



## ***Neosabellides lizae*, a new species of Ampharetidae (Annelida) from Lizard Island, Great Barrier Reef, Australia**

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### **Abstract**

*Neosabellides lizae*, a new species of Ampharetidae, is described from the intertidal zone off Lizard Island, Great Barrier Reef, Queensland, Australia. The new species is referred to the genus *Neosabellides* based on the shape of the prostomium, three pairs of branchiae, 14 thoracic segments with notopodia, 12 thoracic uncinigerous segments, and the first two pairs of abdominal uncini of thoracic type. The new species differs from all known species of *Neosabellides* in having 14 abdominal uncinigerous segments.

**Key words:** Queensland, intertidal, Polychaeta, juvenile, identification key

### **Introduction**

The genus *Neosabellides* Hessle, 1917 is widely distributed with four species described from the subtidal areas in the Bering Sea (Annenkova 1934), the slope depths of the Bay of Biscay (Fauvel 1909), lower shelf of Antarctica (Ehlers 1913), and from the intertidal zone in Western Australia (Hartmann-Schröder 1981). The genus was erected by Hessle (1917) for worms with faint lobes on the prostomium without glandular ridges, having three pairs of branchiae, papillose buccal tentacles, nephridial papillae on segment 4 and two anal cirri, and lacking paleae or parapodia on segment 3 and notopodial cirri in thoracic parapodia. Hessle (1917) also described rudimentary notopodia in abdomen which we assume were ciliated tufts present above the abdominal neuropodia.

*Neosabellides* was accepted as a valid genus by Reuscher *et al.* (2009), however the authors argued that most of the diagnostic characters in ampharetid genera had low taxonomical value and could vary within a genus. Jirkov (2011) revised the diagnostic characters in ampharetids and modified the diagnoses of the genera based on nonvariable characters. Following Jirkov (2011), *Neosabellides* possesses prostomium with a transversal groove, not completely splitting it into distinct lobes. It also has two types of neuropodia, the first type with uncini located in a furrow found in thorax and the first two abdominal segments and the second type with uncini located at the margin of a neuropodium found in all remaining abdominal chaetigers.

A new species of Ampharetidae matching the diagnostic characters of the genus *Neosabellides sensu* Jirkov (2011) was found in the vicinity of the Lizard Island Research Station (Queensland, Australia) of the Australian Museum, Sydney during the International Polychaete Workshop conducted in 2013. In the present study we formally describe the newly discovered species utilizing the methods of light and scanning electron microscopy.

### **Material and methods**

The specimens were shoveled at low tide at the intertidal area across the Lizard Island Research Station. The sandy sediments with sea grass were sieved through the 0.5 mm mesh and sorted in trays in the laboratory. Live