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## Review of the Chinese species of the genus *Coelostoma* Brullé, 1835 (Coleoptera: Hydrophilidae: Sphaeridiinae)

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### Abstract

The Chinese species of the genus *Coelostoma* Brullé, 1835 are revised and diagnosed. Five new species are described: *Coelostoma bifidum* **sp. nov.** (Jiangxi, Guangdong, Hong Kong), *C. hajeki* **sp. nov.** (Guangdong, Guangxi), *C. hongkongense* **sp. nov.** (Hong Kong), *C. huangi* **sp. nov.** (Guangxi, Jiangxi), and *C. gentilii* **sp. nov.** (Xizang). *Coelostoma coomani* Orchymont, 1932, *C. orbiculare* (Fabricius, 1775) and *C. vividum* Orchymont, 1936 are reported for the first time from China. *Coelostoma sulcatum* Pu, 1963, syn. nov. is synonymized with *C. stultum* (Walker, 1858). Additional faunistic data from China are provided for *C. phallicum* Orchymont, 1940, *C. vagum* Orchymont, 1940, *C. turnai* Hebauer, 2006, *C. wui* Orchymont, 1940, *C. stultum* (Walker, 1858), *C. vitalisi* Orchymont, 1923, *C. fallaciosum* Orchymont, 1936 and *C. horni* (Régimbart, 1920). *Coelostoma fabricii* (Montrouzier, 1860) is not considered as member of Chinese fauna as all previous records are dubious and no new material was found during our study. The distribution of *C. horni* in China is discussed in detail, with records from Hong Kong here considered dubious. An updated identification key to the Chinese species of *Coelostoma* is provided.

**Key words:** Hydrophilidae, Sphaeridiinae, Coelostomatini, *Coelostoma*, *Lachnocoelostoma*, *Holocoelostoma*, taxonomy, new species, new synonym, China

### Introduction

The water scavenger beetle genus *Coelostoma* Brullé, 1835 currently contains 104 described species, representing one of the most diverse genera of Hydrophilidae (Hansen 1999, Short & Hebauer 2006, Short & Fikáček 2011). The genus is distributed solely in the eastern hemisphere, with most species occurring in the Oriental and Afrotropical regions. Three species, *C. orbiculare* (Fabricius, 1775), *C. hispanicum* (Küster, 1848), and *C. syriacum* Orchymont, 1936, are only distributed in the Palearctic Region; an additional species, *C. stultum* (Walker, 1858), is widespread in the Oriental Region but also reaches the Palearctic Region. Two species, *C. afflatum* Knisch, 1922 and *C. fabricii* (Montrouzier, 1860), occurs in the Australian Region. In the Nearctic and Neotropical regions, *Coelostoma* is replaced by the genera *Phaenonotum* Sharp, 1882 and *Phaenostoma* Orchymont, 1937 (e.g., Gustafson & Short 2010, Deler-Hernández *et al.* 2013, Clarkson *et al.* 2014). The fauna of the Oriental Region was partly revised by Orchymont (1936) and Mouchamps (1958), but the genus was never revised as a whole. Since 1958, only nine new species have been described from the Oriental Region (Jayaswal 1972; Hebauer 2000, 2001, 2002, 2006).

The genus has been poorly known from China up to now. A total of nine species have been recorded so far, either by historical authors (Sharp 1874; Orchymont 1925, 1935, 1936, 1940) or more recently (Pu 1963, Jia 2005, Hebauer 2006).

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