

ON THE PRESENCE OF *PILARGIS BERKELEYAE* MONRO, 1933 (POLYCHAETA, PILARGIDAE) IN THE SOFT BOTTOMS OF CENTRAL CHILE SHELF

Sobre la presencia de *Pilargis Berkeleyae* Monro, 1933
(Polychaeta, Pilargidae) en los fondos blandos de
la plataforma de Chile central

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ABSTRACT

The finding of *Pilargis berkeleyae* Monro, 1933, (Polychaeta, Pilargidae) in soft bottoms off central Chile's continental shelf is the first record of a member of this genus in the southeastern Pacific region. A morphological description together with brief notes on the habitat of this species are given.

KEYWORDS: Pilargidae. *Pilargis berkeleyae*. Soft-bottoms.

RESUMEN

El hallazgo de *Pilargis berkeleyae* Monro, 1933, (Polychaeta, Pilargidae) en los fondos blandos de la plataforma continental frente a Chile central, constituye el primer registro de un miembro de este género en la región del Pacífico sudeste. Se entrega una descripción morfológica de la especie a la vez que breves notas de su hábitat.

INTRODUCTION

The family Pilargidae Saint-Joseph contains approximately 48 species distributed in 10 genera (Fauchald 1977). Four of the species and three of the genera have been recorded within the boundaries of the Chilean seas (Rozbaczylo, 1985):

these are as follows: *Ancistrosyllis groenlandica* McIntosh, 1879, *A. quellina* Wesenberg-Lund, 1962, *Sigambra bassi* (Hartman, 1947) and *Synelmis albini* (Langerhans, 1881).

During a survey of the sublittoral macroinfauna off Concepción Bay, Chile (36° 31' Lat. S — 72° 56' Long. W) we have found specimens belonging to the family Pilargidae, which have been identified as *Pilargis berkeleyae* Monro, 1933, in several stations. These represent the first records of the genus and species in the southeastern Pacific region.

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The genus *Pilargis* contains seven species (Fauchald 1977), of which at least four have been recorded in the North Pacific but none in the South Pacific region (Pettibone, 1966).

DESCRIPTION

Pilargis berkeleyae Monro, 1933
(Figs. 1 - 5)

Synonymy:

Pilargis berkeleyi Monro, 1933 (p. 673, figs. 1-4). Hartman, 1947 (p. 491, pl. 59, figs. 1-8), *Pilargis maculata* Hartman, 1947 (p. 494, pl. 60, figs. 1-5), *Pilargis berkeleyae* Pettibone, 1966 (pp. 161-164, figs. 1 a-f, figs. 2 a-b), Kirkegaard, 1983 (p. 211), Imajima, 1987 (pp. 162-164, figs. 7 a-i).

ribbon-like, dorso-ventrally depressed and tapered at both ends. A ventral groove runs along the whole body. Prostomium small with two bi-articulated palps extending ventrally to the mouth opening. Basal palpophore stout with minute palpostyle. A pair of simple, triangular antennae arise at center of prostomium. Antennae, palps and most of prostomium papillated. Peristomium longer but narrower than first setiger with two pairs of papillated tentacular cirri, forwardly directed, on its anterior margin. Cirri about equally long but dorsal one stouter than ventral one (Fig. 1). A semi-circular groove present dorsally on anterior peristomial margin. Proboscis sac-like, unarmed, thin and translucent. All parapodia biramous; notopodium as a globous cirrophore with a fine supportive aciculum. First pair of notopodia with dorsal cirri which are longer than in following parapodia. Notopodial cirri

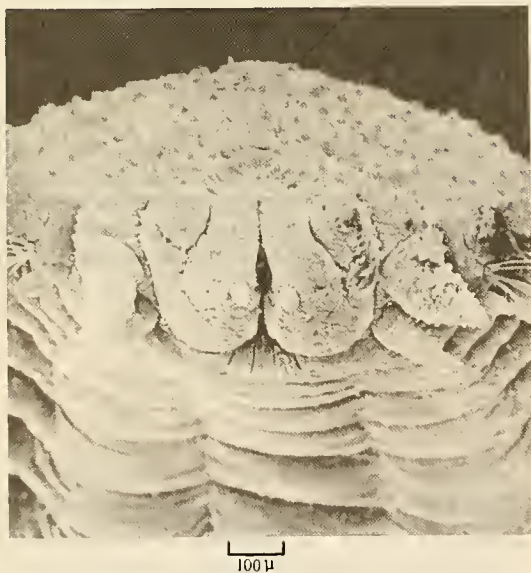


FIG. 1. Prostomium, frontal view.

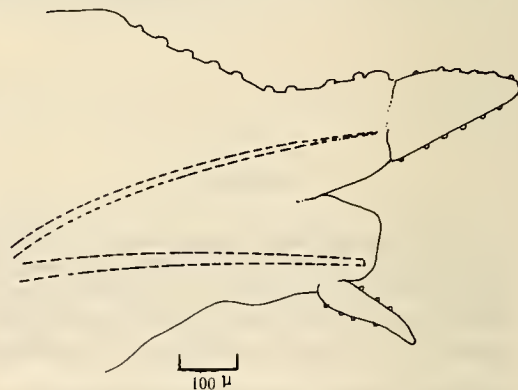


FIG. 2. Fourteenth parapodium, anterior view.

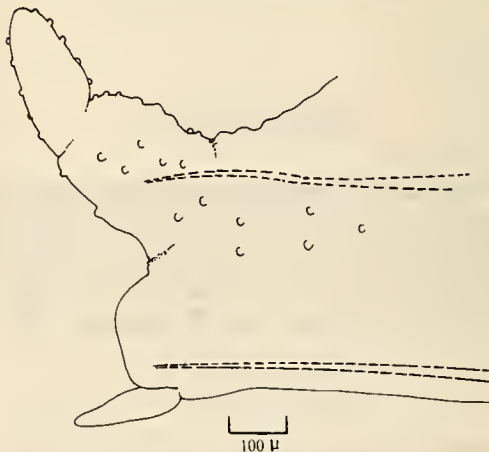


FIG. 3. Parapodium 181th, anterior view.

Diagnosis:

This diagnosis is based on a complete specimen with 208 setigers, 53 mm long and 2.5 mm wide along the middle portion of the body. Body

conical, papillated, with a pigmented area on cirrophore. Cirrostyle of anterior parapodia have a sharper distal end than posterior segments, which are rounder. Distal end of cirrophores of posterior parapodia extend clearly beyond distal end of neuropodia (Figs. 2 and 3). All parapodia papillated. Neuropodial lobes stout, conical with thick, ventrally located, acicula. Neurosetae, 20 — 25 in number, finely serrated on interior edge, falcate and bidentate (Fig. 4). Pygidium tubeshaped, richly papillated, with a pair of conical anal cirri.



FIG. 4. Distal end of neuropodial seta.

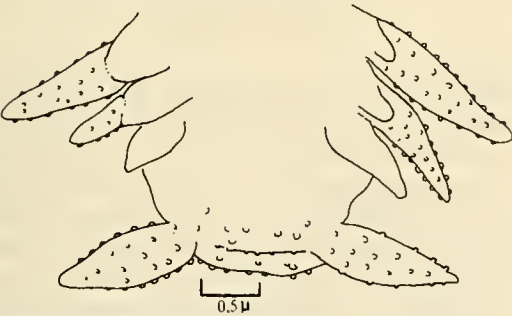


FIG. 5. Pygidium, ventral view.

- FN84/01M1 (3 ind.), D, 40m, 36°32'00" S Lat — 73°01'30" W Long., 24-11-84;
 FN84/01M2 (1 ind.), D, 40m, 36°32'00" S Lat. — 73°01'30" W Long., 24-11-84;
 FN84/02M1 (2 ind.), P, 70m, 36°31'51" S Lat. — 73°04'18" W Long., 24-11-84;
 FN84/07M2 (3 ind.), D, 55m, 36°32'42" S Lat. — 73°03'58" W Long., 16-01-85;
 FN84/07M2 (1 ind.), D, 55m, 36°32'42" S Lat. — 73°03'58" W Long., 16-01-85;
 FN84/08M1 (2 ind.), D, 45m, 36°31'54" S Lat. — 73°00'30" W Long., 16-01-85;
 FN84/08M2 (1 ind.), D, 45m, 36°31'54" S Lat. — 73°00'30" W Long., 16-01-85;
 FN84/11M3 (1 ind.), P, 70m, 36°32'13" S Lat. — 73°03'42" W Long., 03-04-85;
 FN84/12M1 (1 ind.), D, 40m, 36°32'00" S Lat. — 73°00'00" W Long., 03-04-85,

and have been deposited in the Benthic Community Collections of the Departamento de Oceanología, Universidad de Concepción, Chile.

Remarks on the habitat:

Mud samples were obtained in the soft bottoms of the continental shelf off the bay of Concepción (between 36°31'33" S lat. and 36°33'45" lat. S, and 73°00'00" W long. and 73°16'00" W long.) by means of a Smith-McIntyre 0.1 m² bottom-sampler. Samples were washed through a 0,5 mm mesh opening sieve using floating techniques. Specimens were found associated to either tubes of *Diopatra chiliensis* (D) or *Phyllochaetopterus* sp. (P) at depths from 40 to 70 m. This species is relatively rare and shows low abundance in the survey. Environmental parameters varied as follows: temperature at the bottom: 10.9°C — 11.6°C; salinity: 34.46 — 34.80; and oxygen: 0.34 ml O₂/l — 2.59 ml O₂/l, and total organic matter in the sediments: 7.5% — 13.7%.

Final remarks:

These specimens agree well with the original description by Monro (1933) and subsequent references Hartman 1947, Pettibone 1966, Kirkegaard 1983, and Imajima 1987.

Collection:

Specimens of *P. berkeleyae* have been collected at the following stations:

Distribution:

Washington to Southern California, from intertidal to 405 m depth (Pettibone 1966); Japan (Imajima 1987); Posyet Bay, West Africa; Liberia, off the Congo River, Angola (Kirkegaard 1983).

ACKNOWLEDGMENTS

The authors express their gratitude to the institutions that made this study possible, *i.e.* the University of Concepción, in particular the Laboratorio de Microscopía Electrónica, Dirección de Investigación, and the Fondo Nacional de Ciencia y Tecnología, Proyectos FONDECYT 84/1219 y 89/680.

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