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Ampharetidae (Annelida: Polychaeta) from Japan. Part II: Genera with elevated and modified notopodia

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Abstract

The second paper of the series about Ampharetidae from Japan includes twelve species of four genera with elevated and modified notopodia, *Anobothrus* Levinsen, 1884, *Sosane* Malmgren, 1866 (including species of the synonymized genera *Muggoides* Hartman, 1965, *Sosanopsis* Hesse, 1917, and Genus A *sensu* Uebelacker 1984), *Tanseimaruana* **gen. nov.**, and *Zatsepinia* Jirkov, 1986. *Tanseimaruana* **gen. nov.** is related to *Amphicteis* Grube, 1850, but lacks prostomial glandular ridges and has a velum-like dermal outgrowth with two pairs of lobes across the dorsum of the first abdominal unciniger. The new genus comprises *Tanseimaruana vestis* comb. nov. (Hartman, 1965) (formerly *Amphicteis vestis*) and *T. boninensis* **sp. nov.** Seven additional new species, *Anobothrus dayi* **sp. nov.**, *A. fimbriatus* **sp. nov.**, *A. flabelligerulus* **sp. nov.**, *Sosane brevibranchiata* **sp. nov.**, *Sosane trigintaduo* **sp. nov.**, *S. uebelackerae* **sp. nov.** (formerly Genus A *sensu* Uebelacker), and *Zatsepinia jirkovi* **sp. nov.**, are described. *Sosane* cf. *cinctus* (Hartman, 1965), *Sosane wireni* (Hesse, 1917), and *Zatsepinia rittichae* Jirkov, 1986, all species previously known from the North Atlantic, are recorded from the North Pacific for the first time. A phylogenetic analysis of *Sosane* (including the synonymized genera *Mugga* Eliason, 1955, *Muggoides*, *Sosanopsis*, and Genus A *sensu* Uebelacker) suggests monophyly of the genus with *Lysippe* Malmgren, 1866 as sister taxon, and a monophyletic clade [*Sosane cinctus*, *Sosane uebelackerae* **sp. nov.**, *Mugga* spp.] within *Sosane*. The monotypic genus *Melinnata* Hartman, 1965 has been found indeterminate.

Key words: *Anobothrus*, *Melinnata*, *Mugga*, *Muggoides*, *Sosane*, *Sosanella*, *Sosanopsis*, *Tanseimaruana*, *Zatsepinia*, Genus A Uebelacker, *Amphicteis vestis* comb. nov., new species, new record, taxonomy, phylogeny

Introduction

The first paper of the series about Ampharetidae from Japan focused on the speciose genus *Ampharete* Malmgren, 1866 (Imajima *et al.* 2012). In the second paper we report twelve species of four genera with elevated and modified notopodia. Our decision to compile the four genera, *Anobothrus* Levinsen, 1884, *Sosane* Malmgren, 1866, *Tanseimaruana* **gen. nov.**, and *Zatsepinia* Jirkov, 1986, into a single paper is merely based on the presence of modified notopodia (or structures that have been interpreted as such), and the recent practice of treating these genera as one functional group (Jirkov 2008; Reuscher *et al.* 2009). We emphasize that the modifications of the four genera are not synapomorphic, and the genera are not closely related.

Day (1964) suggested that *Anobothrus* is a junior synonym of *Sosane*. However, the modifications of the two genera differ in respect of location and morphology. In *Anobothrus* the notopodia of the fourth- or fifth-to-last thoracic unciniger are slightly dorsally elevated, the notochaetae usually have hirsute tips, and a transverse dorsal ridge between the elevated notopodia is more or less developed. The notopodia, on the other hand, do not differ morphologically from those of the remaining segments. In *Sosane*, the notopodia of one of the last four thoracic uncinigers are conspicuously modified, with a basal bulge and a conical terminal lobe. The hirsute chaetae do not