Taxonomy of Podoscirtinae (Orthoptera: Gryllidae). Part 5: new Indo-Malayan and Madagascan Podoscirtini

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Two new genera, a new subgenus, 8 new species, and a new subspecies are described from the Philippines and Madagascar: *Varitrella* (*Cantotrella* subgen. n.) *palawanensis* sp. n., *V.* (*C.*) *mindoroensis* sp. n., *V.* (*C.*) *variabilis* sp. n., *Valiatrella sororia meridionalis* subsp. n., *Fryerius amplocellatus* sp. n., *Neozvenella modesta* sp. n, *Zvenellomorpha recta* sp. n., *Ombrotrella beccalonii* gen. et sp. n., and *Allotrella analogica* gen. et sp. n.

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The fifth part in the series of publications on the subfamily Podoscirtinae (Gorochov, 2002, 2003, 2004, 2005) includes descriptions of additional taxa of the tribe Podoscirtini from the Indo-Malayan Region and Madagascar. The material considered in this paper is deposited at the following institutions: Zoological Institute, Russian Academy of Sciences, St.Petersburg (ZIAS); Natural History Museum, London (BMNH).

Genus **Varitrella** Gorochov, 2003

Type species: *Madasumma nigrifrons* Chopard, 1931.

Note. This genus was divided into four groups of species on the basis of the male genital structure (Gorochov, 2003). The new material of *Varitrella* from the Philippines shows that two of these groups are connected with each other by two species with intermediate characters of the male genitalia, and they must be separated from the nominotypical group as a distinct subgenus. The position of the remaining group is less clear, but it is somewhat more related to the new subgenus.

Subgenus **Cantotrella** subgen. n.

Type species: *Varitrella* (*Cantotrella*) *palawanensis* sp. n.

Diagnosis. Male metanotal gland absent. Male genitalia with well developed ectoparameres, lateral lobes of guiding rod apex weakly sclerotized and fused (not articulated) with guiding rod, and inner (central) process of this apex rather small (Figs I: 1-3; II: 1-3; III: 1-3, 4).

Included species. Type species; *Gryllus/Phalangopsis quadratus* Haan, 1842 (Java); *Paroecanthus saussurei* Stål, 1877 (Philippines); *Madasumma bakeri* Chopard, 1925 (Philippines); *Noctitrella glabra* Ingrisch, 1997 (Thailand); *V.* (*C.*) *mindoroensis* sp. n.; *V.* (*C.*) *variabilis* sp. n.; *V.* (*C.*) *meridionalis* sp. n.; possibly *P. conspersus* Stål, 1877 (Philippines) and *V. depressa* Gorochov, 2003 (Philippines).

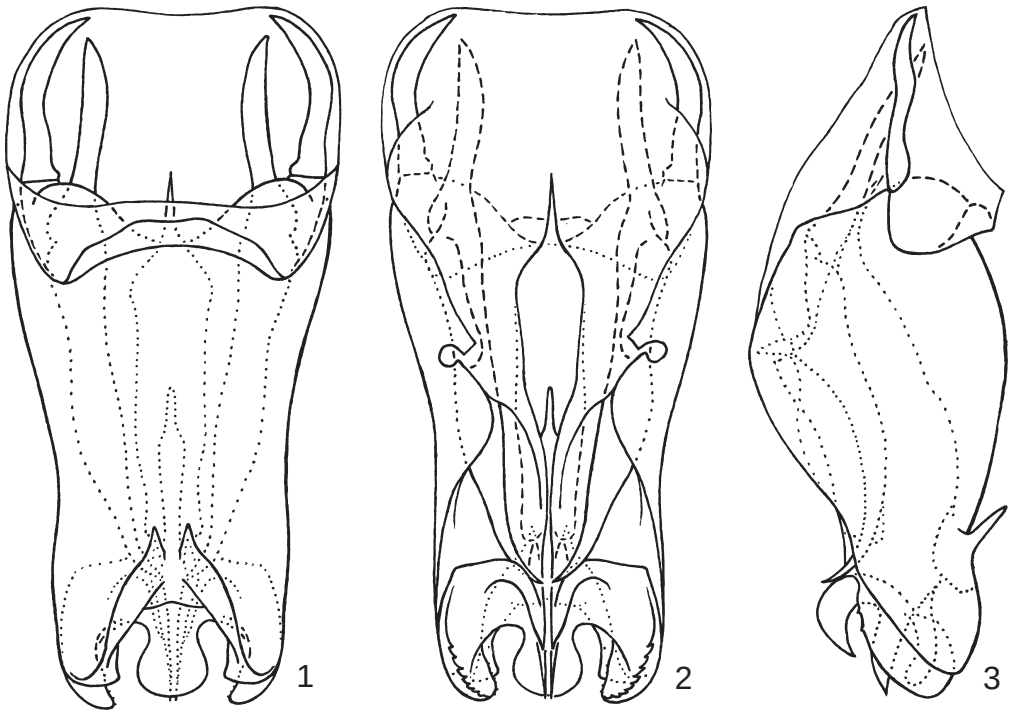
Comparison. The nominotypical subgenus includes a group of species from Sri Lanka (*Platydactylus varipennis* Walker, 1869 and possibly some other species; see Gorochov, 2003), Malacca and Sumatra (type species of *Varitrella*). It differs from *Cantotrella* in the partly reduced male metanotal gland, strongly reduced ectoparameres, heavily sclerotized and articulated lateral lobes of guiding rod in the male genitalia, and a large inner process between these lobes.

Varitrella (Cantotrella) palawanensis sp. n. (Figs I: 1-3; IV: 1-4)

Holotype. ♂, **Philippines**, Palawan I., Northern part of eastern coast, environs of Taytay town, primary forest, at night, on leaf of bush near road, 25-26.II.2004, A. Gorochov (ZIAS).

Paratypes. 1 ♂, 1 ♀, same data as in holotype (ZIAS).

Description. *Male* (holotype). Medium-sized for this genus. Coloration greyish, rather light, but with following darkish marks: a pair of dots near inner edges of lateral ocelli, a pair of dots on outer edges of antennal cavities, two pairs of small spots under rostral apex and under antennae, longitudinal stripe on outer part of each scape, rather wide longitudinal band behind each eye, weak spots on each antennal flagellum, numerous dots on pronotum and abdomen, less numerous ones on fore and middle legs, row of small spots along lower keels of hind femora, sparse dots between bases of *Sc* branches in tegmina, narrow stripe along tegminal *R*, spots on dorsal



Figs I (1-3). *Varitrella palawanensis* sp. n., male genitalia (holotype). **1**, from above; **2**, from below; **3**, from side.

tegminal part (see Fig. IV: 1) and on anal plate (Fig. IV: 3); there are also following whitish areas: central part of mandibles, lower half of clypeus, upper half of labrum, longitudinal stripe behind upper part of each eye and along each lateral edge of pronotal disc as well as along upper edge of lateral part of tegmina (between *R* and *Cu*), spots and some veins of tegminal dorsal part (see Fig. IV: 1). Head slightly elongate; rostrum narrow (scape almost twice as wide as rostrum between antennal cavities) and angular in profile; ocelli well developed, rather large (distance between median and lateral ocelli and length of lateral ocellus almost equal). Pronotum slightly narrowing to head; its length slightly lesser than its width; lateral lobes of medium height; fore edge of disc slightly concave; its hind edge slightly convex. Inner tympana slit-like, rather long and narrow; outer ones open, rounded, medium-sized. Venation of tegminal dorsal part as in Fig. IV: 1; tegminal lateral part with numerous oblique and slightly curved branches of *Sc*; this part provided with cross-veins between bases of these branches only; tegmina extending beyond hind femoral apex; hind wings much longer than tegmina. Anal and genital plates as in Figs IV: 2, 3; genitalia (Figs I: 1-3) with epiphallus somewhat similar to that of *V. glabra*, but their ectoparameres longer, apex of guiding rod strongly widened and having rather large lateral lobes provided with small denticles on lower lateral edges and with rather large lower medial hook on each lobe; apex of this guiding rod also with rather long and moderately high (spine-like) inner process.

Variation. Darkish dots and spots on head of paratype somewhat less distinct than in holotype. In paratype, a pair of spine-like upper processes of epiphallus less sloping than in holotype.

Female. Similar to male, but larger and slightly darker (brownish grey). Head with less distinct dots near lateral ocelli, but with distinct darkenings near lateral corners of upper clypeal part. Tegmina with numerous whitish cross-veins between all parts of *Sc* branches and distinctly irregular venation in dorsal part; this part somewhat darker than lateral one, with some very light veins and veinlets at base, near it, and in some other places; there are also 4 sparse and very small whitish spots along distal half of lateral edge of tegminal dorsal part. Genital plate with moderately narrow and not very deep notch on apical part (Fig. IV: 4); ovipositor long and with drilling apex typical of genus *Varitrella* (see Gorochov, 2003: Fig. VI: 3).

Length (mm). Body: ♂ 16-18, ♀ 23; body with wings: ♂ 26-28, ♀ 33; pronotum: ♂ 2.9-3, ♀ 3.9; tegmina: ♂ 20-21, ♀ 23; hind femora: ♂ 13.5-14.3, ♀ 16; ovipositor 18.5.

Comparison. *V. palawanensis* is most similar to *V. glabra* in the shape of epiphallus. The new species is clearly distinguished from the latter species by the longer ectoparameres (almost as in *V. quadrata*, but this species has very different shape of apical part of epiphallus) and larger lateral lobes of guiding rod (almost as in the group including *V. saussurei* and *V. bakeri*, but their guiding rod lobes are longer, narrower, and without denticles and hooks). From a group consisting of *V. conspersus* and *V. depressa*, the new species differs in the normal structure of ectoparameres and characteristic apex of guiding rod.

Varitrella (Cantotrella) mindoroensis sp. n.
(Figs II: 1-4; IV: 5-7)

Holotype. ♂, **Philippines**, Mindoro I., northern coast, environs of Puerto Galera town, primary forest in low mountains, at night, on leaf of bush near small river, 11-13.III.2004, A. Gorochov (ZIAS).

Paratypes. 3 ♂, same data as in holotype, but imago reared in IV-VI.2004 (ZIAS).

Description. *Male* (holotype). Rather large for this genus. Coloration brownish (light brown beneath and slightly darker above) with following dark areas: large spot between ocelli and a pair of small spots along each lateral edge of rostrum, spot near each lateral corner of upper clypeal part, a pair of longitudinal stripes between eyes (behind ocelli), pronotal disc excepting several small lighter spots, weakly distinct dots on fore and middle legs, small spots along hind half of outer keel of each hind femur, *R*, *M*, and *Cu* in tegmina, small spots on area between tegminal *M* and *Cu*, spots and some veins in tegminal dorsal part (see Fig. IV: 5); there are also following yellowish or whitish areas: spots on antennal flagellum, two narrow longitudinal stripes behind upper part of each eye (medial stripes run also along upper edges of eyes), longitudinal stripe along each lateral edge of pronotal disc as well as along upper edge of lateral part of tegmina (between *R* and *Cu*), cross-veins in lateral tegminal part, a spot on tegminal dorsal part (see Fig. IV: 5). Shape of head as in previous species (*V. palawanensis*), but ocelli larger (distance between median and lateral ocelli distinctly less than length of lateral ocellus). Pronotum and tympana as in *V. palawanensis*. Shape and venation of tegminal dorsal part as in Fig. IV: 5; tegminal lateral part, length of tegmina and hind wings as in *V. palawanensis* also. Anal and genital plates as in Figs IV: 6, 7; genitalia (Figs II: 1-3) with epiphallus and ectoparameres somewhat similar to those of *V. saussurei* and *V. bakeri*, but with distinctly wider apex of guiding rod having less long lateral lobes and characteristic dorsal lobe (hind edge of this lobe almost truncate); spermatophore as in Fig. II: 4.

Variation. In paratypes, upper part of head with less distinct dark marks or almost without them, pronotum sometimes with very light lateral lobes (almost as stripes along lateral edges of pronotal disc), and upper part of abdomen (excepting anal plate) light brown (sometimes almost yellowish).

Female unknown.

Length (mm). Body 22-26; body with wings 27-30; pronotum 3.4-3.7; tegmina 19-21; hind femora 14-15.5.

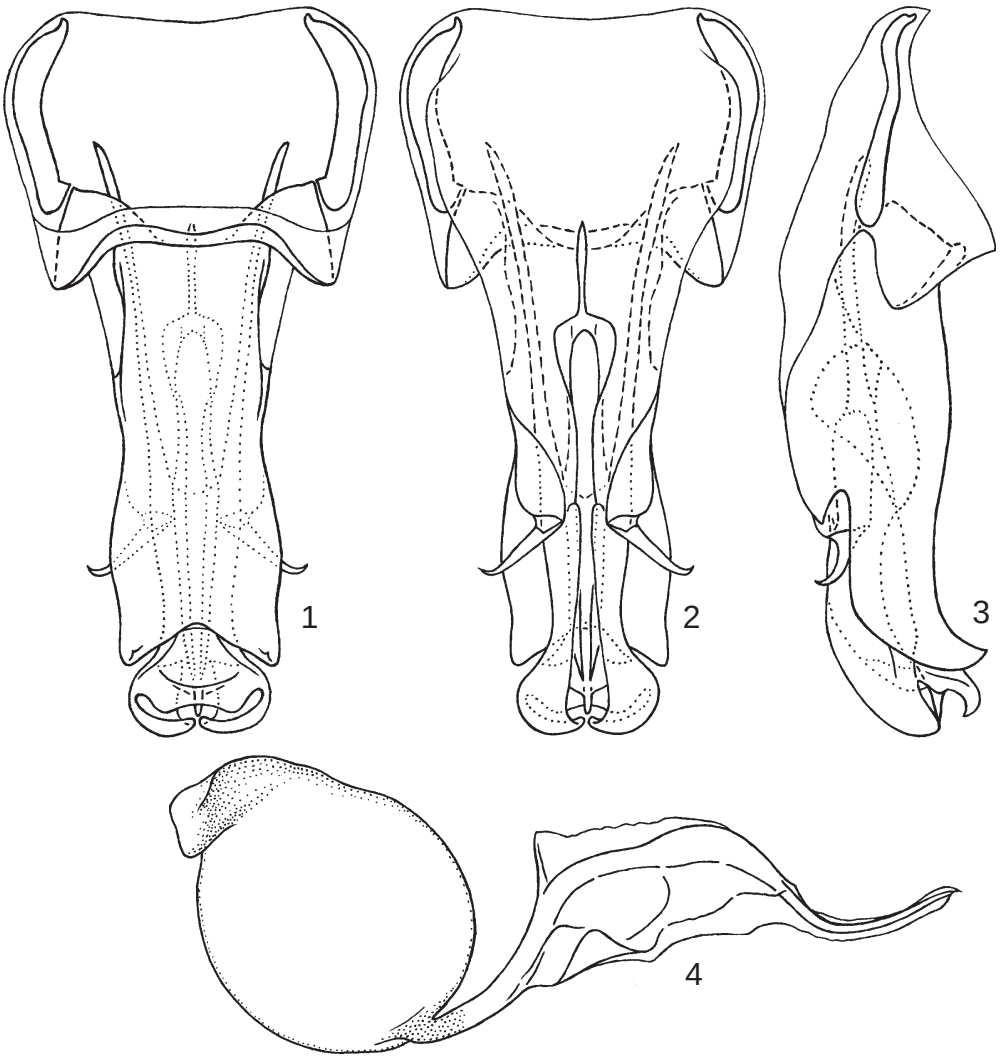
Comparison. *V. mindoroensis* is similar to *V. saussurei* and *V. bakeri* in the general structure of the male genitalia, but it is well distinguished from them by the shape of guiding rod apex (see the description above). From all other congeners, the new species differs in the shape of epiphallic apex and the structure of ectoparameres.

Varitrella (Cantotrella) variabilis sp. n.
(Figs III: 1-4; IV: 8-11)

Holotype. ♂, **Philippines**, Palawan I., southern part of eastern coast, environs of Brooke's Point town, primary forest in low mountains, at night, on leaf of bush near small river, 6-8.III.2004, A. Gorochov (ZIAS).

Paratypes. **Philippines**, Palawan I.: 1 ♀, same data as in holotype (ZIAS); 1 ♂, 4 ♀, northern part of eastern coast, environs of Taytay town, primary forest, at night, on leaves of bushes near road, 25-26.II.2004, A. Gorochov (ZIAS).

Description. *Male* (holotype). Medium-sized for this genus. Coloration greyish, rather light (lower part of body very light, almost yellowish, but upper one slightly darker, brownish); there are following dark marks: spot between ocelli, a pair of dots near lateral corners of upper clypeal part, rather sparse dots on pronotum and fore and middle legs, similar dots on distal half of hind femora and row of distinct dots along their outer ventral keel, small spots between bases of *Sc* branches in tegmina, and some spots on tegminal dorsal part (Fig. IV: 8); tegmina also with two whitish areas: stripe along upper edge of lateral part (between *R* and *Cu*) and some marks on dorsal part (Fig. IV: 8); antennal flagellum slightly spotted. Shape of head, pronotum, and tympana as in both previous species, but ocelli smaller (especially lateral ones; distance between median and lateral ocelli distinctly greater than length of lateral ocellus). Venation of tegminal dorsal part as in Fig. IV: 8; tegminal lateral part, length of tegmina and hind wings as in both previous species. Anal and genital plates as in Figs IV: 9, 10; genitalia (Figs III: 1-3) very similar to those of *V. glabra*, but epiphallus with less strong dorsal



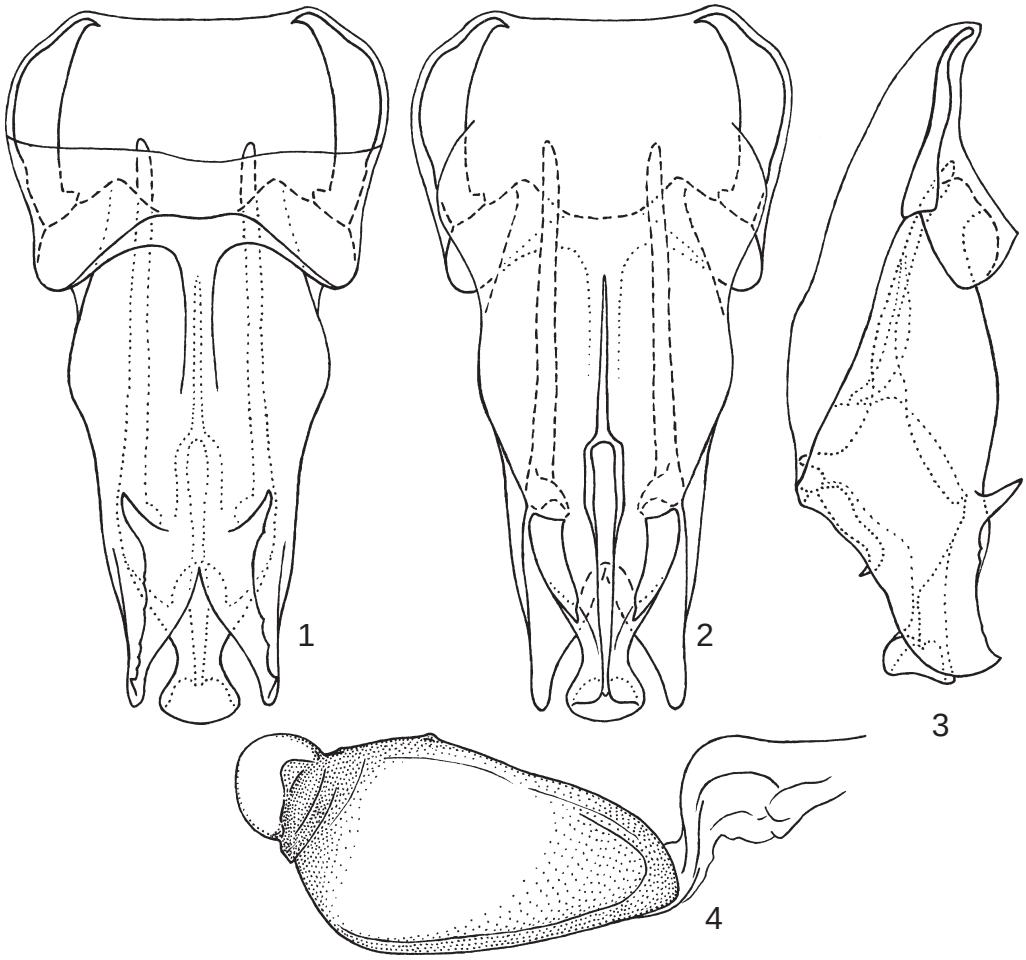
Figs II (1-4). *Varitrella mindoroensis* sp. n., male (holotype). **1-3**, genitalia from above (1), from below (2), and from side (3); **4**, spermatophore from side.

processes at distal part and almost hooked apical lobes (in profile), ectoparameres S-shaped and with more strongly curved apex, guiding rod with somewhat narrower apical part and more convex medial parts of its lateral lobes; spermatophore as in Fig. III: 4.

Variation. Paratype with three small dark spots between ocelli (near their edges) and genitalia having somewhat wider mold of spermatophore attachment plate and shorter longitudinal sclerotized stripe fused with fore part of this mold.

Female. Similar to male, but head usually without distinct darkenings on upper part, and tegminal dorsal part varied from brownish to almost dark brown. Female also similar to female of *V. palawanensis*, but there are distinct differences: in the new species, lateral ocelli smaller (see description of male), tegminal dorsal part with clearly more regular venation and without very light veins and veinlets (but with row of 5-7 small whitish spots along distal half of its lateral edge), genital plate with narrower and distinctly deeper notch at apical part (Fig. IV: 11).

Length (mm). Body: ♂ 19-20, ♀ 14-23; body with wings: ♂ 26-27, ♀ 25-32; pronotum: ♂ 3.2-3.4, ♀ 3.5-4.1; tegmina: ♂ 18-19, ♀ 18-22; hind femora: ♂ 14-14.5, ♀ 13-16; ovipositor 15-18.



Figs III (1-4). *Varitrella variabilis* sp. n., male (holotype). **1-3**, genitalia from above (1), from below (2), and from side (3); **4**, spermatophore from side.

Comparison. *V. variabilis* is most similar to *V. glabra* in the structure of the male genitalia, but the membranous area of male anal plate longer (for comparison see Fig. IV: 10; Ingrisch, 1997: Fig. 48), and there are some differences in the shape of epiphallic distal part, ectoparameres, and apex of guiding rod (see description).

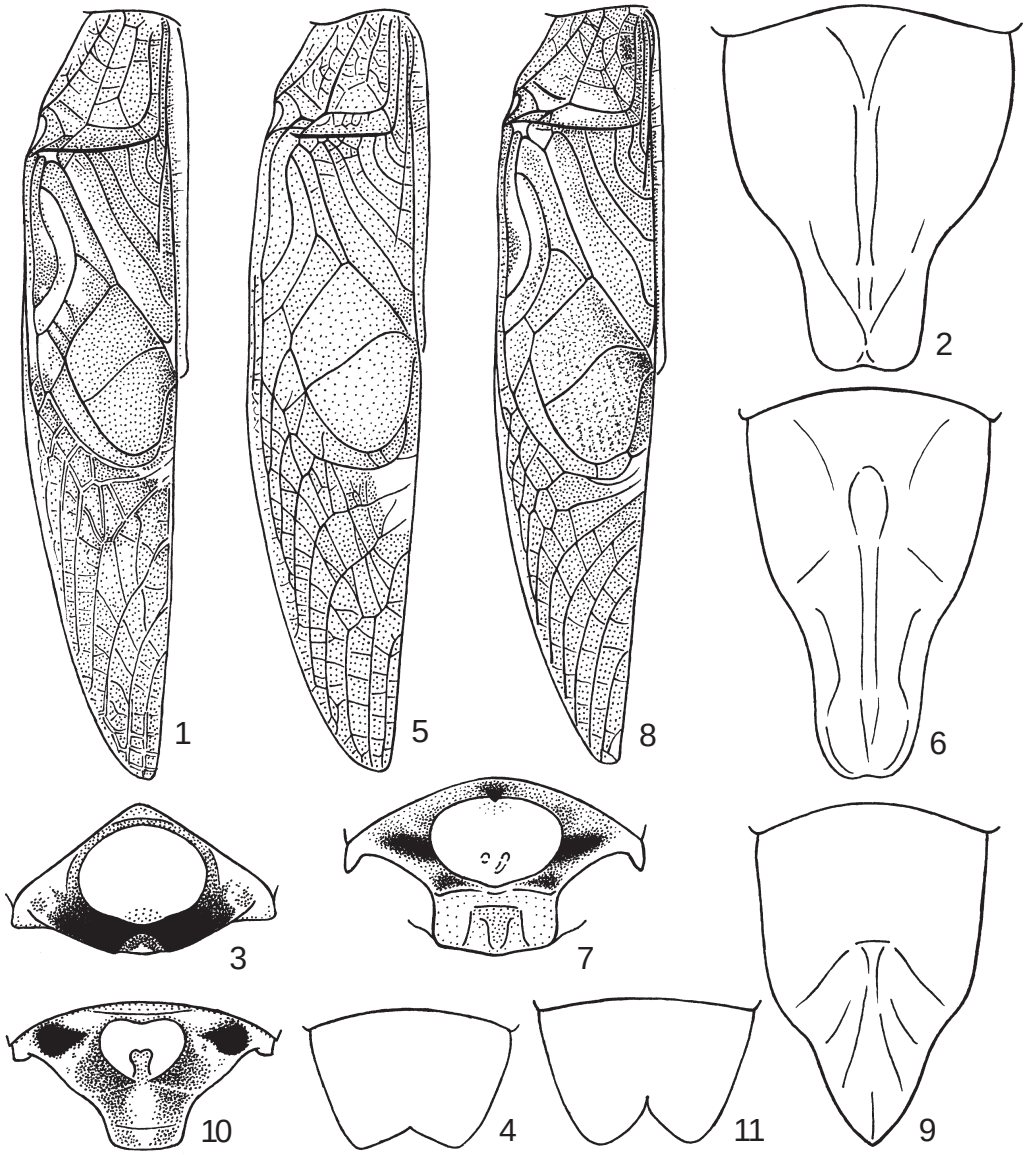
Valiatrella sororia meridionalis subsp. n.
(Fig. VII: 7)

Holotype. ♂, **Vietnam**, Kon Tum Prov., Kon Plong Distr., Mang Cahn vill., 1200 m, forest, III-IV.2005, N. Orlov & S. Ryabov (ZIAS).

Paratypes. 7 ♂, 1 ♀, same data as in holotype (ZIAS).

Description. *Male* (holotype). Very similar to male of nominotypical subspecies [see description of *V. sororia* (Gor.) in Gorochov, 2002: *Valia* (name *Valiatrella* Gor. was proposed instead *Valia* Gorochov, 1985, not Alekseev, 1979; see Gorochov, 2005: p. 202)], but distinguished by not darkened (reddish brown) rostral apex and rather light (light brown) distal segments of palpi, smaller dark area on fore tibiae occupying only proximal half of their upper surface (in male of *V. s. sororia*, upper part of these tibiae completely darkened), almost completely light brown middle and hind tibiae (excepting darkish upper surface of hind tibiae between spines) as well as hind tarsi, and distinctly longer lateral lobes of anal plate (for comparison see Figs VII: 7, 8).

Variation. Sometimes head with a pair of small dark spots near inner edges of eyes, pronotum with almost completely dark disc, and hind tibiae completely light brown.



Figs IV (1-11). *Varitrella*. **1-4**, *V. palawanensis* sp. n. (2, 3, holotype); **5-7**, *V. mindoroensis* sp. n. (6, 7, holotype); **8-11**, V. variabilis sp. n. (9, holotype). Dorsal part of male tegmen (1, 5, 8); genital plate of male (2, 6, 9) and female (4, 11) from below; male anal plate from above (3, 7, 10).

Female. Coloration similar to that of light males of this species as well as to coloration of light females of nominotypical subspecies (see Gorochov, 2002: p. 334), but females of both subspecies differ from each other in coloration of hind tibial spines: dark brown or blackish in *V. s. sororia* and light brown in the new subspecies.

Length (mm). Body: ♂ 15-18, ♀ 14; body with wings: ♂ 25-27, ♀ 25; pronotum: ♂ 2.5-2.8, ♀ 2.7; tegmina*: ♂ 18-21, ♀ 19.5; hind femora: ♂ 9.5-11, ♀ 10; ovipositor 5.5.

* The length of tegmina in the original description of *V. sororia* was indicated mistakenly (Gorochov, 2002); their real length: 19-24 mm in male and 19-23 mm in female.

Note. The length of lateral lobes of the male anal plate in the new subspecies is more similar to that of *V. pulchra* (Gor.) than to that of *V. s. sororia*, but both subspecies of *V. sororia* are distinguished from *V. pulchra* by the different shape of these lobes (for comparison see Figs VII: 6-8) and the distinctly lighter coloration.

Fryerius amplocellatus sp. n.
(Figs V: 1-8)

Holotype. ♂, **Madagascar**, "Antsiranana Pref.; Antsiranana II S.-Pref.: Antsahampano; Montagne d'Ambre, Site MD1; - 12.52765°S 49.17235°E +/- 0.074 km; elev: 1049 +/- m.; taken down 19/11/2004 from 3.88 samp. days; coll. Lees D., Ranaivosolo R., Razafindraibe P.; Malaise Commelina regrowth on path next to degraded primary riparian rainforest" (BMNH).

Description. *Male* (holotype). Size small for this genus. Coloration brownish grey (lower part of body light, almost yellowish, but upper one slightly darker) with following marks: whitish ocelli, a pair of dark brown spots behind lateral ocelli, sparse light brown dots on fore and middle femora, numerous oblique greyish brown stripes on outer surface of hind femora, rather dark apices of these femora, darkish upper parts of all tibiae (hind tibiae with light spines and also with darkened apical part), tegmina almost transparent with brown veins (excepting light stridulatory vein, oblique veins, dividing vein in mirror, and some short cross-veins) and a few weakly distinct spots (Fig. V: 1). Head somewhat narrower than pronotum; ocelli very large and situated very near each other (Fig. V: 2). Pronotum distinctly narrowing to head; its width slightly greater than its length; lateral lobes rather narrow. Outer tympana open, rather large, oval; inner ones slit-like, but not very large and not very narrow. Metanotal gland as in Fig. V: 3. Shape and venation of tegminal dorsal part as in Fig. V: 1; lateral part of tegmina with 7-8 sloping proximal branches of *Sc*, with 8-9 less sloping and almost S-shaped distal branches of *Sc*, and without cross-veins; hind wings clearly longer than tegmina. Anal and genital plates as in Figs V: 4, 5; genitalia symmetrical (Figs V: 6-8) with comparatively shallow notch at epiphallic apex, short and weakly hooked apical epiphallic lobes (in profile), narrow and long ectoparameres, comparatively narrow apex of guiding rod, rather long and almost straight upper stylets of guiding rod, and more or less short mold of spermatophore attachment plate lacking hooked lobes.

Female unknown.

Length (mm). Body 17; body with wings 22; pronotum 2.8; tegmina 16; hind femora 11.8.

Comparison. The new species is well distinguished from all other congeners by the very large ocelli and above-mentioned characters of the male genitalia.

Neozvenella modesta sp. n.
(Figs VI: 1-7)

Holotype. ♂, **Madagascar**, "Isalo Km. P. 713 1000 m. 18.III.68 K.M.G. & P.D." (BMNH).

Paratype. 1 ♂, same data as in holotype (ZIAS).

Description. *Male* (holotype). Medium-sized for this genus. Coloration light brown with darker (brown) upper part of head, proximal part of antennal flagellum, pronotal disc, longitudinal spot on upper part of fore and middle tibiae, apex of hind femora, proximal part of hind tibiae, tegminal *R*, and some longitudinal veins of tegminal dorsal part. Head with small round median ocellus and much larger oval lateral ocelli. Pronotum distinctly narrowing to head. Both tympana (inner and outer) open, medium-sized; outer tympana rounded, oval; inner tympana somewhat narrower than outer ones. Shape and venation of tegminal dorsal part as in Fig. VI: 1; tegminal lateral part with oblique and not numerous branches of *Sc* (proximal branches more sloping than distal ones). Anal and genital plates as in Figs VI: 2, 3; genitalia (Figs VI: 4-6) with characteristic shape of median apical process of epiphallus, short lobes near it, long and narrow lateral apical epiphallic lobes directed backwards and distinctly S-shaped in profile, comparatively long and narrow ectoparameres arched in profile, distal part of guiding rod narrow and hooked in profile, and mold of spermatophore attachment plate with narrow and rather long hind lobes hooked in apical part; spermatophore as in Fig. VI: 7.

Variation. Paratype with a pair of short longitudinal light stripes on hind part of vertex and darker frons under rostrum and antennae.

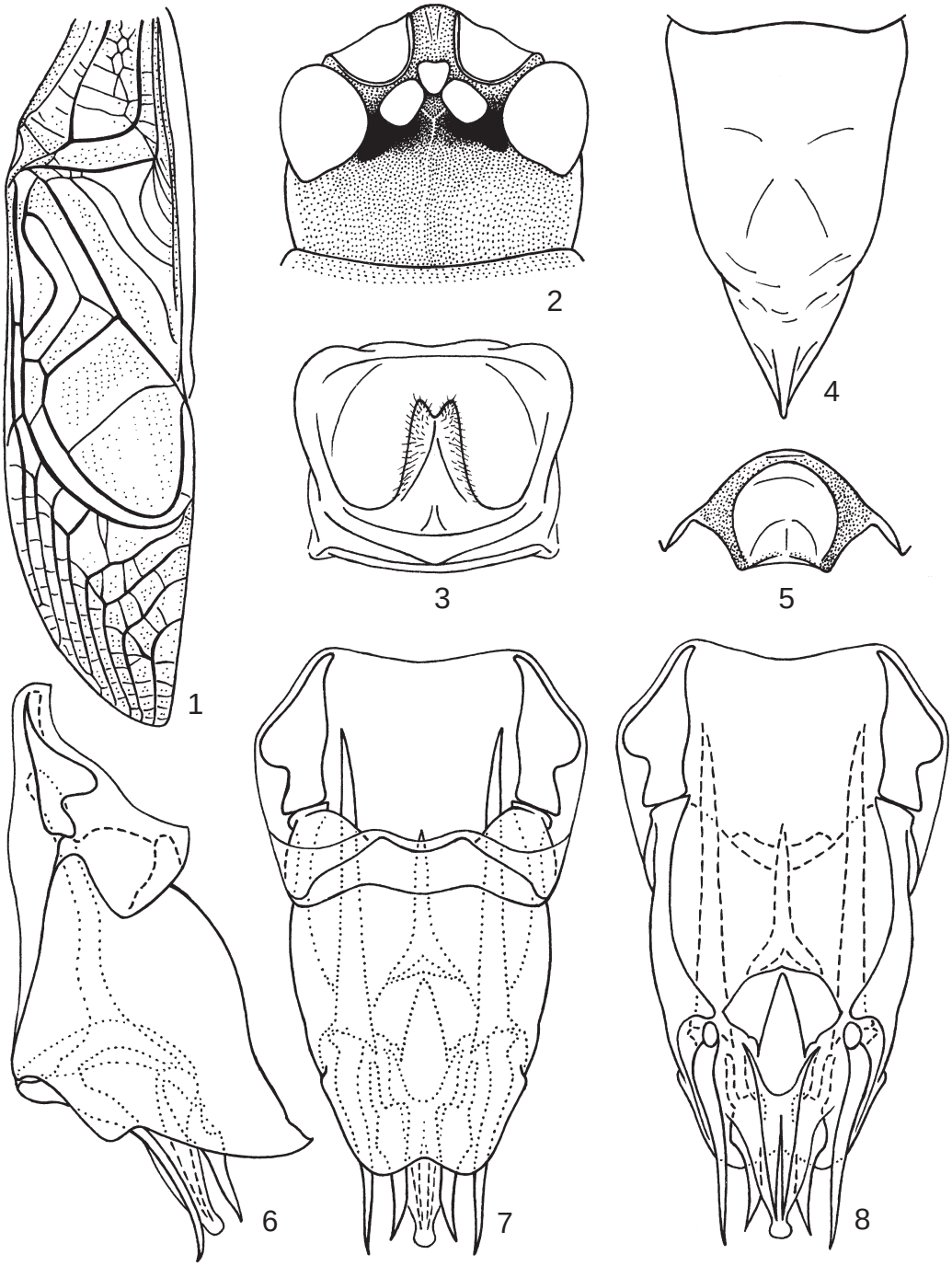
Female unknown.

Length (mm). Body 14.3-15.8; body with wings 20-22; pronotum 2-2.1; tegmina 14-15; hind femora 8.6-9.7.

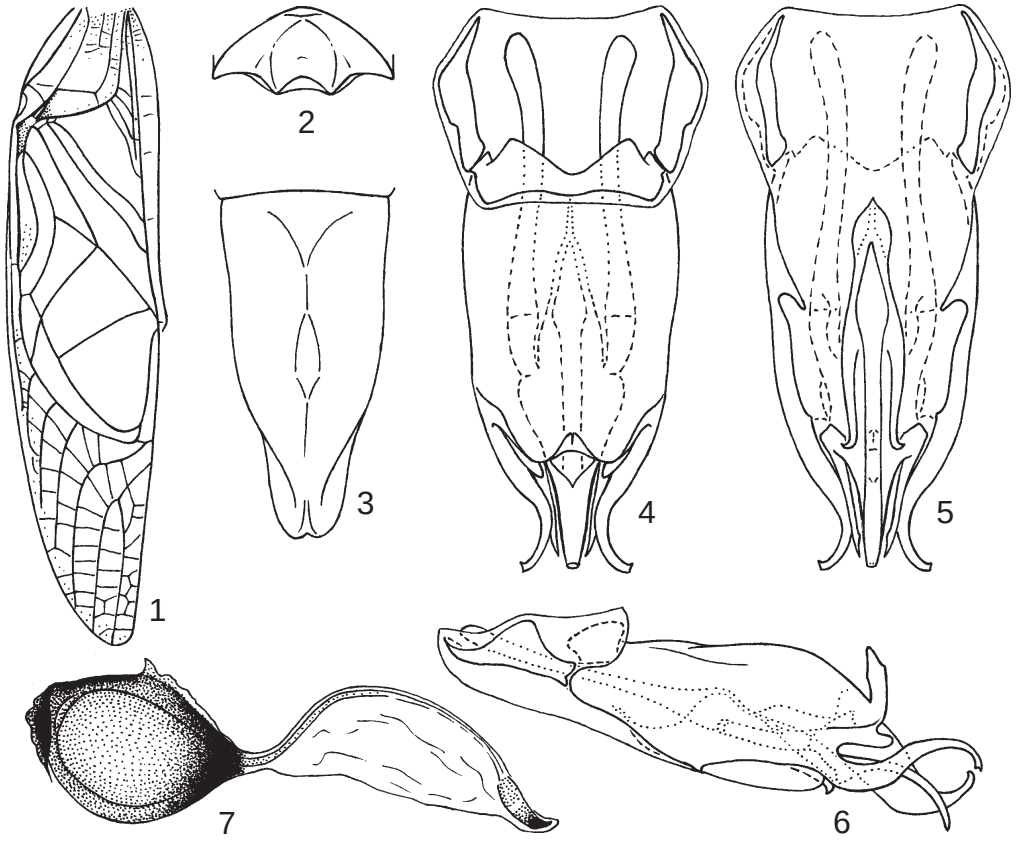
Comparison. The new species is well distinguished from *N. picta* Gor., *N. aucta* Gor., and *N. hildebrandti* Gor. by the darker pronotal disc, from *N.? sikorai* Gor. by the darker area between ocelli and lighter pronotal lateral lobes, from *N. ablata* Gor. and *N.? hova* (Brancsik) by the large tegminal mirror, from *N. bona* Gor. and all other congeners with known male genitalia by the characteristic median apical process and lateral apical lobes of epiphallus, shape of guiding rod, and hooked lobes of mold of spermatophore attachment plate.

Zvenellomorpha recta sp. n.
(Figs VII: 1-5)

Holotype. ♂, **Madagascar**, "Fort Dauphin, (Sikora?)" (ZIAS).



Figs V (1-8). *Fryerius amplocellatus* sp. n., male. **1**, dorsal part of tegmen; **2**, head from above; **3**, metanotal gland from above; **4**, genital plate from below; **5**, anal plate from above; **6-8**, genitalia from side (6), from above (7), and from below (8).



Figs VI (1-7). *Neozvenella modesta* sp. n., male (holotype). **1**, dorsal part of tegmen; **2**, anal plate from above; **3**, genital plate from below; **4-6**, genitalia from above (4), from below (5), and from side (6); **7**, spermatophore from side.

Description. *Male* (holotype). Very similar to *Z. bella* Gor. in general appearance. Coloration light brown with darker (reddish brown) upper part of head and pronotum, a pair of yellowish white stripes from median ocellus to hind part of vertex (through lateral ocelli and along upper edges of eyes), similar stripes along lateral edges of pronotal disc and between *Sc* and *R* (as well as between *R* and *Cu*) in tegmina, dark brown antennal flagellum, darkish small spots on fore and middle legs, brown dorsal tegminal part (excepting lighter membranes in apical area) and longitudinal veins in lateral tegminal part. Head with distinct small ocelli (Fig. VI: 1). Pronotum slightly narrowing to head. Both (outer and inner) tympana open, elongate, not large. Shape and venation of tegminal dorsal part as in Fig. VI: 4; tegminal lateral part with comparatively sparse branches of *Sc* and almost without cross-veins; hind wings much longer than tegmina. Anal and genital plates as in Figs VI: 2, 3; genitalia (Fig. VI: 5) with apical lateral lobes slightly curved downwards and straight, very long ectoparameres (distinctly longer than epiphallus).

Female unknown.

Length (mm). Body 19; body with wings 22.5; pronotum 2.6; tegmina 16.5; hind femora 12.

Comparison. *Z. recta* differs from *Z. bella* Gor. and *N.? hova* (having venation of the male tegmina more or less similar to that of both species of *Zvenellomorpha*) in the normal structure of mirror in male tegmina. From *Z. bella*, the new species is well distinguished also by the shape of epiphallic apical lateral lobes as well as straight and much longer ectoparameres.

Genus **Ombrotrella** gen. n.

Type species: *Ombrotrella beccalonii* sp. n.

Diagnosis. Size rather small. Body distinctly depressed dorsoventrally. Head short and low (depressed), with more or less angular rostrum (in profile) and distinct elongate ocelli situated almost transversally; eyes large; scape almost

twice as wide as rostrum between antennal cavities (Fig. VIII: 1). Pronotum rather short, transverse, distinctly narrowing to head, with not high lateral lobes. Male metanotal gland absent. Legs rather short and stout; their structure typical of Podoscirtini; both pairs of tympana open, rather large and elongate. Tegmina long, in male with developed stridulatory apparatus having rather regular oblique veins, longitudinal and not very large mirror, slightly reduced arched cell behind mirror, and very long apical area (Fig. VIII: 5); lancet-like cell at intercalary triangle of male tegmina strongly reduced; hind wings much longer than tegmina. Male anal plate divided into dorsal part (with rather shallow notch at apex) and rounded hind part (directed downwards and slightly forwards), without distinct membranous area at median part (Figs VIII: 2, 3); male genital plate long, with narrow and acute apex (Fig. VIII: 4); male genitalia (Figs VIII: 6-9) with short epiphallus having only a pair of upper apical projections (Fig. VIII: 9); guiding rod rather long, membranous, with a pair of lower stylets, which are hind parts of mold of spermatophore attachment plate (Fig. VIII: 8); ectoparameres very small (partly reduced) (Figs VIII: 8, 9); endoparameral apodemes rather long (Figs VIII: 6, 7).

Included species. Type species only.

Comparison. *Ombrotrella* is most similar to Madagascan *Stenotrella* Gor. (= *Stenogryllodes* Chopard, 1952, not Chopard, 1936; see Gorochov, 2005: p. 206) in the structure of the male genitalia, but the new genus is distinguished from it by the stout body and legs, short head and pronotum, not shortened wings, and strongly reduced ectoparameres in the male genitalia.

Note. The new genus is a member of the "*Podoscirtus*" generic group (Gorochov, 2004) and belongs to its primitive subgroup with both tympana open. This genus is possibly one of representatives of the first layer of Madagascan Podoscirtinae (Gorochov, 2005), but this opinion is in need of additional data, as the epiphallus of *Ombrotrella* is lacking any additional small tubercle at its apical upper projections.

Ombrotrella beccalonii sp. n.
(Figs VIII: 1-9)

Holotype. ♂, **Madagascar**, "Tamatave Province, Mantadia-Andasibe National Park, Analamazaotra Special Reserve (- 18.93, 48.43) At light 10/xii/2004 Coll. G.W. Beccaloni" (BMNH).

Description. *Male* (holotype). Coloration light, yellowish, but with following darkenings: three blackish stripes near ocelli connected with each other by narrow brownish areas, two blackish longitudinal stripes behind each eye, two similar stripes on fore part of pronotal disc (Fig. VIII: 1), two blackish dots on each lateral lobe of pronotum (near fore and hind edges), short blackish stripe on base of each tegmen (along lateral edge of basal area), sparse dots on lateral tegminal part (reddish at proximal and brown at distal halves), yellow stripe along tegminal *R*, slightly brownish dorsal tegminal part having two narrow stripes on its distal half (very light stripe along lateral edge of this half and greyish brown one near it) (Fig. VIII: 5), and slight brownish darkening on anal plate (Fig. VIII: 2, 3). Shape and venation of dorsal tegminal part as in Fig. VIII: 5; lateral tegminal part with numerous oblique branches of *Sc* and rather numerous cross-veins. Anal and genital plates as in Figs VIII: 2-4; genitalia as in Figs VIII: 6-9.

Female unknown.

Length (mm). Body 12.5; body with wings 20; pronotum 2.3; tegmina 14.5; hind femora 8.5.

Etymology. This species is named in honour of its collector, Dr. G.W. Beccaloni.

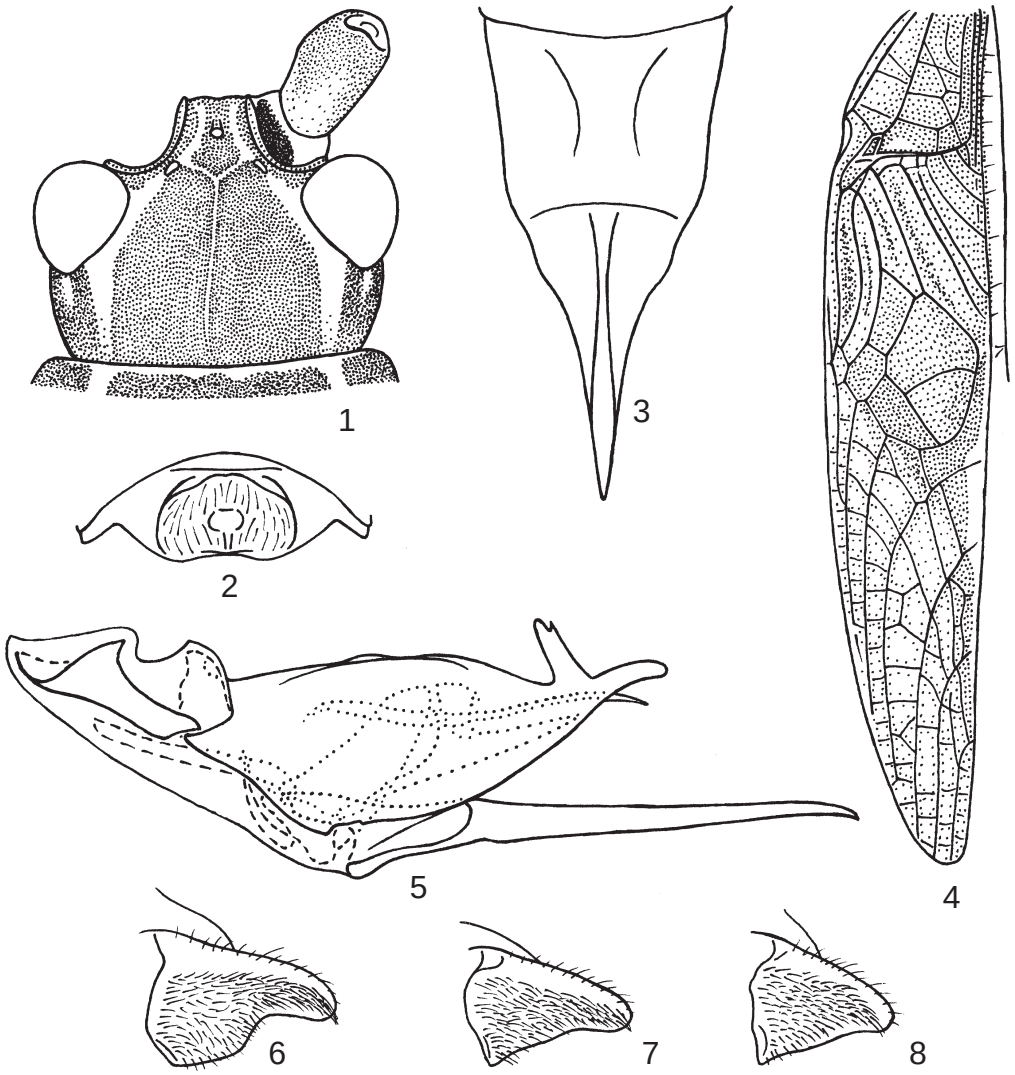
Genus **Allotrella** gen. n.

Type species: *Allotrella analogica* sp. n.

Diagnosis. Body medium-sized for Podoscirtini, weakly depressed dorsoventrally. Head rather long and not very low, with almost rounded rostrum (in profile), round and rather small lateral ocelli, and indistinct median one (Fig. IX: 2); scape almost three times as wide as rostrum between antennal cavities. Pronotum rather long (its width only slightly greater than its length), slightly narrowing to head, with not high lateral lobes. Male metanotal gland absent. Legs clearly longer than in *Ombrotrella* and stouter than in *Stenotrella*; both pairs of tympana open, rather large, but somewhat less elongate than in *Ombrotrella*. Tegmina long, in male with well developed stridulatory apparatus having four distinct oblique veins divided into two groups (Fig. IX: 1), rather large longitudinal mirror, normal arched cell behind it, and not very long apical area (Fig. IX: 1); lancet-like cell at intercalary triangle of male tegmina not reduced; hind wings distinctly longer than tegmina. Male anal plate similar to that of *Ombrotrella*, but with distinct membranous area at median part (Figs IX: 4, 5); male genital plate not very long and with narrowly rounded apex (Fig. IX: 3); male genitalia (Figs IX: 6-8) with long epiphallus having unpaired upper apical projection directed upwards and a pair of short lateral apical lobes directed backwards; guiding rod and endoparameral apodemes comparatively short; ectoparameres well developed, long; mold of spermatophore attachment plate with short hind plates.

Included species. Type species only.

Comparison. The new genus is similar to the Madagascan genus *Ultratrella* Gor., but *Allotrella*



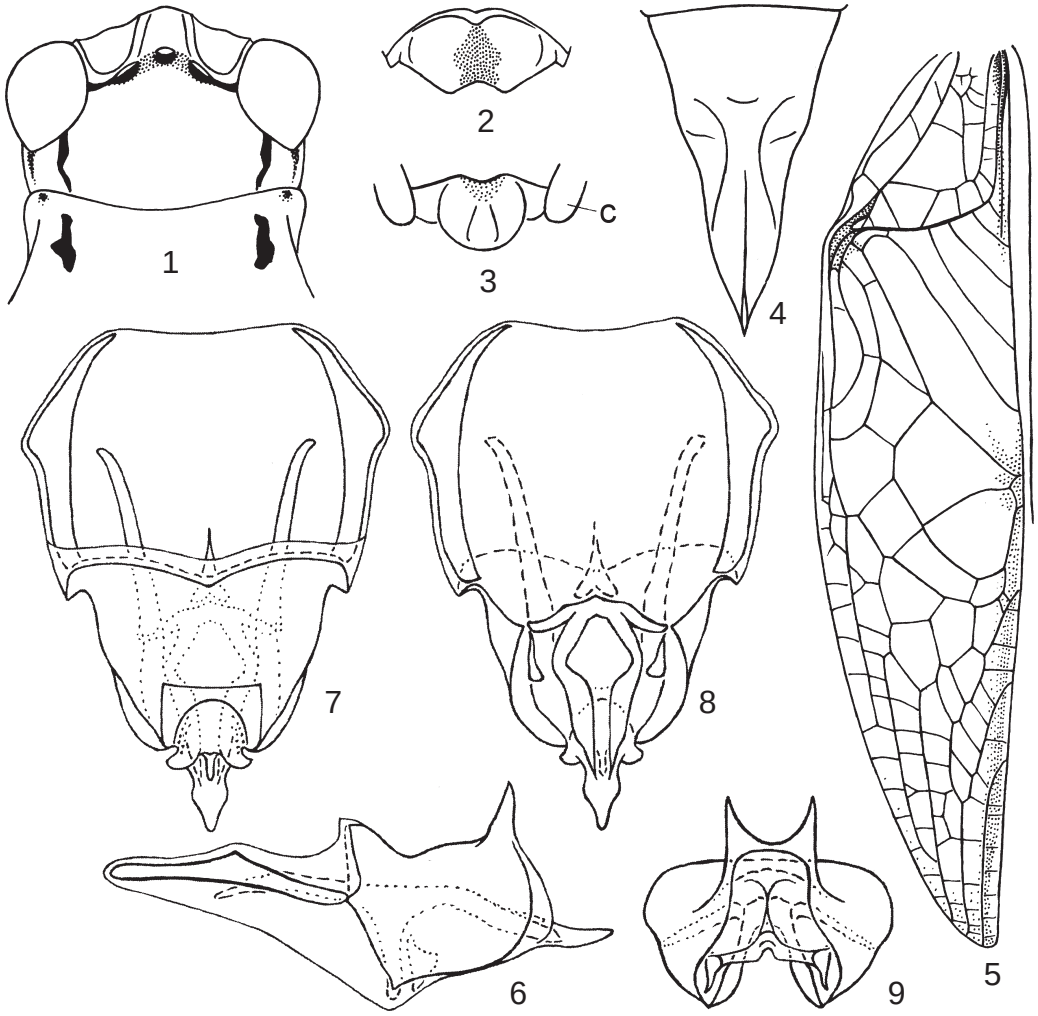
Figs VII (1-8). *Zvenellomorpha* and *Valiatrella*, male. **1-5**, *Z. recta* sp. n.; **6**, *V. pulchra* (Gor.); **7**, *V. sororia meridionalis* subsp. n. (holotype), **8**, *V. s. sororia* (Gor.). Head from above (1); anal plate from above (2); genital plate from below (3); dorsal part of tegmen (4); genitalia from side (5); inner surface of lateral lobe of anal plate from side and slightly behind (6-8).

has longer basal and stridulatory areas of the male tegmina, narrower mirror, and shorter apical part of these tegmina, shorter male genital plate, unpaired upper apical projection of epiphallus, shorter lateral apical epiphallic lobes and guding rod, and more proximal position of ectoparameral bases and mold of spermatophore attachment plate.

Note. *Allotrella* probably belongs to a primitive subgroup of the "*Podoscirtus*" generic group. As *Ombrotrella*, this genus is possibly one of representatives of the first layer of Madagascan Podoscirtinae, but this opinion also is in need of additional data, as its epiphallus is lacking any additional tubercle at upper apical epiphallic projection.

Allotrella analogica sp. n.
(Figs IX: 1-9)

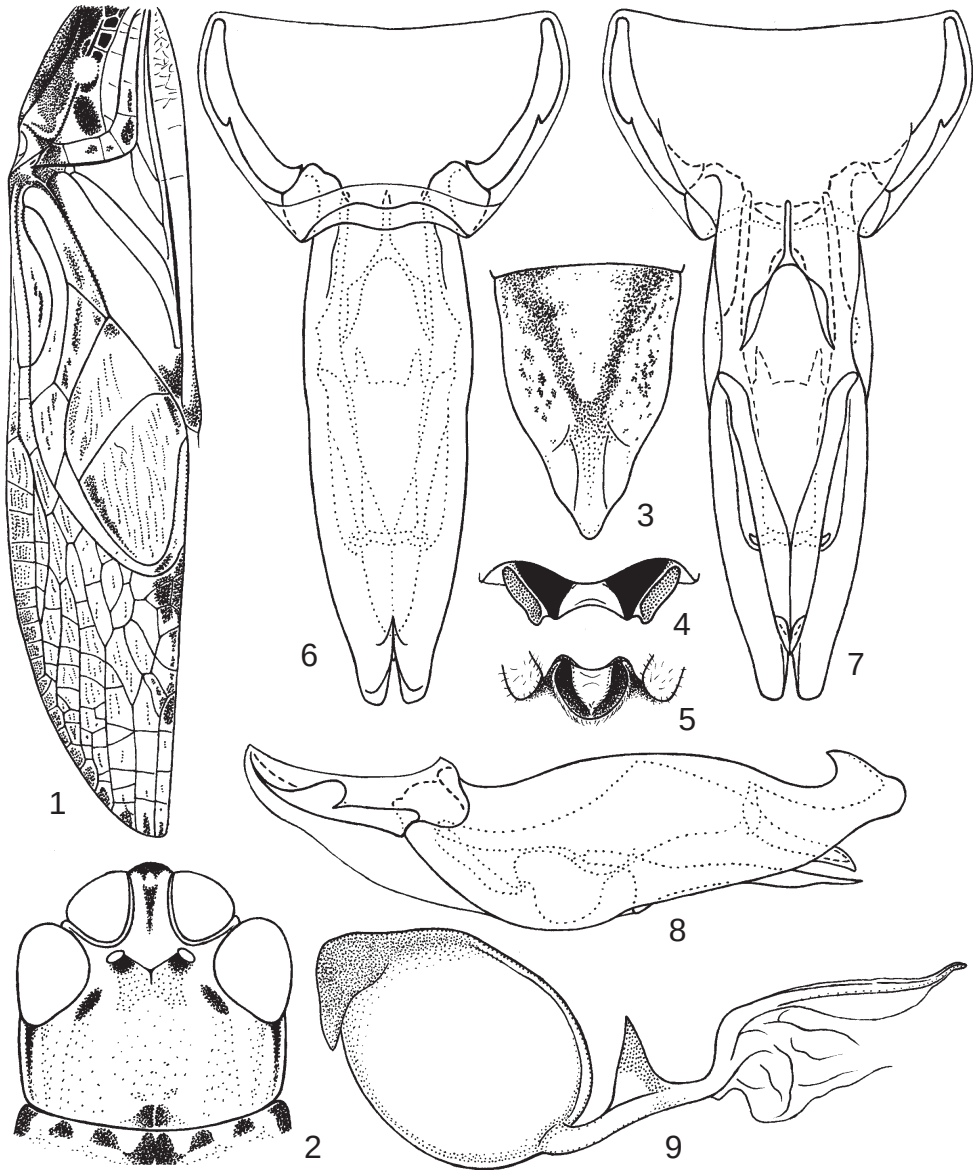
Holotype. ♂, **Madagascar**, "Tamatave Province, Mantadia-Andasibe National Park, Analamazaotra Special Reserve (- 18.93, 48.43) At light 10/xii/2004 Coll. G.W. Beccaloni" (BMNH).



Figs VIII (1-9). *Ombrotrella beccalonii* sp. n., male. **1**, head and fore part of pronotum from above; **2**, **3**, anal plate from above (2) and from behind (3); **4**, genital plate from below; **5**, dorsal part of tegmen; **6-8**, genitalia from side (6), from above (7), and from below (8); **9**, distal half of genitalia from behind. *Abbreviation*: *c*, cerci.

Description. Male (holotype). General coloration of body greyish in upper part and yellowish in lower part, but with following ornament: genae, frons, and mouthparts greyish with blackish spots under eyes, a pair of arched stripes from these spots to rostral apex, small median triangle on frons near clypeus, and upper part of clypeus; blackish and brownish grey spots on upper and lateral parts of head as in Fig. IX: 2; brown antennal flagellum (with sparse lighter spots); blackish upper half of lateral pronotal lobes; blackish dots along fore and hind edges of pronotal disc; brown and brownish grey spots on median part of pronotal disc; sparse dark spots on legs; numerous darkish oblique stripes on outer side of hind femora; dark and darkish spots on dorsal tegminal part (Fig. IX: 1); dark brown stripe along tegminal *R* including bases of areas between branches of *Sc*; short brownish lines on membranes between more distal parts of these branches; dark spots on upper part of abdomen (rather large on anal plate, small on other parts) (Figs IX: 4, 5); darkish dots and spots on lower part of abdomen including genital plate (Fig. IX: 3). Shape and venation of dorsal tegminal part as in Fig. IX: 1; lateral tegminal part with rather numerous branches of *Sc* and almost without cross-veins. Anal and genital plates as in Figs IX: 3-5; genitalia and spermatophore as in Figs IX: 6-9.

Female unknown.



Figs IX (1-9). *Allotrella analogica* sp. n., male. **1**, dorsal part of tegmen; **2**, head from above; **3**, genital plate from below; **4**, **5**, anal plate from above (4) and from behind (5); **6-8**, genitalia from above (6), from below (7), and from side (8); **9**, spermatophore from side.

Length (mm). Body 16; body with wings 26; pronotum 3.1; tegmina 19; hind femora 10.

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