



## Two new species of *Paraehlersia* San Martín, 2003 (Polychaeta, Syllidae) from the Atlantic Coast of South America

MARCELO VERONESI FUKUDA<sup>1,4</sup>, ROMINA CENTURIÓN<sup>2</sup>, JOÃO MIGUEL DE MATOS NOGUEIRA<sup>1</sup>  
& GUILLERMO SAN MARTÍN<sup>3</sup>

<sup>1</sup>Departamento de Zoologia, Instituto de Biociências, Universidade de São Paulo, São Paulo, SP, Brazil

<sup>2</sup>Museo Argentino de Ciencias Naturales, Buenos Aires, Argentina

<sup>3</sup>Departamento de Biología (Zoología), Facultad de Ciencias, Universidad Autónoma de Madrid, Madrid, Spain

<sup>1,4</sup>Corresponding author. E-mail: mvfukuda@gmail.com

### Abstract

*Paraehlersia* San Martín, 2003 is reported for the first time for the Atlantic coast off South America based on specimens collected off Brazil and Argentina. The specimens belong to two new species, which are herein described. *Paraehlersia longichaetosa* **sp. nov.**, is characterized by having spiniger-like chaetae with long blades, up to 120 µm in length, bidentate anterior falcigers, with relatively coarse subdistal tooth, bidentate dorsal simple chaetae, with teeth about same size, and subdistally irregularly inflated aciculae, apparently hollow, with acute tip. *Paraehlersia martapolae* **sp. nov.**, has spiniger-like chaetae with shorter blades, up to 82 µm in length, bidentate falcigers, with thin subdistal tooth, distally irregularly rounded dorsal simple chaetae, and aciculae subdistally bent at almost right angle, sometimes with apparently flattened top. These new species are compared to their most similar congeners. Additionally, a table summarizing relevant morphological traits of all currently known species of *Paraehlersia* is included.

**Key words:** taxonomy, Polychaeta, Syllidae, *Paraehlersia*

### Introduction

*Ehlersia ferrugina* Langerhans, 1881 has been placed, by different authors, in *Ehlersia* Quatrefages, 1866, or *Langerhansia* Czerniavsky, 1881, both as separate genera or as subgenera of *Syllis* Lamarck, 1818, following divergences in the classification of the latter (Licher 1999; San Martín 2003 and references therein). However, both *Ehlersia* and *Langerhansia* are currently considered as junior-synonymies of *Syllis* (subfamily Syllinae Grube, 1850), although *E. ferrugina* does not match the diagnosis of this subfamily, as already noticed by San Martín (1992). Conversely, *E. ferrugina* is better placed within the Eusyllinae Malaquin, 1893 as traditionally recognized (a non-monophyletic group, according to Aguado *et al.* 2007, 2011; Aguado & San Martín 2009), especially because the species reproduces by epigamy instead of by schizogamy, which was considered a strong indication of different evolutionary lineages in recent phylogenetic studies of the family (Aguado & San Martín 2009; Aguado *et al.* 2011).

The type species of *Ehlersia*, *E. sexoculata* Ehlers, 1864, is a species of *Syllis*, as originally described. Therefore, San Martín (2003) described *Paraehlersia* as a genus of Eusyllinae, designating *P. ferrugina* as its type and only species.

Later on, the Californian *Pionosyllis articulata* Kudenov & Harris, 1995, as well as three other species previously included within *Pionosyllis* Malmgren, 1867, were re-allocated to *Paraehlersia*, which therefore includes five valid species to date (Aguado & San Martín 2006; San Martín *et al.* 2009).

*Paraehlersia* is relatively easy to recognize by the progressive change in falciger blades morphology towards posterior body, with subdistal tooth becoming progressively stouter. The presence of retractile subcirral papillae is also highly diagnostic, although this feature is sometimes difficult to see, and greatly depends upon the state of preservation of the specimens.