Uthina luzonica Simon, 1893

Simon, E. 1893. Histoire Naturelle des Araignées. 2e edit, 1(2): 256-488. Paris.

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mais le caractère fourni par la situation des yeux médians antérieurs n'est pas applicable au genre *Uthina*, chez lequel ces yeux font défaut ; à part cela, les *Uthina* ressemblent complètement aux *Smeringopus*, dont ils représentent la forme sénoculée.

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Uthina, nov. gen.

Oculi sex (medii antici nulli), utrinque laterales trini inter se subcontigui, anticus reliquis major, spatium interoculare oculo interiore haud duplo latius. Cætera *Smeringopodis*.

Typus : *U. luzonica* E. Sim. (sp. un.) (1).

Ar. geogr. : ins. Luzonia.

(1) Cette espèce est inédite, en voici la diagnose :

U. luzonica, sp. nov. — ♀. Long. 3,5 mill. — Cephalothorax luridus, parte cephalica clypeoque infuscatis, parte thoracica vitta media lata utrinque dentata, notata. Chelæ, partes oris sternumque fusco-olivacea. Abdomen anguste ovatum, cinereum, supra punctis nigris, vittas duas, postice convergentes, designantibus, ornatum. Pedes obscure fulvi, femoribus tibiisque annulo subapicali nigricanti annuloque apicali minore albido ornatis. Pedes-maxillares olivacei, tarso tibia vix longiore, acuminato. — Manila.

Simon, E. 1893. Arachnides de L'Archipel Malais. Rev. suisse Zool. 1: 319-328.

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5. *Spermophora longiventris* sp. nov.

♂ *(pullus) long. 3,5*mm*. Cephalothorax paulo longior quam latior, lævis, albo-testaceus, antice, inter oculos, macula parva et postice maculis duabus subgeminatis, elongatis et obliquis olivaceis notatus. Oculi ordinarii, utrinque contigui et nigro-cincti, antici reliquis majores, spatio interoculari oculo interiore fere duplo latiore. Abdomen omnino albidum, plus quadruplo longius quam latius, antice posticeque attenuatum et fusiforme, apice truncatum. Chelæ, partes oris, sternum pedesque pallide lurida, patellis apiceque tibiarum minute fuscis. Pedes-maxillares maris pulli maximi, longissimi, albi et pellucentes, articulis cunctis cylindraceis.*

Sumatra : Deli.

Espèce remarquable par la forme de son abdomen, qui est unique dans le genre *Spermophora ;* toutes les autres espèces connues de ce genre ont l'abdomen globuleux ou même plus haut que long. L'unique individu capturé est malheureusement immature et ses organes sexuels ne sont pas développés.

Kritscher, E. 1957. Bisher unbekannt gebliebene Araneen-Männchen und -Weibchen des Wiener naturhistorischen Museums (1. Teil). Ann. Naturhist. Mus. Wien, 61: 254-272.

Spermophora longiventris Simon 1893 (Fam. Pholcidae)

Arachnides de l'Archipels Malais. Rev. Suisse Zool., *v.* 1, p. 321 (D juv. ♂). — Bedot, M., 1909. Sur la Fauna de l'Archipel Malais (Resumé). Rev. Suisse Zool., *v.* 17, p. 149 (N).

Männchen. Cephalothorax: Länge 1,2 mm, Breite 1 mm. Von oben gesehen ist der Ceph fast rund und mit schmutzighellbrauner Farbe versehen. Je 3 Augen liegen in einem Dreieck angeordnet am Ende eines leicht aufwärts gekrümmten, seitlich gerichteten Augenwulstes. VM verkümmert.

An den langen und dünnen, schmutzighellbraun gefärbten Beinen ist nur eine sehr spärliche, aus borstenartigen Stacheln bestehende Bewehrung erkennbar.

Maße der Beine in mm:

	Fe	Pt	Ti	Mt	Ta	Ges
I	7,5	0,3	6,9	12,5	2,2	29,4
II	4,9	0,3	4,8	6,9	0,7	17,6
III	3,6	0,3	3,1	5,1	0,7	12,8
IV	5,1	0,3	4,8	4,8	0,7	15,7

Das breit-schildförmige Sternum ist dunkelbraun und besitzt am Vorderrand eine wellenförmige Aussparung, in die das niedrige jedoch breite Labium

eingelassen ist. Von derselben Farbe sind auch die gleichmäßig verlaufenden, einander im spitzen Winkel berührenden Maxillen. Die sehr kleinen Chelizeren haben an der Außenseite der Basis und apikal durch Verlängerung des vorderen Falzrandes je eine kleine zahnartige Bildung.

Pedipalpus (Abb. 15 u. 16): Am Pp-Tr fällt ein zylindrischer Zapfen auf und an der Ventralseite des Pp-Fe befindet sich eine hügelartige Erhebung. Die Pp-Ti ist stark verdickt und hat birnenförmige Gestalt. Der dem Pp-Ta anliegende Bulbus ist ebenfalls birnenförmig, jedoch langgestreckt und besitzt 2 Apophysen. Hart chitinisiert und sichelförmig gebogen ist der an der Außenseite des Bulbus gelegene Embolus, an dessen Innenwölbung zahlreiche feine Widerhäkchen erkennbar sind. Schließlich wäre noch der sehr lange, charakteristisch ausgebildete Prokursus des Pp-Ta zu erwähnen.

Abdomen: Länge 2,9 mm. Das länglich-ovale Abd hat eine graue Grundfarbe und ist mit unregelmäßigen dunklen Flecken besetzt, welche nur dorsalmedian einen hellen Längsstreif freilassen. Die Spinnwarzen sind einfärbig grau.

Fundort: Sumatra (Padang). Jacobson leg. Datum unbekannt. Inv. Nr. 407.

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Murphy, F. & Murphy J. 2000. An Introduction to the Spiders of South East Asia. Malaysian Nature Society, Kuala Lumpur. 624 pp., 32 plates.

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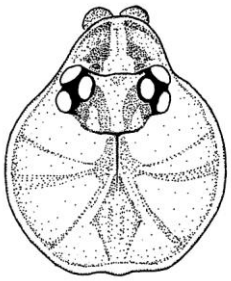
Genera: *Uthina* (3-4; 3-4). See also Koh, p. 71. As far as field characters are concerned, some *Uthina* and *Panjange* species are almost indistinguishable, even down to the extraordinary eye-stalks and spikes of the male *Panjange*. However, the type species *U. luzonica* resembles a *Pholcus* which has lost its anterior eyes and its male lacks eye-stalks. This species is frequently found in caves or other dark places. The abdomen of *Uthina* appears to be at most only 3 times as long as the carapace. The abdomen tends to be less cylindrical and slightly swollen anteriorly. The male palpal tibiae are noticeably swollen as well. There are many undescribed species.

Distribution: *Uthina* is widespread in our area and probably in nearby tropical regions.



Fam. 47: Fig. 10 Carapace and eye pattern of a female *Uthina luzonica*. Specimen from P. Malaysia. Drawings by M. Roberts.

Huber, B. A. 2001. The pholcids of Australia (Araneae; Pholcidae): Taxonomy, biogeography, and relationships. Bull. Amer. Mus. Nat. Hist. 260: 1-144.

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The six-eyed *P. tagoman* is restricted to the tropical north of Northern Territory, to Kimberley in Western Australia, and possibly reaches into northwestern Queensland. Its closest known relative is an undescribed species (or maybe two species) from Malaysia (in WAM 99/1994–5) and (interestingly) the Seychelles (M. Saaristo, unpubl. MS). The male pholcid from Sumatra identified by Kritscher (1957) (possibly correctly) as *Spermophora longiventris* Simon also belongs in this group. In fact, the Malaysian specimens mentioned above might be "*Spermophora*" *longiventris*.

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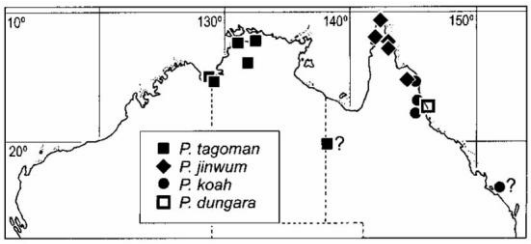

Map 17. Distribution of the genus *Pholcus* in Australia (except *P. phalangioides*). ? = female specimens assigned tentatively.

***Pholcus tagoman*, new species**
Figures 363–377

TYPE: Male holotype from Ningbing Cave, cave KNI-19 (15°18′S, 128°37′E), Western Australia; May 10, 1994 (R. D. Brooks), in WAM (99/2062).

ETYMOLOGY: Named for the Tagoman, an aboriginal tribe in the Daly River area in Northern Territory. The species name is a noun in apposition.

DIAGNOSIS: Easily distinguished from Aus-

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tralian congeners by the absence of AME; from other described species also by the shapes of the bulbal apophyses and the procursus (figs. 365, 366, 371, 372). A very similar species occurs on the Seychelles (M. Saaristo, unpubl. MS). It differs by having a broader uncus and an appendix ending in two tips. Two specimens from Malaysia (WAM 99/1494–5) and the male identified by Kritscher (1957) (possibly correctly) as *Spermophora longiventris* Simon might be conspecific with the Seychellian specimens. Finally, a single female specimen from Christmas Island, Phosphate Hill (10°26′S, 105°42′E) in the WAM (99/1512) might be conspecific with any of these species.

MALE (holotype): Total length 3.8, carapace width 1.0. Leg 1: 37.3 (9.2 + 0.5 + 9.5

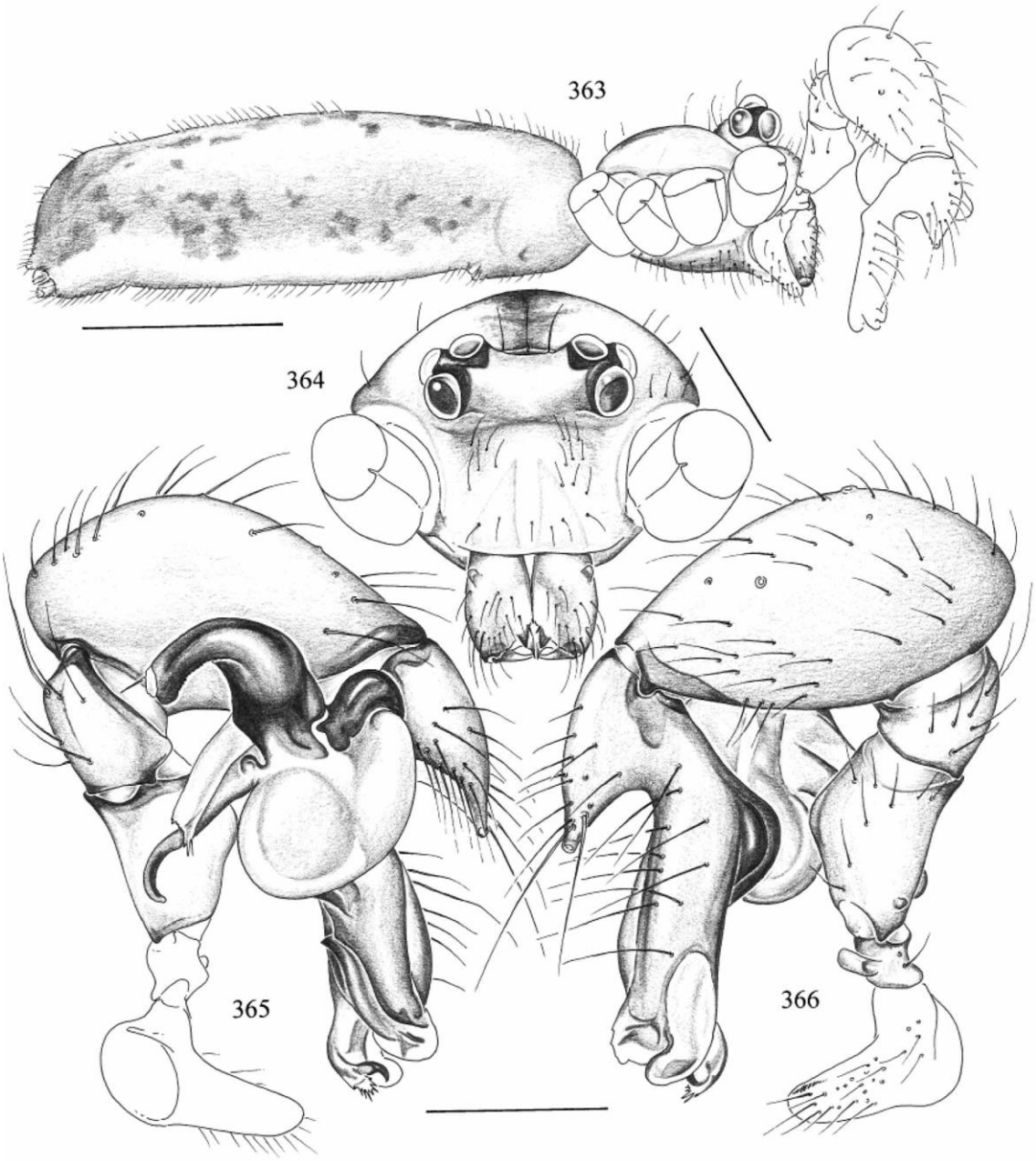
+ 16.8 + 1.3), tibia 2: 5.6, tibia 3: 3.6, tibia 4: 5.3; tibia 1 l/d: 101. Habitus and prosoma shape as in figs. 363, 364, and 367. Carapace ochre, with gray-brown median stripe; ocular area and clypeus without darker marks; sternum brown, shape as in fig. 368. Distance PME-PME 0.215; diameter PME 0.095; distance PME-ALE 0.025; AME absent. Chelicerae as in fig. 369, with pair of black apophyses distally (figs. 370, 376) and pair of unsclerotized rounded apophyses proximolaterally. Palps as in figs. 365 and 366, procursus and bulb as in figs. 371 and 372. Palpal tarsal organ capsulate (fig. 377), on conical projection of cymbium (fig. 366). Legs ochre-brown, with barely visible darker rings on femora (subdistally) and tibiae (proximally, subdistally); without spines, without curved and vertical hairs; retrolateral trichobothrium of tibia 1 at 2%; tarsus 1 with >13 pseudosegments (proximally they are difficult to count, distally they are quite distinct; fig. 375). Opisthosoma shape as in fig. 363; gray, with blackish spots except ventrally; genital plate not distinct. ALS with several piriform gland spigots.

VARIATION: Tibia 1 in 8 males: 6.8–9.7 ($\bar{x}$ = 8.2). Opisthosoma in some males without dark spots.

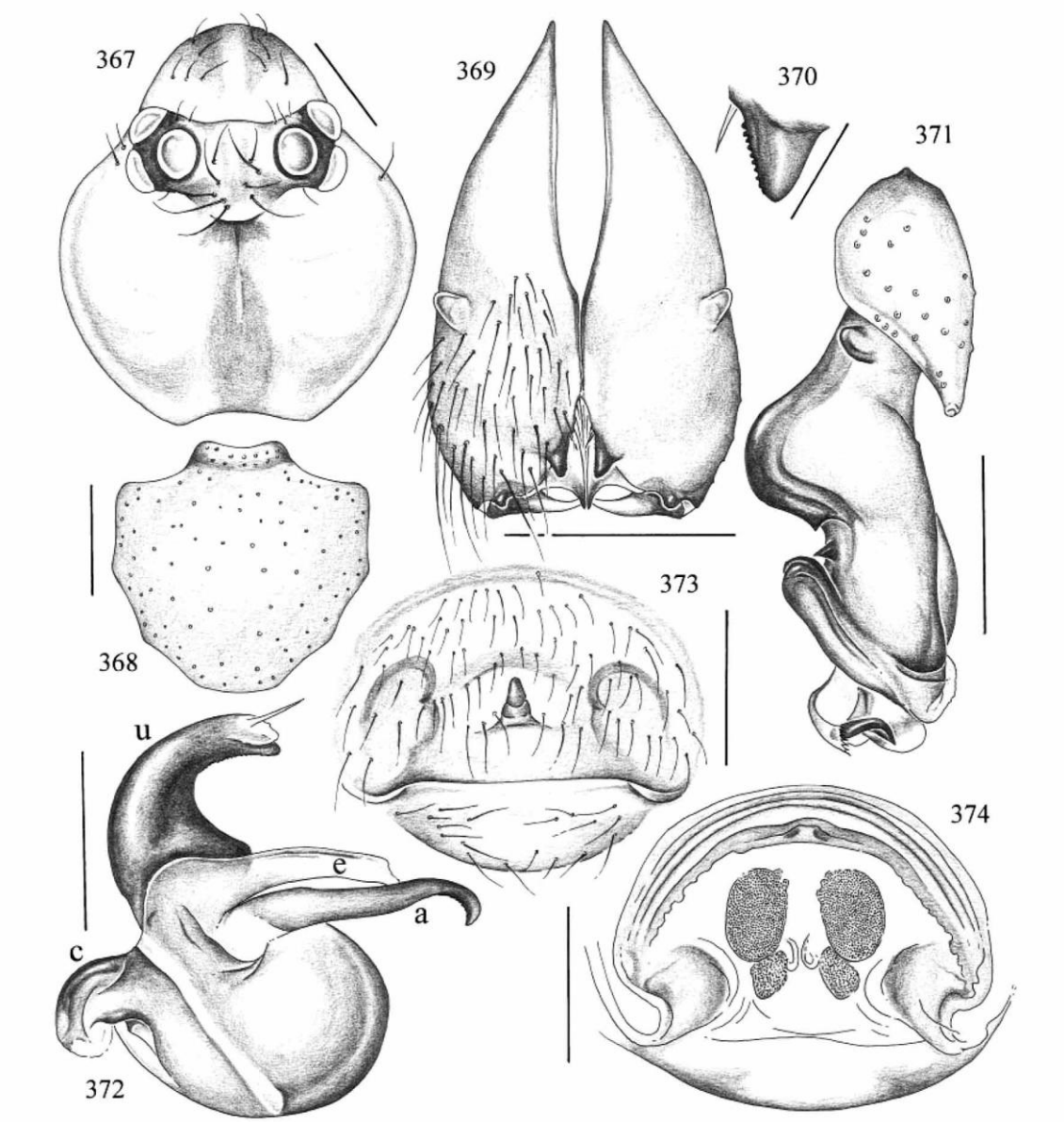
FEMALE: In general very similar to male. Tibia 1 in 18 females: 5.5–8.5 ($\bar{x}$ = 7.5). Epigynum as in fig. 373; gray as opisthosoma with darker structures shining through, only knob brown to black; dorsal view as in fig. 374, apparently with divided pore plate. (Using the light microscope I could not see whether both plates are actually pore plates.)

DISTRIBUTION: Apparently widely distributed in northern Northern Territory, extending into northeastern Western Australia and possibly into northwestern Queensland (map 17).

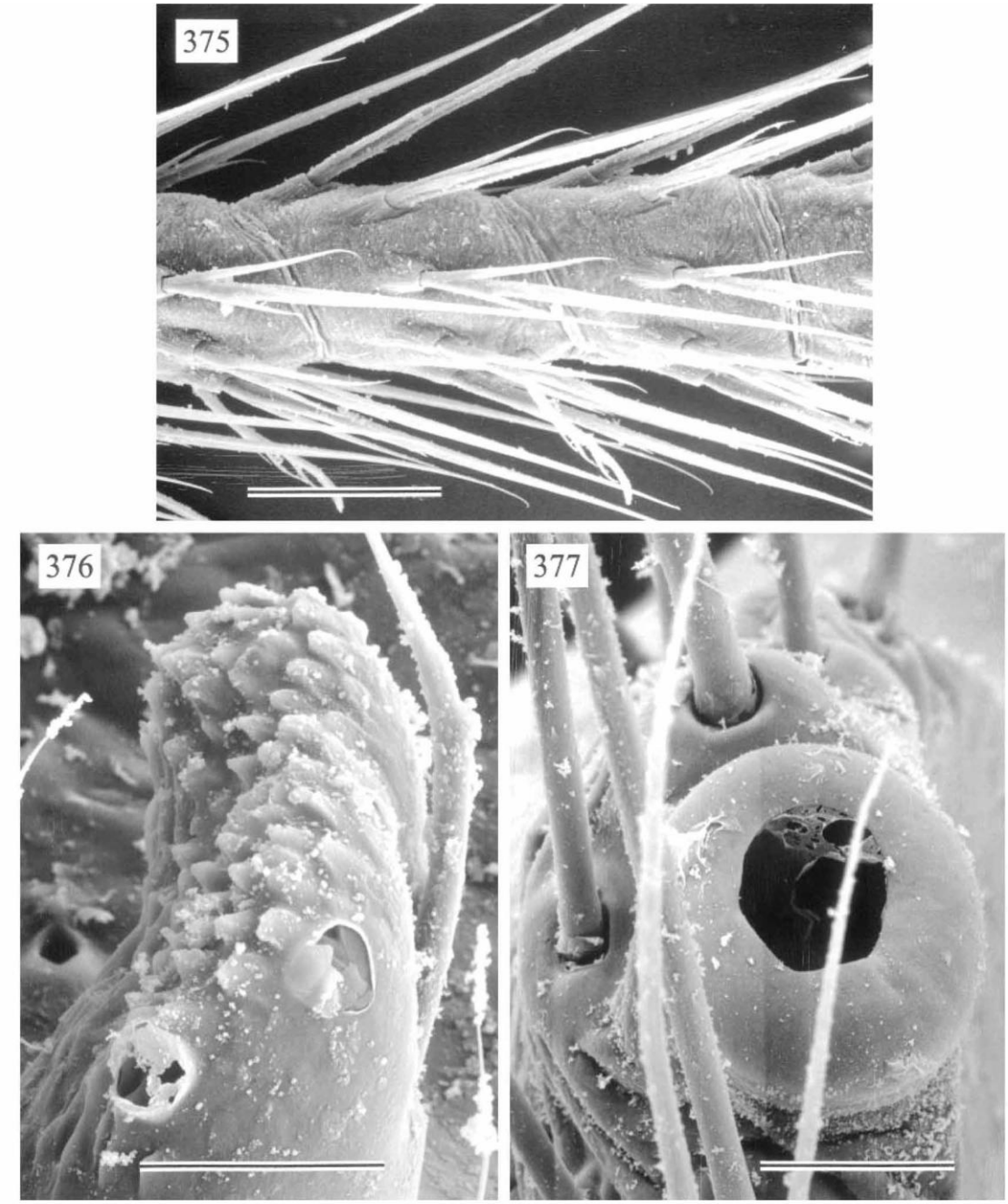
MATERIAL EXAMINED: AUSTRALIA: *Western Australia*: Ningbing Cave, cave KNI-19: Male holotype above, with 1♀ (WAM 99/2063); same data but May 7–June 21, 1994 (R. D. Brooks, B. Vine, W. Binks, K. Fear, C. Yeates, P. Fox, W. F. Humphreys), 1♂ 14♀ several juveniles (WAM 99/2048–53, 2064, 2067, 2070–87, 3196); Ningbing Cave, cave KNI-9 (15°17′S, 128°37′E), May 10, 1994 (R. D. Brooks), 1♀ (WAM 99/ 2065); Ningbing Cave, cave KNI-29 (15°16′S, 128°39′E), May 9, 1994 (R. D. Brooks), 1♂ 2♀ 5 juveniles (WAM 99/2054–61); Ningbing Cave, cave KNI-27 (15°17′S, 128°41′E), May 16, 1994 (R. D. Brooks), 1♀ (WAM 99/2066); Jeremiah Hills, cave KJ8 (15°26′S, 128°44′E), May 17, 1994 (W. F. Humphreys), 1♂ 1♀ (WAM 99/2068–9); same locality, May 4, 1994 (B. Vine), 1♀ (WAM 99/2046); Point Spring Nature Reserve (15°25′S, 128°53′E), May 28–June 11, 1999 (M. Gray, G. Milledge, H. Smith), rainforest patch, 1♂ 1♀ (AMS KS56184–5); same data, under log, 1♂ 1♀ (AMS KS56186). *Northern Territory:* Cahills Crossing (12°25′S, 132°58′E), May 29, 1992 (M. S. Harvey, J. M. Waldock), 1♂ (WAM 99/1513); Cutta Cutta Cave, cave K-1 (14°35′S, 132°25′E), June 25, 1994 (B. Jones, W. Binks, R. D. Brooks), 2♂ 2♀ 6 juveniles (WAM 99/2035–44); Katherine, Cutta Cutta Guy Cave, 1988 (E. Holland), 1♂ (AMS KS22416); Kemp Airstrip (12°35′S, 131°20′E), rainforest, Nov. 15–16, 1979 (R. Raven), 1♂ (QMB S49805); Radon Creek (12°45′S, 132°53′E), rainforest, July 14–16, 1979 (G. Monteith, D. Cook), 1♀ 1 juvenile (QMB S49806). *Queensland:* Camooweal area, Great Nowranie Cave C-6 (~20°05′S, 138°10′E), 1996 (collector unknown), 1♀ (WAM 99/2106), assigned tentatively; same locality, Oct. 30, 1993 (S. Eberhard), 1♀ (AMS KS40772), assigned tentatively.



Figs. 363–366. *Pholcus tagoman,* male. **363.** Habitus. **364.** Prosoma, frontal view. **365, 366.** Left palp, prolateral (365) and retrolateral (366) views. Scale lines: 1 mm (363), 0.4 mm (364–366).



Figs. 367–374. *Pholcus tagoman*. **367.** Male prosoma, dorsal view. **368.** Male sternum, ventral view. **369.** Male chelicerae, frontal view. **370.** Distal apophysis on male chelicera. **371.** Left procursus, dorsal view. **372.** Left genital bulb, retrolateral view; "a" = appendix; "e" = embolus; "u" = uncus; "c" = connecting piece between bulb and cymbium. **373, 374.** Epigynum, ventral (373) and dorsal (374) views. Scale lines: 0.3 mm (367–369, 371–374), 0.05 mm (370).



Figs. 375–377. *Pholcus tagoman,* male. **375.** Pseudosegmentation on tarsus 1. **376.** Tip of distal cheliceral apophysis. **377.** Palpal tarsal organ. Scale lines: 30 μm (375), 15 μm (376, 377).

Saaristo, M. I. 2001. Pholcid spiders of the granitic Seychelles (Araneae, Pholcidae). Phelsuma 9: 9-28.

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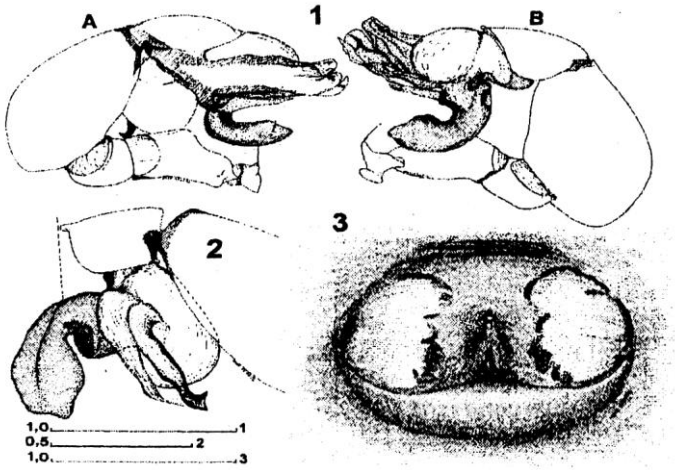
Pholcus longiventris (Simon, 1893), **new combination** (Figs. 1-6)

Spermophora longiventris Simon, 1893d: 321 (D j.m).
-"-, Kritscer 1956: 263, f. 15, 16 (D m).

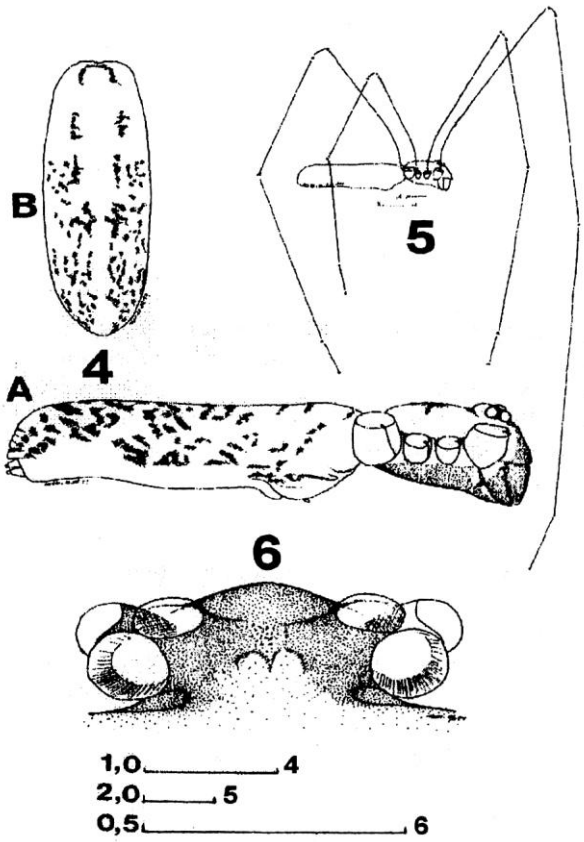
Material examined: SEYCHELLES: Mahé, Centre, Morne Blanc, versant Sud (470m elev.), 2mm6ff2j. 26.6.1972, P.L.G. Benoit & J.J. van Mol leg. (MRAC 143.070), Centre, La Misère (438m elev.), 1m6ff1j., 16.-17.6.1972, P.L.G. Benoit & J.J. van Mol leg. (MRAC 143.214), Baie Lazare, 1f, 26.6.1972, P. L. G. Benoit & J. J. van Mol leg. (MRAC 143.326), and Riv. Grand St. Lois, Le Niol, 1f, 30.9.-1.10. 1967, G. Marlier leg. (MRAC 148.417); Praslin, Vallée de Mai, 22.-23.7.1972, P.L.G. Benoit & J.J. van Mol leg. (MRAC 132.115); Silhouette, La Passe, 2ff, 11.01.1999, M. Saaristo leg. (MZT AA 1.059 and 1.060) and Belle Vue, pitfall traps, 1j., 16-20.07.1999, J. Gerlach leg. (MZT AA 1.308); FIJI: Viti Levu, 9mm6ff24j., P.T. Lehtinen leg. (MZT AA 3.415-3.419); THE PHILIPPINES: Luzon, 2ff2j., P.T. Lehtinen leg. (MZT AA 3.420).



Figs. 1-3. *Pholcus longiventris* (Simon, 1893) - 1: Right male palp retrolaterally (a) and prolaterally (b). - 2: Bulb from behind. - 3: Epigyneal area ventrally. - Orig.

Diagnosis: This is a medium-sized, rather darkish, long-legged pholcid with six eyes and a long, cylindrical abdomen. The males may be recognized by having a thin haîr-like extension on the retrolateral side of the uncus and the females by the skittle-shaped, anteriorly pointing parmula on genital plate.

Description: A medium-sized species; total length ca. 4.2mm. Abdomen cylindrical, almost 4 time as long as high. Carapace with a darker median stripe starting from the clypeus and running to the posterior end of the carapace. Chelicerae, maxillae, labium and female palps also dark and sternum still darker. Abdomen with characteristic pattern formed by smaller scattered spots. Colouration of the legs of basic pattern. Both sexes have only six eyes, AMs being lost. Legs long and thin, the first pair being extraordinary long compared with the others. Leg formula 1,2,4,3; leg I ca. 7 x body length.



Figs. 4-6. *Pholcus longiventris* (Simon, 1893) - 4: Female abdomen dorsally (a) and cephalothorax and abdomen of the female dextrolaterally (b). - 5: Female detxrolaterally. - 6: Eyes of the female frontally.- Orig.

Male pedipalp massive. Trochanter very small with one lateral process bearing a hair. Femur with a ventral bulge. Tibia large, ovoid. Proximal part of the tarsus or cymbium galeiform, tarsal organ standing at the middle of its frontal edge. Distal part of the tarsus or procursus (= paracymbium of some authors) massive with complex apical part. Bulb on the ventral side of the cymbium provided with three prominent protrusions. The crooked uncus is heavily sclerotized, bearing a thin translucent, almost hair-like extension apically on its retrolateral side. The appendix is long and narrow with bifid apex. The embolus lying between uncus and appendix more or less soft, membranous. Genital and accessory plates somewhat protruding. Posterior border of the genital plate concave. Skittle-like, anteriorly pointing parmula approximately in the middle of the genital plate. Form of the translucent inner structures either side of the parmula very typical.

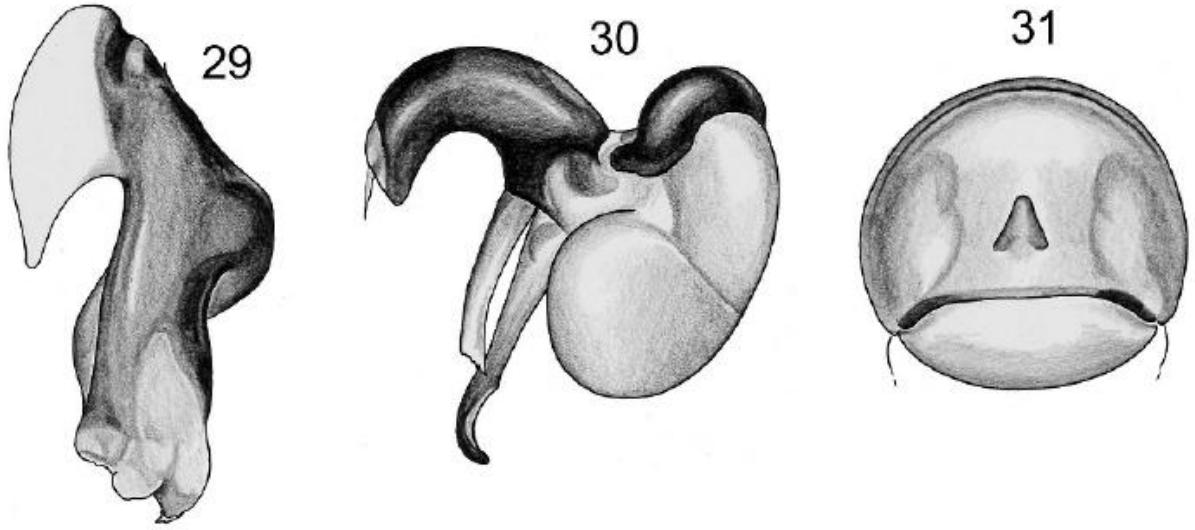
Distribution: Previously recorded from Sumatra. In this paper also from The Philippines, Fiji and Seychelles which indicates that the species probably has a wide distribution in the Old World tropics. In Seychelles it has been found on Mahé (Saaristo 1999 as *Pholcus sp. ign.*), Praslin (*), and Silhouette (Saaristo 1999 as *Pholcus sp. ign.*).

Discussion: So far, all members of the genus *Pholcus* have been recorded to have eight eyes. However, when the genital organs of the present species was compared with those of its type species, viz. *Pholcus phalangioides*, no fundamental differences could be found (see also Uhl *et al.* 1995 and Uhl 1994). Accordingly the present species is considered to be a member of the genus *Pholcus*. There are also other pholcid genera with variable number of the eyes.

Originally I believed this to be an undescribed species before Dr. B. A. Huber pointed out that it might be *Spermophora longiventris* Simon, 1893 which was originally described from a juvenile specimen from Sumatra. Later a male from the locus typicus has been described by Kritscher (1956). Comparisons of Kritscher's (1956) figures with my Seychellian samples as well as the material from The Philippines and Fiji have convinced me that they all represent the same taxon.

Beatty, J. A, Berry, J. W., Huber, B. A. 2008. The pholcid spiders of Micronesia and Polynesia (Araneae, Pholcidae). J. Arachnol. 36: 1-25.

p. 6



29–31. *Pholcus* (*Uthina*) sp. B: 29. Left procursus, retrolateral view; 30. Left genital bulb; 31. Epigynum, ventral view.

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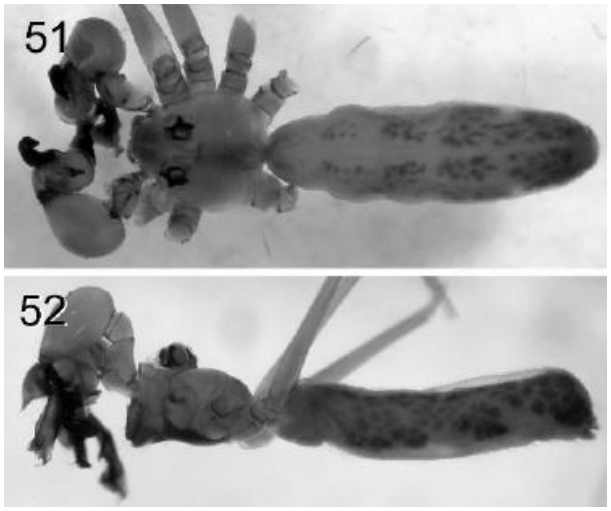

51, 52. *Pholcus (Uthina)* sp. B.

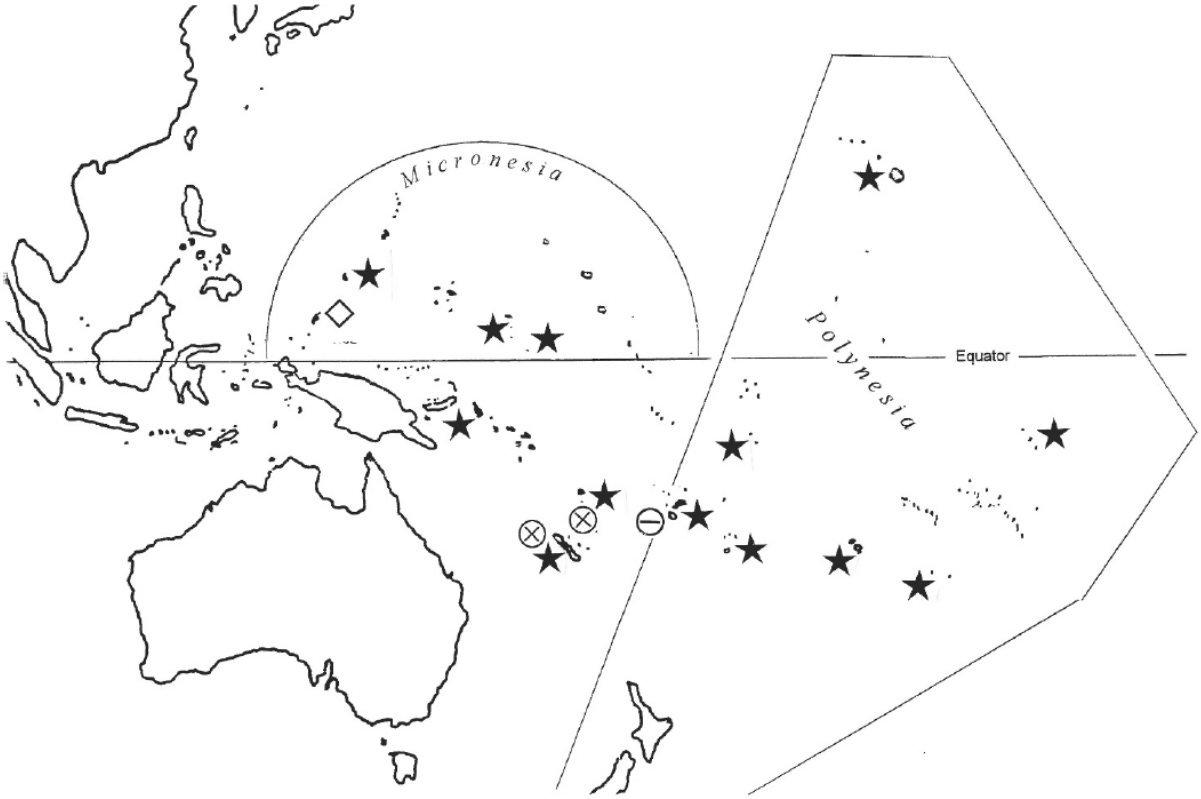

Figure 65.—Distribution of *Pholcus ancoralis* is indicated by stars, *Pholcus phalangoides* is indicated by a circle with a cross, *Pholcus* sp."A" is indicated by a circle with a dash, and *Pholcus* sp. "B" is indicated by a diamond shape.

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Pholcus spp. cf. *Uthina luzonica* Simon 1893

Remarks.—The two morphospecies below are close to *Uthina luzonica* Simon 1893, as well as to *Pholcus tagoman* Huber 2001 and *P. longiventris* (Simon 1893). *Uthina luzonica*

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is known only from the female and, in this species group, separation of species on the basis of female specimens is very ambiguous. Revision of the whole group is required to determine the placement of these species. The two morphospecies below are very similar, differing only in the shapes of the uncus (Fig. 30 is from sp. B; in sp. A the uncus is wider distally) and appendix (the appendix of sp. A is more hooked at the tip than in Fig. 30). Because *Uthina* Simon is probably a synonym of *Pholcus*, the species are here listed as *Pholcus*.

Pholcus sp. A
Fig. 65

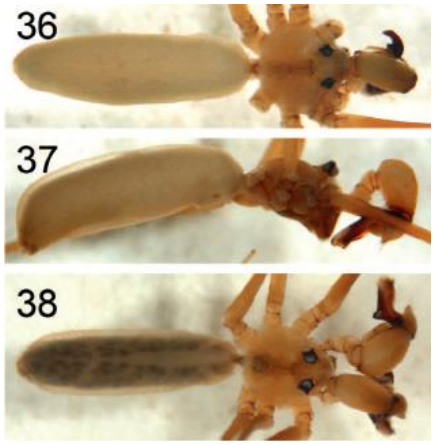
Material examined.—FIJI: *Viti Levu* [18°03′S, 178°27′E]: 1 ♀, 1 juvenile, Tholo-I-Suva Forest Park, 15 May 1980 (BB); 1 ♂, 4 ♀, Nanduruloulou Research Station, 15 May 1980; 1 ♀, 2 juveniles, hill forest 16 miles (26 km) W of Suva [18°03′S, 178°12′E], 16 May 1980 (BB); 2 ♂, 6 ♀, 4 juveniles, 8–10 miles (13–16 km) N of Nausori [17°48′S, 178°33′E], hill forest, on vegetation, 20 May 1980 (BB); 2 ♂, 4 juveniles, 8 miles (13 km) NE of Navua, soil bank, 2 May 1987 (BB); 3 ♂, 3 ♀, 1, 3 juveniles, 22.4 km W of Suva, forest, in litter and swept from vegetation, 5 May 1987 (BB); 1 ♀, 7 juveniles, Tholo-I-Suva Forest Park [18°03′S, 178°27′E], in litter, 6 May 1987 (BB); 1 ♂, 1 ♀, on vegetation, 6 May 1987 (BB); 2 ♀, Namosi Road 3 km N of Queen′s Road [18°09′S, 178°14′E], tree shaking, 7 May 1987 (BB); 1 ♀, Nausori, Koronivia Research Station [18°01′S, 178°32′E], sweeping, 8 May 1987 (BB); 2 ♀, 2 juveniles, 1.7 km S of Naimborembore, sweeping, 8 May 1987 (BB); 2 ♂, 7 ♀, 5 juveniles, Nausori, Koronivia Research Station [18°01′S, 178°32′E], shaking banana leaves, 18 May 1987 (BB); 1 ♂, 9 km W of Suva, on soil bank, 23 May 1987 (BB); 1 ♀, Lomaivuna [17°50′S, 178°14′E], about 3 miles (5 km) S of Serea, on forest tree, 30 May 1987 (BB). All collected by JWB, ERB, and JAB.

Pholcus sp. B
Figs. 29–31, 50, 51, 65

Material examined.—CAROLINE ISLANDS: *Palau:* 1 ♀, Babelthuap Island [7°24′N, 134°28′E], mixed tropical forest, tree shaking, 11 March 1973; 1 ♂, 2 ♀, 2 juveniles, Airai, lowland forest, 27 March 1973; 1 ♀, Ngaremlengui, in beached boat, 21 April 1973; 1 ♀, 1 juvenile, same data, except in forest; Koror Island [7°22′N, 134°30′E], 5 ♂, 6 ♀, in cave, 17 March 1973; 1 ♂, in cave, 3 April 1973; 1 ♀, in banana litter, 20 March 1973; 1 ♂, 1 ♀, 6 juveniles, in compost pile at Entomology Laboratory, 24 March 1973; Malakal Island [7°14′N, 134°24′E]: 1 ♂, 2 ♀, 1 juvenile, roadside, 14 March 1973; 1 ♂, 1 ♀, in cave, 17 April 1973. All collected by JWB, ERB and JAB.

Huber, B. A. 2011. Revision and cladistic analysis of *Pholcus* and closely related taxa (Araneae, Pholcidae). Bonner zool. Monographien 58: 1-510.

p. 20



36-38. *Uthina luzonica*, male from Australia, dorsal and lateral views; male from Fiji, dorsal view.

p. 21

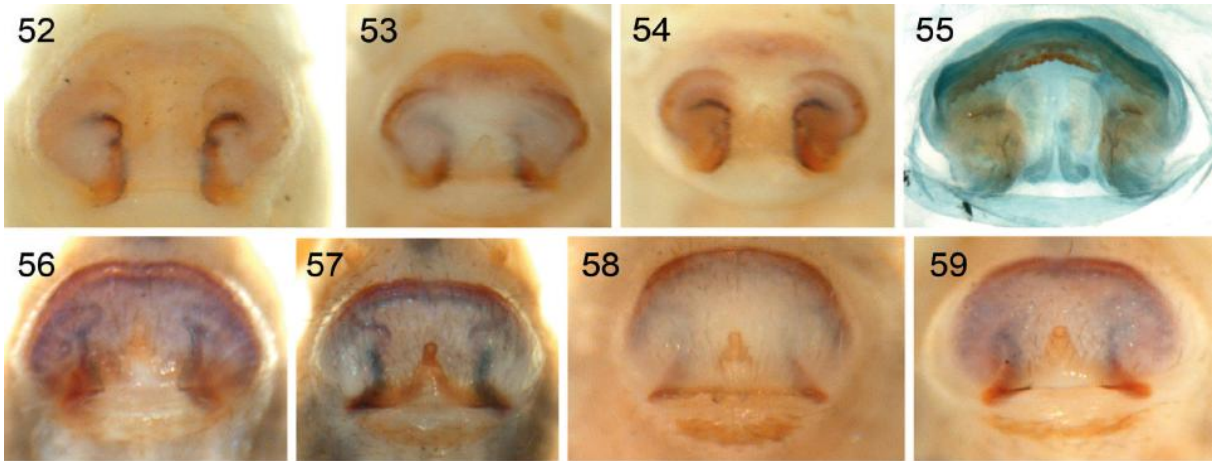


FIG. 52-74. Epigyna in ventral views and cleared female genitalia in dorsal views. 52-59. *Uthina luzonica*, syntypes (52-55), and females from Sumatra (56, 57), Australia (58), and Sulawesi (59).

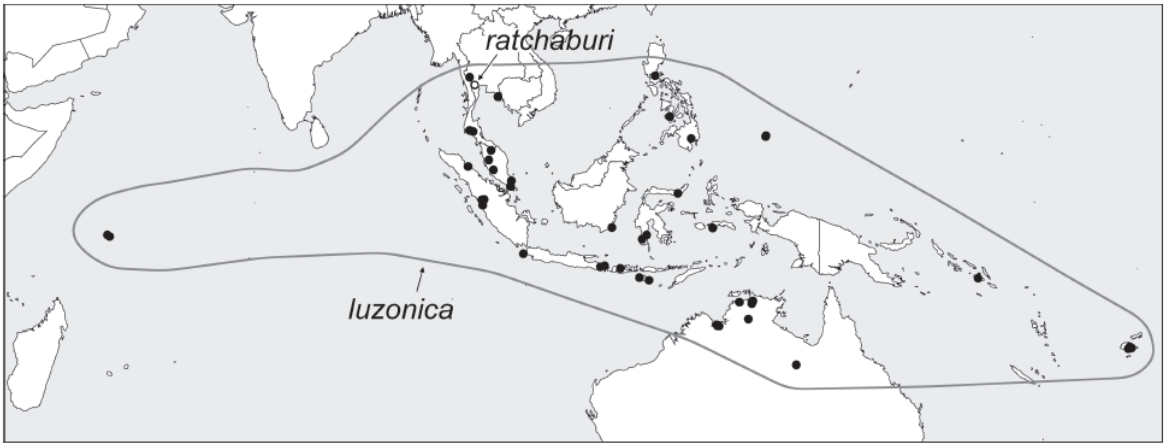


FIG. 108. Known distribution of *Uthina*.

Uthina luzonica Simon, 1893

Figs. 36-38, 52-59, 109-125, 146

Uthina luzonica Simon 1893a: 476. Murphy & Murphy 2000: 254, fig. 47.10.
Spermophora longiventris Simon 1893c: 321. Kritscher 1957: 263-264, figs. 15, 16. New synonymy.
Pholcus longiventris: Saaristo 2001: 10-12, figs. 1-6.
Pholcus tagoman Huber 2001: 116-118, figs. 363-377, map 17. New synonymy.
Pholcus sp. A, sp. B: Beatty, Berry & Huber 2008: 19, figs. 29-31, 51, 52.
Types. *Uthina luzonica*: 3♀ syntypes from Philippines, Rizal Prov., "Quingna"(?), Antipolo [14°36'N, 121°11'E], no date (E. Simon), with Simon's original label "13694 Uthina luzonica ES, Quingna, Antipolo!", in MNHN (10534), examined.

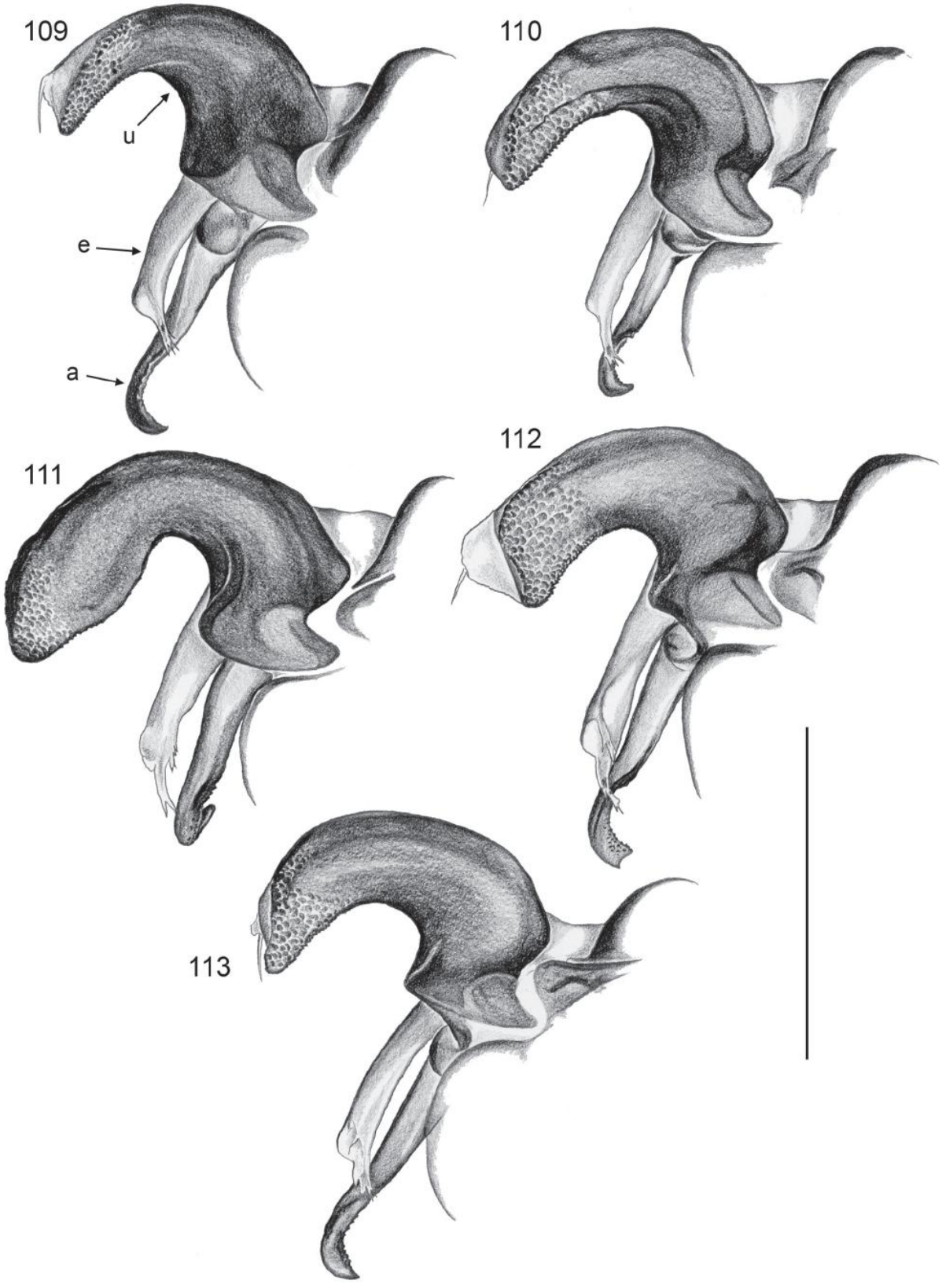


FIG. 109-113. *Uthina luzonica*. Processes of left male genital bulb, prolateral views; males from Australia (109), Sumatra (110), Fiji (111), Sulawesi (112), and Palau (113). Scale line (for all): 0.5.

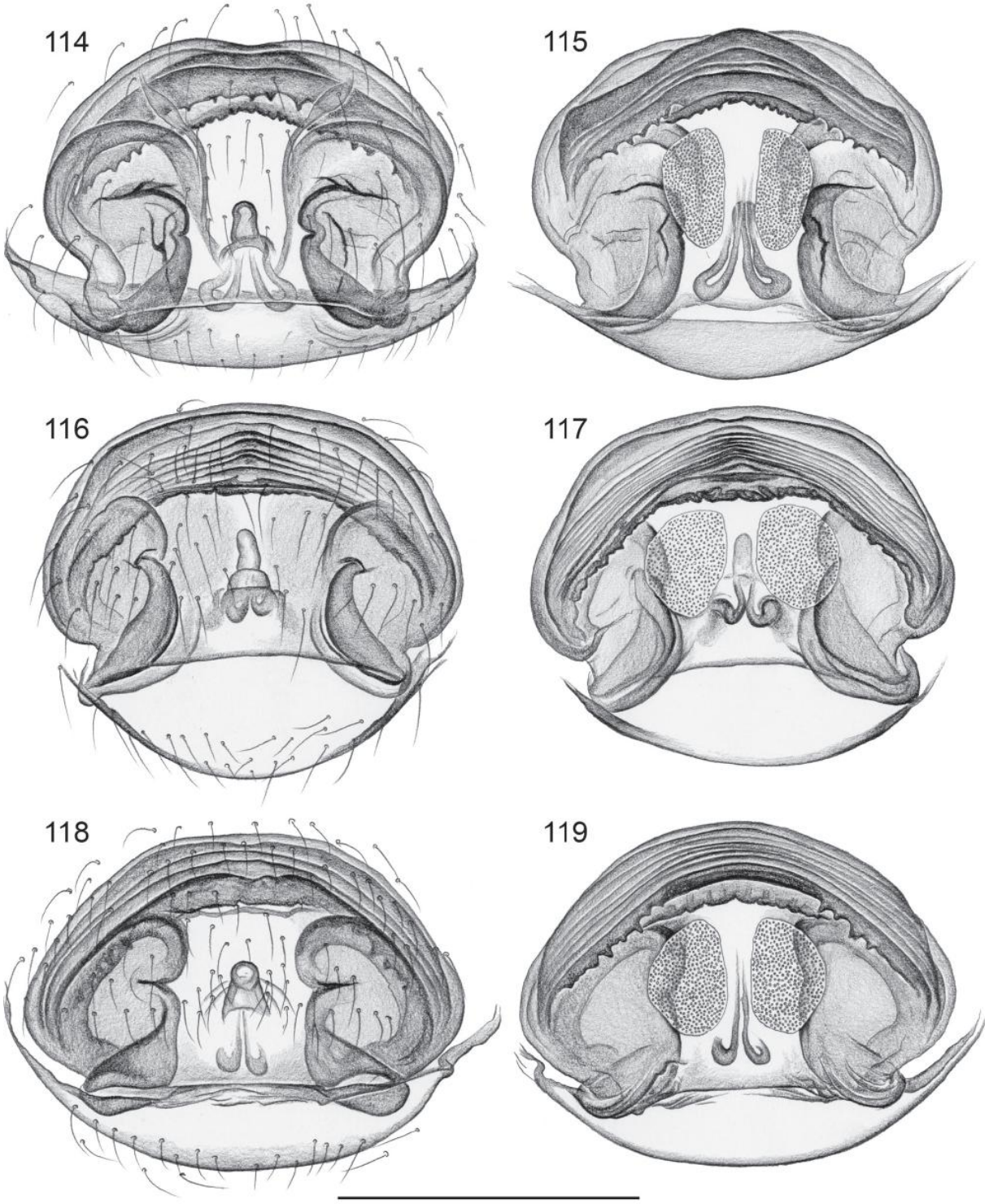


FIG. 114-119. *Uthina luzonica*. Cleared female genitalia, ventral and dorsal views; females from Philippines (syntype) (114, 115), Australia (116, 117), and Sumatra (118, 119). Scale line (for all): 0.5.

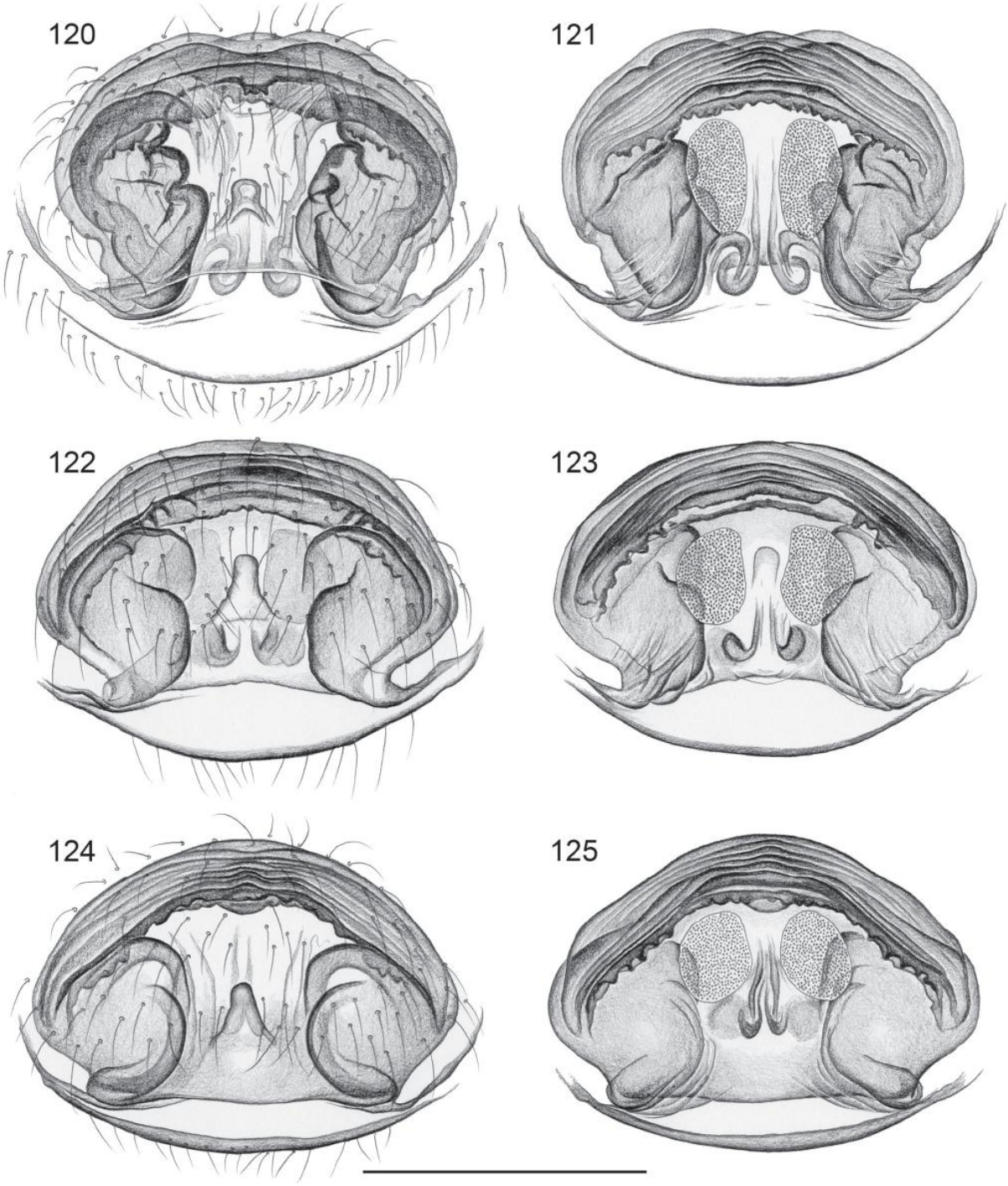


FIG. 120-125. *Uthina luzonica*. Cleared female genitalia, ventral and dorsal views; females from Fiji (120, 121), Sulawesi (122, 123), and Palau (124, 125). Scale line (for all): 0.5.

Spermophora longiventris: one juvenile specimen from Indonesia, Sumatra, "Deli" [=Labuhandeli?, 3°45'N, 98°41'E], no further data, not found in MNHN.
Pholcus tagoman: male holotype from Western Australia, Ningbing Cave, cave KNI-19 (15°18'S, 128°37'E), 10.v.1994 (R.D. Brooks), in WAM (99/2062), examined (see Huber 2001).
Justification of synonymies. At an earlier stage of this study I considered the different 'morphs' present in this species to warrant species status. However, with the accumulation of material from more localities, species boundaries became increasingly ambiguous due to intermediates. In a few cases, individuals of different 'morphs' were found to co-occur at one locality, in a pattern suggesting variation within species rather than divergent evolution of reproductively isolated lineages. Finally, in a few cases males were found to differ between right and left sides in a way originally considered distinctive for species. Taken together, the available evidence makes 'lumping' seem the preferable option, but future studies should aim at a denser sampling and the inclusion of molecular data to support or reject this solution.
Diagnosis. Easily distinguished from the closely related *U. ratchaburi* by smaller size (body length, leg length, genitalia), uncus shape (wider), and simple epigynal knob (i.e. not bifid).
Male (Palau). Total body length 3.8, carapace width 1.1. Leg 1: 7.3 + 0.5 + 7.8, metatarsus and tarsus missing, tibia 2: 5.0, tibia 3: 3.2, tibia 4: 4.8; tibia 1 L/d: 80. Habitus as in Fig. 38. Carapace ochre-yellow with darker band medially, ocular area with light brown pattern posteriorly, anterior side and clypeus not darkened, sternum monochromous brown, legs ochre-yellow, tips of femora and tibiae lighter, abdomen ochre-gray with many darker spots dorsally and laterally. Distance PME-PME 255 µm, diameter PME 125 µm, distance PME-ALE 60 µm, no trace of AME. Ocular area elevated, triads slightly projecting sideways, many stronger hairs posteriorly. No thoracic furrow (only black line anteriorly); clypeus unmodified. Chelicerae with distal apophyses serrated medially but without modified hairs, proximal apophyses laterally (figs. 369, 376 in Huber 2001). Sternum wider than long (0.75/0.60), unmodified. Palps as shown in Huber (2001: figs. 365, 366), coxa unmodified, trochanter with retrolateral apophysis, femur with indistinct retrolateral hump, tibia very large, tarsal organ on conical projection, procursus rather simple except distally, without spines, tarsal organ capsulate (fig. 377 in Huber 2001), bulb with strong curved uncus with thin distal transparent process, weakly sclerotized long embolus, distally curved appendix (Fig. 113). Legs without spines and curved hairs, few vertical hairs (most hairs missing); retrolateral trichobothrium on tibia 1 at 3%; prolateral trichobothrium absent on tibia 1, present on other tibiae.
Variation. Uncus and appendix are quite variable in shape (Figs. 109-113). The membranous part at the tip of the uncus may be large (N-Sulawesi; Fig. 112), small (Australia, Palau; Figs. 109, 113), or absent (most other localities); the uncus itself may be quite slender (Australia; Fig. 109), widened subdistally (Fiji, Seychelles, Ambon, Sumba, S-Sulawesi, Malaysia, Thailand; Fig. 111), or intermediate (Palau, Sumatra, N-Sulawesi); the appendix may be simply curved at its tip (Australia, Palau; Figs. 109, 113), have a subdistal pointed projection to make it appear bifid (N-Sulawesi, Ambon, Sumba, part of material from Malaysia, Fiji; Fig. 112), and/or be strongly hooked distally (Fiji, Ambon, Sumba, S-Sulawesi, Malaysia; Fig. 111). The pattern on the abdomen is variably distinct and is absent in some specimens (Figs. 36, 37). Some males with darker rings on legs (subdistally on femora, proximally and subdistally on tibiae). Tibia 1 in 23 other males: 6.3-9.9 (mean 7.9).
Female. In general similar to male, triads closer together (distance PME-PME 195 µm), abdomen pattern variable as in males, clypeus often with brown pattern. Tibia 1 in 54 females: 5.3-8.4 (mean 6.5). Epigynum weakly sclerotized but with distinctive anterior arc and other internal structures visible through cuticle (Figs. 52-54, 56-59), with simple 'knob' (Fig. 114); internal genitalia as in Fig. 115. External variation often conspicuous even among specimens from a single locality, variation in cleared epigyna much less conspicuous (Figs. 114-125) and apparently not indicating species boundaries. The two cleared specimens from the Philippines and Fiji have longer pore plates (Figs. 115, 121), but clearing of many specimens would be necessary to evaluate this character appropriately.
Distribution. Widely distributed in Southeast Asia and northern Australia (Fig. 108). For records not listed below, see Saaristo (2001) (Seychelles) and Huber (2001) (Australia).
Material examined. SEYCHELLES: *Silhouette*: La Passe [-4°29'S, 55°14'E], Pandanus & Coconut leaves, 11.i.1999 (M. Saaristo), 1♀ in ZMT.
THAILAND: *Krabi Prov.*: Krabi Distr., limestone hill near Ban Chong Phlie (8°04.8'N, 98°49.8'E),

~13 km W of Krabi city, 80 m a.s.l., remnant of semi-evergreen rainforest, 13.vi.2009 (P. Schwendinger), 1♂ in MHNG. Khlong Thom Distr., Khao Pra-Bang Khram Wildlife Sanctuary (7°54.6'N, 99°16.7'E), 80 m a.s.l., semi-evergreen rainforest, 2./3.vi.2009 (P. Schwendinger), 1♂ in MHNG. *Kanchanaburi Prov.*: Sai Yok N.P. [14°27'N, 98°51'E], cave Kaew, 18.iii.1986 (C.L. & P.R. Deeleman), 3♀ in RMNH. Lawa cave, river Kwai area, 19.iii.1986 (C.L. & P.R. Deeleman), 2♀ in RMNH (2 vials). *Trat Prov.*: Ko Chang, Hat Sai Kao (12°06.8'N, 102°16.3'E), 50 m a.s.l., forest, at stream in foliage, fern, bushes, by hand, 30.x.2009 (P. Jäger, S. Bayer), 1♂2♀ in SMF; 3 km S Hat Sai Kao (12°04.8'N, 102°16.8'E), 40 m a.s.l., partly empty river bed, sec. forest, by hand, at night, 2.xi.2009 (P. Jäger, S. Bayer), 2♀ in SMF.

MALAYSIA: *Selangor*: Gombak field station [~3°14'S, 101°44'E], no date (D. Kovac), 1♀ in RMNH; same locality, bamboo internode, 19. ix.1991 (D. Kovac), 2♂12♀ (3 vials) in RMNH; same locality, below internode, 19.ix.1991 (D. Kovac), 2♂1♀ in RMNH; same locality, various dates in one vial (ix.-xi.1991) (D. Kovac), 4♂5♀ in RMNH; same locality, 5.vii.1991 (D. Kovac), 1♂ in RMNH. Belum Expedition, Ridge Trail [~5°40'N, 101°25'E], 12.ii.1994 (Murphy), 1♀ in CJFM (23664). Perak, Gunung Lanno [4°31.3'N, 101°08.5'E], 13.xi.2001 (J. Segl), 1♀ in MHNG. Johore, Sangei Ampat along Kota Tinggi to Mersing Highway [~1°45'-2°25'N, 103°52'E], oil palm estate, 15.x.1992 (J.M. Waldock), 1♀ in WAM (99/1494). Johore, Sangei Mupur along Kota Tinggi to Mersing Highway, under concrete trunk road bridge, 15.x.1992 (J.M. Waldock), 1♂ in WAM (99/1495). SINGAPORE: Malcolm Road [1°19'N, 103°49'E], inside opened manhole in garden, 18.xi.1985 (J.K.H. Koh), 1♂1♀ in RMNH. Bukit Timah [1°21'N, 103°46'E], Hindhede Drive, 19.iii.1989 (H.K. Lua), 1♀ in RMBR; same data but 9.iv.1989, 1♀ in RMBR; same data but 11.vi.1988, 1♂2♀ in RMBR; Bukit Timah, 3.iii.1986, no further data, 1♂1♀ in RMBR.

INDONESIA-SUMATRA: Ngalau Baso [~0°18'S, 100°23'E?], 13.iii.1988 (P. Strinati, C. Hug), 1♂2♀ in MHNG. Balige [~2°20'N, 99°04'E], "Liang Sipegeh", 14.viii.1984 ("I.D., C.S.E."), 1♀ in RMNH. "Fort de Kock" [=Bukittinggi: 0°18'S, 100°23'E], no date (E. Jacobson), 1♂ in NHMW. Grotte Ngalau Indah, near Pakan Sinayan, 2 km from Payakumbuh [0°14.6'S, 100°35.4'E], 530 m a.s.l., 24.xi.1985 (C. Lienhard), 1♀ in MHNG. Padang [~0°55'S, 100°25'E], "A.D.", 15.x.1938 (E. Jacobson), 1♂ in NHMW.

INDONESIA-JAVA: *Jawa Barat Prov.*: Udjung [=Ujung] Kulon Reserve [~6°45'S, 105°20'E], leaf litter, 14.-25.xi.1986 (S. Djojosudharmo), 2♀ in RMNH (2 vials). Gunung Kapur, cave Guajati Yayar, 5.vii.1979 (C.L. & P.R. Deeleman), 1♂ in poor condition, in RMNH.

INDONESIA-BORNEO: *South Kalimantan*: Pagatan Beach (3°36.8'S, 115°58.1'E), 1 m a.s.l., under scattered trees, 20.x.2008 (P. Schwendinger), 1♂ in MHNG.

INDONESIA-LESSER SUNDA ISL.: *Bali*: West Bali, above Negara [~8°20'S, 114°37'E], disturbed rainforest, leaf litter, 22.xi.1997 (C.L. Deeleman-Reinhold), 1♂ in RMNH. "Isl. N. past Ambengan N Part" [~8°10'S, 115°06'E], secondary forest litter, 20.-30.i.1990 (S. Djojosudharmo), 1♂ in RMNH. *West Nusa Tenggara*: Semokat, 20 km from Sumbawa Besar [~8.5°S, 117°E], 3.ii.1990 (S. Djojosudharmo), secondary forest, 5♀ in RMNH. *East Nusa Tenggara*: Sumba: W-Sumba, 10 km W of Waingabubak [=Waikabubak; 9°38'S, 119°19'E], near stream, 2. ii.2001 (C.L. & P.R. Deeleman), 1♀ in RMNH. E-Sumba, Lukumelolo forest [9°57'S, 120°30'E], 5.ii.2001 (C.L. Deeleman-Reinhold), 2♂4♀ in RMNH.

INDONESIA-SULAWESI: *North Sulawesi*: Dumoga, near Doloduo [~0°31'N, 123°55'E], primary forest, in large dead leaves on ground, 27.-30. vii.1982 (C.L. & P.R. Deeleman), 4♂5♀ in RMNH. *South Sulawesi*: Bantimurung [4°59'S, 119°41'E], viii.1985 (B. Lebreton), 2♂ in RMNH. Bantimurung, Maros, Gua Baharuddin cave, 7.vii.1986 (L. Deharveng), 1♀ in RMNH. Leang Assuloang, Balocci, Pangkadjene, viii. 1976 (P. Leclerc), 2♀ in RMNH. "Gua Salopanyi – Lapalawa", Tacipi [~4°30'S, 120°12'E], 29.vii.1989 (P. Leclerc), 1♀ in RMNH.

INDONESIA-MALUKU ISL.: *Ambon* [~3°40'S, 128°10'E]: in garage, 5.xi.1994 (R.G. Holmberg), 1♀ in BPBM; Ambon Isl., garage, 1994 (R.G. Holmberg), 1♂ in BPBM.

PHILIPPINES: Rizal Prov., Antipolo: 3♀ syntypes above. Negros, Cave, Mabinay [~9°45'N, 123°00'E], 31.xii.1989 (T. van Es), 1♀ in RMNH. Mindanao: Davao, Langub limestone cave [~7°05'N, 125°35'E], 25.iv.1982 (P.R. Deeleman), 4♀ in RMNH.

PALAU: *Babelthuap Isl.*: lowland tropical forest N of airstrip [~7°24'N, 134°33'E], 27.iii.1973 (J.W. Ber-

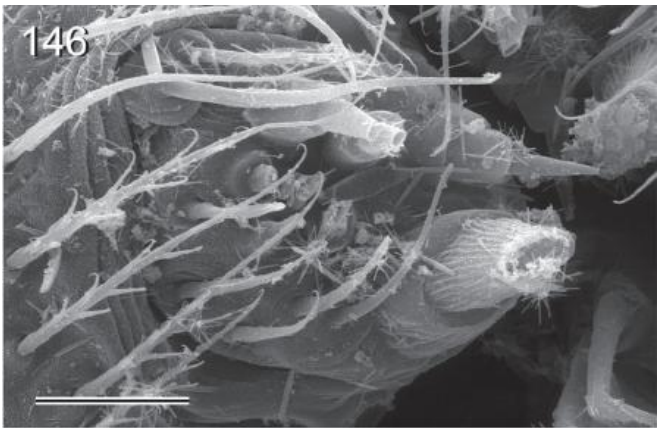
ry, J.A. Beatty), 1♂2♀ in BPBM; Ngaremlengui, in beached boat, 21.iv.1973 (J.W. Berry, J.A. Beatty), 1♀ in BPBM; Airai village, tree shaking, forest below SDA School, 11.iii.1973 (J.W. Berry, J.A. Beatty), 2♀ 2 juvs. in BPBM. *Koror Isl.* [~7°20'N, 134°30'E], in cave entrance, 17.iii.1973 (J.W. Berry, J.A. Beatty), 5♂6♀ in BPBM; same data but in cave (old Japanese tunnel), 3.iv.1973, 1♂ in BPBM. Koror Isl., banana litter and compost pile at Entomology Lab., 20 & 24.iii.1973 (J.W. Berry, J.A. Beatty), 1♂2♀ + juvs. (2 vials) in BPBM. Malakal Isl. [7°20'N, 134°27'E], in cave, 17.iii.1973 (J.A. Beatty, J.W. Berry), 1♂1♀ in BPBM.

AUSTRALIA: *Western Australia*: Jeremiah Hills, cave KJ-8 (15°26'S, 128°44'E), 17.v.1994 (W.F. Humphreys), 1♂1♀ in WAM (99/2068-9).

SOLOMON ISLANDS: Guadalcanal [~9°37'S, 160°11'E], 9.vii.1988 (T. Iliffe, S. Sarbu), caves, 1♀ in RMNH.

FIJI: *Viti Levu*: Colo-i-Suva [18°04'S, 178°27'E], park, webs on forest vegetation, 6.v.1987 (J.A. Beatty), 1♂ in BPBM; Colo-i-Suva Forest Reserve, about 5 mi N of Nausori, 15.v.1980 (J.A. Beatty), 1♀ in BPBM; Nausori [18°02'S, 178°34'E], shaking banana leaves, 18.v.1987 (J.W. & E.R. Berry), 2♂6♀ in BPBM; Nausori, Koronivia Research Station, tree shaking, 18.v.1987 (J.A. Beatty, J.W. Berry), 1♀ in BPBM; same data but sweeping and shaking trees, 8.v.1987 (E.R. Berry), 1♀ in BPBM; 9 km W of Suva [18°06'S, 178°21'E], on soil bank, 23.v.1987 (J.W. & E.R. Berry), 1♂ in BPBM; 22.4 km W of Suva [18°10'S, 178°13'E], forest litter, 5.v.1987 (J.W. Berry), 1♂1♀ in BPBM; same data but in webs on shrubs in forest (J.A. Beatty), 2♂1♀ in BPBM; same data but sweeping and shaking in forest (J.W. & E.R. Berry), 1♀ in BPBM; 1.7 km S of Naimsorembore (near Nausori), 8.v.1987 (J.A. Beatty), 1♀ in BPBM; same data but sweeping (J.W. & E.R. Berry), 1♀ in BPBM; ca 3 mi S of Serea [17°56'S, 178°19'E], picked from forest trees, 30.v.1987 (J.W. & E.R. Berry), 1♀ in BPBM; Tholo-i-Suva [=Colo-i-Suva], forest park, near WaISula Falls, forest litter, 6.v.1987 (J.W. Berry), 1♀ in BPBM; same data but sweeping and shaking trees (E.R. Berry), 1♀ in BPBM; Namosi Rd. 3.4 km N of Queen's Road, scrub forest, 7.v.1987 (J.W. & E.R. Berry), 1♀ in BPBM; same data but 3 km N of Queen's Road (J.A. Beatty, J.W. & E.R. Berry), 1♀ in BPBM; about 16 mi by Queen's Road W of Suva, hill forest, 16.v.1980 (J.A. Beatty), 1♀ in BPBM; 8 mi NE of Navua [~18°05'S, 178°15'E], on dirt bank, 2.v.1987 (J.A. Beatty), 2♂ in BPBM. Fiji, no further data, 1♀ in BPBM.

Unidentified localities: "Cel. 055", 4♂4♀ in IRBS. "BES: 5746", 2♂ (2 vials) in RMNH.



146. *Uthina luzonica*, female ALS.