

An Interesting New Crab Spider (Araneae, Thomisidae) from Malaysia

By

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Abstract A new spider genus and species of the tribe Smodicini (Thomisidae, Thomisinae) is described from Malaysia under the name of *Smodicynodes kovaci*. The tribe has hitherto been considered Ethiopian, comprising only two species of two genera, *Smodicinus* and *Parasmodix*. This is the first record of Asian species. Morphological characteristics and systematic position of the new genus within the family Thomisidae are discussed.

The tribe Smodicini ONO, 1988, is a small, interesting group of thomisids belonging to the subfamily Thomisinae, comprising only two monotypic genera. *Smodicinus* SIMON, 1895, the type genus of the tribe, is represented by *S. coroniger* SIMON, 1895, originally described from Sierra Leone, West Africa. A supposed second species of the genus described from Zaire by LESSERT (1943), *S. affinis*, was synonymised with *S. coroniger* by DIPPENAAR-SCHOEMAN (1980). She also dealt with *S. coroniger* from South Africa. Though only a few specimens have been collected, the known distributional range of this species seems very wide in Africa.

On the other hand, the second genus, *Parasmodix*, was described by JÉZÉQUEL (1966) with the type species, *P. quadrimaculatus* JÉZÉQUEL, 1966, from Ivory Coast. However, this species has never been recorded since its original description.

These spiders are peculiar in the unique shape of prosoma, which is quite unusual for the thomisids; the posterior part of the carapace is raised and bears four or six tubercles furnished with a strong seta at each top along the margin of the elevation.

Recently, a spider resembling these African smodicines was discovered in South-east Asia. It was collected from the internode of a bamboo plant in Malaysia and entrusted to the present author for systematic study. Having three pair of peculiar tubercles on the prosoma, the spider undoubtedly belongs to the tribe Smodicini, though it is considerably different from all the species previously known and sharply distinguished from them at the generic level by the differently shaped opisthosoma and legs as well as female genitalia. Though the male is not yet available, the spider is worth reporting because the smodicine spiders have been very rarely obtained.

This first Asian spider of the Smodicini will be described in the present paper, and its systematic position within the family Thomisidae, especially in relation to the strophine spiders, will be discussed.

The holotype to be designated is deposited in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

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

Before going further, the author wishes to express his sincere thanks to Dr. Damir

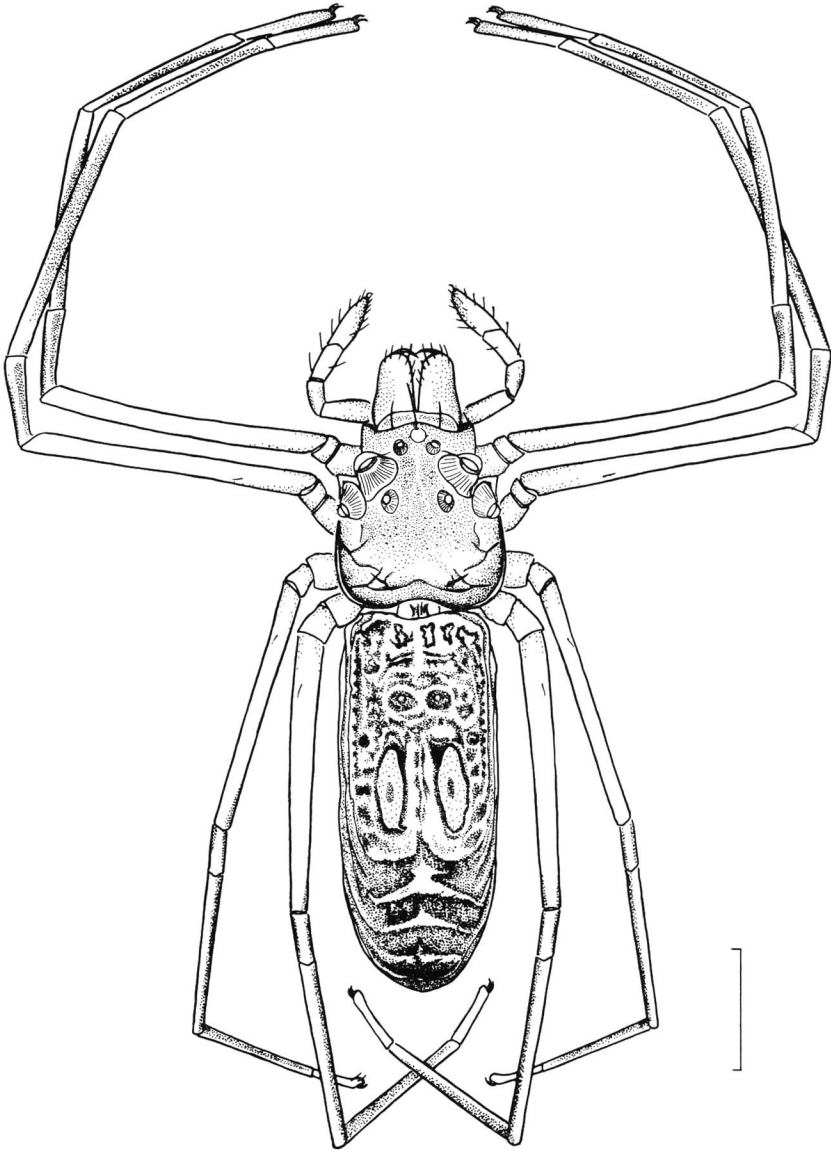


Fig. 1. *Smodicinodes kovaci* sp. nov., female holotype. (Scale: 1 mm.)

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Family Thomisidae SUNDEVALL, 1833

Subfamily Thomisinae SUNDEVALL, 1833

Tribe Smodicini ONO, 1988

Smodicinodes gen. nov.

Type species. *Smodicinodes kovaci* sp. nov.

Diagnosis. Prosoma long; carapace with three pair of tubercles furnished with a strong seta at each top, the tubercles not pointed; the middle clypeal seta long and situated on a well developed white tubercle; median ocular area as long as wide; maxillae long, labium more than twice as long as wide; legs, especially III and IV, very long and slender, ratio in length of leg I to IV nearly 1; spines absent on legs with the exception of one weak spine on each femur of legs II to IV. Opisthosoma long, more than twice as long as wide; female genitalia with a guide pocket (central hood), spermatheca divided into two parts.

Remarks. This new genus belongs to the tribe Smodicini of the subfamily Thomisinae. It is closer to *Smodicinus* SIMON, 1895, than to *Parasmodix* JÉZÉQUEL, 1966, in the shape of tubercles on the prosoma. *Smodicinodes* is distinguished from these genera by long maxillae and labium, very slender legs, presence of a clypeal tubercle, long opisthosoma, female genitalia with a guide pocket and spermatheca divided into two parts.

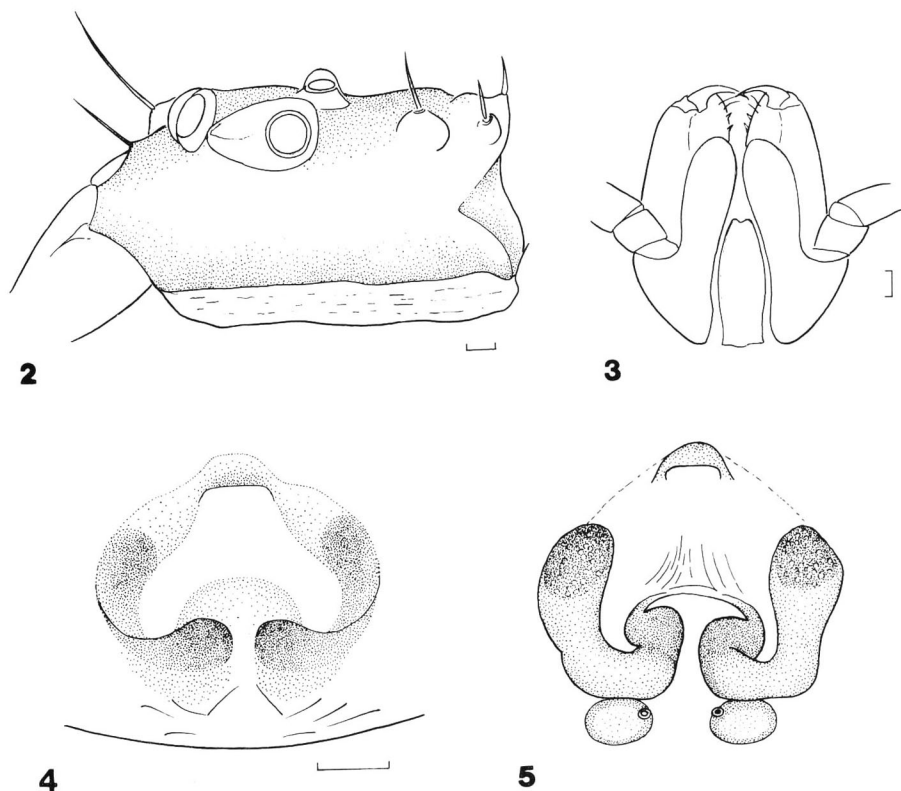
Some features of this new crab spider genus remind us of those of the subfamilies Strophinae SIMON, 1895, and Aphantochilinae THORELL, 1873, for example, the long maxillae and labium. Spiders of both the subfamilies have long and pointed maxillae and a very long labium more than twice as long as wide. The author considered that these spiders were derived from certain group of the subfamily Thomisinae in the course of evolution along ant-mimicking specialization. It can be surmised that the genus *Smodicinodes* could be the very group bridging the gap between the Tmarini of the subfamily Thomisinae and the spiders of the subfamily Strophinae.

Smodicinodes kovaci sp. nov.

(Figs. 1–6)

Type specimen. Holotype: ♀, Ulu Gombak Field Studies Center, Selangor, West Malaysia, from the internode of the bamboo *Gigantochloa scortechinii* GAMBLE, 3–IX–1991, D. KOVAC leg. (NSMT–Ar 2018).

Description (based on the holotype ♀; ♂ unknown). Measurement. Body length 4.67 mm, prosoma length 1.58 mm, width 1.43 mm; opisthosoma length 3.15



Figs. 2–5. *Smodicinodes kovaci* sp. nov., female holotype. — 2, Prosoma, lateral view; 3, chelicerae, maxillae and labium, ventral view; 4, epigynum; 5, genitalia, dorsal view. (Scales: 0.1 mm.)

mm, width 1.40 mm; lengths of legs [total length (femur + patella + tibia + metatarsus + tarsus)]: I 8.06 mm (2.81 + 1.04 + 1.93 + 1.70 + 0.58), II 8.49 (2.89 + 0.96 + 2.15 + 1.93 + 0.56), III 6.82 mm (2.30 + 0.63 + 1.78 + 1.59 + 0.52), IV 7.71 mm (2.59 + 0.63 + 2.00 + 1.93 + 0.56).

Prosoma longer than wide (length/width 1.10), with three pair of developed tubercles each furnished with a strong seta at the top; eyes on developed tubercles, ALE > PLE > PME > AME, ALE/AME 2.00, PLE/PME 1.38, AME–AME/AME–ALE 1.08, PME–PME/PME–PLE 1.25, median ocular area as long as wide, wider behind than in front (anterior width/posterior width 0.60), clypeus/AME–AME 1.00, middle clypeal seta long and on a developed tubercle white. Chelicera with two small teeth on the promargin of fang furrow, maxillae long, not pointed, labium very long (length/width 2.57), sternum longer than wide (length/width 1.23). Legs long and slender, almost without spines; femora II–IV with a weak dorsal spine; leg formula II, I, IV, III; claw tuft absent.

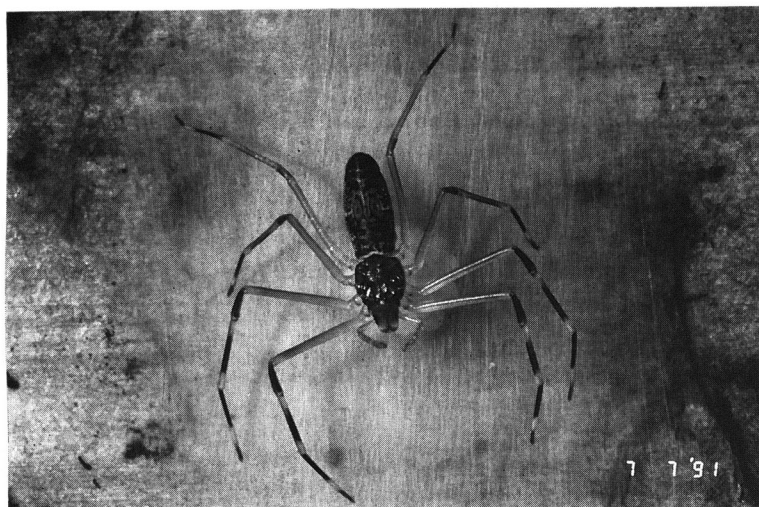


Fig. 6. *Smodicinodes kovaci* sp. nov., female with egg sac. [Photo: Damir KOVAC.]

Opisthosoma long (length/width 2.25), with a pair of oval sclerotized plates.

Female genitalia (Figs. 4–5). Epigynum with a guide pocket in the anterior part; intromittent orifices situated in the middle. Intromittent canal short and thick; spermatheca divided into two parts; the tubular part with a reniform gland, the closed part oval.

Coloration and markings. Carapace yellowish brown, margined with white; eye tubercles grey, clypeal tubercle white; chelicerae dark yellow, maxillae whitish, labium light yellowish brown; sternum yellowish brown, darker margined. Legs: all tarsi yellow; metatarsi I–II proximally, tibiae I–II at the middle, and patellae I–II wholly brown; metatarsi, tibiae and patellae III–IV with a prolateral brown line respectively; other parts of legs white. *Opisthosoma* blackish brown with white markings, sclerotized plates beige, venter brown.

Biology. The type specimen of this spider was collected from the internode of a bamboo plant, a habitat that has been overlooked by most recent collectors. Though the precise biology of this peculiar spider is unknown, it may live in close relation to ants, because the African species of the related genus, *Smodicinus coroniger*, is myrmecomorph and resembles certain tree ant (LESSERT, 1943; DIPPENAAR-SCHOEMAN, 1980).

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