



## *Oricymba tianmuensis* sp. nov., a new cymbelloid species (Bacillariophyceae) from Tianmu Mountain in Zhejiang Province, China

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### Abstract

During a survey of freshwater diatoms from streams in the west region of the Tianmu Mountains, Zhejiang Province, China, a new *Oricymba* species, *Oricymba tianmuensis* sp. nov. has been recorded. A detailed morphology description of *O. tianmuensis* is presented, based on light and scanning electron microscopy. *Oricymba tianmuensis* sp. nov. is characterized by a ridge along the valve face typical of the genus, as well as a linear-lanceolate, symmetrical or slightly dorsiventral outline with a gibbous central portion gradually tapering or nearly paralleling towards the bluntly cuneate poles, a distinct rhombic-lanceolate asymmetric central area with a distinct stigma on the ventral side of the central nodule, a slightly lateral raphe with widened proximal endings and strongly deflected distal endings, and weakly radiate striae. Morphological features of the taxon are compared with similar species, and the biogeography of the genus is summarized.

**Key words:** taxonomy, morphology, diatoms, new species, *Oricymba*, Tianmu Mountain

### Introduction

The genus *Oricymba* was erected by Jüttner, Krammer, Cox, Van de Vijver & Tuji (2010) based on the freshwater species *Oricymba japonica* (Reichelt) Jüttner, Cox, Krammer & Tuji (2010: 408= *Cymbella japonica* Reichelt in Kuntze 1898: 391). *Oricymba* is characterized by a slightly dorsiventral or almost symmetrical valve outline, a marginal ridge along the valve face, grooves along the girdle, small and shallow circular impressions in the axial and central areas, and overgrowths of silica hiding the central endings of the raphe on the internal valve surface (Jüttner *et al.* 2010). Four species were originally assigned to *Oricymba* (Jüttner *et al.* 2010), and recently Kulikovskiy *et al.* (2015) described one new species and transferred another to the genus. In terms of distribution of the genus, one species (*O. japonica*) has been reported from several east Asian countries (Foged 1971, Nather Khan 1990, Lee *et al.* 1993, Watanabe 2005, Joh 2011, Shi 2013, Kulikovskiy *et al.* 2015), two others (*O. perjaponica* (Krammer & Lange-Bertalot in Krammer 2002: 64) Kulikovskiy *et al.* (2015: 127) and *O. voronkinae* Glushenko *et al.* in Kulivoskiy *et al.* (2015: 127), are known from Laos and Cambodia, and the other three species from the original description of the genus are so far known only from Nepalese Himalaya (Jüttner *et al.* 2010).

In this paper we describe one new species of *Oricymba* from a low elevation stream in the Tianmu Mountains region, Zhejiang Province, China. We give a detailed morphological description of this new taxon and compare our new species with others in the genus. The newly-discovered species is valuable in improving our understanding of this interesting diatom genus, especially its biogeography and ecology.