

Descriptions of New Taxa and Distribution Records of the Family Bethyridae (Insecta, Hymenoptera) I. Subfamily Pristocerinae

Mamoru Terayama ^{*1}

Abstract Seventeen species of bethylid wasps of 4 genera belonging to the subfamily Pristocerinae are described as new to science from Asia, South America, and Africa: *Pseudisobrachium fushanensis* sp. nov., *P. lini* sp. nov., *P. paotaoanum* sp. nov., *P. fulleri* sp. nov., *P. silvicolum* sp. nov., *P. lepidum* sp. nov., *P. nepalensis* sp. nov., *P. colombiensis* sp. nov., *Apenesia ktmdana* sp. nov., *A. carinicornis* sp. nov., *A. nepalensis* sp. nov., *A. pulchella* sp. nov., *A. kakaniensis* sp. nov., *Pristocera poirieri* sp. nov., *P. huberi* sp. nov., *Prosapenesia sesriemensis* sp. nov., and *P. longimandibulata* sp. nov.

Introduction

In the course of my recent study of the world Bethyridae, I have found many undescribed species. In the present part, I describe 17 species of 4 genera belonging to the subfamily Pristocerinae.

Special terms used in this paper follow those in Terayama (1996, 1999). The following abbreviations are used in the descriptions: HL-head length; HW-head width; WF-width of frons; LM-length of mesosoma; LP-length of propodeum in dorsal view; LPD-length of propodeal disc in dorsal view; WPD-width of propodeal disc in dorsal view; FWL-forewing length; TL-total body length; EL-eye length; POL-distance between posterior ocelli; AOL-distance between posterior ocellus and anterior ocellus; OOL-distance from a posterior ocellus to nearest eye margin; WOT-distance across and including posterior ocelli; DAO-diameter of anterior ocellus. The following abbreviations of institutions are also used: BMNH-Natural History Museum, London, U. K.; CNC-Bio-systematics Research Centre, Ottawa, Canada; NIAES-Institute of Agro-Environmental Sciences, Tsukuba, Japan; NSMT-National Science Museum, Tokyo, Japan; PMA-Provincial Museum of Alberta, Canada; TARI-Taiwan Agricultural Research Institute, Taichung, Taiwan.

Taxonomic accounts and distribution

Subfamily Pristocerinae

1. Genus *Pseudisobrachium* Kieffer

Pseudisobrachium fushanensis sp. nov. (Figs. 1-3)

Female (holotype). HL 0.55 mm; HW 0.44mm; LM 1.03 mm; LP 0.34 mm; WPD 0.28 mm; TL 2.9 mm.

Body yellow; mandible, antenna, and legs clean yellow.

Head 1.26 times as long as wide, shagreened, with parallel sides and shallowly concave posterior margin in full face view. Mandible with 2 acute teeth. Anterior projection of clypeus trapezoidal. First 5 segments of antenna in a ratio of 10 : 2.5 : 2 : 2 : 2 in length; scape 3.3 times as long as wide; pedicel as long as wide; 3rd to 12th segments each shorter than long; terminal segment 2.2 times as long as wide. Eye

^{*1} Part-time lecturer, General Education and Research Center, Tokyo Polytechnic University.
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lacking.

Pronotum shagreened; pronotal disc 0.58 mm in maximum width. Mesonotum shagreened. Propodeum as in Fig. 2, 1.22 times as long as maximum wide in dorsal view; posterolateral corner rounded, not forming distinct angle; discal surface shagreened.

Metasoma sessile; 0.60 mm in maximum width in dorsal view.

Holotype. Female, Fushan, Iran Hsien, Taiwan, 20. VII. 1995, C.-C. Lin leg.

Type depository. TARI.

Pseudisobrachium lini sp. nov. (Figs. 4-6)

Female (holotype). HL 0.48 mm; HW 0.34 mm; LM 0.85 mm; LP 0.33 mm; WPD 0.20 mm; TL 2.1 mm.

Head blackish brown; mesosoma and metasoma castaneous; mandible, antenna and legs yellow.

Head 1.40 times as long as wide, with parallel sides and straight posterior margin in full face view; frons and vertex sparsely punctate and with smooth interspaces. Mandible with 4 teeth; apical 2 teeth large and relatively acute; basal 2 teeth small and blunt. Median projection of clypeus trapezoidal, widely truncated apically, and relatively weakly produced. First 5 segments of antenna in a ratio of 9 : 2 : 2 : 1.5 : 1.5 in length; scape 4.5 times as long as wide; 2nd to 12th segments each wider than long; terminal segment twice as long as wide. Eyeless.

Pronotal disc largely smooth, with a few small punctures, 0.35 mm in maximum width in dorsal view. Mesonotum smooth and shining. Propodeum as in Fig. 5, 1.63 times as long as wide, smooth and shining; posterolateral corner rounded, not forming an angle.

Metasoma sessile; 0.40 mm in maximum width in dorsal view.

Holotype. Female, Renze Wenquan, Iran Hsien, Taiwan, 25. X. 1995, C.-C. Lin leg.

Type depository. TARI.

Pseudisobrachium paotaoanum sp. nov. (Figs. 7-10)

Male (holotype). HL 0.63 mm; HW 0.57 mm; WF 0.43 mm; LM 1.15 mm; LP 0.50 mm; WPD 0.33 mm; FWL 1.9 mm; TL 3.1 mm.

Body black; mandible reddish brown; antennal scape dark brown; funiculus brown; wings hyaline; wing veins and pterostigma brown.

Head 1.11 times as long as wide, with weakly convex posterior margin in full face view; frons and vertex shagreened. Mandible with 5 teeth; apical tooth acute and largest; 2nd to 4th teeth triangular; basal most tooth rectangular. Median lobe of clypeus trapezoidal, with weakly concave anterior margin. First 5 segments of antenna in a ratio of 10 : 2.5 : 3 : 3 : 3 in length. Eye with abundant erect hairs. Ocelli forming a right triangle; POL : AOL = 1 : 1; DAO ca. 0.025 mm; OOL 1.8 times WOT.

Pronotal disc shagreened. Mesoscutum shagreened; notauli present but thin. Propodeum 1.67 times as long as wide, with parallel sides and convex posterior margin in dorsal view; median carina present, reaching posterior margin of disc; 3 pairs of small rugae present at basal 1/5; disc shagreened and transversely striate.

Metasoma sessile, smooth and shining. Paramere of genitalia deeply divided into two lobes of which one is thin as in Fig. 10 in profile.

Holotype. Male, Nanfen Cun, Nantou Hsien, 22. XI. 1997, M. Terayama leg.

Type depository. NIAES.

Remarks. This species is resembling to *P. ryukyuanum* Terayama, 1999, from the Ryukyus in Japan, but is separated from the latter by the short discal carinae excluding median carina on the propodeal disc.

***Pseudisobrachium fulleri* sp. nov.** (Figs. 11)

Male (holotype). HL 0.83 mm; HW 0.75 mm; WF 0.53 mm; LM 0.85 mm; LP 0.80 mm; WPD 0.48 mm; TL 4.0 mm.

Head and mesosoma black; metasoma blackish brown and 1st to 4th segments each with a yellow band at near posterior margin; mandible and antenna brown; legs yellow.

Head slightly longer than wide, with very weakly convex posterior margin in full face view; frons and vertex strongly microreticulate with shallow punctures. Mandible with 5 teeth; apical tooth acute and most developed; others small and blunt. Anterior margin of clypeus trapezoidal. First 5 segments of antenna in a ratio of 13 : 3 : 6 : 6 : 5.5 in length. Eye 0.35 mm in length; WF 1.51 times EL. POL : AOL = 4 : 3; OOL 1.1 times WOT.

Pronotum and mesoscutum strongly microreticulate; notauli shallow and present on basal half of mesoscutal disc; microreticulum on scutellar disc weaker than that on pronotum and mesoscutum. Propodeum 1.67 times as long as wide; median carina strong, present at basal 3/5 of propodeum; lateral area rather smooth, but very weakly striate.

Metasoma sessile, smooth and shining.

Variation. Paratypes vary in head length from 0.60 mm to 1.70 mm, and in head width from 0.55 mm to 1.70 mm.

Holotype. Male, Doi Inthanon National Park, 1300 m, Chiang Mai, Thailand, 7-12.V.1990, E. Fuller leg.

Paratypes. 1 male, same data as holotype; 8 males, Nakhon Ratchasima, Khao Yai National Park, 700-800 m, 18-24. IV. 1990, E. Fuller leg.; 9m, same data 12-18. IV. 1990, E. Fuller leg.; 4 males, same data, 11-18. IV. 1990, E. Fuller leg.; 4 males, Bangkok, 180 km N.E., Khao Yai N.P., 780 m, Thailand, 11-18. IV. 1990, B. V. Brown leg.; 3 males, same data, 18-24. IV. 1990, B. V. Brown leg.; 1 male, same data, 10-16. IV. 1990, B. V. Brown leg.; 1 male, same data, 20-24. IV. 1990, B. V. Brown leg.; 1 male, Chiang Mai, 70 km, Doi Inthanon N. P., 800 m, 7-11. V. 1990, B. V. Brown leg.; 2 males, Khao Yai Nat. Park, 40 km S of Park Chong, 10-17. II.1 989, T. W. Thormin leg.

Type depository. All the types are preaserved in PMA.

***Pseudisobrachium silvicolum* sp. nov.** (Fig. 12)

Male (holotype). HL 0.93 mm; HW 0.78 mm; WF 0.58 mm; LM 1.05 mm; LP 0.98 mm; WPD 0.60 mm; FWL 3.7 mm; TL 4.5 mm.

Head and mesosoma black; metasoma blackish brown; mandible and antenna reddish brown; legs yellowish brown.

Head thin and long, 1.19 times as long as wide, with convex posterior margin in full face view; lateral margins tapering to posterior margin; posterolateral corner not forming an angle; frons and vertex strongly microreticulate with shallow punctures. Mandible with 5 teeth; apical tooth acute and most developed, others blunt and small. Median lobe of clypeus trapezoidal. First 5 segments of antenna in a ratio of 17 : 5 : 8 : 6.5 : 6.5 in length. Eye 0.13 mm in length. Ocelli forming an acute; POL : AOL = 2 : 3; OOL 1.86 times WOT.

Pronotum and mesoscutum strongly microreticulate; notauli absent; scutellar disc weakly

microreticulate. Propodeum 1.63 times as long as wide; median carina long, almost reaching the declivity face; disc microreticulate and irregularly striate.

Variation. The paratypes vary in head length from 0.60 mm to 0.95 mm, and in head width from 0.53 mm to 0.83 mm.

Holotype. Male, Chiang Mai, Doi Inthanon N. P., 2200 m, 28. IV.-6. V. 1990, B. V. Brown leg.

Paratypes. 3 males, same data as holotype; 3 males, 70 km S.W., Chiang Mai, Doi Inthanon N. P., 2200 m, 6-12. V. 1990, B.V. Brown leg.; 1 male, 70 km S. W., Chiang Mai, Doi Inthanon N. P., 1700 m, 3-12. V. 1990, B.V. Brown leg.; 1 male, Chiang Mai, Doi Inthanon National Park, 1300 m, 7-12. V. 1990, E. Fuller leg.; 1 male, Doi Inthanon Nat. Park, 70 km SW Chiang Mai, 2470 m, 31. I-7. II. 1989, T. W. Thormin leg.; 1 male, Doi Inthanon Nat. Park, 70 km S.W., Chiang Mai, 790 m, 31. I-7. II. 1989, T. W. Thormin leg.

Type depository. All the types are preserved in PMA.

Pseudisobrachium lepidum sp. nov. (Figs. 17-23)

Male (holotype). HL 0.75 mm; HW 0.65 mm; WF 0.40 mm; LM 1.58 mm; LP 0.70 mm; WPD 0.48 mm; FWL 3.7 mm; TL 3.5 mm.

Head black; mesosoma castaneous; metasoma brown; mandible and antenna reddish brown; coxae, trochanters and femora brown excepting anterior 1/4 of femora yellow; fore and middle tibiae brown, excepting yellowish tip and base; hind tibia yellow; tarsi yellow.

Head thin and long, 1.15 times as long as wide, tapering to occiput as in Fig. 17, with weakly concave posterior margin in full face view; posterolateral corner forming an acute angle; frons and vertex with shallow but large dense punctures and with densely microreticulate interspaces. Mandible with 4 teeth of which basal 2nd smallest. Median lobe of clypeus trapezoidal, with straight anterior margin. First 5 segments of antenna in a ratio of 17 : 3 : 10 : 8 : 8 in length; scape and 3rd segment relatively long. Eye 0.28 mm in length; WF 1.43 times EL. Ocelli forming a regular triangle; OOL 1.43 times WOT.

Pronotal disc trapezoidal, microreticulate, 0.42 times as long as wide in dorsal view. Mesoscutum microreticulate; in profile, anterior portion of dorsal margin convex as in Fig. 21; notauli present but weak and present at anterior half of mesoscutum; parapsidal fullow complete. Propodeum long, 1.46 times as long as wide, surface reticulate, without discal carina.

Metasoma petiolate; petiole long 2.3 times as long as wide.

Forewing as in Fig. 23; pterostigma thin and small; post marginal vein 0.8 times length of pterostigma; subcosta arising well based of pterostigma.

Legs long, hind femur 0.73 mm in length.

Holotype. Male, Chiang Mai, Doi Inthanon N. P. 2200 m, 28. IV.-6. V. 1990, B. V. Brown leg.

Type depository. The holotype is deposited in PMA.

Remarks. This is a peculiar species in having long legs, anteriorly concave mesoscutal dorsum, anteriorly placed notauli, and long propodeum which has no longitudinal carina. However, I tentatively positiond it in the genus *Pseudisobrachium*. It is known from the type only.

Pseudisobrachium nepalensis sp. nov. (Figs. 13, 14)

Male (holotype). HL 0.70 mm; HW 0.65 mm; WF 0.40 mm; LM 1.30 mm; LP 0.53 mm; WPD 0.40 mm; FWL 2.3 mm; TL 3.0 mm.

Head black; pro- and mesonota castaneous; propodeum blackish brown; metasoma castaneous, but

lighter than pro- and mesonota; mandible, antenna, and legs yellow.

Head 1.08 times as long as wide, with very weakly convex posterior margin and dully angulate posterolateral corner in full face view; frons and vertex with shallow punctures moderately; interspaces microreticulate. Mandible with 5 teeth; apical tooth acute and longest, basal 2 teeth minute. Anterior margin of clypeus trapezoidal. First 5 segments of antenna in a ratio of about 12 : 3 : 5 : 4.5 : 4.5 in length; scape 3.4 times as long as wide; 2nd segment slightly longer than wide; 3rd segment 1.7 times as long as wide; 4th and 5th segments each about 1.5 times as long as wide. Eye 0.38 mm in length; the longest hair on eye ca. 0.04 mm; WF 1.05 times EL. Ocelli large, DAO 0.09 mm; OOL 0.94 times WOT.

Pronotum punctate and with microreticulate interspaces; punctures weaker than those of head. Mesonotum punctate and with microreticulate interspaces. Propodeum 1.33 times as long as wide; median area microreticulate with transverse ruglae; sublateral area rather smooth, with a few oblique ruglae.

Metasoma sessile, smooth and shining.

Variation. Paratypes vary in head length from 0.65 mm to 1.00 mm, in head width from 0.60 mm to 1.00 mm, and in width of frons from 0.35 mm to 0.65 mm.

Holotype. Male, Lothar, 450 ft., nr. Birganj, Nepal, 5-12. IX. 1967.

Paratype. 2 males, same locality as holotype, 30. VIII.-5. IX. 1957; 1 male, Godavari 5000 ft., Ktmd, Nepal, 1-14. VIII. 1967; 1 male, Godavari, 6000 ft., Ktmd, Nepal, 13-17. VIII. 1967; 1 male, Pulchauki, 6600 ft., Ktmd, Nepal, 14-21. VII. 1967.

Remarks. All the types are deposited in CNC.

Pseudisobrachium colombiensis sp. nov. (Figs. 15, 16)

Male (holotype). HL 1.80 mm; HW 1.70 mm; WF 1.13 mm; LM 3.40 mm; LPD 1.08 mm; WPD 1.13 mm; FWL 5.5 mm; TL 7.9 mm.

Head and mesosoma black; metasoma reddish brown except for 1st, anterior 2/3 of 2nd and anterior half of 3rd sternites blackish brown; antenna yellowish brown; mandible reddish brown, with dark tip; coxae blackish brown; trochanters yellow; femora blackish brown except for yellowish tip and base; tibiae and tarsi yellow; wings subhyaline and tinged with a light brown.

Head almost as long as wide, with almost straight posterior margin and weakly angulate posterolateral corner in full face view; frons and vertex moderately punctate and with smooth interspaces; punctures on anterior half of frons most dense and gradually sparse to vertex. Mandible with 5 teeth; basal most tooth largest; basal 2nd and 3rd minute. Clypeus well produced, deeply concave anteriorly, with 2 strong apical teeth. First 5 segments of antenna in a ratio of 21 : 3 : 14 : 10 : 10 in length; scape 2.6 times as long as wide; 2nd segment wider than long; 3rd 1.8 times as long as wide; 4th and 5th segments each 1.3 times as long as wide. Eye 0.80 mm in length, with erect hairs; WF 1.4 times EL. Ocelli forming a compact triangle; DAO 1.47 times WOT.

Pronotal disc trapezoidal, maximum width 1.4 times its minimum width in dorsal view; surface smooth with moderately punctate and with smooth interspaces. Mesonotum smooth, with scattered shallow punctures; notauli complete. Propodeal disc strongly reticulate, almost as long as wide in dorsal view; median carina absent; transverse carina present, but weak.

Metasoma sessile, smooth and shining.

Discoidal vein of forewing interstitial with median vein; pterostigma 3.0 times as long as wide; postmarginal vein short, 0.5 times length of pterostigma.

Holotype. Narino, Tumaco, Colombia, 26. VI. 1962, Y. Doi leg. [NSMT-I-Hym. No. 5241.]

Type depository. NSMT.

Remarks. This species resembles *P. erythrocephalum* Evans, 1973, from Chile in having the characteristic form of the clypeus and the transverse carina marging the propodeal disk. However, it is easily distinguished from the latter by the blackish head and mesosoma and the absence of median carina of propodeal disc.

2. Genus *Apenesia* Westwood

Apenesia ktmdana sp. nov. (Figs. 24-26)

Male (holotype). HL 0.80 mm; HW 0.78 mm; WF 0.50 mm; LM 1.55 mm; LP 0.68 mm; WPD 0.48 mm; FWL 3.2 mm; TL 4.0 mm.

Head black; mesosoma and metasoma blackish brown, but mesosoma darker than metasoma; mandible, antenna and legs yellowish brown.

Head as long as wide, with convex posterior margin in full face view; frons and vertex largely smooth, but with scattered shallow punctures sparsely. Mandible with 4 acute teeth. Anterior margin of clypeus broadly rounded. First 5 segments of antenna in a ratio of 10 : 3 : 10 : 9 : 9 in length; 3rd segment 3.3 times as long as wide. Eye 0.33 mm in length, with very short erect hairs; WF 1.51 times EL. Ocelli forming a regular triangle; OOL 1.2 times WOT.

Pronotum smooth with shallow sparse punctures. Mesonotum smooth. Propodeum 1.42 times as long as wide in dorsal view; median carina present at basal 3/5 of propodeum; transverse carina absent; basal triangular area reticulate; sublateral area smooth and shining.

Discoidal vein of forewing arising slightly down on transverse median vein.

Variation. Available materials vary in head length from 0.75 mm to 0.95 mm, in head width 0.70 mm to 0.90 mm, and in width of frons from 0.40 mm to 0.55 mm.

Holotype. Male, Ktmd, Godavari, 6000 ft., Nepal, 15. VII. 1967.

Paratypes. 2 males, same locality as holotype, 14. VIII. 1967; 1 male, same locality, 17. VII. 1967; 1 male, same locality, 20-22. VII. 1967; 1 male, same locality, 27-30. VII. 1967; 3 males, same locality, 1-3. VIII. 1967; 1 male, same locality, 3. VIII. 1967; 1 male, same locality, 7-13. VIII. 1967; 1 male, same locality, 7-14. VIII. 1967.

Type depository. All the types are deposited in PMA.

Apenesia carinicollis sp. nov. (Figs. 27-29)

Male (holotype). HL 0.98 mm; HW 0.88 mm; WF 0.48 mm; LM 1.68 mm; DPL 0.43 mm; WPD 0.63 mm; FWL 2.7 mm; TL 4.0 mm.

Head and mesosoma black; metasoma blackish brown with a reddish tinge; mandible, antenna and legs yellowish brown.

Head slightly longer than wide, with weakly convex posterior margin and bluntly angulate posterolateral corners in full face view; frons and vertex moderately punctate and with smooth interspaces. Mandible with 2 teeth; apical tooth acute and developed, basal one small and blunt as in Fig. 28. Anterior margin of clypeus triangular, well produced, with a median angle. First 5 segments of antenna in a ratio of 9 : 2 : 5 : 4.5 : 4.5 in length; 3rd segment 1.7 times as long as wide. Eye 0.43 mm in length, with very short erect hairs sparsely; WF 1.12 times EL. POL : AOL = 4 : 3; OOL 1.38 times WOT.

Pronotal disc 0.46 times as long as wide, anterior and lateral margins carinate; surface largely smooth,

but with shallow punctures sparsely. Mesonotum smooth with scattered shallow punctures. Propodeal disc 0.68 times as long as wide; transverse carina present; basal triangular area depressed and striate; sublateral area reticulate.

Discoidal vein arising well down on transverse median vein.

Variation. Specimens examined vary in head length from 0.65 mm to 0.98 mm, and in head width from 0.63 mm to 0.88 mm. Frons and vertex varies from smooth in large individuals to weakly microreticulate in small individuals.

Holotype. Male, Nr. Birganj, Lothar 450 ft., Nepal, 30. VIII-5. IX. 1967.

Paratypes. 2 males, same data as holotype; 1 male, Ktmd, Godavari 5000 ft., Nepal, 20. VII. 1967; 1 male, same locality, 23. VII. 1967.

Type depository. The types are deposited in PMA.

Apenesia nepalensis sp. nov. (Fig. 33)

Male (holotype). HL 0.95 mm; HW 0.88 mm; WF 0.55 mm; LM 1.9 mm; LP 0.80 mm; WPD 0.55 mm; FWL 3.8 mm; TL 5.3 mm.

Head black; mesosoma blackish brown; metasoma brown; each terga with yellowish brown posterior margin; mandible and antenna brown; legs yellow.

Head longer than wide, with strongly convex posterior margin in full face view. Frons and vertex largely smooth with small punctures sparsely. Mandible with 5 acute triangular teeth. Anterior margin of clypeus broadly rounded. Eye with short erect hairs, the longest hair ca. 0.39 mm; FW 1.41 times EL. POL : AOL = 4 : 3; OOL 1.33 times WOT.

Pronotum moderately punctate, and with smooth interspaces. Mesonotum punctate, with smooth interspaces. Propodeum longer than wide in dorsal view, with 3 discal carinae; basal triangular area reticulate; posterior portion of disc and declivity with strong transverse rugae.

Discoidal vein of forewing almost interstitial with median vein.

Holotype. Male, Ktmd, Godavari 6000 ft., Nepal, 7-13. VIII. 1967.

Type depository. PMA.

Remarks. Known from the holotype only.

Apenesia pulchella sp. nov. (Figs. 30-32)

Male (holotype). HL 0.98 mm; HW 0.93 mm; WF 0.58 mm; LM 1.70 mm; DPL 0.43 mm; WPD 0.58 mm; FWL 3.5 mm; TL 4.8 mm.

Head and mesosoma black; metasoma reddish brown; mandible, antenna and legs brown.

Head slightly longer than wide, with convex posterior margin in full face view; posterolateral corner not forming an angle. Frons and vertex rather sparsely punctate, and with smooth interspaces. Mandible with 2 teeth; apical tooth acute and developed, basal tooth small and blunt. Anterior margin of clypeus triangular, with a dull median angle. First 5 segments of antenna in a ratio of 12 : 3 : 8 : 7 : 7 in length; 3rd segment 3.2 times as long as wide. Eye 0.43 mm in length, hairless; WF 1.34 times EL. POL : AOL = 1 : 1; OOL 1.55 times WOT.

Pronotal disc 0.40 times as long as wide in dorsal view, with shallow punctures sparsely and smooth interspaces. Mesonotum smooth, impunctate in most part. Propodeal disc 0.74 times as long as wide; transverse carina present; basal triangular area depressed and striate; sublateral area microreticulate.

Discoidal vein of forewing arising well down on transverse median vein.

Variation. Available specimens vary in head length from 0.70 mm to 1.20 mm, and in head width from 0.70 mm to 1.05 mm. Small specimens have more shining head than that of large ones.

Holotype. Male, Ktmd, Pulchauki 6000 ft., Nepal. 1-14.VIII.1967.

Paratypes. 32 males, same data as holotype; 2 males, Ktmd, Pulchauki, 7300 ft., Nepal, 4-7. VIII. 1967; 6 males, Ktmd, Pulchauki, 6600 ft., 4-7. VIII. 1967 mm, Ktmd, Pulchauki, 7300 ft., 13-17. VIII. 1967; 3 males, Ktmd, Pulchauki, 6600 ft., 13-17. VIII. 1967; 2 males, Ktmd, Pulchauki, 6000 ft., 13-17. VIII. 1967; 4 males, Ktmd, Pulchauki, 6800 ft., 21.VII.1967; 2 males, Ktmd, Pulchauki, 6600 ft., 21. VIII. 1967; 2 males, Ktmd, Godavari 6000 ft., Nepal, 3.VIII.1967; 1 male, same locality, 14. VII. 1967; 2 males, same locality, 13-17. VII. 1967; 1 male, same locality, 20-22. VII. 1967; 4 males, same locality, 23-26. VII. 1967; 1 male, 27-30. VII. 1967; 1 male, Ktmd, Godavari, 5000 ft., 26. V. 1967; 1 male, same locality, 16. VII. 1967; 1 male, same locality, 12. VIII. 1967.

Type depository. All the types are deposited in PMA.

Remarks. This species is similar to *A. carinicollis* sp. nov. from Nepal. However, it is easily distinguished from the latter by the absence of marginal carina of pronotal disc.

***Apenesia kakaniensis* sp. nov.**

Male (holotype). HL 0.85 mm; HW 0.75 mm; WF 0.45 mm; LM 1.55 mm; PL 0.73 mm; WPD 0.45 mm; FWL 2.9 mm; TL 4.3 mm.

Head black; pro- and mesonota castaneous; propodeum black; metasoma castaneous; mandible and antenna brown; legs brown to brownish yellow.

Head longer than wide, with weakly convex posterior margin. Mandible with 4 strong teeth. Anterior margin of clypeus gently rounded, with a minute median tooth. First 5 segments of antenna in a ratio of about 12 : 3 : 6 : 6 : 6 in length. Eye 0.38 mm in length, with short erect hairs. Ocelli forming a right triangle; OOL 1.5 times WOT.

Pronotum largely smooth and shining, with scattered punctures. Mesonotum smooth and shining. Propodeum long, 1.62 times as long as wide in dorsal view; median carina present at basal 7/10 of propodeum; disc reticulate.

Discoidal vein arising slightly down on transverse median vein.

Holotype. Male, Kakani forest, 2070 m, Nepal, 1-15. IX. 1984, G. Allen leg.

Paratypes. 2 males, same data as holotype.

Type depository. All the types are deposited in PMA.

3. Genus *Pristocera* Klug

***Pristocera huberi* sp. nov.** (Figs. 34-38)

Male (holotype). HL 1.75 mm; HW 1.65 mm; WF 1.10 mm; LM 2.90 mm; LP 1.13 mm; WPD 1.15 mm; FWL 5.1 mm; TL ca. 8.0 mm.

Head and mesosoma black; metasoma castaneous; mandible and legs dark brown; antenna brown to dark brown.

Head longer than wide, with convex posterior margin in full face view; posterolateral corner forming a dull angle; punctures on frons large but shallow, separated by less 0.5 times their own diameters; interspaces of frons smooth and shining; vertex almost impunctate. Mandible with 4 strong teeth. Anterior margin of clypeus broadly convex. First 5 segments of antenna in a ratio of about 12 : 2 : 6 : 5 : 5 in length;

2nd segment wider than long; 3rd 2.3 times as long as wide; 4th and 5th segments each 1.9 times as long as wide. Eye 0.75 mm in length; WF 1.47 times EL. Ocelli relatively small, forming a compact triangle; DAO ca. 0.10 mm; OOL 1.64 times WOT.

Pronotal disc smooth with only a few shallow punctures; strong transverse carina present at near the middle; anterior margin carinate. Lateral area of mesoscutum and scutellar disc with smooth interspaces and moderately punctate; median area of mesoscutum largely smooth with only a few shallow punctures at near notauli. Propodeum as long as wide; basal triangular area mostly smooth, with a median carina and 3 pairs of longitudinal to oblique rugae; sublateral area with oblique rugae; distinct sublateral carina present.

Metasoma petiolate. Subgenital plate as in Fig. 38.

Variation. Paratypes vary in head length from 1.25 mm to 1.80 mm, in head width 1.25 mm to 1.80 mm, and in width of frons from 0.75 mm to 1.20 mm. The shape of posterior margin of head also varies from moderately rounded in small individuals to weakly rounded in large individuals in full face view.

Holotype. Male, Lothar 450 ft., nr. Birganj, Nepal, 30. VIII-5. IX. 1967.

Paratypes. 2 males, same data as holotype; 2 males, same locality as holotype, 5-12. IX. 1967; 1 male, same locality, 16. IX. 1967; 5 males, Adhabhar 600 ft., 23-26. VIII. 1967; 3 males, same locality, 25-28. VIII. 1967; 2 males, same locality, 5-12. IX. 1967.

Type depository. All the types are preserved in PMA.

***Pristocera poirieri* sp. nov.** (Figs. 39-42)

Male (holotype). HL 1.55 mm; HW 1.48 mm; WF 0.98 mm; LM 2.95 mm; LP 1.10 mm; WPD 1.05 mm; FWL 5.2 mm; TL 7.0 mm.

Head and mesosoma black; metasoma dark brown; mandible, antenna and legs dark brown.

Head slightly longer than wide, with strongly convex posterior margin in full face view; posterolateral corner not forming an angle; punctures on frons strong, separated by 0.5-1.0 times their own diameters; punctures on vertex sparser than those on frons. Mandible with 4 strong teeth. Anterior clypeal margin transverse. First 5 segments of antenna in a ratio of about 16 : 5 : 8 : 7 : 7 in length; 2nd segment slightly longer than wide; 3rd twice as long as wide; 4th and 5th segments each 1.8 times as long as wide. Eye 0.63 mm in length; WF 1.56 times EL. Ocelli forming a compact triangle; DAO 0.11 mm; OOL 1.62 times WOT.

Pronotal disc moderately punctate, with smooth and shining interspaces; without a distinct transverse carina; anterior margin not carinate. Lateral area of mesonotum moderately punctate; median area sparsely punctate. Propodeum as long as wide; basal triangular area depressed and roughly reticulate; sublateral area also reticulate.

Metasoma petiolate.

Variation. Body size varies in head length from 1.70 mm to 2.10 mm, in head width from 1.65 mm to 2.20 mm, and in width of frons from 1.00 mm to 1.35 mm.

Holotype. Male, Pulchauki 6800 ft., Ktmd, Nepal, 21.VII.1967.

Paratypes. 8 males, same data as holotype; 1 male, same locality as holotype, 14-21. VII. 1967; 2 males, Godavari 6000 ft., Ktmd, Nepal, 1-3. VIII. 1967; 1 male, same locality, 7-13. VIII. 1967; 1 male, same locality, 14-21. VII. 1967; 1 male, same locality, 21-27. VII. 1967; 2 males, same locality, 21-30. VII. 1967; 1 male, same locality, 23-26. VII. 1967; 1 male, same locality, 30. VII. 1967; 1 male, same locality, 20-23. VII. 1967; 2 males, same locality, 1-3. VII. 1967; 1 male, same locality, 3. VIII. 1967; 6 males,

Pulchauki 6600 ft., 1-14. VII. 1967; 5 males, same data, 14-21. VII. 1967; 5 males, 21-27. VII. 1967; 2 males, Pulchauki 7300 ft., Ktmd, Nepal, 1-4. VIII. 1967; 2 males, same data, 4-7. VIII. 1967; 2 males, 7-14. VIII. 1967; 1 male, same locality, 13-17. VIII. 1967; 1 male, same locality, 21-27. VIII. 1967; 2 males, same locality, 27-31. VIII. 1967; 1 male, Pulchauki 8000 ft., Ktmd, Nepal, 21. VII. 1967; 1 male, Gulubhanjyang 7500-8500 ft., nr. Ktmd, Nepal, 2. VII. 1967.

Type depository. All the types are preserved in PMA.

4. Genus *Prosapenesia* Kieffer

Diagnosis. This genus is easily separated from the other genera of Pristocerinae in male by the following combination of characteristics (Terayama, 1996, 2004): 1) anterior portion of head obliquely truncated, 2) pterostigma remarkably large and broad, 3) radius of forewing absent, 4) radial vein weak and thin, 5) posterior margin of subgenital plate with a remarkable process.

Female is known only from *P. lacteipennis* by Krombein (1989).

Remarks. Original description of the genus *Usakosia* by Kieffer (1914) suggests that this genus closely resembles the genus *Prosapenesia*. However, since the type material of the type species of *Usakosia* (*U. albipennis*) was lost during the World War I (see Terayama, 1996), I have no measures to conclude about the status of this genus.

Prosapenesia sesriemensis sp. nov. (Figs. 43-50)

Male (holotype). HL 1.10 mm; HW 1.15 mm; WF 0.63 mm; LM 2.40 mm; LP 0.80 mm; WPD 0.80 mm; FWL 4.0 mm; TL 5.8 mm.

Head and mesosoma blackish brown; metasoma reddish brown; mandible and legs reddish brown; antenna dark brown; wings hyaline; wing veins and pterostigma brown, but pterostigma somewhat darker.

Head slightly wider than long in full face view; frons and vertex with shallow sparse punctures; interspaces weakly microreticulate; posterior margin moderately convex with a very shallow median notch in full face view. Mandible broad and triangular, with an acute apical tooth and 3 broad and blunt teeth. Anterior margin of clypeus concave. Antenna short, terminal segment not reaching the anterior margin of propodeum; first 5 segments of antenna in a ratio of 11 : 4 : 6 : 5.5 : 5 in length; 2nd segment slightly longer than wide; 3rd segment 2.0 times as long as wide. Eye large and oval, 0.50 times as long as wide; WF 1.26 times EL. Ocelli large, forming a regular triangle; DAO 0.13 mm; OOL 0.67 times WOT.

Pronotum weakly microreticulate, with convex and not carinate anterior margin in dorsal view. Mesonotum weakly microreticulate; notauli shallow. Propodeum as long as wide with a strong median carina; disc with abundant transverse rugulae in most part; basal triangular area unrecognizable; lateral and transverse carinae absent; declivity with transverse rugulae. Middle tibia with spines at outer margin

Metasoma very weakly microreticulate and subopaque.

Pterostigma large, 2.1 times as long as wide; radial vein thin, basal 1/4 obscure.

Variation. The paratypes vary in head length from 0.83 to 0.98 mm, and in head width from 0.88 to 1.01 mm. A median notch of posterior margin of head varies from weakly recognizable to almost absent.

Holotype. Male, Sesriem Canyon, W. Sesriem, S. W. Africa, 21-22. I. 1972.

Paratypes. 2 males, same data as holotype; 2 males, Sesriem Farm, Maltahoe Dist., S. W. Africa, 19-20. I. 1972.

Type depository. Types are deposited in BMNH.

Remarks. Genitalia and subgenital plate of a paratype are shown in Figs. 49 and 50, respectively.

***Prosapenesia longimandibulata* sp. nov.** (Figs. 51-53)

Male (holotype). HL 1.09 mm; HW 1.20 mm; WF 0.65 mm; LM 2.40 mm; LP 0.78 mm; WPD 0.80 mm; FWL 2.2 mm; TL 5.9 mm.

Head and mesosoma blackish brown; metasoma reddish brown; mandible, antenna and legs reddish brown.

Head almost as long as wide, with moderately convex posterior margin full face view; frons and vertex with shallow but relatively large punctures; punctures separated by 1-2 times their own diameters; interspaces smooth and shining. Mandible narrow, with 3 teeth apically; inner margin with a minute and blunt tooth at near midlength. Clypeus slightly produced at midlength as in Fig. 51. Antenna short, apical segment not reaching anterior margin of propodeum; first 5 segments of antenna in a ratio of 16 : 4 : 7 : 6 : 6 in length; 2nd segment slightly longer than wide; 3rd segment 2.3 times as long as wide. Eye 0.53 mm in length; WF 1.23 times EL. Ocelli large; POL : AOL = 8 : 5; DAO 0.18 mm; OOL 0.56 times WOT.

Pronotum largely smooth, but with large punctures sparsely; anterior margin not carinate, broadly convex in dorsal view. Mesonotum smooth, and with large punctures relatively sparsely; scutellar disc impunctate medially. Propodeum as long as wide; median carina present at basal 3/5; transveres carina absent; lateral carina present, but weak; basal triangular area present; its anterior half with 5 pairs of longitudinal rugae, posterior half reticulate; sublateral area microreticulate with small rugae.

Metasoma smooth and rather subopaque.

Holotype. Male, Sesrim Canyon, 3 males, ls. W. Sesriem, S. W. Africa, 21-22. I. 1972.

Type depository. BMNH.

Remarks. Known from the type alone.

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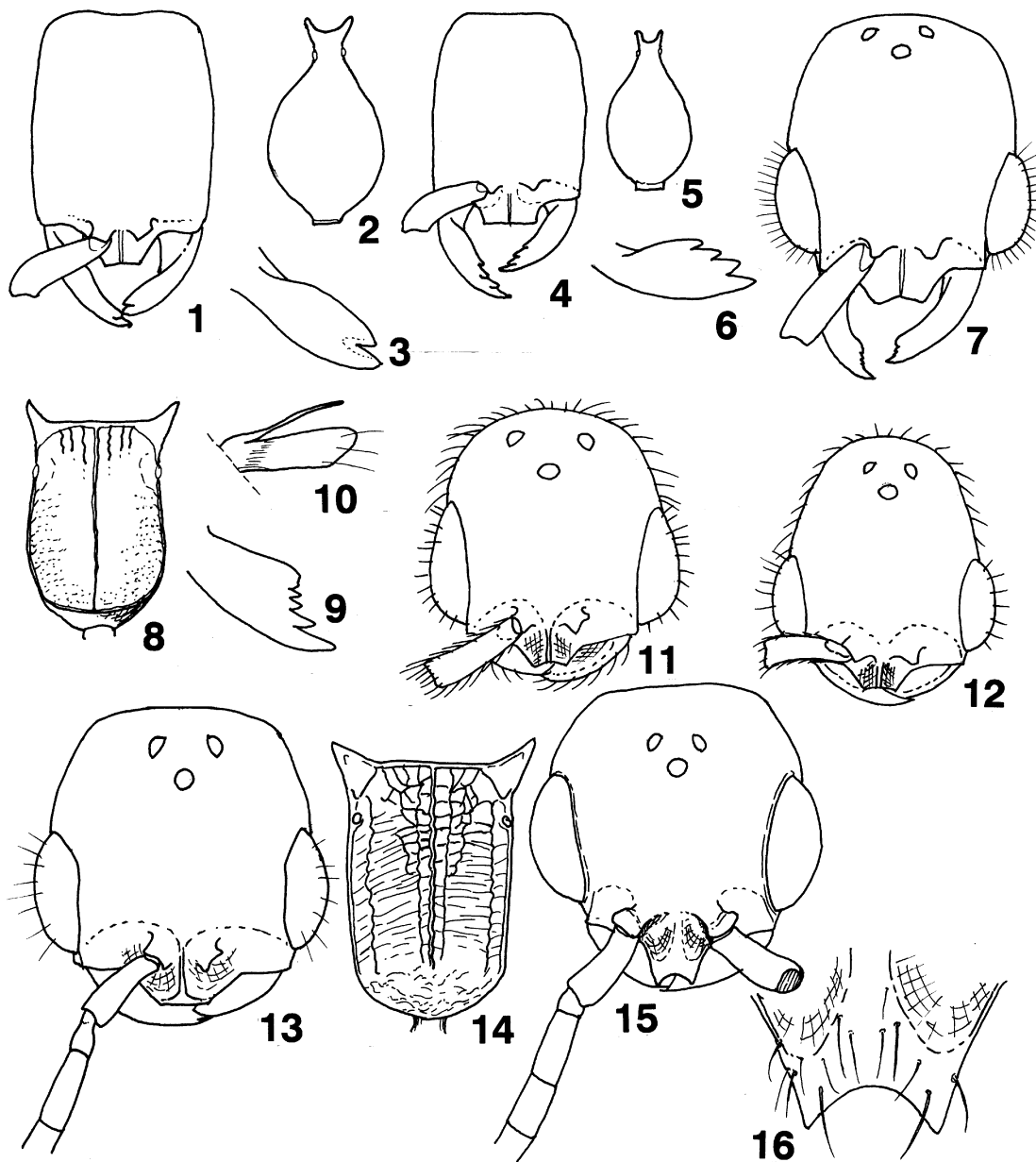


Plate I. Figs. 1-3, *Pseudisobrachium fushanensis* sp. nov.; 4-6, *P. lini* sp. nov.; 7-10, *P. paotaoanum* sp. nov.; 11, *P. fulleri* sp. nov.; 12, *P. silvicolum* sp. nov.; 13-14, *P. nepalensis* sp. nov.; 15, 16, *P. colombiensis* sp. nov. 1, 4, 7, 11, 12, 13, 15, Head, full face view; 2, 5, 8, 14, propodeum, dorsal view; 3, 6, 9, mandible; 10, paramere of genitalia, lateral view; 16, median portion of clypeus.

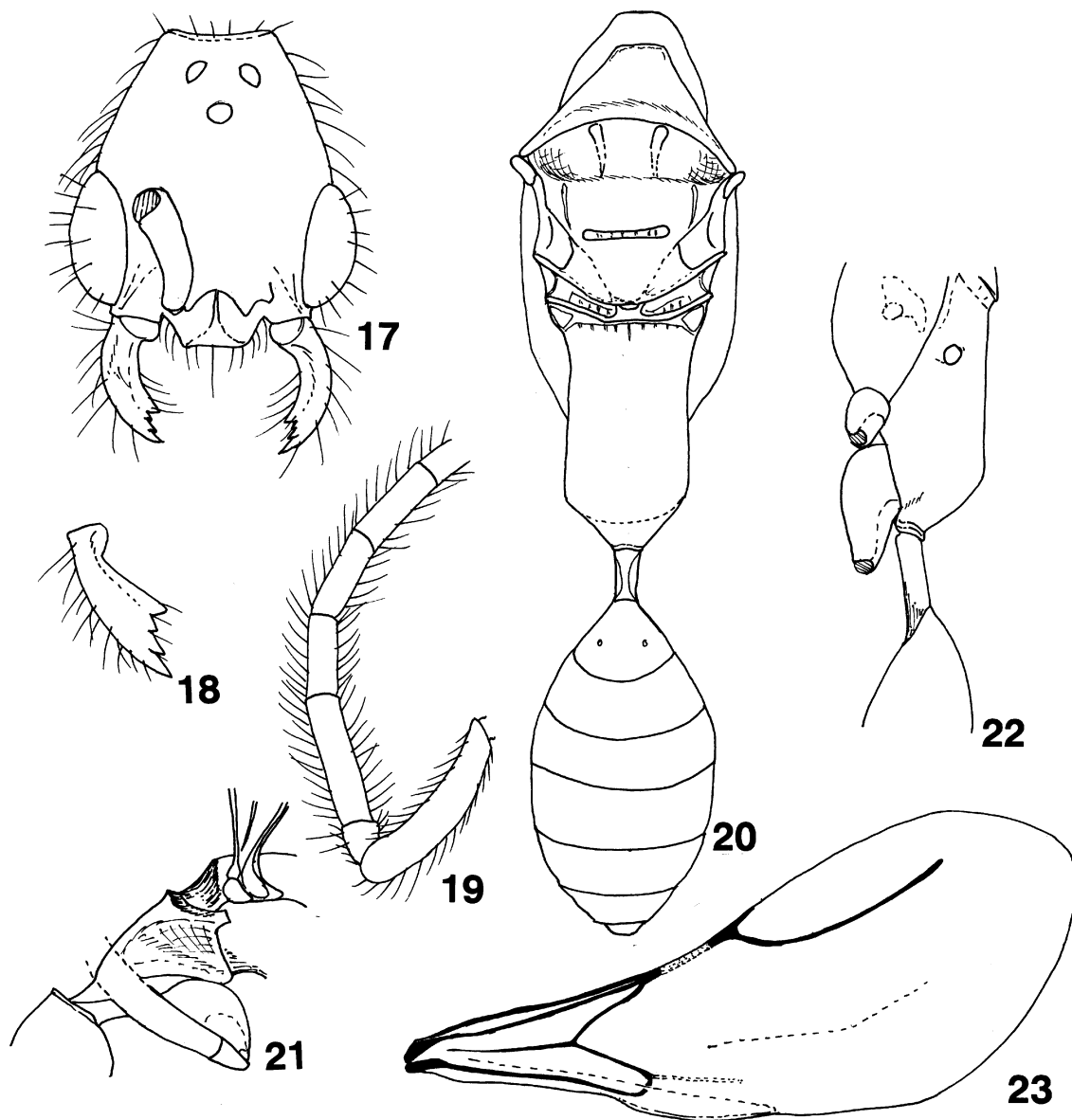


Plate II. Figs. 17-23, *Pseudisobrachium lepidum* sp. nov. 17, Head, full face view; 18, mandible; 19, first 6 segments of antenna; 20, body, dorsal view; 21, pronotum, lateral view; 22, propodeum and petiole, lateral view; 23, forewing.

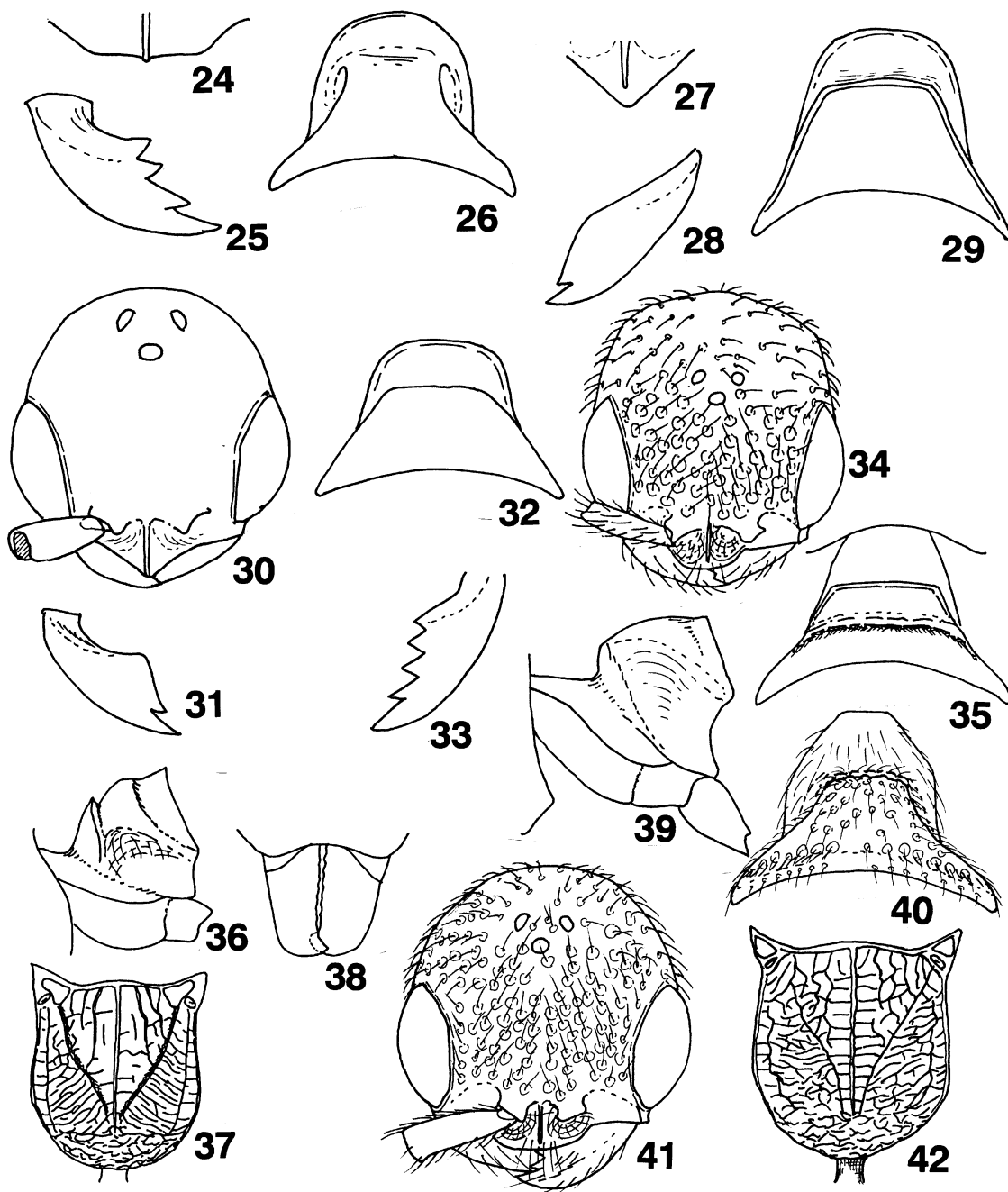


Plate III. Figs. 24-26, *Apenesia ktmdana* sp. nov.; 27-29, *A. carinicollis* sp. nov.; 30-32, *A. pulchella* sp. nov.; 33, *A. nepalensis* sp. nov.; 34-38, *Pristocera huberi* sp. nov.; 39-42, *P. poirieri* sp. nov. 24, 27, Anterior margin of clypeus; 25, 28, 31, 33, mandible; 26, 29, 32, 35, pronotum, dorsal view; 30, 34, 41, head, full face view; 36, 39; pronotum, lateral view; 37, 42, propodeum, dorsal view; 38, subgenital plate, dorsal view.

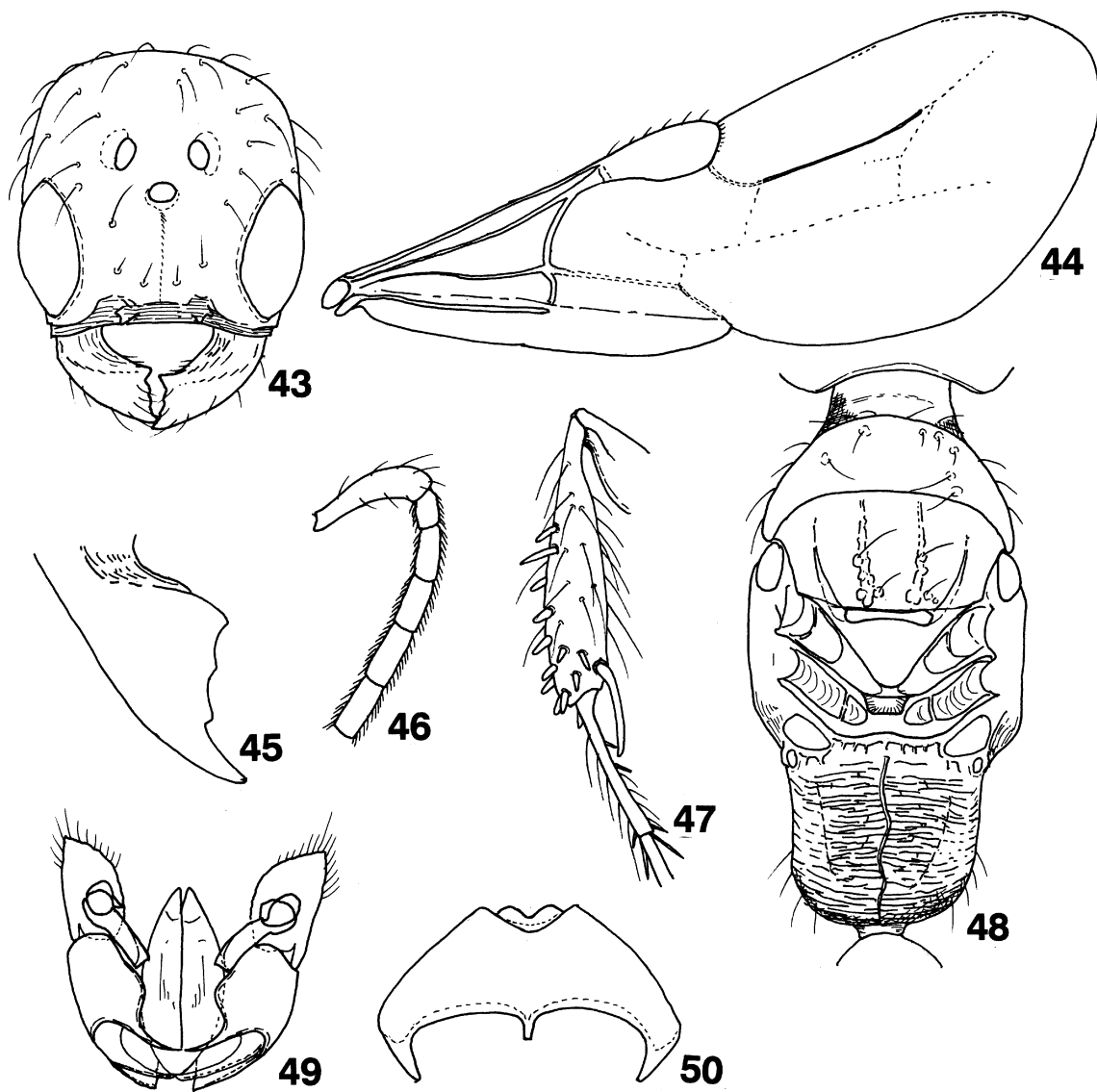


Plate IV. Figs. 43-50, *Prosapenesia sesriemensis* sp. nov. 43, Head, full face view; 44, forewing; 45, mandible; 46, first 6 segments of antenna; 47, middle leg; 48, mesosoma, dorsal view; 49, genitalia; 50, subgenital plate.

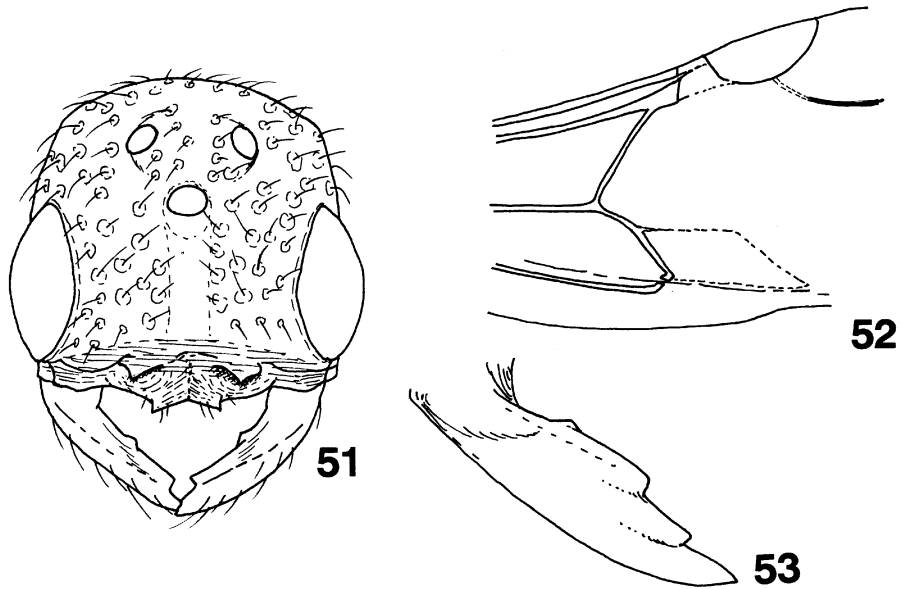


Plate V. Figs. 51-53, *Prosapenesia longimandibulata* sp. nov. 51, Head, full face view; 52, forewing; 53, mandible.