

NOTES ON SOME PILARGID POLYCHAETES (ANNELIDA) FROM VENEZUELA

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ABSTRACT: This paper describes three species of *Sigambra* Müller (*S. grubii* Hartman, 1947; *S. tentaculata* Treadwell, 1941; and *S. wassi* Pettibone, 1966) based on a study of polychaetes collected from the continental shelf and coastal lagoons of eastern Venezuela between 1985 and 1999. A key to their identification is included.

Key words: Benthos, Annelida, Polychaeta, Pilargidae, Venezuela

RESUMEN: En base a estudios sobre poliquetos colectados entre 1985 y 1999 en la plataforma continental y en algunas lagunas costeras del este de Venezuela, se presentan las descripciones y figuras de tres especies del género *Sigambra* (*S. bassi* Hartman, 1947; *S. tentaculata* Treadwell, 1941 y *S. wasi* Pettibone, 1966). Se incluye una clave para la identificación de las especies analizadas en este estudio.

Palabras claves: Bentos, Annelida, Polychaeta, Pilargidae, Venezuela

INTRODUCTION

In Venezuela, apparently no study has been undertaken so far on Pilargidae. Members of this family are scarcely present in benthic collections (HARTMAN, 1947; FAUCHALD, 1977; SALAZAR-VALLEJO & ORENSANZ, 1991). HARTMAN (1947), while reviewing the status of this small and unusual group composed of a few aberrant genera, pointed out the disagreements existing among polychaete researchers. Pettibone (1966) in her revision also stressed this point and restored the use of three genera (*Sigambra* Müller, 1858, *Cabira* Webster, 1879 and *Synelmis* Chamberlin, 1919) considered questionable and retained seven genera and 32 species. For *Sigambra*, she referred eight species, which were placed earlier in *Ancistrostylis*. However, FAUCHALD (1977) recognized ten genera and 48 species, with *Sigambra* containing eleven species. More recently, SALAZAR-VALLEJO (1987) proposed the division of pilargids into two subfamilies: Synelminae and Pilarginae. In this paper detailed descriptions and figures on three Venezuelan taxa of *Sigambra* are presented. Specimens were collected from several localities in the continental shelf and shallow coastal lagoons of northeastern coast of Venezuela. In general, specimens were scarce in the continental shelf, but relatively abundant in the lagoons.

MATERIALS AND METHODS

Samplings were made with a core sampler 15 cm in diameter in soft bottom sediments less than 2 m depth from the coastal lagoons of Chacopata (10° 39' 50" Lat. N, 63° 48' 30" Long. W), Píritu (10° 03' 42" Lat. N, 65° 10' 24" Long. W), Unare (10° 05' 02" Lat. N, 65° 17' 58" Long. W), El Maguay (10° 13' 05" Lat. N, 64° 38' 20" Long. W) and with a Petersen dredge at 22 m depth in the west shelf of Barcelona (10° 06' 50" Lat. N, 64° 51' 20" Long. W).

The specimens were fixed in 10% seawater formalin during at least 24 hours and, later on, preserved in 70% ethanol. Microscope slides of parapodia of specimens were prepared in glycerin. Drawings were made using a camera-lucida drawing tube attached to a compound microscope. Measurements were made using an ocular micrometer. The specimens are deposited in the Laboratory of Benthos of the Instituto Oceanográfico de Venezuela.

RESULTS

Family PILARGIDAE

Sigambra MÜLLER, 1858

Sigambra grubii MÜLLER, 1858

(Fig. 1A-H)

Sigambra grubii.-PETTIBONE, 1966: 182, fig. 13a-c.- Gobin, 1990: 40.- SALAZAR-VALLEJO, 1990: 508-511, fig. 1A-I.

Material examined. Chacopata Lagoon, muddy sediments, less than 2 m deep, numerous specimens. El Maguey Lagoon, muddy sediments, less than 1 m in depth, 10 specimens.

Description. Largest specimen 21 mm long and 2 mm broad, with about 135 setigers. Prostomium wide, two biarticulate palps with long, fissured palpophores in the anterior margin, forming a small distal languet, with short conical palpostyles; three occipital antennae, the median placed further behind, about two times as long as the lateral ones (Fig. 1A). Tentacular segment with two pairs of long cirri, similar to median antenna; proboscis cylindrical with a circlet of 14 triangular papillae; first parapodium (Fig. 1B) with very long dorsal cirrus, three times longer than ventral cirrus; presetal margin of setal lobe short and truncated, postsetal margin triangular, ventral cirrus conical; second parapodium (Fig. 1C) with dorsal cirrus cirriform, without ventral cirrus; anterior parapodia (Fig. 1F) with long dorsal cirrus, about three times longer than ventral cirrus; notoaciculum distally curved; (Fig. 1G), ventral cirrus conical, about twice the postsetal margin of setal lobe; hooked, stout notosetae (Fig. 1H) present from setiger 13-16; setae of three types; smooth capillary, serrated (Fig. 1D) and pectiniform (Fig. 1E).

Distribution. Pacific coast of America (Central and Southern California); Atlantic coast of America (North Carolina, Florida, Gulf of Mexico); West Indies (Trinidad).

Remarks. *Sigambra grubii* resembles *S. bassi* (HARTMAN, 1945) in the number of proboscideal papillae, and in the length of the median antenna, which reaches the fourth setiger (3rd setiger on average). They differ in size, *S. grubii* barely surpasses 10 mm, though HARTMAN (1947) reported an immature specimen of 26 mm in length, *S. bassi* grows up to 40 mm (SALAZAR-VALLEJO, 1990).

Sigambra tentaculata (TREADWELL, 1941)

(Fig. 2A-K)

Sigambra tentaculata -TREADWELL, 1941: 1, figs. 1-3.- Pettibone, 1966: 182-186, figs. 14,15. Wolf, 1984: 29-8 to 29-10, fig. 29-6a-h.- Gobin, 1990: 40.- SALAZAR-VALLEJO & ORENSANZ, 1991: 275-277, figs. 3f, g.

Material examined. Chacopata Lagoon, in muddy sediments, less than 2 m in depth, numerous specimens; Píritu Lagoon in silt-clay sediments, less than 2 m depth, 12 specimens.

Description. The largest specimen 20 mm long and 2 mm wide, with about 110 setigers; body cylindrical anteriorly, flattened in median and posterior regions. Prostomium wide, with two biarticulate palps with large palpophores and small and conical palpostyles. Three antennae placed in the posterior region of prostomium, the median is the longest, about twice as long as the lateral ones and placed slightly behind the laterals (Fig. 2A). Tentacular segment with two pairs of cirri. Proboscis cylindrical and short, with 14 papillae on the anterior margin. First parapodium with very long dorsal cirrus, about four times longer than the ventral ones (Fig. 2B). Second parapodium with dorsal cirrus cirriform, about twice as long as the setal lobes; without ventral cirrus (Fig. 2C). Parapodia of anterior and median region with

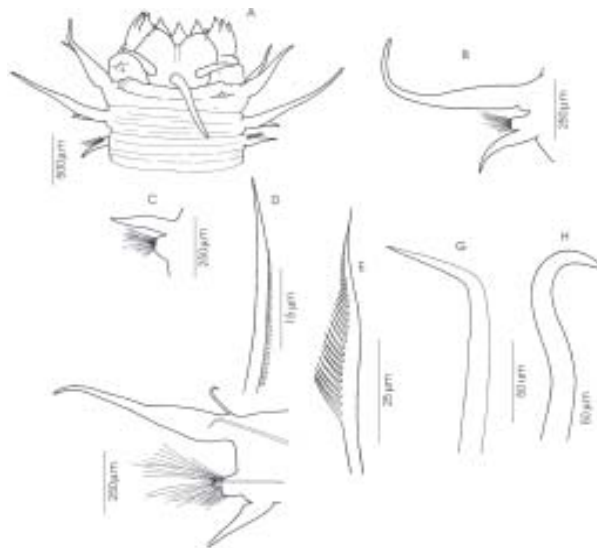


Fig. 1.- *Sigambra grubii*: A, dorsal view of anterior end with proboscis extended; B, first parapodium, anterior view; C, second parapodium, anterior view; D, serrated seta; E, pectiniform seta; F, parapodium from anterior region, anterior view; G, neuroaciculum; H, hooked notoseta.

conical dorsal cirri, hooked notoseta emerging from the dorsal basal region of parapodia, present from setiger 4; neuropodia with presetal margin of setal lobe truncated, postsetal margin triangular (Figs. 2F, G). Posterior parapodia (Fig. 2H) with a gently emergent seta in addition to hooked stout notoseta, and some papillae on dorsal surface (Fig. 2I). Neurosetae of three types: smooth and capillary, spinous (Fig. 2D) and pectiniform (Fig. 2E). Pygidium with a pair of long cirri (Fig. 2J).

Distribution. South Africa; Black Sea; Red Sea; Pacific coast of America (Southern California); Atlantic coast of America (New England to Argentina).

Remarks. This species is characterized mainly by the presence of the notopodial, stout, hooked setae from setiger 4. Nevertheless, WOLF (1984) pointed out that in smaller specimens, they begin on setiger 5-6.

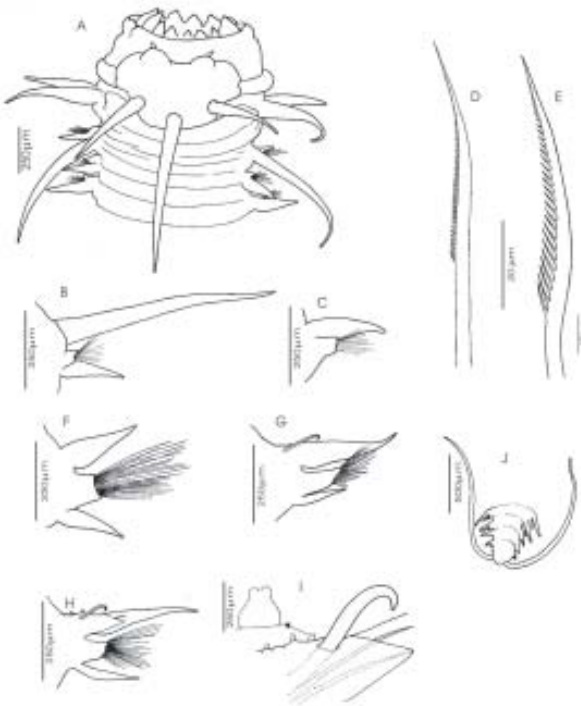


Fig. 2.- *Sigambra tentaculata*: A, dorsal view of anterior end with proboscis extended; B, first parapodium, posterior view; C, second parapodium, anterior view; D, serrulated seta; E, pectiniform seta; F, parapodium from third setiger, anterior view; G, parapodium from middle region, posterior view; H, parapodium from posterior region, posterior view; I, detail of notopodial lobe of posterior parapodium with disposition of notosetae and papillae; J, dorsal posterior end view.

Sigambra wassi PETTIBONE, 1966

(Fig. 3A-I)

Sigambra wassi PETTIBONE, 1966: 186-190, figs. 17,18.- Wolf, 1984: 29-8, figs. 29-4a-j.

Material examined. West of Barcelona, in sandy clay substratum at 22 m depth.

Description. Two anterior fragments, the longest having about 90 setigers, is 33 mm long and 5 mm wide, including the setae. Body with dorsal surface striated in the first 10-12 segments, and reticulated posteriorly. Prostomium with a pair of biarticulate palps, each palpophore is partially notched at the anterior margin, forming a small tongue with the palpostyle placed at its end. Three relatively short digitiform antennae, the median, two times longer than the laterals. Proboscis short, cylindrical, with distal circlet of 8 triangular papillae and

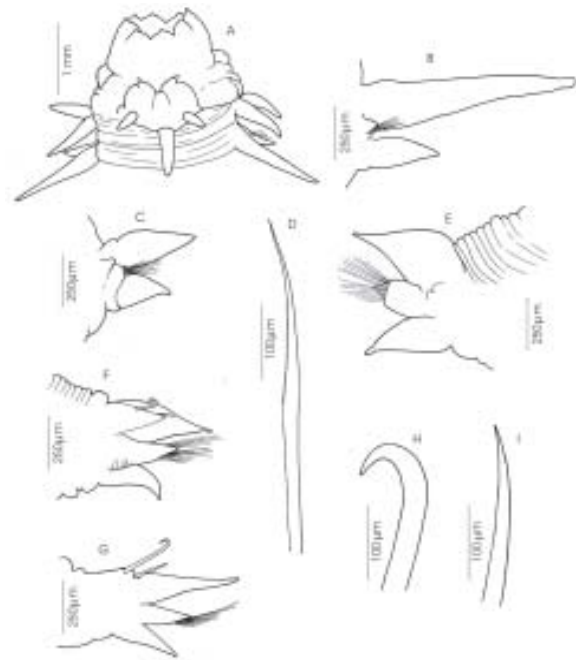


Fig. 3.- *Sigambra wassi*: A, dorsal view of anterior end with proboscis extended; B, first parapodium, posterior view; C, second parapodium, posterior view; D, serrulated seta; E, parapodium from anterior region, anterior view; F, parapodium from middle region, posterior view; G, parapodium from posterior region, posterior view; H, hooked notoseta; I, protruding notoseta.

proximal region irregularly papillated (Fig. 3A). Tentacular segment achaetous, with dorsal cirri slightly longer than ventral cirri. First parapodium with long conical dorsal cirrus, about two and a half times longer than ventral cirrus; setal lobes short and triangular (Fig. 3B). Setae smooth and capillary. Second parapodium with dorsal cirrus subulate, notopodial lobe short, neuropodial lobe short and large, ventral cirrus shorter than the dorsal (Fig. 3C). Anterior parapodia with dorsal cirrus large at the basis and tapered distally, presetal margin of setal lobe truncated, postsetal margin triangular; ventral cirrus conical (Fig. 3E). Setae of two types: smooth capillary and serrated (Fig. 3D). Stout, emergent, hooked notoseta (Fig. 3H) from setiger 26-28. In median and posterior parapodia (Figs. 3F, G) cirri and setal lobes are more elongated, the notopodial lobe is triangular, with a gently protruding curved seta (Fig. 3I), in addition to the stout hooked setae.

Distribution. Atlantic coast of America (Virginia; Gulf of Mexico).

Remarks. Pettibone (1966) described: "...proboscis cylindrical, with indefinite papillae around opening"... In the Venezuelan specimens, eighth triangular distal papillae could be easily observed. In one paratype, Wolf (1984) pointed out the presence of lateral intersegmental pores. These, however, was not observed in the Venezuelan specimens. This species differs from *S. bassi* and *S. tentaculata* mainly by the number of proboscis papillae and by the presence of ventral cirri in the second setiger.

Based on the author's observations, the following key is suggested for the three Venezuelan taxa of *Sigambra*.

- 1a. Ventral cirri present on second setiger
.....*S. wassi*
- 1b. Ventral cirri absent on second setiger 2
- 2a. Stout hooked setae present from setiger 4
..... *S. tentaculata*
- 2b. Stout hooked setae present from setiger 13-16
..... *S. grubii*

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