



Redescription of three *Hippasa* species from China (Araneae: Lycosidae), with a proposed species group-division and diagnosis

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Abstract

The genus *Hippasa* is a group of web-weaving lycosids, whose web is funnel-like, quite similar to those of the Agelenidae. In this paper, based on published papers and specimens from China, we diagnose and discuss the composition of this genus. Two species groups are recognised, the *Hippasa greenalliae*-group (12 species and a subspecies) mainly from Asia and the *Hippasa partita*-group (17 species), which is distributed in both South Asia and Africa. In China, there are three *Hippasa* species: *H. holmerae* Thorell, 1895, *H. lingxianensis* Yin & Wang, 1980 (revalidated) and *H. lycosina* Pocock, 1900. The Japanese species, *H. babai* Tanikawa, 2007 is newly synonymised with *H. lingxianensis*. Two *Hippasa* species, *H. agelenoides* (Simon, 1884) and *H. greenalliae* (Blackwall, 1867) have never been found in China. Morphological illustrations, photos and redescriptions of *H. holmerae*, *H. lingxianensis* and *H. lycosina* are provided, based on Chinese specimens.

Key words: *Hippasa*, systematics, distribution, species group

Introduction

Although most spiders of the family Lycosidae are cursorial, there are many web-building lycosids, such as *Hippasa* Simon, 1885, which can weave funnel-like web, like those of Agelenidae. However, their eye arrangement is quite different from Agelenidae. Currently, 36 *Hippasa* species are recorded from Africa and Asia (World spider catalog 2015). One more species, *H. domratchevae* Andreeva, 1976 was classified as "Nomen nudum" in the catalog due to the absence of a description. However, it can be clearly recognised on the basis of the original figures (Andreeva 1976: 50, figs 59–61). Alderweireldt & Jocqué (2005) reviewed nine Afrotropical *Hippasa* species and defined two species groups by the body size and different shape of the anterior branch of the median apophysis in the male pedipalp. However, their definition of the two groups are confusing, such as the anterior branch of median apophysis "more rounded" or "less rounded", "sickle-shaped" or "hook-shaped", and there was no diagnosis given for females. We cannot detect any true differences between these two groups that can be applied to Asian species.

In total, there are 10 species recorded only from Africa, 25 species recorded only from Asia, and two species, *H. partita* (O. Pickard-Cambridge, 1876) and *H. sinai* Alderweireldt & Jocqué, 2005 recorded from both Africa (Egypt) and Asia (Central Asia and India). India has the most species of *Hippasa*, with 17 species (Tikader & Malhotra 1980; Patel & Reddy 1993; Arora & Monga 1994; Gajbe & Gajbe 1999; Gajbe 2004). However, a revision of Asian *Hippasa* is badly needed because most figures of Asian *Hippasa* species do not show the key characters of the genitalia. Here we revise the generic diagnosis, separate most *Hippasa* species into two groups, summarise the distributions of these two groups and hypothesise the possible origin and evolution of this genus.

In China, four *Hippasa* species were recorded: *H. agelenoides* (Simon, 1884), *H. greenalliae* (Blackwall,