

## New data on the tribe Odontogryllini (Orthoptera: Gryllidae: Landrevinae) from America

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## Новые данные по трибе Odontogryllini (Orthoptera: Gryllidae: Landrevinae) из Америки

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**Abstract.** The genus *Odontogryllus* Saussure is divided into four subgenera, *Sergeigryllus* **subgen. nov.**, *Nimio-gryllus* **subgen. nov.**, *Vladogryllus* **subgen. nov.** and *Odontogryllus* s. str. Three new species are described from Peru and Panama, *O. (S.) tarbinskyi* **sp. nov.**, *O. (N.) ashaninka* **sp. nov.** and *Valchica panamica* **sp. nov.** New geographic data for some old taxa are also given.

**Key words.** Odontogryllini, America, new taxa, new geographic data.

**Резюме.** Род *Odontogryllus* Saussure разделен на 4 подрода: *Sergeigryllus* **subgen. nov.**; *Nimio-gryllus* **subgen. nov.**, *Vladogryllus* **subgen. nov.** и *Odontogryllus* s. str. Из Перу и Панама описаны 3 новых вида: *O. (S.) tarbinskyi* **sp. nov.**, *O. (N.) ashaninka* **sp. nov.** и *Valchica panamica* **sp. nov.** Для некоторых старых таксонов приведены новые географические данные.

**Ключевые слова.** Odontogryllini, Америка, новые таксоны, новые географические данные.

[https://doi.org/10.47640/1605-7678\\_2023\\_94\\_97](https://doi.org/10.47640/1605-7678_2023_94_97)

### Introduction

The tribe Odontogryllini contains not numerous American species living mainly on the forest floor in tropical countries. The study of this tribe started in 1877 since the description of one genus for one species (Saussure, 1877: *Odontogryllus setosus*) which was included in Saussure's legion "Gryllomorphites" and later transferred to his legion "Landrevites" (Saussure, 1878: 371). Subsequently, the name "Landrevites" was forgotten or considered a synonym of the subfamily Gryllomorphinae (Chopard, 1967), and only in 1982, this name was restored for a separate subfamily Landrevinae (Gorochov, 1982). However, any taxonomic position for the above-mentioned Saussure's genus was not indicated in this paper. In 1992 this genus and two new American genera were included in the new tribe Odontogryllini, and this tribe was assigned to the unrelated subfamily Pteroplistinae (Mello, 1992). Gorochov (2013) returned this tribe in Landrevinae, and following authors agreed with such decision but destroyed the tribe Odontogryllini (i.e. synonymized it with Landrevini; Campos, Mello, 2014). Now this tribe has been restored by Gorochov (2016), and his opinion is used in the internet-catalogue "Orthoptera Species File" (Cigliano et al., 2023).

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 M216 stereomicroscope and a DFC290 digital camera. This work was carried out within the framework of a large project on the invertebrate fauna of the Ene and Tambo River basins (Proyecto de Conservación de la Biodiversidad de la Selva Amazónica: Identificación taxonómica de la fauna invertebrada en la cuenca del Río Ene y Río Tambo) under the supervision of the Peruvian and Ukrainian entomologist Volodymyr Izerskyy (Consortio Reserva de la Biosfera AVIRERI VRAEM, UNESCO, IberoMaB). This project is founded by the National Service of Natural Areas Protected by the State (Servicio Nacional de Áreas Naturales Protegidas por el Estado – SERNANP) of the Environment Ministry of Peru and ACRENAP Association.

## Systematics

### Tribe *Odontogryllini* Mello, 1992

**Note.** This tribe contains five or six Neotropical genera: *Odontogryllus* Saussure, 1877; *Brasilodontus* Mello, 1992, *Valchica* Mello, 1992, *Xulavuna* Campos et Mello, 2014; *Jarrubura* Campos et Mello, 2014 and possibly *Titanogryllus* Jaiswara et al., 2018. The belonging of the latter genus to *Odontogryllini* is not evident, because this genus has a significantly larger body than in all other known genera of this tribe and was originally included in the subfamily Gryllinae (Jaiswara et al., 2018), but the structure of its male genitalia is not well described and clearly different from that of Gryllinae (Gorochoy, 2019). From the tribe Landrevini, this tribe is mainly distinguished by the straight or arcuate (but not S-shaped) stridulatory vein in the male tegmina (in representatives with the tegminal stridulatory apparatus), and from the tribe Prolandrevini, in the absence of small denticles between the outer spines of the hind tibiae; in the genera studied by me, there are also some differences in the male genitalia, but these differences may be generic but not tribal ones, as most genera in *Odontogryllini* and *Prolandrevini* have poorly understood male genitalia.

### Genus *Odontogryllus* Saussure, 1877

**Note.** This genus (Figs 1–10) contains 11 old and two new species distributed from Mexico to Peru and Brazil. It differs from *Brasilodontus*, *Jarrubura* and *Valchica* in the strongly shortened male tegmina lacking traces of any stridulatory apparatus but having a glandular portion of each medial tegminal edge (this portion possibly contains a secret which is eaten by the female during copulation), in the absence of hind wings and female tegmina as well as tympana on the fore tibia, and in the characteristic male genitalia having a long epiphallus, rather short posteromedian epiphallic lobe (but this lobe may be strongly reduced) and ectoparameres, as well as very long endoparameral apodemes (Figs 14–21).

In *Brasilodontus*, the male tegmina are moderately shortened and with a stridulatory apparatus (or these tegmina absent), the female tegmina are very strongly shortened or absent, the fore tibia is with an inner tympanum only or without tympana, and the male genitalia have a very long posteromedian epiphallic notch and distinctly shorter endoparameral apodemes. In *Jarrubura*, the male tegmina are almost as in non-apterous species of *Brasilodontus*, the female tegmina are absent, the fore tibia is with an inner tympanum only, and the male genitalia are with the following features: the epiphallus is distinctly shorter than in *Odontogryllus* and having the posteromedian notch shorter than in *Brasilodontus*; the endoparameral apodemes are as in *Brasilodontus*. In *Valchica*, the male tegmina and tympana are as in *Jarrubura*, the male hind wings are lobule-like (Figs 11–13), and the male genitalia are almost as in *Jarrubura* but with longer ectoparameres (which are also longer than in *Odontogryllus*; compare Figs 14–21 and 22–24) and without distinct endoparameral apodemes (see Figs 25–32 and 33).

*Xulavuna* is very similar to *Odontogryllus* (including the male genitalia) but differs from it in more specialized male tegmina having a rather large gland on each medial tegminal edge, and in the presence of an additional gland on the male first abdominal tergite (in *Odontogryllus*, such gland is in a more usual place, i.e. on the male metanotum; Figs 2, 6). However, *Odontogryllus* is a rather diverse genus, and *Xulavuna* may be only a deviant subgenus of this genus. But here *Xulavuna* is tentatively not included

in *Odontogryllus*, and the latter genus is divided into four other subgenera; three of them are new and described in the subgeneric key below (*O. niger* Giglio-Tos, 1898 and *O. lacandona* Gorochov, 2013 are not included in this key, because they are known only from females which do not give sufficient information to include them in any subgenus of *Odontogryllus* s. l.).

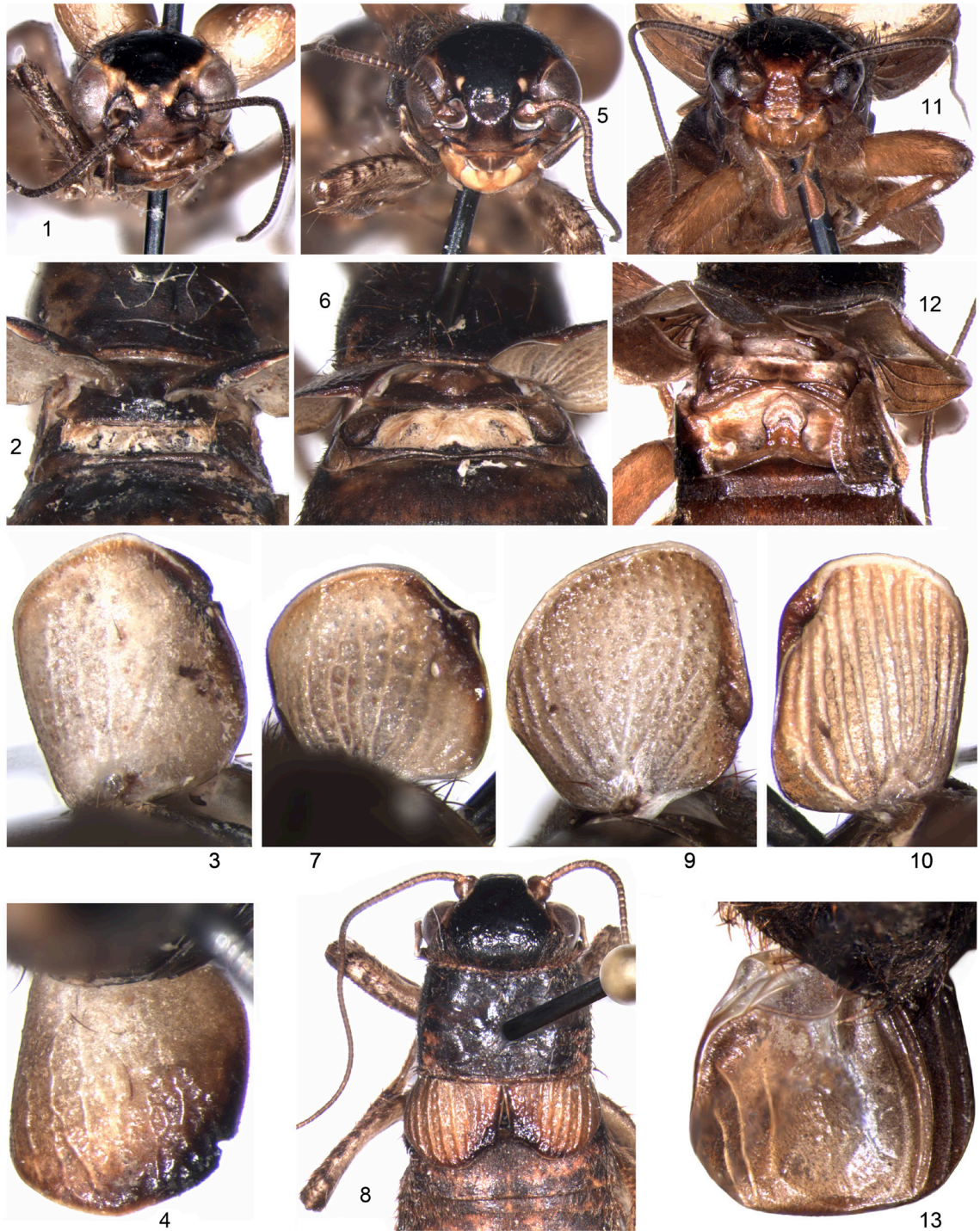
**A key to subgenera of the genus *Odontogryllus***

1. Male tegmina with thickened (glandular) part on distal portion of each medial edge and often with small projection (convexity) on this part which slightly curved or not curved ventrally (Figs 3, 4, 7, 8). Male genitalia with more or less sclerotized ventrolateral lobules of epiphallallic apex (Figs 25–28); posteromedian epiphallallic lobe moderately narrow and distinctly bilobate at apex (Figs 25, 27) .... 2
- Male tegmina with thickened (glandular) part on proximal portion of each medial edge (Fig. 9), or glandular part located on distal portion of this edge but consisting of lobe-like convexity which strongly curved ventrally (Fig. 10). Male genitalia with almost membranous ventrolateral lobules of epiphallallic apex (Figs 29–32); posteromedian epiphallallic lobe wide and not bilobate at apex (Fig. 30), or this lobe strongly reduced (Fig. 32) ..... 3
2. Male tegmina with simply thickened (glandular) part of each medial edge (Figs 3, 4). Male genitalia with short and widely rounded as well as almost semi-sclerotized ventrolateral lobules of epiphallallic apex (Figs 25, 26); ectoparameres and endoparameres (excluding apodemes) rather small, clearly shorter than half of epiphallallic width in region of anterior edges of ectoparameres (Fig. 25) ..... subgenus ***Sergeigryllus* subgen. nov.**  
<http://zoobank.org/23CA2DC6-775D-4E4B-95AA-D3580F9EBAA4>  
 [Composition: type species – *Odontogryllus tarbinskyi* **sp. nov.** Etymology: after orthopterist Sergei P. Tarbinsky (in his memory) and generic name *Gryllus*].
- Male tegmina with distinct tubercle in thickened (glandular) part of each medial edge (Fig. 7). Male genitalia with long and rather narrow as well as partly sclerotized ventrolateral lobules of epiphallallic apex (Figs 27, 28); ectoparameres and endoparameres (excluding apodemes) large, not shorter than half of epiphallallic width in region of anterior edges of ectoparameres (Fig. 27) ..... Subgenus ***Nimiogryllus* subgen. nov.**  
<http://zoobank.org/D4A243CB-44D5-46F2-AC8C-71F0F70D4645>  
 [Comparison: type species – *Odontogryllus nimius* Gorochov, 2013; *O. ashaninka* **sp. nov.**; *O. sympatricus* Gorochov, 2013; Etymology: after species name *nimius* (“excessive”, due to very wide epiphallus) and generic name *Gryllus*].
3. Male tegmina with simply thickened (glandular) part on proximal portion of each medial edge (Fig. 9). Male genitalia with long and rather thin ventrolateral lobules of epiphallallic apex (Figs 29, 30); posteromedian epiphallallic lobe wide and moderately long, reaching or slightly not reaching epiphallallic apices (Fig. 30); ectoparameres very short, distinctly not reaching epiphallallic apices (Figs 29, 30) ..... Subgenus ***Odontogryllus* s. str.**  
 [Composition: type species – *O. setosus* Saussure, 1977; *O. acutus* Mello, 1992; *O. bifidus* Mello, 1992; *O. morona* Gorochov, 2013; *O. proximus* Gorochov, 2013; *O. rhombicus* Gorochov, 2013].
- Male tegmina with glandular part located on distal portion of each medial edge and consisting of lobe-like convexity which strongly curved ventrally (Fig. 10). Male genitalia with long but not thin ventromedial lobules (lobes) of posterior epiphallallic part which almost completely fused with dorsolateral lobules of this part (Figs 31, 32); posteromedian epiphallallic lobe strongly reduced (Fig. 32); ectoparameres moderately long, reaching epiphallallic apices or even barely projected behind them (Figs 31, 32) ..... Subgenus ***Vladogryllus* subgen. nov.**  
<http://zoobank.org/880831D3-7C7B-4C7F-A0AC-C5184679B208>  
 [Composition: type species – *O. ucayali* Gorochov, 2013. Etymology: after Vlad (Volodymyr) Izer-sky and generic name *Gryllus*].

***Odontogryllus (Sergeigryllus) tarbinskyi* sp. nov.**

<http://zoobank.org/7F7DEA49-64E7-4D62-8C27-A3098FA92145>

(Figs 1–4, 14–16, 25, 26)



**Figs 1–13.** *Odontogryllus* and *Valchica*, male: 1–4 – *O. (Sergeigryllus) tarbinskyi* sp. nov.; 5–8 – *O. (Nimiogryllus) ashaninka* sp. nov.; 9 – *O. (Odontogryllus) morona* Gor.; 10 – *O. (Vladogryllus) ucayali* Gor.; 11–13 – *V. panamica* sp. nov. Head with fore leg in front (1, 5, 11); metanotal (2, 6) and abdominal (12) glands with parts of erected tegmina, hind wings absent (2, 6) or lobule-like (right hind wing erected, left one in normal position) (12); ventral (3, 7, 9, 10) and dorsal (4, 13) surfaces of left (3, 4, 7, 9) and right (10, 13) tegmina (visible small notch on distomedial edge of one tegmen is possibly result of eathen by female during copulation; see 3 and 4); anterior half of body from above (8).

**Type material.** *Holotype*: male, PERU, Cusco Department, La Convencion or Calca Prov., 50–55 km N of Quillabamba Town, environs of Huillcapampa Station of SERNANP, 12.34083° S, 72.65147° W, 600–800 m, primary forest, on forest floor at night, 16–22.X.2018 (A. Gorochov) (ZIN).

**Description.** *Male* (holotype). General appearance typical of *Odontogryllus* s. l. but with following body coloration: head dorsum with brownish grey eyes, large black area between eyes and from yellowish median ocellus to pronotal disc, a pair of yellowish stripes around this area (these stripes running through lateral ocelli and along medial edges of eyes but not along anterior edge of pronotal disc), brownish grey rostral apex before median ocellus and between anterior parts of aforementioned yellowish stripes, short brown longitudinal stripe on each widened posterior part of these stripes, and a pair of small light brown marks between these stripes and along anterior edge of pronotal disc; more ventral parts of head (except for antennae) brownish grey with slightly darker borders around antennal cavities, brown to dark brown gena with light greyish brown stripe along posteromedian edge of eye and almost greyish brown area under eye, light brown spot on lower part of clypeus, and rather dark brown apical segments of palpi; antennae almost uniformly greyish brown, but each scape with lighter small dorsal mark (Fig. 1); pronotum dark brown with a pair of light brown to yellowish longitudinal lateral bands on disc; each tegmen dorsally light brown with yellowish to whitish traces of some veins and almost brown lateral and distal parts as well as dark brown distomedial part, but ventrally tegmen light grey with dark distomedial part (Figs 3, 4); legs light brown with a few greyish brown fore and middle tibiae as well as spots on fore and middle femora, with almost dark greyish brown distal part of hind femur and oblique stripes on rest of this femur, and with more or less spotted tarsi (but hind tarsus with lighter basal mark distinctly smaller than in other tarsi); rest body parts greyish brown to light greyish brown with dark brown dorsal part of both pterothorax and first abdominal tergite as well as lateral parts of abdominal tergites and most part of anal plate, with reddish tinge on rest of abdominal tergites, and with almost yellowish hairs of metanotal gland (Fig. 2) and pterothoracic sternites as well as lateral parts of abdominal sternites. Head slightly dorsoventrally depressed, with rostrum between antennal cavities almost 1.5 times as wide as scape (Fig. 1); pronotum also somewhat dorsoventrally depressed, moderately transverse, with anterior and posterior edges of disc more or less straight, and with lateral edges of disc rounded in transverse section; tegmina reaching apex of first abdominal tergite, without distinct venation and clear lateral fields, with slightly convex lateral and medial edges as well as widely rounded (roundly truncated) distal parts and thickened distomedial portions (especially along their edges; Figs 3, 4); metanotal gland as in Fig. 2; anal plate short, transversally trapezoidal; genital plate almost 2.5 times as long as anal one, elongate and narrowing to moderately narrow and roundly truncate apex; genitalia as in Figs 14–16, 25, 26.

*Female.* Unknown.

*Length* in mm. Body 13.0; pronotum 2.1; tegmina 2.0; hind femur 8.0.

**Comparison.** The new species is distinguished from all other congeners by the subgeneric characters given in the key above.

**Etymology.** This species is named in memory of the Russian and Soviet orthopterist Sergei P. Tarbinsky.

***Odontogryllus (Nimiogryllus) ashaninka* sp. nov.**

<http://zoobank.org/945945FC-6FE2-4B3E-A54F-FA9B79B6BF18>

(Figs 5–8, 17–19)

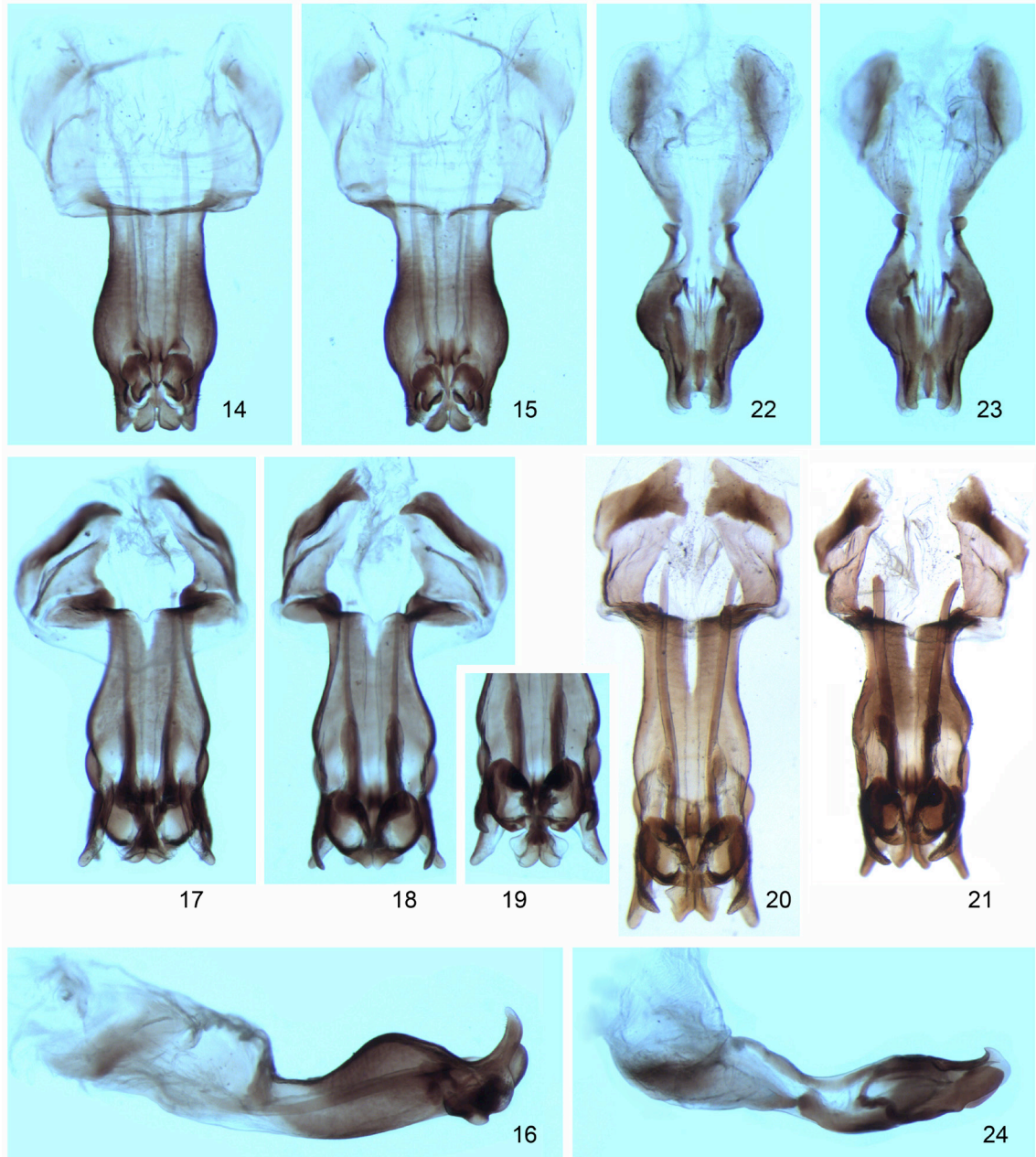
**Type material.** *Holotype*: male, PERU, Junin Department, Satipo Prov., Rio Tampo Distr., 6 km N of Pichiguia Village, “Reserva Comunal Ashaninka”, 11.358244° S, 74.0320473° W, ~500 m, primary forest, on forest floor at night, 14–19. XII.2018 (A. Gorochov) (ZIN). *Paratypes*: 2 males, 5 females, same data as for holotype (ZIN); 4 males, 1 female, same data, but 14–23. XI.2017 (A. Gorochov, G. Irisov) (ZIN).

**Description.** *Male* (holotype). General appearance very similar to that of *O. (N.) sympatricus* and *O. (N.) nimius* but with following characteristic features of coloration: head practically uniformly black in dorsal part (i.e. without light brown to brown stripes along dorsolateral edges of rostrum and along medial edges of eyes, but such stripes characteristic of these species), with light brown genae, brown to greyish brown rest of epicranium (under median ocellus, antennal cavities and eyes), dark brown borders of these cavities, brownish grey eyes, whitish ocelli, yellowish labrum, light brown rest of mouthparts having upper part of clypeus and anterodorsal corners of mandibles slightly darker, as well as greyish brown antennae and palpi (Fig. 5); pronotum blackish with a pair of lighter groups of spots along lateral edges of posterior half of disc; rest tergites dark brown to brown with numerous small and poorly distinct light brown spots on dorsum of abdomen as well as whitish hairs of metanotal gland (Fig. 6); tegmina dorsally light brown and ventrally light yellowish grey, with posteromedial (glandular) thickening brown to dark brown dorsally (as in Fig. 8) and greyish brown ventrally (Fig. 7); legs yellowish to light brown with numerous brown to dark brown marks (except for almost uniformly greyish brown hind tibia); anal plate blackish; sternites yellowish to light brown; genital plate dark brown. External structure of body similar to that of *O. (S.) tarbinskyi* sp. nov., but metanotal gland as in Fig. 6, tegmina reaching approximately middle of first abdominal tergite, dorsal and ventral tegminal surfaces with longitudinally parallel traces of veins and finely reticular traces of veinlets, and posteromedial thickened (glandular) part of both tegmina with distinct tubercle-like projection. Genitalia most similar to those of *O. (N.) sympatricus* but with epiphallus distinctly shorter, posteromedian epiphallic lobe having a pair of more rounded (not almost angular) apices (compare Figs 19 and 20), and anteromedian notch of epiphallic sclerite distinctly wider (see Figs 17, 18 and 20).

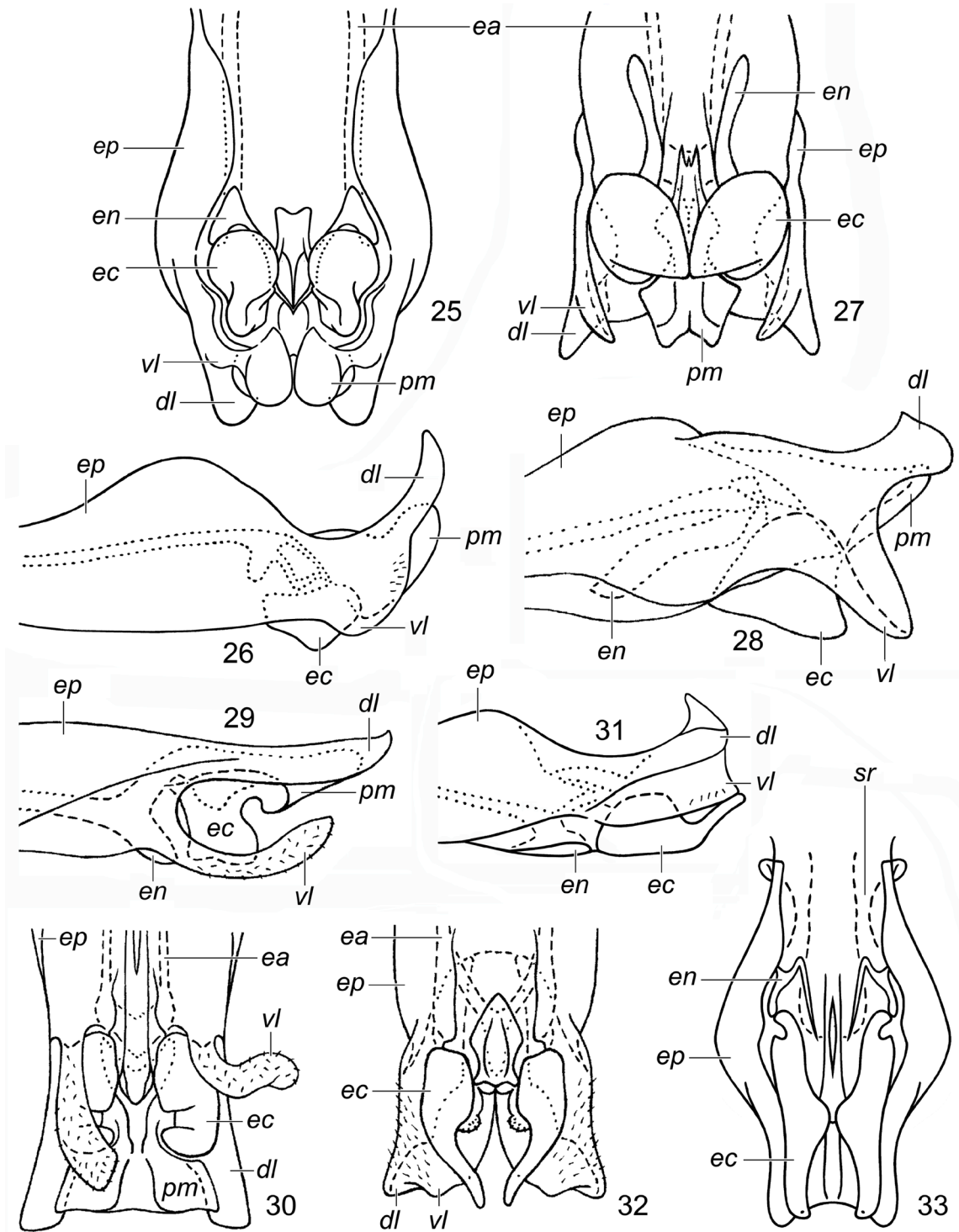
*Variations.* Other males slightly varied in coloration: from barely lighter to insignificantly darker, and sometimes with very small lightish marks on head dorsum along anterior edge of pronotal disc or with uniformly dark pronotum.

*Female.* Coloration and structure of body very similar to those of darkest males, but pronotum sometimes with traces of lightish marks along lateral edges of posterior half of disc, wings and metanotal gland absent, and anal plate slightly smaller and with more rounded distal part; genital plate moderately small, slightly transverse, narrowing to widely truncated apex; ovipositor rather long, with acute and slightly dorsoventrally flattened apical part.

*Length* in mm. Body: male 11.5–13.0, female 11.0–15.0; pronotum: male 2.0–2.4, female 2.2–2.7; tegmina, male 1.7–1.9; hind femora: male 7.5–8.5, female 8.0–9.0; ovipositor 7.5–9.5.



**Figs 14–24.** *Odontogryllus* and *Valchica*, male: 14–16 – *O. (Sergeigryllus) tarbinskyi* sp. nov.; 17–19 – *O. (Nimio-gryllus) ashaninka* sp. nov.; 20 – *O. (N.) sympatricus* Gor.; 21 – *O. (N.) nimius* Gor.; 22–24 – *V. panamica* sp. nov. Genitalia from above (14, 17, 22), from below (15, 18, 20, 21, 23), and from side (16, 24); posterior half of genitalia from below and slightly behind (19).



**Figs 25–33.** *Odontogryllus* and *Valchica*, male (schematically): 25, 26 – *O. (Sergeigryllus) tarbinskyi* sp. nov.; 27, 28 – *O. (Nimiogryllus) sympatricus* Gor.; 29, 30 – *O. (Odontogryllus) setosus* Sauss.; 31, 32 – *O. (Vladogryllus) ucayali* Gor.; 33 – *V. panamica* sp. nov. Distal half of genitalia from below (25, 27, 30, 32, 33) and from side (26, 28, 29, 31).

*Abbreviations:* *dl*, dorsolateral lobule of epiphallic apex; *ea*, endoparameral apodeme; *ec*, ectoparamere; *en*, endoparamere; *ep*, epiphallus; *pm*, posteromedian lobe of epiphallus; *sr*, sclerotized ribbon on dorsal surface of genitalia fused with anterior edge of epiphallus; *vl*, ventrolateral lobule of epiphallic apex. [27–30, 32 – after Gorochov (2013)].

**Comparison.** The new species is most similar and possibly related to *O. (N.) sympatricus* from Ucayali Department of Peru, but it differs from the latter in darker coloration (especially head dorsum coloration) and the above-mentioned characters of the male genitalia. Possibly these species are only two subspecies of the same genus.

From *O. (N.) nimius* (Junin Department of Peru: Satipo Prov.), the new species is distinguished by the male genitalia with a longer anterior narrowed portion of the epiphallus (in *O. ashaninka* **sp. nov.**, the widest epiphallic part is located in the middle epiphallic portion, but in *O. nimius*, before this portion; compare Figs 17, 18 and 21), more rounded apices of the posteromedian epiphallic lobe, a wider anteromedian notch of the epiphallic sclerite (see Figs 17, 18 and 21), and a narrower (as in *O. sympatricus*) inner sclerotized area of each ventrolateral lobule of the posterior epiphallic part.

**Etymology.** This species is named after “Reserva Comunal Ashaninka”, its type locality.

### *Odontogryllus (Vladogryllus) ucayali* Gorochoy, 2013

(Figs 10, 31, 32)

**New material examined:** 1 male, PERU, Junin Department, Satipo Prov., Rio Tampo Distr., 6 km N of Pichiguia Village, “Reserva Comunal Ashaninka”, 11.358244° S, 74.0320473° W, ~500 m, primary forest, on forest floor at night, 14–19. XII.2018 (A. Gorochoy) (ZIN); 1 male, same Peruvian department and province, 12 km N of Satipo Town, “Concesion de conservacion de la Universitaria”, 11.2031563° S, 74.61914062°W, ~600 m, primary forest, on forest floor at night, 25–27. XI.2017 (A. Gorochoy, G. Irisov) (ZIN).

**Note.** These specimens are almost identical to those from the type locality of this species (Ucayali Department), but their tegmina are somewhat lighter: almost yellowish white in the male from the Ashaninka Reserve, and light greyish in the second male.

### *Valchica panamica* **sp. nov.**

<http://zoobank.org/5E07AB51-D79F-4FFB-8253-A6FC2953A79A>

(Figs 11–13, 22–24, 33)

**Type material.** *Holotype*: male, PANAMA, Panama Prov. not far from Panama City, environs of Chagres National Park, Cerro Azul (Blue Hill) Mts, 600–800 m, primary forest, on forest floor at night, 14–25.II.2022, collected as nymph, imago III–VI. 2022 (A. Gorochoy) (ZIN). *Paratype*: 1 male, same data as for holotype (ZIN).

**Description.** *Male* (holotype). General appearance somewhat similar to that of *Odontogryllus* representatives, but head as well as thoracic and abdominal segments even more dorsoventrally flattened (Fig. 11), tegmina clearly larger and with slightly reduced stridulatory apparatus (Fig. 13), hind wings lobule-like, fore tibia with only rather small and oval inner tympanum (Fig. 11), and abdomen with special gland on first abdominal tergite (abdominal gland) but not on metanotum (Fig. 12). Coloration following: head and pronotum dark brown (almost blackish) but with reddish brown area between antennal cavities as well as between median ocellus and clypeus, brown epicranial spaces under antennal cavities and in lower part of genae, yellowish to light brown mouthparts (having barely darker upper part of clypeus), greyish brown subgenae and scapes, as well as somewhat darker (almost dark greyish brown) rest of antennae (Figs 11, 12); tegmina with dark greyish brown lateral fields and slightly lighter (greyish brown) most part of dorsal fields having light greyish brown middle part and almost transparent longitudinal stripe in harp (Fig. 13); hind wings more or less light greyish brown (Fig. 12); legs light brown with reddish tinge on femora and tibiae (Fig. 13), but hind femur reddish brown with darker (almost dark brown) apical part, and hind tibia almost completely greyish brown; tergites (except for pronotum) brown with darker areas on lateral parts (including some pleurites); anal and genital plates as well as cerci dark greyish brown; sternites light brown to light greyish brown, but last of them almost similar to genital plate in coloration. Head rostrum between antennal cavities 1.3 times as wide as scape; clypeal suture slightly angular; maxillary palpi as in Fig. 11; tegmina reaching middle of fourth abdominal tergite, with widely rounded (almost truncate) distal parts, with stridulatory apparatus having almost straight chords and moderately short as well as thin and arcuate stridulatory vein but lacking mirror and oblique veins in harp (latter veins possibly represented by its traces: one almost transparent stripe in harp; Fig. 13), and with lateral field having 5–6 longitudinal but more or less arcuate veins and lacking crossveins; hind wings reaching base of third abdominal tergite, in shape of elongate lobules with rounded distal halves partly covering lateral parts of abdominal gland in rest position (Fig. 12); metanotum short and without any distinct gland; first abdominal tergite with abdominal gland lacking hairs and consisting of large concavity (reaching anterior and posterior edges of this tergite), one median process of characteristic shape at middle of this concavity and a pair of smaller projections in its lateral parts (Fig. 12); anal and genital plates similar to those of *O. (S.) tarbinskyi* **sp. nov.** and *O. (N.) ashaninka* **sp. nov.**, but with slightly narrower apical part of anal plate and more widely truncated apical part of genital one. Genitalia very similar to those of *V. rinconiensis* Mello, 1992, but with some differences: epiphallus with widest part located in its middle portion, and with a pair of long sclerotized ribbons running forwards from anterior epiphallic edge (vs. widest epiphallic part located in



its proximal portion, and such sclerotized ribbons possibly absent or poorly visible); lateral edges of posterior epiphallus half more strongly concave (Figs 22, 33); ectoparameres not narrowed before their apical parts (*vs.* distinctly narrowed in subapical parts); endoparameres narrower than those of *V. rinconiensis* but as in this species without distinct apodemes (Figs 23, 33); widened rami almost equal to epiphallus in length (Figs 22–24), but in *V. rinconiensis*, they probably shorter (Mello, 1992, Figs 3, E, F, G).

*Variations.* Paratype male with slightly darker (almost uniformly greyish brown) legs and dorsal tegminal field, but this field with one almost transparent oblique vein in harp.

*Female.* Unknown.

*Length* in mm. Body 9.5–10.0; pronotum 1.8–2.0; tegmina 2.3–2.6; hind femora 6.0–6.4.

**Comparison.** The new species differs from *V. rinconiensis*, the second species of this genus from Costa Rica, in the characters of the male genitalia listed above.

**Etymology.** This new species is named after the Panama Province where it was collected.

## Acknowledgements

The author is grateful to the National Service of Natural Areas Protected by the State (Peru) and ACRENAP Association as well as personally to Volodymyr Izersky for the help in organization of field work in Peruvian natural landscapes. This study was performed in the frames of the state research project No. 122031100272-3 (Russian Federation).

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