

First description of the male of *Alloclubionoides grandivulva* (Yaginuma 1969) (Araneae: Coelotidae) collected from Tsushima Islands, Kyushu, Japan, with illustration of female internal genitalia

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Abstract — *Alloclubionoides grandivulva* (Yaginuma 1969) (Araneae: Coelotidae) is redescribed on the basis of topotypical specimens collected from Tsushima Islands, Nagasaki Pref. Kyushu, Japan. Its male is described for the first time and the female internal genitalia is also illustrated for the first time. The male of the species is similar to other *Alloclubionoides* spiders in having a broad embolus and lacking a patellar apophysis, but only *A. grandivulva* has a huge extended tegulum.

Key words — *Alloclubionoides*, Coelotidae, Araneae, first description, Japan

Introduction

The genus *Alloclubionoides* Paik, 1992 is characterized by having a broad embolus and lacking a patellar apophysis in the male palp, as well as having a large atrium, short, posteriorly situated spermathecae, and lacking epigynal teeth in the epigynum (Wang, 2002; Okumura *et al.*, 2009; Wang & Jäger, 2010). Although there are some doubtful species considered as the genus *Alloclubionoides*, twenty six species of the genus have been described from Japan, Korea, northeastern China and Russian Far East up to the present (Platnick, 2010). In Japan, only one species, *Alloclubionoides grandivulva* (Yaginuma 1969) has been known from Tsushima Islands, Nagasaki Pref. Kyushu. The species was known only by its female specimen. I surveyed Tsushima Islands from 2008 to 2010, and collected many specimens of *A. grandivulva* including males.

In this paper, I describe the male of *Alloclubionoides grandivulva* (Yaginuma 1969) and present an illustration of female internal genitalia for the first time.

The abbreviations used in this paper are as follows: ALE, anterior lateral eye; AME, anterior median eye; MOA, median ocular area; PLE, posterior lateral eye; PME, posterior median eye.

As voucher specimens, male and female described in this paper will be deposited in the collection of the Department of Zoology, National Museum of Nature and Science, Tokyo.

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Alloclubionoides grandivulva (Yaginuma 1969)

(Japanese name: Ôana-yachigumo)

Figs. 1–4

Coelotes grandivulva Yaginuma 1969, pp. 88–90, fig. 3, holotype ♀ from Mt. Mitake, Tsushima Islands, Nagasaki Pref., Kyushu, Japan, March 5, 1962, M. Ohno leg., (NSMT-Ar 80); 1986, p. 149, fig. 82 (19e); Yaginuma *et al.* 1976, pp. 828, 833, fig. 1 (6).

Ambanus grandivulvus: Ovtchinnikov 1999, p. 64; Wang 2002, p. 27.

Alloclubionoides grandivulva: Okumura *et al.* 2009, p. 175, fig. 2-2-33 (5).

Specimens examined. All the specimens were collected from Tsushima Islands, Nagasaki Pref., Kyushu, Japan, and by K. Okumura. Mt. Mitake, 110 m alt.: 1♀, December 26, 2008; 1♀, December 27, 2009; 1♀, December 28, 2009; Mt. Mitake, 210 m alt.: 2♀, December 27, 2009; Mt. Mitake, 380 m alt.: 2♀, December 27, 2008; Seta, Kamiagata-cho: 1♀, December 28, 2008; 1♀, December 28, 2009; Mt. Sumo-shira-take, 310 m alt.: 2♀, December 29, 2008; Mt. Tatera, 340 m alt.: December 30, 2008; Shushi, Kamiagata-cho: 1♀, December 28, 2009; Shisho-rindo, Nita-cho, December 29, 2009; Kamisaka, 380m alt, Izuhara-cho: 1♀, December 29, 2009; 3♂2♀, October 9, 2010; 3♂, October 10, 2010.

Description. (one male from the above specimens). Measurements in mm: Total length 10.0; carapace 5.4 long, 3.7 wide; abdomen 4.6 long, 3.0 wide; sternum 2.7 long, 2.1

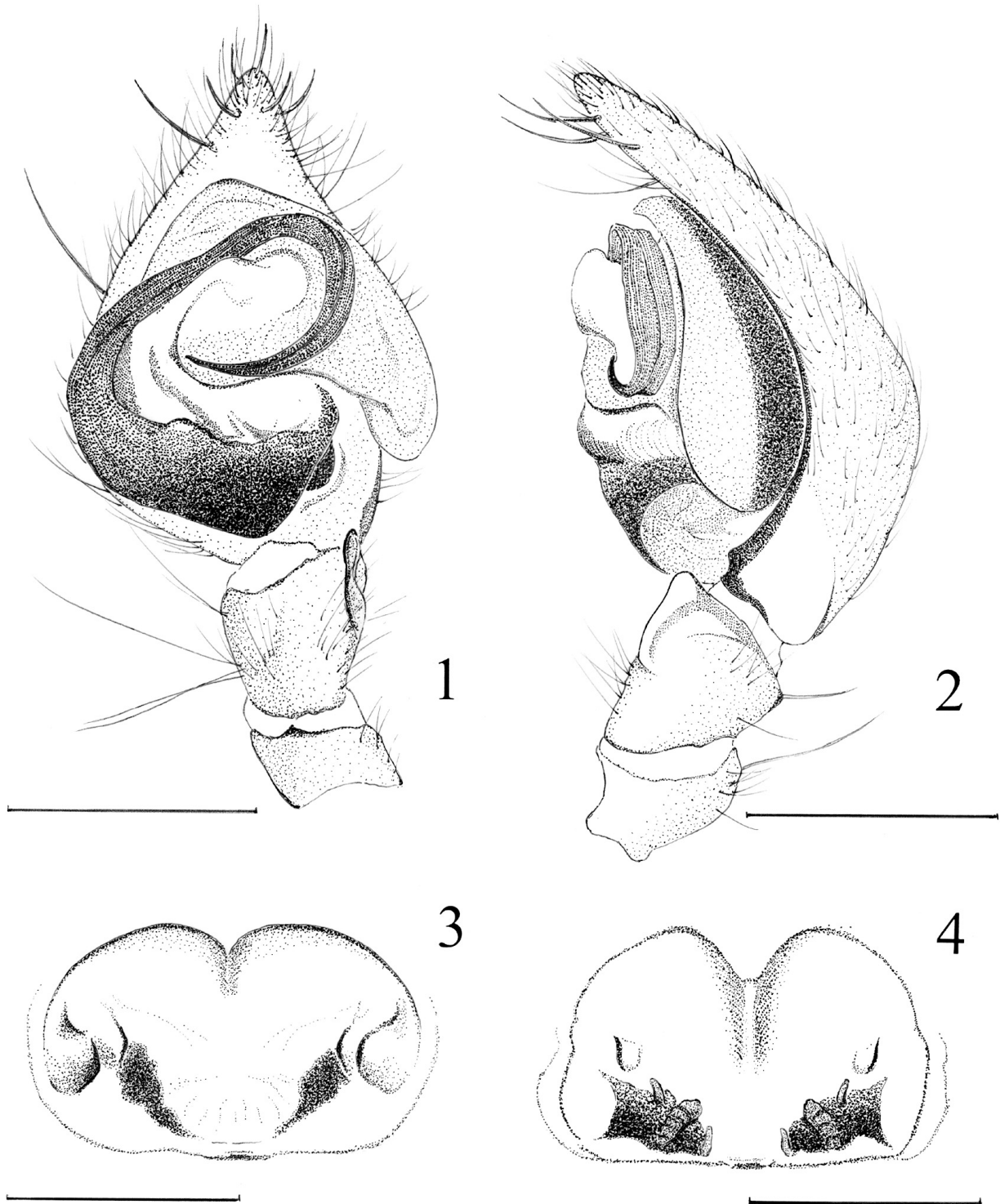


Fig. 1-4. *Alloclubionoides grandivulva* — 1, male palp, ventral view; 2, same, retrolateral view; 3, epigynum; 4, internal female genitalia. Scales: 1 mm.

wide. Eye sizes: AME 0.16, ALE 0.26, PME 0.20, PLE 0.22. Distances between eyes: AME-AME 0.08, AME-ALE 0.06, PME-PME 0.12, PME-PL 0.26, AME-PME 0.18, ALE-PL 0.06. MOA: anterior width 0.40, posterior width 0.52, length 0.54. Leg measurements as shown in Table 1.

Cherical retromargin with two teeth.

Male palp (Figs. 1-2): patella short, patellar apophysis and lateral tibial apophysis absent, cymbial furrow short, embolus broad and extremely curved to central part of cymbium, tegulum swollen and retrolaterally extended, conductor reduced and conglutinated with huge tegulum.

Table 1. Leg measurements of *Alloclubionoides grandivulva* (♂, in mm).

Legs	Femur	Patella and tibia	Metatarsus	Tarsus	Total
I	4.1	5.0	3.7	2.1	14.9
II	3.8	4.5	3.4	2.0	13.7
III	3.5	4.0	3.5	1.8	12.8
IV	4.4	5.3	5.0	2.2	16.9

Coloration: Carapace brown with three pairs of indistinct radial flecks, cephalic region darker, dorsum of abdomen grayish brown with yellowish brown chevrons, sternum and labium reddish brown, chelicerae and maxillae almost black, legs yellowish brown (metatarsi darker) without ring flecks.

Female internal genitalia (Fig. 4): spermathecae short, agglutinated with copulatory ducts, centrally swollen, and situated distantly from each other, spermathecal heads and fertilization ducts small.

Remark. *Alloclubionoides grandivulva* (Yaginuma 1969) resembles some congeneric species such as *A. amurensis* (Ovtchinnikov 1999), *A. cochlea* (Kim, Lee & Kwon 2007), *A. coreanus* (Paik 1992), *A. lunatus* (Paik 1976), *A. mandzhuricus* (Ovtchinnikov 1999) and *A. nariceus* (Zhu & Wang 1974) in having the broad embolus in the male palp and the large atrium in the epigynum. However *A. grandivulva* is distinguished from the other species by having the retrolaterally extended tegulum in the male palp and the centrally swollen spermathecae in the female genitalia.

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