

[SHORT COMMUNICATION]

On the Validity of the Japanese Spider Genus *Metimorpha* (Araneae, Araneidae)

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ABSTRACT—The monotypic Japanese spider genus *Metimorpha* Strand, 1906 is known only from the juvenile holotype of *M. tullia* Bösenberg and Strand, 1906. The genus is not a tetragnathid as currently catalogued, nor a nephilid as tentatively suggested in the original description. *Metimorpha* is transferred to Araneidae, but the name is proposed as a *nomen dubium*.

Key words: spiders, Araneae, *Metimorpha*, Araneidae, Tetragnathidae, Nephilidae

INTRODUCTION

Strand (1906; in Bösenberg and Strand, 1906: 188) described the monotypic genus *Metimorpha* with the species *M. tullia* Bösenberg and Strand, 1906, known from a single, “perhaps not fully developed female” from Saga, Kompira (on the Japanese island Kyushu). Strand (1906) placed the genus in Argiopidae, a family equivalent to today’s Araneoidea *sensu* Griswold *et al.* (1998), and hypothesized it to be close to the Nephilinae (today Nephilidae *sensu* Kuntner [in press-a,b; unpublished data]). Strand stated that more material is needed for a more reliable placement of *Metimorpha* and that its habitus resembles that of *Meta* and *Linyphia*, but that it cannot be considered in ‘Tetragnathinae’ or ‘Meteae’ because its labium is not rebordered. Further, it differed from Meteae (today paraphyletic ‘Metinae’ *sensu* Hormiga *et al.* [1995] and Kuntner and Alvarez-Padilla [in press]) by the separated lateral eyes; from the Linyphiae (today Linyphiidae *sensu* Hormiga [1994, 2000]) by its narrow clypeus and glabrous legs; and from the Argiopinae (now Araneidae *sensu* Scharff and Coddington [1997] and Kuntner [2002]) by the longer than wide maxillae. The lengthy description of the single “female” *M. tullia* was accompanied by somatic illustrations (Bösenberg and Strand, 1906: fig. 200A–D). The authors (Bösenberg and Strand, 1906: 190) described the holotype “epigynum” as a broad fissure, but in fact referred to the epigastric fold of a juvenile, as my examination of the holotype confirmed.

Kulczyn’ski (1911) hypothesized that *M. tullia* is a possible junior synonym of *Nephilengys malabarensis papuana* Thorell, 1881; this suggested synonymy caught my attention while I was revising the nephilid genus *Nephilengys* L. Koch. I considered (Kuntner, unpublished data) that *N. papuana*, known from New Guinea, should be elevated to species rank. However, the holotype *Metimorpha* is not a *Nephilengys* or a nephilid (see Transfer justification). The latest spider catalogue (Platnick, 2005) lists *Metimorpha* in Tetragnathidae. I know of no other publications that treat *Metimorpha*, and the genus has not been placed phylogenetically in recent tetragnathid treatments (Hormiga *et al.*, 1995; Kuntner and Alvarez-Padilla, in press).

TAXONOMY

Family Araneidae Simon, 1895

Genus *Metimorpha* Strand, 1906

Metimorpha Strand, 1906 in Bösenberg and Strand, 1906: 188. Type species, by monotypy, *Metimorpha tullia* Bösenberg and Strand, 1906; Platnick, 2005. **NOMEN DUBIUM.**

Transfer justification

The genus *Metimorpha* is transferred to Araneidae based on the presence of the denticulated cheliceral furrow (tiny denticles between the paturon pro- and retromargin), and the low clypeus (less than one anterior median eye diameter). While araneids share the presence of these features with nephilids, all nephilids (including juveniles) also possess a striated cheliceral boss (Kuntner, in press-a,b; unpublished data). The boss of *Metimorpha* is smooth. A

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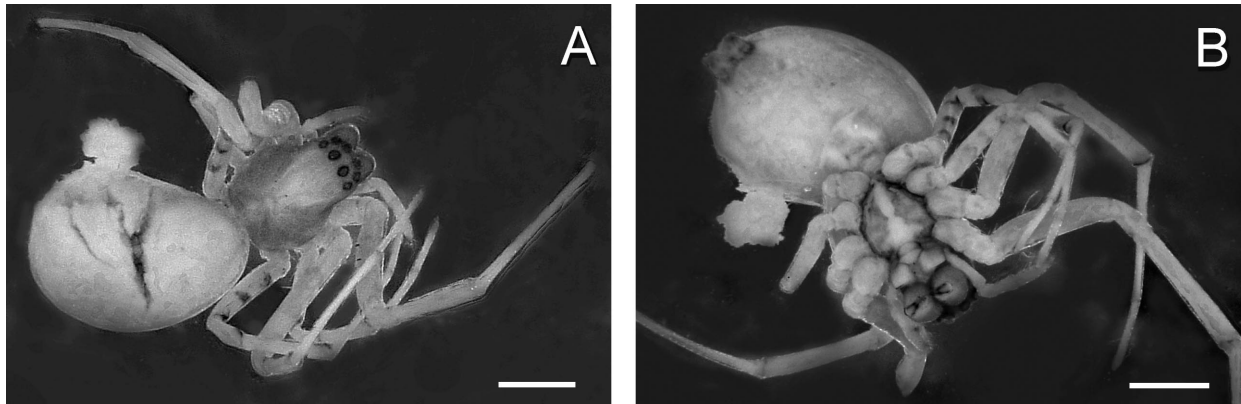


Fig. 1. *Metimorpha tullia* Bösenberg and Strand, juvenile holotype: A, dorsal; B, ventral. Scale bar=1mm.

more reliable placement of *Metimorpha* within Araneidae, or its synonymization with another araneid genus based on the juvenile holotype, seems impossible. However, *Metimorpha* lacks the characteristic eye pattern of the Argiopinae (Scharff and Coddington, 1997), and its habitus is unlike that of the representatives of other groups within the “argioid clade” (Scharff and Coddington, 1997).

Genus validity

The juvenile features of *Metimorpha* do not allow a precise diagnosis, and thus the genus is proposed as a *nomen dubium*, a name of doubtful application (ICZN, 1999). It is conceivable that additional (adult) material of *Metimorpha* (Fig. 1) could be collected at the type locality, which would then form the basis for revalidation of the name, or its synonymy.

Metimorpha tullia Bösenberg and Strand, 1906
(Fig. 1)

Metimorpha tullia Bösenberg and Strand, 1906: 189, pl. 2, fig. 200, description of juvenile. Juvenile holotype in Forschungsinstitut und Naturmuseum Senckenberg (Frankfurt, Germany), examined; Kulczynski, 1911: 464; Platnick, 2005. NOMEN DUBIUM.

Remarks

The validity of the species is questioned, as the original description was based on a single juvenile, and at present no additional material is available. Thus, a species diagnosis is impossible.

Description

Female: unknown. *Male*: unknown. *Juvenile* holotype (Fig. 1): Habitus pale yellow (in alcohol). Total length 4.4 mm. Prosoma 1.8 mm long, 1.3 mm wide. Opisthosoma 2.7 mm long, 1.9 mm wide.

Distribution

Only known from the type locality in Japan (Bösenberg and Strand, 1906): Saga, Kompira (Kyushu island).

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