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## ***Amblyosyllis, Eusyllis, Odontosyllis, Perkinsyllis and Streptodonta* (Annelida: Syllidae) from Brazil, with descriptions of two new species and new records for the country**

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### **Abstract**

We present herein the first records for *Amblyosyllis*, *Eusyllis* and *Perkinsyllis* from northeastern Brazil, describing and illustrating *Amblyosyllis* sp., *Eusyllis kupfferi* and *E. lamelligera*, which are compared to the morphologically most similar congeners; a brief diagnosis is provided for *Eusyllis nonatoi*, *Odontosyllis aracaensis*, *O. guarauensis*, *O. guillermoi* and *Perkinsyllis biota*, described from southeastern Brazil. In addition, a new species of *Odontosyllis* is described, *O. brevischaetosa* sp. n., characterized by having short, bidentate falciger blades with inverted dorso-ventral gradation in length, and shafts of ventralmost falcigers from midbody parapodia onwards subdistally inflated, with sigmoid tip. A key for the valid Brazilian species of *Odontosyllis* is provided. Finally, this is also the first account of the genus *Streptodonta* for the South Atlantic, with the description of *S. fauchaldi* sp. n., characterized by a distinct distribution pattern of cilia along body, presence of spiniger-like chaetae, and morphology of falciger blades.

**Key words:** Eusyllinae, incertae sedis, new occurrence, new species, taxonomy, southwestern Atlantic

### **Introduction**

Syllidae Grube, 1850 is one of the most diverse and systematically challenging families of polychaetes, with a high number of genera and species, more than 700 species and 74 genera, currently divided into 5 subfamilies: Syllinae Grube, 1850; Autolytinae Langerhans, 1879; Exogoninae Langerhans, 1879; Eusyllinae Malaquin, 1893; and Anoplosyllinae Aguado & San Martín, 2009 (Glasby 2000; San Martín 2003, 2005; San Martín & Hutchings 2006; Aguado & San Martín 2009; San Martín & Aguado 2014). Syllids are easily recognized by the presence of the proventricle, a specialization of the digestive tract, which is often visible through a translucent body and has been traditionally considered as a synapomorphy of the group (Glasby 2000; Pleijel 2001; Aguado *et al.* 2012; San Martín & Aguado 2014), as well as a thickened inner proboscis lining and dorsal cirri with a regular pattern of alternation (Aguado *et al.* 2012).

The subfamily Eusyllinae was considered, for a long time, as a paraphyletic group, although no phylogenetic studies had been performed to investigate the issue. Recently, Aguado *et al.* (2012) re-organized the subfamily based on their phylogenetic results; however, no morphological apomorphies supporting this arrangement were found. Eusyllinae currently includes the genera *Odontosyllis* Claparède, 1863, *Eusyllis* Claparède, 1863, *Pionosyllis* Malmgren, 1867, *Opisthodonta* Langerhans, 1879, *Nudisyllis* Knox & Cameron, 1970, and *Synmerosyllis* San Martín, López & Aguado, 2009. Other genera previously considered as eusyllines, such as *Amblyosyllis* Grube & Ørsted *in* Grube, 1858, and *Perkinsyllis* San Martín, López & Aguado, 2009 were considered as independent genera, not allocated in any subfamily and, thus, treated as Syllidae *incertae sedis* (Aguado *et al.* 2012).