

Female. Unknown.

Etymology: 'trias' G, three; 'taxis' G, row; referring to 3 rows of facets.

Holotype, ♂, COSTA RICA, Heredia, Rio Santo Domingo near San Rafael de Vara Blanca, 18,26/VII/94, 1700 m. (INBio).

55. *Philosepedon pandiculatus* Quate, n.sp.

Fig. 18 c-e

Male. Antenna with 13 flagellomeres, node of 1 elongate, pyriform, much longer than others, bulb of 2 pyriform, following nodes cylindrical to spherical, terminal 2 subequal in size, flagellomeres 11 and 12 fused, 13 separated; ascoids Y-shaped, small. Eye bridge with 4 facet rows; eyes separated by about 1 facet diameter; interocular suture without median spur. Hair patch on frons extends to facet row 2. Palpus extends to flagellomere 3, formula = 30:45:55:55.

Wing narrow, with medial fork complete, clearly basad of radial; R_{2+3} 1.75X R_2 .

Gonocoxites well separated dorsally, apodemes broadly fused; parameres taper to sharp point, slightly curved apically, extend nearly to apex of aedeagus. Surstylus very long and slender, with 1 tenaculum. Tergite 10 weakly convex apically.

Measurements: Antenna 1.42 mm. Wing length 2.12 mm., width 0.28 mm.

Female. Unknown.

Holotype ♂, COSTA RICA, Limon, Puerto Viejo de Talamanca, 20-23/VII/93, sea level (INBio).

Etymology: 'pandiculatus' L, stretch oneself, expand; referring to the very long surstylus.

56. *Philosepedon tetartos* Quate, n.sp.

Fig. 19 a-d

Male. Antenna with 14 flagellomeres, all separated, 12 smaller than 13 or 14; all, except 12, covered with hair scars; ascoids Y-shaped, large. Eye bridge with 4 rows of facets; eyes contiguous over facet row 1; without median spur. Hair patch on frons extends to facet row 4. Palpus short, extends to flagellomere 3, palpomere 1 longest segment, formula = 35:25:25:25.

Wing with medial fork complete, on same level as radial; R_{2+3} enlarged at center, 0.75X R_2 .

Gonocoxites fused dorsally, apodemes broadly fused; parameres short, bluntly rounded, with shoulder-like lobe near apex. Surstylus short and stocky, with 4 tenacula. Tergite 10 a small plate in apical margin of epandrium.

Measurements: Antenna 1.32-1.44 mm. Wing length 1.69-2.10 mm., width 0.60-0.88 mm.

Female. Apical lobes of subgenital plate with convex sides, apical notch semicircular.

Measurements: Antenna 1.13 mm. Wing length 2.19 mm., width 0.89 mm.

Holotype ♂, allotype ♀, COSTA RICA, Guanacaste, Estación Pitilla, 9 km S of Santa Cecilia, 10-14/VII/93, 700 m. (INBio). Paratypes, 8 ♂, 3 ♀, same; 1 ♂, Guanacaste, Volcán Cacao, E of Santa Rosa, 14-17/VII/94, 1000 m.; 1 ♀, Puntarenas, Monteverde, 3-II-92, 1500 m.; 4 ♀, Heredia, Estación Biol. Selva, 22-25/VII/93; 2 ♀, Heredia, San Rafael de Vara Blanca, 18-26/VIII/93, 1700 m.; 9 ♀, Limon, Puerto Viejo de Talamanca, 20-22/VII/93, sea level (INBio, USNM, MNH, LACM, LWQ).

Etymology: 'tetra' Gr, four; referring to 4 tenacula.

57. *Philosepedon atopos* Quate, n.sp.

Fig. 19 e-g

Male. Antenna with 14 flagellomeres, 13 and 14 fused; ascoids Y-shaped. Eye bridge with 4 facet rows; eyes separated by 1 facet diameter; with median spur. Hair patch on frons extends to facet row 3. Palpus extends to flagellomere 4, formula = 20:35:35:40.

Wing with medial fork incomplete, basad of radial by short distance; R_{2+3} subequal to length of R_2 .

Gonocoxites contiguous dorsally, apodemes broadly fused; parameres with broad base and slender tips, extend to apex of aedeagus, closely appressed to aedeagus. Surstylus short and stocky, with 6 tenacula arranged in transverse row along apex of surstylus. Tergite 10 a small lobe on apical margin of epandrium.

Measurements: Antenna 1.07 mm. Wing length 1.49-1.54 mm., width 0.51-0.55 mm.

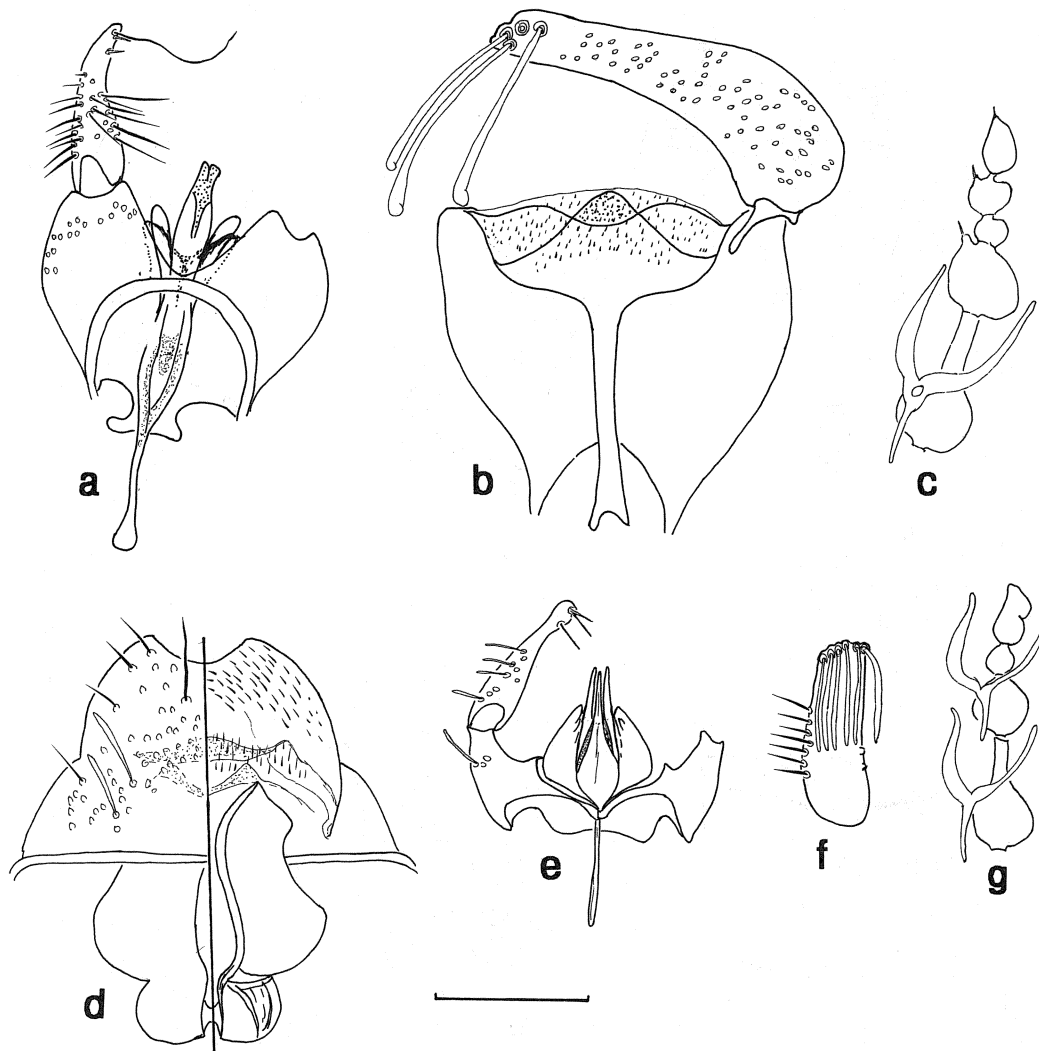


Fig. 19. a-d. *Philosepedon tetartos*. a. ♂ gonopods and aedeagus, dorsal, right gonostylus not shown; b. ♂ tergites 9, 10, right surstylus; c. flagellomeres 10-14; d. ♀ genitalia. e-g. *P. atopus*. e. ♂ gonopods and aedeagus, dorsal, right gonostylus not shown; f. ♂ surstylus; g. flagellomeres 10-14. Scale line = 0.1 mm.

Holotype ♂, COSTA RICA, Heredia, Estación Biol. La Selva, 2/V/93, primary forest (INBio). Paratype ♂, same, but 12/I/93 (INBio).

Etymology: 'atopos' Gr, out of place; referring to the unusual arrangement of the multiple tenacula of the male surstylus.

58. *Philosepedon parifurcus* Quate, n.sp.
Fig. 20 a-d

Male. Antenna with 13 flagellomeres, 12 and

13 reduced and separated; ascoids Y-shaped, small. Eye bridge with 4 facet rows; eyes contiguous over first 2 facet rows. Hair patch on frons does not extend to eye bridge. Palpus does not extend beyond flagellomere 2, palpomere 1 longest segment, formula 40:25:25:20.

Wing with medial fork complete, on same level as radial; R_{2+3} enlarged at center, 0.6-0.75X R_2 .

Gonocoxites well separated dorsally, apodemes broadly fused; aedeagus ending in pair of sclerotized rods surrounded by membranous

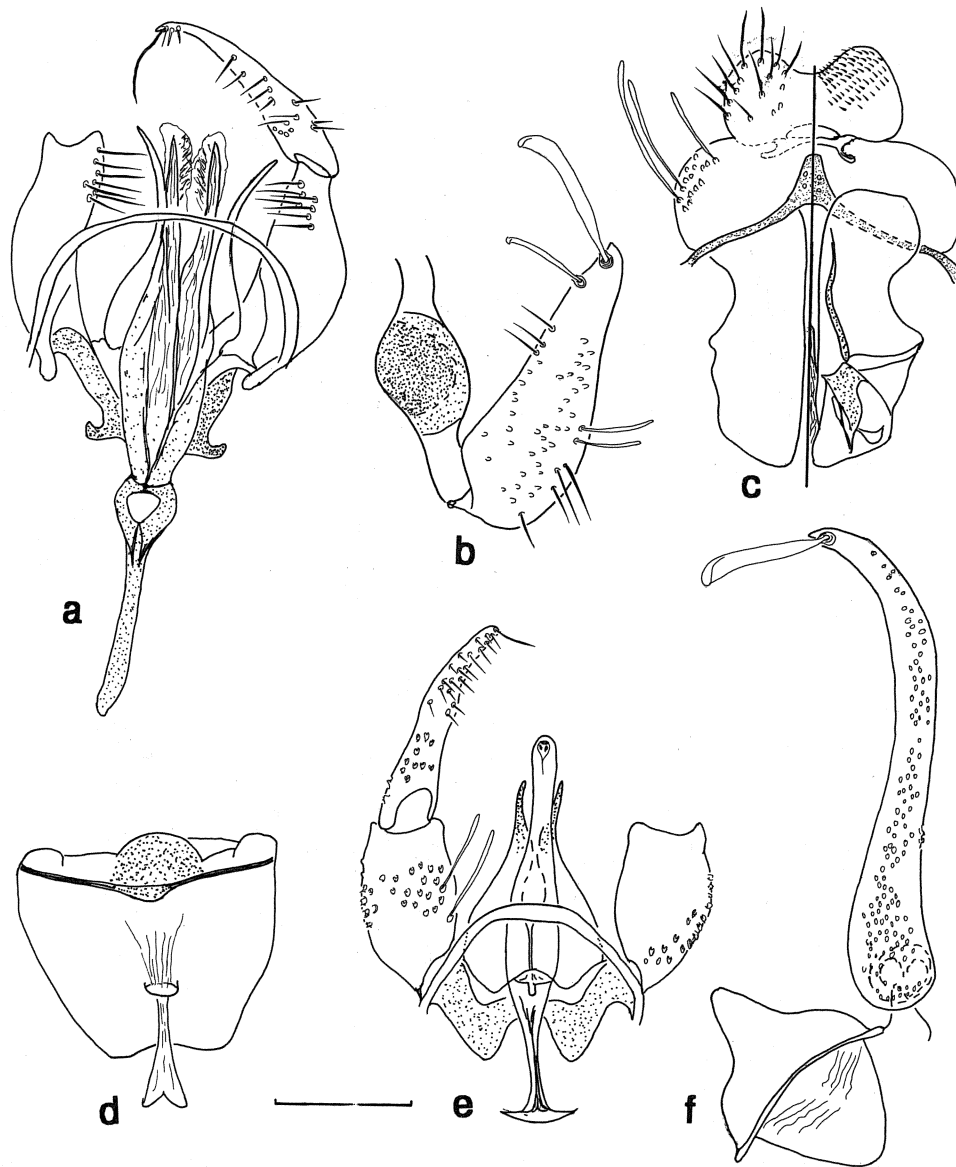


Fig. 20. a-d. *Philosepedon parifurcus*. a. ♂ gonopods and aedeagus, dorsal, right gonostylus not shown; b. tergite 10 and surstylus; c. ♀ genitalia; d. tergites 9 and 10. e-f. *P. longistylus*. e. ♂ gonopods and aedeagus, dorsal, right gonostylus not shown; f. ♂ tergite 10 and surstylus. Scale line = 0.1 mm.

sheath with light spines along midline; paramere long, extends to tip of aedeagus, tapers to sharp point. Surstylus short and stocky, with 1 tenaculum. Apex of tergite 10 small, dome-like protuberance.

Measurements: Antenna 1.18 mm. Wing length 2.36-2.68 mm., width 0.92-1.08 mm.

Female. Eyes sometimes separated only over facet row 1.

Measurements: Antenna 1.02-1.31 mm. Wing length 2.19-2.84 mm., width 0.84-2.84 mm.

Holotype ♂, COSTA RICA, Heredia, Rio Santo Domingo near San Rafael de Vara Blanca, 18,26/VII/94, 1700 m. (INBio). Allotype ♀; paratypes, 2 ♂, 2 ♀, same data (INBio, USNM, LWQ)

Etymology: 'par' L, equal; 'furca' L, fork; referring to radial and medial forks being at the same level.

59. *Philosepedon longistylus* Quate, n.sp.
Fig. 20 e-f

Male. Antenna with 14 flagellomeres, 1 pyriform, others bulbous; flagellomeres 12, 13 and 14 reduced and separated; 11, 12, and 13 without stems; ascoids Y-shaped, small. Eye bridge with 4 facet rows; eyes separated by 1/2 facet diameter; interocular suture with very short median spur. Hair patch on frons extends to interocular suture in irregular band. Palpus long, extends to flagellomere 6, formula = 35:40:45:60.

Wing with radial and medial forks incomplete, well basad of radial; R_{2+3} not enlarged at center, $1.2 \times R_2$.

Gonocoxites not contiguous dorsally, apodemes fused; paramere nearly straight, does not extend to apex of aedeagus, closely appressed to aedeagus. Surstylus slender, with 1 tenaculum. Apex of tergite 10 elongate triangular.

Measurements: Antenna 1.21-1.29 mm. Wing length 1.95-2.05 mm, width 0.72-0.77 mm.

Female. Unknown.

Holotype ♂, COSTA RICA, Heredia, Estación Biol. La Selva, 13/VII/93, 50-100 m. (INBio). Paratype ♂, same data except 22-25-VII/93 (LWQ).

Etymology: 'longus'; L, long; referring to long surstylus.

60. *Philosepedon ensiger* Quate, n.sp.

Fig. 21 a-d

Male. Antenna with 14 flagellomeres; flagellomeres 12, 13 and 14 reduced and separated; 11, 12, and 13 with very short stems; ascoids Y-shaped, moderately large. Eye bridge with 4 facet rows; eyes separated by 1/2 facet diameter; interocular suture without median spur. Hair patch on frons extends to facet row 3. Palpus long, extends to flagellomere 5, formula = 30:60:60:70.

Wing with radial and medial forks complete, well basad of radial; R_{2+3} not enlarged at center, $1.1 \times R_2$.

Gonocoxites contiguous dorsally, apodemes fused, with patch of setae apically; parameres very small, closely appressed to aedeagus; aedeagus straight, sword-shaped. Surstylus slender, with 1 tenaculum.

Measurements: Antenna 1.43 mm. Wing length 1.81 mm., width 0.72 mm.

Female. Unknown.

Holotype ♂, COSTA RICA, Guanacaste, Parque Nacional Santa Rosa, 9-VII/93, sea level (INBio).

Etymology: 'ensiger' G, sword-bearing; referring to sword-like shape of aedeagus.

61. *Philosepedon retusus* Quate, n.sp.

Fig. 21e-g

Male. Antenna with 16 segments; flagellomeres 12, 13 and 14 reduced; 11, 12, and 13 fused, 13 with small stalk; ascoids Y-shaped, moderately large. Eye bridge with 4 facet rows; eyes separated by 1 or more facet diameters; interocular suture without median spur. Hair patch on frons extends to interocular suture. Palpus extends to flagellomere 4, formula = 30:30:35:40.

Wing with radial and medial forks complete, well basad of radial; R_{2+3} with curvature just basad of radial fork, $1.4 \times R_2$.

Gonocoxites separated dorsally, apodemes fused medially, broadly truncate, with short and long bristles apically; parameres large, extend beyond apex of aedeagus, rounded at apex; aedeagus broad, with apical indentation. Surstylus slender, with 1 tenaculum. Tergite 10 triangular.

Measurements: Antenna 1.09 mm. Wing length 1.81-1.88 mm., width 0.72-0.75 mm.

Female. Unknown.

Holotype ♂, COSTA RICA, Heredia, Estación Biol. La Selva, 1/IV/93, primary forest, 50-100 m. (INBio). Paratypes: 1 ♂, same, except 3/VII/93; 3 ♂, Cartago, 4 km NE of Cañon, IV/95, 2350 m., P. Hanson; 1 ♂, Limon, Cahuita, 15/II/92, under bridge, sea level (USNM, LACM, MNH, BBM, LWQ).

Etymology: 'retusus' L, blunt, rounded; referring to rounded apex of paramere.

62. *Philosepedon bicuspis* Quate, n.sp.

Fig. 21 h-i

Male. Antenna with 14 flagellomeres, 12, 13 and 14 reduced; 11, 12, and 13 fused, 13 with small stem; ascoids Y-shaped, small. Eye bridge with 4 facet rows; eyes separated by less than 1

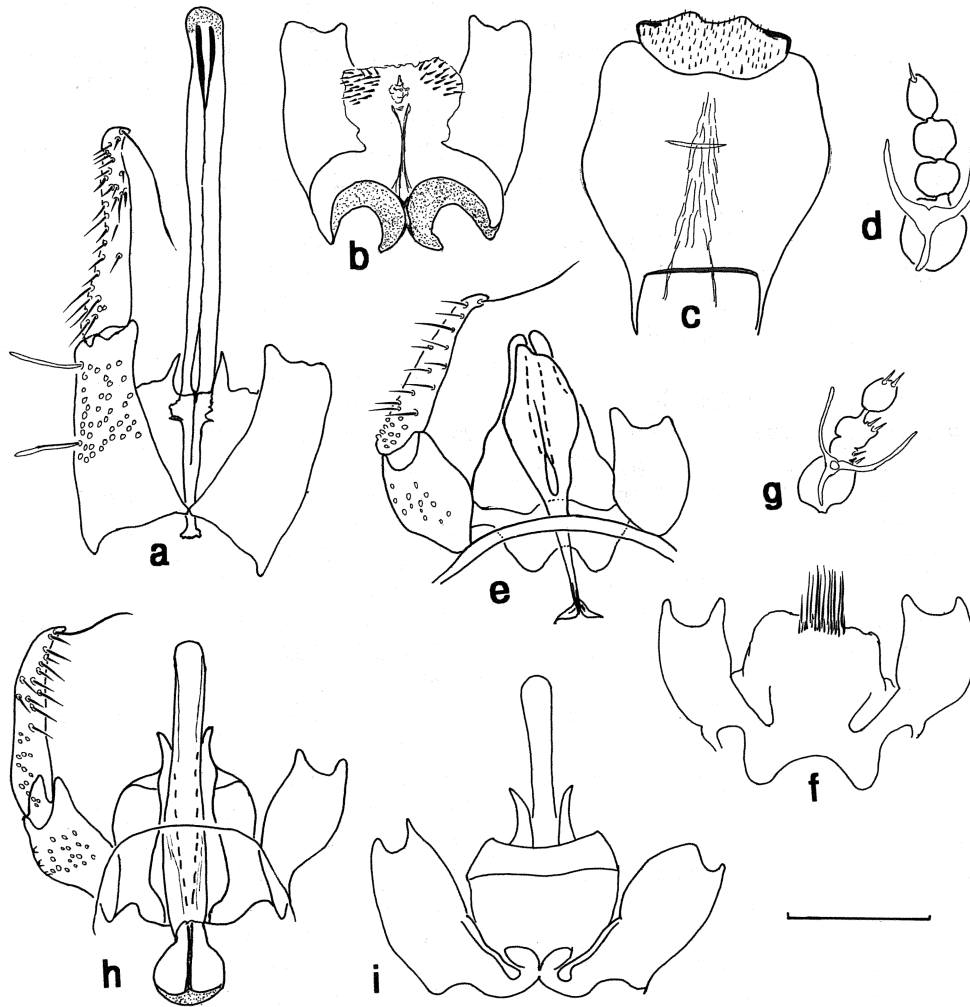


Fig. 21. a-d. *Philosepedon ensiger*. a. ♂ gonopods and aedeagus, dorsal, right gonostylus not shown; b. gonocoxites and apodemes, ventral; c. tergites 9 and 10; d. flagellomeres 11-14. e-g. *P. retusus*. e. ♂ gonopods and aedeagus, dorsal, right gonostylus not shown; f. ♂ gonocoxites and apodemes, ventral; g. flagellomeres 11-14. h-i. *P. bicuspis*. h-i. ♂ gonopods and aedeagus, dorsal, right gonostylus not shown; i. ♂ gonocoxites and apodemes, ventral. Scale line = 0.1 mm.

facet diameter dorsally, widening to about 2 diameters ventrally; interocular suture without median spur. Hair patch on frons extends to facet row 2 or 3. Palpus extends to flagellomere 5, formula = 30:40:40:45.

Wing with radial and medial forks complete, well basad of radial; R_{2+3} without curvature just basad of radial fork, $1.4X R_2$.

Gonocoxites separated dorsally, apodemes fused, broad, concave on apical surface, plain, without adornments; parameres short, taper to pointed apex, extends only to about center of distal part of aedeagus; aedeagus tubular, rounded at apex. Surstylus slender, with 1 tenaculum. Tergite 10 quadrate, with small, median, triangular point.

Measurements: Antenna 1.03 mm. Wing length 1.57 mm., width 0.58 mm.

Female. Unknown.

Holotype ♂, COSTA RICA, Limon, Puerto

Viejo de Talamanca, 20-22/VII/93, sea level (INBio). Paratypes: 2 ♂, same (USNM, LWQ).

Etymology: 'bi' L, two; 'cuspis' L, point; referring to double pointed tips of the parameres.

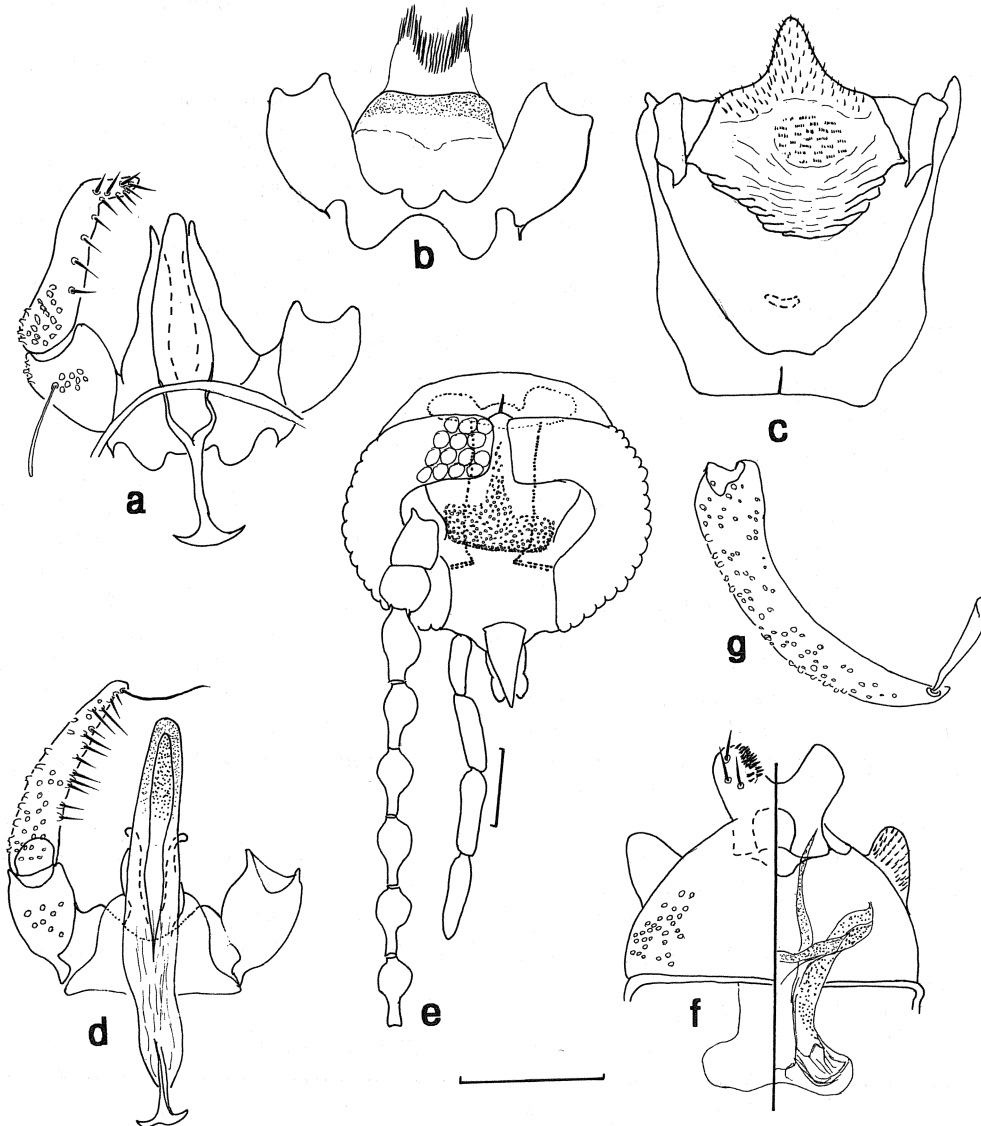


Fig. 22. a-c. *Philosepedon hamatus*. a. ♂ gonopods and aedeagus, dorsal, right gonostylus not shown; b. ♂ gonocoxites and apodemes, ventral; c. tergites 9 and 10. d-g. *P. ancepitis*. d. ♂ gonopods and aedeagus, dorsal, right gonostylus not shown; e. head; f. ♀ genitalia; g. surstylus. Scale line = 0.1 mm.

63. *Philosepedon hamatus* Quate, n.sp.

Fig. 22 a-c

Male. Antenna with 16 segments; flagellomere 1 pyriform, others bulbous, 12, 13 and 14

reduced; 11, 12, and 13 fused or partly fused, 13 with small stem, 14 separate; ascoids Y-shaped, small. Eye bridge with 4 facet rows; eyes separated by less than 1 facet diameter dorsally, widening to about 2-3 diameters ventrally; inter-

ocular suture with median spur. Hair patch on frons extends to interocular suture. Palpus extends to flagellomere 5, formula = 30:40:45:60.

Wing with medial fork incomplete, well basad of radial; R_{2+3} with curvature just basad of radial fork, $1.3-1.5X R_2$.

Gonocoxites separated dorsally, apodemes fused, broadly concave and with long bristles on apical margin; gonostylus curved beak-like at apex; parameres large, extend to apex of aedeagus; aedeagus tapering to broadly rounded apex. Surstylus slender, with 1 tenaculum. Tergite 10 narrowly triangular.

Measurements: Antenna 1.17-1.27 mm. Wing length 1.78-1.93 mm., width 1.0-1.5 mm.

Female. Unknown.

Holotype ♂, COSTA RICA, Limon, Puerto Viejo de Talamanca, 20-22/VII/93, sea level (INBio). Paratypes: 12 ♂, same (USNM, LACM, MNH, BBM, LWQ).

Etymology: 'hamatus' L, hooked; referring to shaped of surstylus apex.

64. *Philosepedon ancepitis* Quate, n.sp.

Fig. 22 d-g

Male. Antenna with 14 flagellomeres, 11, 12 and 13 reduced, 11, 12, 13 broadly fused (12 & 13 may be so fused to appear as 1 flagellomere and hence antenna may appear to have only 13 flagellomeres), 14 separate; ascoids Y-shaped, small. Eye bridge with 4 facet rows; eyes separated by about 1/2 facet diameter dorsally and widening to 1-1/2 ventrally; interocular suture with median spur. Hair patch on frons extends to facet row 2. Palpus extends to flagellomere 4, palpal formula = 25:35:35:40.

Wing with medial fork complete, clearly basad of radial, R_{2+3} about $1.75X R_2$.

Gonocoxites well separated dorsally, apodemes fused, with slightly rounded sides and broad, concave apex. Aedeagus large with broadly rounded apex, parameres short, inconspicuous, taper to blunt, slightly inflated apex. Tergite 9 with pair of diagonal bars which extend from gonocoxal apodemes to apicolateral corners and articulate with surstyli and tergite 10; apex of tergite 10 small, triangular. Surstylus long, with 1 tenaculum.

Measurements: Antenna 0.99-1.03 mm. Wing length 1.45-1.69 mm., width 0.60-0.67 mm.

Female. Lobes of subgenital plate clearly defined, with divergent sides; spermatheca elongate, with wing-like expansion between lobes and sac.

Measurement: Antenna 0.85-.92 mm. Wing length 1.54-1.83 mm., width 0.55-0.65 mm.

Holotype ♂, allotype ♀, COSTA RICA, Heredia, Estación Biol. La Selva, 23/VII/93, 50-100 m. (INBio). Paratypes, 18 ♂, 4 same; 1 ♂, Limon, Puerto Viejo de Talamanca, 20-22/VII/93, sea level; 6 ♂, 4 ♀. Guanacaste, Estación Pitilla, 9 km S of Santa Cecilia, 10-14/VII/93, 700 m. (INBio, USNM, LACM, MNH, CAS, BBM, LWQ).

Etymology: 'anceps' L, two-headed; referring to the inflated tips of the two diagonal bars on the epandrium.

The unusual diagonal bars on the epandrium with capitate tips may be confused with parameres, since they appear to originate near the center of the aedeagus. However, the bars clearly articulate with both the surstyli and tergite 10 and actually attach to the gonocoxal apodemes. Furthermore, small parameres are present under the aedeagus and are easily overlooked.

65. *Philosepedon pollicaris* Quate, n.sp.

Fig. 23a

Male. Antenna with 16 segments; flagellomeres 12, 13 and 14 reduced; 11, 12, and 13 fused, 13 with very short stem, 14 separate; ascoids Y-shaped. Eye bridge with 4 facet rows; eyes separated by less than 1/2 facet diameter dorsally, widening to about 2 diameters ventrally; interocular suture with short median spur. Hair patch on frons extends to facet row 2 or 3. Palpus extends to flagellomere 6, formula = 30:40:40:45.

Wing with radial and medial forks incomplete, radial distad of medial.

Gonocoxites joined dorsally, apodemes fused; gonostylus with digitiform projection subapically; parameres S-shaped, extends only to distal 1/4 of distal part of aedeagus; aedeagus tapering to rounded apex. Surstylus short and stocky, with 3 tenacula. Apex of tergite 10 a small, rounded

protuberance.

Measurements: Antenna 0.99 mm. Wing length 1.52-1.66 mm., width 0.55-0.63 mm.

Female. Unknown.

Holotype ♂, COSTA RICA, Guanacaste, La

Pacifica, 40 km SE of Liberia, 17/VII/94, 100 m. (INBio). Paratypes: 1 ♂, same (LWQ).

Etymology: 'pollicaris' L, of the thumb; referring to thumb-like digit subapically on the surstylus.

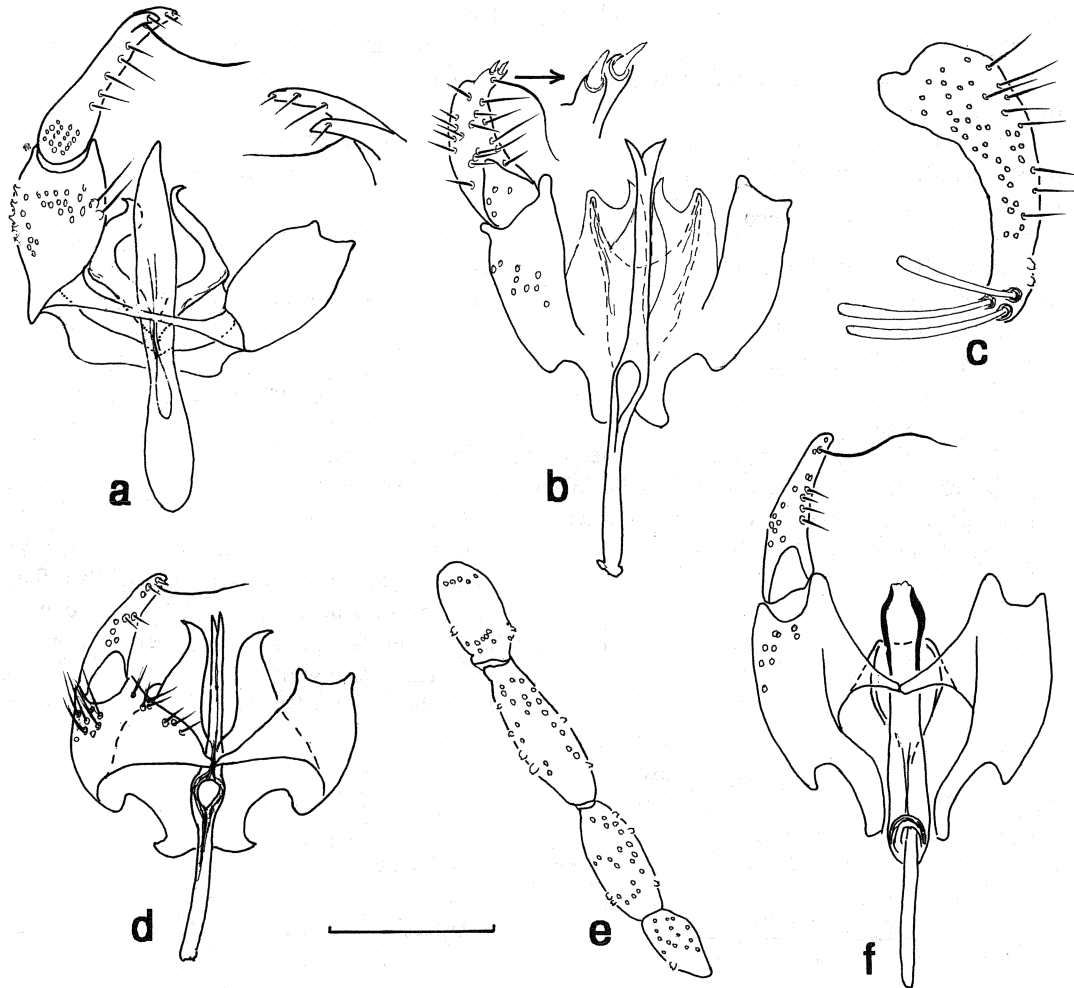


Fig. 23 a. *Philosepedon pollicaris*. ♂ gonopods and aedeagus, dorsal, and enlarged tip of gonostylus, right gonostylus not shown. b-c. *P. bicalcaratus*. b. ♂ gonopods and aedeagus, dorsal, and enlarged tip of gonostylus, right gonostylus not shown; c. ♂ surstylus. *P. dimorphus*. d. ♂ gonopods and aedeagus, dorsal, right gonostylus not shown. e-f. *P. tritenaculus*. e. palp; f. ♂ gonopods and aedeagus, dorsal, right gonostylus not shown. Scale line = 0.1 mm.

66. *Philosepedon bicalcaratus* Quate, n.sp.

Fig. 23 b-c

Male. Antenna with 14 flagellomeres 12, 13 and 14 reduced, clearly separated; (ascoids missing, presumed to be Y-shaped). Eye bridge with 4 facet rows; eyes contiguous over all facet rows; short median spur on dorsal margin of eyes. Hair patch on frons does not extend to eye bridge. Palpus extends to flagellomere 2, formula = 25:30:30:20.

Wing with medial fork weakened, well basad of radial; R_{2+3} 1.5X R_2 .

Gonocoxites not contiguous dorsally, apodemes fused; gonostylus ending in two points, each bearing claw-like spine; aedeagus bifid apically; parameres broad basally, apex expanded medially into outwardly curved point; anterior gonocoxal apodemes Y-shaped. Surstylus with 3 tenacula. Tergite 10 a small, hemispherical lobe.

Measurements: Antenna 1.34 mm. Wing length 1.71 mm., width 0.72 mm.

Female. Unknown.

Holotype ♂, COSTA RICA, Heredia, Estación Biol. La Selva, 22-25/VII/93, 50-100 m. (INBio).

Etymology: 'bi' L, two; 'calcar' L, point; referring to the bifid apex of the surstylus.

67. *Philosepedon dimorphus* Quate, n.sp.

Fig. 23 d

Male. Antenna with 14 flagellomeres, 12, 13 and 14 reduced, clearly separated; ascoids Y-shaped. Eye bridge with 4 facet rows; eyes contiguous over all facet rows; short median spur on dorsal margin of eyes. Hair patch on frons does not extend to eye bridge. Palpus extends to flagellomere 2, formula = 25:35:30:20.

Wing with medial fork complete, well basad of radial; R_{2+3} 1.3X R_2 .

Gonocoxites with about 7 setae on mesal margin, contiguous dorsally, apodemes fused; aedeagus simple, straight, bifid apically; parameres faint, lightly sclerotized, broad basally, tapers evenly to outwardly curved point; anterior gonocoxal apodemes with convergent sides, truncate, unadorned. Surstylus with 3 tenacula. Tergite 10 a small, ovoid lobe.

Measurements: Antenna 1.47 mm. Wing length 1.66-2.10 mm., width 0.70-0.89 mm.

Female. Unknown.

Holotype ♂, COSTA RICA, Heredia, Estación Biol. La Selva, 22-25/VII/93, 50-100 m. (INBio).

Paratypes. 4♂, same; 16♂, Puntarenas, Estación Pittier, 22 km N of San Vito, 11-16/VI/95, 1800 m.; Puntarenas, Las Alturas, Coto Brus, 11-16/VIII/95, 1550 m. (INBio, USNM, LACM, LWQ)

Etymology: 'di' Gr, two; 'orpe' Gr, form; referring to pair of parameres.

68. *Philosepedon tritenaculus* Quate, n.sp.

Fig. 23 e-f

Male. Antenna with 14 flagellomeres, 12, 13 and 14 reduced, clearly separated; ascoids Y-shaped. Eye bridge with 4 facet rows; eyes contiguous over all facet rows; no median spur on dorsal margin of eyes. Hair patch on frons extends nearly to lower margin of eye bridge in short, narrow row. Palpus extends to flagellomere 2, formula = 25:40:30:20.

Wing with medial fork complete, well basad of radial; R_{2+3} 1.5X R_2 .

Gonocoxites contiguous dorsally, apodemes fused; aedeagus simple, straight, slightly inflated apically; paramere a single lobe with concave apex; anterior gonocoxal apodemes triangular with truncate, slightly concave apex, unadorned. Surstylus with 3 tenacula. Tergite 10 a small, ovoid lobe.

Measurements: Antenna 1.91-2.12 mm. Wing length 1.98-2.34 mm., width 0.84-1.11 mm.

Female. Unknown.

Holotype ♂, COSTA RICA, Guanacaste, Estación Pitilla, 9 km S of Santa Cecelia, 10-14/VII/93, 700 m. (INBio). Paratypes. 7♂, same (INBio, USNM, LACM, LWQ)

Etymology: 'tres' L, three; referring to 3 tenacula on the surstylus.

69. *Philosepedon deceptrix* Quate, n.sp.

Fig. 24 a

Male. Antenna with 14 flagellomeres, 12, 13 and 14 reduced, clearly separated; ascoids Y-shaped. Eye bridge with 4 facet rows; eyes

contiguous over all facet rows; no median spur on dorsal margin of eyes. Hair patch on frons does not reach lower eye margin. Palpus extends to flagellomere 2, formula = 25:40:30:25.

Wing with medial fork complete, well basad of radial; R_{2+3} 1.3X R_2 .

Gonocoxites contiguous dorsally, apodemes fused, anterior margin near level of gonocoxal apex; aedeagus simple, straight, slightly inflated apically; paramere a single rounded appendage. Surstylus with 3 tenacula. Tergite 10 a small, ovoid lobe.

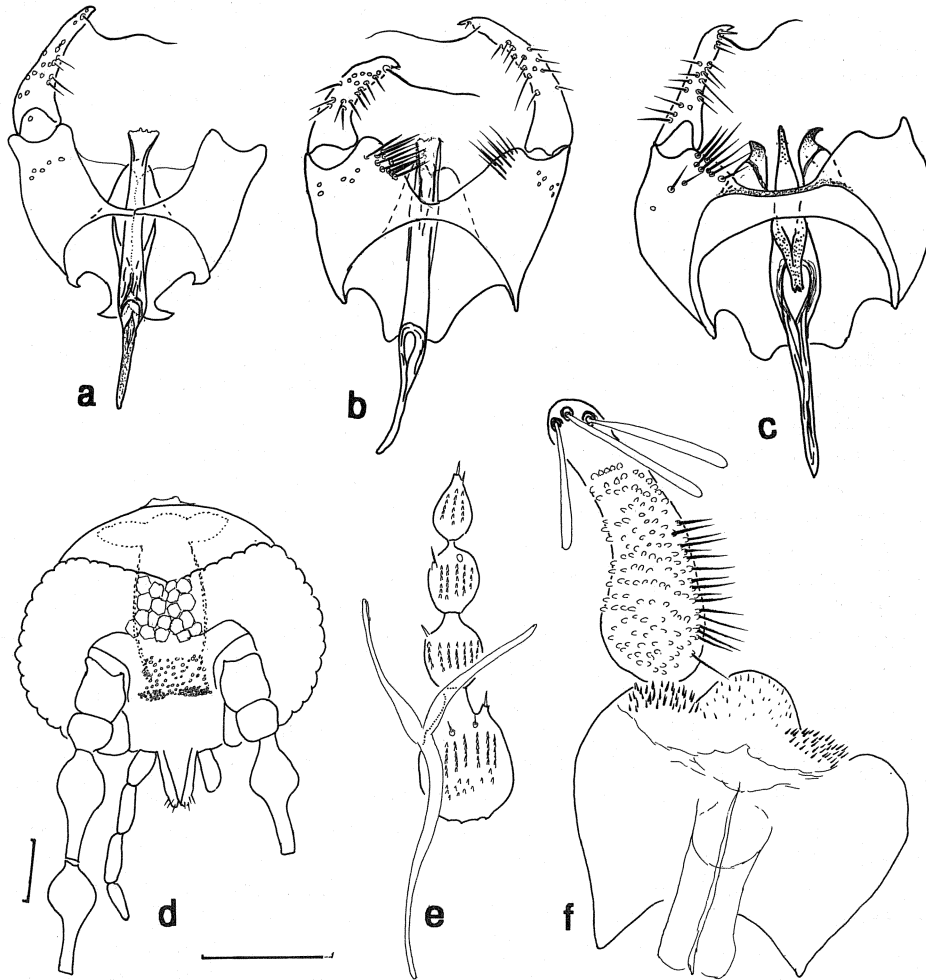


Fig. 24 a. *Philosepedon deceptrix*. ♂ gonopods and aedeagus, dorsal, right gonostylus not shown. b. *P. majorinus*. ♂ gonopods and aedeagus, dorsal. c-f. *P. tripetalis*. c. ♂ gonopods and aedeagus, dorsal, right gonostylus not shown; d. head; e. flagellomeres 11-14; f. ♂ tergalia 9,10, surstylus. Scale line = 0.1 mm.

Measurements: Antenna 1.72-1.89 mm. Wing length 2.24-2.77 mm., width 1.01-1.28 mm.

Female. Unknown.

Holotype ♂, COSTA RICA, Heredia, San Rafael de Vara Blanca, 26/VII/93, 1800 m. (INBio). Paratypes. 3 ♂, same; 3 ♂, same except Rio Santo Domingo, 1700 m. (INBio, USNM, LACM, LWQ)

This species is very similar to *tritenaculus* and differs only in its larger size, the paramere ending in a rounded apex rather than in a small concavity and the shape of the apex of aedeagus as illustrated.

Etymology: 'deceptor' L, deceiver; referring to similarity to *P. tritenaculus*.

70. *Philosepedon tripetalis* Quate, n.sp.

Fig. 24 c-f

Large species with contiguous eyes.

Male. Antenna with 14 flagellomeres, 12, 13 and 14 reduced, clearly separated; ascoids Y-shaped. Eye bridge with 4 facet rows; eyes contiguous over all facet rows; no median spur on dorsal margin of eyes. Hair patch on frons does not reach lower eye margin. Palpus extends to flagellomere 2, formula = 30:45:40:30.

Wing with medial fork complete, well basad of radial; R_{2+3} 1.3X R_2 .

Gonocoxites contiguous dorsally, apodemes fused; a faint membranous rounded lobe below aedeagus (median extension of gonocoxite?); aedeagus simple, straight, distally narrows to small apex; parameres large, tapers from broad base to sharp, curved apex. Surstylus with 3 tenacula. Tergite 10 dome-shaped.

Measurements: Antenna 2.17-2.47 mm. Wing length 2.89-3.13 mm., width 1.16-1.42 mm.

Female. Unknown.

Holotype ♂, COSTA RICA, Heredia, Vara Blanca, 26/VII/93, 1800 m. (INBio). Paratypes. 3 ♂, same; 2 ♂, same except Rio Santo Domingo, San Rafael de Vara Blanca, 1700 m. (INBio, USNM, LACM, MNH, LWQ).

Etymology: 'trias' G, three, 'petalon' G, leaf; referring to the three tenacula on the surstylus.

71. *Philosepedon majorinus* Quate, n.sp.

Fig. 24 b

Male. Antenna with 14 flagellomeres 12, 13 and 14 reduced, clearly separated; ascoids large, Y-shaped. Eye bridge with 4 facet rows; eyes contiguous over all facet rows; small median spur on dorsal margin of eyes. Hair patch on frons does not reach lower eye margin. Palpus extends to flagellomere 2, formula = 30:45:40:35.

Wing with medial fork complete, well basad of radial; R_{2+3} 1.4X R_2 .

Gonocoxites contiguous dorsally, apodemes fused; aedeagus simple, straight, distally narrows to small apex; paramere single, apically with 2 small lobes. Surstylus with 3 tenacula. Tergite 10 small, ovoid.

Measurements: Antenna 2.14 mm. Wing length 2.70 mm., width 1.41 mm.

Female. Unknown.

Holotype ♂, COSTA RICA, Heredia, Rio Santo Domingo, near San Rafael de Vara Blanca, 26/VII/93, 1700 m. (INBio).

Etymology: 'majorinus' L, of a larger kind; referring to size of the species.

Genus *Psychoda*

Psychoda Latreille, 1796:152; Quate, 1959:450 (Biblio., illus.)

Head. Vertex short, on midline about equal to width of eye bridge. Antenna with 12-14 flagellomeres, flagellomeres beyond 11 always reduced. Eye bridge with 4 facet rows, rarely with 3 or 5; interocular suture almost always absent. Occipital foramen suddenly expanded at lower eye margin and remains wide to apex, much wider than other genera. Labellum flattened, bearing 4 (occasionally 5) teeth at apex. Scape and pedicel normal; flagellomeres 12-14, those beyond 11 always reduced, often fused; ascoids Y-shaped, rarely with 3 anterior branches.

Thorax. Pleuron with hair sockets only on anepisternum. Wing rarely patterned; radial fork always distad of medial, radial and medial forks complete or incomplete, R_3 ends in wing tip.

♂ genitalia. Aedeagus asymmetrical, simple paramere usually present; gonocoxal apodeme usually a lobed extension below aedeagus; surstylus with single tenaculum.

♀ genitalia. Genital digit always present.