Calapnita phyllicola Deeleman-Reinhold, 1986

Deeleman-Reinhold, C. L. 1986. Studies on tropical Pholcidae II. Redescription of *Micromerys gracilis* Bradley and *Calapnita vermiformis* Simon (Araneae, Pholcidae) and description of some related new species. Mem. Qd. Mus. 22(2): 205-224.

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Calapnita phyllicola nov. spec.
(Figs 32–39, 59c)

MATERIAL EXAMINED
HOLOTYPE: 1 ♂, RMNH 9573, Sepaku, East Kalimantan, Indonesia, 1°00'S, 116°54'E, 40 km N.

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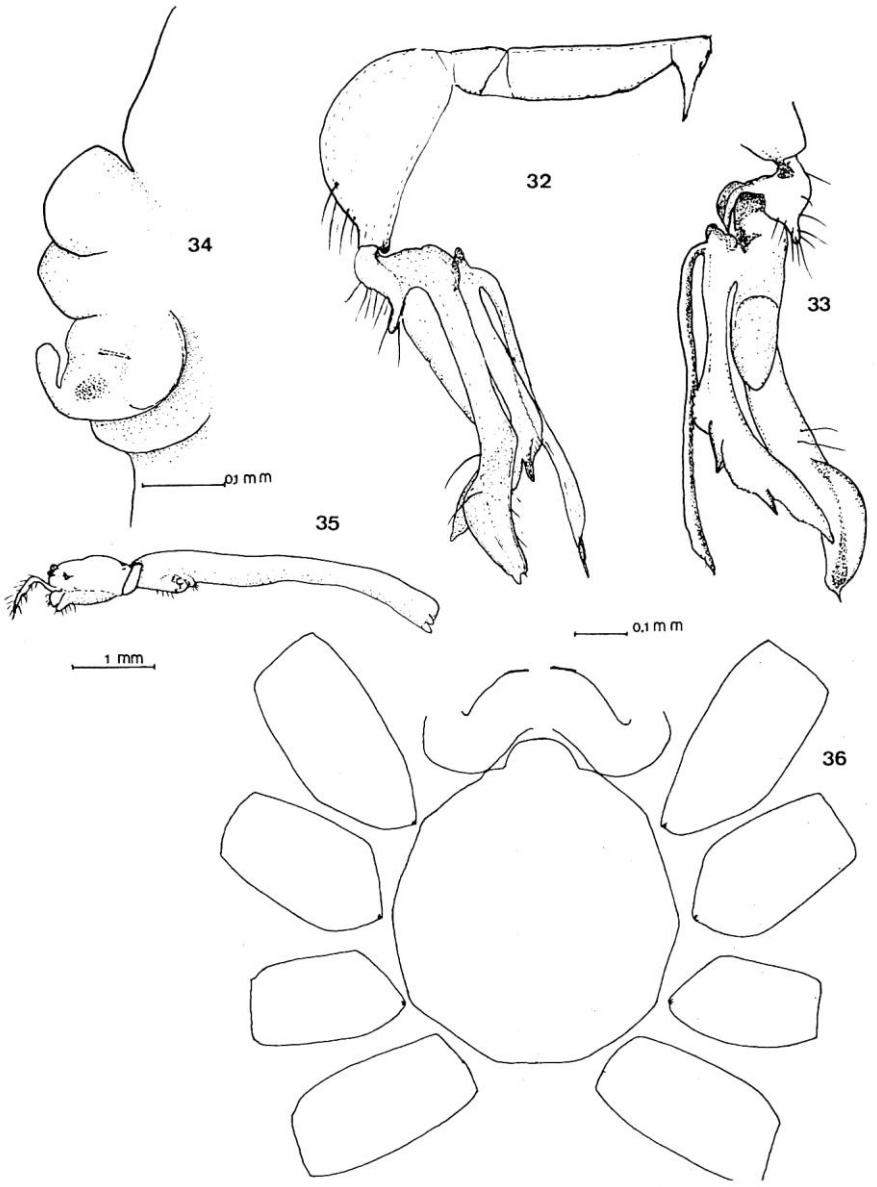
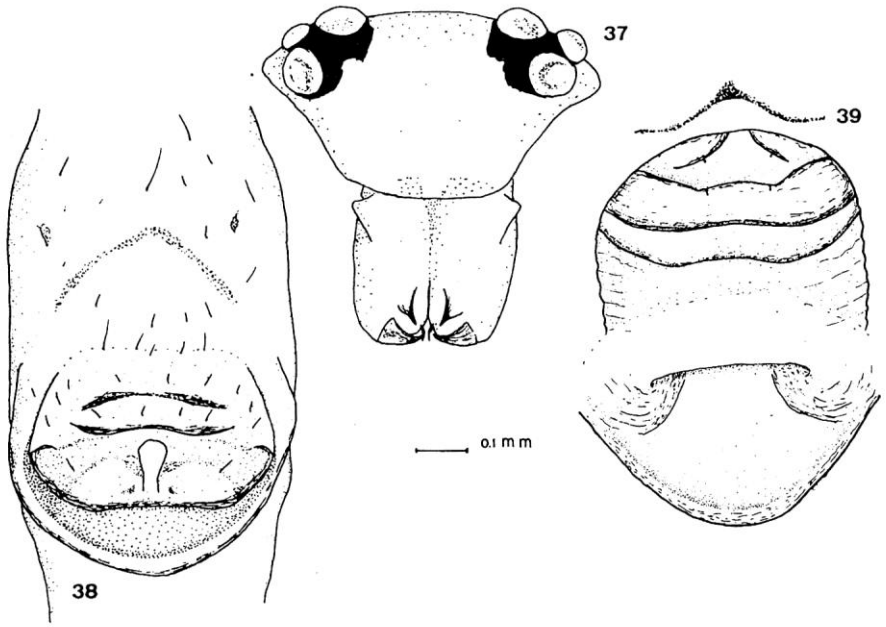


FIGS 32–36 : *Calapnita phyllicola* n.sp., Balikpapan. **32.** ♂, left palp, lateral; **33.** id., mesal; **34.** epigyne, lateral; **35.** ♀, lateral **36.** ♀, sternum and coxae, ventral.



FIGS 37–39 : *Calapnita phyllicola* n.sp., Balikpapan. **37.** ♂, head and chelicerae, front; **38.** abdomen and epigyne, ventral; **39.** internal (dorsal) view of epigynal lip, turned up.

Balikpapan, primary lowland dipterocarp rainforest, on the underside of large leaves (mostly palm leaves) in dark sheltered places, part of series collected 14–16.vii.1979, 5–8.viii.1980 and 21–22.vii.1982, P.R. and C.L. Deeleman.

PARATYPES: 5 ♂, 7 ♀, same data as Holotype, 1 ♀ deposited with Holotype (RMNH 9573), others in authors collection.

OTHER MATERIAL: Malay Peninsula: Genting Highlands, little valley on the border of a small stream, 2 ♂, 1 ♀, juvs., underside of large leaves by the stream, 29.vii.'80, P.R. Deeleman. North Sumatra: Bohorok Orang Utang Rehabilitation Centre, 3°29'N, 98°7'E, 90 km west of Medan, primary dipterocarp rainforest, 2 ♀, 1 ♂ subad., 12–19.ii.'83, P.R. Deeleman and Suharto Djojosudharmo; Rimba Panti, 0°7'N, 103°5'E, rainforest, 1 ♂, 1♀, underside of hirsute leaves, 3+4.vii.'82, P.R. and C.L. Deeleman.

DESCRIPTION

HOLOTYPE: ♂, colour in life pale green, in alcohol whitish, legs pale, femur-patellar and tibia-metatarsal joints darkened. Male chelicerae, see Fig 37; sternum (Fig. 36): posterior tip obtusely rounded, angle between maxillar section and coxa I section of the anterior margin very obtuse. Abdominal tip slightly slanting down, dorsally with a more of less obtuse angle (Fig. 35). Legs longer than in any other species, particularly the metatarsi I. Measurements in mm : carapace 0.90 × 0.82, abdomen 4.00; leg measurements are given in Table 7.

TABLE 7: Leg measurements (mm) of *Calapnita phyllicola* (Holotype, ♂)

Legs:	femur	patella	tibia	meta-tarsus	tarsus
I	8.40	0.40	8.16	16.32	1.92
II	6.00	0.40	5.76	10.00	1.30
III	4.05	0.40	4.40	5.30	0.85
IV	6.20	0.40	5.30	8.15	1.30

Palp (Figs 32, 33) : femur and patella long and cylindrical, tibia swollen, tip of tarsus tubiform; bulbal apophysis very characteristic, with two large, evenly spaced tines along the margin; embolus a straight tube with tapering tip, the

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inner margin finely and irregularly serrated, almost twice as long as bulb.

Description of the ♀ paratype : similar to the ♂ but chelicerae unmodified. Measurements in mm : carapace 0.81 × 0.77, abdomen 3.85; leg measurements are given in Table 8.

TABLE 8: Leg measurements (mm) of *Calapnita phyllicola* (Paratype, ♀)

Legs:	femur	patella	tibia	meta-tarsus	tarsus
I	7.20	0.35	7.45	13.70	1.95
II	5.30	0.35	5.05	8.16	1.06
III	3.60	0.35	3.60	4.80	0.77
IV	5.76	0.35	8.40	11.00	1.10
palp:	0.18	0.07	0.14	—	0.15

Genital organ (Figs 38, 39) : genital opening overshot by a voluminous, extensible lobe with 3–4 deep, transverse folds, distally a small tongue. This lobe forms, together with the caudal crescent wall on the abdomen, a 'vestibulum' in the proximal half of which is situated the slitlike opening into the uterus externus. The whole organ is practically colourless except for a pair of dumb-bell shaped ridges on the inner (dorsal) side of the lobe, apparent on the outside, and the domed sclerotized locking valves of the anterior of the uterus externus. Due to different degrees of sclerotization, the pattern in ventral aspect may vary. No essential differences were observed between the specimens from Balikpapan and those from the Malay Peninsula and Sumatra.

REMARKS

The remarks made for *vermiformis* apply to this species too. No webs were visible with the spiders in the field, but possibly webs of very fine texture were extended from the leaf margins. As in *vermiformis,* elongate egg parcels were held in front of the head like a stick.

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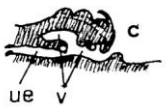

FIG 59. Diagrammatic longitudinal section of female genital organ, ventral suface uppermost.

c. *Calapnita phyllicola* n.sp.;

ue: uterus externus; ui: uterus internus; pp: porous plate; el: epigynal lip; v: vestibulum; vs: 'Verschluss'.

Huber, B. A. 2000. New World pholcid spiders (Araneae: Pholcidae): a revision at generic level. Bull. Amer. Mus. Nat. Hist. 254: 1-348.

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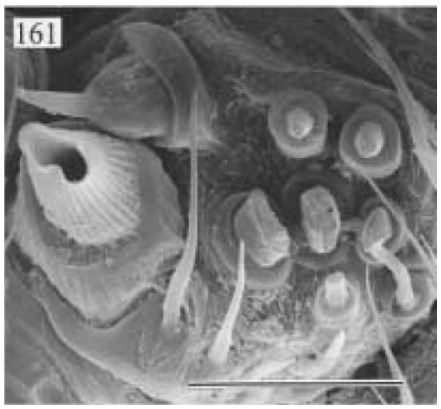

Figs. 158–163. Anterior lateral spinnerets in various Old World genera.

161.

Calapnita phyllicola Deeleman-Reinhold, male.
Scale lines: 20 μm.

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

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46. *Calapnita phyllicola*, male, dorsal view.

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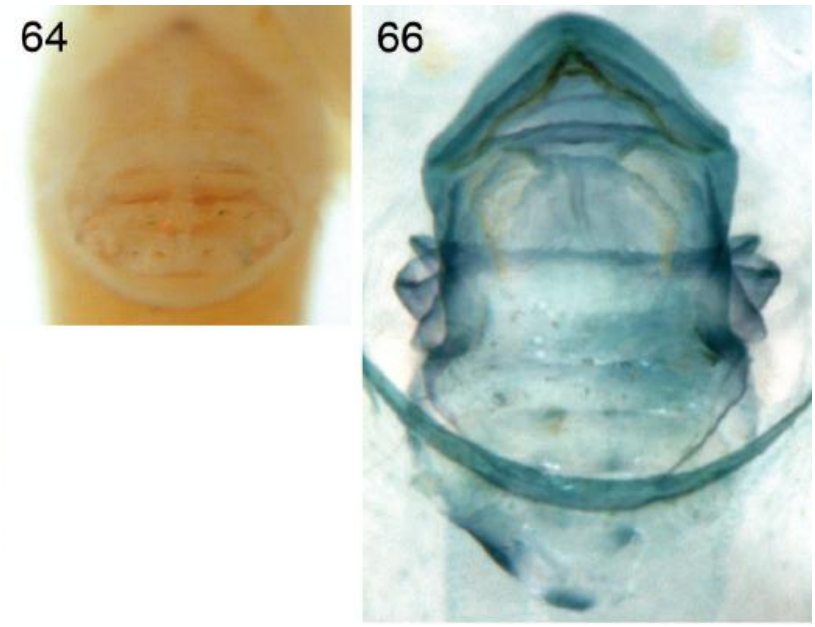

64, 66. *Calapnita phyllicola*.

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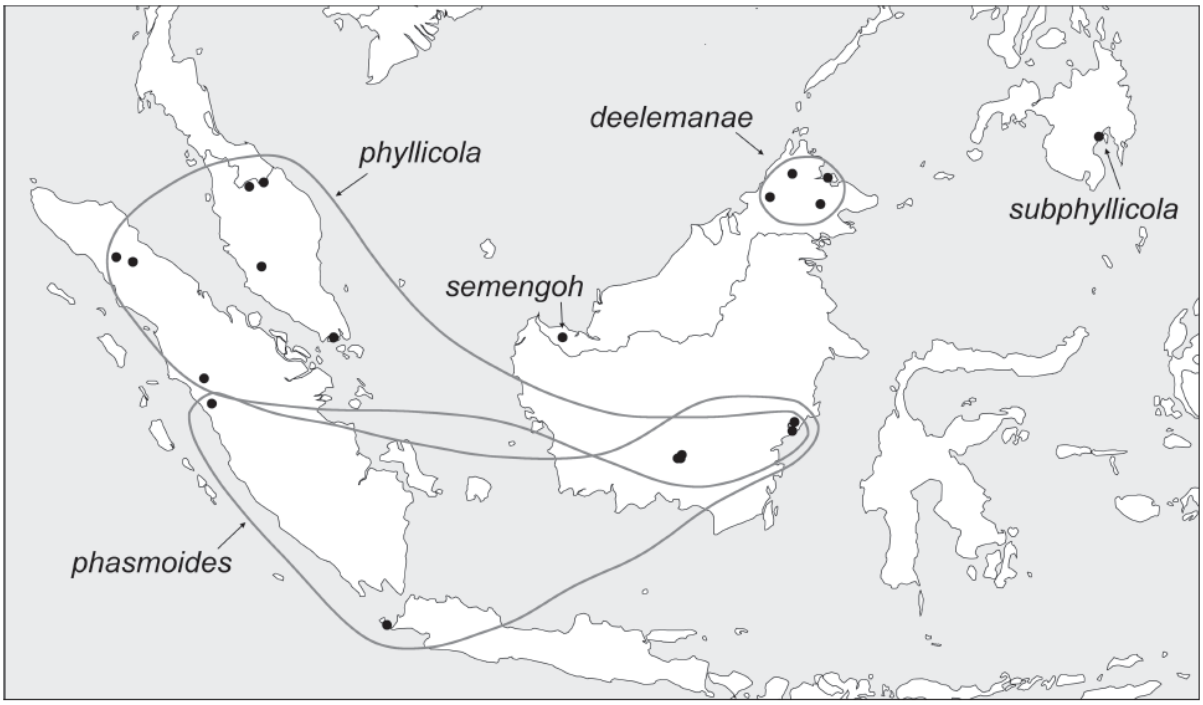

FIG. 138. Known distribution of *Calapnita*, part 2.

Calapnita phyllicola Deeleman-Reinhold, 1986

Figs. 46, 64, 66, 170-188

Calapnita phyllicola Deeleman-Reinhold 1986b: 213-217, figs. 32-39, 59c. Huber 2000: fig. 42.

Types. Male holotype from Indonesia, East Kalimantan, 40 km N Balikpapan, Sepaku (1°00'S, 116°54'E),

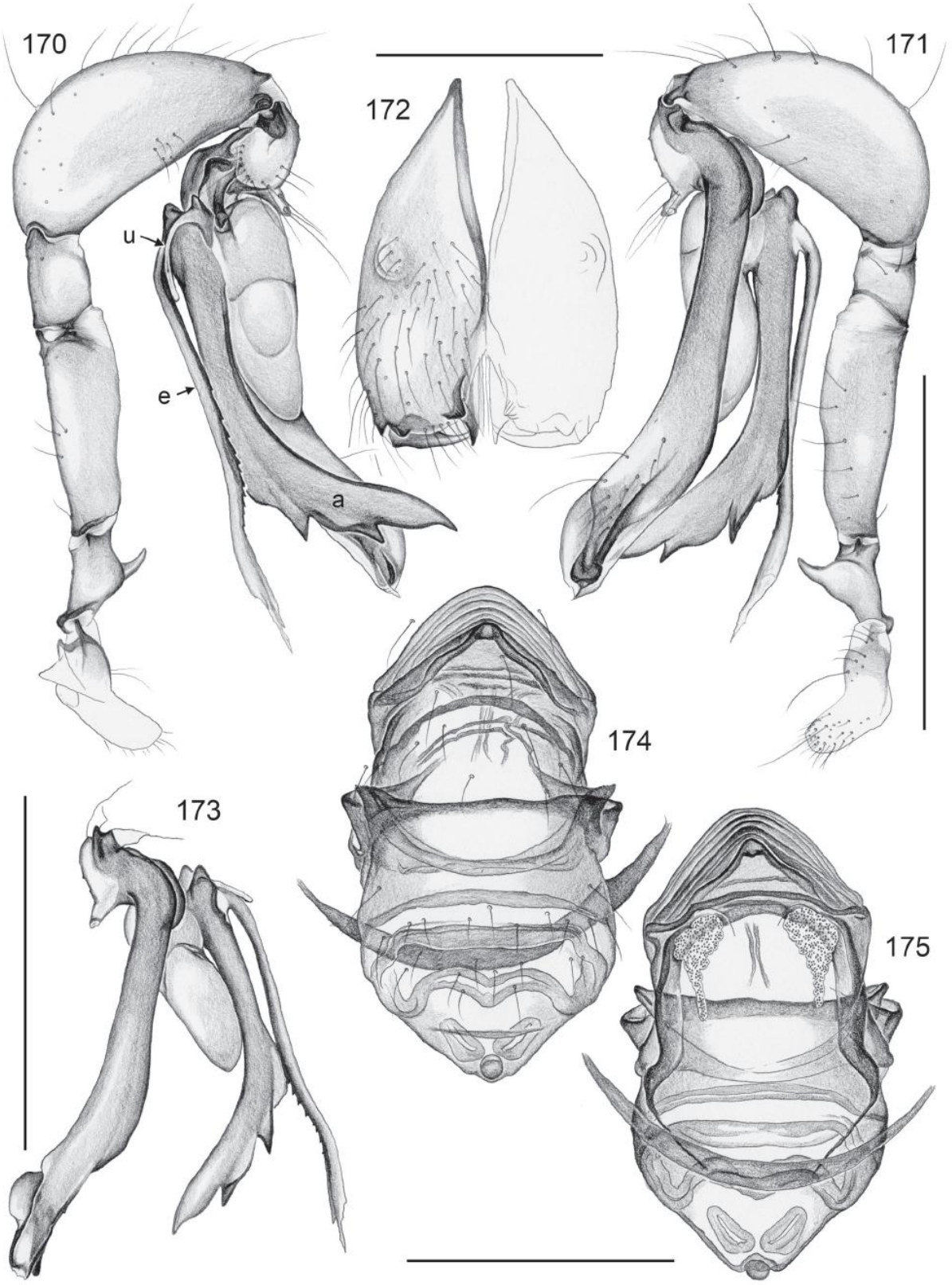

FIG. 170-175. *Calapnita phyllicola*. 170, 171. Left male palp, prolateral and retrolateral views, male from type locality (East Kalimantan). 172. Male chelicerae, frontal view. 173. Procursus and bulb of male from Central Kalimantan (same scale as Fig. 171). 174, 175. Cleared female genitalia, ventral and dorsal views. Scale lines: 1.0 (170, 171, 173), 0.5 (174, 175), 0.3 (172).

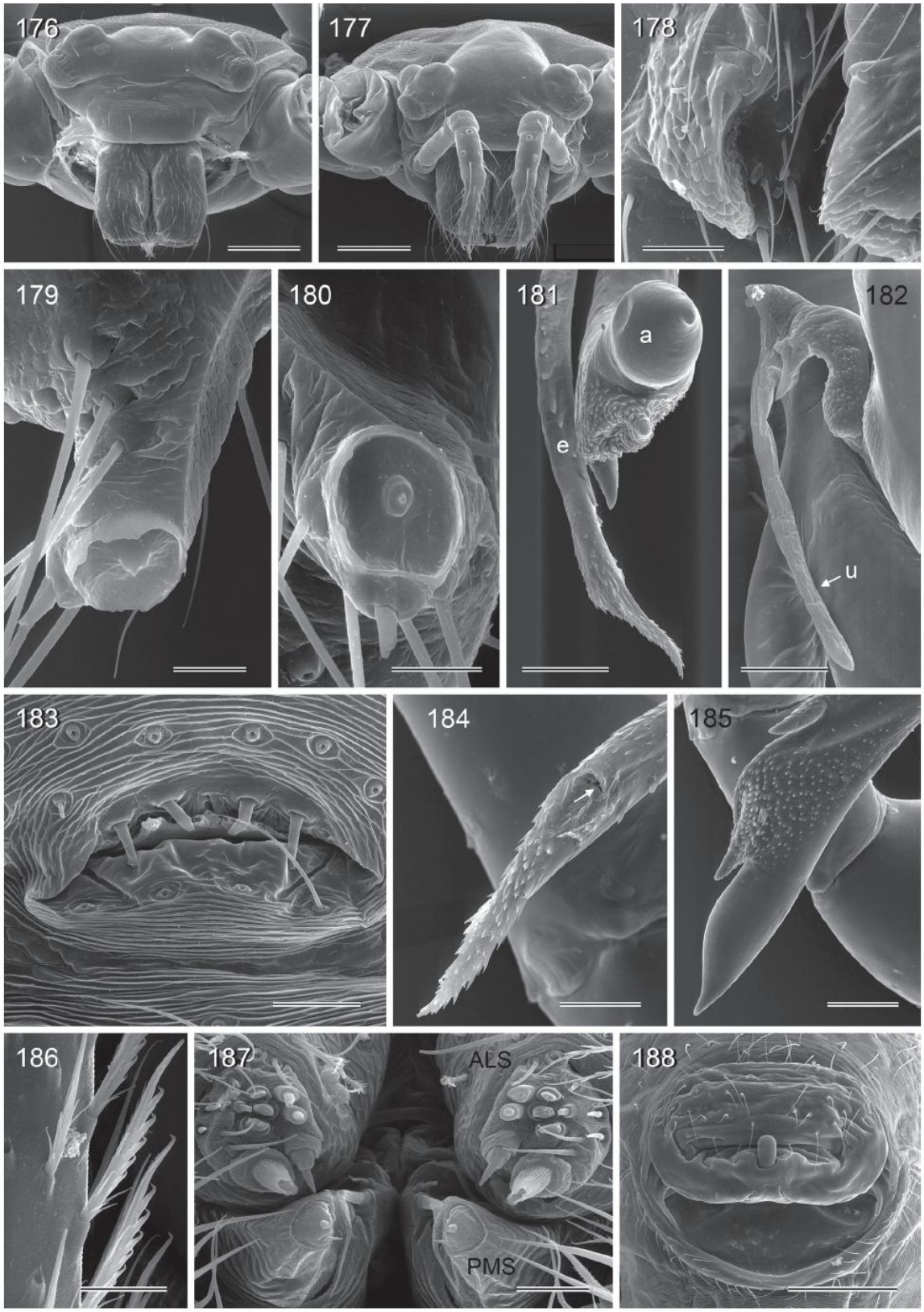

FIG. 176-188. *Calapnita phyllicola*. 176, 177. Male (palps removed) and female prosomata, frontal views. 178. Male distal cheliceral apophyses. 179, 180. Male palpal tarsal organ. 181. Tips of appendix and embolus, dorso-distal view. 182. Uncus of left bulb, prolateral view. 183. Male gonopore. 184. Tip of right embolus (arrow points at sperm duct opening). 185. Tip of right appendix, retrolateral view. 186. Comb hairs on left female tarsus 4. 187. Female ALS and PMS. 188. Epigynum. Scale lines: 200 µm (176, 177, 188), 100 µm (185), 80 µm (181), 60 µm (182), 50 µm (184), 30 µm (183), 20 µm (178-180, 186, 187).

"primary lowland dipterocarp rainforest, on the underside of large green leaves (mostly palm leaves) in dark sheltered places, part of series collected 14-16.vii.1979, 5-8.viii.1980 and 21-22.vii.1982" (P.R. & C.L. Deeleman), in RMNH (9573), not examined. 14♂30♀ paratypes from same locality, 2./3./5.viii.1980, in RMNH (7 vials), examined.

Note. Deeleman-Reinhold (1986b) reports only 5♂7♀ paratypes; however, all the material above is labeled as paratypes (original handwriting), originates from the type locality, and was collected during one of the collection events that yielded the holotype.

Diagnosis. Easily distinguished from congeners by shapes of procursus (Fig. 171), bulbal processes (Fig. 170), and short trochanter apophysis (Fig. 171); from *C. vermiformis* and *C. saluang* also by simple male palpal femur (Fig. 171) and epigynum not triangular (Fig. 188).

Male (paratype). Total body length 5.3, carapace width 0.95. Leg 1: 35.9 (8.2 + 0.5 + 8.5 + 16.8 + 1.9), tibia 2: 5.7, tibia 3: 3.5, tibia 4: 5.4; tibia 1 L/d: 96. Habitus as in Fig. 46. Entire spider mostly pale ochre-yellow, only patella area and tibia-metatarsus joints (and palpal structures) brown. Distance PME-PME 240 µm, diameter PME 90 µm, distance PME-ALE 45 µm, no trace of AME. Ocular area not elevated, each triad on very low hump (Fig. 176). No thoracic furrow; clypeus unmodified. Chelicerae as in Fig. 172, frontal apophyses simple (Fig. 178), low humps proximally. Sternum longer than wide (0.60/0.55), unmodified. Palps as in Figs. 170 and 171, coxa unmodified, trochanter with small retrolatero-ventral apophysis, femur long and slender, barely modified, tarsal organ on elevation (Figs. 179, 180), procursus rather simple, bulb very elongated, with large serrated process (putative appendix; Figs. 170, 181, 185) from which slender serrated embolus originates proximally (Figs. 170, 181, 184), small transparent worm-shaped process (putative uncus) only proximally sclerotized (Figs. 170, 182). Legs without spines and curved hairs, few vertical hairs; retrolateral trichobothrium on tibia 1 at 3%; prolateral trichobothrium absent on tibia 1, present on other tibiae; pseudosegments not visible in dissecting microscope. Gonopore with four epiandrous spigots (Fig. 183); ALS with eight spigots each (cf. female).

Variation. Males from all localities other than the type locality are assigned tentatively because all differ slightly in the shape of the dorso-distal structure of the procursus which is more distinct (Fig. 173); also, the procursus in these males is mostly smaller, sometimes more slender; in most, the large serrated bulbal apophysis is more slender. Tibia 1 in 27 other males (all localities): 7.0-9.0 (mean 8.0).

Female. In general similar to male; triads slightly closer together (Fig. 177; distance PME-PME 205 µm). Tibia 1 in 63 females: 5.6-7.4 (mean 6.6); tarsus 4 with single row of comb-hairs (Fig. 186). Epigynum protruding, weakly sclerotized, distinctive internal structures visible through cuticle (Fig. 64), with 'knob' on extensible lobe (Figs. 174, 188); internal genitalia as in Figs. 66 and 175. ALS with eight spigots each (Fig. 187).

Distribution. Possibly widely distributed in Southeast Asia (Fig. 138), but all records other than those from East Kalimantan are from specimens here assigned tentatively (see above).

Material examined. INDONESIA-BORNEO: *East Kalimantan*: Sepaku: 14♂30♀ paratypes above; same data, several juveniles, in RMNH; same data, 3.viii.1980, 1♂2♀ in AMNH; same locality, 20.-21.vii.1982 (P.R. & C.L. Deeleman), 25♂41♀ (2 vials) in RMNH. Balikpapan [-1°15'S, 116°50'E], 20.vii.1982 (Murphy, 11873), 1♂2♀ in ZFMK.

Assigned tentatively. INDONESIA-BORNEO: *Central Kalimantan*: Kaharian (2°02'S, 113°40'E), swampy primary forest, foliage, 2.-16.ix.1985 (S. Djojosudharmo), 10♂25♀ (2 vials) in RMNH. Tumbang Tahai (2°02'S, 113°35'E), primary marshy forest, 3./13.ix.1985 (S. Djojosudharmo), 7♂12♀ (2 vials) in RMNH. *South Kalimantan*: 40 km NW of Palangkaraya [-1°56'S, 113°42'E], from leaves in secondary forest, 1.x.1985 (S. Djojosudharmo), 3♂11♀ in RMNH.

MALAYSIA-BORNEO: *Sarawak*: Semengoh Arboretum [1°24'N, 110°19'E], lower track, 23.iii.-6.iv.1985 (C.L. & P.R. Deeleman), 2♀ in RMNH.

INDONESIA-SUMATRA: *Aceh*: Gunung Leuser, Ketambe [3°40'N, 97°39'E], 17.ii.1985 (Sudiro), 1♀ in RMNH; same locality, 15.ii.1985 (Suyono), 1♂1♀ in RMNH; same locality, 3.v.1986 (Suharto), 1♂2♀ in RMNH; same locality, 4.i.1985 (Suyono), 1♂1♀ in RMNH; same locality, 25.viii.1984 (Sudiro, Suyono), 3♂4♀ in RMNH; same locality, ii.1985, collector not given, 1♂2♀ in RMNH; same locality, submontane, 1400 m a.s.l., 29.xi.1984, collector not given, 1♀ in RMNH; same locality, various dates combined (viii.1984-ii.1985) (C.L. & P.R. Deeleman), 3♂6♀ in RMNH. *North Sumatra*: Gunung Leuser, Bohorok [3°32.6'N, 98°07.2'E], 3.i.1984 (P.R. Deeleman), 1♂ in RMNH; same locality, 17.ii.1983 and 2.i.1984 (2 vials), collector not

given, 2♀ in RMNH. *West Sumatra*: Rimba Panti Reserve [~0°14'N, 100°08'E], lowland rainforest, from leaves, 3.-4.viii.1982 (C.L. & P.R. Deeleman), 1♂1♀ in RMNH.
SINGAPORE: Nee Soon [~1°24'N, 103°49'E], swamp forest, 14.xi.1990 (P.K.L. Ng), 2♀ in RMBR.
MALAYSIA: *Pahang*: Genting Heights "Kuala Lumpur" [~3°24.5'N, 101°45.9'E], 29.vii.1980, collector not given, 1♂2♀ in RMNH. *Perak*: Belum Expedition, Ridge Trail [~5°40'N, 101°25'E], 12.ii.1994 (Murphy, 23663), 1♂ in ZFMK. *Selangor*: Gombak Field Station [~3°14'N, 101°44'E], 6.vii.1992 (C.L. & P.R. Deeleman), 1♀ in RMNH.
THAILAND: *Naratiwat Prov.*: Waeng Distr., Hala Bala W.S., research station (5°47.7'N, 101°50.1'E), 13.-14.x.2003 (ATOL Expedition 2003), 1♂1♀ (2 vials) in MACN.