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* Ryndевич, 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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