



## Scientific Note

### First record of *Proceraea anopla* (Monro, 1933) (Syllidae: Autolytinae) from Venezuelan coast

OSCAR DÍAZ-DÍAZ<sup>1</sup> & BEATRÍZ RÍOS<sup>2</sup>

<sup>1</sup>Instituto Oceanográfico de Venezuela, Dpto. Biología Marina, Lab. de Biología de Poliquetos. \*E-mail: ofdiazd@gmail.com

<sup>2</sup>Universidad de Oriente, Escuela de Ciencias Aplicadas del Mar, Nueva Esparta.

**Abstract.** Syllidae is the best known family of polychaetes in Venezuela with 60 species recorded belonging to 15 genera. In this note, *Proceraea anopla* (Monro, 1933) is reported for the first time for both Venezuela and the southern sector of the Grand Caribbean region, increasing the knowledge of the biodiversity of the family for the region.

**Key words:** biodiversity, annelids, polychaetes, syllids worm, benthos

**Resumen. Primer registro de un *Proceraea anopla* (Monro, 1933) (Syllidae: Autolytinae) para las costas de Venezuela.** La familia Syllidae es una de las más conocidas en aguas venezolanas con 60 especies en 15 géneros. *Proceraea anopla* (Monro, 1933) es registrada por primera vez tanto para Venezuela como para el sector sur del Gran Caribe; incrementando el conocimiento de la biodiversidad de la familia para la región.

**Palabras clave:** biodiversidad, anélidos, poliquetos, sílidos, bentos

Syllidae is one of the most diverse families within the class Polychaeta, with over 70 genera and approximately 700 species recognized (Góngora-Garza 2009), of which a total of 39 genera and 131 species have been recorded from the Great Caribbean Region (Góngora-Garza 2009). For Mexico (Gulf of Mexico and Caribbean), Granados-Barba *et al.* (2003) recorded 45 species of syllids associated to soft and hard bottoms. For Trinidad and Tobago islands, Gobin (2010) recorded 30 syllid species associated with hard bottom substrates, the best family is represented in this study. In Venezuela is the best known family of polychaetes, although only four systematic studies have been carried out, San Martín & Bone (1999, 2001) and Liñero-Arana & Díaz-Díaz (2011). In these studies 60 species in 15 genera are recorded. In this paper, a new record of a syllid species is presented, based on specimens were collected in La Restinga lagoon, associated with the fire sponge *Tedania ignis* (Duchassaing & Michelotti, 1864).

La Restinga lagoon (Fig.1) is located in the middle of Margarita island. It has maximum length

of 15 km, maximum width of 5 km and area of 26 km<sup>2</sup>. The lagoon presents a well developed fringe of mangrove forests on the only entrance of seawater to the system of internal canals (Ramírez, 1996; Guerra-Castro *et al.*, 2011). Sampling was conducted between February and March 2013. Manually, *T. ignis* colonies were collected in six stations from the lagoon, and placed in plastic bags and transported to the laboratory in ice coolers and seawater. Polychaetes were separated carefully from the sponge, fixed in 10% formalin, and finally preserved in 75% ethanol. For identification of polychaetes, dissection and assemblage of structures with taxonomic value for observation were performed by using stereoscopic and compound microscopes with the use regional taxonomic keys. Schemes were made following the methodology described by Díaz-Díaz *et al.* (2013). The material was deposited in the Laboratory of Biology of Polychaeta from the Instituto Oceanográfico de Venezuela. A total of six specimens were examined and identified as *Proceraea anopla*.



**Figure 1.** Locality in La Restinga lagoon where the *P. enopla* specimens were collected

Genus *Proceraea* Ehlers, 1864

*Proceraea* Ehlers, 1864: 256–263, pl. 11, fig. 8–17, pl. 12, fig. 1–2.

*Stephanosyllis* Claparède, 1864: 567–569, pl. 7, fig. 5.

*Pterautolytus* Ehlers, 1907: 8–10, figs 1–3.

*Regulatus* Imajima, 1966: 51–52.

Species type: *Proceraea picta* Ehlers, 1864.

**Diagnosis.** Medium to large body without ciliary bands metameric. Prostomium with two pairs of eyes and three antennae. Palps underdeveloped, fused together. Nuchal epaulettes reaching end of chaetiger 2. Two pairs of long tentacular cirri. Dorsal cirri in all parapodia with or without cirrophores, those of first chaetiger very long, all remaining short. Falciger composite short chaetae and bayonet chaetae subdistally denticulated. Pharynx sinuous; trepan with alternating large and small or subequal teeth in multiples of nine. Pygidium with two anal cirri. San Martín (2003) reports that the reproduction is through stolons (male *Polybostrichus* and female *Sacconereis*). Furthermore, Nygren (2004), described that the body, in both stolons, is divided into three regions, the anterior (6 chaetigers) and the posterior region is characterized by having uniramous parapodia, while the middle region has biramous parapodia with numerous swimming chaetae (up to 30 in *Polybostrichus* and up to 20 in *Sacconereis*) in notopodial lobes.

*Proceraea anopla* (Monro, 1933)

(Figure 2A–E)

*Autolytus* (*Autolytides*) *anoplos* Monro, 1933: 38–39, fig. 16A–F; Fauchald 1977: 18–19, fig. 3F–K.

*Proceraea anopla* Nygren, 2004: 43–44 Fig. 5A–E

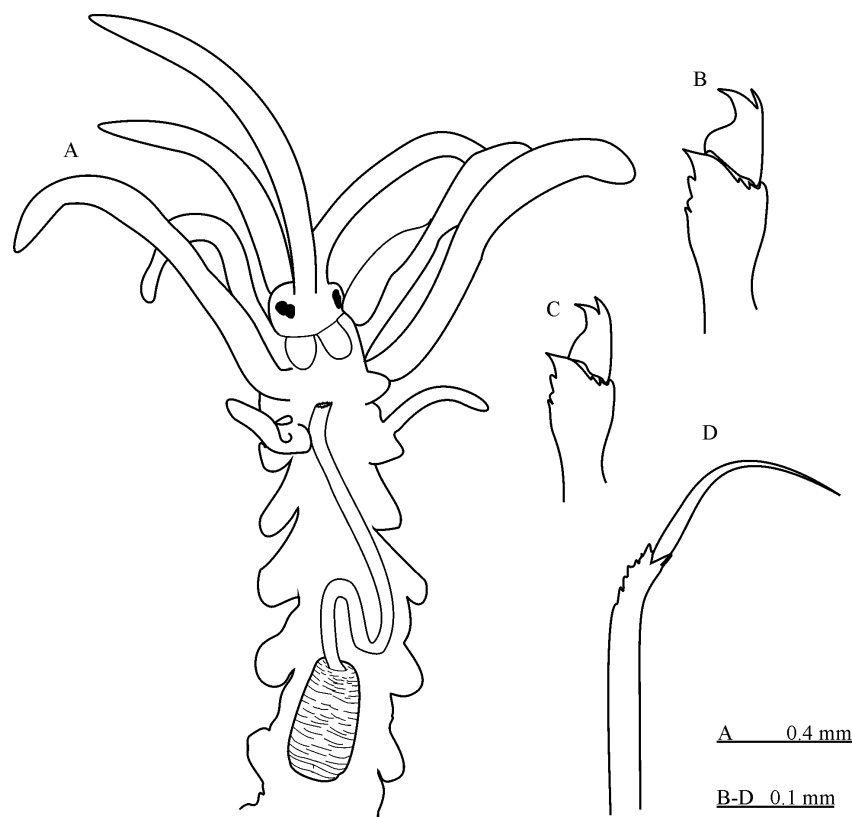
**Material examined.** Six specimens from La Tortuga station, March-2013.

**Characterization.** Body small, slender, with 108–186 chaetigers (19–36 mm in length and 0.4 mm width). Prostomium oval, posterior part of prostomium and nuchal epaulettes, thick brown longitudinal line in between nuchal epaulettes, each following segment with more or less rectangular brown bar. Ciliation present on prostomium, nuchal epaulettes, and ventrally on few anterior segments. Eyes almost coalescent; eye spots absent (Fig. 2A). Palps short, completely fused. Nuchal epaulettes reaching the distal end of chaetiger 2 (Fig. 2A). Median antenna reaching chaetiger 12. Lateral antennae and dorsal tentacular cirri, shortest than the median antenna. Ventral tentacular cirri 1/2 as long as dorsal pair. Dorsal cirri of chaetiger 1 equal in length to median antenna. Dorsal cirri of chaetiger 2 longer than following cirri (1.5 times). Dorsal cirri from chaetiger 3 short, ovoid. Cirrophores of tentacular cirri and first dorsal cirri present; cirrophores otherwise absent. Parapodial lobes rounded conical, small. Anterior chaetigers with 2 aciculae. 1–2 in median and posterior chaetigers, and 10–15 compounds falcigers bidentate, blades with distal

tooth smaller than the subdistal tooth (Fig. 2B); median and posterior chaetigers with 4–5 compounds falcigers chaetae with bidentate blade, with distal tooth equal in size to subdistal tooth (Fig. 2C); serration present. Single thin bayonet chaetae, subdistally denticulated (Fig. 2D), beginning from chaetiger 7. Pharynx with several situations anterior and lateral to proventricle. Trepan in chaetiger 4–5, with 18 unequal teeth; 9 large and 9 smaller; 1 large alternating with 1 small, arranged in 2 rings. Proventricle with 46–60 rows of muscle cells. Anal cirri lost.

Remarks. Nineteen species are recognized Fauchald *et al.* (2013), but only three recorded for

Great Caribbean region: *Proceraea cornuta* (Agassiz, 1884) to the Gulf of Mexico, *P. anopla* (Monro, 1933) to Caribbean Sea, and *P. rubroproventriculata* Nygren & Gidholm, 2001, to Florida. *P. anopla* differs from *P. cornuta* because in the latter species the bayonet chaetae have no distal denticulation; and differs from *P. rubroproventriculata* in the latter species because the trepan has 12 large and 12 small teeth. *P. anopla* has been recorded associated with *Balanus* and sponges. This record extends the geographical range of this species to the southern Caribbean Sea. Distribution. Central West Atlantic, Caribbean Sea. British Virgin Islands, Panamá and Venezuela.



**Figure 2.** *Proceraea anopla* A) B) anterior falciger chaetae, C) medial falciger chaetae, D) bayonet simple chaetae.

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