



## A new species of *Bathanthidium* Mavromoustakis (Hymenoptera: Megachilidae: Anthidiini) from China, with a key to the species

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### Abstract

*Bathanthidium hainanense* **sp. nov.** from Wuzhi Mountain, Hainan, China is described and illustrated. A key to the eight species of the genus is presented. *Bathanthidium* (*B.*) *circinatum* Wu, 2004 is transferred to the subgenus *B.* (*Stenanthidiellum*), **new comb.**

**Key words:** Apoidea, bee, Megachilinae, taxonomy, description

### Introduction

*Bathanthidium* Mavromoustakis, 1953, was erected as a subgenus in *Dianthidium* Cockerell, 1900. Michener (2000) elevated it as a genus in the tribe Anthidiini. Michener (2007) divided Anthidiini into two groups, including *Bathanthidium* in his series A, a group of 29 genera in which the mandibles of the females have three or four or rarely more teeth joined by shallow or at least rounded concavities (in contrast, series B, a group of 8 genera, includes those in which the mandible of the female have five or more, commonly sharp teeth, separated by acute, V-shaped notches).

*Bathanthidium* includes three subgenera. Michener (2007) provided a key to the subgenera of *Bathanthidium*, and noted that the subgenus *Bathanthidium* Mavromoustakis *s. str.*, 1953, occurs in southeastern China and Taiwan, with only one known species, *B.* (*B.*) *bifoveolatum* (Alfken, 1937); the subgenus *Manthidium* Pasteels, 1969, is known from India and Malaysia, with the only one species, *B.* (*M.*) *binghami* (Friese, 1901); the subgenus *Stenanthidiellum* Pasteels, 1968, occurs in eastern Siberia and Korea, with apparently two species, *B.* (*S.*) *sibiricum* (Eversmann, 1852) and *B.* (*S.*) *malaisei* (Popov, 1941). It is unclear why *B.* (*B.*) *atriceps* (Morawitz, 1852) was not listed in the subgenus *Bathanthidium s. str.* by Michener. Wu (2004) reported two new species of *Bathanthidium* (*s. str.*) from China. In a later study, Wu (2006) recorded two subgenera and five species from China: *B.* (*B.*) *bifoveolatum* (Alfken, 1937), *B.* (*B.*) *circinatum* Wu, 2004, *B.* (*B.*) *emeiense* Wu, 2004, *B.* (*B.*) *atriceps* (Morawitz, 1890), and *B.* (*S.*) *sibiricum* (Eversmann, 1852). Wu (2006) provided a key, in Chinese, to these species recorded in China.

During a taxonomic survey of bee fauna of Hainan Island, we found and describe here one new species. In addition, we propose to transfer *B.* (*B.*) *circinatum* Wu, 2004, to the subgenus *Stenanthidiellum*, for its elongate and weakly delimited fovea behind the propodeal spiracles. With the inclusion of the new species, eight species are now known in *Bathanthidium* with China as the center of distribution (Table 1).

### Material and methods

All specimens examined are deposited in the Insect Collection of the Institute of Zoology, Chinese Academy of Sciences, Beijing, China. The specimens were examined with a Leica M10 stereomicroscope. Attributes were recorded with a Cannon 450D12M digital camera. The morphological terminology used in the descriptions mainly