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A new aberrant species of *Nipponocercyon* from the mountains of southeastern China (Coleoptera: Hydrophilidae: Sphaeridiinae)

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Abstract

Nipponocercyon satoi sp. nov. is described from the mountains of Zhenjiang and Jiangxi Provinces in Southwest China. Although the species bears all synapomorphies of *Nipponocercyon* Satô, 1963, it differs substantially from the other two species of the genus by its *Pacrillum*-like habitus (i.e. small, compact and strongly convex body with reduced surface sculpturing). The new species is compared in detail with the other two *Nipponocercyon* species as well as with *Pacrillum* Orchymont, 1941 and *Megasternum* Mulsant, 1844. The generic diagnosis of *Nipponocercyon* is adapted, and reasons for assigning the new species to *Nipponocercyon* are discussed.

Key words: Hydrophilidae, Sphaeridiinae, Megasternini, Sino-Japanese Realm, Jiangxi, Zhenjiang, China, new species

Introduction

In 1963, Japanese entomologist M. Satô described a new megasternine genus (*Nipponocercyon* Satô, 1963) from Honshu Island, including a single new species, *N. shibatai* Satô, 1963. As the genus name implies, the new genus was considered a Japanese endemic and was similar in habitus to *Cercyon* Leach, 1817, differing from the latter only in the form of the meso- and metaventrite. Later, Nakane (1968, 1977) examined specimens from other Japanese localities and described one additional species (*N. monticola* Nakane, 1968) and one subspecies (*N. shibatai oyamanum* Nakane, 1968), differing from *N. shibatai* Satô, 1963 in small details of dorsal microsculpture and meso- and metaventral morphology. Hoshina & Fikáček (2010) even considered these differences as intraspecific variability and placed Nakane's (1968) (sub)species in synonymy with *N. shibatai*. Although later findings by Fikáček *et al.* (2012) showed that this taxonomic action was premature and additional study is needed to properly understand the taxonomy of the genus in Japan, the Japanese *Nipponocercyon* still forms a morphologically uniform group comparable to other small megasternine genera.

The discovery by Fikáček *et al.* (2012) that *Cryptopleurum sichuanicum* Ryndevich, 2005, described from the mountains in the Chinese province of Sichuan, actually belongs to *Nipponocercyon* drastically changed the understanding of the genus. The discovery not only showed that *Nipponocercyon* is not a Japanese endemic, but also demonstrated that species of the genus may differ substantially from each other in general habitus. The fact that the Sichuan species was originally described in *Cryptopleurum* Mulsant, 1844 was indeed based on the fact that the species closely resembles the representatives of that genus by body form and coarse dorsal and ventral sculpturing which to a large extent obscures one of the most important apomorphies of *Nipponocercyon*: a pair of short ridges present in anteromedian portion of the metaventrite. Fikáček *et al.* (2012) analyzed the morphology of the Sichuan species in detail, compared it with the Japanese species of *Nipponocercyon* as well as with representatives of *Cryptopleurum*, and demonstrated that the species belongs to *Nipponocercyon*. The presence of

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