium and chaetiger 1, dorsum of chaetigers 2 and 3 without pigmentation, a transverse deep red line on anterior, median and posterior margins of each anterior segment from chaetiger 4. Tentacular cirri with 15-10 joints Dorsal cirri shorter than width, with 14-10 joints on anterior parapodia, 10-8 joints on posterior ones (Fig. 9A). Blades of falcigers on anterior poarapodia bidentate; proximal tooth much larger than distal tooth; 17.5-10 µm long (Fig.

9B). Superior falcigers on posterior parapodia similar to those on anterior parapodia, inferior ones relatively thicker; blades 20-22.5 µm long (Fig. 9D). Setae on middle parapodia, thick (Fig. 9C). Solitary dorsal and ventral chaetae bidentate (Fig. 9K); ventral ones much thicker (Fig. 9L). Aciculum with a subdistal swelling; and has different shapes of acicula through the body(Fig. 9H,I,&J). Proventriculus through 4 segments, with 33 muscle cell rows. Pharynx occupying 6 segments.

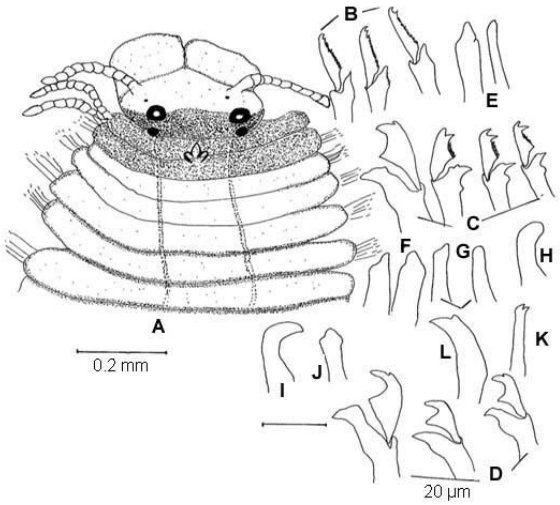


Fig. 9- *Syllis torquata* A. Anterior part of body, dorsal view; B. Compound chaetae, anterior parapodium; C. Falcigers, middle parapodium; D. Falcigers, posterior parapodium; E. Anterior aciculae; F. Acicula, middle parapodium; G. Acicula, parapodia no. 28; H, I, J. Acicula, posterior parapodium; K. Dorsal simple chaeta; L. Ventral simple chaeta. Scale (A, ,0.2 mm); (B-K, 20µm)

Syllis torquata

Plate 6

Distribution:

Mediterranean Sea (San Martín, 2003).

Remarks:

Egyptian specimens agree with description reported by Martín and San Martín (1988) and San Martín (2003), but differ in the color of pigmentation of prostomum and the lines on anterior segments, where they have black color, while it is deep red color in the present study.

DISCUSSION:

The Egyptian syllid fauna has been proved to be richer and more diversified than previously predicted. More than 80 syllid species were recently reported (Abd-Elnaby, 2005, 2009 a&b, 2010a&b; Selim, 2008). The actual known syllid fauna is still underestimated in some egyptian biotopes and depths. The presence of Lessepsian migrants increased. Two species were reported as Lessepsian migrant species namely *Streptosyllis aequiseta* (Hartmann-Schröder, 1981); and *Dentatisyllis junoyi* (López and San Martín, 1992). They are tropical Indo-Pacific species that have been found in sediment bottom in Australia, and West Africa (López and San Martín 1992; San Martín and Hutchings, 2006). They are reported for the first time in the Mediterranean water. However, Musco and Giangrande (2005), reported five species from the Mediterranean Sea (*Syllis torquata, Syllis cruzi, Pionosyllis serratisetosa, Plakosyllis brevipes, Streptodonta pterochaeta*) but herein they are newly recorded for the Egyptian waters, while *Streptosyllis templadoi* was reported by Selim (2008). The species reported like *Typosyllis benguellana* (Day, 1963) but differs in the position of the pharyngeal tooth near the middle of the pharynx instead of the anterior rim as stated by Licher (1999).

Identification of the present specimens was confirmed by Dr. Çinar Ege University, Faculty of Fisheries, Dept. of Hydrobiology, Izmir, Turkey and Dr. Gullirmo San Martín Departamento de Biología (Zoología), Facultad de Ciencias, Universidad Autónoma de Madrid, Spain.

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رصد جديد لأنواع من الديدان عديدة الأشواك من عائلة السلليدي في مياه البحر المتوسط المصرية هاجرت عن طريق قناة السويس

فايزة علي عبد النبي

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أجريت هذه الدراسة علي انواع من الديدان عديدة الأهلاب المتحركة والتي تنتمي الي مجموعة اللافقاريات البحرية . وقد أختيرت عائلة السلليدي نظرا لوفرة أنواعها، فهي اكثر العائلات تنوعا في المياه المصرية. تساهم هذه الدراسة في إضافة أنواع جديدة لم ترصد من قبل في المياه المصرية بالإضافة إلي نوعين من الأنواع المهاجرة عبر قناة السويس إلي المياه المصرية للبحر المتوسط. للقيام بهذه الدراسة، جمعت عينات قاع من عدة مناطق منها سيدي براني، الحمام، رشيد والبرلس بالكباش علي أعماق تتراوح بين 10 و 50 متر في الفترة من ربيع 2009 وربيع 2010. من خلال رحلات جمع العينات بواسطة المركب سلسبيل لتحقيق خطة معهد علوم البحار والمصايد والتي تهدف إلي رسم صورة حقيقية للفونا المصرية ودراسة الأماكن حيث تجمعات الأسماك المستغلة إستغلال مفرط والغير مستغلة إستغلال كامل. وكان هدف البحث هو رصد أنواع جديدة من عائلة السلليدي لم ترصد من قبل في المياه المصرية وكانت نتائج هذه الدراسة تسجيل تسعة أنواع من عائلة السلليدي تنتمي إلي تحت عائلة إيوسيلليني وسيلليني، وتقع تحت سبعة أجناس. تم التصنيف حتي مستوي النوع ماعدا نوع واحد يفضل فحصه مرة أخري نظرا للتشابه الشديد مع النوع سيللس بنجيولانا إلا أنه يختلف في موضع السنة الأمامية للبلعوم فهي في سللس بنجيولانا توجد عند الطرف الأمامي للبلعوم أما في العينة الحالية فقد وجدت في منتصف البلعوم بجانب الجدار مما يرجح صغر عمر الدودة أو يفضل كتابتها كنوع من أنواع السللس حتى تتوفر عينات أخري من نفس النوع محل الدراسة. كما تم رصد خمسة أنواع تسجل لاول مرة في المياه المصرية وهي : *Opisthodonta pterochaeta, Plakosyllis brevipes, Pionosyllis serratisetosa, Syllis cruzi* and *Syllis torquata.* وأيضا تم رصد نوعين من الأنواع التي هاجرت عبر قناة السويس حيث موطنهما الأصلي المحيط الهادي والمحيط الهندي وهما: *Streptosyllis aequiseta; Dentatisyllis junoyi.* من دراسة التوزيع الجغرافي للانواع وجد أن: جميع الأنواع المسجلة لأول مرة في المياه المصرية الساحلية قد تم رصدها من قبل في مناطق أخري من البحر المتوسط، حيث موطنها الأصلي البحر المتوسط أو المحيط الأطلنطي. ومن هذه الدراسة يتضح تزايد أعداد الديدان عديدة الأشواك بالبحث والدراسة في أماكن بكر لم يتم دراستها من قبل.

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