

Three new species and a new record of the spider genus *Mallinella* Strand, 1906 from Brunei (Araneae, Zodariidae)

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Abstract

This article is the first formal record of the genus *Mallinella* Strand, 1906 in Brunei Darussalam. Four *Mallinella* species are documented. *Mallinella merimbunensis* sp. nov., *M. myrmecophaga* sp. nov., and *M. platyrhyncha* sp. nov. are newly described. The females of *M. bigemina* Dankittipakul, Jocqué & Singtripop, 2012 are here recorded from Brunei for the first time. The latter species was previously known only from an evergreen hill forest at 2,000 m elevation at Mt. Kinabalu of Kinabalu Park in Sabah.

Key words: Borneo, biodiversity, alpha taxonomy, new taxa, new record

Introduction

The palaeotropical genus *Mallinella*, as redefined by Dankittipakul *et al.* 2012, is characterised by the presence of a single row of short spines on the posterior ventral side of the abdomen just in front of the spinnerets. It is the most speciose genus in Zodariidae, with 64 species occurring in Southeast Asia, including seven species reported from Borneo (Dankittipakul *et al.* 2012; Platnick 2013). They include *M. albomaculata* (Bosmans & Hillyard 1990), found in East Kalimantan as well as in North Sulawesi (type locality), and six other species described by Dankittipakul, Jocqué and Singtripop in two separated papers published in 2010 and 2012, viz., *M. abdita* (East Kalimantan), *M. bifida* (East Kalimantan), *M. bigemina* (Sabah), *M. birostriata* (Sabah), *M. brachytheca* (Sabah), and *M. pectinata* (Sarawak, as well as Pahang in peninsular Malaysia, and Bintan, an island in Indonesia's Riau Archipelago south of Singapore).

In their photographic guide to the spiders of Brunei Darussalam, a sultanate adjacent to the Malaysian state of Sarawak along the north-eastern coast of Borneo, Koh & Leong (2013) have mentioned the presence of *M. bigemina* Dankittipakul, Jocqué & Singtripop, 2012 (hitherto not known outside its type locality in Sabah). They have also included two other undetermined species of *Mallinella* in Brunei, but without providing genitalia and other details necessary for further identification. This article expands the Brunei records to four species and formally describes three new species, including the two undetermined species featured in Koh & Leong (2013). The new species are *M. merimbunensis* sp. nov. (very common in Brunei), *M. myrmecophaga* sp. nov. and *M. platyrhyncha* sp. nov., both currently known only from the type localities. According to Dankittipakul, Jocqué and Singtripop (2012), *M. bigemina* belongs to the *fronto*-group; *M. merimbunensis* sp. nov. to the *annulipes*-group, *M. myrmecophaga* sp. nov. to the *fasciata*-group and *M. platyrhyncha* sp. nov. to the *sobria*-group.

Male. Unknown.

Natural history. The holotype was collected by beating foliage at eye-level in a mixed dipterocarp forest during daytime. It is however too early to regard it as an arboreal species until more collection is done, both on the ground and among foliage.

Distribution. Known only from the type locality.

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References

- Bosmans, R. & Hillyard, P. (1990) Spiders of the family Zodariidae from Sulawesi, Indonesia (Arachnida: Araneae: Zodariidae). *Bulletin of the British Arachnological Society*, 8, 147–160.
- Dankittipakul, P., Jocqué, R. & Singtripop, T. (2010) Five new *Mallinella* species from the Sundaland of Indonesia (Araneae, Zodariidae). *Zootaxa*, 2636 (2), 1–36.
- Dankittipakul, P., Jocqué, R. & Singtripop, T. (2012) Systematics and biogeography of the spider genus *Mallinella*, Strand, 1906, with description of new genera and new species from Southeast Asia (Araneae, Zodariidae). *Zootaxa*, 3369, 1–327.
- Jocqué, R. (2005) Six stridulating organs on one spider (Araneae: Zodariidae): Is this the limit? *The Journal of Arachnology*, 33, 597–603.
<http://dx.doi.org/10.1636/04-107.1>
- Koh, J.K.H. & Leong, T.M. (2013) *Biodiversity in the Heart of Borneo: Spiders of Brunei Darussalam*. Natural History Publications (Borneo), Kota Kinabalu, 357 pp.
- Platnick, N.I. (2013) The world spider catalog, version 14. American Museum of Natural History. Available from: <http://research.amnh.org/entomology/spiders/catalog/index.html> (accessed 12 Dec 2013)