



## Polychaetes associated to calcareous sediments, Venezuela: Phyllodocida

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**Abstract.** In this study we examined a total of 122 polychaetes collected from calcareous sediments at The National Park Archipelago Los Roques, Venezuela. The samples were taken from seven reef stations, twice a year, between 2009 and 2012. We identified nine species, belonging to six families of the clade Phyllodocida: 1 species of Sigalionidae, Chrysopetalidae, Pisionidae = Sigalionidae, Phyllodocidae, Hesionidae and Glyceridae (respectively), and 3 species of Syllidae. The species *Sthenelais setosa*, *Pisione wolffi*, *Glycera sphyrabrancha* and *Heteropodarke formalis* are new records for Venezuela. These results increase the knowledge about marine biodiversity from the continental shelf in Venezuela and the south Caribbean.

**Key words:** Aciculata, biodiversity, benthos, annelids, Polychaeta

**Resumen: Poliquetos asociados a sedimentos calcáreos, Venezuela: Phyllodocida.** En este estudio se examinó un total de 122 poliquetos obtenidos en sedimentos calcáreos en el Parque Nacional Archipiélago Los Roques, Venezuela. Las muestras fueron tomadas en siete arrecifes, dos veces al año, entre el 2009 y 2012. Se identificaron nueve especies, pertenecientes a seis familias del clado Phyllodocida: 1 especie de Sigalionidae, Chrysopetalidae, Pisionidae = Sigalionidae, Phyllodocidae, Hesionidae and Glyceridae (respectivamente), y 3 especies de Syllidae. Las especies *Sthenelais setosa*, *Pisione wolffi*, *Glycera sphyrabrancha* y *Heteropodarke formalis* son nuevos registros para Venezuela. Estos resultados incrementan el conocimiento sobre la biodiversidad marina en la plataforma continental Venezolana, y en el Caribe sur.

**Palabras clave:** Aciculata, biodiversidad, bentos, anélidos, Polychaeta

### Introduction

The clade Phyllodocida (Annelida: Polychaeta) is one of the orders, along with Amphinomida and Eunicida, with a high number of

species, recording 2800 species from 22 families (Rouse & Pleijel, 2001). This clade is considered as a monophyletic group based on the presence of ventral sensory palps, anterior segmental cirri,

muscular axial proboscis, chaetae composed of simple ligaments and also loss of dorsolateral folds (Fauchald & Rouse, 1997; Parry *et al.*, 2014; Weigert *et al.*, 2014). The Phyllodocida are characterized by at least one pair of antennae, one or two pairs of jaws and an eversible hypertrophied pharynx. This group presents a wide variety of trophic strategies, including endoparasitic species (Myzostomidae) (Rouse & Pleijel, 2001).

In Venezuela, Phyllodocida is one of the most notorious groups from a taxonomic point of view, with 200 species identified up to date, representing nearly 50% of the total polychaete fauna recorded for the country. All these species are contained in 80 genera and 16 families (Liñero-Arana & Reyes-Vásquez, 1979; Liñero-Arana, 1988; 1991; 1993; San Martín & Bone, 2001; Díaz-Díaz & Liñero-Arana, 2000; 2002; Vanegas-Espinoza *et al.*, 2007; Díaz-Díaz *et al.*, 2009; Liñero-Arana & Díaz-Díaz, 2007; 2011a; 2011b; Liñero-Arana *et al.*, 2010; Balza *et al.*, 2013; Díaz-Díaz *et al.*, 2013a; 2013b). Most of these studies have been conducted at the northeast coastal region; while the insular region has only shown vague reports mentioned in a few studies, such as Hartman (1944), Díaz-Díaz *et al.* (2009), Fernández *et al.* (2012) and Díaz-Díaz *et al.* (2013b).

This study aims to describe the polychaete biodiversity of the clade Phyllodocida associated to calcareous sediments at the National Park Archipelago Los Roques (NPALR), in order to enhance the biodiversity knowledge of this important group from the continental shelf in Venezuela and the South Caribbean.

### Materials and Methods

The National Park Archipelago Los Roques (NPALR) is located in the Caribbean Sea (11° 58' 36" - 11° 44' 26" N and 66° 57' 26" - 66° 36' 25" W)(Fig.1), 130 km off-shore from the Venezuelan coast. The surveys were conducted between 2009 and 2012, in two periods in each year (February-March and August-September), in shallow waters (0.5 to 2 m deep) from seven reef stations with calcareous sediments: Gran Roque (11° 56' 36" N - 66° 40' 32" W), Madrisquí (11° 57'

20" N - 66° 38' 40" W), Boca del Medio (11° 52' 35" N - 66° 37' 13" W), Rabusquí (11° 51' 53" N - 66° 41' 28" W), Boca de Sebastopol (11° 56' 45" N - 66° 35' 09" W), Cayo de Agua (11° 49' 28" N - 66° 56' 13") y Dos Mosquises Sur (11° 48' 01" N - 66° 53' 19" W) (Fig. 1). Five sediment samples were taken with a PVC corer pushed side-wise in the sediments (0.01 m<sup>2</sup>) at each station, being bagged and fixed with formalin solution (10%) and preserved in Ethanol at 70%. The collected material was analyzed using the technique described by Díaz-Díaz *et al.* (2014); while the schemes and drawings were done using the methodology described by Coleman (2006). The schemes presented in this study only correspond to new records for the country. All the specimens are currently placed at the reference collection of Laboratorio de Bentos Marinos (LBM) from the Universidad Simón Bolívar. In each case, the number of specimens is reported in parentheses after the station reference, which is represented by the acronym of each station followed by the period and year of collection (DMS-2-2009 = Dos Mosquises, 2<sup>nd</sup> period, year). The acronyms for each station are described as: GR= Gran Roque, MQ=Madrisquí, BM=Boca del Medio, RQ=Rabusquí, SB=Boca de Sebastopol, CA= Cayo de Agua y DMS=Dos Mosquises Sur. In the present study, the species organization was conducted following the Rouse & Fauchald (1997) proposition.

### Results

A total of 122 specimens were examined, belonging to nine species and six families from clade Phyllodocida (Table 1). Four of them represent new records for Venezuela. These results increase the actual knowledge about marine biodiversity at the continental shelf of the country.

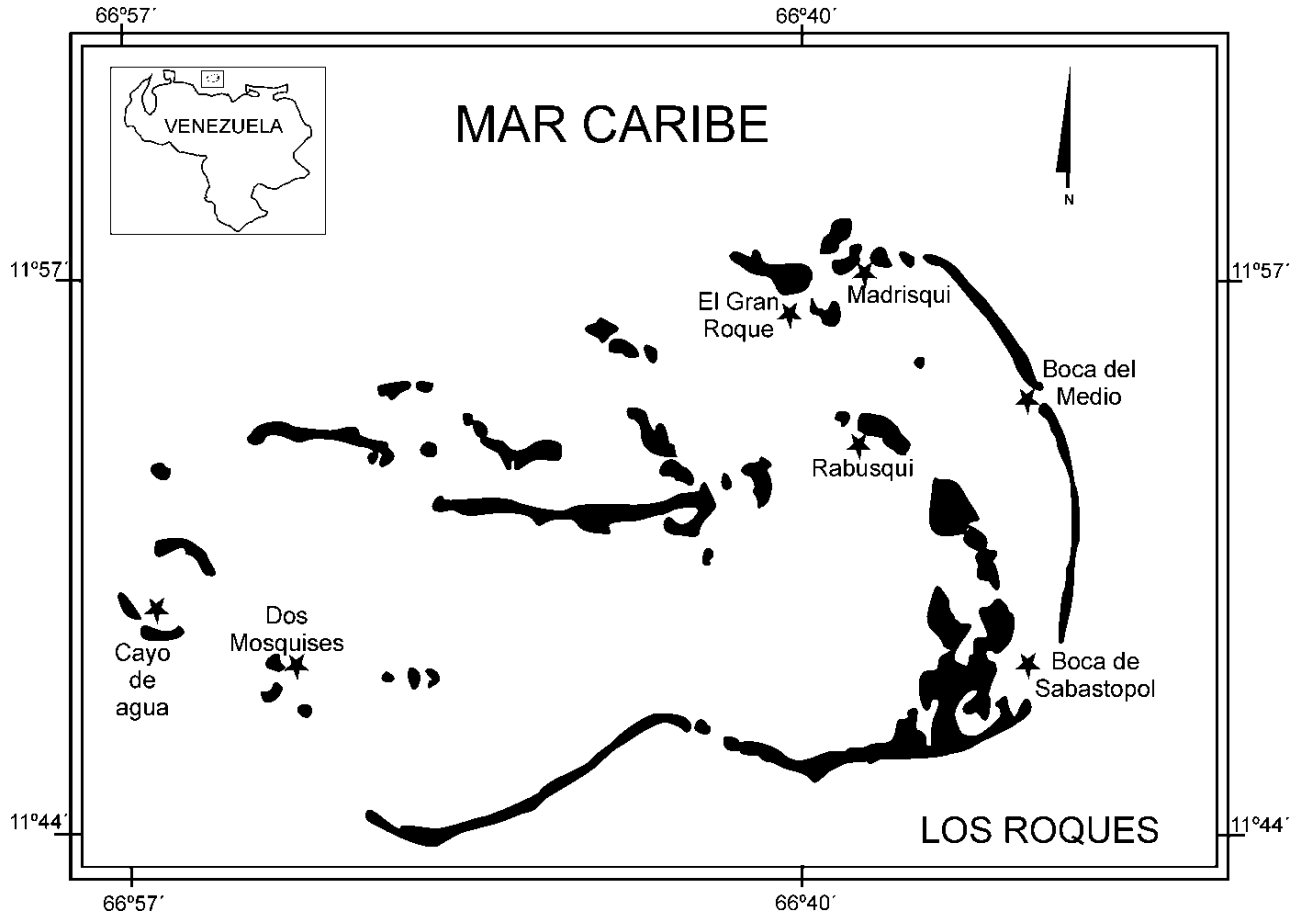
Family Sigalionidae Kinberg 1856

Genus *Sthenelais* Kinberg 1855

*Sthenelais setosa* Bush in Verrill 1900

Figure 2a-h

*Sthenelais setosa* Bush in Verrill, 1900: 666-668; Salazar-Silva & Salazar-Vallejo, 2009: 578.



**Figure 1.** Map of National Park Archipelago Los Roques, indicating the location of the sampled stations (black stars).

**Table I.-** List of species of Phyllodocida reported in this study

Family	Species
Sigalionidae	<i>Sthenelais setosa</i> Bush in Verrill, 1900*
	<i>Pisione wolffi</i> San Martín, López & Núñez, 1999*.
Chrysopetalidae	<i>Chrysopetalum floridanum</i> Perkins, 1985
Phyllodocidae	<i>Anaitides (Phyllodoce) madeirensis</i> Langerhans, 1880
Hesionidae	<i>Heteropodarke formalis</i> Perkins, 1984*
Glyceridae	<i>Glycera sphyrabrancha</i> Schmarda, 1861*
Syllidae	<i>Syllis corallicola</i> Verrill, 1900
	<i>Syllis gerlachi</i> (Hartmann-Schröder, 1960)
	<i>Syllis riojai</i> (San Martín, 1990)

\* New record for Venezuela.

*Material examined.* Seventeen specimens. CA-1-2010 (1); DMS-1-2010 (1); RQ-1-2010 (1); BM-2-2011 (1); CA-2-2011 (1); DMS-2-2011 (1); GR-2-2011 (2); MQ-2-2011 (1); BM-1-2012 (1); CA-2-2012 (2); DMS-1-2012 (1); GR-2-2012 (3); MQ-2-2012 (1).

*Description.* The larger specimen (14 mm long and 2 mm wide complete) with 49 chaetigers. Prostomium wider than long, rounded, with a trilobed basal region (Fig. 2a), palps unarticulated. Peristomium limited to the oral margin. Dorsum covered by reniform elytra; microtubercles present in the anterior region and along the lateral edge, being divided in two types: rounded and teardrop-shaped (non-tubular). Biramous and digitiform parapodia (Fig. 2b). Anterior parapodia with long, simple and crenulated notochaetae; superior neurochaetae multiarticulate with up to 4 articulations and up to 17 rows of spines on the subdistal end of the shaft (Fig. 2c). Posterior parapodia with simple notochaetae, similar to those anterior chaetigers; three types of neurochaetae: superior simple with spiral serrations in the last third of the chaetae (Fig. 2d), multiarticulate and bidentate falcigers with up to 4 articulations and rows of spines on the subdistal end of the shaft (Fig. 2e, f), and bidentate falcigers in the lower part of fascicles (Fig. 2g). Aciculae with pilose distal edge, slightly projecting the parapodia lobe. Pygidium with two long, filiform anal cirri (Fig. 2h).

*Comments.* Only five species have been recorded for the Caribbean, but Salazar-Silva & Salazar-Vallejo (2009) considered three of these species as questionable, because of the region where they come from, indicate that the presence of *Sthenelais articulata* Kinberg, 1856, recorded for Rio de Janeiro (Brasil) and *S. maculata* Hartman 1939 (= *S. helenae* Kinberg 1856), recorded for Isla Independencia (Perú) and Islas Galápagos, should be reviewed. Therefore, both of them along with *S. boa* (Johnston, 1839), described for the North Sea, are considered as questionable for the region. Additionally, records of *S. boa* done by Day (1973) and Gardiner (1975) for Florida and North Carolina and Bone *et al.* (1983) for Venezuela are probably reference of *S. setosa*. The fourth species recorded as *Sthenelais* sp. A by Wolf

(1984a) for the Gulf of Mexico does not match with the diagnosis of the genus, therefore Wolf indicates "*the generic placement of Sthenelais sp. A is uncertain.*" However, establishing differences is important for both relatively closed species. *Sthenelais setosa* is different from *S. articulata* mainly because this last species presents articulate palps. For *S. boa*, Jirkov (2001) indicates that the elytra are kidney-shaped with a pronounced incision that is not observed in *S. setosa*, and the distribution pattern and microtubercle color in the elytra is different to those presented by Fauvel (1927), Day (1967), Hartmann-Schröder (1971), and Jirkov (2001). Another difference is observed in the bidentate falciger chaetae, which is thicker in those specimens examined in the present study. The species has been reported in shallow water with coral reefs (Verrill, 1990).

*Distribution.* Bermuda and Venezuela.

Genus *Pisione* Grube 1857

*Pisione wolfi* San Martín, López & Núñez 1999

Figure 2i-n

*Pisione* sp. A Wolf, 1984b; 7, Fig. 7/3-4.

*Pisione* sp. San Martín *et al.*, 1986: 10, Fig. 7.

*Pisione wolfi* San Martín *et al.*, 1999: 31-33, Fig. 1a-g.

*Material examined.* Three specimens: BM-1-2009 (1); CA-2-2009 (1); GR-1-2009 (1).

*Description.* Largest specimen with 50 chaetigers (6 mm long and 0.4 mm wide). Thin body, dorsal and ventral inconspicuous segments. Prostomium and peristomium fused; long and smooth palps; dorsal cirrus from the buccal segment elongated, smooth and shorter than the palps; short ventral cirrus. Two pairs of small eyes in the second chaetiger; two brain lobes with half moon shape. Cephalic aciculae ambered color, thick, smooth and distally expanded (Fig. 2i). Biramous parapodia, parapodial lobe elongated, with a rounded prechaetal lobe and a pair of aciculae per lobe, lower aciculae is longer than the superior (Fig. 2j-k). Dorsal cirrus from oval to globular, small, present in all the chaetigers, subdistally ciliated; ventral cirrus similar to the dorsals, except for the first chaetiger that is usually as long as the parapodial lobe (Fig. 2j). Chaetae formed by the following criteria: superior simple chaetae, obliquely truncated, with spines in the

distal edge (Fig. 2l); composite chaetae heterogomph with long blade and serrated edge (Fig. 2m); three composite chaetae heterogomph with short blades, distally unidentate and having spiny edges (Fig. 2n). Pygidium bilobed with two caudal glands under the anus and two short anal cirrus. Pharynx with two pairs of jaws, visible in the fourth chaetiger.

*Comments.* This species is easily recognized because the notoaciculae is not projected outside the lobe. San Martín *et al.* (1999) also indicate that another difference from this species compare to the rest is the presence of composite chaetae heterogomph with long and short blades, dorsal cirrus short in all the chaetigers and neuropodial prechaetal lobe not divided. This is a new record for Venezuela, extending the geographical range to the southern Caribbean. *P. wolfi* has been reported from shallow water to 35 m deep (San Martín *et al.*, 1999), associated with calcareous coarse sand.

*Distribution.* Gulf of Mexico, Cuba, and Venezuela.

#### Family Chrysopetalidae Ehlers 1864

Genus *Chrysopetalum* Ehlers 1864

*Chrysopetalum floridanum* Perkins 1985

*Chrysopetalum floridanum* Perkins, 1984: 886-890, Figs. 16-17, 18A-C; Mora-Vallín 2009: 127.

*Material examined.* One specimen: GR-2-2011 (1)

*Comments.* Díaz-Díaz *et al.* (2013a) indicate the differences between *C. floridanum* and the rest of the species reported for the region (*C. elegans* Bush, in Verrill 1900, *C. eurypalea* Perkins, 1984, *C. hernancortezae* Perkins 1984 and *C. heteropalea* Perkins 1984). *Chrysopetalum floridanum* has been reported from 1-30 m deep (Perkins, 1985), associated with calcareous coarse sand, coral rubble, *Phragmatopoma* reef, seagrass (*Syringodium* sp. and *Thalassia testudinum*) and attached algae (*Halimeda* sp.). The species was recorded in La Tortuga, being associated with calcareous algae *Halimeda opuntia* (Linnaeus) J.V. Lamouroux 1816, and also with coral substrate in Cabo San Román, Falcón, Venezuela (Díaz-Díaz *et al.*, 2013a).

*Distribution.* Great Caribbean (Florida, Bahamas and Venezuela).

#### Family Phyllodoceidae Williams 1851

*Phyllodoce (Anaitides) madeirensis* Langerhans 1880

*Phyllodoce (Anaitides) madeirensis* Fauvel, 1927: 150, Figs. d-h; Day, 1967: 145, Fig. 5.2.d-g; 1973: 23; Ushakov, 1972: 138, pl. 6, Figs. 7-8; Gardiner, 1975: 115, Figs. 7q, 8 a-c.

*Anaitides madeirensis* Gathof, 1984: 19-39/19-41, Figs. 19-13/19-34 a-e; Liñero-Arana, 1993: 20-22, Lám. 3Figs. 1-3 y Lám4, Figs. 1- 5.

*Material examined.* Three specimens: BM-1-2009 (1); MQ-2-2010 (1); RQ-2-2010 (1).

*Comments.* This species is widely distributed along the coast of Venezuela, recorded from Cojoro (Zulia) to the northeastern region of the country, being associated with a large variety of substrates: sandy bottoms, artificial substrates, seagrasses, macroalgae, and also as faunal epibionts of bivalve mollusks (Liñero-Arana, 1993; Díaz-Díaz & Liñero-Arana, 2002, Vanegas-Espinosa, 2007). The species has been reported from intertidal to 53 m deep (Gathof, 1984), associated with coral reef, calcareous coarse sand, silt and clay, and algae.

*Distribution.* Gulf of Mexico; Port Spain (Trinidad) (Gobin, 1990), Venezuela.

#### Family Hesionidae Grube 1850

Genus *Heteropodarke* Hartmann-Schröder 1962

*Heteropodarke formalis* Perkins 1984

Figure 2o-s

*Heteropodarke formalis* Perkins, 1984: 569-572, Fig. 7A-I; Pleijel, 1999: 771-775, Figs. 6-7; Salazar-Vallejo & Rizzo, 2009: 273, Fig. 2A.

*Material examined.* Eight specimens: RQ-2-2009 (1); SB-1-2009 (3); GR-2-2001 (1); SB-2-2011 (1); MQ-2-2012 (2).

*Description.* Largest specimen (10 mm long and 0,8 mm wide) with 69 chaetigers. Bilobed prostomium, slightly wider than long; antennae and palps subulated, not articulated; lateral antennae inserted close to the anterolateral edge of the prostomium; the middle antennae shorter than the lateral ones (close to half of the length of these), inserted in the anterior edge of the prostomium; palps inserted on short palpophores, in ventrolateral position respect to the lateral antennae. Two pairs of small and lenticular eyes, usually having a trapezoidal

arrangement (Fig. 2o). Six pairs of tentacular cirri articulated (13 articles) in the first three segments, inserted on short cirrophores. First segment not dorsally visible, second and third segments differentiated from each other. A pair of ciliated bands dorsally arranged over each segment. Sub-biramous parapodia, dorsal and ventral cirri articulated with 10-15 and 5 articulations, respectively. Prechaetal lobe papiliform and postchaetal lobe rounded (Fig. 2p). Chaetae composite falciger heterogomph, present in anterior segments with wide blades (Fig. 2q), slightly shorter than the rest, but having bifurcate distal edge (Fig. 2q'); the middle and posterior chaetae with serrated edge and lacking bifurcate distal edge (Fig. 2r), one or two spiny chaetae with serrated blade (Fig. 2s); thin notoaciculæ, and neuroaciculæ with anterior edge rounded. Pygidium with a pair of anal cirri with 4-5 articulations.

*Comments.* *Heteropodarke formalis* is very close to *H. heteromorpha* Hartmann-Schröder, 1962 (from Peru, New Caledonia and California), *H. heteromorpha africana* Hartmann-Schröder, 1974 (from Natal) and *H. lyonsi* Perkins, 1984 (from North Carolina, East of Florida and Gulf of Mexico); but differs by having six pairs of tentacular cirri and not a variable number of them (up to eight in *H. heteromorpha africana* and up to six in the other two species referred). Additionally, *H. formalis* has lenticulated eyes, slightly thick falciger chaetae in some anterior segments and spiny chaetae present along the parapodium. In posterior segments, spinigers notochaetae and neurochaetae are present and hooked notoaciculæ are absent. Neuroaciculæ morphology is another difference between the two *Heteropodarke* species from Caribbean: in *H. lyonsi* it has a constriction in the subdistal end and a knobbed distal end, whereas in *H. formalis* the distal end of neuroaciculæ is blunt. On the other hand, Pleijel (1999) made a revision of the genus and defined the names of the taxa by apomorphy-based phylogenetic definitions, without reference to types or to Linnean ranks, recognizing three *Heteropodarke* for the Great Caribbean: "*Zmyrina*" (informal name from Belize), with posterior neuropodial capillaries and possibly a furcate notochaeta; "*Formalis*" with capillary notochaetae and without a distinctly prolonged dorsal cirri on segment 2; and "*Lyonsi*" with spinigers in median and posterior neuropodia.

*Heteropodarke formalis* has been reported from shallow water to 41 m deep (Perkins, 1984), associated with calcareous coarse sand. This is a new record for Venezuela.

*Distribution.* Recorded in Caribbean region, including Venezuela.

Family Glyceridae Grube 1850

Genus *Glycera* Savigny 1818

*Glycera sphyrabrancha* Schmarda 1861

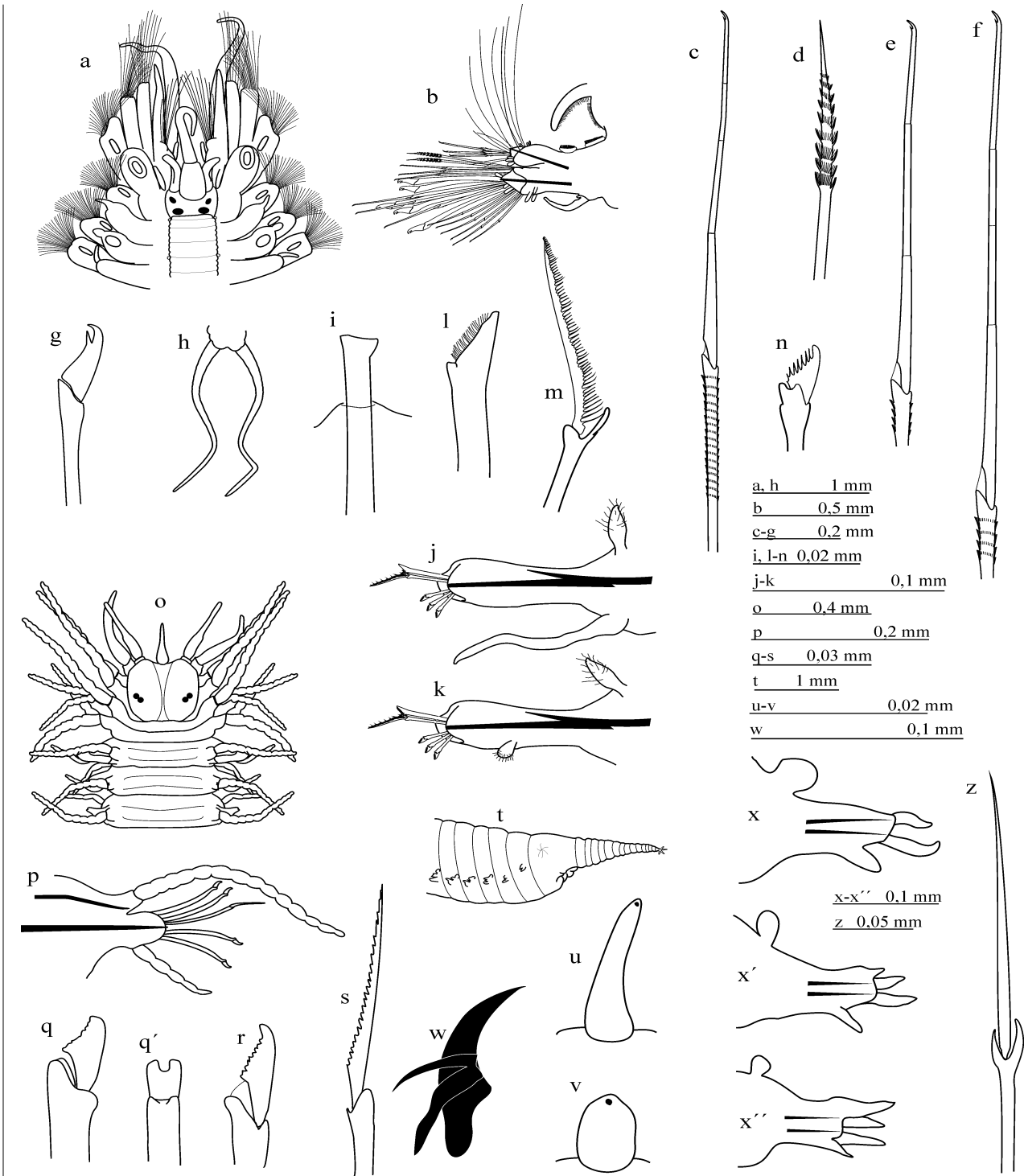
Figure 2t-x

*Glycera sphyrabrancha* Schmarda, 1861: Lam. XXX Fig. 240; Augener, 1925:29, Fig. 1; Gardiner, 1975:162, Fig. 18b-g; Boggemann, 2002: 42 Fig. 28-30.

*Glycera asymmetrica*. Day, 1973: 47, Fig. 6d-g.

*Material examined.* Forty eight specimens. BM-2-2009 (1); CA-2-2009 (4); DMS-2-2009 (3); CA-1-2010 (3); CA-2-2010 (1); DMS-1-2010 (4); DMS-2-2010 (2); SB-1-2010 (1); CA-2-2011 (4); DMS-2-2011 (9); GR-2-2011 (1); MQ-2-2011 (3); RQ-2-2011 (3); CA-1-2012 (1); CA-2-2012 (1); DMS-2-2012 (2); GR-1-2012 (1); GR-2-2012 (3); MQ-2-2012 (1).

*Description.* Largest specimen complete (26 mm long and 1.5 mm wide) with 103 segments biannulated. Conical prostomium with 15 annulations, two antennae and two palps with the same length, inserted into the distal end. Eyes absent (Fig. 2t). Proboscis covered by numerous papillae from two types, digitiform without ridges (most) (Fig. 2u) and shorter and broader, oval to globular ones (Fig. 2v). Aileron deeply incised base, with unequal projections (Fig. 2w); external projection long and thin, with a narrow base and internal edges slightly swollen; internal projection conical with a wide base, shorter than the external ones (close to half or two thirds of the length thereof). Parapodium 1-2 rudimentary, the following biramous (Figs. 2x-x'). Long and thin prechaetal lobe (superior and inferior); short and rounded postchaetal lobe slightly bilobed. Dorsal cirri with digitiform shape and having a basal constriction; elongated ventral cirri, conical, being extended beyond the postchaetal lobe. Branchiae non-retractile, digitiform, simple, dorsally located over the parapodium, starting between chaetigers 29 and 30. Notochaetae simple capillary. Neurochaetae heterogomph spinigers.



**Figure 2.**-a-h) *Sthenelais setosa*. a) anterior end in dorsal view, b) middle parapodia in posterior view, c) multiarticulate neurochaeta from anterior chaetigers, d) Simple neurochaeta with spiral serrations, e-f) multiarticulated falciger neurochaetae, g) bidentate falciger neurochaeta, h) pygidium in dorsal view; *Pisione wolfi*. i) cephalic aciculae, j) first chaetiger, k) chaetiger 10, l) Simple superior chaeta, m) heterogomph composite chaeta with long blade, n) unidentate composite chaeta; o-s) *Heteropodarke formalis*. Legend continued next page

**Figure 2 continued.** o) anterior end in dorsal view, p) middle parapodia, q) anterior falciger chaeta, q') detail the distal end of the shaft, r) falciger chaeta from middle and posterior chaetigers, s) spiniger chaeta; t-x) *Glycera sphyrabrancha*. t) anterior end in lateral view, u-v) digitiform and globular proboscids papilae, w) mandibular jaw including the aileron, x) anterior parapodia, x') medium parapodia, x'') posterior parapodia.

*Comments.* Gardiner (1975) examined specimens of *Glycera sphyrabrancha* Schmarda, 1861 and *G. asymmetrica* Day, 1973, finding that the difference reported by Day (1973), and used by this author to separate them, is not enough, also considering *G. asymmetrica* synonym of *G. sphyrabrancha*. This is a new record for the country, extending the geographic range to the south Caribbean. Previous records indicate 15-20 m depth in coarse sand.

*Distribution:* North Carolina, West Indies, Gulf of México, Venezuela. Mainly in tropical seas.

Family Syllidae Grube 1850

Genus *Syllis* Savigny 1818

*Syllis corallicola* Verrill 1900

*Syllis* (*Typosyllis*) *corallicola* Verrill, 1900:603.

*Typosyllis corallicola* Hartman, 1942, Figs. 68-75; Jones, 1962:180, Figs. 28-40.

*Syllis corallicola* San Martín 1992: 185-186, Fig. 1A-D; San Martín y Bone, 2001: 616

*Material examined.* Six specimens: BM-2-2009 (1); GR-2-2009 (2); SBA-1-2009 (3)

*Comments.* Species with a wide distribution in the Great Caribbean region, from Florida to the south coast of the Caribbean. The description of these specimens are consistent with the descriptions and schemes done by Jones (1962), who provides figures of *S. corallicola*, that was not previously reported in the original description (Verrill, 1900) and neither in the review done by Hartman (1942). This species was recorded for the west central coast associated with seagrass *Thalassia testudinum* (San Martín & Bone, 2001). Wide ecological distribution, from the intertidal to 30 m depth, associated with algae, corals, sponges, hydroids, etc., and coarse sand.

*Distribution.* Mediterranean and Iberian Peninsula, Bermudas, Netherlands, Cuba, and Venezuela.

*Syllis gerlachi* (Hartmann-Schröder 1960)

*Typosyllis gerlachi* Hartmann-Schröder, 1960: 81  
*Syllis gerlachi* San Martín, 1992: 174; 2003: 376-378, Fig. 205-206; Góngora-Garza, 2009: 626. Uebelacker. 1984: 145-148 Fig. 30-142a-g; Ríos *et al.*, 2014: 235-240

*Material examined.* Thirty five specimens. BM-1-2009 (3); BM-2-2010 (2); CA-2-2010 (1); DMS-1-2010 (4); GR-2-2010 (3); MQ-1-2010 (1); RQ-2-2010 (2); RQ-1-2010 (1); SB-2-2010 (1); BM-2-2011 (3); CA-2-2011 (1); GR-2-2011 (3); RQ-2-2011 (3); SB-2-2011 (2); CA-1-2012 (1); DMS-2- 2011 (1); RQ-2-2011 (1); SB-2-2011 (1); BM-1-2012 (1).

*Comments.* The species has been recorded for the Gulf of Mexico (Uebelacker, 1984), having a wide distribution. In Venezuela, the species was reported by Ríos *et al.* (2014) associated with the sponge *Tedania ignis* (Duchassaing & Michelotti, 1864) at the lagoon La Restinga. *Syllis gerlachi* has been recorded associated with different types of substrates or as symbionts of other organisms (corals, molusks, sponges, etc) live from the intertidal to 20m depth.

*Distribution.* Red Sea, Mediterranean, Portugal, Iberian Peninsula, Florida, Gulf of Mexico, Cuba, and Venezuela.

*Syllis riojai* (San Martín 1990)

*Pionosyllis riojai* San Martín 1990: 595-598, Figs. 4-5.

*Typosyllis riojai* Licher 1999: 178-179.

*Syllis riojai* San Martín & Bone 2001: 615.

*Material examined.* Three specimens. BM-1-2009 (1); SB-1-2009 (1); BM-2-2010 (1).

*Comments.* The description for the specimens is consistent with the description provided by San Martín (1990); this species is once again recorded for Venezuela, inhabits coarse calcareous sand, up to 35 m deep (San Martín & Bone, 2001).

*Distribution.* Cuba, Venezuela.

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Received January 2015

Accepted May 2015

Published on-line August 2015