

# **Eusyllinae, Exogoninae and Autolytinae (Syllidae, Annelida, Polychaeta) from the Chafarinas Islands (Alboran Sea, W Mediterranean)**

E. López & G. San Martín

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*Eusyllinae, Exogoninae and Autolytinae (Syllidae, Annelida, Polychaeta) from the Chafarinas Islands (Alboran Sea, W Mediterranean).*— A study on the benthic invertebrate communities of the Chafarinas Islands was carried out recently, paying special attention to some groups, including polychaetes. In this work the results of the study of subfamilies Eusyllinae, Exogoninae, and Autolytinae (Annelida, Polychaeta, Syllidae) are given, citing 48 species. One of these, *Amblyosyllis inmatura* Langerhans, 1879, is recorded for first time in the Mediterranean Sea and compared with previously known Mediterranean species of the genus. Some variations from typical form are described for two *Grubeosyllis* Verrill, 1900 species: *G. clavata* (Claparède, 1863) and *G. vieitezi* (San Martín, 1984). Specimens of a new species of genus *Pionosyllis* (Eusyllinae) and other of genus *Autolytus* (Autolytinae) were found.

Key words: Polychaeta, Syllidae, Western Mediterranean.

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E. López & G. San Martín, Depto. de Biología, Unidad de Zoología, Lab. de Biología Marina e Invertebrados, Fac. de Ciencias, Univ. Autónoma de Madrid, Campus de Canto Blanco, 28049 Madrid, España (Spain).

E-mail: eduardo.lopez@uam.es

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## Introduction

The Chafarinas Islands are a small Spanish archipelago close to the Mediterranean coast of Morocco. Although there is a wide body of literature on the distribution of polychaete species in the Western Mediterranean, few works have studied the polychaete fauna of the Mediterranean coast of North-western Africa (AMOREUX, 1976 in the Gibraltar Strait; WESTHEIDE, 1972; CANTONE et al., 1978 and ZGHAL & BEN AMOR, 1980 in the Tunisian Coast; SAN MARTÍN & PARAPAR, 1990; PARAPAR & SAN MARTÍN, 1992, and PARAPAR et al., 1993 in the vicinity of Ceuta).

From February 1991 to July 1993 a number of field studies were carried out by research staff of the Universidad de Alcalá de Henares, the Universidad Autónoma de Madrid, and the Universidad de Valencia.

The main objective was the study of benthic marine invertebrates. Study of the polychaetous annelid fauna was emphasized. Ecological and biogeographical data of the species of these subfamilies in the Chafarinas Islands are discussed. This paper follows a previous one (LÓPEZ et al., 1996) in which a brief description of the zone is given.

## Material and methods

The list of localities and samples can be found in LÓPEZ et al. (1996). In the same paper, the used methods are described. Descriptions and references on all common species can be found in previous general works (DAY, 1967; WESTHEIDE, 1974; CAMPOY, 1982; SAN MARTÍN, 1984, 1990; SARDÀ, 1984a; UEBELACKER, 1984; ALÓS, 1988; NÚÑEZ et al., 1992). For newly described or poorly known species, this information can be found in more specific works: MARTÍN & ALÓS (1987) for *Autolytus sardai*, RUSSELL (1989) and OLANO et al. (in press) for *Sphaerosyllis belizensis*, MARTÍN et al. (1990) for *Miscellania dentata*, LANERA et al. (1994) for *Exogone gambiæ* and, LÓPEZ et al. (1997) for *Pionosyllis serratisetosa* and *Autolytus longoprimiticirratu*.

For each species, samples where it has been found and number of specimens per sample (in brackets) are given; samples are characterized by a capital letter (field station) and a number (for quantitative samples) or another capital letter (for qualitative samples). A brief list of references, comments and the known world distribution are also given for some interesting species.

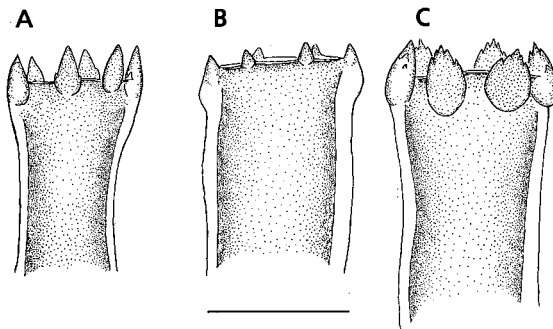


Fig. 1. Anterior end of pharynx: A. *Amblyosyllis dorsigera* Claparède, 1863; B. *Amblyosyllis inmatura* Langerhans, 1879; C. *Amblyosyllis madeirensis* Langerhans, 1879. (Scales A, B: 20  $\mu$ m; C: 48  $\mu$ m.)

*Extremo anterior de la faringe:* A. *Amblyosyllis dorsigera* Claparède, 1863; B. *Amblyosyllis inmatura* Langerhans, 1879; C. *Amblyosyllis madeirensis* Langerhans, 1879. (Escala A, B: 20  $\mu$ m; C: 48  $\mu$ m.)

## Results

About 20,700 specimens belonging to the subfamilies Eusyllinae, Exogoninae, and Autolytinae were studied. Forty eight species were recorded.

### Family Syllidae Grube 1850

#### Subfamily Eusyllinae Rioja, 1925

#### Genus *Amblyosyllis* Grube, 1857

*Amblyosyllis dorsigera* Claparède, 1864 (fig. 1A)

Material examined: G/1 (1).

*Amblyosyllis inmatura* Langerhans, 1879 (fig. 1B)

*Amblyosyllis inmatura* Langerhans, 1879.

LANGERHANS (1879): 561, Taf. XXXII, fig. 20.

Material examined: K/3 (1).

Remarks: this species is recorded for the first time since its original description. A previous record of this species as *Amblyosyllis* cf. *inmatura* (CAMPOY, 1982) was actually based on two specimens of *A. dorsigera*. Its most characterizing feature is the pharynx mouth (fig. 1B), with six small and unidentate teeth, very different to those of *A. dorsigera* Claparède, 1864 (fig. 1A) and *A. madeirensis* Langerhans, 1879 (fig. 1C); both species commonly found on the Spanish Mediterranean coasts. *A. inmatura* could be a juvenile stage of another *Amblyosyllis* species, but the study of more abundant and complete material is needed.

World distribution: Madeira.

First record for Mediterranean and Spanish fauna.

*Amblyosyllis madeirensis* Langerhans, 1879 (fig. 1C)

Material examined: C/1 (1); C/2(1); C/3 (1); F/1(1); F/A (3); H/D (1); L/2 (1); M/1 (1); O/1 (3); X/A (5).

#### Genus *Ehlersia* Quatrefages, 1865 enmend. Langerhans, 1879

*Ehlersia ferrugina* Langerhans, 1881

Material examined: A/1 (2); A/B (1); E/1 (1); F/2 (5); F/A (1); G/1 (2); G/A (1); G/B (8); H/1 (1); I/1 (1);

J/1 (27); J/1' (1); J/3 (1); J/A (10); J/A (1); N/1 (1); O/1 (8); X/A (28).

Remarks: this species was formerly considered as belonging to the subfamily Syllinae. In a recent work the change of its taxonomical position was proposed (NÚÑEZ & SAN MARTÍN, 1996).

#### Genus *Eusyllis* Malmgren, 1867

*Eusyllis assimilis* Marenzeller, 1875

Material examined: A/1 (1); C/1 (1); D/1 (3); F/1 (1); F/A (1); G/1 (1); L/A (1); N/1 (6); O/1 (1).

*Eusyllis lamelligera* Marion & Bobretzky, 1875

Material examined: A/1 (2); A/2 (7); B/2 (3); C/2 (3); D/1 (5); F/1 (20); F/2 (2); F/A (7); G/1 (1); G/A (1); G/B (3); H/A (1); J/1 (1); L/A (6); L/B (1); L/D (2); N/1 (3); N/B (1); O/1 (1).

#### Genus *Miscellania* Martín, Alós & Sardà, 1990

*Miscellania dentata* Martín, Alós & Sardà, 1990

Material examined: B/2 (14); X/A (2).

#### Genus *Odontosyllis* Claparède, 1863

*Odontosyllis ctenostoma* Claparède, 1868

Material examined: A/1 (1); A/2 (3); B/2 (1); B/A (1); C/2 (1); C/3 (2); E/1 (4); F/2 (2); H/1 (1); H/D (2); I/1 (4); J/2 (1); K/3 (1); L/1 (2); L/A (1); M/1 (1); N/2 (1); N/B (1); O/1 (2); X/A (2); X/B (17).

*Odontosyllis fulgurans* (Audouin & Milne-Edwards, 1834)

Material examined: A/1 (3); B/1 (2); B/2 (1); D/2 (2); E/1 (3); F/1 (10); F/2 (5); H/1 (2); H/D (2); I/1 (1); J/2 (5); K/2 (1); L/A (1); N/2 (1); O/1 (16); X/A (5).

*Odontosyllis gibba* Claparède, 1863

Material examined: A/1 (3); A/2 (3); C/1 (3); C/2 (2); C/3 (1); D/1 (6); F/1 (11); F/A (3); G/1 (7); G/A (1); K/1 (4); L/A (7); L/C (5); N/1 (3).

#### Genus *Pionosyllis* Malmgren, 1867

*Pionosyllis lamelligera* Saint-Joseph, 1886

Material examined: A/1 (42); A/2 (26); A/A (1); A/B (2); B/1 (1); B/2 (11); C/1 (8); C/2 (33); C/3 (1);

C/4 (2); D/1 (3); E/1 (1); F/1 (91); F/2 (64); F/A (4); G/1 (7); G/2 (3); G/3 (8); G/A (20); G/B (49); H/1 (32); H/D (8); I/1 (5); J/1 (18); J/2 (2); J/3 (2); J/A (1); L/2 (5); L/A (12); L/C (3); L/D (2); M/1 (2); N/1 (7); N/2 (1); N/B (5); O/1 (55); X/A (134); X/D (2); X/E (1).

*Pionosyllis longocirrata* Saint-Joseph, 1886

Material examined: A/1 (1); C/2 (1); D/1 (1); D/2 (1); F/1 (5); F/A (5); G/1 (1); I/1 (1); J/1 (3); L/A (1); K/1 (2); N/1 (1); O/1 (5).

*Pionosyllis pulligera* (Krohn, 1852)

Material examined: A/1 (16); A/2 (41); C/1 (6); C/2 (11); C/3 (139); C/4 (15); D/1 (11); D/2 (14); D/3 (14); E/1 (15); F/1 (27); F/2 (3); F/A (4); G/1 (1); G/2 (1); G/3 (5); H/1 (6); H/2 (17); I/3 (7); J/2 (24); K/1 (11); K/2 (11); L/1 (1); L/2 (8); L/A (4); L/C (1); M/1 (100); N/1 (28); N/2 (23); O/1 (2); X/A (2); X/D (2).

*Pionosyllis serratisetosa* López, San Martín & Jiménez, 1997

Material examined: A/1 (1); B/2 (1); C/2 (2); F/1 (1); F/2 (5); G/B (3).

Genus *Syllides* Oersted, 1845

*Syllides edentatus* (Westheide, 1974)

Material examined: I/1 (3).

*Syllides fulvus* (Marion & Bobretzky, 1875)

Material examined: A/2 (3); B/1 (2); C/2 (2); C/3 (1); C/4 (1); D/1 (1); E/1 (2); F/1 (8); F/2 (1); F/A (2); G/1 (1); G/2 (1); G/A (2); G/B (4); H/D (4); J/1 (3); J/A (1); L/1 (1); L/2 (1); L/A (1); L/C (1); M/1 (1); X/A (21).

Subfamily Exogoninae Rioja, 1925

Genus *Brania* Quatrefages, 1865

*Brania arminii* (Langerhans, 1881)

Material examined: E/1 (2); F/A (1); J/1 (2); J/A (2).

*Brania pusilla* (Dujardini, 1839)

Material examined: A/1 (6); A/2 (4); A/B (1); C/1 (3); C/4 (7); D/3 (1); E/1 (9); F/1 (5); F/2 (1); G/2 (11); G/3 (10); G/A (3); G/B (8); J/A (11); H/2 (24); I/1 (15); J/1 (4); J/1' (1); J/2 (2); J/3 (6); K/2 (3); K/3 (7); L/2 (10); L/A (3); L/D (5); N/1 (7); N/B (3); O/1 (61); O/D (1); X/A (156); X/B (3); X/C (1).

Genus *Exogone* Oersted, 1845

*Exogone (Parexogone) gambiae* Lanera, Sordino & San Martín, 1994

Material examined: J/1 (3); J/3 (1); J/A (1); M/1 (1); X/A (1).

*Exogone (Exogone) cf. dispar* (Webster, 1879)

Material examined: A/B (1)

Remarks: this specimen is different from those typical of *E. dispar* (Webster, 1879) only by having a central antenna of the same length as the lateral antennae; this could be due to a loose of the same and the later regeneration process.

*Exogone (Exogone) naidina* Oersted, 1845

Material examined: A/1 (162); A/2 (578); A/B (11); B/1 (66); B/2 (13); B/A (10); C/1 (49); C/2 (127); C/3 (454); C/4 (18); D/1 (402); D/2 (596); D/3 (5); E/1 (137); F/1 (1435); F/2 (450); F/A (30); G/1 (80); G/2 (194); G/3 (3); G/A (26); G/B (12); H/1 (142); H/2 (33); H/D (2); I/1 (21); J/1 (32); J/1' (5); J/2 (242); J/3 (62); J/A (27); K/1 (44); K/2 (20); K/3 (11); L/1 (31); L/2 (12); L/A (84); L/B (3); L/C (6); L/D (6); M/1 (7); N/1 (141); N/2 (33); N/B (6); X/A (955); X/B (1); X/D (22).

*Exogone (Exogone) rostrata* Naville, 1933

Material examined: A/1 (1); J/1 (1); J/3 (1); X/A (78); G/B (31).

*Exogone (Exogone) verugera* Claparède, 1868

Material examined: A/1 (2); A/B (3); B/2 (1); B/A (1); C/1 (1); C/2 (2); C/3 (1); D/1 (2); D/3 (1); E/1 (30); F/1 (4); F/2 (1); F/A (1); G/1 (1); G/B (1); H/1 (1); I/1 (9); J/3 (3); J/A (2); L/A (6); L/B (1); M/1 (1); N/1 (2); N/B (1); O/1 (6); X/A (15); X/D (1).

Genus *Grubeosyllis* Verrill, 1900

*Grubeosyllis euritmica* (Sardà, 1984)

Material examined: G/3 (24); N/2 (1).

*Grubeosyllis limbata* (Claparède, 1868)

Material examined: A/1 (31); A/2 (66); A/B (1); B/2 (19); B/A (1); C/1 (36); C/2 (12); C/3 (11); C/4 (27); D/1 (3); E/1 (4); F/1 (79); F/2 (51); F/A (17); G/1 (48); G/2 (7); G/A (21); H/1 (41); H/2 (30); I/1 (51); J/1 (7); J/1' (1); J/2 (2); J/3 (5); J/A (1); K/1 (3); K/2 (7); K/3 (115); L/1 (2); L/2 (3); L/A (23); L/B (2); M/1 (1);

N/1 (86); N/2 (5); N/B (3); O/1 (29); X/A (148); X/D (1).

*Grubeosyllis clavata* (Claparède, 1863) (fig. 2)

*Grubea clavata*. FAUVEL (1923): 296, fig. 114 a-e.

*Brania clavata*. CAMPOY (1982): 253.

*Pseudobrania clavata*. SAN MARTÍN (1984): 167, lám. 33-34; ALÓS (1988): 275, figs. 49-54.

*Grubeosyllis clavata*. SAN MARTÍN (1991): 718, fig. 2 a-b.

Material examined: A/1 (34); A/2 (118); B/1 (10); B/2 (2); C/2 (34); D/1 (93); D/2 (151); C/1 (13); C/3 (102); C/4 (21); D/3 (6); E/1 (92); F/1 (108); F/2 (22); F/A (7); G/1 (6); G/2 (49); G/3 (6); G/A (5); G/B (3); H/1 (29); H/2 (19); I/1 (57); J/2 (171); J/3 (57); K/1 (30); K/2 (38); K/3 (123); L/1 (30); L/2 (35); L/A (18); M/1 (3); N/1 (25); N/2 (5); N/B (2); O/1 (27); X/A (96); X/D (8).

Remarks: besides the typical form (figs. 2A-D), with broad pharynx and pharyngeal tooth, subdistal tooth of composite seta blades smaller than the distal one, and scarcely developed blade spinulation, three other forms were identified:

- form A (figs. 2E, 2F), previously recorded by ALÓS (1988) on Catalanian coasts. It is characterized by enlarged subdistal teeth in midbody and posterior parapodia. This feature can be confused with *G. euritmica* (Sardà 1984) (SARDÀ, 1984b) but blade and pharynx shapes, the same as in typical *G. clavata*, is sufficient to distinguish the two species.

- form B (fig. 2G, 2H), also recorded by ALÓS (1988). Its blades are proportionally longer and thinner than those with the typical form.

- form C (fig. 2I, 2J), characterized by a well-developed spinulation on blades, similar to that of *G. vieitezi*. However, it has a broad pharynx and pharyngeal tooth and its blade serration is clearly straight.

World distribution: cosmopolitan.

*Grubeosyllis vieitezi* (San Martín, 1984) (fig. 3)

*Pseudobrania vieitezi* San Martín, 1984. SAN MARTÍN (1984): 160-164, lám. 31.

*Grubeosyllis vieitezi*. SAN MARTÍN (1991): 718, fig. 2 e-f.

Material examined: A/1 (24); A/2 (106); C/1 (1); C/2 (6); C/3 (50); C/4 (111); D/2 (17); D/3 (72); E/1 (105); F/1 (26); F/2 (1); G/1 (9); G/2 (48); G/3 (65); G/A (2); G/B (1); H/1 (8); H/2 (175); I/1 (49); J/1 (3); J/2 (67); J/3 (64); K/1 (1); K/2 (93); K/3 (424); L/1 (21); L/2 (193); L/A (7); M/1 (48); N/1 (18); N/2 (31); O/1 (79); X/A (6); X/C (11); X/D (2).

Remarks: the typical form of this species

has a long narrow pharynx (fig. 3C) with a thin tooth. Its aciculae (fig. 3D) are provided with long mucros, and its composite seta blades (figs. 3A, 3B) are more curved than those of *Grubeosyllis clavata*. On the dorsal setae, there are very characteristic long upward curved spines. There is a different form, form A, characterized by straight spinulation (figs. 3E, 3F) similar to *G. clavata* form C. The two can be distinguished by the narrower pharynx (fig. 3G), thinner pharyngeal tooth, the aciculum shape (fig. 3H), and the more curved blades of *G. vieitezi*.

World distribution: Western Mediterranean. Atlantic (Iberian peninsula, Canary Islands, Cuba).

Genus *Parapionosyllis* Fauvel, 1923

*Parapionosyllis brevicirra* Day, 1954

Material examined: A/B (3); L/B (2); M/1 (1); X/A (19); X/D (1).

Genus *Sphaerosyllis* Claparède, 1863

*Sphaerosyllis austriaca* Banse, 1959

Material examined: A/1 (4); A/2 (43); A/B (4); B/1 (21); B/A (1); C/1 (6); C/2 (4); C/3 (20); C/4 (39); D/1 (6); D/2 (15); E/1 (45); F/1 (4); F/2 (5); G/1 (3); G/2 (24); G/3 (1); G/A (2); G/B (2); H/1 (11); H/2 (9); I/1 (252); J/3 (28); K/2 (39); K/3 (381); L/1 (1); L/2 (5); L/A (1); L/B (1); N/1 (1); N/2 (21); O/1 (39); X/A (30).

*Sphaerosyllis belizensis* Russell, 1989

Material examined: A/B (4); J/A (1).

*Sphaerosyllis campoyi* San Martín, Acero, Contonente & Gómez, 1982

Material examined: A/2 (1); F/1 (8); J/1 (1); L/B (1).

*Sphaerosyllis cryptica* Ben-Eliahu, 1977

Material examined: A/B (2); C/2 (1); D/1 (1); F/1 (39); F/2 (14); F/A (5); G/1 (2); H/1 (1); J/1 (11); J/A (1); X/A (32).

*Sphaerosyllis hystrix* Claparède, 1863

Material examined: A/1 (66); A/2 (199); A/A (2); A/B (49); B/1 (25); B/2 (3); B/A (8); C/1 (49); C/2 (32); C/3 (107); C/4 (77); D/1 (16); D/2 (49); E/1 (34); F/1 (127); F/2 (76); F/A (5); G/1 (34); G/2 (64);

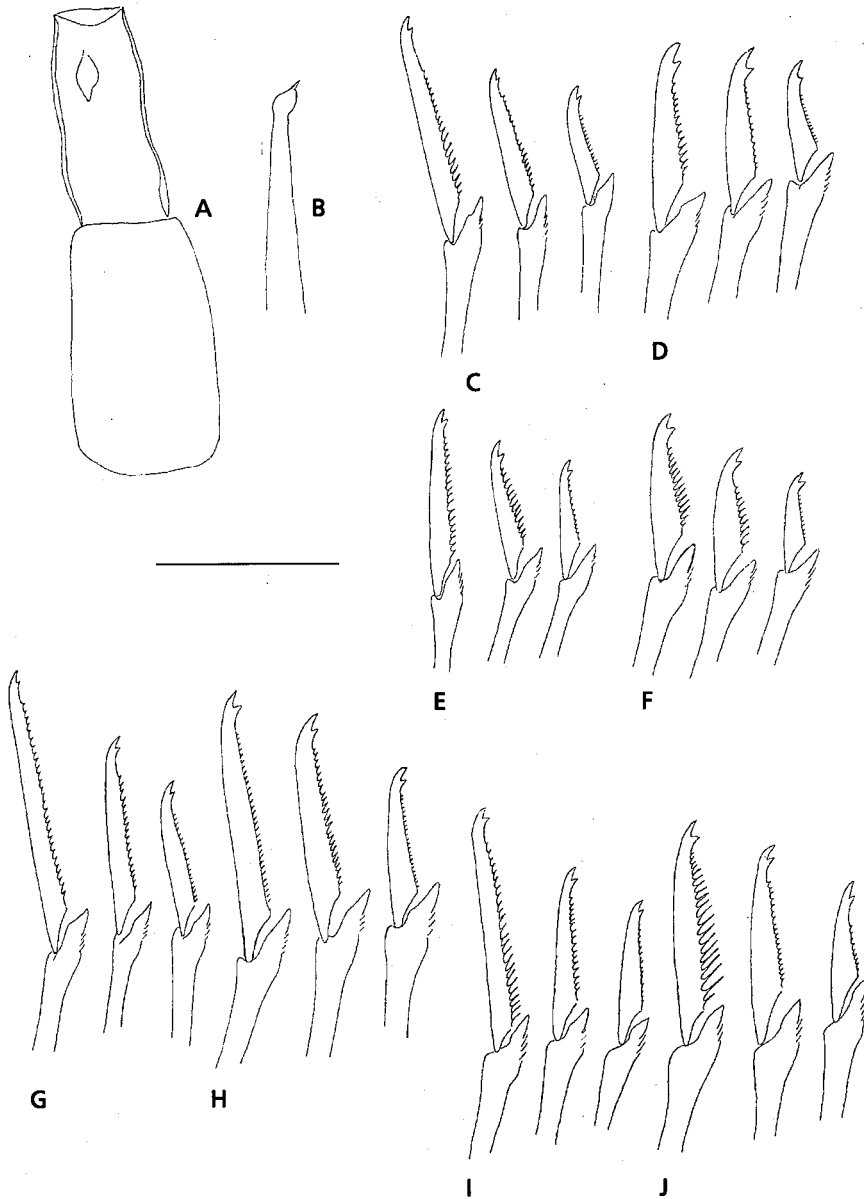


Fig. 2. *Grubeosyllis clavata* (Claparède, 1868): A. Pharynx and proventriculum; B. Aciculum; C. Composite setae of anterior parapodium (typical form); D. Composite setae of midbody parapodium (typical form); E. Composite setae of anterior parapodium (form A); F. Composite setae of midbody parapodium (form A); G. Composite setae of anterior parapodium (form B); H. Composite setae of midbody parapodium (form B); I. Composite setae of anterior parapodium (form C); J. Composite setae of midbody parapodium (form C). (Scales A: 0.2 mm; B-J: 20  $\mu$ m.)

G/3 (37); G/A (20); G/B (22); H/1 (87); H/2 (9); H/D (4); I/1 (113); J/1 (10); J/1' (1); J/2 (43); J/3 (29); J/A (38); K/1 (2); K/2 (45); K/3 (1); L/1 (12); L/2 (38); L/A (20); L/B (1); L/C (1); L/D (1); M/1 (5); N/1 (15); N/2 (54); N/B (8); O/1 (76); O/B (1); X/A (418).

*Sphaerosyllis pirifera* Claparède, 1868

Material examined: A/1 (88); A/2 (148); A/A (1); A/B (26); B/1 (93); B/2 (9); B/A (16); C/1 (22); C/2 (34); C/3 (96); C/4 (21); D/1 (72); D/2 (49); D/3 (3); E/1 (94); F/1 (229); F/2 (100); F/A (25); G/1 (77); G/2 (106); G/3 (28); G/A (27); G/B (109); H/1 (102); H/2 (11); H/D (4); I/1 (56); J/1 (100); J/1' (2); J/2 (5); J/3 (17); J/A (21); K/1 (9); K/2 (17); K/3 (25); L/1 (21); L/2 (27); L/A (68); L/B (3); L/C (14); L/D (2); M/1 (3); N/1 (34); N/2 (52); N/A (1); N/B (23); O/1 (145); X/A (480); X/B (1); X/C (2); X/D (6).

*Sphaerosyllis taylori* Perkins, 1981

Material examined: A/1 (2); A/2 (7); A/B (7); B/1 (3); B/2 (4); C/1 (5); C/2 (1); C/3 (3); D/1 (14); D/2 (7); E/1 (6); F/1 (56); F/2 (8); F/A (10); G/1 (9); G/2 (2); H/1 (4); I/1 (4); J/1 (9); J/3 (1); J/A (1); K/1 (1); L/2 (1); L/A (3); L/B (3); L/C (1); N/1 (2); O/1 (3); X/A (22).

*Sphaerosyllis xarifae* Hartmann-Schröder, 1960

Material examined: F/1 (22); F/2 (14); F/A (10); E/1 (1); H/1 (4); J/1 (10); J/1' (1); J/A (1); L/D (2); O/1 (1); X/A (36).

Subfamily Autolytinae Rioja, 1925

Genus *Autolytus* Grube, 1850

*Autolytus benazzi* Cognetti, 1953

Material examined: J/3 (1); X/C (3).

*Autolytus brachycephalus* (Marenzeller, 1874)

Material examined: A/2 (3); B/1 (5); C/1 (1); C/3 (7); D/2 (1); E/1 (14); F/1 (6); G/1 (1); G/2 (2); H/2 (1); H/D (3); I/1 (22); J/3 (2); L/1 (36); L/A (2); L/C (1); L/D (1); O/1 (1); X/A (6).

*Autolytus convolutus* Cognetti, 1953

Material examined: A/2 (4); C/3 (7); C/4 (7); D/2 (4); D/3 (1); E/1 (19); F/2 (12); G/1 (2); G/2 (21); H/2 (7); I/1 (3); J/1 (2); J/2 (4); J/3 (2); K/1 (1); K/2 (32); K/3 (1); L/1 (1); L/C (1); N/2 (5); O/1 (12); O/B (1); X/A (1).

*Autolytus edwardsi* Saint-Joseph, 1887

Material examined: A/A (2); C/3 (2); C/4 (4); D/3 (6); E/1 (2); F/1 (1); F/2 (2); F/A (2); G/3 (7); G/B (7); H/2 (4); I/1 (2); J/1' (1); J/2 (2); J/3 (4); J/A (3); K/1 (2); K/2 (5); K/3 (4); L/1 (1); L/2 (6); L/A (1); M/1 (3); N/2 (2); O/1 (1); X/B (1).

*Autolytus longoprimitiratus* López, San Martín & Jiménez, 1997

Material examined: G/B (3).

*Autolytus prolifer* (Müller, 1788)

Material examined: A/B (5); G/A (3).

*Autolytus quindecimdentatus* Langerhans, 1879

Material examined: A/1 (6); A/2 (9); B/1 (5); B/2 (3); B/A (7); C/1 (1); C/2 (2); C/3 (17); C/4 (7); D/1 (3); D/3 (4); E/1 (29); F/1 (8); F/2 (2); F/A (1); G/1 (6); G/2 (27); G/3 (4); G/A (2); H/1 (10); H/2 (13); H/D (6); I/1 (5); J/1 (3); J/2 (6); J/3 (8); J/A (1); K/2 (27); K/3 (3); L/1 (8); L/2 (17); L/A (1); L/C (1); M/1 (2); N/1 (15); N/2 (1); N/B (1); O/1 (3); X/A (35); X/D (4).

*Autolytus sardai* Martín & Alós, 1987

Material examined: A/1 (4); A/2 (2); F/1 (2); F/A (1); G/1 (1); G/2 (2); G/B (7); N/1 (3); X/A (1).

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*Grubeosyllis clavata* (Claparède, 1868): A. Faringe y proventrículo; B. Acícula; C. Sedas compuestas del parápodo anterior (forma típica); D. Sedas compuestas del parápodo intermedio (forma típica); E. Sedas compuestas del parápodo anterior (forma A); F. Sedas compuestas del parápodo intermedio (forma A); G. Sedas compuestas del parápodo anterior (forma B); H. Sedas compuestas del parápodo intermedio (forma B); I. Sedas compuestas del parápodo anterior (forma C); J. Sedas compuestas del parápodo intermedio (forma C). (Escala A: 0,2 mm; B-J: 20 µm.)

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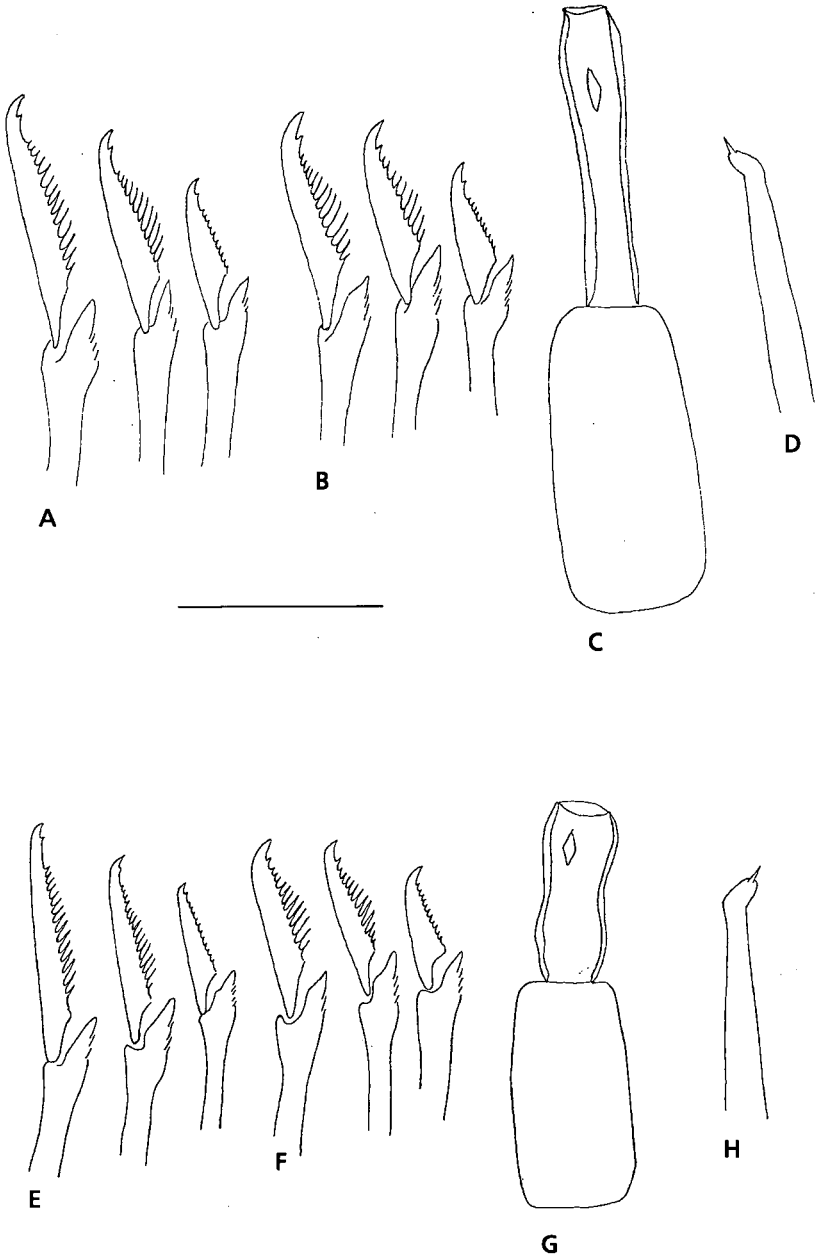


Fig. 3. *Grubeosyllis vieitezi* (San Martín, 1984): A. Composite setae of anterior parapodium (typical form); B. Composite setae of midbody parapodium (typical form); C. Pharynx and proventriculum (typical form); D. Aciculum (typical form); E. Composite setae of anterior parapodium (form A); F. Composite setae of midbody parapodium (form A); G. Pharynx and proventriculum (form A); H. Aciculum (form A). (Scales A-B, D-F, H: 20  $\mu$ m; C, G: 0.2 mm.)



Genus *Myrianida* Milne-Edwards, 1841

*Myrianida pinnigera* (Montagu, 1808)

Material examined: C/4 (1); G/3 (1); I/1 (1).

Genus *Proceraea* Ehlers, 1864

*Proceraea aurantiaca* Claparède, 1868

Material examined: A/2 (2); B/1 (2); B/A (1); C/2 (3); F/1 (6); F/A (1); J/2 (1); K/2 (1); L/B (1); L/C (1); N/1 (7); X/A (2).

*Proceraea picta* Ehlers, 1864

Material examined: A/2 (2); F/1 (12); F/2 (2); F/A (1); G/3 (2); G/A (3); G/B (2); J/1 (1); N/1 (2); N/B (2); X/A (6).

Genus *Umbellisyllis* Sars, 1869

*Umbellisyllis clavata* (Langerhans, 1879)

Material examined: A/1 (4); A/2 (4); C/1 (5); C/2 (2); C/3 (3); F/1 (10); F/2 (3); G/A (1); G/1 (2); K/1 (1).

## Discussion

Most polychaete species recorded in this work were collected in substrata on which their presence is well known from previous papers: photophilic and sciophilous algae (SARDÀ, 1991; ABBIATI et al., 1992), calcareous algae (MARTÍN, 1987a, 1987b; SAN MARTÍN & AGUIRRE, 1991), *Posidonia oceanica* meadows (COLOGNOLA, et al. 1984; SAN MARTÍN & VIÉITEZ, 1984; GIANGRANDE, 1985; SAN MARTÍN et al., 1990). CAMPOY (1982) and ALÓS (1988) gave complete compilations of substrata where many of these species were recorded. On the contrary, some others species were found for the first time on some substrata that have

been less studied in the past, among them, animal substrata. Thus, some polychaete species are cited for the first time as epibionthic on some gorgoniceans such as *Paramuricea clavata* (*Ehlersia ferrugina*, *Odontosyllis ctenostoma*, *Pionosyllis lamelligera*, *Brania pusilla*, *Exogone naidina*, *E. verugera*, *Grubeosyllis limbata*, *G. clavata*, *Sphaerosyllis hystrix*, *S. pirifera*, *Autolytus quindecimdentatus*, *Proceraea picta*), *Eunicella verrucosa* (*Pionosyllis lamelligera*, *Sphaerosyllis hystrix*, *S. pirifera*, *Autolytus edwardsi*), or *Ellisella paraplexauroides* (*Pionosyllis lamelligera*, *P. pulligera*, *Exogone naidina*, *E. verugera*, *Grubeosyllis limbata*, *G. clavata*, *G. vieitezi*, *Parapionosyllis brevicirra*, *Sphaerosyllis pirifera*, *Autolytus quindecimdentatus*). Another poorly known animal substratum is the hidroids facies, where *Eusyllis lamelligera*, *Odontosyllis gibba*, *Syllides fulvus*, *Exogone verugera*, *Sphaerosyllis austriaca*, *S. campoyi*, *S. taylori*, *S. xarifae*, *Proceraea aurantiaca*, *P. picta*, and *Umbellisyllis clavata* are recorded for the first time.

For biogeographical study, the division in groups stated for syllids by SAN MARTÍN (1984) was followed. In most cases, the species belonging to Eusyllinae, Exogoninae, and Autolytinae found at Chafarinas Islands are those of Atlantic-Mediterranean distribution (52.1% of the species number), of which, only *Exogone rostrata* can be considered as endemic in the Mediterranean. The second group in importance are cosmopolitan or widely distributed species (29.1% of the species number). In despite of this, as they are a very abundant species, in number of specimens, this is the most important group (60.7% of specimens versus 38.4% of Atlantic-Mediterranean specimens). Only a few species (*Amblyosyllis dorsigera*, *A. madeirensis*, *Brania arminii*, *Sphaerosyllis belizensis*, and *S. xarifae*) are typical in warm or tropical seas, showing a

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*Grubeosyllis vieitezi* (San Martín, 1984): A. Sedas compuestas del parápodo anterior (forma típica); B. Sedas compuestas del parápodo intermedio (forma típica); C. Faringe y proventriculo (forma típica); D. Acícula (forma típica); E. Sedas compuestas del parápodo anterior (forma A); F. Sedas compuestas del parápodo intermedio (forma A); G. Faringe y proventriculo (forma A); H. Acícula (forma A). (Escala A-B, D-F, H: 20 µm; C, G: 0,2 mm.)

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slight influence of faunae from this kind of waters in polychaete fauna from Chafarinas. Some species (*Exogone gambiae*, *Autolytus sardai*) are recorded for the first time since their original description; their known distribution is therefore enlarged although they remain as Mediterranean endemisms.

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### Resumen

*Eusyllinae, Exogoninae y Autolytinae (Syllidae, Annelida, Polychaeta) de las Islas Chafarinas (Mar de Alborán, Mediterráneo occidental)*

Recientemente fue realizado un estudio sobre las comunidades de invertebrados bentónicos de las Islas Chafarinas, prestándose especial atención a determinados grupos, entre los que se encontraban los poliquetos. En este trabajo se ofrecen los resultados referidos a las subfamilias Eusyllinae, Exogoninae y Autolytinae (Syllidae, Annelida, Polychaeta), citándose 48 especies de las cuales una, *Amblyosyllis inmatura* Langerhans, 1879 (fig. 1), se cita por primera vez para la fauna del Mar Mediterráneo, siendo comparado con las especies del género previamente conocidas en dicho mar. Se describen algunas variaciones sobre la forma típica de dos especies del género *Grubeosyllis* Verrill, 1900: *G. clavata* (Claparède, 1863) (fig. 2) y *G. vieitezi* (San Martín, 1984) (fig. 3). Se encontraron ejemplares de *Pionosyllis serratisetosa* (Eusyllinae) y de *Autolytus longoprimitus* (Autolytinae); sus descripciones se han realizado recientemente (LÓPEZ et al., 1997).

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