

Soft bottom polychaetes from the western coast of Baja California Sur, México. II. Poecilochaetidae.

Jesús Angel de León-González

Lab. Zoología de Invertebrados, Fac. Ciencias Biológicas, U.A.N.L.
Ap. Postal 5, Suc. "F" San Nicolás de los Garza, Nuevo León, México.

Résumé : Une nouvelle espèce du genre *Poecilochaetus* est décrite, sur la base de trois spécimens collectés sur la côte occidentale de la Basse-Californie Sud, Mexique, à 162 m. de profondeur. *P. multibranchiatus* se différencie des autres espèces de Poecilochaetidae à branchies par le lieu d'apparition des branchies et par le nombre de filaments branchiaux.

Abstract : A new species of the genus *Poecilochaetus* is described on the basis of three specimens collected from the western coast of Baja California, México at 162 m. depth. *P. multibranchiatus* n. sp. differs from other branchiate species in the first appearance of the branchiae and the maximal number of branchial filaments.

INTRODUCTION

The genus *Poecilochaetus* contains 30 nominal species (Imajima, 1989 : Miura, 1989 : Mackie, 1990). The poecilochaetids are poorly known from Mexican waters : *P. johnsoni* Hartman 1939 was described from southern California (USA) and is the only species of Poecilochaetidae known from Mexico. It was recorded for the western coast (Salazar-Vallejo *et al.* 1989).

In this study, a new species of *Poecilochaetus* is described for one locality of the western coast of Baja California Sur, México. The specimens were collected aboard of the B/O "EL PUMA" in March 1989, using a Smith-McIntyre grab (0,1 m²) (Smith & McIntyre, 1954). The type material are deposited in the National Museum of Natural History, Smithsonian Institution (USNM). The terminology of the setal morphology are taken of Mackie (1990).

Family Poecilochaetidae Hannerz, 1956

Poecilochaetus multibranchiatus n. sp.
(Figs. 1 a-e ; 2 a-d)

Material examined. Holotype (USNM 142030) and two paratypes (USNM 142031) collected off the western coast of Baja California Sur, México (25° 07' N, 112° 31' W) at 168 m depth in 2 March 1989.

Description. All specimens incomplete, consisting of anterior body fragments, only a posterior part of body are found. Holotype yellowish-green, measuring 17 mm in length, about 4,5 mm in width including parapodia, with 27 setigers.

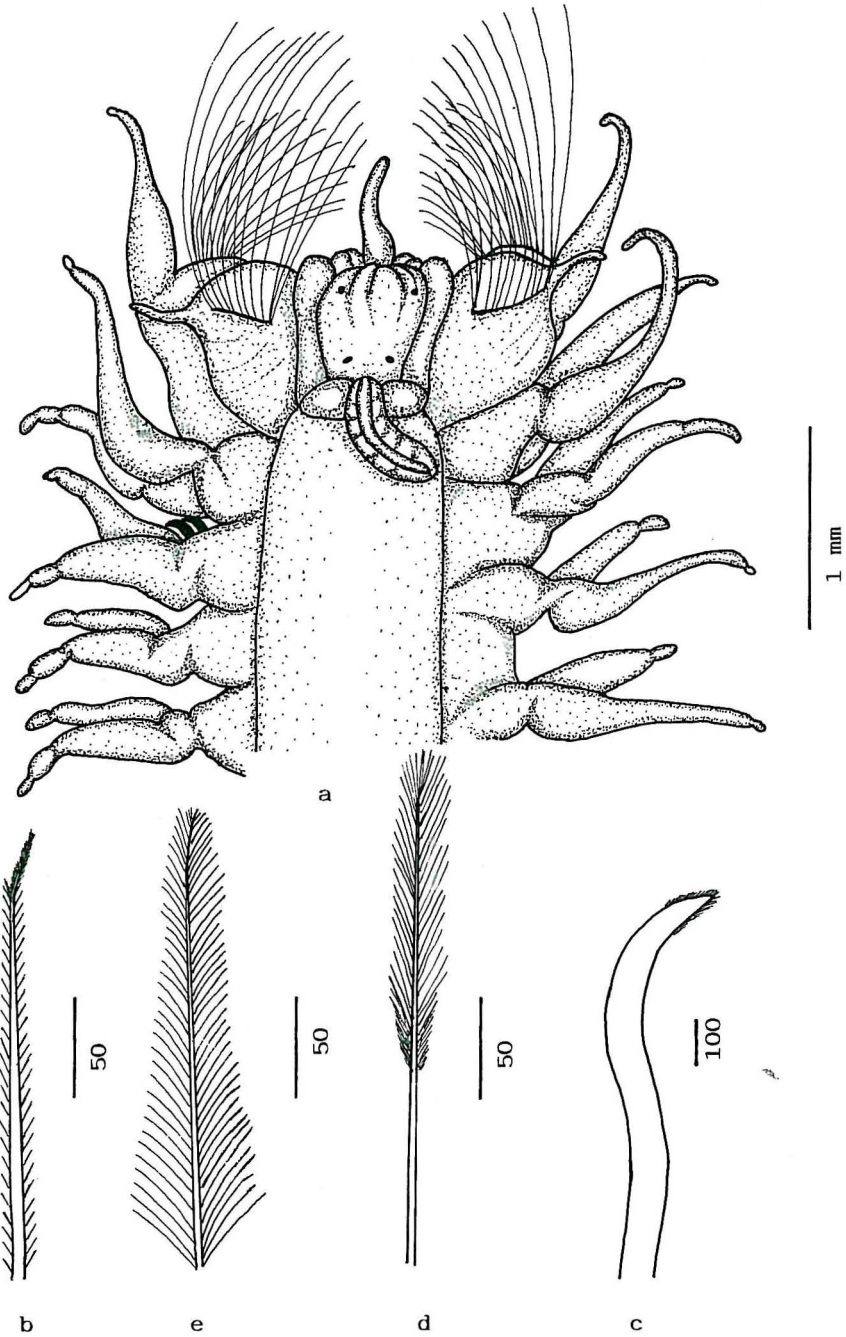


Fig. 1 : *Poecilochaetus multibranchiatus* n. sp. a) Anterior end, dorsal view ; b) Spinose capillary setae from setiger 23 ; c) Neuropodial distally hirsute falcate spine from setiger 2 ; d) Spinose-plumose seta from setiger 23 ; e) Long plumose capillary from setiger 23. (Scale in μm).

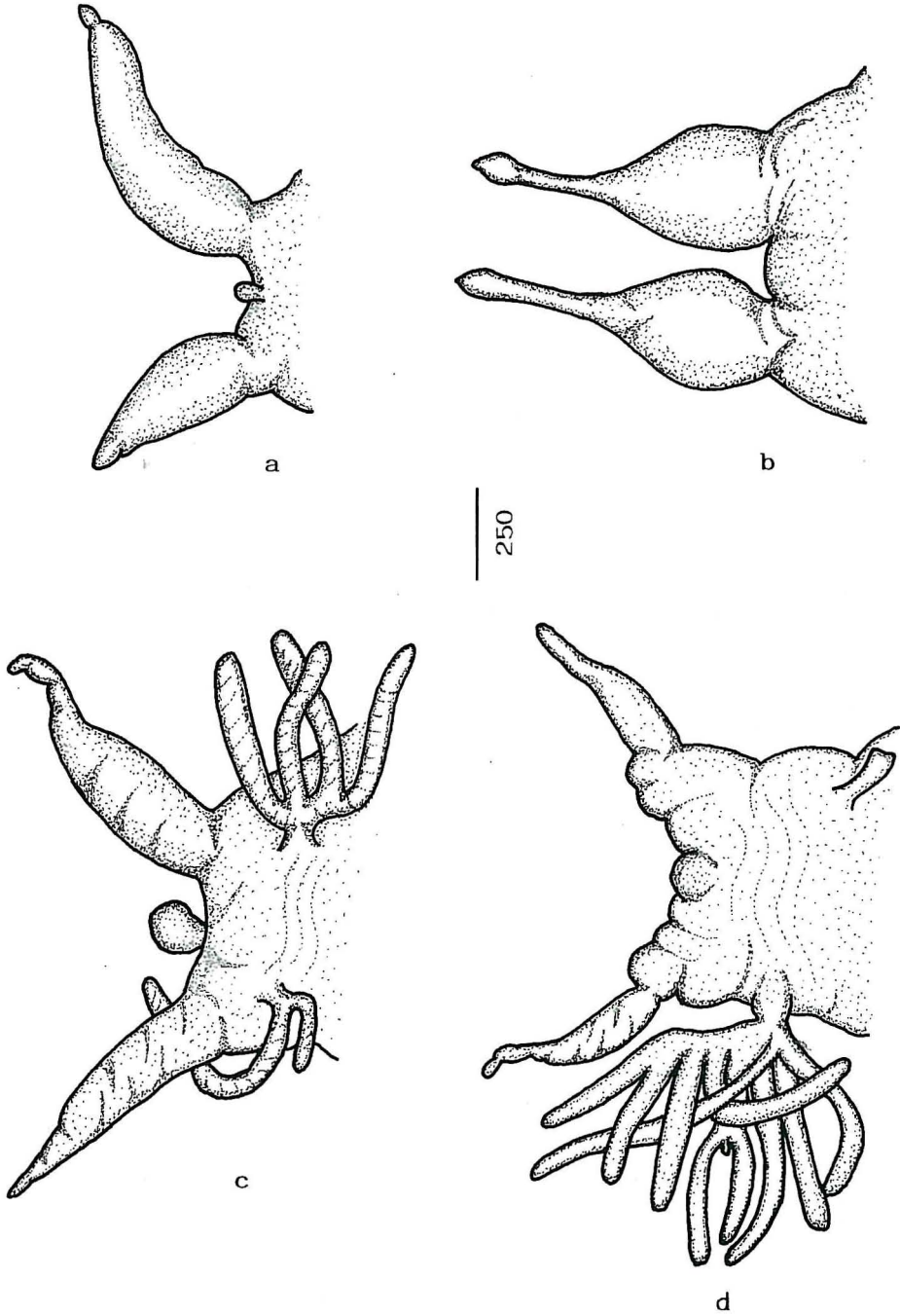


Fig. 2: *Poecilochaetus multibranchiatus* n. sp. a) Fifth parapodium ; b) Ninth parapodium ; c) 13 th parapodium ; d) 23 th parapodium. (Scale in μ m).

Prostomium globe-shaped, with two pairs of minute eyespots ; posterior eyes closer to each other, near the prostomial margin ; the anterior eyes are more separated from each other. Median nuchal lobe long, reaching setiger three ; lateral ones rudimentary, very short, disk-shaped, fused to the membranaceous lateral flanges of median lobe. Digitiform facial tubercle directed ventro-anteriorly (Fig. 1 a).

Parapodia all biramous. First parapodium with ventral postsetal lobe about 5 times longer than dorsal one. Dorsal postsetal lobe as long as ventral one on setigers 2-6 (Fig. 2 a). Dorsal and ventral postsetal lobes ampullaceous on setiger 7-11 (Fig. 2 b). Posterior parapodia with long and slender postsetal lobes (Fig. 2 c-d). Parapodial sensory organs present on all setigers except on setigers 7-10, situated between noto- and neuropodia.

Branchiae first present on setiger 12, with two groups in each parapodia, dorsal group of the left parapodia with two filaments, in the right parapodia with four filaments, ventral group with three filaments in each parapodia ; the number of branchial filaments increasing posteriorly ; in setiger 22 the maximal number of branchial filaments are present, dorsal group of the right parapodia with eleven filaments, ventral one with four ; the dorsal group of the left parapodia are missing, the ventral one with eleven filaments. The branchiae are present to the end of the posterior fragment.

First parapodium with only smooth setae in both rami, forming cephalic cage, notosetae longer than neurosetae. Parapodium 2 and 3 with three kinds of setae : notopodium with 5-6 long slender capillaries, 1-2 spinose capillaries (Fig. 1 b) ; neuropodium with distally hirsute falcate spines (Fig. 1 c), three in the second setiger and two in the third one (only a paratype with three hooks on both setigers 2 and 3). Middle posterior setigers with three kinds of setae : neuropodium with spinose capillaries in superior position, with spinose-plumose setae in middle part (Fig. 1 d), with long plumose capillary in inferior one (Fig. 1 e). Neuropodium with same kind of setae, but in inverted order, as mirror-image arrangement. In a posterior fragment founding in the same sample, the most posterior setigers have the same arrangement of setae without abruptly change in the shape of the setae. Pigidium unknown.

DISCUSSION

There are 10 branchiate species in *Poecilochaetus* : *P. serpens* Allen 1904, *P. tropicus* Okuda 1935, *P. modestus* Rullier 1965, *P. exmouthensis* Hartmann-Scroder 1980, *P. branchatus* Miura 1989, *P. trilobatus* Imajima 1989, *P. clavatus* Imajima 1989, *P. spinulosus* Mackie 1990, *P. tricirratus* Mackie 1990 and *P. multibranchiatus* n. sp., which differ from these species in some morphological characters (Table I). The closest relative to *P. multibranchiatus* n. sp., is *P. tricirratus* but they differ because *P. multibranchiatus* n. sp. has a much larger number of branchial filaments.

Etymology. The specific name derives from the number of branchial filaments (Gr. Multi = many)

Distribution. *P. multibranchiatus* is known from only one locality off the western coast of Baja California Sur, México, at 160 m depth.

TABLE I

Main characters of branchiate species of *Poecilochaetus*. I : Setigers with ampullaceous postsetal lobes ; II : First setiger with branchiae ; III : Maximal number of branchial filaments per parapodium ; IV : Length of central nuchal organs, represented by the setiger number to which the organ extends ; V : Length of lateral nuchal organs. (From Miura, 1989).

		I	II	III	IV	V
<i>P. serpens</i>	Allen, 1904	7-13	21	2	3	long
<i>P. tropicus</i>	Okuda, 1935	7-13	19	2	9	short
<i>P. modestus</i>	Rullier, 1965	7-11	18	2	3	short
<i>P. exmouthensis</i>	Hartmann-Schröder, 1980	7-13	19	2	5	long
<i>P. branchiatus</i>	Miura, 1989	7-10	20	4	1	short
<i>P. trilobatus</i>	Imajima, 1989	7-13	18	2	8	long
<i>P. clavatus</i>	Imajima, 1989	7-10	20	2	3	short
<i>P. spinulosus</i>	Mackie, 1990	7-13	17	4	3	long
<i>P. tricirratus</i>	Mackie, 1990	7-11	13-17	3	3	short
<i>P. multibranchiatus</i> n. sp.		7-11	12	11	3	short

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Resumen : Se describe una nueva especie del género *Poecilochaetus*, en base a tres especímenes colectados en la costa oeste de Baja California Sur, México a 162 m. *P. multibranchiatus* n. sp. se diferencia de otras especies de poecilochaetidos branquiados, en el comienzo de las branquias y en el número máximo de filamentos branquiales.

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