

New and Little Known Crickets of the Subfamily Phalangopsinae (Orthoptera, Gryllidae): 6. Neotropical Taxa of the Tribes Phalangopsini and Paragryllini

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Abstract—Two new genera, ten new species, and two new subspecies: *Uvaroviella izerskyi* sp. n., *U. morona* sp. n., *U. ucayali* sp. n., *U. pastaza* sp. n., *U. affinis* sp. n., *U. bolivia* sp. n., *U. bora atalaya* subsp. n., *Kevanacla orientalis contraria* subsp. n., *Peruacla solitaria* gen. et sp. n., *Ecuadoracla propria* gen. et sp. n., *Adelosgryllus spurious* sp. n., and *A. phaeocephalus* sp. n. are described. The tribe Paragryllini is divided into three subtribes: Paragryllina Desutter, 1988 stat. n., Neoaclina Desutter, 1988 stat. n., and Strogulomorphina Desutter 1988, stat. n. The composition of the genera *Uvaroviella* Chop. and *Neoacla* Desutter is discussed. The species from Costa Rica and the Antilles are supposed to belong to these genera and subgenera. New synonymies, *U. trinidadii* Gorochoy, 2007 = *U. enodos* Otte et Perez-Gelabert, 2009, syn. n. and *N. multivenosa* (Chopard, 1937) = *Selvacla choreutes* Otte, 2006, syn. n., are proposed.

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The 6th communication of a series of publications on the systematics of Phalangopsinae mainly represents descriptions of new South American taxa belonging to two tribes of this subfamily: Phalangopsini and Paragryllini. Thus, the present paper is a continuation of the 4th and 5th communications of this series, which dealt with the Neotropical representatives of these tribes (Gorochoy, 2007, 2009). The present study is based on the material from the collections of the Zoological Institute, Russian Academy of Sciences, St. Petersburg (ZIN).

TRIBE PHALANGOPSINI

Genus *UVAROVIELLA* Chopard, 1923

Type species *U. cavicola* Chopard, 1923 (Jamaica).

Notes. Gorochoy (2007) proposed to consider *Uvaroviella* as a genus consisting of 9 subgenera which comprise, or may comprise 27 species with a characteristic structure of the male genitalia (Figs. 1, 1–6, 8–12, 14–17, 19–21, 27, 28); it was also proposed in the same publication to include in this genus, five more species studied to a lesser extent or known only from the females, without attributing them to any of its subgenera.

In addition, 5 more species from Costa Rica (Otte, 2006) and 16 species from the Antilles (Otte and

Perez-Gelabert, 2009) were described. The species from Costa Rica were attributed to the “genera” *Aclodes* Heb. and *Paraclodes* Des.-Grand. considered in the present study as subgenera of the genus *Uvaroviella*, and all the Antilles species were described in this genus without inclusion in any of its subgenera.

Descriptions of most of these additional species are insufficient. However, based on photographs of their tegmina and male genitalia, I can assume with some degree of assurance that *A. scandens* Otte, 2006, *A. herpon* Otte, 2006, *A. turbidus* Otte, 2006, *U. nesites* Otte et Perez-Gelabert, 2009, and *U. babyas* Otte et Perez-Gelabert, 2009 belong to the genus *Uvaroviella*, being closely related to species of the subgenera *Aclodes* and *Acla* Heb., that *U. cantator* Otte et Perez-Gelabert, 2009 and *U. thescelos* Otte et Perez-Gelabert, 2009 may belong to the subgenus *Reacla* Gor. of the same genus, and that *U. jamaicense* Otte et Perez-Gelabert, 2009, *U. arrugia* Otte et Perez-Gelabert, 2009, *U. cavea* Otte et Perez-Gelabert, 2009, *U. otaros* Otte et Perez-Gelabert, 2009, *U. tabulatum* Otte et Perez-Gelabert, 2009, and *U. trelawni* Otte et Perez-Gelabert, 2009 may belong to the subgenus *Uvaroviella*.

U. enodos Otte et Perez-Gelabert, 2009 syn. n. is evidently a junior synonym of *U. (Acla) trinidadii* Gorochoy, 2007. And finally, a number of the other

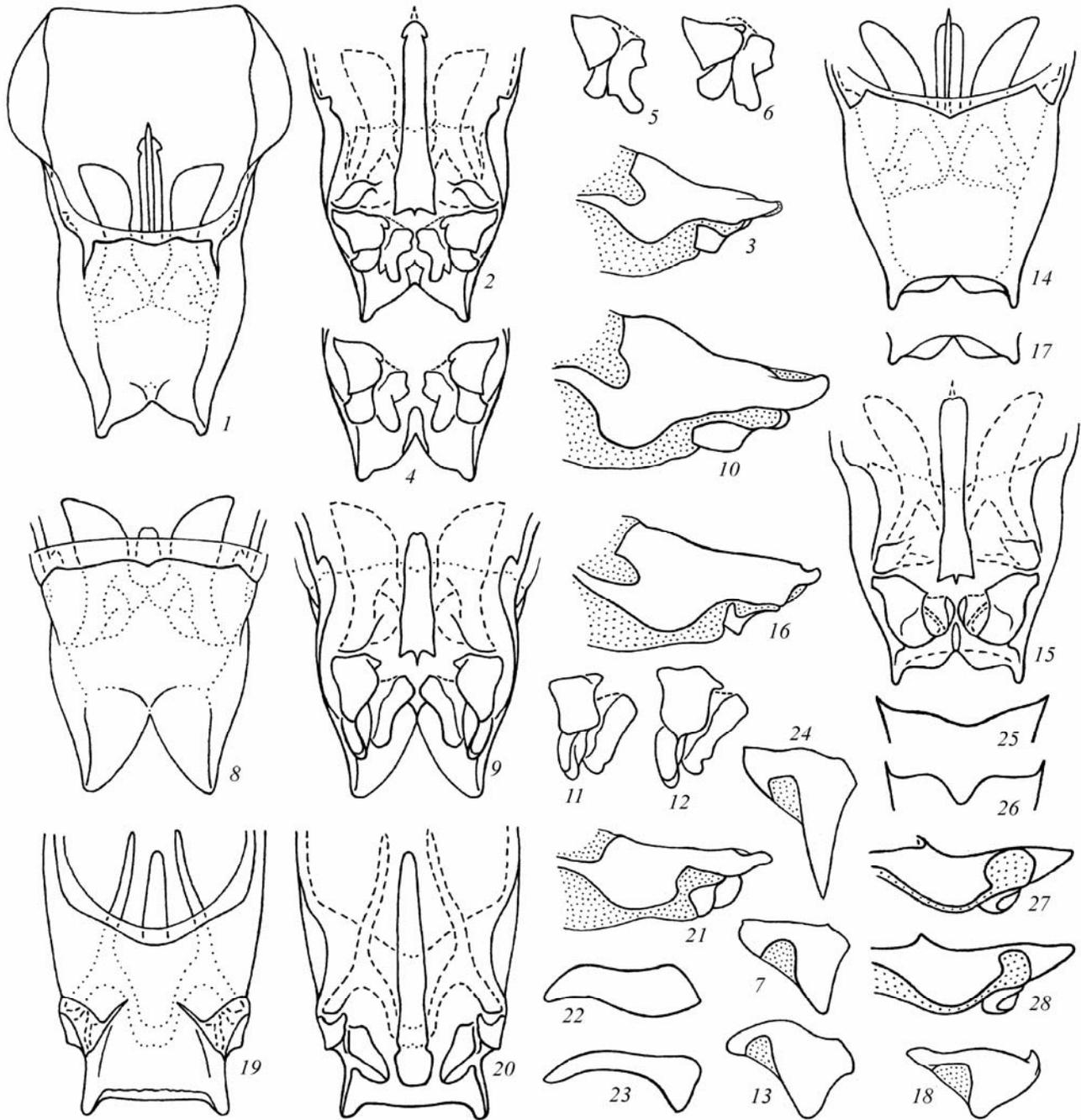


Fig. 1. *Uvaroviella izerskyi* sp. n. (1–7), *U. morona* sp. n. (8–13), *U. ucayali* sp. n. (14–18), *U. pastaza* sp. n. (19–22), *U. affinis* sp. n. (23), *U. bolivia* sp. n. (24), *U. rumococha* (Des.-Grand) (25), *U. ?chamocoru* (Nischk et Otte) (26), *U. bora bora* (Des.-Grand) (27), *U. b. atalaya* subsp. n. (28); (1) male genitalia, dorsal view; (2, 3, 8–10, 14–16, 19–21, 27, 28) male genitalia (but without proximal part) [(2, 9, 15, 20) ventral view; (3, 10, 16, 21, 27, 28) lateral view; (8, 14, 19) dorsal view]; (4, 17) distal part of male genitalia [(4) ventral view; (17) its apex, dorsal view]; (5, 6, 11, 12) ectoparamere, ventral view; (7, 13, 18, 22–24) copulatory papilla [(7, 13, 18, 24) lateral view; (22, 23) its sclerite, lateral view]; (25, 26) proximal part of epiphallus, dorsal view; (25, 27) after Desutter-Grandcolas, 1992.

species described in the same publications (*A. orchestes* Otte, 2006, *P. minor* Otte, 2006, *U. mirabilis* Otte et Perez-Gelabert, 2009, *U. phylacris* Otte et Perez-Gelabert, 2009, *U. simlense* Otte et Perez-Gelabert,

2009 and *U. erinys* Otte et Perez-Gelabert, 2009) do not belong to the genus *Uvaroviella* at all, and *U. tobago* Otte et Perez-Gelabert, 2009 described ibidem very briefly and without illustrations, and *Larandus*

marmoratus Redtenbacher, 1892, described from the nymph and transferred to the genus *Uvaroviella* in the latter publication listed above, can be treated at present only as species which can hardly be attributed to any tribe.

In the present study, six new species and one new subspecies are added to the genus *Uvaroviella*; most of them are attributed to the already described subgenera of the genus *Uvaroviella*: *Holacla* Gor., *Euacla* Gor., and *Reacla* Gor.

***Uvaroviella (Holacla) izerskyi* Gorochoy, sp. n.**

Material. Holotype: ♂, Peru, Ucayali Department, Atalaya Province, ~35 km NWW of Atalaya City on the Ucayali River, near Sapani Village, ~300 m, primary forest, 26–31.X.2008, Gorochoy, Berezin, Anisyutkin, Tkacheva, and Izerskii (ZIN). Paratypes: 2 ♂, 4 ♀, as holotype (ZIN); 2 ♂, 1 ♀, Peru, Junin Department, Satipo Province, ~25 km SE of Satipo, near Rio Venado Vill., ~1200 m, partly primary, and partly secondary forest, 20–23.X.2008, Gorochoy, Berezin, Anisyutkin, Tkacheva, and Izerskii (ZIN); 3 ♂, same province, but near Satipo, ~800 m, secondary forest at a waterfall, 4–5.XI.2008, Gorochoy, Berezin, Anisyutkin, Tkacheva, and Izerskii (ZIN). The specimens were collected at night from the trunks of living and dead trees, not high above the ground, and on large stones along forest streams.

Description. Male (holotype). Body rather large. Coloration spotty, typical of the genus: head pale brown with brown antennal flagella, with spots on scapes and behind eyes, wide longitudinal stripes behind ocelli and antennal cavities, stripes on genae, P-shaped small spot on upper part of clypeus, with dark brown upper part of rostrum (covering lateral ocelli), 1 pair of narrow vertical stripes on facial part (these stripes extending between antennal cavities from apex of rostrum to clypeus, and merging in lower half to form wider median stripe), and large spots below eyes and on mandibles; pronotum dark brown with pale brown broken longitudinal stripes at sides of disc and 3 spots on disc: 1 anterior spot before middle of disc, in shape of transverse stripe strongly widened in median part, and 2 small posterior spots, in shape of rings contacting with anterior spot and with lateral stripes; lateral areas of both tegmina and dorsal area of right tegmen almost uniformly dark brown; legs and tergites distinctly spotty (with numerous oblique strokes on outer side of hind femur), but coxae, hind

tarsus, lower parts of thorax and abdomen (including genital plate), and also cerci more or less uniformly pale brown. Scape about twice as wide as rostrum between antennal cavities; antennal flagellum with sparse and not very distinct tufts of moderately long hairs. Tegmina reaching posterior part of abdominal tergite III; their lateral areas with 5 or 6 longitudinal veins and without cross-veins; dorsal area of right tegmen with well-developed stridulatory apparatus (Fig. 3, 1). Fore tibia only with inner tympanum, oval, medium-sized (for the genus). Anal and genital plates simple, with roundly truncate apices; genitalia with epiphallus more or less strongly membranous only in median part of its distal half; apex of epiphallus with moderately deep median emargination and 1 pair of small emarginations lateral to median emargination; ectoparameres of complex shape: each with 3 lobes, median lobe considerably bifurcate apically (Fig. 1, 1–3).

Variations. Body occasionally slightly paler or darker; in latter case, some dark spots (for example, those on abdominal tergites) occasionally merging. Structure of tegmina also insignificantly varying; structure of genitalia occasionally varying more widely: small sclerite near middle of median emargination of epiphallus apex varying in shape (Fig. 1, 4); apex of median lobe of ectoparamere occasionally less strongly bifurcate (Fig. 1, 5, 6) or not bifurcate (Fig. 1, 4); proximal lobe of ectoparamere occasionally longer (Fig. 1, 4).

Female. Shape and coloration of body as those in male, but tegmina strongly shortened, with only 4–6 inconspicuous and nearly straight longitudinal veins, slightly projecting posteriorly from under pronotum (their apices reaching base or median part of metanotum); genital plate about half as long, slightly emarginate at apex. Copulatory papilla as in Fig. 1, 7; ovipositor very long, with apex typical of the genus (narrow and flattened dorsoventrally), with smooth lateral margins of dorsal sheaths.

Length (mm). Body: male 16–20, female 17–19; pronotum: male 3.2–3.8, female 3.4–4.0; tegmina: male 5.8–7, female 1.1–1.3; hind femur: male 16–19, male 16.5–19.5; ovipositor 20–23.

Comparison. The new species is similar to *U. nebulosa* Gor. in the structure of the male genitalia, but clearly differs in the following characters: tegmina much shorter in both sexes, dorsal area of right tegmen

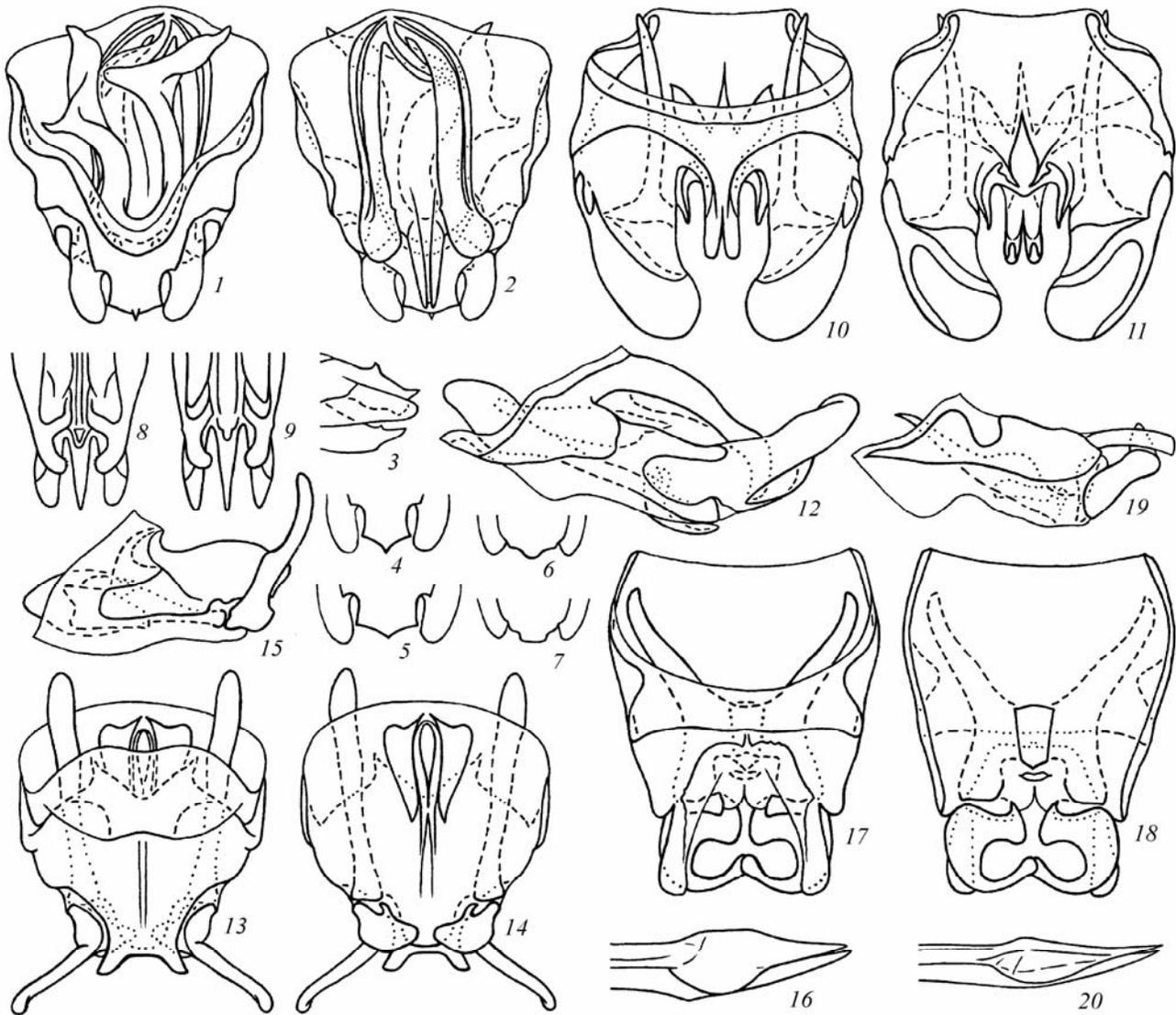


Fig. 2. *Neoacla vicina* (Chop.): (1–5), *N. loiselae* Desutter (6, 7), *Kevanacla orientalis orientalis* Des.-Gr. (8), *K. o. contraria* subsp. n. (9), *Peruaccla solitaria* sp. n. (10–12), *Ecuadoracla propria* sp. n. (13–16), *Adelosgryllus spurius* sp. n. (17–19), *A. phaeocephalus* sp. n. (20); (1, 2, 10–15, 17–19) male genitalia [(1, 10, 13, 17) dorsal, (2, 11, 14, 18) ventral, (12, 15, 19) lateral view]; (3, 8, 9) male genitalia (but without proximal half) [(3) lateral view; (8, 9) ventral view]; (4–7) distal part of epiphallus (with membranous lateral lobes), dorsal view; (16, 20) distal part of ovipositor, lateral view; (8) after: Desutter-Grandcolas, 1992.

of male darker, distal half of epiphallus less strongly membranous, lateral parts of epiphallus without marked emarginations, and sclerotized part of distal half of guiding rod much narrower. The new species can be readily distinguished from *U. bordoni* (Chop.) and *U. maculata* (Caud.) by an absolutely different shape of the distal ectoparameral lobes, and from *U. grandis* (Des.-Grand.), known only from the female, by distinctly shorter tegmina of the female and by the presence of high paired lower tubercles on the sclerotized part of the copulatory papilla (the latter species is similar to *U. izerskyi* in size and coloration of the body).

Etymology. The new species is named after the entomologist V.V. Izerskii, who helped me in carrying out the field investigations in Peru in 2008.

Uvaroviella (Holoaccla) morona

Gorochov, sp. n.

Material. Holotype: ♂, Ecuador, Morona Santiago Prov., Morona River bank near the frontier of Peru, near Puerto Morona Vill., ~300 m, primary forest, 5–15.I.2010, Gorochov (ZIN). Paratypes: 7 ♂, 4 ♀, as holotype (ZIN). The specimens were collected at night from the trunks of very large living trees (near the roots).

Description. Male (holotype). Structure of body (including genitalia) and coloration similar to those of the holotype of *U. izerskyi*, but dark spots below eyes longer—reaching clypeus, pronotum with small pale spot in anteroventral part of each lateral lobe and with continuous (not ring-shaped) pale spots on posterior part of disc, tegmen scale-shaped (tiny, without any venation), pronotum entirely concealed by posterior part, tympanum of fore tibia small and nearly rounded, apex of epiphallus with much deeper median emargination and without any others lateral to this emargination, ectoparamere with longer lateral part and with not bifurcate median projection on median lobe, mold of spermatophore attachment plate (fused with guiding rod) much shorter (Fig. 1, 8–10).

Variations. Part of paratypes slightly paler or darker, and apex of median lobe of ectoparamere in genitalia of some of them bifurcate to various extent (Fig. 1, 11, 12).

Female. Shape of body (including structure of tegmina) and coloration as those in male. Genital structures approximately similar to those in female of *U. izerskyi*, but copulatory papilla with wider (longer) lower tubercles on sclerotized part (Fig. 1, 13), and apex of ovipositor inconspicuously serrate along lateral margins of dorsal sheaths.

Length (mm). Body: male 16.5–19.0, female 18–22; pronotum: male 3.5–3.9, female 3.9–4.3; tegmina: male 0.4–0.5, female 0.5–0.6; hind femur: male 16.5–18, female 17.5–19.0; ovipositor 21–22.5.

Comparison. The new species is most closely related to *U. izerskyi* in the structure of the male genitalia, but clearly differs in the tiny tegmina without venation in both sexes. From all the other species of the genus included in the subgenus *Holacla* (Gorochov, 2007), the new species differs in the strongly reduced tegmina and in the shape of the distal ectoparameral lobes.

Uvaroviella (Holoacla) ucayali Gorochov, sp. n.

Material. Holotype: ♂, Peru, Ucayali Department, Atalaya Prov., ~35 km NWW of Atalaya on the Ucayali River, near Sapani Vill., ~300 m, primary forest, 26–31.X.2008, Gorochov, Berezin, Anisyutkin, Tkacheva and Izerskii (ZIN). Paratypes: 6 ♂, 5 ♀, as holotype (ZIN). The specimens were collected at night from the trunks of large living trees, not high above the ground, and from earthen precipices along a forest road.

Description. Male (holotype). Structure of body and coloration very similar to those of holotype of *U. morona*, but pronotum and legs slightly more uniformly colored (pronotum dark brown with slightly paler central part of disc, darkened spots on legs not very dark—significantly less contrasting), tympanum of fore tibia much narrower, apex of epiphallus with shallow emargination and with pair of short and wide membranous lobes at sides of median part of this emargination, ectoparamere inconspicuously divided in lateral part into proximal and distal lobes, median lobe of ectoparamere short and not bifurcate (neither at apex, nor in median part), mold of spermatophore attachment plate (fused with guiding rod) as long as that of *U. izerskyi* (Fig. 1, 14–16).

Variations. Coloration occasionally somewhat darker or paler, and posterolateral lobes of epiphallus apex shorter than that in holotype (Fig. 1, 17).

Female. Structure of most parts of body and coloration as those in male. Genital structures similar to those in female of *U. izerskyi*, but lower tubercles on sclerotized part of copulatory papilla less high (Fig. 1, 18).

Length (mm). Body: male 16–19, female 16–21; pronotum: male 3.5–3.8, female 3.7–4.1; tegmina: male 0.5–0.6, female 0.4–0.5; hind femur: male 17.0–18.5, female 17.5–19; ovipositor 20–23.

Comparison. The new species is similar to *U. morona* in the strongly reduced wings, but clearly differs in the ectoparamere inconspicuously divided in the lateral part into proximal and distal lobes, in the considerably shorter both median lobe of the ectoparamere and the mold of the spermatophore attachment plate. The new species differs from the other species of the subgenus in the strongly reduced tegmina and in details of the structure of the male genitalia.

Uvaroviella (Euacla) ?chamocoru
(Nischk et Otte, 2000)

Material. Peru, Loreto Department: 2 ♂, Morona River bank near its mouth, near Puerto America Vill., ~200 m, partly primary, and partly secondary forest, 20–23.I.2010, Gorochov (ZIN); 3 ♂, Morona River bank approximately halfway from its mouth to its Ecuadorian part, 200–300 m, primary forest, 24–27.I.2010, Gorochov (ZIN). 1 ♂, Ecuador, Morona Santiago Prov., Morona River bank near the frontier of Peru, near Puerto Morona Vill., ~300 m, primary for-

est, 5–15.I.2010, Gorochov (ZIN). The specimens were collected at night from the trunks of living and dead trees, not high above the ground.

These specimens belong to the same species as those I collected earlier in the northern part of Ecuador (Gorochov, 2007). Such distribution of this species suggests that the very similar *U. chamocoru* from Ecuador and *U. rumococha* (Des.-Grand.) from Peru may be synonyms. However, as shown in the figure of the male genitalia of *U. rumococha*, published in the description of this species (Desutter-Grandcolas, 1992a : fig. 34A), the proximal margin of the epiphallus forms only a gently sloping, shallow median emargination, whereas in all the males of *U. ?chamocoru* examined by me, this emargination is deep and has steeper curved lateral margins (Fig. 1, 25, 26).

Uvaroviella (Euacla) ?mococharu
(Nischk et Otte, 2000)

Material. 3 ♂, Peru, Loreto Department, Morona River bank approximately halfway from its mouth to its Ecuadorian part, 200–300 m, primary forest, 24–27.I.2010, Gorochov (ZIN). The specimens were collected under the same conditions, as *U. ?chamocoru*.

These males completely correspond to the description of *U. mococharu*, although this description is insufficient for exact identification of a species (Nischk and Otte, 2000). These specimens possess genitalia hardly indistinguishable from those of *U. ?chamocoru*, but are very similar to *U. demissa* Gor. and *U. feredemissa* Gor. in the external morphology (their scapes are much larger than those of *U. ?chamocoru*). These specimens differ from *U. demissa* in the longer median part of the endoparamere and distal (narrowed) area of the ectoparamere, and from *U. feredemissa*, in the epiphallus with longer posterolateral lobes and an undulate (not convex) posterior margin between these lobes.

Uvaroviella (Euacla) pastaza Gorochov, sp. n.

Material. Holotype: ♂, Ecuador, Pastaza Prov., ~10 km W of Puyo, near Shell Vill., 1000–1500 m, secondary forest, 1–3.I.2010, Gorochov (ZIN). Paratypes: 1 ♂, 3 ♀, as holotype (ZIN). The specimens were collected at night from the trunks of small living trees, not high above the ground.

Description. Male (holotype). Body medium-sized for the subgenus *Euacla*. Coloration and structure of body also typical of this subgenus: head and pronotum

dark brown with slightly paler (brown) antennae, mouthparts, and 4 longitudinal lines on vertex behind rostrum and eyes, and also with pale brown ocelli, tortuous stripe along upper margin of each lateral lobe of pronotum, 1 pair of spots on pronotal disc near its posterior margin, and median stripe on this disc; lateral areas of tegmina dark brown, and dorsal area of right tegmen uniformly brown; legs spotty; cerci pale brown; other parts of body brown (slightly paler ventrally than dorsally). Scape about 1.5 times as wide as rostrum between antennal cavities, and proximal part of antennal flagellum considerably narrower than fore tibia. Fore tibia only with inner oblong-oval tympanum. Tegmina reaching apex of abdomen; their lateral area with 9 or 10 longitudinal veins and with their branches, also with sparse cross-veins between *Sc* and *R*; stridulatory apparatus of dorsal area of tegmina as in Fig. 3, 2. Anal and genital plates more or less truncate apically; genitalia with relatively short posterolateral lobes of epiphallus, posterior margin of which weakly convex between these lobes; proximal lobe of ectoparameres with distinct emargination anteriorly, and their distal lobe twisted relative to proximal lobe in such manner that its plane situated almost vertically; median part of endoparameres and mold of spermatophore attachment plate long; apical widening of guiding rod rather large (Fig. 1, 19–21).

Variations. Pronotal disc of paratype with 2 posterior spots similar to those in holotype, and also with large unpaired diamond-shaped brown spot proximally.

Female. Shape of body and coloration as those in male, but tegmina more or less uniformly brown, reaching only apex of metanotum, not contacting, with narrowly rounded apex and with 7 or 8 longitudinal veins, between which sparse cross-veins present in places. Genital plate and ovipositor roughly similar to those of *U. morona*, and copulatory papilla similar to that of *U. ?chamocoru* (Fig. 1, 22).

Length (mm). Body: male 11.0–11.5, female 11.0–11.5; pronotum: male 2.1–2.2, female 2.3–2.4; tegmina: male 7.8–8.2, female 1.6–1.8; hind femur: male 10.5–11.0, female 11.0–11.5; ovipositor 9.5–10.0.

Comparison. The new species is similar to *U. andensis* Gor. and *U. feredemissa* Gor. in the shape of the apical part of the epiphallus: with posterolateral lobes short, and posterior margin between these lobes convex. However, the new species clearly differs from

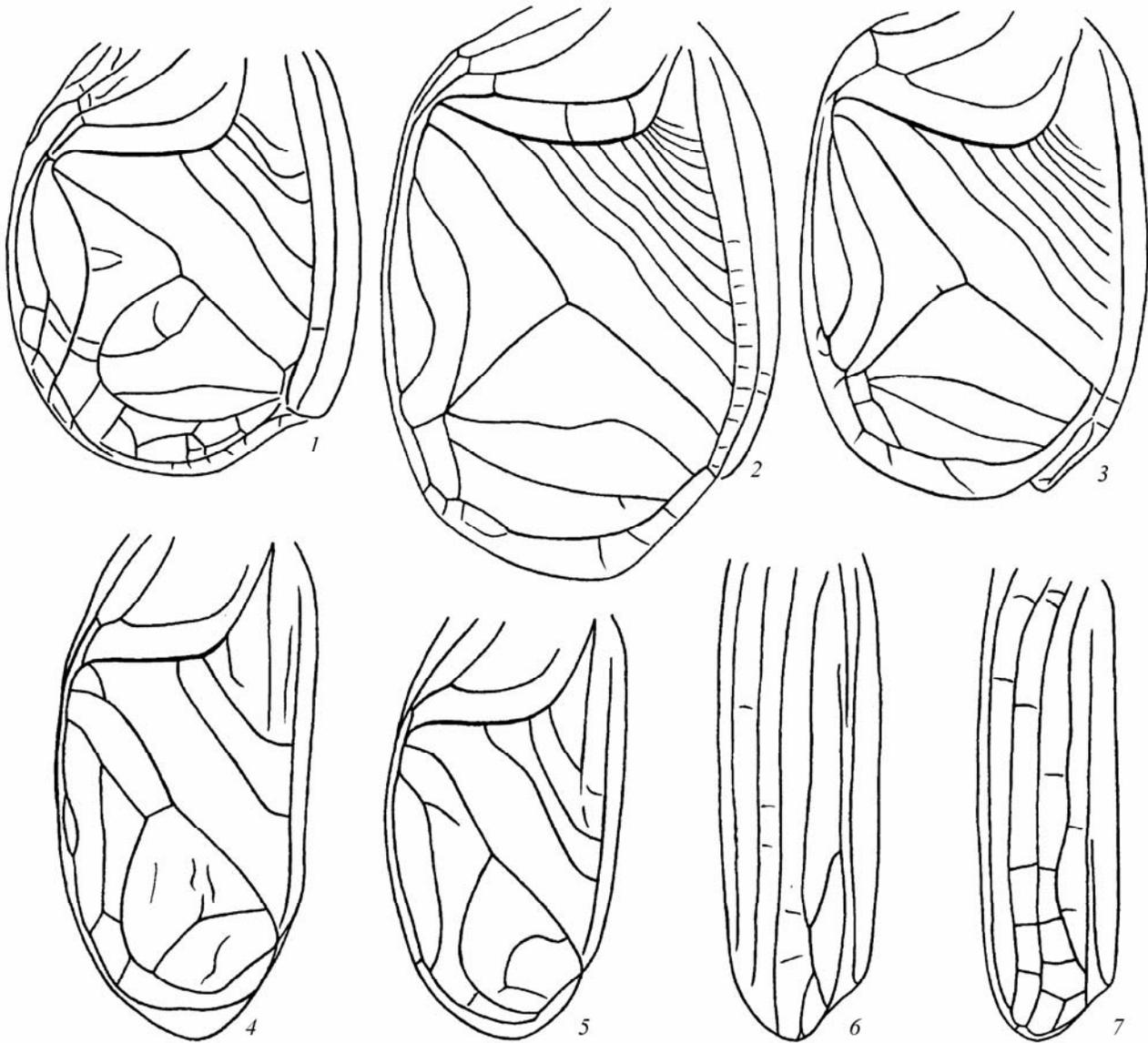


Fig. 3. Dorsal area of right tegmen of male (1–5) and female (6, 7): (1) *Uvaroviella izerskyi* sp. n.; (2) *U. pastaza* sp. n.; (3) *U. affinis* sp. n.; (4–6) *Adelosgryllus spurius* sp. n., (7) *A. phaeocephalus* sp. n.

them in the twisted distal parts of the ectoparameres; it also differs from *U. andensis* in the distinctly longer median parts of the endoparameres and in the much less convex median part of the posterior margin of the epiphallus, and from *U. feredemissa*, in the much smaller scapes and less thick proximal parts of the antennal flagella (these parts of the flagella are about as thick as the fore tibia in *U. feredemissa*, and about 0.7 times as thick as the fore tibia in the new species). The new species differs from *U. leleupae* (Chop.) in the clearly wider posterolateral lobes of the epiphallus and in the much less convex area of the epiphallus between them, and from *U. infuscata* (Des.-Grand.)

described only from the females, in the darker head and S-curved (in lateral view) sclerite of the copulatory papilla of the female.

***Uvaroviella (Euacila) affinis* Gorochoch, sp. n.**

Material. Holotype: ♂, Peru, Loreto Department, Morona River bank near its mouth, near Puerto America Vill., ~300 m, partly primary, and partly secondary forest, 20–23.I.2010, Gorochoch (ZIN). Paratypes: 13 ♂, 10 ♀, as holotype (ZIN); 1 ♀, Ecuador, Morona Santiago Prov., Morona River bank near the frontier of Peru, near Puerto Morona Vill., ~300 m, primary for-

est, 5–15.I.2010, Gorochov (ZIN). The specimens were collected at night from logs and old stubs, and also from the trunks of living and dead trees, not high above the ground.

Description. Male (holotype). Structure of body and coloration similar to those of the holotype of *U. pastaza*, but head with slightly paler (brown) lower half of epicranium and 6 pale brown longitudinal lines behind rostrum and eyes; posterior part of pronotal disc without pale spots; cerci brown; scape and pedicel larger (scape approximately twice as wide as rostrum between antennal cavities, and pedicel about as wide as fore tibia); tympanum slightly shorter, tegmen smaller (only reaching base of abdominal tergite VII; Fig. 3, 3), genitalia hardly distinguishable from those of *U. pequegnita* (Des.-Grand.) (genitalia of the latter species are described and imaged in the following publications: Desutter-Grandcolas, 1992a; Gorochov, 2007).

Variations. Other males slightly darker or paler, and their tegmina varying in size, occasionally reaching abdominal tergites VI–VIII.

Female. Structure of body similar to that of male, but coloration similar to that of palest males, scapes slightly smaller (approximately 1.7 times as wide as rostrum between antennal cavities), 2nd antennal segment slightly more slender than fore tibia, tegmina similar to those in females of *U. pastaza* (but larger—contacting and reaching abdominal tergite III), genital plate and ovipositor as those in female of the same species, and copulatory papilla with narrow (in lateral view) sclerite similar to that of *U. pequegnita* (Fig. 1, 23).

Length (mm). Body: male 10.5–14.0, female 11.5–13.0; pronotum: male 2.2–2.6, female 2.4–2.8; tegmina: male 6.7–7.8, female 3.0–3.3; hind femur: male 11.2–13.2, female 10.4–12.6; ovipositor 10.5–12.5.

Comparison. The similarity to and difference between the new species and *U. pequegnita* (Des.-Grand.) are the same as those between *U. ?mococharu* and *U. ?chamocoru*: their male genitalia are almost identical in structure, but the new species clearly differs from *U. pequegnita* in the much larger body and scapes, and also in the smaller tegmina of the male (in the male of *U. pequegnita*, the hind femur is 8–9 mm long, the scape is about 1.3 times as wide as the rostrum between the antennal cavities, and the tegmina

nearly reach the apex of the abdomen). The new species differs from all the other species of the subgenus *Euacla* in the same characters of the male genitalia as *U. pequegnita* does.

Uvaroviella (Reacla) bora atalaya

Gorochov, subsp. n.

Material. Holotype: ♂, Peru, Ucayali Department, Atalaya Prov., ~35 km NWW of Atalaya on the Ucayali River, near Sapani Vill., ~300 m, primary forest, 26–31.X.2008, Gorochov, Berezin, Anisyutkin, Tkacheva, and Izerskii (ZIN). Paratypes: 2 ♂, 2 ♀, as holotype (ZIN). The specimens were collected at night from the trunks of living trees, not high above the ground.

Description. Male (holotype). Structure of body and coloration as those in *U. b. bora* (Des.-Grand.) (the latter subspecies was rather fully described in the following studies: Desutter-Grandcolas, 1992a; Gorochov, 2007), but genitalia with much shorter membranous “windows” in lateral parts of epiphallus (Fig. 1, 27, 28).

Variations. Membranous “windows” in lateral parts of epiphallus weakly varying in size.

Female entirely corresponds to the description of the female of *U. b. bora*.

Length (mm). Body: male 13.5–15.0, female 16.3; pronotum: male 2.8–3.0, female 3.2–3.6; tegmina: male 9.8–10.2, female 4.8–5.3; hind femur: male 13–14, female 14–16; ovipositor 15.0–17.5.

Comparison. For the difference of the new subspecies from *U. b. bora*, see the description of *U. b. atalaya*.

Uvaroviella bolivia Gorochov, sp. n.

Material. Holotype: ♀, Bolivia, Noel Kemp Mercado National Park near the frontier of Brazil, Flor de Oro Camp near the junction of the Rio Itenez and Rio Pausena rivers, dry forest, XI.2008, Smolnikov (ZIN).

Description. Female (holotype). Size and shape of body approximately as those in *U. izerskyi*, but coloration distinctly more contrasting—yellowish with following marks: 3 brown longitudinal stripes behind rostrum and antennal cavities (posterior parts of these stripes dark brown), 2 brown spots behind each eye, dark brown transverse stripe interrupted in center immediately below lateral ocelli, dark brown spots at

sides of upper part of rostrum, dark brown stripe along lower margin of each antennal cavity, 1 pair of dark brown vertical stripes below apex of rostrum and 1 pair below eyes, small dark brown median spot on epicranium near clypeus and 1 pair of small spots lateral to this spot, brown median spot in upper part of clypeus, brownish spots on genae and mandibles, dark brown and brown spots and stripes on scape, brown antennal flagellum, dark brown dorsal half of lateral lobes of pronotum and border along their lower margin, 1 pair of dark brown spots on pronotal disc at its anterior margin, large transverse grayish brown spot on this disc near its posterior margin, 1 pair of approximate dark brown spots on mesonotum and 1 pair on abdominal tergite I, brown spots on pleurites and lateral parts of abdominal tergite I, dark brown spots on legs and numerous brown oblique strokes on outer side of hind femur, and also numerous paler spots on metanotum, other parts of abdominal tergite I, and on other abdominal tergites. Scape about 1.7 times as wide as rostrum between antennal cavities. Fore tibia only with inner tympanum, oval, medium-sized. Tegmina reaching median part of metanotum, not contacting, with rounded apices and with 7 or 8 longitudinal veins (these veins nearly straight, but lateral one in right tegmen branching, and veins of median part of left tegmen inconspicuous and slightly irregular). Genital plate and ovipositor similar to those in female of *U. izerskyi*, and sclerotized part of copulatory papilla with 1 pair of lower tubercles which very high and pointed apically (Fig. 1, 24).

Length (mm). Body 15.5; pronotum 3.4; tegmina 1.4; hind femur 15.8; ovipositor 21.5.

Male unknown.

Comparison. Since the male of the new species is unknown, the species cannot be placed now in any of the subgenera of the genus *Uvaroviella*. The new species is similar to *U. izerskyi* in the shape and size of the female tegmina, but clearly differs from it and all the other congeners with the copulatory papilla examined in the presence of much higher and pointed lower tubercles on the sclerotized part of this papilla. From the other species of the genus, *U. bolivia* differs in its relatively large body combined with contrasting coloration, short and not contacting tegmina of the female, presence of inner tympanum, and long ovipositor.

TRIBE PARAGRYLLINI

In the preceding communication (Gorochoy, 2009), I included in this tribe 14 genera characterized by

the following characters: distal area of ovipositor flattened laterally; ovipositor pointed apically, widened in lateral view before apical part, with peculiar preapical lobe of dorsal sheaths; this lobe fully or partly concealing laterally preapical (but not apical) part of lower sheaths (Fig. 2, 16, 20).

The following genera should also be included in this tribe (some of them have been already placed in Paragryllini in the online catalog of Orthoptera (Eades et al., 2010)): *Kevanacla* Desutter-Grandcolas, 1992 (described from French Guiana), *Yoyuteris* Ruiz et Otte, 1997 (Antilles Islands), *Aclella* Desutter-Grandcolas, 2000 (Costa Rica and Nicaragua), *Escondacla* Nischk et Otte, 2000 (Ecuador), *Adelosgryllus* Mesa et Zefa, 2004 (described from Brazil), *Selvacla* Otte, 2006 (includes the only type species from Costa Rica), *Peruacla* gen. n., and *Ecuadoracla* gen. n.

The three first genera are closely related to the genus *Neoacla* Desutter, 1988 in the general shape of the epiphallus and in the presence of large and membranous (to a certain extent) lobes at the sides of the epiphallus apex; these taxa may be only subgenera of *Neoacla*, though here all them are considered as genera. The genus *Selvacla* is closely related to these genera in the shape of the epiphallus and in the almost entirely sclerotized lobes at the sides of the epiphallus apex. These five genera may be united in the subtribe Neoacolina Desutter, 1988 stat. n. originally described as a family (Desutter, 1988).

Other probable suprageneric groups of this tribe are the subtribes Strogulomorphina Desutter, 1988 stat. n. and Paragryllina Desutter, 1988 stat. n. described in the latter of the publications listed above as a tribe and a family respectively. The generic composition of these subtribes, and also the subtribe position of the new genera described below are not quite clear.

Genus *NEOACLA* Desutter, 1988

Type species *N. loiselae* Desutter, 1988 (Peru).

This genus was recently (Gorochoy, 2009) divided into three subgenera: *Neoacla* s. str. with two species from Peru and Brazil, *Hattersleya* Nischk et Otte with one species from Ecuador, and *Superacla* Gor. with two species from Ecuador. In addition, six more species with the genitalia examined insufficiently to determine their subgeneric position were placed in the genus *Neoacla* (Gorochoy, 2009). However, in the online catalog (Eades et al., 2010), these species are still erroneously attributed to the subgenus *Acla* of the

genus *Uvaroviella* and to the genus *Selvacla* (*A. multivenosa* Chopard, 1937, *A. reticulata* Chopard, 1956, *S. alsiosus* Otte, 2006, *S. choreutes* Otte, 2006, *S. saltator* Otte, 2006, *S. sophos* Otte, 2006), though, e.g., *N. multivenosa* is an evident senior synonym of *N. choreutes* syn. n.

Neoacla (Neoacla) loiselae Desutter, 1988

Material. 2 ♂, Peru, Ucayali Department, Atalaya Prov., ~35 km NWW of Atalaya on the Ucayali River, near Sapani Vill., ~300 m, primary forest, 26–31.X.2008, Gorochov, Berezin, Anisyutkin, Tkacheva, and Izerskii (ZIN). The specimens were collected at night on the trunks of dead tree, not high above the ground.

In appearance and the structure of the body (including the genitalia), these males are similar to those from the type locality (Peruvian Department Loreto) and from Brazil (Tapajos River; Fig. 2.), but differ from them in the more widely truncate apex of the epiphallus (Fig. 2, 7), and, additionally from the Brazilian males, in the more strongly approximate teniform lateral sclerotizations on the ventral surface of the male genitalia (in the males discussed, these sclerotizations are similar to those in the males from Loreto, but in the latter males, the epiphallus apex is more similar to that of the Brazilian males). These differences may be subspecific, but it is not improbable that *N. loiselae* rather widely varies in the structure of the male genitalia.

Neoacla (Neoacla) vicina (Chopard, 1956)

Material. Peru, Loreto Department: 1 ♂, 2 ♀, Morona River bank near its mouth, near Puerto America Vill., ~300 m, partly primary, and partly secondary forest, 20–23.I.2010, Gorochov (ZIN); 2 ♂, Morona River bank approximately halfway from its mouth to its Ecuadorian part, 200–300 m, primary forest, 24–27.I.2010, Gorochov (ZIN). 1 ♂, Ecuador, Morona Santiago Prov., Morona River bank near the frontier of Peru, near Puerto Morona Vill., ~300 m, primary forest, 5–15.I.2010, Gorochov (ZIN). The specimens were collected at night from the trunks of living trees, not high above the ground. In the previous communication (Gorochov, 2009), I indicated that the status of *N. loiselae* and *N. vicina* required check. The specimens listed above have shown that these species are actually very closely related, but *N. vicina* clearly differs from *N. loiselae* in the following characters: upper part of head darker (nearly dark brown); pronotum

almost entirely dark (blackish), but with several paler small spots at lower margin of lateral lobes; dorsal area of male tegmina darker (brown), with only some veins slightly paler; male genitalia with apical spine of epiphallus projecting backwards, nearly acute posterolateral angles of apical part of epiphallus and concave lateral margins of this part, and also with asymmetrically curved endoparameral apodemes (Fig. 2, 1–3). It is of interest that the width of the apical part of the epiphallus slightly varies between specimens from different localities (Fig. 2, 1, 4, 5), and that in the males from one collecting site, the endoparameral apodemes can curve to the right or to the left, which seems to depend on the position of the spermatophore sac which can be skewed to the left or to the right side. The inclusion of this species in the subgenus *Acla* of the genus *Uvaroviella* (Eades et al., 2010) is undoubtedly erroneous.

Kevanacla orientalis contraria Gorochov subgen. n.

Material. Holotype: ♂, Peru, Ucayali Department, Atalaya Prov., ~35 km NWW of Atalaya on the Ucayali River, near Sapani Vill., ~300 m, primary forest, 26–31.X.2008, Gorochov, Berezin, Anisyutkin, Tkacheva, and Izerskii (ZIN). Paratypes: 5 ♂, 3 ♀, as holotype (ZIN); 2 ♂, Peru, Loreto Department, Morona River bank near its mouth, near Puerto America Vill., ~200 m, part primary-part secondary forest, 20–23.I.2010, Gorochov (ZIN). The specimens were collected at night from the trunks of living and dead trees, not high above the ground.

Description. Male (holotype). Structure of body and coloration as those in *K. o. orientalis* (Des.-Grand.) (for the characteristic of the nominotypical subspecies, see Desutter-Grandcolas, 1992a), but tegmina of male without rufescent tint, with dark brown lateral area and brownish gray dorsal area, and genitalia with much longer spiniform median lobe of epiphallus apex and with membranous lobes at its sides (for comparison, see Fig. 2, 8, 9).

Variations. Dividing veins of mirror in upper tegmen distinct or nearly lost.

Female. Appearance almost as in female of *K. o. orientalis*, but tegmina developed, tiny (scale-shaped), and almost entirely concealed by posterior part of pronotum.

Length (mm). Body: male 11.5–14.5, female 11–15; pronotum: male 2.5–2.7, female 2.6–2.8; tegmina:

male 4.0–4.3, female 0.3–0.4; hind femur: male 11.0–11.5, female 11.0–11.8; ovipositor 11.5–12.5.

Comparison. For the difference of the new western subspecies from the eastern subspecies *K. o. orientalis*, see the description of *K. o. contraria*.

PERUACLA Gorochov, gen. n.

Type species *Peruacla solita* sp. n.

Diagnosis. Body almost apterous, with rather short legs. Scape about 1.5 times as wide as rostrum between antennal cavities. Lateral lobes of pronotum moderately high in anterior part, low in posterior part. Fore tibia only with inner tympanum. Abdominal tergites without any specializations; anal plate narrowed backwards and truncate at apex; genital plate wide (nearly square) and widely truncate posteriorly. Genitalia characterized by short epiphallus fused with short rami and by elongate posterior median process deeply bifurcate at apex; ectoparameres large, lobiform; endoparameres not connected by sclerotized cross-pieces, with long apodemes; mold of spermatophore attachment plate more or less connected with short guiding rod and with 1 pair of partly sclerotized processes at sides of latter (Fig. 2, 10–12).

Composition. The type species.

Comparison. The new genus is closely related to the genus *Escondacla* in the structure of the male genitalia, but differs in the almost entirely lost tegmina without stridulatory apparatus, absence of median endoparameral rami in the male genitalia, and presence of large membranous areas separating the epiphallus from the ectoparameres. *Peruacla* may be a subgenus of *Escondacla*. Both genera are similar to the genera of the subtribe Neoaclina in the shape of the epiphallus (which allows their inclusion in Paragryllini), but differ in the absence of large lobes at the sides of the epiphallus apex and in the absence of semisclerotized stripes on the ventral surface of the male genitalia.

Peruacla solitaria Gorochov, sp. n.

Material. Holotype: ♂, Peru, Junin Department, Satipo Prov., ~25 km S of Satipo, near Rio Venado Vill., ~1200 m, partly primary, and partly secondary forest, 20–23.X.2008, Gorochov, Berezin, Anisyutkin, Tkacheva, and Izerskii (ZIN).

Description. Male (holotype). Body small. Face dark brown with yellowish genae and transverse stripe

below antennal cavities, and also with more or less pale brown mouthparts (but clypeus dark); upper part of head brown with dark brown upper part of rostrum (with several small yellowish spots) and stripes along upper margin of antennal cavities, yellowish transverse stripe between most median areas of eyes and pale brown stripes along posterior margin of vertex and behind dorsal areas of eyes; other parts of head (including antennae) brown, but with slightly paler proximal areas of antennae and sparse spots on their flagella. Pronotum dark brown with yellowish stripe along lateral margins of disc and small spot in lower anterior angle of lateral lobes, and also with pale brown small sparse spots and median stripe on disc. Other parts of body distinctly spotty (except for pale brown lower part of body and cerci). Tympanum moderately large, oblong-oval. Tegmina tiny, scale-shaped, almost entirely concealed by posterior part of pronotum. Genitalia as in Fig. 2, 10–12.

Length (mm). Body 11.2; pronotum 2.1; tegmina 0.3; hind femora 9.5.

Female unknown.

Ecuadoracla Gorochov, gen. n.

Type species *Ecuadoracla propria* sp. n.

Diagnosis. Body apterous and with rather short legs. Rostrum between antennal cavities subequal to scape in width. Lateral lobes of pronotum in posterior part only slightly lower than in anterior part. Tympana absent. Abdominal tergite IV of male with transverse and strongly shining convexity dorsally; proximal part of anal plate of male deflexed upwards and sharply separated by transverse carina from rest part of this plate directed downwards and backwards; genital plate of male rather short, rounded posteriorly, and slightly emarginate at apex. Male genitalia with epiphallus slightly similar to that of *Peruacla*, but with much wider posterior median process shallowly bifurcate at apex and with proximal median lobe deflexed backwards; ectoparamere small, but consisting of short lobe-shaped lower part and long baculiform upper part; guiding rod lost; mold of spermatophore attachment plate consisting of pair of approximate teniform sclerotizations and pair of plates at sides of them (Fig. 2, 13–15). Distal area of dorsal sheaths of ovipositor with smooth upper margin and rounded lower preapical lobe (Fig. 2, 16).

Composition. The type species.

Comparison. The new genus is closely related to *Loretana* Des.-Grand. in the structure of male abdominal tergite IV, but differs in the presence of a distinct transverse carina on the male anal plate, the bifurcate epiphallus apex, the proximal median epiphallic lobe deflexed backwards, and the absence of guiding rod.

Ecuadoracla propria Gorochov, sp. n.

Material. Holotype: ♂, Ecuador, Prov. Pastaza, ~10 km W of Puyo Town, near Shell Vill., 1000–1500 m, secondary forest, 1–3.I.2010, Gorochov (ZIN). Paratypes: 1 ♂, 1 ♀, as holotype (ZIN). The specimens were collected at night from the trunk of a small living tree, not high above the ground.

Description. Male (holotype). Body small. Head brown with indistinct darker and paler spots; antennae pale brown in proximal part, brown with sparse paler spots distally. Thoracic tergites and abdominal segment I pale brown with slightly diffused brown spots; other abdominal tergites dark brown with black shining convexity on tergite IV and small pale spot in center of tergite IX; anal plate pale brown with blackish lateral spots in proximal part; cerci pale brown. Legs moderately spotty; other parts of body more or less pale brown, but with darkened posterior abdominal sternites and genital plate. Anal plate with shallowly emarginate upper margin of transverse carina; genitalia as in Fig. 2, 13–15.

Variations. Paratype slightly darker: thoracic tergites and abdominal segment I, and also anal plate mainly brown.

Female. Coloration and structure of body about as those in holotype, but abdominal tergite IV without black shining convexity, anal plate dark and without specializations (small, triangular, rounded apically), and genital plate smaller. Apex of ovipositor as in Fig. 2, 16.

Length (mm). Body: male 8.6–9.3, female 8.5; pronotum: male 1.7–1.8, female 1.9; hind femur: male 7.5, female 8.0; ovipositor 5.5.

Loretana maxima Desutter-Grandcolas, 1992

Material. 3 ♂, 1 ♀, Ecuador, Morona Santiago Prov., Morona River bank near the frontier of Peru, near Puerto Morona Vill., ~300 m, primary forest, 5–15.I.2010, Gorochov (ZIN). The specimens were collected at night from the trunks of living trees, not high above the ground.

This species was described from the Peruvian department of Loreto. It is indicated for Ecuador for the first time.

Adelosgryllus spurius Gorochov, sp. n.

Material. Holotype: ♂, Peru, Ucayali Department, Atalaya Prov., ~35 km NWW of Atalaya on the Ucayali River, near Sapani Vill., ~300 m, primary forest, 26–31.X.2008, Gorochov, Berezin, Anisyutkin, Tkacheva, and Izerskii (ZIN). Paratypes: 1 ♂, 2 ♀, as holotype (ZIN). The specimens were collected at night from earthen precipices along a forest road, but 1 female was collected at light.

Description. Male (holotype). Body small. Head rufescent-orange, but eyes and scapes slightly darker (pale brown); antennal flagellum even darker (brown), with whitish 33–52 segments; maxillary palpus dark brown; tergites, tegmina, abdominal sternite VIII, and anal and genital plates dark brown; femora dark brown with yellowish whitish bases and longitudinal stripes (fore and middle femora with 3 or 4 stripes; hind femur with 5 stripes, its inner surface with pale proximal half and pale spot at base of distal 1/3), and also with pale apical areas; fore and hind tibiae brown with pale spurs, narrow stripe on upper part of fore tibia, and spines of hind tibiae; middle tibia pale brown with paler distal part; fore tarsus pale brown, middle tarsus yellowish, and hind tarsus brown with pale distal part; thorax ventrally and coxae whitish-yellowish; other abdominal sternites and cerci brown with yellowish bases of cerci. Head high; ocelli absent; rostrum poorly developed, very narrow, 0.2 times as wide between antennal cavities as scape; ultimate segment of maxillary palpus long, considerably widened in median part, flattened and curved. Fore tibia only with inner tympanum which rather large and nearly rounded. Tegmina reaching apex of abdominal tergite V, with rather narrow dorsal area (see Fig. 3, 4), and with 2 or 3 parallel longitudinal veins in lateral area and sparse cross-veins between them; hind wings rudimentary. Anal plate small, triangular, but with rounded apex; genital plate short and with rounded apex bearing small median lobe folded double in two and deflexed upwards; genitalia as in Fig. 2, 17–19.

Variations. 2nd male slightly smaller, and its tegmina reaching apex of abdominal tergite VIII and slightly differing in venation of dorsal area (Fig. 3, 5).

Female. Structure of body and coloration similar to those of male, but anal plate slightly longer, genital

plate roundly narrowed backwards and with wide and gently sloping emargination at posterior edging, tegmina reaching middle of abdominal tergite I (not contacting, narrowly rounded apically, with 8 or 9 subparallel longitudinal veins and without cross-veins) or apex of abdominal tergite VI (in this case they also nearly without cross-veins, but with 10 longitudinal veins, among which 3 parallel and situated in lateral area, and others as in Fig. 3, 6; in addition, hind wings of this female long, darkenings behind eyes present, and pale stripes on femora less distinct). Apex of ovipositor similar to that in Fig. 2, 20.

Length (mm). Body: male 7.0–7.8, female 7–8; body with wings, female (f. macroptera) 12; pronotum: male 1.4–1.6, female 1.3–1.7; tegmina: male 3.7–4.0, female (f. brachyptera) 1.8, female (f. macroptera) 3.8; hind femur: male 5.4–6.0, female 4.7–6.5; ovipositor 4–5.

Comparison. The new species is very similar to *A. rubricephalus* Mesa et Zefa in appearance, but clearly differs in the much narrower mirror of the male tegmina and in the hook-shaped ectoparameres in the male genitalia.

Adelosgryllus phaeocephalus Gorochov, sp. n.

Material. Holotype: ♀, Peru, Ucayali Department, Atalaya Prov., ~35 km NWW of Atalaya on the Ucayali River, near Sapani Vill., ~300 m, primary forest, 26–31.X.2008, Gorochov, Berezin, Anisyutkin, Tkacheva, and Izerskii (ZIN). The specimen was collected at night to light.

Description. Female (holotype). Structure of body and coloration similar to those of *A. spurius*, but differing as follows: body much smaller; head entirely brown (except for whitish area on antennal flagellum, which similar to that in *A. spurius*); fore and middle femora brown with pale brown longitudinal stripe on dorsal side (hind legs lost); fore and middle tibiae and tarsi pale brown with slightly darker area in median part of fore tibia and distal part of hind basitarsus; tympanum slightly longer; wings approximately as in macropterous female of *A. spurius*, but tegmina nearly reaching apex of abdomen, with sparse cross-veins, and their dorsal area with 5 or 6 longitudinal, not branching veins, among which 2 fused before apex (in macropterous female of *A. spurius*, 1 longitudinal vein branching, its median branch fused with next longitudinal vein near apex, and other longitudinal veins not fused with one another; for comparison, see Fig. 3, 6, 7). Apex of ovipositor as in Fig. 2, 20.

Length (mm). Body 6; body with wings 10.5; pronotum 1.1; tegmina 3.7; ovipositor 3.5.

Male unknown.

Comparison. The new species differs from *A. spurius* and *A. rubricephalus* in the small body, dark brown (instead of rufescent-orange) head, and pale proximal part of fore tibia; it additionally differs from *A. spurius* in the characters of the tegminal venation of the female, listed above.

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