Proceedings of the Zoological Institute RAS
Vol. 329, No. 1, 2025, pp. 13–47
10.31610/trudyzin/2025.329.1.13

UDC 595.729

Systematics of the American Katydids (Orthoptera: Tettigoniidae). Communication 12: the subtribes Steirodontina and Anaulacomerina

A.V. Gorochov

Zoological Institute of the Russian Academy of Sciences, Universitetskaya Emb. 1, 199034 Saint Petersburg, Russia; e-mail: orthopt@zin.ru

Submitted October 1, 2024; revised January 25, 2024; accepted February 4, 2025.

ABSTRACT

A new material on the genera *Steirodon* Serville, 1831, *Cnemidophyllum* Rehn, 1917, *Emsleyfolium* Cadena-Castañeda et al., 2016 and *Stilpnochlora* Stål, 1873 from the subtribe Steirodontina (Steirodontini) as well as on the genera *Separatula* Gorochov, 2018 and *Anaulacomera* Stål, 1873, belonging to the subtribe Anaulacomerina (Phaneropterini), is considered. Some subgenera of these genera and their diagnostic characters are briefly discussed. The following new taxa (13) are described: *Steirodon* (*Steirodon*) *superbum* sp. nov. from Peru; *S.* (*Peucestes*) *para* sp. nov. from Brazil; *S.* (*P.*) *dentatum woronovi* subsp. nov. from Colombia; *S.* (*Posidippus*) minor sp. nov. from French Guiana; *S.* (*Frontinus*) *planifemur* sp. nov. from Peru; *Cnemidophyllum* (*Peucestophyllum*) *granti peruanum* subsp. nov. from Peru; *C.* (*Peucestoides*) *bituberculatum* sp. nov. from Peru; *Emsleyfolium unilobatum* sp. nov. from Peru; *E. cusco* sp. nov. from Peru; *Stilpnochlora jalisco* sp. nov. from Mexico; *S. marginella latistriata* subsp. nov. from Surinam; *Separatula symmetrica* sp. nov. from Peru; *S. falcata tenuis* subsp. nov. from Peru. *Steirodon validum* Stål, 1874 and *S.* (*Posidippum*) *parastahli* Piza, 1979 are returned in the subgenera *Steirodon* and *Posidippus* Brunner-Wattenwyl, 1878, respectively (but the latter species as a possible synonym of *S. stahli* Brunner-Wattenwyl, 1878); the generic names *Phyllolophus* Rehn, 1944 and *Steirodonopis* Scudder, 1875 are returned in synonyms of the subgenera *Steirodon* and *Frontinus* Stål, 1873, also respectively. For the homonymic name *Posidippus validus* Saussure et Pictet, 1898, the new name *S.* (*Posidippus*) *major* nom. nov. is established, and *S.* (*P.*) *dentiferoides* Emsley, 1970, syn. nov. is synonymized with *S.* (*P.*) *stahli*. For *Steirodon* (*Frontinus*) *irregulariterdentatum* (Brunner-Wattenwyl, 1891), the neotype is designated, and this species is redescribed; *Posidippus rarospinulosus* Brunner-Wattenwyl, 1891 is transferred to *Steirodon* (*Frontinus*), and *P. tricenarius* Piza, 1974 is treated as a separate species in the same subgenus but not as a synonym of *S.* (*F.*) *rufolineatum* Emsley, 1970. *Cnemidophyllum* (*Cnemidophyllum*) *tani* Cadena-Castañeda, 2016 is transferred to the subgenus *Peucestophyllum* Emsley, 1970 of the same genus. For *A.* (*Munticercora*) *sclerogenitalis woronovi* Gorochov, 2021, the male cerci are firstly described.

Key words: America, *Anaulacomera*, Anaulacomerini, *Cnemidophyllum*, *Emsleyfolium*, new taxa, Phaneropterinae, *Separatula*, *Steirodon*, Steirodontini, *Stilpnochlora*, Tettigoniidae

---

Систематика американских кузнечиков (Orthoptera: Tettigoniidae). Сообщение 12: подтрибы Steirodontina и Anaulacomerina

А.В. Горохов

Зоологический институт Российской академии наук, Университетская наб. 1, 199034 Санкт-Петербург, Россия; e-mail: orthopt@zin.ru

Представлена 1 октября 2024; после доработки 25 января 2024; принята 4 февраля 2025.

РЕЗЮМЕ

Рассмотрен новый материал по родам *Steirodon* Serville, 1831, *Cnemidophyllum* Rehn, 1917, *Emsleyfolium* Cadena-Castañeda et al., 2016 и *Stilpnochlora* Stål, 1873 из подтрибы Steirodontina (Steirodontini), а также по родам *Separatula* Gorochov, 2018 и *Anaulacomera* Stål, 1873, принадлежащим подтрибе Anaulacomerina (Phaneropterini). Кратко обсуждены некоторые подроды этих родов и их диагностические признаки. Описаны следующие новые таксоны (13): *Steirodon* (*Steirodon*) *superbum* sp. nov. из Перу; *S.* (*Peucestes*) *para* sp. nov. из Бразилии; *S.* (*P.*) *dentatum woronovi* subsp. nov. из Колумбии; *S.* (*Posidippus*) *minor* sp. nov. из Французской Гвианы; *S.* (*Frontinus*) *planifemur* sp. nov. из Перу; *Cnemidophyllum* (*Peucestophyllum*) *granti peruanum* subsp. nov. из Перу; *C.* (*Peucestoides*) *bituberculatum* sp. nov. из Перу; *Emsleyfolium unilobatum* sp. nov. из Перу; *E. cusco* sp. nov. из Перу; *Stilpnochlora jalisco* sp. nov. из Мексики; *S. marginella latistriata* subsp. nov. из Суринама; *Separatula symmetrica* sp. nov. из Перу; *S. falcata tenuis* subsp. nov. из Перу. *Steirodon validum* Stål, 1874 и *S.* (*Posidippum*) *parastahli* Piza, 1979 возвращены в подроды *Steirodon* и *Posidippus* Brunner-Wattenwyl, 1878 соответственно (но последний вид как возможный синоним *S. stahli* Brunner-Wattenwyl, 1878); родовые названия *Phyllolophus* Rehn, 1944 и *Steirodonopis* Scudder, 1875 возвращены в синонимы подродов *Steirodon* и *Frontinus* Stål, 1873 также соответственно. Гомонимичное название *Posidippus validus* Saussure et Pictet, 1898 заменено на новое замещающее название *S.* (*Posidippus*) *major* nom. nov., и *S.* (*P.*) *dentiferoides* Emsley, 1970, syn. nov. синонимизирован с *S.* (*P.*) *stahli*. Для *Steirodon* (*Frontinus*) *irregulariterdentatum* (Brunner-Wattenwyl, 1891) обозначен неотип, и этот вид переописан; *Posidippus rarospinulosus* Brunner-Wattenwyl, 1891 перемещен в *Steirodon* (*Frontinus*), а *P. tricenarius* Piza, 1974 трактуется как отдельный вид того же подрода, а не как синоним *S.* (*F.*) *rufolineatum* Emsley, 1970. *Cnemidophyllum* (*Cnemidophyllum*) *tani* Cadena-Castañeda, 2016 перемещен в подрод *Peucestophyllum* Emsley, 1970 этого же рода. Для *A.* (*Munticercora*) *sclerogenitalis woronovi* Gorochov, 2021 впервые описаны церки самца.

Ключевые слова: Америка, *Anaulacomera*, Anaulacomerini, *Cnemidophyllum*, *Emsleyfolium*, новые таксоны, Phaneropterinae, *Separatula*, *Steirodon*, Steirodontini, *Stilpnochlora*, Tettigoniidae

INTRODUCTION

This communication is the twelfth one in the series of my publications on the American Tettigoniidae. It is mainly dedicated to the tribe Steirodontini of the subfamily Phaneropterinae. This tribe includes rather numerous and diverse genera usually living on leaves of tropical trees in their crowns and often imitating these leaves or their parts. The composition of this tribe is not very understandable, and this paper is a first my step to its clarification. Another part of this communication continues my previous study on taxonomy of small katydids of the same subfamily belonging to the subtribe Anaulacomerina of the tribe Phaneropterini (Gorochov 2020, 2021, 2023).

This work was carried out within the framework of large projects on the invertebrate fauna of the Amazon Basin (numbers Pi005 and Pi009, PAE ACRENAP 2019-2030) under the supervision of the Peruvian and Ukrainian entomologist V.V. Izerskyy (NGO ACRENAP, UNFCCC Observer, dep. RINGO – scientific research and ENGO – environment).

MATERIAL AND METHODS

The material studied (including type specimens) is deposited at the Zoological Institute, Russian Academy of Sciences, Saint Petersburg. All the specimens are dry and pinned. The photographs of their morphological structures were made with a Leica MZ16 stereomicroscope. The online catalogue Orthoptera Species File (Cigliano et al. 2024) is cited in this paper as OSF.

SYSTEMATICS

Subfamily Phaneropterinae Burmeister, 1838

Tribe Steirodontini Brunner-Wattenwyl, 1878

Note. Previously, only a few genera were included in this tribe: three genera in the most important revision by M.G. Emsley (1970), and five genera in the recent internet catalogue of Orthoptera (OSF). However, in reality all these genera or majority of them are closely related and must be considered as belonging to the same subtribe (Steirodontina), but some other American taxa of Phaneropterinae are

only slightly less related to Steirodontina genera and should be included in the Steirodontini as its subtribes Microcentrina Brunner-Wattenewyl, 1878, stat. nov. (= the former tribe Microcentrini) and possibly Aegimiina Brunner-Wattenwyl, 1878, stat. nov. (= the former group Aegimiae).

Subtribe Steirodontina Brunner-Wattenwyl, 1878

Note. This subtribe consists of two groups of genera which are clearly distinguished from each other. The first group includes the genera *Steirodon* Serville, 1831, *Cnemidophyllum* Rehn, 1917 and *Emsleyfolium* Cadena-Castañeda, Mendes et Alves-Oliveira, 2016 which are rather diverse in general appearance but characterized by the presence of a pair of rather large lobules on the tenth (last) abdominal tergite in female; also they usually have distinct denticulated or crenulated keels along the dorsolateral edges of the pronotum (these keels run from anterior to posterior edges of the pronotal disc), and often are with widened proximal portions of the middle and hind tibiae. Differences between these genera (except for *Emsleyfolium*) are not very clear: for example, no even one general character which may distinguish *Steirodon* from *Cnemidophyllum*. But members of these genera are rather diverse and form several subgenera which are more suitable for determination. However, combining these subgenera into a single genus would make such a genus excessively diverse, and raising them to generic rank would make such genera very fragmented. This is a reason why I adopt here the classification of Emsley (1970), where the genera *Steirodon* and *Cnemidopyllum* are divided into subgenera, but indicate that some subgenera are very similar and may be synonymized with each other, and that *Emsleyfolium* may be considered as a subgenus of *Cnemidophyllum* s. l. (judging by the characteristic ratio of the sizes of their rostral tubercles).

The second group contains the genera *Stilpnochlora* Stål, 1873 and *Nicklephyllum* Cadena-Castañeda, 2016. This group differs from the previous one in the absence of paired lobules on the abdominal tergites in female, in a diverse condition of the pronotal dorsolateral keels (from their almost complete absence to the condition similar to that of *Steirodon* and *Cnemidophyllum*), and in almost unexpanded proximal portions of the middle and hind tibiae. These genera have not yet been divided into subgenera, but *Nicklephyllum* may be treated as a second subgenus of this genus, because its very large pronotal denticles may have been formed by their enlargement from the condition characteristic of *S. incisa* Brunner-Wattenwyl, 1878, and the other differences of this genus from *Stilpnochlora* (except for reduction of procoxal spine) are within the diversity of the latter genus including the structure of the male cercal apex: in *Nicklephyllum*, it is with one undivided apical denticle; but in *Stilpnochlora*, it is with two such denticles, with one partly forked denticle, or sometimes with one undivided denticle.

Thus, the pronotal dorsolateral keels in these groups almost certainly have an independent origin, and for distinguishing this subtribe from similar ones, I can only suggest the characteristic structure of the ovipositor: it is very small, slightly curved, weakly sclerotized, without denticles and with a rounded or narrowly rounded apex (such an ovipositor is probably used only for oviposition on the open surface of branches and leaves). However, similar ovipositors are also developed in some genera of the subtribe Microcentrina. Moreover, one of these genera (*Syntechna* Brunner-Wattenwyl, 1878) is very similar to *Stilpnochlora* practically in all other characters of their external structure, except for the absence of even traces of any pronotal keels in *Syntechna*. So, the latter genus looks as a possible ancestral taxon for *Stilpnochlora*, and the "second group of Steirodontina" in reality may be included in Microcentrina or, together with *Syntechna* and some other genera, may be considered as a separate subtribe of the tribe Steirodontini.

Genus *Steirodon* Serville, 1831

Type species (in original binomen): *Steirodon ponderosum* Stål, 1873, by subsequent designation (Emsley 1970).

Subgenus *Steirodon* s. str.

= *Phyllolophus* Rehn, 1944; type species (in original binomen): *Steirodon validum* Stål, 1874, by original designation.

Brief diagnosis. 1) Upper and lower rostral tubercles distally almost equal to each other in width but distinctly wider than scape (Fig. 1);

2) dorsolateral denticulated keels of pronotum high and angular or strongly arcuate in profile (Figs 1, 3–5);

3) middle and hind tibiae widened in proximal part (middle tibia slightly, hind tibia distinctly; Figs 40, 41);

4) tegmina with anterior branch of RS ending at tegminal apex (as in *Stilpnochlora*; Fig. 16);

5) male abdomen with last (tenth) tergite widely truncate at apex (Fig. 42);

6) female abdomen having last (tenth) tergite with a pair of rather large apical lobules, but its other tergites without lobules or with only a pair of very small tubercles on posteromedian edge of ninth tergite (approximately as in Fig. 51).

It is necessary to indicate that Emsley (1970) erroneously interpreted the above mentioned female tergites as the ninth and eighth, respectively; but in male, he treated the last abdominal tergite correctly (i.e., as the tenth), although the first abdominal tergite is more or less fused with the pterothorax in both sexes of this genus as well as in many other Phaneropterinae taxa.

Composition (in original binomens). *Steirodon ponderosum* Stål, 1873 (described from "Brasilia"; distributed from Trinidad and Colombia to Bolivia and Paraguay); *S. validum* Stål, 1874 (type locality unknown; distributed from French Guiana and Venezuela to Peru and sourthern Brazil, but possibly these indications or part of them related to *S. superbum* sp. nov.); *Phyllolophus alfaroi* Rehn, 1944 (described from Costa Rica; distributed also in Panama and possibly in other countries of Central America); *Ph. ganymedes* Rehn, 1944 (described from Rio de Janeiro; distributed also in other parts of southern Brazil and possibly in Paraguay); *Steirodon* (*Steirodon*) *superbum* sp. nov.

It is useful to note that all these species (including *S. validum* and possibly *S. superbum* sp. nov.) were included in this subgenus by Emsley (1970), but in OSF, *S.* (*S.*) *validum* was mistakenly transferred to the subgenus *Posidippus* Stål, 1874, although it undoubtedly belongs to the nominotypical subgenus (judging by its holotype photographs in OSF).

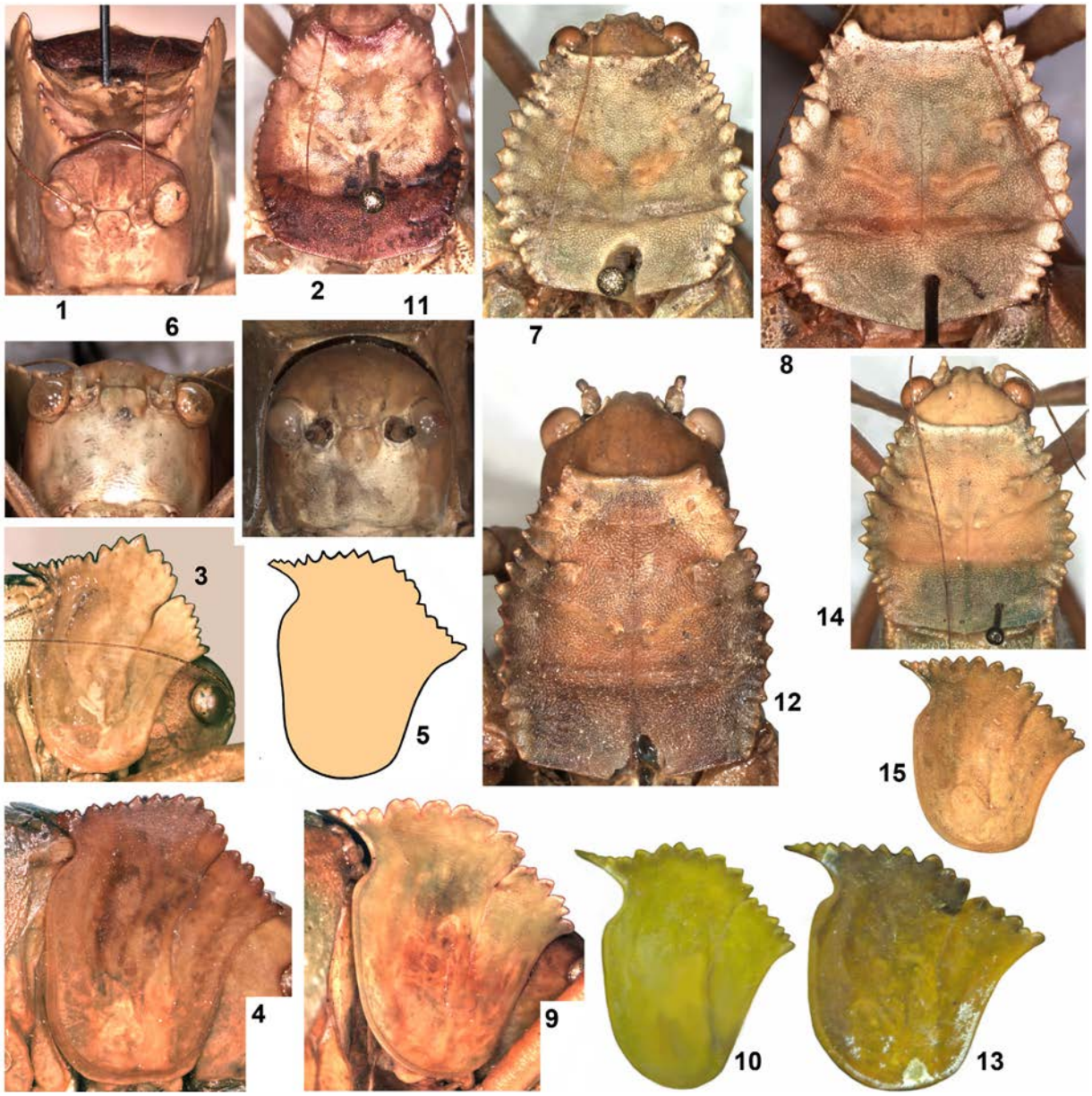
Steirodon (*Steirodon*) *superbum* Gorochov sp. nov.

(Figs 1–4, 16, 17, 24, 25, 38–43)

Etymology. This name is the Latin word "superbum" (proud, high) due to very high dorsolateral keels on the pronotum.

Material. *Holotype* – male, PERU: Ucayali Department, Atalaya Prov., ~ 35 km NWW of Atalaya Town on Ucayali River, environs of Sapani Vill., ~ 300 m, primary forest, at light, 26–31 October 2008, A. Gorochov, M. Berezin, L. Anisyutkin, V. Izerskyy (ZIN). *Paratypes*: 5 males, 1 female, same department, "Atalaya Distr., Pitza Vill.", 10°54.790' S, 73°51.054' W, February 2021, possibly V. Izerskyy (ZIN).

Description. *Male* (holotype). Coloration and structure of body similar to *S.* (*S.*) *validum* but with following characters: coloration yellowish with greenish tinge on tegmina, pterothorax and abdominal tergites (perhaps entirely light green in living condition), but head with poorly distinct light brown area on dorsum, pronotum with reddish brown stripe on disc along anterior edge and intensively brown posterior third of disc (including inner surfaces of posterior parts of dorsolateral keels; Figs 1–3), wings with barely darkened narrow stripes along some veins in lateral tegminal field (Fig. 16) as well as transparent rather small areas in stridulatory apparatus (Figs 24, 25) and membranes in hind wing (apical part of latter wing also yellowish or light green, and venation of this wing yellowish to almost whitish), and legs with only distal parts of claws somewhat darkened (other darkened marks on legs absent); rostral tubercles of head almost without median longitudinal concavity or sulcus dorsally and anteriorly, but apex of upper tubercle barely concave, and apical part of lower tubercle widely rounded and with small lateral projections (i.e., this apical part insignificantly wider than apex of upper tubercle; Fig. 1); pronotum rather short, with disc having distinct dorsal concavity near significantly concave anterior edge (this edge also with poorly distinct median denticle) and moderately deep transverse fold before posterior third (Fig. 2), with rather high and short lateral lobes narrowing to rounded lower part and having characteristic relief (Fig. 3), and with very high dorsolateral keels consisting of 19–20 high denticles (partly fused with each other) and having more or less angular apices of these denticles (these keels in profile forming almost rectangularly curved dorsal edge with highest angular projection located almost at middle of their length and directed upwards; Figs 1–3); tegmina long and moderately narrow, with base of RS located rather far from tegminal base, with most part of anal edge almost straight but slightly concave before distal part of lateral field (Fig. 16), with stridulatory apparatus in left tegmen having slightly S-shaped stridulatory vein (length of this vein about 5 mm) and nearby 74 teeth on its venter as well as almost straight anal tegminal edge from this vein to distally narrowed part of dorsal field (this edge barely convex in middle portion and very shallowly notched behind this portion; Figs 17, 24), and with stridulatory apparatus in right tegmen as in Fig. 25; hind wings



Figs 1–15. *Steirodon*. 1–4 – *S.* (*Steirodon*) *suberbum* sp. nov. (1–3 – holotype; 4 – paratype); 5 – *S.* (*S.*) *validum* (holotype); 6–10 – *S.* (*Peucestes*) *para* sp. nov. (6, 8, 9 – paratype; 7, 10 – holotype); 11–13 – *S.* (*P.*) *dentatum dentatum*; 14, 15 – *S.* (*P.*) *d. woronovi* subsp. nov. (holotype). Epicranium and pronotum of male in front and slightly from above (1); pronotum of male (2) and of female (8) from above; male pronotum with head (3) or without it (5, 10, 15) from side; female pronotum from side (4, 9, 13); female head in front and slightly from below (6), or in front and slightly from above (11); head and pronotum of male (7, 14) and of female (12) from above. [5 – after photograph from OSF].

almost as long as tegmina and slightly protruding beyond tegminal apices in rest position; legs with almost slit-like both tympana (Figs 38, 39), and with widenings of middle and hind tibiae as in Figs 40, 41; abdominal apex typical of this subgenus, but genital plate posteriorly having roundly convex median part as well as a pair of short lateral tubercles with rather small but thin and elongated styli (Figs 42, 43).

Variations. Male paratypes slightly darker and with brownish tinge, but possibly these darkenings

artificial due to bad drying in field conditions. Upper rostral tubercle dorsally often with more distinct median longitudinal concavity or even almost sulcus, and apically sometimes barely bilobed; lower rostral tubercle anteriorly sometimes with similar concavity or sulcus in upper portion or even with very small apical median notch, but lateroapical parts of this tubercle always insignificantly projecting (i.e., apical part of latter tubercle always slightly or barely wider than apex of upper tubercle); tegmina with position of RS base somewhat varied; genital plate often with posteromedian part shortly obtuse-angled and sometimes slightly more projected backwards than in holotype.

Female. General appearance as in male paratypes, but body somewhat larger, head without any darkenings, dorsolateral keels of pronotum hardly lower and with barely obtuse-angled dorsal edge of these keels in profile (Fig. 4), tegmina almost three times as long as wide and without well developed stridulatory apparatus, and abdominal apex typical of female in this subgenus and in *Peucestes* (Fig. 51): last tergite with a pair of long posterior lobules (these lobules clearly longer than cerci), but ninth abdominal tergite practically without posterior lobules; cerci simple (partly fusiform); ovipositor small (reaching apices of lobules of last tergite), slightly curved upwards, with distal part gradually narrowing to narrowly rounded apex, and without drilling denticles; genital plate somewhat elongate and gradually narrowing backwards, and its apical notch approximately as in Fig. 52.

Length in mm. Body: male 35–40, female 55; body with wings: male 80–85, female 104; pronotum: male 12–14, female 16.5; tegmina 68–72, female 88; hind femora: 30–33, female 39; ovipositor 9.

Comparison. The new species is most similar to *S.* (*S.*) *validum* (including brown coloration of the pronotal disc posterior part, more or less vertical position of the pronotal dorsolateral keels and S-shaped stridulatory vein in the left tegmen), but it is distinguished from the latter species by the lower rostral tubercle barely widening to its apical part (this part is insignificantly wider than the upper rostral tubercle apex; *vs:* the lower rostral tubercle slightly narrowing to its apex which is almost as wide as the upper rostral tubercle apex), the above-mentioned pronotal keels in male clearly higher (compare Figs 3 and 5) and less obtuse-angled in profile (in male of *S. validum*, the pronotal keels are with the dorsal projections more obtuse-angled than even in female of the new species; see Figs 4 and 5), the tegmina slightly narrower (they are about 3.3 times as long as wide in male of the new species, but this ratio in the male holotype of *S. validum* is approximately 3) and with an almost straight (but not distinctly arcuate) anal edge of the male left tegmen behind its stridulatory vein (near this vein). At least some of the specimens, included by Emsley (1970: figs 23, 113) in *S.* (*S.*) *validum*, in reality may belong to this new species.

Subgenus *Peucestes* Stål, 1874

Type species (in original binomen): *Peucestes coronatus* Stål, 1874, by subsequent designation (Kirby 1906).

Brief diagnosis. This subgenus very similar to subgenus *Steirodon* (including characters listed here in *Steirodon* s. str. diagnosis under numbers 1–3, 5, 6; Figs 6, 9, 10, 11, 13, 15, 46–49, 51) and distinguished from it by only one character (number 4): tegmina with anterior branch of RS ending significantly before tegminal apex (i.e., in anal edge of tegmen; Figs 18, 19, 21, 22).

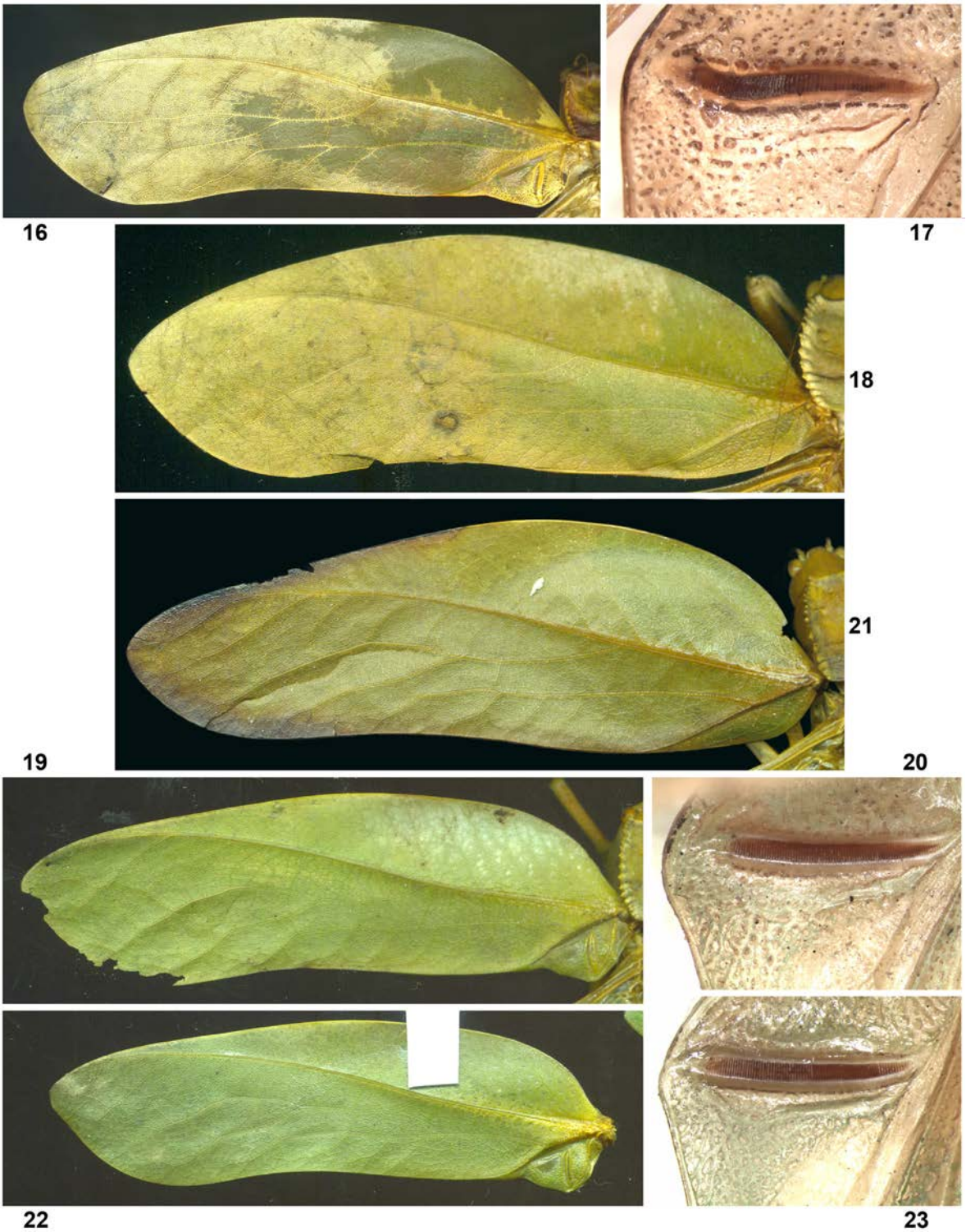
Composition (in original binomens). *Peucestes coronatus* Stål, 1874 (described from Mexico); *P. dentatus* Stål, 1874 (described from Panama, distributed from Costa Rica to Colombia and Venezuela); *P. championi* Saussure et Pictet, 1898 (described from Guatemala, distributed also in Nicaragua and Costa Rica); *P. latipennis* Saussure et Pictet, 1898 (described from Mexico); *Steirodon* (*Peucestes*) *careovirgulatum* Emsley, 1970 (described from Panama, distributed from Costa Rica to Ecuador); *S.* (*P.*) *para* sp. nov.; possibly *P. striolatus* Brunner-Wattenwyl, 1878 (described from Northeast Brazil and Panama), *P. unidentatus* Brunner-Wattenwyl, 1878 (described from Peru) and *P. emarginatus* Brunner-Wattenwyl, 1891 (type locality unknown).

These species (except for *S. para* sp. nov., *S. striolatus* and *S. unidentatus*) were attributed to this subgenus by Emsley (1970), but he did not include some species (*S. latipennis* and *S. emarginatus*) in his key to species of *Peucestes*. And two species (*S. striolatus* and *S. unidentatus*) were placed in this subgenus in OSF, although Emsley considered the first name as a synonym of *Cnemidophyllum* (*Eupeucestes*) *citrifolium* (Linnaeus, 1758).

Steirodon (*Peucestes*) *para* Gorochov sp. nov.

(Figs 6–10, 18–20, 26, 27, 44–52)

Etymology. This species is named after the Brazilian state (Para) where it was collected.



Figs 16–23. *Steirodon*. 16, 17 – *S.* (*Steirodon*) *superbum* sp. nov. (holotype); 18–20 – *S.* (*Peucestes*) *para* sp. nov. (18 – paratype; 19, 20 – holotype); 21 – *S.* (*P.*) *dentatum dentatum*; 22, 23 – *S. (P.) d. woronovi* subsp. nov. (paratype). Left tegmen of male (16, 19, 22) and of female (18, 21); stridulatory vein of male left tegmen from below (17, 20, 23).

Type material. *Holotype* – male, BRAZIL: "Brasilia ex coll. Fruhstorfer", "Para" (ZIN). *Paratypes*: 2 females with same data as for holotype (ZIN).

Description. *Male* (holotype). General appearance typical of this subgenus, but body coloration uniformly greenish with lighter (almost yellowish) inner (dorsal) parts of dorsolateral pronotal denticles (Figs 7, 10), and body structure with following features: upper rostral tubercle short and wide as well as having very shallow longitudinal median concavities dorsally and apically; lower rostral tubercle also short, slightly wider than upper one, almost flat anteriorly, with upper part truncate and having narrow but rather deep longitudinal median sulcus distinctly not reaching median ocellus (as in Fig. 6); pronotum with rather wide disc (its anterior edge barely sinuate, but posterior one convex, roundly obtuse-angled), distinctly arcuate (in profile) dorsolateral denticulate keels (denticles of these keels rather short, not longer than wide, and directed slightly more aside than upwards; Fig. 7), and lateral lobes as in Fig. 10; tegmina long and moderately narrow (approximately 3.5 times as long as wide), with venation as in Figs 19, 26, 27, and with stridulatory vein of left tegmen which about 5.5 mm in length and having nearby 90 ventral teeth (Fig. 20); hind wings approximately as in *S.* (*S.*) *superbum* sp. n.; fore leg with tympana as in Figs 44, 45; middle and hind legs with slightly and distinctly widened proximal parts of tibiae, respectively (Figs 46, 47); abdomen with straight (truncate) posterior edge of last tergite, barely sinuate (more or less truncate) apex of genital plate, almost triangular epiproct, rather long and thin styli, and cerci typical of this subgenus (Figs 48–50).

Female. General appearance (Figs 6, 8, 9) as in male, but body somewhat larger, tegmina wider (almost 3 times as long as wide; Fig. 18) and without well developed stridulatory apparatus; abdominal apex (Fig. 51, 52) similar to that of female of *S.* (*S.*) *superbum* sp. nov., but ninth abdominal tergite with a pair of extremely small (almost indistinct) lobules located very near each other.

Length (mm). Body: male 42, female 53–57; body with wings: male 89, female 102–107; pronotum: male 14, female 16–16.5; tegmina: male 77, female 84–88; hind femora: male 37, female 40–41; ovipositor 7–7.5.

Comparison. The new species is distinguished from all true and possible species of this subgenus by the following characters: from *S.* (*P.*) *coronatum*, by light and less long dorsolateral pronotal denticles as well as uniformly greenish tegmina (*vs:* the pronotal denticles are darkened, longest of them are clearly longer than wide, and the tegmina have darkened stripes along Sc stem and along the anal edge); from *S.* (*P.*) *championi*, by the same pronotal characters and distinctly narrower female tegmina (in *S. championi*, the female tegmina are almost 2.5 times as long as wide); from *S.* (*P.*) *latipennis*, by slightly higher and more angular pronotal denticles as well as by the same tegminal character as from *S.* (*P.*) *championi* (in *S. latipennis*, the pronotal denticles are rounded, and the female tegmina are approximately 2.3 times as long as wide); from *S.* (*P.*) *dentatum*, by the upper rostral tubercle with a very shallow median concavity dorsally and apically, the lower rostral tubercle almost flat anteriorly (*vs:* the upper tubercle has a rather deep and narrow median sulcus dorsally and apically, the lower one is practically divided into a pair of rounded denticles), the pronotum with a wider disc (compare Figs 7, 8 and 12, 14) and more strongly arcuate dorsolateral keels as well as somewhat higher and shorter (narrower) lower parts of the lateral lobes (see Figs 9, 10 and 13, 15), the female tegmina with wider distal parts (see Figs 18 and 21), the female genital plate with a distinctly wider apical notch (see Figs 52 amd 53), and the ovipositor with its distal part less arcuate (in profile) and more gradually narrowing to the apex; from *S.* (*P.*) *careovirgulatum*, by the same pronotal characters as from *S.* (*P.*) *coronatum* and *S.* (*P.*) *championi*, a more uniform coloration of the tegmina and legs, and the ovipositor somewhat shorter (*vs:* the tegmen has a slightly darkened stripe along the anal edge, the legs are with brownish marks, and the ovipositor is 8.5 mm in length); from *S.* (*P.*?) *striolatum*, by uniformly greenish tegmina (*vs:* the tegmina have darkish transverse stripes), and probably by the last male tergite truncated apically as in all *Peucestes* species (i.e., without any posterior process which is developed in *S. striolatum*; thus, the latter species may really belong to the genus *Cnemidophyllum*); from *S.* (*P.*?) *unidentatum*, by larger body, and the anterior pronotal edge without a distinct median denticle (*vs:* with such denticle; thus, *S. unidentatum* may belong to the subgenus *Posidippus* and even be a synonym of *S.* (*Posidippus*) *dentiferum* Walker, 1869); from *S.* (*P.*?) *emarginatum*, by the pronotal denticles somewhat more numerous (14–16 in the new species and 11 in *S. emarginatum*), and the upper rostral tubercle slightly narrower than the lower

one (*vs:* it is distinctly wider than the lower one; thus, *S. emarginatus* may also belong to *Cnemidophyllum*).

Steirodon (*Peucestes*) *dentatum woronovi* Gorochov subsp. nov.

(Figs 14, 15, 22, 23, 28, 29)

Etymology. This subspecies is named after its collector, Russian and Soviet botanist Yu.N. Woronov.

Type material. *Holotype* – male, COLOMBIA: "Rio Magdalena / Columbia, A.S. / Woronov", 27 April – 9 May 1926 (ZIN). *Paratype* – male with same data as for holotype (ZIN).

Description. *Male* (holotype). General appearance is very similar to that of nominotypical subspecies but with following characteristic features: body distinctly smaller and uniformly greenish; rostral tubercles of head intermediate between those of *S.* (*P.*) *para* sp. nov. and male of *S.* (*P.*) *d. dentatum* and almost as in female of latter subspecies (Fig. 11); pronotum practically indistinguished from that of this female (compare Figs 12, 13 and 14, 15); tegmina with distal parts distinctly less narrow than in female of nominotypical subspecies (as in Fig. 22), with stridulatory apparatus as in Figs 23, 28, 29 (stridulatory vein of left tegmen about 5 mm in length and with nearby 83 ventral teeth: most medial of large and dark teeth located distinctly more near medial edge of tegmen than in *S. para* sp. nov.); abdominal apex almost as in *S.* (*P.*) *para* sp. nov., but styli of genital plate shorter (distance between bases of styli about 1.5 times as great as stylus length, but in *S. para* sp. n., this distance approximately equal to stylus length).

Variations. Coloration and structure of body practically indistinguishable from those of holotype (Figs 22, 23, 28, 29), but genital plate with very short and obtuse-angled posteromedian projection, and styli or this plate almost 1.2 times as long as in holotype of this subspecies and distinctly shorter than in male of *S.* (*P.*) *para* sp. nov.

Female unknown.

Length (mm). Body 38–40; body with wings 81–83; pronotum 12–12.5; tegmina 67–68; hind femora 32.8–33.5.

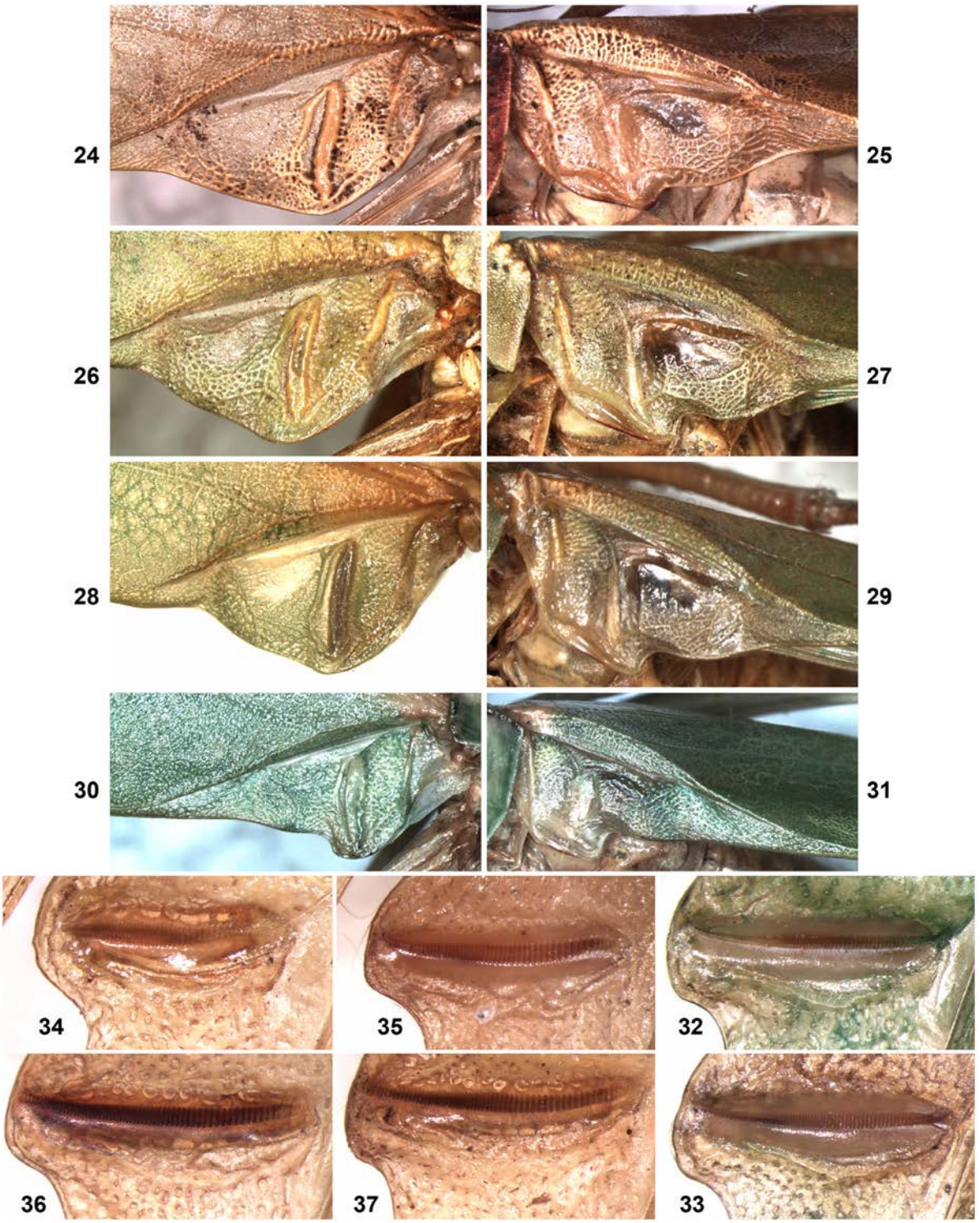
Comparison. The new species is very similar to the nominotypical subspecies but with the following differences: the rostral tubercles of head are less clearly divided into four denticles; the tegmina are somewhat shorter; their distal portions are wider (compare Figs 21 and 22), but this difference for males is somewhat less distinct than in these figures. From *S.* (*P.*) *para* sp. nov., the new subspecies differs in the same characters of the head and pronotum as *S.* (*P.*) *d. dentatum* as well as the large stridulatory teeth of the male left tegmen located very near its medial edge (for comparison see Figs 20 and 23), and from all other *Peucestes* representatives, in the same pronotal and colorational characters as *S.* (*P.*) *para* sp. nov.

Subgenus *Posidippus* Stål, 1874

Type species (in original binomen): *Steirodon dentiferum* Walker, 1869, by subsequent designation (Kirby 1906).

Brief diagnosis. This subgenus most similar to subgenus *Peucestes* (characters under numbers 1, 4, 5 in *Steirodon* s. str. diagnosis; Figs 58, 87) but distinguished from it by three other characters (numbers 2, 3 and 6): dorsolateral denticulated keels of pronotum low and slightly arcuate in profile (Figs 60, 61, 63, 64, 67); middle and hind tibiae almost not widened or barely widened in proximal part (Figs 56, 57); female abdomen having last (tenth) tergite with a pair of large apical lobules (as in *Peucestes*), but its other tergites also with a pair of rather long lobules (instead small tubercles) on posteromedian edge of ninth tergite (approximately as in Fig. 139). From *Steirodon* s. str., this subgenus distinguished by same characters and one additional character (number 3): tegmina with anterior branch of RS ending in anal edge of tegmen significantly before tegminal apex (as in *Peucestes*; Figs 18, 19, 21, 22), but some specimens of *S.* (*Posidippus*) *dentiferum* with this branch almost as in *Steirodon* s. str. (Fig. 16).

Composition (in original binomens). *Steirodon dentiferum* Walker, 1869 (type locality unknown; distributed from Surinam and Colombia to northern Argentina); *Posidippus stalii* Brunner-Wattenwyl, 1878 [= *Steirodon* (*Posidippum*) *dentiferoides* Emsley, 1970, syn. n. and possibly *Steirodon* (*Posidippus*) *parastahli* Piza, 1979; Cadena-Castañeda (2016: figs 23–25) erroneously synonymized latter name with *S.* (*Steirodon*) *ponderosum*, although first branch of tegminal RS in holotype of *S. parastahli* ending before tegminal apex but not at this apex, and pronotal denticulated keels of this holotype rather low, slightly arcuate in profile and with rounded denticles] (first



Figs 24–37. *Steirodon*, males. 24, 25 – *S.* (*Steirodon*) *suberbum* sp. nov. (holotype); 26, 27 – *S.* (*Peucestes*) *para* sp. nov. (holotype); 28, 29 – *S.* (*P.*) *dentatum woronovi* subsp. nov. (paratype); 30–33 – *S.* (*Posidippus*) *minor* sp. nov. (30–32 – holotype; 33 – paratype); 34 – *S.* (*P.*) *major* nom. nov.; 35–37 – *S.* (*P.*) *dentiferum* (35 – Guyana; 36, 37 – Peru). Stridulatory apparatus of left (24, 26, 28, 30) and right (25, 27, 29, 31) tegmina from above; stridulatory vein of male left tegmen from below (32–37).

two described from southern Brazil, but latter one, from northern Brazil; *P. stalii* distributed also in some other eastern states of Brazil including Para); *Posidippus dohrni* Brunner-Wattenwyl, 1891 (described from state Para in Brazil; distributed also in central part of Brazil as well as in Peru and Paraguay); *Steirodon* (*Posidippus*) *major* nom. n. [= *Posidippus validus* Saussure et Pictet, 1898, junior secondary homonym of *Steirodon* (*Steirodon*) *validum* Stål, 1874] (*P. validus* described from Nicaragua and evidently erroneously synonymized with *S. stalii*; *S. major* nom. n. distributed from Mexico to Colombia and Venezuela); *Steirodon* (*Posidippus*) minor sp. n.; possibly *Posidippus barellus* Pictet, 1888 (described from French Guiana), *P. flavolineatus* Brunner, 1915 (described from central part of Brazil) and *Steirodon* (*Posidippum*) *maroniensis* Emsley, 1970 (described from French Guiana).

The latter three species were also attributed to this subgenus by Emsley (1970) and differs from the previous five species of this subgenus in an absent or almost absent notch of the anal edge of the male left tegmen after its stridulatory vein (near it); this notch is more or less developed in the first three species (including type one) and may be an additional character characterizing this subgenus (in such case, the subgeneric position of *S. barellum*, *S. flavolineatum* and *S. maroniense* is in need of checking).

Steirodon (*Posidippus*) *major* Gorochov nom. nov.

(Figs 34, 65–67)

= *Posidippus validus* Saussure et Pictet, 1898, junior secondary homonym of *Steirodon* (*Steirodon*) *validum* Stål, 1874.

= *Steirodon* (*Posidippum*) *stalii*: Emsley (1970).

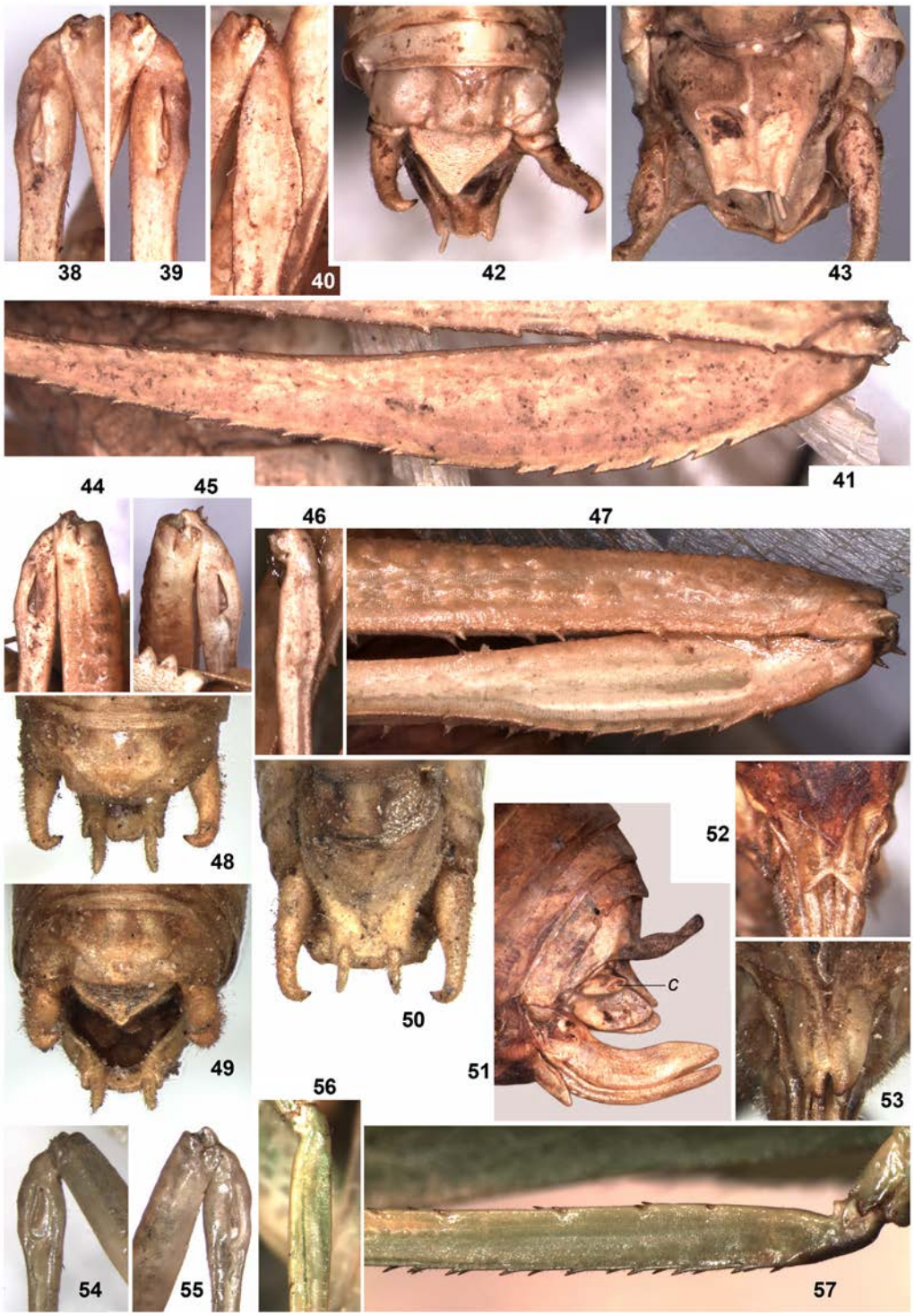
Material. MEXICO: 2 males, Chiapas State, Ocosingo Distr. near Guatemala, Selva Lacandona (between Montes Azules Biosphere Reserve and Bonampak Natural Monument), environs of Lacanja-Chansayab Vill., primary forest, at light, 20–27 May 2007, M. Berezin, E. Tkacheva (ZIN).

Note. Emsley (1970) assumed that *Posidippus stalii* was collected in the northern part of Brazil (Brunner-Wattenwyl 1878: "San Francisco in Brazilien"), and he synonymized it with *Posidippus validus* described from Nicaragua and distributed from Central America to possibly the northern Brazil. For the southern part of Brazil (another zoogeographical region), he described a similar species, *S.* (*Posidippum*) *dentiferoides*. After Emsley (1970: p. 166), one of differences between these species as well as between them and *S.* (*P.*) *dentiferum* (these three species are most similar to each other) is following: pronotum in *S.* (*P.*) *dentiferum* and *S.* (*P.*) *dentiferoides* has a median denticle on the anterior pronotal edge, but in the third (northern) species, this denticle is absent. However, this character is distinctly developed only in *S.* (*P.*) *dentiferum* (as well as in *S. dohrni* with distinctly narrower tegmina and in a new species; Figs 59, 62), but in *S.* (*P.*) *dentiferoides* paratypes (judging by their photographs in OSF), this denticle is less distinct and may look exactly as in one of my Mexican males (Fig. 65) (my other Mexican male lacks this denticle; Fig. 66); thus, this character cannot help to distinguish the Central American species from *S.* (*P.*) *dentiferoides*. The other differences after Emsley are in the tegminal stridulatory apparatus structure (the stridulatory vein in the northern species is about 3.5 mm in length and with 45–49 ventral teeth, and this vein in *S. dentiferum* and *S. dentiferoides* is about 4 and 4.5 mm in length as well as with 54–62 and approximately 85 such teeth, respectively), but *Posidippus stalii* was described from a female only, and recently its type locality was corrected as "São Francisco" in "Brazil Southeast" (OSF). So: the latter name belongs to a species living in a zoogeographical region quite distant from Central America, this species cannot be distinguished from *S.* (*P.*) *dentiferoides* also distributed in this southern region, and in this connection, it is reasonable to consider *S.* (*P.*) *stalii* as a senior synonym of *S.* (*P.*) *dentiferoides*. Moreover, the name *Posidippus validus* Saussure et Pictet was correctly proposed for the northern species, but this name is a junior secondary homonym of *Steirodon validum* Stål (an older name for a species from the nominotypical subgenus), and for the above-mentioned northern species, I here establish a new replacement name instead of *P. validus*.

Steirodon (*Posidippus*) *minor* Gorochov sp. nov.

(Figs 30–33, 54–61)

Material. *Holotype* – male, FRENCH GUIANA: "22 km NW of Regina, pk 79 Route Nle 2", 4°25' N, 52°19' W, 100 m, 28 June 1995, V. Gusarov (ZIN). *Paratype* – male, same data as for holotype (ZIN).



Figs 38–57. *Steirodon*. 38–43 – *S.* (*Steirodon*) *superbum* sp. nov. (holotype, right cercus deformed); 44–52 – *S.* (*Peucestes*) *para* sp. nov. (44–47, 51, 52 – paratype; 48–50 – holotype); 53 – *S.* (*P.*) *dentatum dentatum*; 54–57 – *S.* (*Posidippus*) *minor* sp. nov. (holotype). Outer (38, 44, 54) and inner (39, 45, 55) tympana laterally and medially, respectively; proximal portion of middle (40, 46, 56) and hind (41, 47, 57) tibiae laterally; male abdominal apex from above-behind (42, 49), from above (48) and from below (50); genital plate of male (43) and of female (52, 53) from below; female abdominal apex from side (51). Abbreviation: *c* – proximal part of cercus (distal one missing).

Description. *Male* (holotype). General appearance very similar to *S.* (*P.*) *dentiferum* (including presence of small but distinct median denticle on anterior edge of pronotal disc; Fig. 59) but with following characteristic features: body size slightly smaller (see measurements below); coloration greenish with whitish-greyish tinge on head and pronotum (Figs 58–60), brown eyes, light greyish brown most part of denticles on dorsolateral pronotal keels and dorsal surface of hind tibia as well as small marks on dorsoproximal parts of fore and middle tibiae (tarsi also almost light brown, but possibly they slightly rotten), and transparent membranes of hind wings having also greenish apical part and yellowish to whitish rest of venation; pronotum with slightly narrower disc (dorsolateral keels of this disc with 10–12 rather small and rounded denticles; Figs 59, 60) as well as with clearly less high lateral lobes having somewhat wider (longer) lower parts (Fig. 60); wings more or less similar to those of *S.* (*Peucestes*) *para* sp. nov., but tegmina slightly wider (about 3.2 times as long as wide), with more straight middle parts of costal and anal edges, with distal tegminal portions approximately as in Fig. 21, and with stridulatory apparatus having rather deep (roundly rectangular) notch in anal edge of right tegmen near plectrum (behind it) and less deep (but distinct) notch in same place of left tegmen (i.e., shortly behind thick stridulatory vein which almost 4.7 mm in length and with 86 ventral teeth; Figs 30–32); legs and abdomen almost indistinguishable from those of *S.* (*P.*) *dentiferum* and *S.* (*P.*) *major* nom. nov., but fore tibia without spinule on its outer dorsal edge near tympana (Figs 54, 55), and genital plate with rather deep and almost rounded posteromedian notch as well as with thin and elongated styli (Figs 87, 88).

Variations. Paratype with lateral lobes of pronotum insignificantly narrower (shorter) but clearly less high than in *S.* (*P.*) *dentiferum* and ventrally wider (longer) than in *S.* (*P.*) *major* nom. nov. (compare Figs 61 and 63, 64, 67), with 83 ventral teeth in stridulatory vein of left tegmen (Fig. 33), and with genital plate having somewhat more angular posteromedian notch and slightly shorter styli.

Female unknown.

Length in mm. Body 32–33; body with wings 72–74; pronotum 9.5–10; tegmina 57.5–59; hind femora 29.5–30.5.

Comparison. The new species differs from the most similar *S.* (*P.*) *dentiferum* in the body slightly smaller, the pronotum clearly less high and with somewhat wider (longer) lower parts of the lateral lobes (compare Figs 60, 61 and 63, 64), the stridulatory vein with a narrower ventral row of more numerous teeth (83–86 instead 54–62; see Figs 32, 33 and 35–37), and the male genital plate with a somewhat deeper posteromedian notch. This new species may be only a subspecies of the rather widely distributed *S.* (*P.*) *dentiferum*, but the presence of a male of the latter species (having distinct differences in the above-mentioned characters from the new species) in Guyana (ZIN: "British Guiana") indicates a possible sympatry of these taxa. From *S.* (*P.*) *dohrni*, the new species is distinguished by the male tegmina distinctly wider (in *S. dohrni*, these tegmina are approximately 3.9 times as long as wide, but in the new species, this ratio is about 3.2), and from all other species of this subgenus, by the presence of a distinct median denticle on the anterior pronotal edge and/or of a rather large notch on the male left tegmen anal edge near the stridulatory vein.

Subgenus *Frontinus* Stål, 1874

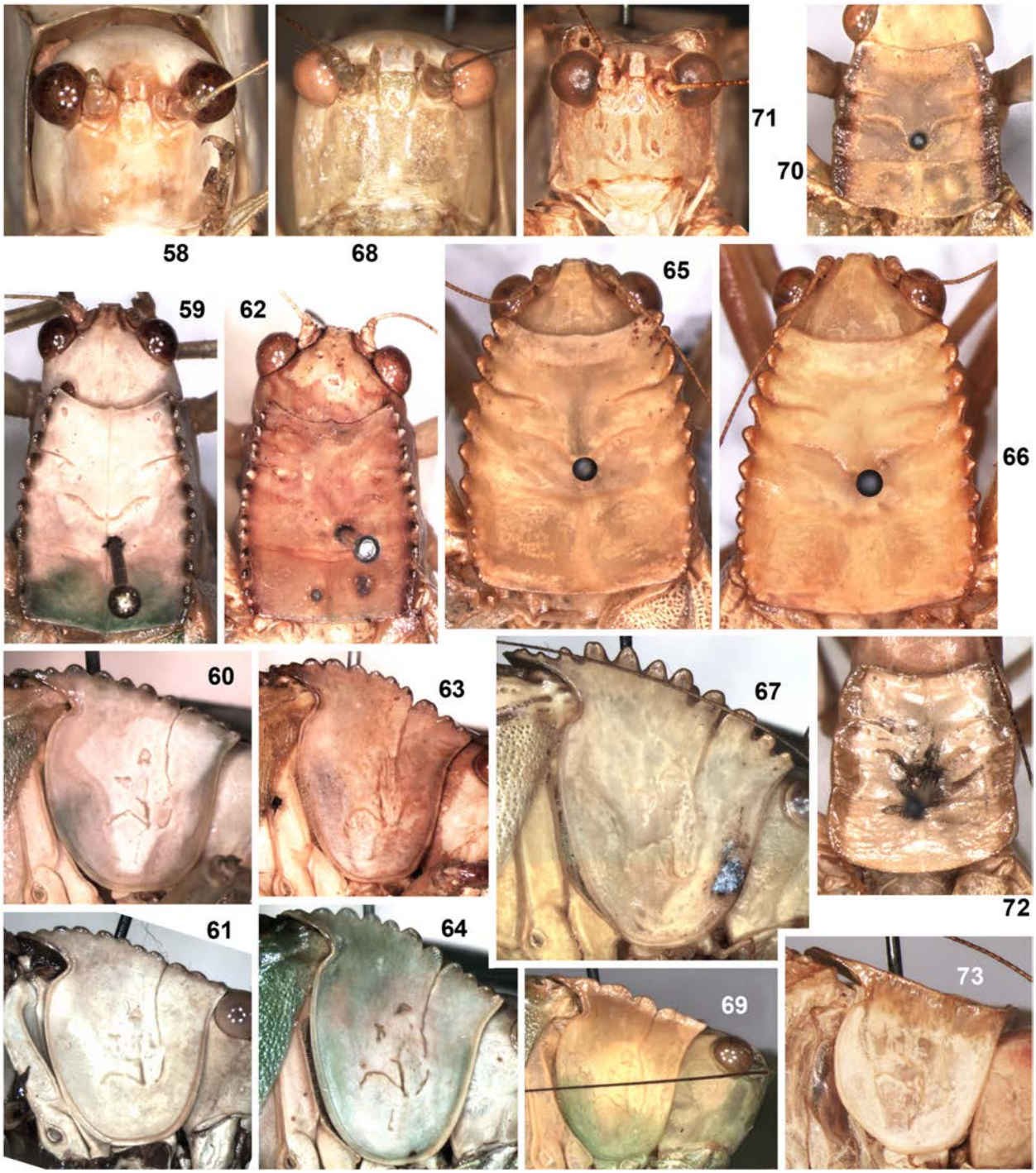
Type species (in original binomen): *Frontinus degeeri* Stål, 1874, by original monotypy.

= *Steirodonopis* Scudder, 1875; type species (in original binomen): *Steirodonopis bilobata* Scudder, 1875, by original monotypy.

Brief diagnosis. This subgenus most similar to subgenus *Posidippus* (characters under numbers 1, 3, 4, 5 and 6 from *Steirodon* s. str. diagnosis) but distinguished from latter subgenus by only one character under number 2: dorsolateral denticulated keels of pronotum very low and almost straight in profile (Figs 69, 73). From *Steirodon* s. str. and *Peucestes*, this subgenus distinguished by above-mentioned character, and by same characters as *Posidippus*.

However, the lower rostral tubercle in this subgenus is very diverse, from almost that as in *Posidippus* (compare Figs 58 and 68) to narrower (approximately as wide as the scape; Fig. 71) or to very wide and practically completely covering the apex of the upper tubercle in front; the latter feature is characteristic of *S.* (*F.*) *bilobatum* (Scudder, 1875) and some its relatives.

Composition (in original binomens). *Frontinus degeeri* Stål, 1874 (described from Surinam; distributed from Venezuela to French Guiana); *Steirodonopis bilobata* Scudder, 1875 [= *Steirodonopis scudderi* Brunner, 1915, synonymized with this species by Emsley (1970)] (described from Peru and Bolivia, respectively; distributed from Trinidad and Colombia to Bolivia and Brazil); *Posidippus fastigiosus*



Figs 58–73. *Steirodon*, males. 58–61 – *S.* (*Posidippus*) *minor* sp. nov. (58–60 – holotype; 61 – paratype); 62–64 – *S.* (*P.*) *dentiferum* (62, 63 – Guyana; 64 – Peru); 65–67 – *S.* (*P.*) *major* nom. nov.; 68–70 – *S.* (*Frontinus*) *irregulariterdentatum* (68, 70 – neotype); 71–73 – *S.* (*F.*) *planifemur* sp. nov. (holotype). Epicranium in front (58, 68, 71); epicranium with pronotum (59, 62, 65, 66, 69) or only pronotum (60, 61, 63, 64, 67, 70, 72, 73) from above (59, 62, 65, 66, 70, 72) and from side (60, 61, 63, 64, 67, 69, 73).

Brunner-Wattenwyl, 1878 [= *Posidippus brunneri* Bolivar, 1881, synonymized by Emsley (1970)] (described from Peru and Ecuador, respectively; distributed also in Venezuela, Colombia and Brazil); *Posidippus irregulariter-dentatus* Brunner-Wattenwyl, 1891 (described from Peru; possibly distributed also in Northern Brazil); *Steirodon* (*Frontinum*) *sulcatum*, *S.* (*F.*) *rufolineatum*, *S.* (*F.*) *barcanti*, *S.* (*F.*) *sandrae*, *S.* (*F.*) *bilobatoides* and *S.* (*F.*) *robertsorum* described by Emsley (1970) from Southern Brazil, Peru (with paratypes from French Guiana), Ecuador, Panama (with paratypes from Costa Rica), Peru and Costa Rica (with paratypes from Panama), respectively; *Posidippus tricenarius* Piza, 1974 (described from Manaus in Brazil); *S.* (*Posidippum*) *emsleyi* Piza, 1979 (described from southeast Brazil); *S.* (*F.*) *planifemur* sp. nov.; possibly *Posidippus rarospinulosus* Brunner-Wattenwyl, 1891 (described from Peru; see remarks on this species below, after *S.* (*F.*) *irregulariterdentatum* redescription and comparison).

Also, it is necessary to mention that *S.* (*F.*) *tricenarium* was perhaps mistakenly synonymized with *S.* (*F.*) *rufolineatum* by Cadena-Castañeda (2016), because the latter species has distinct small denticles on the dorsolateral pronotal carinae and a darkened stripe along the tegminal M-Cu area as well as lacks a dark line on the costal tegminal edge, but Piza's species (judging by the photographs of its holotype in OSF) is with almost smooth keel-like dorsolateral carinae on the pronotum, without any darkened stripe on the tegminal M-Cu area and with a dark line on the proximal part of the costal tegminal edge. The latter line is characteristic of *S.* (*F.*) *degeeri*, but this species differs from *S.* (*F.*) *tricenarium* in more denticulated dorsolateral pronotal carinae.

***Steirodon* (*Frontinus*) *planifemur* Gorochov sp. nov.**
(Figs 71–73, 79–82, 89–93)

Etymology. This species name consists of the Latin prefix "plani-" (flat) and the Latin morphological term "femur" (femur) due to a characteristic structure of the fore femur dorsal surface.

Material. Holotype – male, PERU: Junin Department, Satipo Prov., "Zona de amortiquamiento de la bosque de proteccion Pui Pui" near Alto Cuviriaki Vill., 11°11'06–07" S, 74°51'50–51" W, 1100–1200 m, 27 December 2018–2 January 2019, A. Gorochov (ZIN). Paratype – male, ECUADOR: ~70 km SE of Lago Agrio Town, environs of S. Pablo de Kantesiya Vill. on Rio Aguarico, lowlying forest, 10–17 November 2005, A. Gorochov, A. Ovtshinnikov (ZIN).

Description. *Male* (holotype). Body coloration yellowish (greenish in living conditions) but with brown to dark brown middle and distal portions of antennal flagellum, light brown dorsal and medial parts of scape as well as small marks on pedicel and proximal segments of flagellum (Fig. 71), rose areas on epicranium behind eyes, light greyish (with brownish tinge) dorsolateral keels of pronotum and stripes along these keels on disc and lateral lobes (these stripes fused with each other and forming rather wide longitudinal dorsolateral bands; Figs 72, 73), light brown to brownish rose fore femur (having proximal two thirds of upper surface whitish; Fig. 89), light brownish rose proximal third of fore tibia (Figs 90, 91), and dark brown small marks on all tibial bases in places of their articulations with femora. Lower rostral tubercle of head anteroposteriorly flattened, barely wider than apical part of upper rostral tubercle but somewhat narrower than scape (scape almost 1.3 times as wide as distal part of lower tubercle), in front with widely rounded apical part hardly covering lowest part of upper rostral tubercle (Fig. 71); upper rostral tubercle slightly narrowing to barely widened and anteriorly flattened apical part, with dorsal surface having rather short and narrow but distinct longitudinal groove, and with dorsal edge (in profile) somewhat arcuated (convex); pronotum with almost flat (slightly concave) disc having distinctly concave anterior edge and slightly convex posterior edge, with dorsolateral keels distinct but low and practically undenticulated as well as having two small notches on each keel (anterior notch more distinct and almost angular, but posterior one very shallow and poorly distinct; Fig. 72), and with lateral lobes as in Fig. 73; tegmina long and rather narrow (Fig. 79), with all RS branches ending in anal tegminal edge (clearly before tegminal apex), and with stridulatory apparatus as in Figs 80–82 (stridulatory vein in left tegmen about 3.9 mm in length and with approximately 55 ventral teeth); hind wings rather strongly protruding beyond tegminal apices; fore femur with flat (barely concave) proximal two thirds of dorsal surface and longitudinally keel-like outer and inner edges of this flat part (Fig. 89); fore tibia with spinule on outer dorsal edge near tympana, and with almost open (but somewhat immersed) outer tympanum and partly slit-like inner tympanum (Figs 90, 91); proximal halves of middle and hind tibiae barely

widened (approximately as in Figs 57, 101); abdominal apex typical of this subgenus: last tergite almost truncated posteriorly, cerci and epiproct as in Fig. 92, genital plate with three small lobules at apex (but median lobule clearly shorter than lateral ones) and very short (almost indistinct) styli (Fig. 93).

Variations. Male paratype with more uniform coloration, but antennal flagellum and femorotibial articulations coloured almost as in holotype, and fore femur also with whitish two thirds of dorsal surface; stridulatory vein of left tegmen with about 52 ventral teeth; genital plate with only a pair of small lobules at apex (styli indistinct).

Female unknown.

Length in mm. Body 23–24; body with wings 58–60; pronotum 6.4–6.7; tegmina 44–45.5; hind femora 24–25.

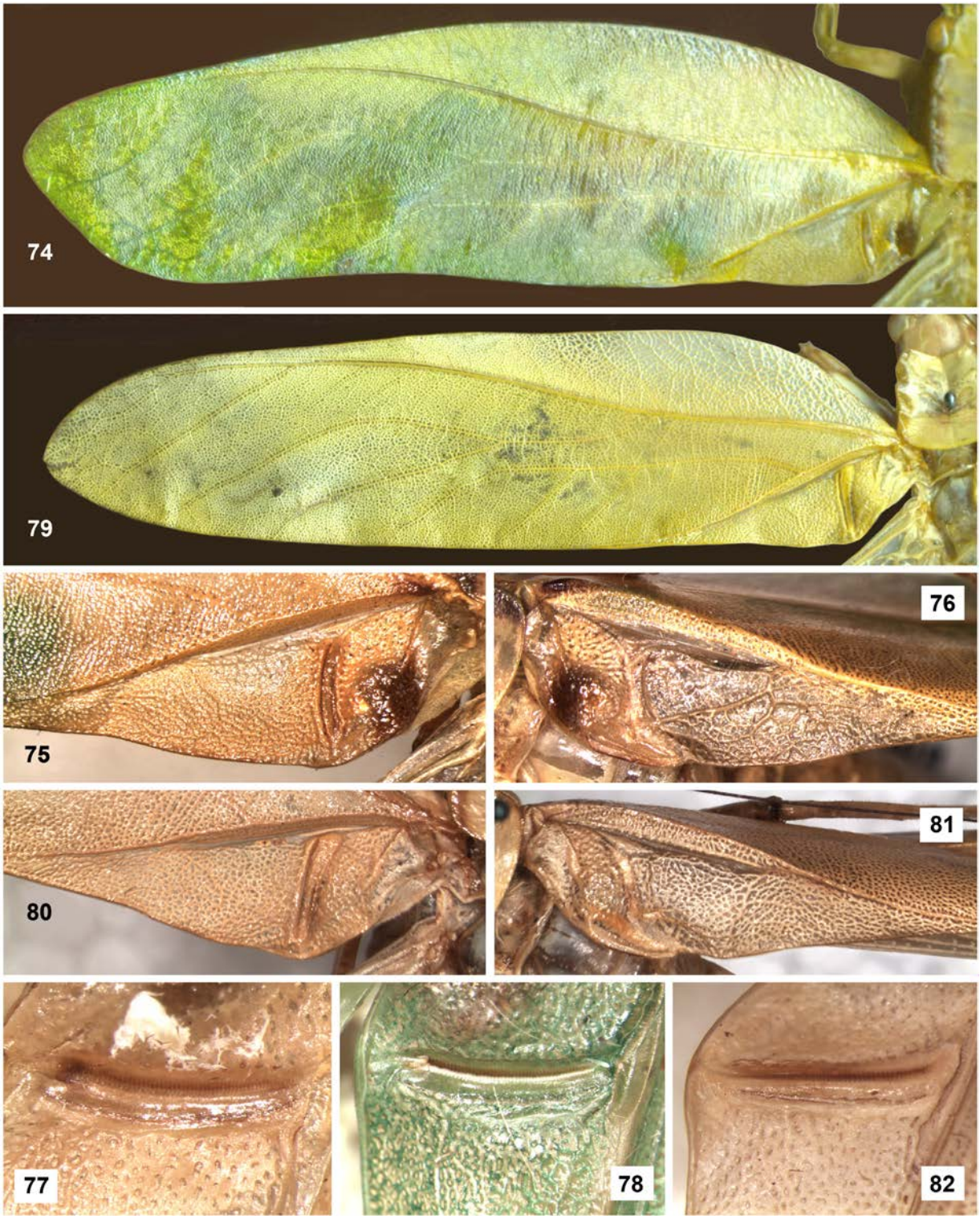
Comparison. The new species is most similar to *S.* (*F.*) *tricenarium* and *S.* (*F.*) *barcanti* in the pronotum with practically smooth and slightly keel-like dorsolateral carinae, but it differs from them in less flattened dorsal surfaces of the fore femora and less high lateral pronotal lobes (in the new species these lobes almost as long as high, but in these congeners, they are clearly higher than long), from only *S.* (*F.*) *tricenarium* in the absence of dark line along proximal parts of costal tegminal edges, and from only *S.* (*F.*) *barcanti* in distinctly narrower rostral tubercles. The new species is also similar to *S.* (*F.*) *robertsorum* in the structure of the lower rostral tubercle, but it is clearly distinguished from the latter species by practically smooth (not finely denticulated) dorsolateral carinae of the pronotum, distinctly longer (narrower) tegmina (approximately 3.5 and 3.1 times as long as wide in males of the new species and of *S. robertsorum*, respectively), a longer stridulatory vein in the male left tegmen (about 3.9 mm; *vs:* nearby 3.25 mm) and less numerous ventral teeth of this vein (52–55; *vs:* nearby 65). From all other species of this subgenus, the new species differs in a non-bilobated apex of the lower rostral tubercle in combination with less distinctly denticulated dorsolateral pronotal keels and the absence of darkened stripes on the tegmina.

Steirodon (*Frontinus*) *irregulariterdentatum* (Brunner-Wattenwyl, 1891)

(Figs 68–70, 74–78, 94–98)

Material. *Neotype* (here designated) – male, PERU: Junin Department, Satipo Prov., Rio Tampo Distr., 6 km N of Pichiguia Vill., "Reserva Comunal Ashaninka", 11.35824° S, 74.03205° W, ~500 m, 14–23 November 2017, A. Gorochov, G. Irisov (ZIN). Other specimens: 1 male, same data as for neotype (ZIN); 1 male, same country, "Ucayali, 11 km on 230° from Puerto Bermudes", 10°29.9' S, 75°03.1' W, 713 m, 10–12 March 2011, V. Sinyaev, A. Poleschuk (ZIN).

Description. *Male* (neotype). General appeareance more or less intermediate between type species of *Frontinus* and that of *Posidippus* but with following features: body size more similar to that of *Frontinus* but smaller than in majority of *Posidippus* species; coloration light green with lighter (yellowish) dorsum of head, light brown most part of antennae and spots on tegminal base, light greyish brown dorsolateral keels of pronotum and marks on all tarsi, whitish large area on proximal half of dorsal surface of fore femur, transparent mirror and nearest lateral cell in stridulatory apparatus of right tegmen (Figs 68, 70, 74–77, 94–98) as well as most part of hind wing membranes (except for greenish to yellowish apical part of this wing); head with rostral tubercles short and rather wide (lower tubercle almost 1.5 times as wide as scape and with slightly bilobed apical part that barely covering lower part of upper tubercle apex; latter tubercle directed partly downwards, with slight but distinct median longitudinal groove anterodorsally, and with slightly bilobed apex which barely narrower than lower rostral tubercle; Fig. 68); pronotum with disc and dorsolateral keels almost as in *Posidippus*, but these keels less arcuate in profile, their denticles somewhat lower and less numerous, three pairs of these denticles significantly larger than in other representatives of *Frontinus* (Fig. 70), and lateral lobes also similar to those of *Frontinus* but less high than in majority of *Posidippus* species (as in Fig. 69); legs with fore femur approximately as in *S.* (*F.*) *planifemur* sp. nov. (but this femur less flattened dorsally and with less distinct dorsolateral keels; Fig. 94), with spinule on outer dorsal edge of fore tibia near tympana (Figs 95, 96), and with proximal halves of middle and hind tibiae slightly widened (i.e., middle tibia slightly wider than in this species, and width of hind tibia approximately as in Fig. 100); tegmina also similar to those of *S.* (*F.*) *planifemur* sp. nov. but with wider distal part and barely concave anal edge (Fig. 74), and their stridulatory apparatus as in Figs 75–77 (stridulatory vein of left tegmen about 3.5 mm in length, ventrally with characteristic



Figs 74–82. *Steirodon*, males. 74–78 – *S.* (*Frontinus*) *irregulariterdentatum* (74–77 – neotype); 79–82 – *S.* (*F.*) *planifemur* sp. nov. (holotype). Left tegmen (74, 79); stridulatory apparatus of left (75, 80) and right (76, 81) tegmina from above; stridulatory vein of left tegmen from below (77, 78, 82).

small rounded inflation at medial end and almost 62 teeth); hind wings and abdominal apex approximately as in *S.* (*F.*) *planifemur* sp. nov., but genital plate with three short apical lobules almost equal in length, with middle of these lobules wider than lateral ones, and with well developed styli which slightly longer than in this species and rather thin (Figs 97, 98).

Variations. Other males distinguished from neotype by absence of darkenings on pronotal keels (Fig. 69), fore femora almost completely greenish or with yellowish dorsal area, less numerous stridulatory teeth (up to 57; Fig. 78), and sometimes somewhat different shape of genital plate apex: middle apical lobule shorter than lateral ones and with very small but distinct median notch; styli less distinct, almost as in holotype of *S.* (*F.*) *planifemur* sp. nov.

Female of this species possibly in accordance to description of Emsley (1970), but his determination of this species in need of checking (see remarks below).

Length in mm. Body, male 27–32; body with wings: male 63–66, female 69 (?); tegmina: male 50–52, female 55 (?); hind femora: male 23–24, female 27.5 (?); ovipositor 5 (?).

Comparison. Differences of this species from all other *Frontinus* species are given above: they consist of narrower upper and lower rostral tubercles in combination with the presence of larger denticles on the pronotal keels, characteristic tegminal coloration and details of the stridulatory tegminal apparatus in male. From *Posidippus* representatives, this species differs in the subgeneric characters listed above, in the *Frontinus* diagnosis.

Remarks. This species was described as *Posidippus irregulariter-dentatus* by Brunner-Wattenwyl (1891) after a male from "Peru". Emsley (1970) had only females from different localities of Peru and Brazil determined by him as belonging to this species, and he also wrote that the holotype of this species from "the unlocated Dohrn collection" was not found. In OSF, this holotype is mentioned as possibly lost. Moreover, this holotype was not found by me when I studied the collection of H. Dohrn, now transferred from Stettin to Warsaw. Thus, I suppose that this holotype is missing, and we are in need of the neotype designation, because this species is described insufficiently and may be confused with small specimens of some *Posidippus* species.

Also, this species was possibly determined as "*Steirodon* (*Posidippus*) *rarospinulosus*" by Cadena-Castañeda (2016: figs 31), because it has a distinct darkened spot at the basal area of the male tegmen, and such spot is distinct in the cited photograph of this author. However, *S.* (*F.*?) *rarospinulosum* and *S.* (*F.*) *irregulariterdentatum* in accordance to their original diagnoses and descriptions (Brunner-Wattenwyl 1891: p. 183, 184, 186) are well distinguished from each other in the following characters: the first species (*S. rarospinulosum*) has its pronotal keels with numerous very small denticles ("angustissime crenulatis", "dense crenulatis") (these characters indicate the possible belonging of this species to *Frontinus*; this is additionally supported by his mention of a flattened dorsum of the fore femur with a whitish mark, which is characteristic of some species of *Frontinus* but not of *Posidippus*), and its fore tibia lacks a dorsal outer spinule near the tympana; but in the second species (S. *irregulariterdentatum*), the pronotal keels are with three rather large anterior denticles and 4–5 small posterior ones, and the fore tibia evidently is of the same structure as in majority of *Frontinus* and *Posidippus* species (i.e., with a dorsal outer spinule near the tympana). The above-mentioned neotype and specimens of *S.* (*F.*) *irregulariterdentatum* are in accordance to the original description and diagnosis of this species, but they are very not in accordance to those of *S.* (*F.*?) *rarospinulosum*.

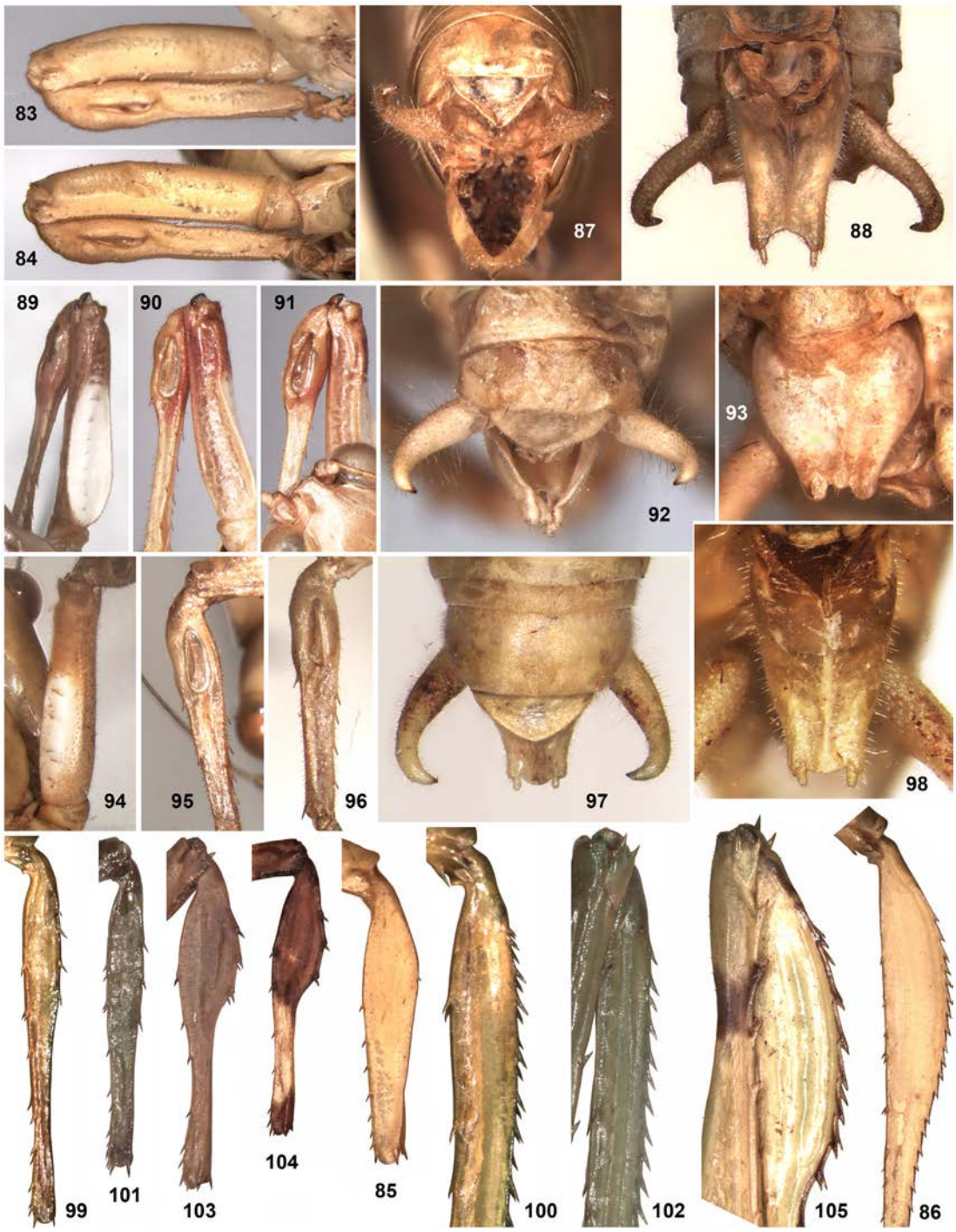
Genus *Cnemidophyllum* Rehn, 1917

Type species (in original binomen): *Posidippus lineatus* Brunner-Wattenwyl, 1891, by original designation.

Subgenus *Cnemidophyllum* s. str.

Brief diagnosis. Upper rostral tubercle much larger (wider) than lower one (as in Figs 107, 111); pronotum with more or less low dorsolateral keels and convex or shortly (but somewhat obliquely) truncated ventral edge of each lateral lobe (approximately as in Figs 108–110); middle and hind tibiae with distinctly widened proximal portions (Figs 104, 105); male abdominal apex with diverse posteromedian process on last tergite; female abdominal apex with a pair of large posterior lobules on ninth tergite, a pair of similar lobules on tenth (last) tergite, a pair of small additional lobules between latter ones, and very small posterior unpaired lobule on eighth and seventh tergites (almost as in Fig. 133).

Composition (in original binomens). *Posidippus lineatus* Brunner-Wattenwyl, 1891 (described from "Alto Amazonas"; distributed after Emsley (1970) from Peru and Bolivia to French Guiana and Brazil);



Figs 83–105. *Emsleyfolium*, *Steirodon* and *Cnemidophyllum*, males. 83–86 – *E. unilobatum* sp. nov. (holotype); 87, 88 – *S.* (*Posidippus*) *minor* sp. nov. (holotype); 89–93 – *S.* (*Frontinus*) *planifemur* sp. nov. (holotype); 94–98 – *S.* (*F.*) *irregulariterdentatum* (neotype); 99, 100 – *C.* (*Eupeucestes*) *citrifolium*; 101, 102 – *C.* (*Peucestophyllum*) *granti peruanum* subsp. nov. (holotype); 103 – *C.* (*Peucestoides*) *bituberculatum* sp. nov. (holotype); 104, 105 – *C.* (*Cnemidophyllum*) *lineatum*. Inner (83, 91, 96) and outer (84, 90, 95) views of fore leg or fore tibia; middle tibia (85, 99, 101, 103, 104) and proximal portion of hind tibia (86, 100, 102, 105), lateral view; fore femur from above and slightly medially (89) or slightly laterally (94); abdominal apex from behind (87), from above-behind (92, 97) and from below (88); genital plate from below (93, 98).

C. eximium Hebard, 1927 (described from Nicaragua; distributed also in other countries of Central America); *C. oblitum* Costa Lima, 1933 (described from southeast Brazil; after Emsley (1970), distributed also in French Guiana); *C. longissimum* Emsley, 1970 (described from Surinam).

Besides, *C.* (*C.*) *tani* Cadena-Castañeda, 2016 (from Colombia) was originally included in this subgenus, but it is more probable that this species belongs to the subgenus *Peucestophyllum* Emsley, 1970, because it has the middle and hind tibiae almost without widenings.

Subgenus *Eupeucestes* Hebard, 1927

Type species (in original binomen): *Locusta crassifolia* Haan, 1843 [= *C.* (*E.*) *citrifolium* (Linnaeus, 1758)], by original designation.

Brief diagnosis. Upper rostral tubercle approximately as wide as lower one (Fig. 106); pronotum with lateral lobes as in *Cnemidophyllum* s. str. but with high dorsolateral keels (these keels almost as high as in Fig. 113); middle and hind tibiae with slightly widened proximal portions (Figs 99, 100); male abdominal apex with moderately long and more or less bilobed posteromedian process on last tergite; female abdominal apex practically as in *Cnemidophyllum* s. str. (Fig. 133).

Composition (in original binomens). Only one species – *Gryllus* (*Tettigonia*) *citrifolius* Linnaeus, 1758 [= *Locusta crassifolia* Haan, 1843, *Peucestes cristatissimus* Brunner-Wattenwyl, 1878 and *Peucestes lutescens* Piza, 1950, all synonymized by Emsley (1970)] (described from "Indies" (Emsley's neotype from West India: Trinidad), "Java" (probably erroneous label), French Guiana and southeast Brazil, respectively; distributed from Central America and Trinidad to Argentina and Paraguay).

It is necessary to note that *Peucestes striolatus* Brunner-Wattenwyl, 1878 was considered by Emsley (1970) as an additional synonym of *C.* (*E.*) *citrifolium* (his opinion was probably based on the note by Karny (1920) about possible synonymy of *P. striolatus* with *L. crassifolia*), but in OSF, *P. striolatus* is placed in the subgenus *Steirodon* (*Peucestes*) without any explanation.

Subgenus *Peucestophyllum* Emsley, 1970

Type species (in original binomen): *Cnemidophyllum* (*Peucestophyllum*) *granti* Emsley, 1970, by original designation.

Diagnosis. Rostral tubercles similar to those of *Cnemidophyllum* s. str. (Fig. 107); pronotum with low dorsolateral keels and with lateral lobes as in *Cnemidophyllum* s. str. and *Eupeucestes* (Figs 108–110); middle and hind tibiae barely widened and not widened in proximal halves, respectively (Figs 101, 102); male abdomen with rather long and moderately narrow posteromedian process (Figs 127, 132); female abdomen with a pair of rather large posterior lobules on last (tenth) tergite and small unpaired posteromedian lobule between them only (Fig. 129).

Composition (in original binomens). *Cnemidophyllum* (*Peucestophyllum*) *granti* Emsley, 1970 (described from Guyana; distributed from French Guiana and Venezuela to Peru and Brazil); *C.* (*Cnemidophyllum*) *tani* Cadena-Castañeda, 2016 (described from Colombia).

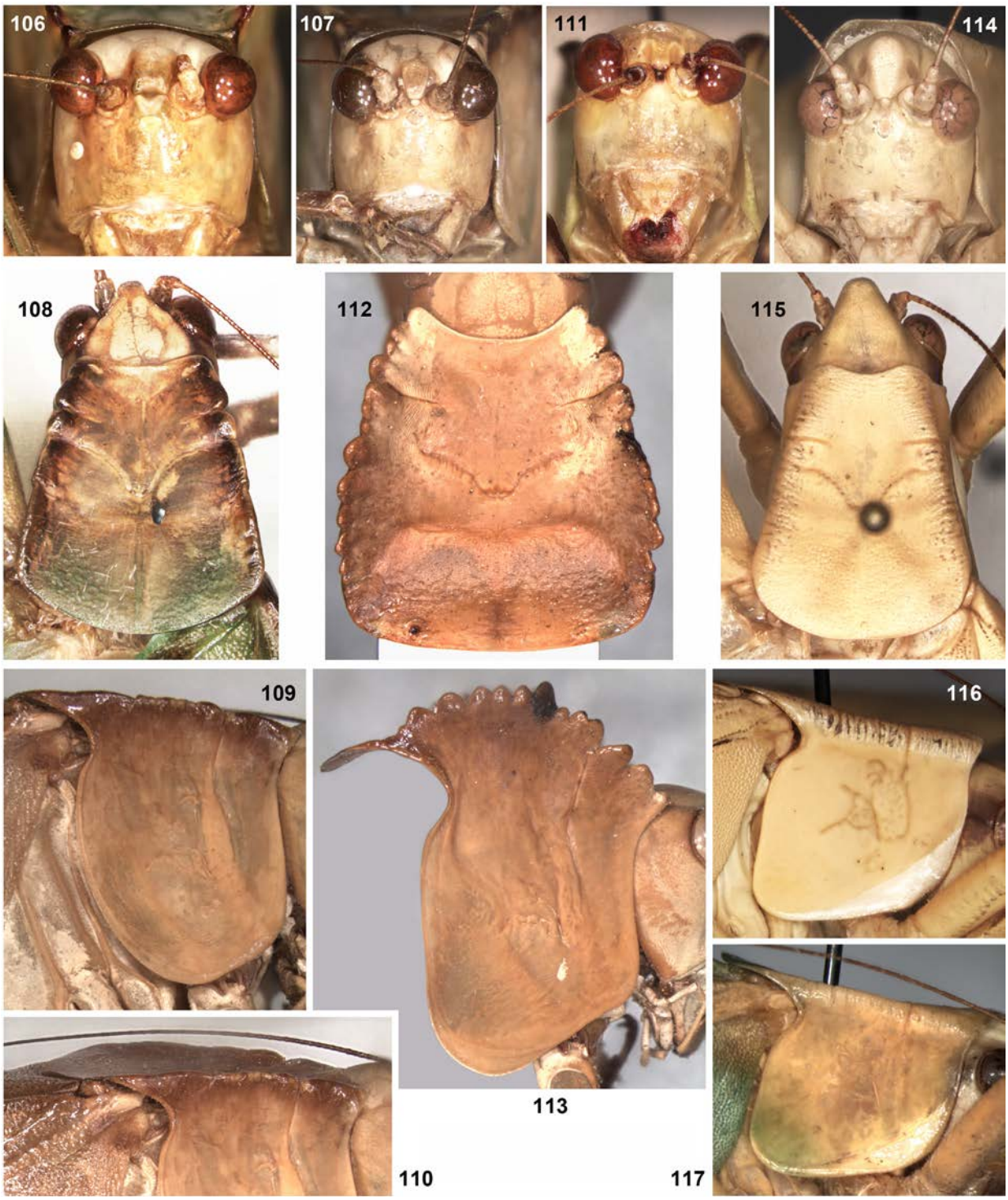
Cnemidophyllum (*Peucestophyllum*) *granti peruanum* Gorochov subsp. nov.

(Figs 107–110, 118–121, 126–131)

Etymology. This subspecies name is given after the country (Peru) where this taxon was collected.

Material. *Holotype* – male, PERU: "Ucayali, 11 km on 230° from Puerto Bermudes", 10°29.9' S, 75°03.1' W, 713 m, 10–12 March 2011, V. Sinyaev, A. Poleschuk (ZIN). *Paratypes*: 1 female, same country, Ucayali Department, Atalaya Prov., ~35 km NWW of Atalaya Town on Ucayali River, environs of Sapani Vill., ~300 m, primary forest, at light, 26–31 October 2008, A. Gorochov, M. Berezin, L. Anisyutkin, E. Tkatsheva, V. Izerskyy (ZIN); 1 female, same department, "Atalaya Distr., Pitza Vill.", 10°54.780' S, 73°51.054' W, February 2021, possibly V. Izerskyy (ZIN).

Description. *Male* (holotype). General appearance very similar to that of nominotypical subspecies but with following characteristic features: coloration greenish with whitish-greyish tinge on head, light brown eyes and proximal portion of antennal flagellum, greyish brown rest of this flagellum and dorsolateral keels of pronotum (including stripes on lateral lobes along above-mentioned keels), light greyish brown stripe along tegminal M-MP vein (including this vein) and spot on basal tegminal area near anal edge, transparent wing membranes approximately as in *S.* (*F.*) *irregulariterdentatum*, greyish dorsum of hind tibia and areas on tarsi, as well as darkish abdominal tergites and dark small apical denticle on



Figs 106–117. *Cnemidophyllum* and *Emsleyfolium*, males. 106 – *C.* (*Eupeucestes*) *citrifolium*; 107–110 – *C.* (*Peucestophyllum*) *granti peruanum* subsp. nov. (holotype); 111 – *C.* (*Cnemidophyllum*) *lineatum*; 112, 113 – *C.* (*Peucestoides*) *bituberculatum* sp. nov. (holotype); 114–116 – *E. unilobatum* sp. nov. (holotype); 117 – *E. cusco* sp. nov. (holotype). Epicranium in front (106, 107, 111, 114); pronotum with head (108, 115) or without it (109, 112, 113, 116, 117) from above (108, 112, 115) and from side (109, 113, 116, 117); upper part of pronotum from side and slightly above (110).

cercus (Figs 107–110, 118–120, 126–128); rostral tubercles, pronotum, legs and most part of wings practically indistinguishable from those of nominotypical subspecies in structure, but tegmina with stridulatory apparatus as in Figs 119–121 (stridulatory vein about 5.5 mm in length and with almost 96 ventral teeth); abdominal apex with posteromedian process of last tergite gradually narrowing to rounded apex, and with other structures as in Figs 126–128.

Female. Coloration and structure of body almost as in male, but darkish stripes on pronotal lateral lobes along dorsolateral keels narrower, tegmina without developed stridulatory apparatus and completely transparent areas, abdominal apex with a pair of large triangular lamellar lobules and small rounded posteromedian lobule on last (tenth) tergite (latter small lobule probably mentioned by Emsley (1970) as "median process of the ninth tergite") but without lobules or processes on other tergites (Fig. 129); genital plate and ovipositor as in Figs 130, 131.

Length in mm. Body: male 34, female 43–45; body with wings: male 92, female 98–101; pronotum: male 11, female 12–13; tegmina; male 75, female 78–80; hind femora: male 39, female 39–41; ovipositor 7–7.5.

Comparison. The new subspecies differs from *C.* (*P.*) *granti granti* (from Guyana and possibly Surinam) in the posteromedian process of the male last tergite gradually narrowing to the apex (but not apically widened), and the posteromedian lobule of the female last tergite rounded in the dorsal view (*vs:* probably angular in this view; see data by Emsley (1970) for the Surinam female). In French Guiana and Brazil (Emsley 1970), some other subspecies are possible. From *C.* (*P.*) *tani*, the new subspecies differs in the presence of distinct dark spots on the bases of the male tegminal dorsal fields, a distinctly wider base of the male last tergite posteromedian process and an almost truncate apex of the male genital plate (*vs:* this plate has a distinctly angular apical notch).

Subgenus *Peucestoides* Hebard, 1927

Type species (in original binomen): *Peucestoides stridulans* Hebard, 1927, by original monotypy.

Diagnosis. Rostral tubercles similar to those of *Cnemidophyllum* s. str. and *Peucestophyllum* (Figs 107, 111); pronotum with high dorsolateral keels and with obliquely truncated (or even slightly concave) but long ventral edge of each lateral lobe (Fig. 113); middle and hind tibiae distinctly widened in proximal halves (Fig. 103); male abdominal apex with 3–4 small posterior processes or lobules on last tergite (Figs 135, 137) (female unknown).

Composition (in original binomens). *Peucestoides stridulans* Hebard, 1927 (described from Colombia; distributed from French Guiana to possibly Peru); *Cnemidophyllum* (*Peucestoides*) *bituberculatum* sp. nov.

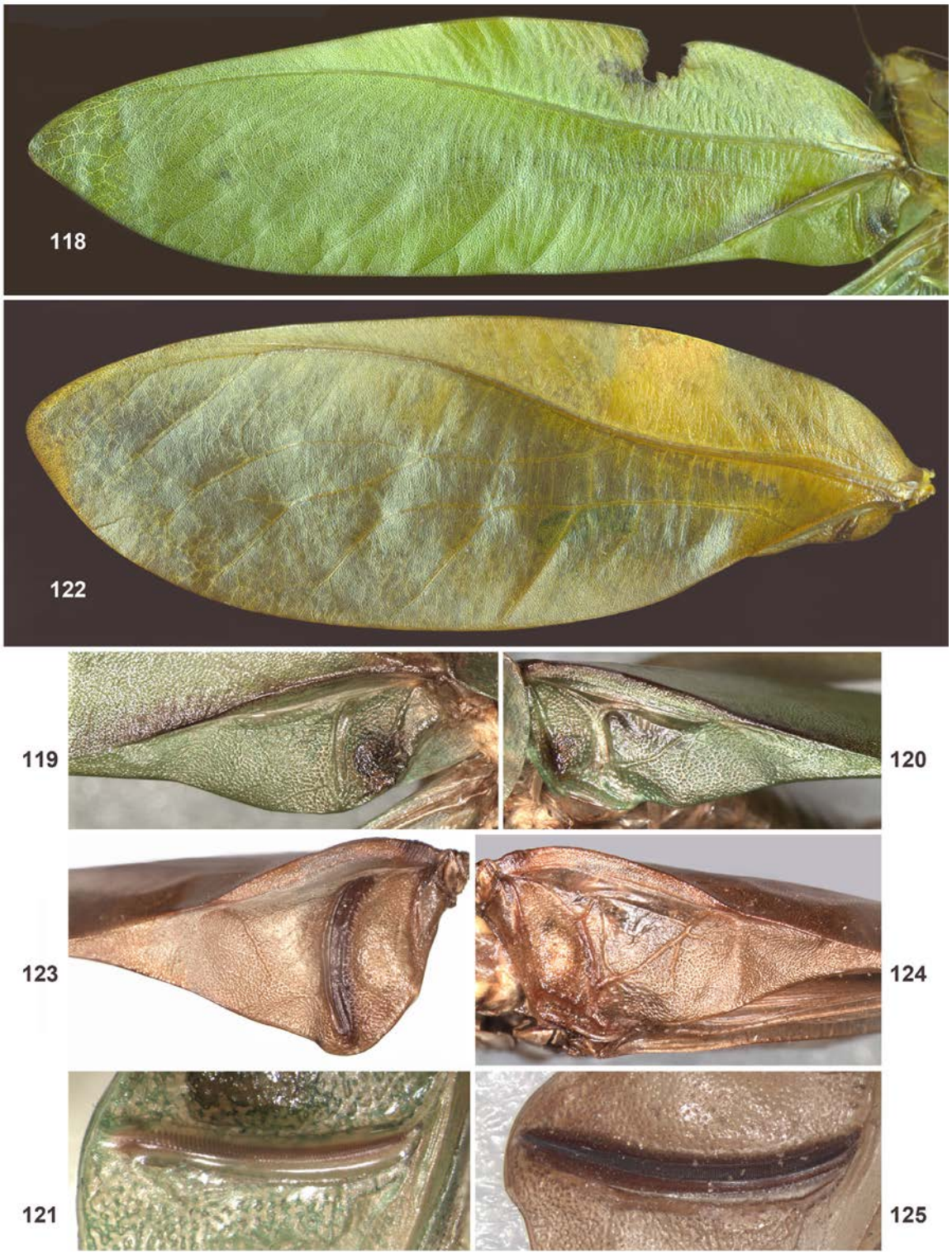
Cnemidophyllum (*Peucestoides*) *bituberculatum* Gorochov sp. nov.

(Figs 103, 112, 113, 122–125, 134–136)

Etymology. This name consists of the Latin prefix "bi-" (two) and word "tuberculatus" (with tubercle, with tubercles) due to the presence of a pair of distinct tubercles on the last male tergite.

Material. *Holotype* – male, PERU: Ucayali Department, "Atalaya Distr., Pitza", 10°54.780' S, 73°51.054' W, February 2021, possibly V. Izerskyy (ZIN).

Description. *Male* (holotype). General appearance similar to that of *C.* (*P.*) *stridulans* but with light brown coloration (probable result of poor preservation during drying, and lifetime coloration possibly greenish like that of *C. stridulans*). Preabdominal structure of body with some characteristic features: rostral tubercles more or less similar to those of *C.* (*Peucestophyllum*) *granti* but with upper tubercle having distal part slightly wider than scape, and with dorsal surface of rest of this tubercle having thin but distinct zigzag-like groove; pronotum with very concave anterior and slightly convex posterior edges of disc, with high dorsolateral keels having 12–13 rather large but apically rounded denticles, and with high lateral lobes having ventral edges very oblique and long as well as slightly concave (Figs 112, 113); tegmina as in *C.* (*Peucestoides*) *stridulans* in shape and venation (Fig. 122) but with stridulatory apparatus as in Figs 123–125 (stridulatory vein of left tegmen about 10 mm in length and with nearby 240 ventral teeth); hind wings shortly protruding beyond tegminal apices; legs with fore tibia having dorsal outer spinule near slite-like tympana, and with middle tibia (Fig. 103) distinguished from that of *C.* (*P.*) *stridulans* by practically uniform coloration (hind legs missing). Abdomen with following characters: last tergite with a pair of large posterior tubercles located in median part of this tergite, with rather deep longitudinal groove between bases of these tubercles, and with a pair of additional



Figs 118–125. *Cnemidophyllum*, males. 118–121 – *C.* (*Peucestophyllum*) *granti peruanum* subsp. nov. (holotype); 122–125 – *C.* (*Peucestoides*) *bituberculatum* sp. nov. (holotype). Left tegmen (118) and its lateral field (122); stridulatory apparatus of left (119, 123) and right (120, 124) tegmina from above; stridulatory vein of left tegmen from below (121, 125).

posterior lobules around previous tubercles (these lobules almost as long as these tubercles, barely hooked and with acute apices directed backwards and slightly medially; Figs 134, 135); genital plate somewhat longer than cerci and slightly narrowing to distinctly but not deeply notched apex (this notch almost angular, and styli around it very small; Fig. 136); other structures of abdominal apex as in Figs 134, 135.

Female unknown.

Length in mm. Body 46; body with wings 87; pronotum 13; tegmina 74.

Comparison. The new species differs from *C.* (*P.*) *stridulans* by a longer stridulatory vein of the left tegmen with less numerous ventral teeth (this vein is almost 10 mm in length instead 8.5 mm, and with nearby 240 teeth instead about 260 ones), a distinctly deeper notch between posterior medial tubercles of the male last tergite as well as larger and barely hooked (not simply angular) lobules of this tergite around the previous tubercles (compare Figs 135 and 137), and the presence of very small styli on the male genital plate (*vs:* these styli are absent).

Genus *Emsleyfolium* Cadena-Castañeda, Mendes et Alves-Oliveira, 2016

Type species (in original binomen): *Emsleyfolium diasae* Cadena-Castañeda, Mendes et Alves-Oliveira, 2016, by original designation.

Emsleyfolium unilobatum Gorochov sp. nov.

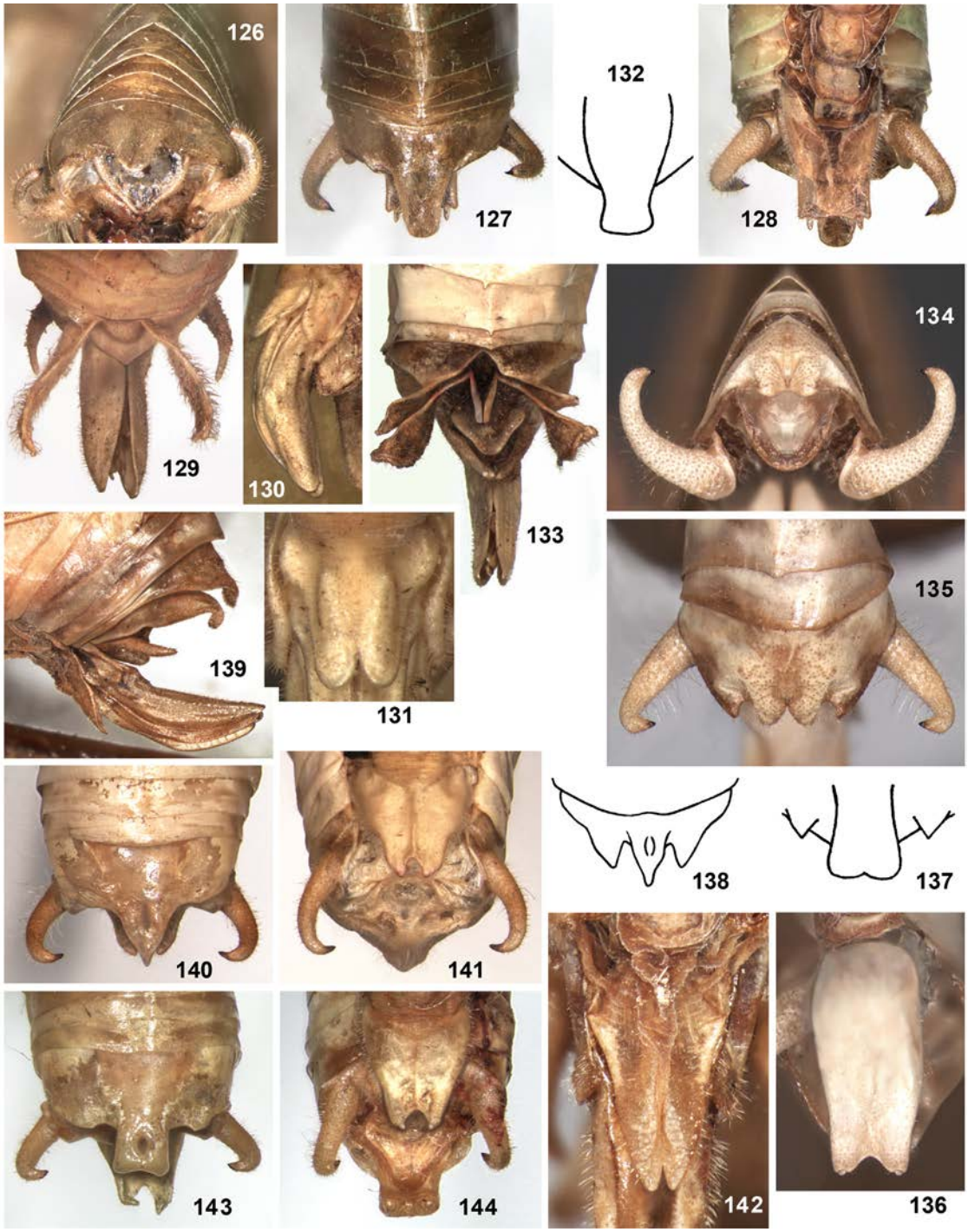
(Figs 83–86, 114–116, 139–142, 145–148)

Etymology. This name consists of the Latin prefix "uni-" (one) and the Latin word "lobatum" (with lobe or lobes) due to the presence of one process (lobe) on the last male tergite.

Material. *Holotype* – male, PERU: Junin Department, Satipo Prov., Pampa Hermosa Distr., environs of waterfall "Cristal" near Pacasmayo Vill., 1400–1600 m, primary forest, on leaf of small tree at night, 11°22'02" S, 74°41'55" W, 8–13 December 2018, A. Gorochov (ZIN). *Paratypes*: 1 male, same country, "Ucayali, 11 km on 230° from Puerto Bermudes", 10°29.9' S, 75°03.1' W, 713 m, 10–12 March 2011, V. Sinyaev, A. Poleschuk (ZIN); 3 males, 1 female, same country, Ucayali Department, "Atalaya Distr., Pitza", 10°54.780' S, 73°51.054' W, February 2021, possibly V. Izerskyy (ZIN).

Description. *Male* (holotype). General appearance almost as in *E. diasae* but with following characteristic features: coloration yellowish (light green in lifetime condition) with slightly lighter (almost yellowish-whitish) most part of head and curved stripe along anteroventral edge of each pronotal lateral lobe, light brown eyes and numerous very thin rings on proximal portion of antennal flagellum (more distal part of this flagellum also light brown), whitish venation of hind wings (except for their yellowish or greenish apical parts) and of most part of dorsal field in right tegmen, transparent membrane of mirror in this field and majority membranes in hind wings, and light greyish brown areas on all tarsi; upper rostral tubercle high and rather wide but not separated from dorsal part of epicranium and with roundly truncated anterior part narrowing downwards and contacting with small (tubercle-like) lower rostral tubercle (distance between antennal cavities almost equal to width of scape; Figs 114, 115); pronotum without dorsolateral keels but with distinct carinae along lateral edges of disc (these carinae slightly rounded in vertically-transversely section and with traces of rather numerous denticles consisting of slight but distinct transverse wrinkles), and with characteristic shape of lateral lobes (above-mentioned lighter stripe on each of these lobes separated from its darker part by oblique concavity looking almost as slight groove; Figs 115, 116); tegmina as in Figs 145–147, and stridulatory vein of left tegmen approximately 5 mm in length and with nearby 155 ventral teeth (Fig. 148); hind wings barely protruding beyond tegminal apices; fore leg with almost slite-like both tympana and without dorsal spines on tibia near them (Figs 83, 84); middle and hind legs with distinctly widened tibiae in their proximal halves (Figs 85, 86); abdominal tergites with only one posteromedian process on last tergite (other processes or lobules on abdominal tergites absent; Fig. 140) which rather wide and dorsally concave in anterior (proximal) half as well as clearly narrowing to vertically lamellar apex in posterior (distal) half (lamellar apical part of this process somewhat curved downwards and with rounded apex in profile); genital plate almost as long as cercus, distinctly narrowing to rather deeply notched apex lacking styli (Fig. 141); rest parts of abdominal apex as in Figs 140, 141.

Variations. Coloration of body varied from greenish to almost light brown with yellowish head, pronotal disc and anteroventral stripe on each lateral pronotal lobe (such darker coloration possibly connected with poor conditions during drying); apex of posteromedian process on last tergite sometimes almost



Figs 126–144. *Cnemidophyllum* and *Emsleyfolium*. 126–131 – *C.* (*Peucestophyllum*) *granti peruanum* subsp. nov. (126–128 – holotype; 129–131 – paratype); 132 – *C.* (*P.*) *g. granti*; 133 – *C.* (*Eupeucestes*) *citrifolium*; 134–136 – *C.* (*Peucestoides*) *bituberculatum* sp. nov. (holotype); 137 – *C.* (*P.*) *stridulans*; 138 – *E. diasae*; 139–142 – *E. unilobatum* sp. nov. (139, 142 – paratype; 140, 141 – holotype); 143, 144 – *E. cusco* sp. nov. (holotype). Abdominal apex of male (126, 127, 128, 134, 135, 140, 141, 143, 144) and of female (129, 133, 139) from behind but without genital plate (126, 134), from above (127, 129, 133, 135, 140, 143), from below (128, 141, 144), and from side (139); ovipositor from side (130); genital plate of female (131, 142) and of male (136) from below; male last tergite or its posteromedian part from above (132, 137, 138). [132, 137 – after Emsley (1970); 138 – after Cadena-Castañeda et al. (2016)].

angular; notch at apex of genital plate slightly varied in shape and width.

Female. Coloration and structure of body most similar to those of light brown males (probably due to same reason), but size distinctly larger, tympana clearly slit-like, tegmina somewhat wider (their length almost 2.6 times as great as their maximal width; in male, this ratio approximately 3.4) and without developed stridulatory apparatus, hind wings reaching tegminal apices but not protruding beyond them, abdominal tergites with a pair of rather large (almost triangular) lobules on ninth tergite and a pair of rather long (but less wide) lobules on tenth (last) tergite as well as without other distinct lobules (Fig. 139), and rest structures of abdominal apex as in Figs 139, 142.

Length in mm. Body: male 28–32, female 41; body with wings: male 67–70, female 79; pronotum: male 9–10, female 11; tegmina: male 57–59, female 67; hind femora: male 28–30, female 32; ovipositor 6.5.

Comparison. The new species differs from *E. diasae* in the presence of only one posterior process on the male last tergite (*vs:* this tergite has three distinct posterior processes or lobules; compare Figs 138 and 140).

Emsleyfolium cusco Gorochov sp. nov.

(Figs 117, 143, 144, 149–152)

Etymology. This species is named after the Cusco Department of Peru where it was collected.

Material. *Holotype* – male, PERU: Cusco Department, 7 km NE of Mandor, 13°18.7' S, 70°49.5' W, 890 m, 1–3 December 2010, V. Sinyaev, S. Sinyaeva, Yu. Bezverkhov (ZIN). Paratypes: 2 males, same data as for holotype (ZIN).

Description. *Male* (holotype). Size and coloration of body practically as in *E. unilobatum* sp. nov. but with following differences: coloration greenish with yellowish head having almost whitish dorsum and genae under posterior halves of eyes, with whitish longitudinal median stripe on pronotal disc and anteroventral stripe on each lateral pronotal lobe (latter stripe almost as in *E. unilobatum* sp. nov.; Fig. 117), and with light brown to brown clypeus and labrum; external structure also very similar to that of this species (Figs 149–151), but pronotal lateral lobes slightly less high (Fig. 117), stridulatory vein of left tegmen approximately 5.5 mm in length and with about 170 ventral teeth (Fig. 152), middle tibia hardly less widened, posteromedian process of last tergite weekly widening to widely bilobed apex (this apex with a pair of roundly angular tubercles directed backwards/downwards, and with widely rounded and not deep notch between these tubercles), posterior edges of last tergite around this process with a pair of very short obtuse-angled projections (Fig. 143), and genital plate with small but distinct styli (Fig. 144).

Variations. Coloration with light brown clypeus and yellowish labrum, or with light brown labrum and yellowish clypeus, as well as sometimes with rather wide yellowish band along stems of tegminal Sc and R (and around them) in proximal half of each tegminal lateral field; posterior edges of last tergite around posteromedian process with small spinule-like projections or without distinct projections; genital plate sometimes with very small and almost indistinct styli.

Female unknown.

Length in mm. Body 32–34; body with wings 68–72; pronotum 9–10.5; tegmina 58–61; hind femora 28–30.

Comparison. The new species is clearly distinguished from *E. unilobatum* sp. nov. and *E. diasae* by a distally wider and apically bilobed posteromedian process of the male last tergite (*vs:* this process in the dorsal view is narrowing to an almost spine-like apical part; compare Figs 138, 140 and 143).

Genus *Stilpnochlora* Stål, 1873

Type species (in original binomen): *Phylloptera marginella* Serville, 1839, by original designation.

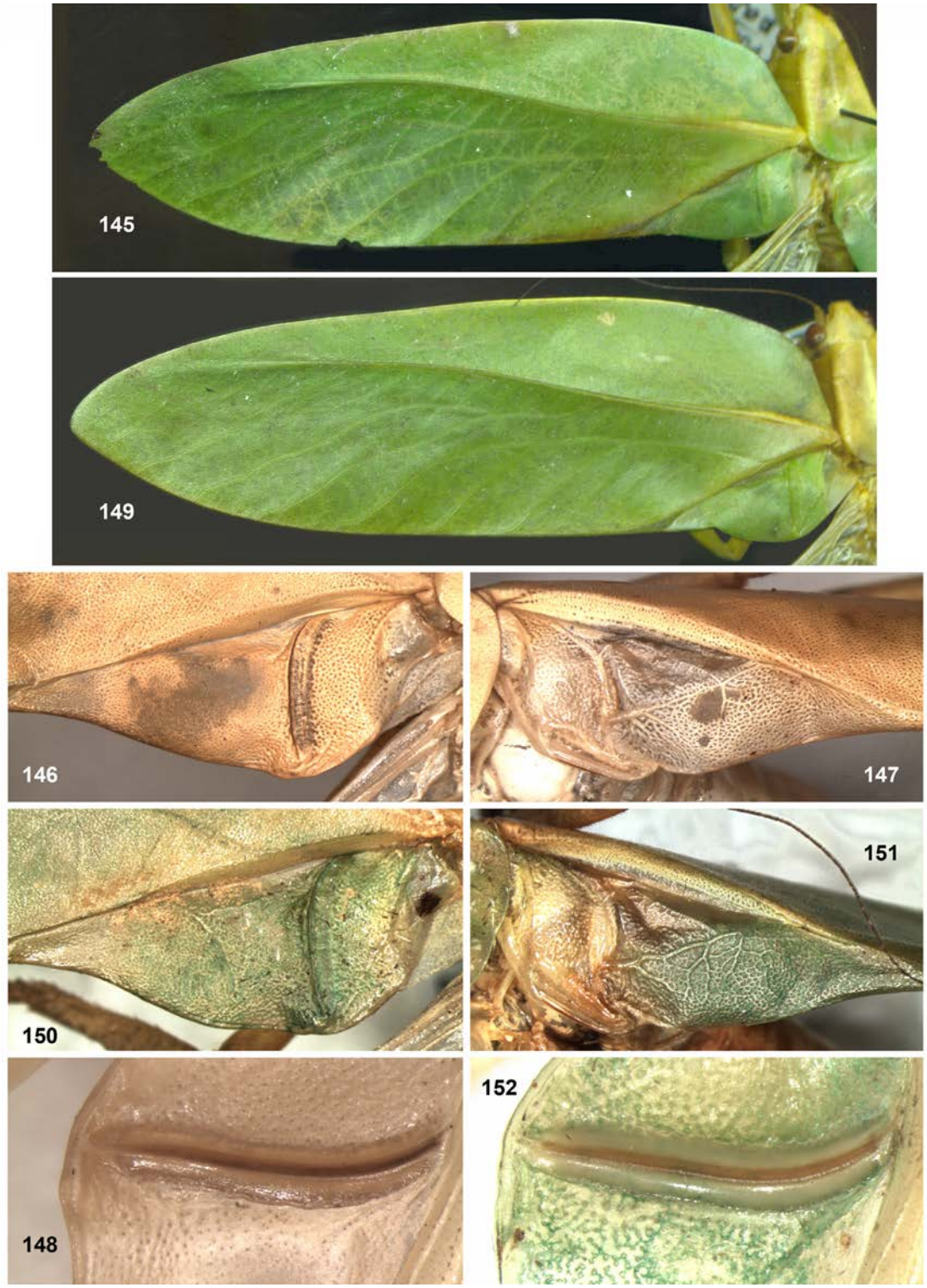
Stilpnochlora jalisco Gorochov sp. nov.

(Figs 153–159, 162–169)

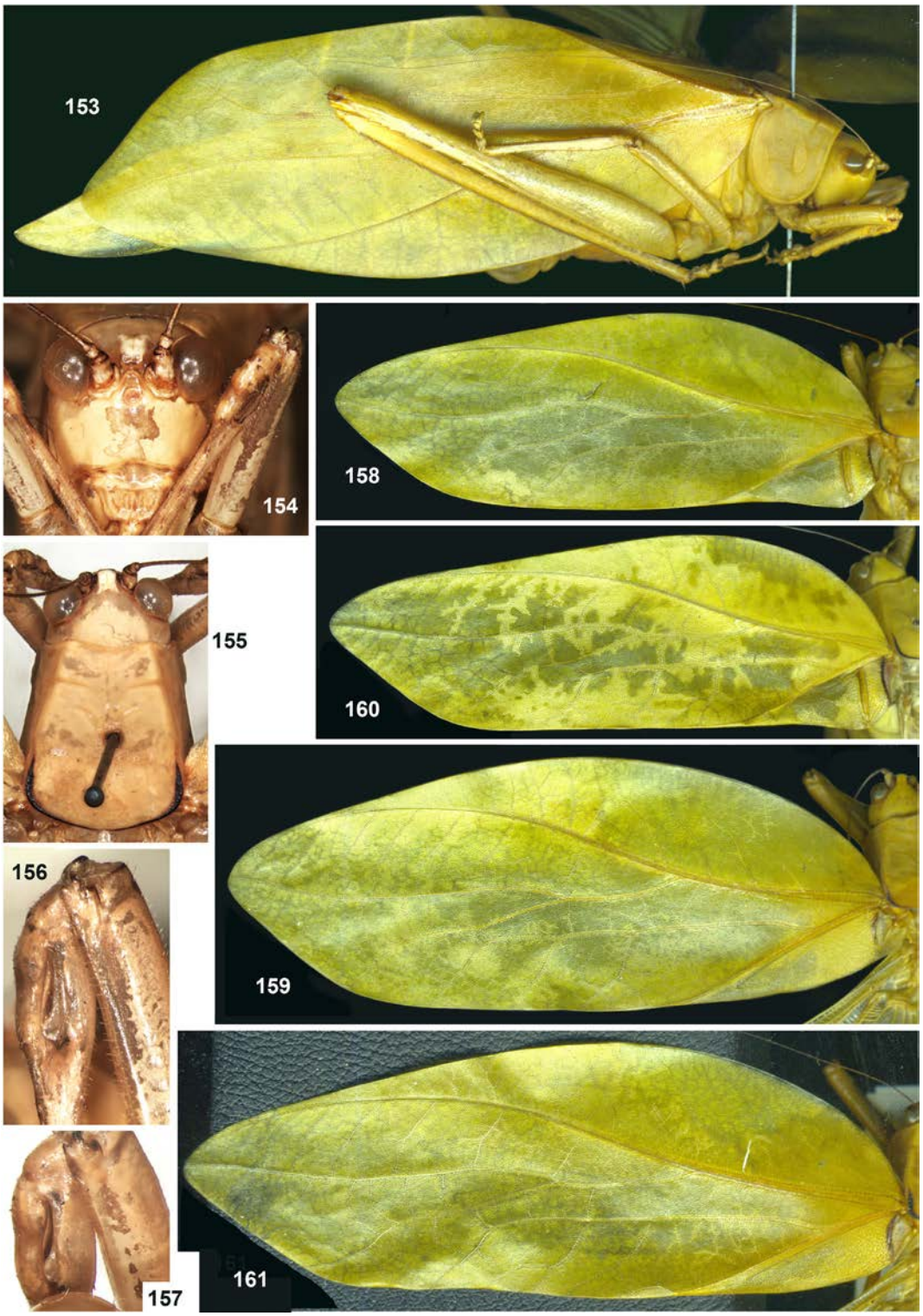
Etymology. This species is named after the Jalisco State of Mexico where it was collected.

Material. *Holotype* – male, MEXICO: Jalisco State, Chamela Biostation (Mexico University) near Chamela Vill., 3–4 km from Pacific Ocean, 19°33' N, 105°5' W, dry forest on hills, at light, 23–28 November 2006, A. Gorochov, A. Ovtshinnikov (ZIN). *Paratype* – female, same data as for holotype (ZIN).

Description. *Male* (holotype). General appearance similar to that of *S. quadrata* (Scudder, 1869) sensu Emsley (1970) but with some characteristic features. Coloration almost uniformly greenish, but: with yellowish tinge on most part of head and pronotum (as in Fig. 153) as well as on other thoracic



Figs 145–152. *Emsleyfolium*, males. 145–148 – *E. unilobatum* sp. nov. (145 – paratype; 146–148 – holotype); 149–152 – *E. cusco* sp. nov. (holotype). Left tegmen (145, 149); stridulatory apparatus of left (146, 150) and right (147, 151) tegmina from above; stridulatory vein of left tegmen from below (148, 152).



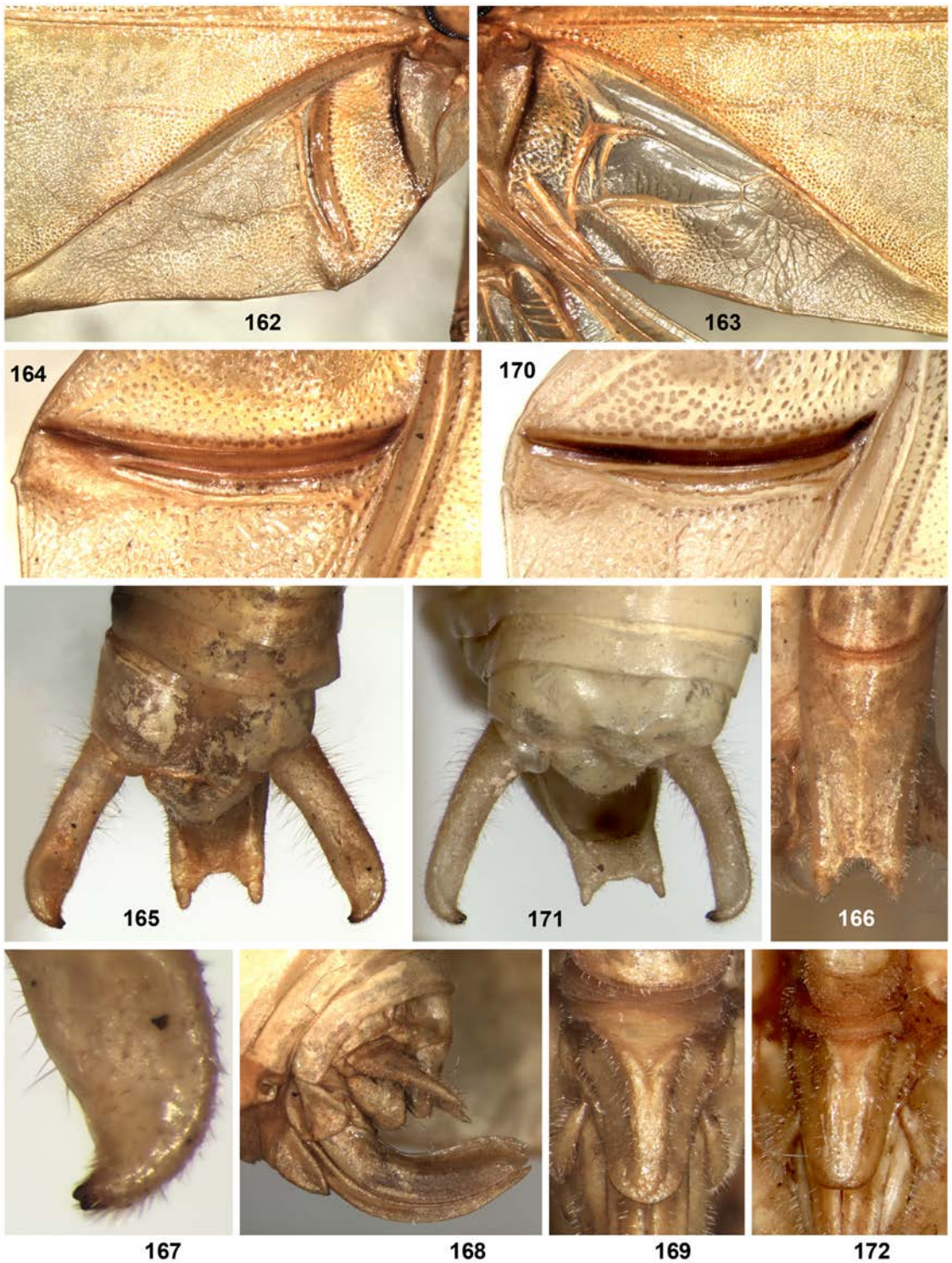
Figs 153–161. *Stilpnochlora*. 153–159 – *S. jalisco* sp. nov. (153, 159 – paratype; 154–158 – holotype); 160, 161 – *S. quadrata*. Female from side (153); head with parts of fore legs in front (154); head and pronotum from above (155); outer (156) and inner (157) tympana, lateral (156) and medial (157) views; left tegmen of male (158, 160) and of female (159, 161).

parts and on abdomen; with whitish dorsum of upper rostral tubercle (Fig. 155); with light greyish brown apices of lower and upper rostral tubercles (Fig. 154); with brown thin rings on apex of scape as well as on base and apex of pedicel (Figs 154, 155); with narrow black line on pronotal disc along its posterior edge as well as along distal portions of lateral edges of this disc (this line interrupted in median part and barely widened in lateral portions, but latter portions with anterior parts gradually narrowing to middle part of this disc; Fig. 155); with light brown antennal flagellum and distal part of middle tibia as well as dorsal surface of hind tibia (places of femorotibial articulations with very small light brown to brown marks) and stridulatory vein of left tegmen; with dark brown transverse vein at base of each tegminal dorsal field (Figs 162–164); with transparent membranes in stridulatory areas of right (lower) tegmen (Fig. 163) and in hind wings (except for apical part of these wings which very similar to that of tegmina in coloration); with yellowish rest venation of hind wing; and with somewhat darkened apical denticle of cercus (Figs 165, 167). Upper rostral tubercle slightly narrowed before roundly truncate apex, with narrowest part practically equal to scape in width, and with dorsal surface not inclined downwards and having thin median longitudinal groove (this groove not reaching apex of this tubercle; Fig. 155); lower rostral tubercle smaller than previous tubercle as well as with distinctly narrower and more or less rounded apex directed upwards (Fig. 154); tegmina slightly shorter (wider) than in *S. quadrata* (they almost 2.8 times as long as wide in new species, but this ratio nearby 3.1 in *S. quadrata*; compare Figs 158 and 160), and with stridulatory apparatus as in Figs 162–164 (stridulatory vein of left tegmen almost 6.6 mm in length and with 19–20 ventral teeth in 1 mm in middle part of its length); outer and inner tympana as in Figs 156 and 157; middle and hind tibiae barely widened proximally (approximately as in Fig. 153); abdominal tergites with almost straight posterior edges; epiproct and paraprocts more or less triangular and lobe-like, respectively (Fig. 165); cerci moderately elongate, rather thick, cylindrical in proximal two thirds and slightly dorsoventrally flattened (with shallow dorsal concavity before apical part) in distal third, and with medially curved apical part having apex in shape of denticle with two small rounded projections directed upwards/medially (Figs 165, 167); genital plate somewhat longer than cerci, elongately triangular but with clear trapezoidal apical notch as well as a pair of rather small posterior projections around it (these projections with short but distinct styli; Fig. 166).

Female. Coloration and structure of body as in male, but body somewhat larger, upper rostral tubercle dorsally yellowish, light median interruption in blackish line on pronotal disc slightly wider, transverse vein at base of dorsal tegminal field light brown to brown, tegmina wider (they almost 2.5 times as long as wide in female of new species, and this ratio about 2.8 in female of *S. quadrata*; compare Figs 159 and 161) and without well developed stridulatory apparatus, and abdomen typical of *Stilpnochlora* female: tergites without large distal lobules (i.e., as in male), epiproct and paraprocts also as in male, ovipositor and cerci as in Fig. 168, genital plate rather small and more or less triangular but somewhat compressed laterally and with widely rounded apex (Fig. 169).

Length in mm. Body: male 31, female 39; body with wings: male 73, female 84; pronotum: male 9, female 10.3; tegmina: male 58, female 67; hind femora: male 33, female 38; ovipositor 6.

Comparison. The new species from dry forests of Mexico is most similar to *S. quadrata* widely distributed in cloud forests of Mexico and Central America, but it is distinguished from the latter species by somewhat shorter (wider) tegmina in the both sexes, by a more arcuate stridulatory vein in the male left tegmen having less wide teeth in the medial portion (compare Figs 164 and 170) as well as distinctly thicker male cerci (see Figs 165 and 171) and a more rounded apex of the female genital plate (*vs:* this plate usually with almost truncated apex; for comparison see Figs 169 and 172). The new species differs also from *S. marginella* sensu Emsley (1970) in the same characters and additionally in larger body size and a longer stridulatory vein of the male left tegmen (almost 6.6 mm instead about 5 mm); from *S. couloniana* (Saussure, 1861) sensu Emsley (1970) in the same tegminal characters (the male tegmen in *S. jalisco* sp. nov. is about 2.8 times as long as wide, but this ratio in *S. couloniana* is nearby 3.1, and the stridulatory vein length is almost 6.6 and 5.5 mm, respectively); from *S. undulata* Emsley, 1970 in the upper rostral tubercle directed more or less forwards but not distinctly forwards/downwards, a less arcuated stridulatory vein of the male left tegmen, and the lateral portions of the black pronotal mark



Figs 162–172. *Stilpnochlora*. 162–169 – *S. jalisco* sp. nov. (162–167 – holotype; 168, 169 – paratype); 170–172 – *S. quadrata*. Stridulatory apparatus of male left (162) and right (163) tegmina; stridilatory vein of male left tegmen from below (164, 170); abdominal apex of male (165, 171) and of female (168) from above (165, 171) and from side (168); distal part of male right cercus from above (167); genital plate of male (166) and of female (169, 172) from below.

gradually narrowing forwards (*vs:* slightly widening forwards and with obliquely truncated anterior parts); and from all other congeners in the following combination of characters: a more uniformly greenish coloration, the absence of any wrinkles (denticles) or projections (lobes) on the dorsolateral pronotal carinae, distinctly larger body size, a longer or shorter stridulatory vein of the male left tegmen, and a clearly wider distal third of the tegmina.

Stilpnochlora marginella latistriata Gorochov subsp. nov.

(Figs 173–177)

Etymology. This subspecies name consists of the Latin prefix "lati-" and word "striata" (striped) due to widened dark lateral stripes on the pronotal disc.

Material. *Holotype* – male, SURINAM: "Surinam / ex coll. Fruhstorfer", "No. 130-97" (ZIN). *Paratype* – male, GUYANA (former British Guiana) or FRENCH GUIANA: "Guiana", "*Stilpnochlora marginella* Sss", "Saussure det." (ZIN).

Description. *Male* (holotype). General appearance very similar to that of nominotypical subspecies but with following characters: coloration almost as in *S. jalisco* sp. nov. but somewhat more uniformly greenish as well as with lateral parts of black stripe on pronotal disc distinctly wider at middle of their length, and with black line along posterior edge of this disc lacking any median interruption (this character distinguished new subspecies also from *S. m. marginella* and *S. quadrata*; compare Figs 155, 178, 182 and 173); tegmina as in *S. m. marginella* and *S. quadrata* in shape, but stridulatory apparatus with shorter left stridulatory vein (this vein about 4.5 mm in length and with nearby 108 ventral teeth; Fig. 176) and barely less projecting medial lobe of each anal tegminal edge near stridulatory vein (see Figs 162, 163, 179, 180 and 174, 175); abdominal apex with cerci almost intermediate in thickness between cerci of *S. jalisco* sp. nov. and cerci of *S. quadrata* but hardly thicker than in *S. m. marginella*, and with other structures practically indistinguishable from those of these taxa.

Variations. Paratype with black lateral stripes on pronotal disc hardly distinguished from those of holotype in shape (compare Figs 173 and 177), with rest of pronotum having slight brownish tinge, and with stridulatory vein having about 112 ventral teeth.

Female unknown.

Length in mm. Body 26–29; body with wings 66; pronotum 7.7–8; tegmina 50–52; hind femora 28–29.

Comparison. The new subspecies is distinguished from the nominotypical one, described from Brazil (Emsley 1970) and distributed also in Colombia, Peru and Trinidad (my data), by the black stripe on the pronotal disc with distinctly wider lateral parts and without any median interruption (compare Figs 173, 177 and 178, 182), the stridulatory vein of the left male tegmen shorter (length of this vein is about 4.5 mm in the new subspecies and about 5 mm in *S. m. marginella*), and the medial lobe of the anal tegminal edge near this vein less projecting (see Figs 174–176 and 179–181). From other similar species, the new taxon differs in the same characters or in a different shape of the black pronotal mark, another shape of the tegmina, a simple structure of the pronotum (i.e., without dorsolateral lobes or denticles before the black pattern) and/or a shorter left stridulatory vein.

Tribe Phaneropterini Burmeister, 1838

Subtribe Anaulacomerina Brunner-Wattenwyl, 1878

Genus *Separatula* Gorochov, 2018

Type species (in original binomen): *Separatula adunca* Gorochov, 2018, by original designation.

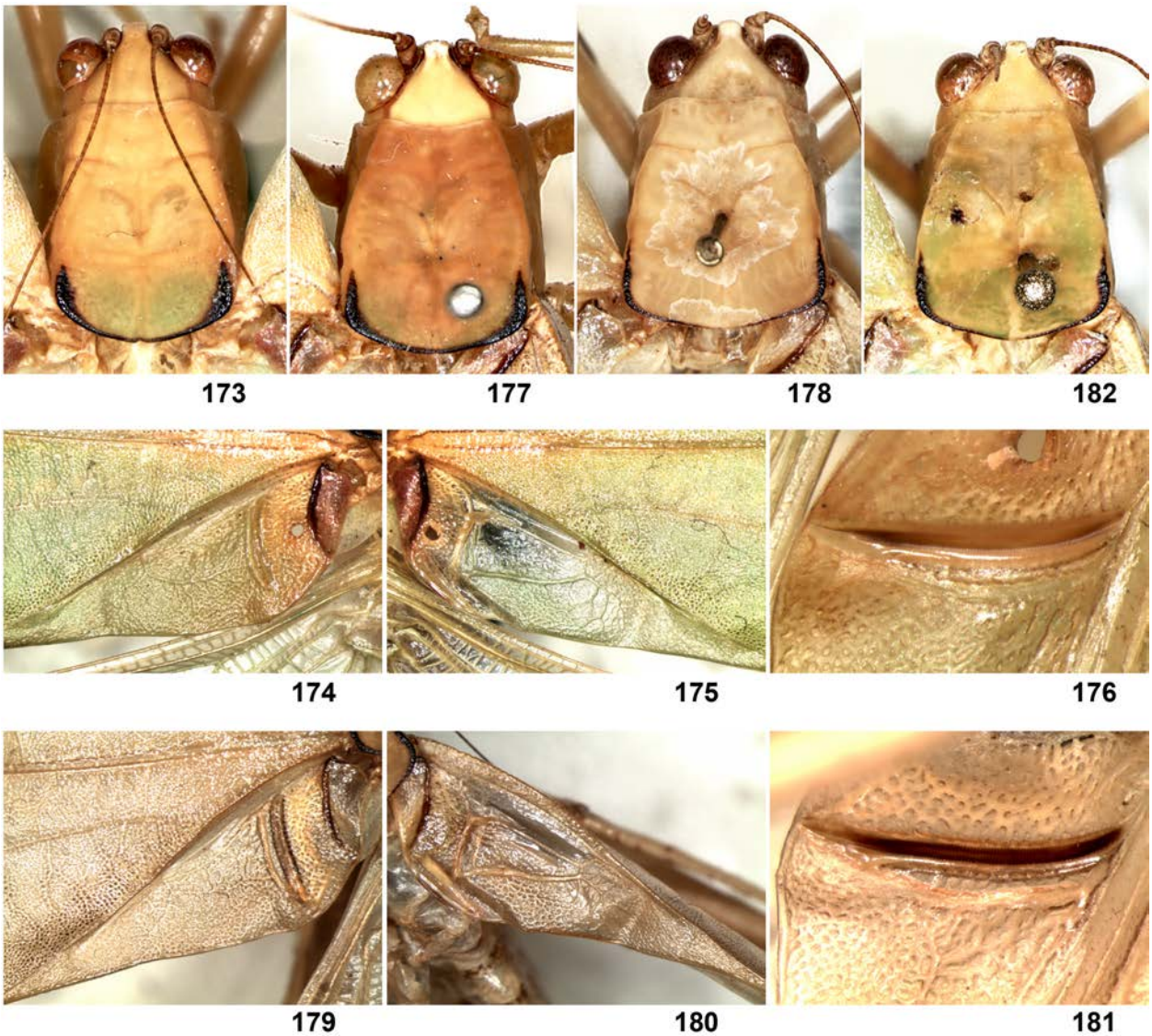
Separatula symmetrica Gorochov sp. nov.

(Figs 183–189)

Etymology. This species name is the Latin word "symmetrica" (symmetrical) due to symmetrical upper processes of the male cerci.

Material. *Holotype* – male, PERU: northwestern part of Cusco Department, environs of Miaria Vill. on Urubamba River, 11.33502° S, 72.99284° W, primary forest, at light, 8–11 October 2021, A. Gorochov (ZIN).

Description. *Male* (holotype). Body very similar to that of *S. falcata* (Giglio-Tos, 1898) and *S. wilsoni* (Cadena-Castañeda, 2015) but with some characteristic features. Coloration very light grey (almost whitish) with dark brown most part of upper rostral tubercle, greyish brown most part of head dorsum (except for latter tubercle) and of pronotal disc as well as two small spots on each tegmen (at base of dorsal field and in proximal part of M-CuA area), dark rose spot around median ocellus and dots on rest of epicranium, rose stripes along lateral edges of pterothoracic



Figs 173–182. *Stilpnochlora*, males. 173–177 – *S. marginella latistriata* subsp. nov. (173–176 – holotype; 177 – paratype); 178–182 – *S. m. marginella* (178–181 – from Peru; 182 – from Trinidad). Head with pronotum from above (173, 177, 178, 182); stridulatory area of left (174, 179) and right (175, 180) tegmina from above; stridulatory vein of left tegmen from below (176, 181).

sternites and numerous dots on lateral parts of body segments as well as on abdominal dorsum (excluding last tergite) and on all coxae, brown small spots on fore femur and fore tibia, brownish rose analogous spots on all other femora and tibiae, brown to light brown marks on all tarsi, light brown last tergite (with whitish median membranous area and membranes between this tergite and yellowish epiproct) and poorly distinct small spots on antennal flagellum, brown to dark brown bases and apical parts of upper cercal processes as well as distal parts of lower cercal processes (Figs 183–189), and transparent majority of membranes in hind wings. Upper rostral tubercle with roundly angular apical denticle having longitudinal median groove, and with distinctly narrowed subapical part (in profile, this tubercle also with distinct but small subapical notch dorsally); lower rostral tubercle somewhat wider than previous one, flattened anteriorly, with apex reaching anteroventral surface of apical part of upper rostral tubercle, and with median

ocellus at base. Other structures of body (except for abdominal ones) almost indistinguishable from those of *S. falcata* but with barely shorter mirrors in stridulatory apparatus of tegmina (Fig. 183). Abdomen with last tergite having moderately long and rather wide (slightly transverse) as well as almost oval membranous area that in contact with membrane between this tergite and epiproct (Figs 186, 187, 189), with upper cercal processes symmetrical and having distal parts narrowly acute as well as slightly curved medially, with lower cercal processes almost equal to upper ones in length and arcuate in dorsal view as well as vertically flattened (and widened) before slightly hooked and acute apical parts, with genital plate having a pair of long and thin posterolateral lobules (Figs 184–189), and with membranous genitalia.

Female unknown.

Length in mm. Body 11.3; body with wings 29; pronotum 2.8; tegmina 21; hind femora 15.2.

Comparison. The new species is clearly distinguished from *S. falcata* and *S. wilsoni* by the male last tergite with the membranous median area distinctly longer and narrower (compare Figs 187 and 190), the upper processes of the male cerci symmetrical and with their distal parts curved medially (but in *S. falcata* and *S. wilsoni*, the distal parts of these processes are differently directed: in left cercus, similarly or partly upwards; in right one, slightly downwards), the lower processes of these cerci arcuate in the dorsal view as well as vertically flattened and widened before their apical parts (*vs:* these processes are slightly S-shaped in the dorsal view and almost cylindrical, i.e., without any flattened widening; see Figs 184–189 and 190–192), and the male genital plate with a pair of long and thin posterolateral lobules (*vs:* these lobules are short and less thin; see Figs 188 and 191, 195). From *S. adunca* Gorochov, 2018, the new species differs in the presence of a rather long upper process on the male cercus, and from *S. araguaiensis* Fianco, 2021, in the same character as well as in the absence of any processes on the male tenth abdominal tergite (the belonging of the latter species to *Separatula* is problematic).

Separatula falcata tenuis Gorochov subsp. nov.

(Figs 190–194)

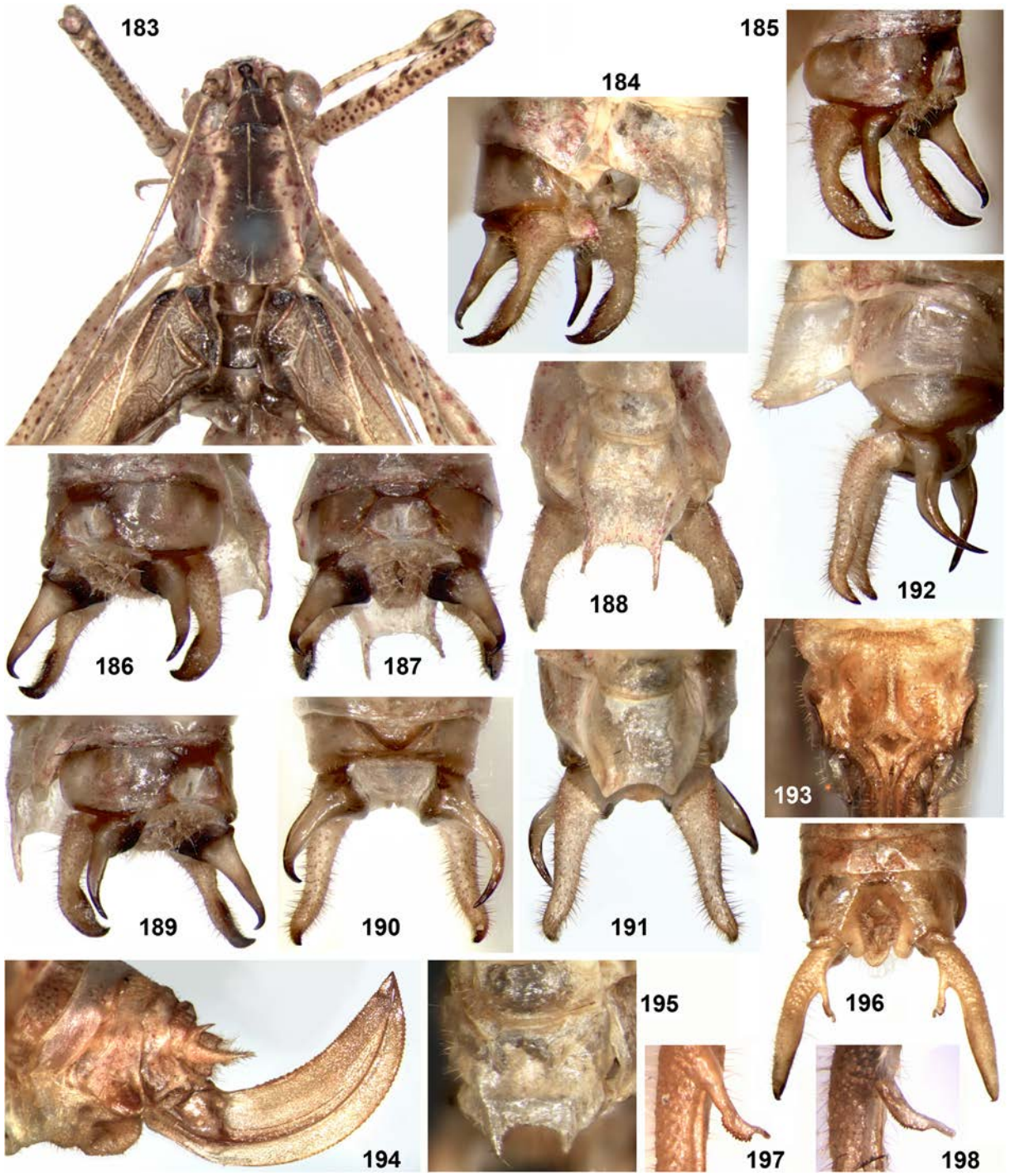
Etymology. This subspecies name is the Latin word "tenuis" (thin) given due to a shape of the male cercal processes.

Material. *Holotype* – male, PERU: Junin Department, Satipo Prov., Rio Tampo Distr., ~6 km N of Pichiguia Vill., "Reserva Comunal Ashaninka", 11.35824° S, 74.03205° W, ~500 m, primary forest, at light, 14–23 November 2017, A. Gorochov, G. Irisov (ZIN). *Paratypes*: 6 males, 2 females, same data as for holotype (ZIN).

Description. *Male* (holotype). General appearance very similar to that of *S. symmetrica* sp. nov. but with following features: dorsum of head (behind apical denticle of upper rostral tubercle) and pronotal disc hardly lighter (light greyish brown) but with whitish longitudinal median line; darkened spot around median ocellus absent; tegmina practically not spotted; mirrors in their stridulatory apparatus barely longer; abdominal apex distinguished from that of nominotypical subspecies only by somewhat longer cercal processes (lower processes clearly longer than upper ones, and latter processes curved partly in opposite directions: left process, partly upwards; right one, partly downwards) as well as distinctly shorter and not very thin posterolateral lobules of genital plate (Figs 190–192).

Variations. Apical denticle of upper rostral tubercle usually with whitish dorsomedial mark; darkened part of pronotal disc varied from light greyish to greyish brown; tegmina often with small dark marks located approximately as in *S. symmetrica* sp. nov.; posterolateral lobules of genital plate sometimes slightly thinner than in holotype (almost as thin as in *S. symmetrica* sp. nov. but much shorter than in this species).

Female. Coloration and external structure of body similar to those of males, but tegmina in both known females spotted as in majorty of males, ninth abdominal tergite with posteroventral parts projected backwards and rounded posteriorly as well as with rather large but shallow concavities posterolaterally, last tergite simple (i.e., without distinct membranous area and with almost straight posterior edge), epiproct narrow as in male but clearly shorter and with rounded apex, cerci also distinctly shorter and with small spinule-like upper processes as well as with longer and thicker lower processes having apical parts very thin (Fig. 194). Genital plate short (slightly transverse), with low but distinct longitudinal median keel ventrally as well as with almost angular moderately short posteromedian notch and widely rounded posterolateral corners (Figs 193, 194); ovipositor as in Fig. 194.



Figs 183–198. *Separatula* and *Anaulacomera*. 183–189 – *S. symmetrica* sp. nov. (holotype); 190–194 – *S. falcata tenuis* subsp. nov. (190–192 – holotype; 193, 194 – paratype); 195 – *S. f. falcata*; 196, 197 – *A.* (*Munticercora*) *sclerogenitalis woronovi*; 198 – *A.* (*M.*) *s. sclerogenitalis*. Anterior half of male body (including stridulatory apparatus of spread tegmina) from above (183); male (184–192, 196) and female (193, 194) abdominal apex from side and slightly below (184), from side and slightly above but without genital plate (185), from above and slightly from side (186, 189), from above (187, 190, 196), from below (188, 191), from side (192, 194), and from below but without ovipositor (193); male genital plate from below (195); medial process of left male cercus, inner and slightly dorsal view (197, 198).

Length in mm. Body 12–13.5; body with wings 29–31; pronotum 2.8–3.2; tegmina 22–23.5; hind femora 14.5–15.5.

Comparison. The new subspecies differs from the nominotypical one in the male cerci with slightly thinner processes (especially the upper process of the left cercus), in the lower cercal processes clearly longer than the upper ones, and in the posterolateral lobules of the male genital plate distinctly shorter (in *S. f. falcata* from Ecuador, the lower cercal processes is almost as long as the upper ones, and the genital plate posterolateral lobules are clearly longer; compare Figs 191 and 195).

Genus *Anaulacomera* Stål, 1873

Type species (in original binomen): *Phaneroptera submaculata* Stål, 1861, by subsequent designation (Kirby 1906).

Anaulacomera (*Munticercora*) *sclerogenitalis woronovi* Gorochov, 2021

(Fig. 196, 197)

New material. COLOMBIA: 1 male, "Penas Blancos, Rio / Magdalena Colum. / Woronov 3/V 926" (ZIN); 1 male, "Mosquite[ro?]. Rio Mag- / dalena Colum. / Woronov 9.V.926" (ZIN).

Note. These specimens are collected in the type locality of this subspecies and probably near it. However, the abdominal apex of these males is more preserved than in holotype, as it has cerci which are missing in holotype. Here, these structures are firstly described for this subspecies: each cercus is very similar to that of *A.* (*M.*) *s. sclerogenitalis* Gorochov, 2020 from Mexico but differs in a distinctly longer and thinner proximal part of the inner process located before the keel with a row of small dorsolateral denticles (in the nominotypical subspecies, this proximal part is clearly shorter and not very thin, and the aforementioned denticulated keel starts almost at the base of this process; compare Figs 196, 197 and 198).

ACKNOWLEDGEMENTS

The author is grateful to Volodymyr Izerskyy (Peru: Satipo) for the help in organization of field work in Peruvian natural landscapes and to all other collectors of these interesting insects. This study was performed in the frames of the state research project No. 125012901042-9 (Russian Federation).

REFERENCES

Brunner-Wattenwyl C. 1878. Monographie der Phaneropteriden. Brockhaus, Wien, 401 p.

Brunner-Wattenwyl C. 1891. Additamenta zur Monographie der Phaneropteriden. *Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gessellschaft in Wien*, **41**: 1–196. https://doi.org/10.5962/bhl.title.9035

Cadena-Castañeda O.J. 2016. New taxa and some clarification of the tribe Steirodontini (Orthoptera: Tettigoniidae; Phaneropterinae): Tenth contribution to the suprageneric organization of Neotropical phaneropterines. *Zootaxa*, **4208**(3): 237–248. https://doi.org/10.11646/zootaxa.4208.3.3

Cadena-Castañeda O.J., Mendes D.M.M. and Alves-Oliveira J.R. 2016. A new genus of katydid from the Amazon Rainforest (Orthoptera: Tettigoniidae; Phaneropterinae; Steirodontini): Ninth contribution to the suprageneric organization of the Neotropical phaneropterines. *Zootaxa*, **4150**(4): 493–500. https://doi.org/10.11646/zootaxa.4150.4.6

Cigliano M.M., Braun H., Eades D.C. and Otte D. 2024. Orthoptera Species File Online. World Wide Web electronic publication. Available from: http://orthoptera.speciesfile.org (accessed 30 September 2024)

Emsley M.G. 1970. A revision of the steirodontine katydids (Orthoptera: Tettigoniidae: Phaneropterinae: Steirodontini). *Proceedings of the Academy of Natural Sciences of Philadelphia*, **122**(3): 125–248.

Gorochov A.V. 2020. Systematics of the American katydids (Orthoptera: Tettigoniidae). Communication 9. *Proceedings of the Zoological Institute RAS*, **324**(2): 187–220. https://doi.org/10.31610/trudyzin/2020.324.2.187

Gorochov A.V. 2021. Systematics of the American katydids (Orthoptera: Tettigoniidae). Communication 10. *Proceedings of the Zoological Institute RAS*, **325**(3): 278–290. https://doi.org/10.31610/trudyzin/2021.325.3.278

Gorochov A.V. 2023. Systematics of the American katydids (Orthoptera: Tettigoniidae). Communication 11. *Proceedings of the Zoological Institute RAS*, **327**(2): 317–349. https://doi.org/10.31610/trudyzin/2023.327.2.317

Karny H. 1920. Zur Deutung der de Haan'schen Laubheuschrecken. *Zoologische Mededelingen*, **5**(4): 139–210.

Kirby W.F. 1906. A synonymic catalogue of Orthoptera. Vol. II. Orthoptera Saltatoria. Part 1. (Achetidae et Phasgonuridae). British Museum (Natural History), London, 562 p. https://doi.org/10.5962/bhl.title.6745