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## The genus *Adicella* McLachlan (Trichoptera, Leptoceridae) in Japan

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### Abstract

The Japanese species of the genus *Adicella* McLachlan (Trichoptera, Leptoceridae) are reviewed and confirmed, including a described species and 3 new species: *A. makaria* Malicky & Chantaramongkol 2002, originally described from Taiwan, *A. trichotoma* Ito & Kuhara **sp. nov.**, *A. paludicola* Ito & Kuhara **sp. nov.**, and *A. strigillata* Katsuma & Ito **sp. nov.** For clear comparisons, adults of all species are redescribed or described.

**Key words:** male, female, variation, East Asia

### Introduction

About 150 named species of the genus *Adicella* McLachlan 1877 (Trichoptera, Leptoceridae) are known from the Oriental (113 species), West Palaearctic (18 species), Afrotropical (9 species), and East Palaearctic (2 species) regions (Morse 2012; Morse personal communication). The larvae live in various sizes of flowing waters, from springs to rivers, often among dense vegetation (Lepneva 1971; Wallace *et al.* 2003; Graf *et al.* 2008).

Japanese *Adicella* was first recorded with three unnamed 'species' by Uenishi (1993), but the 'species' have not been described. Recently, *A. makaria* Malicky & Chantaramongkol 2002 (in Malicky *et al.* 2002), originally described from Taiwan, has been recorded from Yonaguni-jima Island, in the southwestern-most part of Japan (Shimura 2010). In this paper, we redescribe or describe the adults of 4 species of *Adicella* including 3 new species.

### Material and methods

Association of the male and female of each species was based on similar general body characteristics from among specimens collected together. Genitalic segments were figured after treatment in hot dilute KOH solution. Morphological terms mainly follow Yang & Morse (2000). The type series and other materials are deposited in the collections of the Natural History Museum and Institute, Chiba (CBM) and persons or museum shown in parentheses, respectively. All specimens are preserved in 70–80% ethyl alcohol. Collecting methods, collectors and depositories (depositories are in parentheses) are abbreviated as follows: L, light trap; M, Malaise trap; S, sweep netting; NKA, N. Katsuma; NKU, N. Kuhara; TI, T. Ito; MKNM, Minakuchi Kodomo-no-kuni Nature Museum (Shiga-ken).

### *Adicella makaria* Malicky & Chantaramongkol 2002

(Figs. 1, 6)

*Adicella makaria* Malicky & Chantaramongkol 2002 in Malicky *et al.* 2002: 27, fig. 27, male, "Thailand"; Malicky 2006: 1514, correction: the type locality is not Thailand but is Taiwan; Shimura 2010: 50, 54, photo of adult, Japan (Ryûkyû Islands, Yonaguni-jima).