Aetana kinabalu Huber, 2005

Huber BA. 2005. Revision of the genus *Spermophora* Hentz in Southeast Asia and on the Pacific Islands, with descriptions of three new genera (Araneae: Pholcidae). Zoologische Mededelingen 79-2(4): 61-172.

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Aetana kinabalu spec. nov.
(figs 108, 109, 121-123)

Type material.—Male holotype from Kinabalu National Park (headquarters) (~116°39'E, 6°09'N), Sabah, Borneo, Malaysia; 1550 m a.s.l., 3.v.1991 (C. L. Deeleman-Reinhold), in RMNH.
Non-Type Material.—**Malaysia**: *Sabah*: "Kinabalu" (~6º00'N, 116º30'E), date unknown (C. L. & P. R. Deeleman), 1♂ (RMNH).

Diagnosis.—Easily distinguished from the two known congeners by the much shorter cheliceral apophyses (fig. 123) and the unmodified clypeus; also by the shapes of male palpal femur, bulb, and procursus (figs 121, 122).

Description.—Male (holotype). Total length 3.0 (3.2 with clypeus), carapace width 1.1. Leg 1: 8.7 + 0.4 + 8.6 + 15.3, tarsus missing, tibiae 2 and 4 missing, tibia 3: 3.3; tibia

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1 L/d: 81. Habitus as in figures 108 and 109. Carapace ochre-yellow with dark median and lateral margins, ocular area also darkened, clypeus ochre-yellow; sternum pale ochre-grey medially, light brown laterally. Legs light brown, without rings. Abdomen damaged. Ocular area barely elevated but each triad on stalk-like elevation; thoracic furrow very shallow frontally, absent posteriorly; distance PME-PME 445 μm; diameter PME 100 μm; distance PME-ALE ~25 μm; AME absent. Clypeus unmodified. Sternum wider than long (0.68/0.52). Chelicerae as in fig. 123, with pair of simple apophyses, tips 455 μm apart, without modified hairs. Palps as in figures 121 and 122; trochanter with simple apophysis, femur with several modifications: prolateral cone and complex ventral apophysis; procursus very complex, apparently with two successive hinges, with strong spine distally; bulb with small cone and single membranous projection (presumably the embolus). Retrolateral trichobothrium of tibia 1 at 3%; almost all hairs on legs missing.

Variation. Other male with distinct black spots on abdomen (figs 108, 109). Distance between tips of cheliceral apophyses: 460 μm.

Female. Unknown.

Etymology.—The specific name is a noun in apposition, taken from the type locality.

Distribution.—Known from Kinabalu area only (fig. 170).

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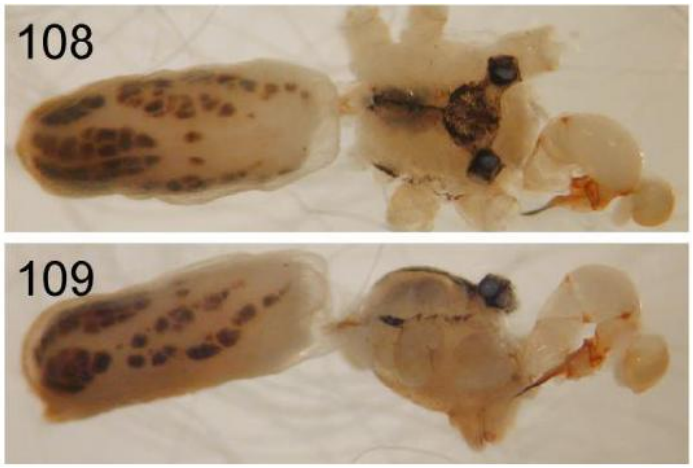

108-109, *A. kinabalu* spec. nov., male habitus, dorsal and lateral views.

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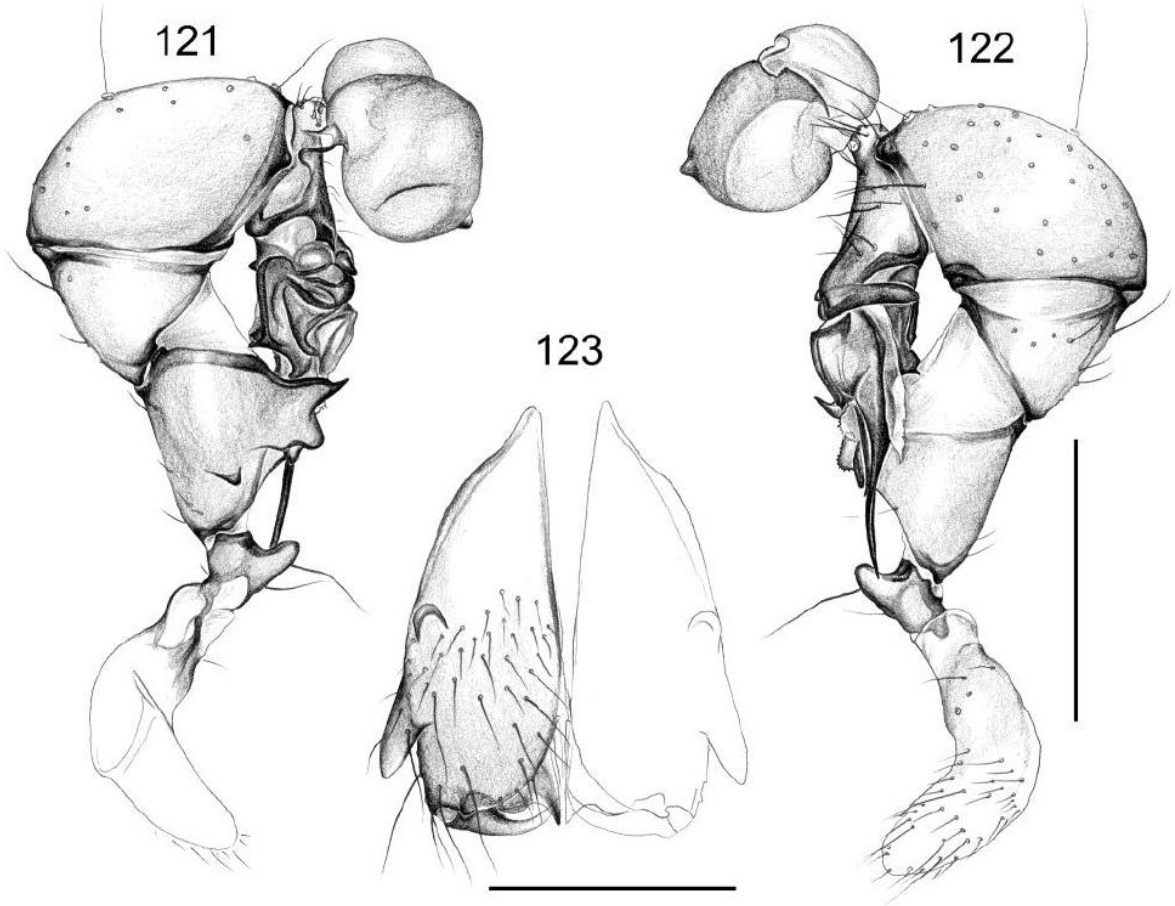


Figs 121-123. *Aetana kinabalu* spec. nov. 121-122, left male palp in prolateral (121) and retrolateral (122) views; 123, male chelicerae, frontal view. Scale lines: 0.5 (121, 122), 0.3 (123).

Huber BA, Nuñeza OM, Leh Moi Ung C. 2015. Revision, phylogeny, and microhabitat shifts in the Southeast Asian spider genus *Aetana* (Araneae, Pholcidae). European Journal of Taxonomy 162: 1-78.

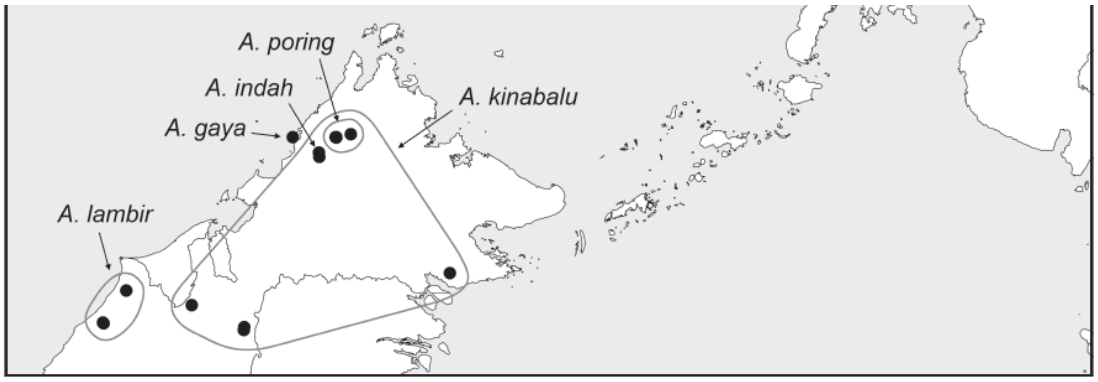


Fig. 5. Known distributions of the *Aetana kinabalu* (Borneo) and *A. omayan* (Philippines) groups.

Aetana kinabalu Huber, 2005
Figs 99–103, 111–112, 163–165

Aetana kinabalu Huber, 2005a: 75–76, figs 108–109, 121–123 (♂).

Note

The original description was based on two males. Here we present data on new material from the type locality, a description of the female, and an emended diagnosis to account for the newly described congeners.

Diagnosis

Distinguished from closest known relative (*A. lambir* Huber, sp. nov.) by shape of prolatero-ventral apophysis of male palpal femur (pointed tip and subdistal branch of approximately same length; *cf.* Huber 2005a: fig. 121); also by presence of prolateral apophysis on femur, by details of procursus (shapes of sclerites on complex distal part; *cf.* Huber 2005a: figs 121–122), and by female genitalia (pair of internal pockets; position of pore plates; Figs 111–112).

New material examined

MALAYSIA-BORNEO, Sabah: 1 ♂, 1 ♀, 1 juv., Mt. Kinabalu, forest along Silau Silau Trail (6.010–6.017° N, 116.537–116.543° E), 1550–1650 m a.s.l., domed webs among vegetation, 6 Aug. 2014 (B.A. Huber, S.B. Huber), ZFMK (Ar 13961); 2♀♀, 1 juv., in pure ethanol, same data, ZFMK (Bor 211). – 1 ♀, Kinabalu N.P., 1550 m a.s.l., 2–8 Apr. 1998 (C.L. Deeleman-Reinhold, P. Zborowski), RMNH. – 2 ♂♂, 5 ♀♀, 3 juvs, Crocker Range between Kota Kinabalu and Tambuan, S-slope, forest along river (5.783° N, 116.338–116.340° E), 1430–1480 m a.s.l., domed webs among vegetation, 3 Aug. 2014 (B.A. Huber, S.B. Huber), ZFMK (Ar 13962); 4 juvs, in pure ethanol, same data, ZFMK (Bor 171). – 2 ♂♂, 3 ♀♀, in very poor condition, Tawau (4.406° N, 117.892° E), 6 Sep. 2009 (A. Floren), RMNH.

MALAYSIA-BORNEO, Sarawak: 2 ♂♂, 6 ♀♀, 3 juvs, Gunung Mulu N.P., forest near Deer Cave (4.027° N, 114.818° E), 60 m a.s.l., 23–24 July 2014 (B.A. Huber, S.B. Huber), ZFMK (Ar 13963-64); same data, 3 ♀♀, 5 juvs, in pure ethanol, ZFMK (Bor 182). – 5 ♂♂, 2 ♀♀, 4 juvs, Bario, forest along river W of town (3.736° N, 115.437–115.443° E), 1150–1250 m a.s.l., domed webs among vegetation, 30 July 2014 (B.A. Huber, S.B. Huber), ZFMK (Ar 13965). – 1 ♀, 1 juv., Bario, forest along river N of town (3.765–3.771° N, 115.444–115.448° E), 1170–1250 m a.s.l., domed webs among vegetation, 29 July 2014 (B.A. Huber, S.B. Huber), ZFMK (Ar 13966); 9 juvs, in pure ethanol, same data, ZFMK (Bor 233).

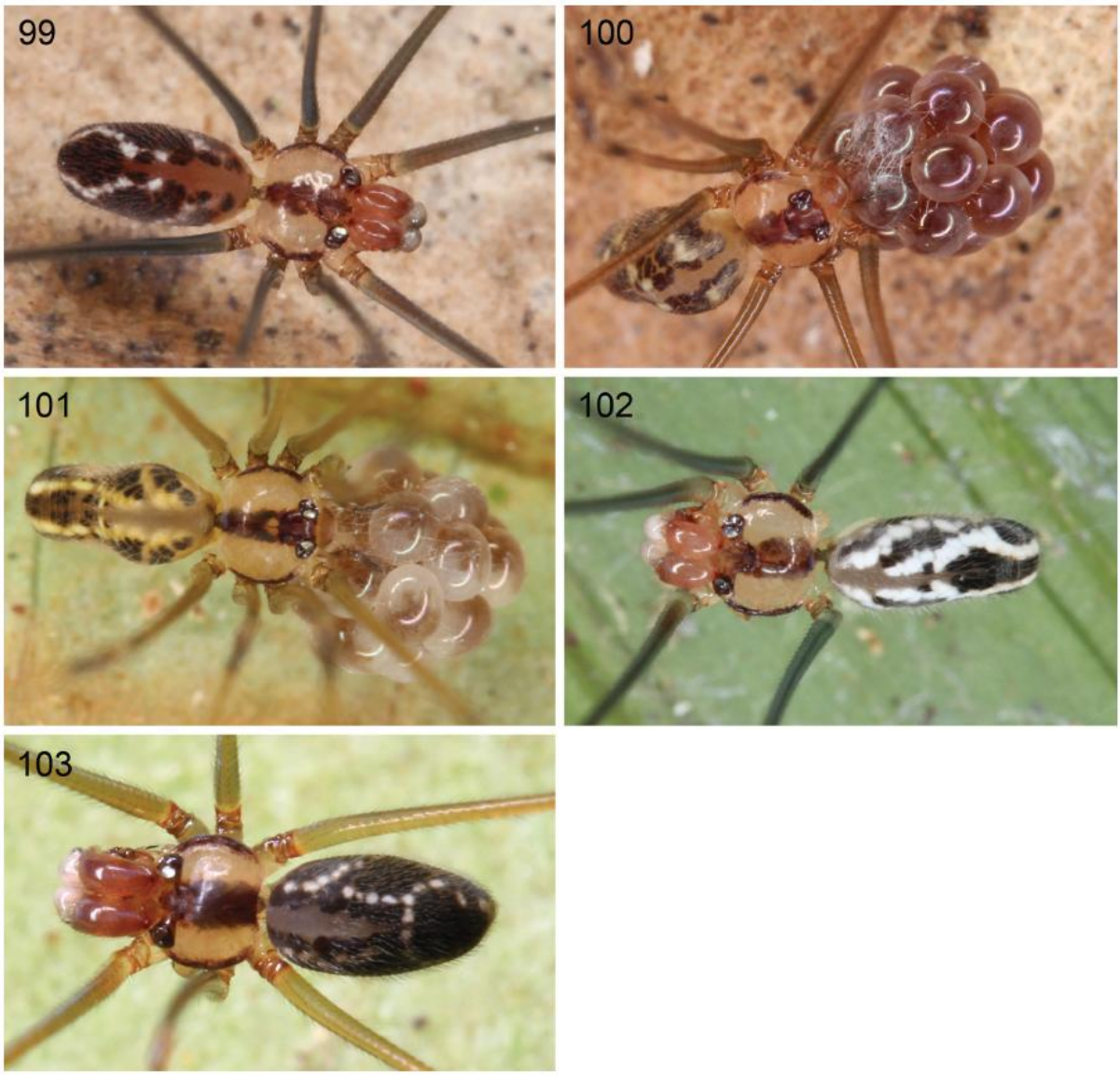
Description (amendments to Huber 2005a)

Male

Thoracic furrow absent (*contra* Huber 2005a); clypeus slightly protruding (more than in female). Tibia 2 slightly longer than tibia 4 (e.g., 5.1/4.9; 4.9/4.8); curved hairs on metatarsi 2; tibia 1 in 7 males: 7.6–8.8 (mean: 8.3).

Female

Eye triads much closer together than in male (distance PME-PME ~235 µm *vs.* 375 µm), not on stalks. Tibia 1 in 15 females: 5.9–7.3 (mean 6.4). Epigynum simple plate, darker laterally anteriorly; anterior



Figs 99–104. Live specimens. *Aetana kinabalu* group. — **99–103**. *A. kinabalu* Huber, 2005. ♂ and ♀ with eggsac from Gunung Mulu, Sarawak (99, 100); ♀ with eggsac and ♂ from Crocker Range, Sabah (101, 102); and ♂ from Mt. Kinabalu, Sabah (103). —

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internal arc and internal sclerotized pockets visible through cuticle (Figs 111, 163–164). Internal genitalia as in Figs 112 and 165, with pair of sclerotized pockets and more lateral pair of membranous pockets.

Variation

In males from Gunung Mulu, the tiny cone-shaped process on the genital bulb (*cf.* Huber 2005a: figs 121 and 122) is absent. Males from Bario with small additional process at basis of prolatero-ventral apophysis of femur.

Natural history

Webs were in most cases made of two sheets: an upper sheet in which the spider hung, and a lower sheet that had to be removed in order to catch the spider. At most localities, webs were found high among the

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vegetation, even in the sunlight. At Gunung Mulu, webs were found among mosses and low vegetation on perpendicular rock surfaces about 2 m above the ground. At several localities, *A. kinabalu* was sympatric with a ground-dwelling congener: with *A. poring* Huber, sp. nov. at Mt. Kinabalu and Poring; with *A. indah* Huber, sp. nov. at Crocker Range.

Distribution

Widely distributed in Sabah and eastern Sarawak (Fig. 5).

Figs 111–112. *Aetana kinabalu* Huber, 2005. Cleared female genitalia, ventral and dorsal views (arrow in Fig. 112 points at membranous pocket). ip = internal sclerotized pocket. Scale line: 0.5 mm.

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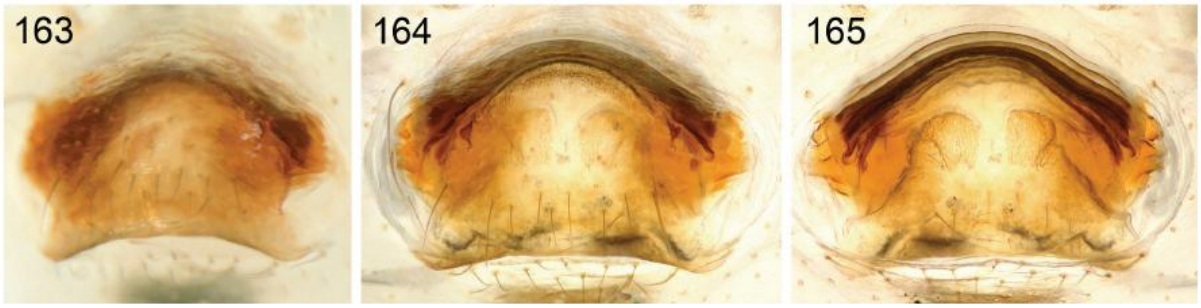

Figs 163–177. *Aetana kinabalu* group. Female genitalia; untreated in ventral view, cleared in ventral and dorsal views. — **163–165**. *A. kinabalu* Huber, 2005. —