



## The genus *Loimia* Malmgren, 1866 (Annelida: Terebellidae) off the Brazilian coast, with description of three new species and notes on some morphological characters of the genus

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### Abstract

Three new species of *Loimia* were collected along the Brazilian coast, during some independent projects, from shallow to deep waters off the continental slope. These species are *L. megaoculata* sp. nov., *L. armata* sp. nov., and *L. brasiliensis* sp. nov., all herein described and compared with the morphologically most similar congeners. *Loimia megaoculata* sp. nov., is characterized by having large, dark eyespots, progressively smaller from dorso-laterally towards lateral basal part of prostomium; lobes of segment 1 are distally rounded, roughly circular, barely reaching mid-length of upper lip; uncini have up to 6–7 teeth, including basal-most tooth. *Loimia armata* sp. nov., lacks eyespots; stout lobes of segment 1 nearly reach level of upper lip; uncini have up to 7–8 teeth, including basal-most tooth. *Loimia brasiliensis* sp. nov., has two narrow rows of eyespots; lobes of segment 1 are thin, reaching mid-length of upper lip; uncini have 5–6 teeth, including basal-most tooth. We provide a brief discussion on the main morphological characters useful for the taxonomy of this genus, such as presence of eyespots, and morphology of lobes of segments 1 and 3, of mid-ventral pads and neurochaetae. Up to now only two species had been recorded from Brazil, namely *L. grubei* and *L. medusa*, both doubtful records, as discussed along this paper.

**Key words:** Polychaeta, Terebelliformia, morphology, taxonomy, new species, Southwestern Atlantic

### Introduction

Terebellidae Johnston, 1846 is the largest family in Terebelliformia. The family was redefined by Nogueira *et al.* (2013), who restricted the terebellids to those forms previously considered as the subfamily Terebellinae Malmgren, 1866, characterized mostly by discrete, unpaired mid-ventral glandular shields in anterior segments, and double rows of neuropodial uncini on at least some segments.

Terebellidae *stricto sensu* comprises around 300 species and ~50 genera, of which only 13 genera and 34 species have so far been recorded for Brazilian waters (Amaral *et al.* 2013; Carrerette 2015). The knowledge of the terebellid fauna occurring off the Brazilian coast is still poor, however the studied areas are concentrated mainly in the southern/southeastern regions. A large area of the Brazilian coast remains to be studied and the polychaete fauna occurring there is virtually unknown; one of these regions is the northeastern coast from which part of the material used for the present study was collected.

Species of *Loimia* Malmgren, 1866 are diagnosed by pectinate uncini with teeth vertically aligned in a single row. Large ventro-lateral lobes are present on segments 1 and 3, and live specimens usually have a blood red region ventrally after termination of glandular mid-ventral shields (Fig. 10A, C), which is also found in some species of *Lanice* Malmgren, 1866 and *Pista* Malmgren, 1866, and may still be visible after preservation.

*Loimia* occurs world-wide and currently has around 20 species (Treadwell 1929; Caullery 1944; Holthe 1986a, b; Hutchings & Glasby 1988, 1995; Hutchings 1990, 1993; Londoño-Mesa & Carrera-Parra 2005 and Londoño-Mesa 2009, 2011). The type species, *Loimia medusa* (Savigny in Lamarck, 1818), was described from the Red Sea. Its type material has never been deposited in any museum and the original description neither includes or illustrates