



Synonymy and misidentification of three *Hahnia* species (Araneae: Hahniidae) from China

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Abstract

The type specimens of two *Hahnia* species, *H. maginii* Brignoli, 1977 and *H. thorntoni* Brignoli, 1982 were examined to determine the identification of Hahniidae from South China. *Hahnia thorntoni* is found to be a senior synonym of *H. flagellifera* Zhu, Chen & Sha, 1989, while the paratype male of *H. thorntoni* belongs to another species, *H. zhejiangensis* Song & Zheng, 1982. Chinese specimens previously identified as *H. maginii* probably belong to *H. thorntoni*. The female and male specimens of *H. yueluensis* Yin & Wang, 1983 were mismatched and misidentified; the female holotype and paratype belong to *H. thorntoni* and male allotype to *H. zhejiangensis*.

Key words: Mismatch, China, distribution

Introduction

The Hahniidae is a small spider family with about 250 described species (Platnick 2013). Most studies on this group were published decades ago, e.g. species from North America were revised by Opell & Beatty (1976). Hahniidae from Germany and Japan were reviewed by Harm (1966) and Ono (2009), and more recently, research on Asian Hahniidae has been published by Marusik (2011), Marusik *et al.* (2011), and Zhang *et al.* (2011, 2013).

During our research on Chinese Hahniidae, examination of the male holotype and the male paratype of *Hahnia thorntoni* Brignoli, 1982 from Hong Kong showed that they are not conspecific. Indeed, the holotype (Figs 3A–E) has numerous characters diagnostic for *Hahnia flagellifera* Zhu, Chen & Sha, 1989 from South China (Song *et al.* 1999; Zhang *et al.* 2011) and Laos (Jäger & Praxaysombath 2011), and *H. thorntoni* is here determined to be a senior synonym of *H. flagellifera*. Furthermore, the original figures of *H. thorntoni* (Brignoli 1982: 346, figs 13–14) were based on the male paratype (Figs 8A–C), which is shown here to be the same species as *H. zhejiangensis* Song & Zheng, 1982, recorded in Zhejiang (Song & Zheng, 1982), Hunan (Yin & Wang, 1983), Hong Kong (Song & Wu 1997) and Vietnam (Zhang *et al.* 2013).

Another question concerned the identification of the poorly known species *Hahnia maginii* Brignoli, 1977. The species was first described by Brignoli (1977) based on a female specimen from Italy. Chinese records of it were published by Yu *et al.* (1984), Song (1987) and Song *et al.* (1999) based on five female specimens from Qingyanggong in Chengdu City, Sichuan. Although these Chinese specimens of so called '*H. maginii*' were unavailable for us to study, our examination of the holotype of *H. maginii* (Figs 1A–F, 2A–B) and numerous additional specimens from South China (including specimens from Sichuan) shows that these specimens were probably misidentified. Most likely, the so called '*H. maginii*' from Chengdu is another common species in South China and Laos, *H. thorntoni*.

Finally, another *Hahnia* species, *Hahnia yueluensis* Yin & Wang 1983 is quite confusing taxonomically. The female holotype was caught at Mt. Yuelu in Changsha, Hunan Province, and the male allotype and female paratype were collected from Xiangyin County in Hunan (no more details on the locality are known). These types were unavailable for this research, so the original figures and description were critically examined to determine the