



## Two new species of *Satonius* Endrödy-Younga from China and notes on the wing polymorphism of *S. kurosawai* Satô (Coleoptera: Myxophaga: Torridincolidae)

JIŘÍ HÁJEK<sup>1</sup>, HIROYUKI YOSHITOMI<sup>2</sup>, MARTIN FIKÁČEK<sup>1,3</sup>,  
MASAKAZU HAYASHI<sup>4</sup> & FENG-LONG JIA<sup>5,6</sup>

<sup>1</sup>Department of Entomology, The National Museum, Kunratice 1, CZ-148 00 Praha 4, Czech Republic. E-mail: jiri\_hajek@nm.cz

<sup>2</sup>Entomological Laboratory, Faculty of Agriculture, Ehime University, Tarumi 3-5-7, Matsuyama, 790-8566 Japan.

E-mail: hymushi@agr.ehime-u.ac.jp

<sup>3</sup>Charles University, Faculty of Science, Department of Zoology, Viničná 7, CZ-128 44 Praha 2, Czech Republic.

E-mail: MFikacek@gmail.com

<sup>4</sup>Hoshizaki Green Foundation, Okinoshima 1659-5, Sono, Izumo, 691-0076 Japan. E-mail: hgf-haya@green-f.or.jp

<sup>5</sup>Institute of Entomology, Sun Yat-sen University, Guangzhou 510275, China. E-mail: fenglongjia@yahoo.com.cn

<sup>6</sup>Corresponding author

### Abstract

Two new species of Torridincolidae from China, *Satonius fui* **sp. nov.** (Hubei) and *S. jaechi* **sp. nov.** (Fujian) are described, illustrated and compared with other species of the genus. The polymorphism of metathoracic wings was studied in the Japanese *S. kurosawai* (Satô, 1982), which macropterous form is presented here for the first time. In addition, new records of *S. stysi* Hájek & Fikáček, 2008 in China are also briefly mentioned.

**Key words:** taxonomy, new species, wing polymorphism, hygropetric habitats, China, Japan, Palaearctic region

### Introduction

The genus *Satonius* Endrödy-Younga, 1997 originally described to accommodate a single Japanese species (*Delevea kurosawai* Satô, 1982), belongs to the family Torridincolidae. Members of the family are known predominantly from the Neotropical and southern Afrotropical zoogeographical regions (Beutel & Vanin 2005). Together with *Sphaerius* Waltl, 1838 (Sphaeriusidae) and *Hydroscapha* LeConte, 1874 (Hydroscaphidae), they represent the only representatives of the suborder Myxophaga in the eastern Palaearctic and Oriental regions (Hájek & Fikáček 2008, Fikáček & Šípková 2009, Falamarzi *et al.* 2010). Apart of the fact that the larvae and adults of *Satonius* live in hygropteretic habitats (e.g. on the wet surface of rocks or on seepages) and that adults of several species possessed reduced metathoracic wings, the biology of *Satonius* remains largely unknown. The genus was revised by Hájek & Fikáček (2008) who described three new species from China, compared larval morphology of two species, illustrated the structure of metathoracic wing of the macropterous *S. stysi* Hájek & Fikáček, 2008, and discussed briefly adaptations of the genus for hygropetric habitats.

Recent extensive findings of *Satonius* in south-eastern China enable us to describe two additional species of the genus (both mentioned as unidentified species by Hájek & Fikáček (2008)) and provide additional data on the occurrence of *S. stysi* Hájek & Fikáček, 2008 previously known from the type locality only. The revision of the available material of the Japanese *S. kurosawai* (Satô, 1982) revealed the co-existence of macropterous and micropterous forms in this species. The macropterous form of *S. kurosawai* is recorded here for the first time and the observed patterns in the occurrence of both forms are briefly summarized.