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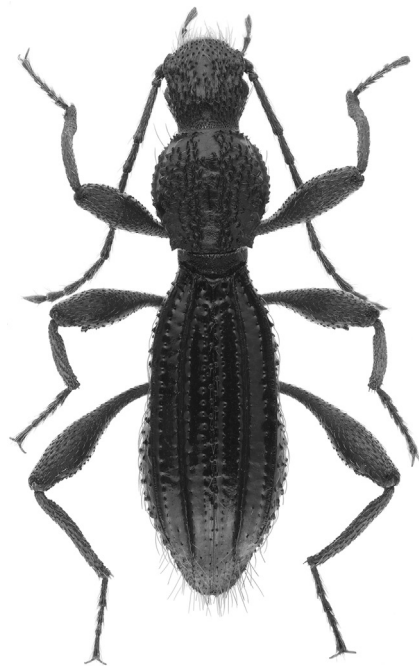


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New and little known taxa of the genus *Calopsyra* Brunner von Wattenwyl, 1891 (Orthoptera: Tettigoniidae: Phaneropterinae) from Indo-Malayan Region

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Abstract. A new material on the Indo-Malayan genus *Calopsyra* Brunner von Wattenwyl, 1891 from the tribe Holochlorini is reviewed. This genus is divided into three subgenera: *Calopsyra* s. str., *Parapsyra* Carl, 1914, **stat. n.** (previously considered as a distinct genus) and *Rhodopsyra* **subgen. n.** Eight new combinations are proposed: *C. (P.) notabilis* (Carl, 1914), **comb. n.**, *C. (P.) nigrovittata* (Xia et Liu, 1992), **comb. n.**, *C. (P.) midcarina* (Liu et Kang, 2006), **comb. n.**, *C. (P.) nigrocornis* (Liu et Kang, 2006), **comb. n.**, *C. (P.) fuscomarginalis* (Liu et Kang, 2006), **comb. n.**, *C. (P.) brevicauda* (Liu, 2011), **comb. n.**, *C. (Rh.) muricetincta* (Karny, 1926), **comb. n.**, *C. (Rh.) laticauda* (Karny, 1926), **comb. n.** Two new species from Borneo and Sumatra are described: *C. (C.) sexmaculata* **sp. n.** and *C. (Rh.) rosealata* **sp. n.** The neotype for *C. (C.) octomaculata* (Westwood, 1848) is designated, and this species is redescribed in accordance with new data.

Key words: Orthoptera, Tettigoniidae, Phaneropterinae, *Calopsyra*, new species, Indo-Malayan Region.

Новые и малоизвестные таксоны рода *Calopsyra* Brunner von Wattenwyl, 1891 (Orthoptera: Tettigoniidae: Phaneropterinae) из Индо-Малайской области

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Резюме. Рассмотрен новый материал по индо-малайскому роду *Calopsyra* Brunner von Wattenwyl, 1891 из трибы Holochlorini. Этот род подразделен на три подрода: *Calopsyra* s. str., *Parapsyra* Carl, 1914, **stat. n.** (ранее считавшийся самостоятельным родом) и *Rhodopsyra* **subgen. n.** Предложено восемь новых комбинаций: *C. (P.) notabilis* (Carl, 1914), **comb. n.**, *C. (P.) nigrovittata* (Xia et Liu, 1992), **comb. n.**, *C. (P.) midcarina* (Liu et Kang, 2006), **comb. n.**, *C. (P.) nigrocornis* (Liu et Kang, 2006), **comb. n.**, *C. (P.) fuscomarginalis* (Liu et Kang, 2006), **comb. n.**, *C. (P.) brevicauda* (Liu, 2011), **comb. n.**; *C. (Rh.) muricetincta* (Karny, 1926), **comb. n.**, *C. (Rh.) laticauda* (Karny, 1926), **comb. n.** Из Борнео и Суматры описаны два новых вида: *C. (C.) sexmaculata* **sp. n.** и *C. (Rh.) rosealata* **sp. n.** Обозначен неотип для *C. (C.) octomaculata* (Westwood, 1848), и этот вид переописан с учетом новых данных.

Ключевые слова: Orthoptera, Tettigoniidae, Phaneropterinae, *Calopsyra*, новые виды, Индо-Малайская область.

Introduction

The generic composition of the Indo-Malayan tribe Holochlorini is now in need of revision, because some of its genera are very similar and probably closely related, and they are often impossible for any understandable separation, or this separation is based on very insufficient differences. Moreover, some species included in these genera are strongly different from other congeners and must be transferred in other genera (or subgenera as a minimum).

The considered here taxa *Calopsyra* Brunner von Wattenwyl, 1891 and *Parapsyra* Carl, 1914 are an example of such difficulties, because they are distinguished from each other by almost only the structure of RS in the tegmina [Carl, 1914], but the biramous proximal branch of RS (characteristic of *Parapsyra*) is a primitive character which may be very quickly lost when tegmina is lengthened or thinned (such process had place in some species closely related to the type species of *Calopsyra*). Thus, this character is insufficient for dividing these

taxa into two genera, but more corresponding to the subgeneric level. In addition, the former genus *Parapsyra* included two species (*P. muricetincta* Karny, 1926 and *P. laticauda* Karny, 1926) is very different from the type species of this taxon and of *Calopsyra* in the structure of their ovipositors and some other characters [Karny, 1926a; Cigliano et al., 2023]. Their differences from these type species show that they probably belong to a new genus, but their males are unknown, and therefore the description of a new genus for them may be premature. This is the reason why I assign them only to a new subgenus of *Calopsyra* s. l.

Material and methods

The study is based on the material (including types of new taxa) deposited at the Zoological Institute of the Russian Academy of Sciences (ZIN, Saint Petersburg, Russia). This material is dry and pinned; it was collected by the Russian researchers in some countries of the Indo-Malayan Region.

Tribe Holochlorini Brunner von Wattenwyl, 1878
Genus *Calopsyra* Brunner von Wattenwyl, 1891

Note. This genus was originally established for one variegated species from Sumatra [Brunner von Wattenwyl, 1878: *Phylloptera octomaculata* Westwood, 1848]. Later, one species of this genus was described as a unique representative of a new genus from Vietnam [Carl, 1914: *Parapsyra notabilis*], two additional species from Malay Peninsula were described in *Parapsyra* [Karny, 1926a: *P. muricetincta* and *P. laticauda*], and one uniformly coloured species from Malay Peninsula was moved to the genus *Calopsyra* [Karny, 1926b: *Psyra obliterated* Karny, 1923]. Now a few species from South China as well as two new species from Borneo and Sumatra are added to this genus, and *Calopsyra* s. l. is divided into three subgenera characterized in a key below. Thus, the following new combinations are established: *Calopsyra (Parapsyra) notabilis* (Carl, 1914), **comb. n.**, *C. (P.) nigrovittata* (Xia et Liu, 1992), **comb. n.**, *C. (P.) midcarina* (Liu et Kang, 2006), **comb. n.**, *C. (P.) nigrocornis* (Liu et Kang, 2006), **comb. n.**, *C. (P.) fuscomarginalis* (Liu et Kang, 2006), **comb. n.**, *C. (P.) brevicauda* (Liu, 2011), **comb. n.**, *C. (Rhodopsyra) muricetincta* (Karny, 1926), **comb. n.**, *C. (Rh.) laticauda* (Karny, 1926), **comb. n.**

Subgeneric key for *Calopsyra* s. l.

1. Pronotal disc dark (Fig. 2) or with darkened stripes along lateral edges (Figs 5, 6); hind wings with transparent membranes usually having yellowish tinge (Figs 1, 4). Ovipositor moderately long and rather strongly curved upwards, with numerous and rather large denticles located along dorsal and ventral edges as well as on both lateral surfaces (Fig. 17) 2
- Pronotal disc yellowish or greenish, uniformly coloured (Fig. 19) or with lighter lateral stripes on disc; hind wings usually with numerous rose or reddish membranes (Fig. 18). Ovipositor very long and slightly curved upwards, with distinct and very small denticles along distal part of ventral edge (lateral surfaces and dorsal edge of ovipositor non-denticulated and almost non-denticulated, respectively; Fig. 20) subgenus *Rhodopsyra* **subgen. n.**
 (Etymology: from the generic name *Calopsyra* and the Latinized Greek prefix “rhodo-” – rose. Composition, in original binomen: type species *Calopsyra (Rhodopsyra) rosealata* **sp. n.**, *Parapsyra muricetincta* Karny, 1926, *P. laticauda* Karny, 1926)
2. Tegmina with all branches of RS branching from RA (Figs 1, 4); styles of male genital plate usually long (such styles 2–2.5 times as long as width of genital plate very near their bases; Figs 11, 15); female genital plate with rather deep posteromedian notch (Fig. 16) .. subgenus *Calopsyra* s. str.
 (Composition, in original binomen: type species *Phylloptera octomaculata* Westwood, 1848, *Calopsyra (Calopsyra) sexmaculata* **sp. n.**, possibly *Psyra obliterated* Karny, 1923)
- Tegmina with two proximal branches of RS branching from general basal part (other branches of RS

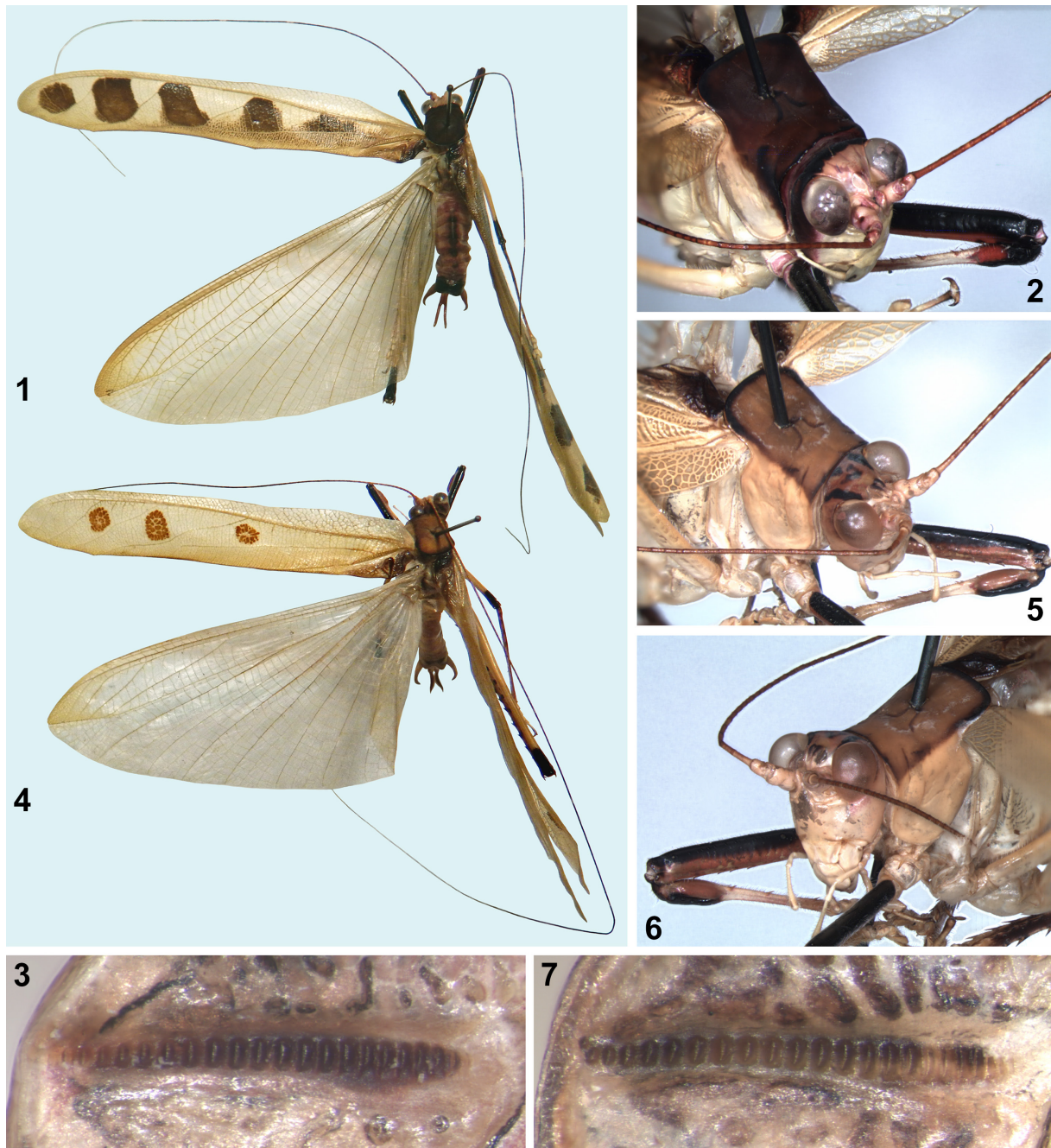
branching from RA; as in Fig. 18); styles of male genital plate short (lengths of these styles more or less equal to width of genital plate very near their bases); female genital plate with rounded, truncated or angular apical part lacking any posteromedian notch subgenus *Parapsyra* Carl, 1914, **stat. n.**
 (Composition, in original binomen: type species *Parapsyra notabilis* Carl, 1914, *P. nigrovittata* Xia et Liu, 1992, *P. midcarina* Liu et Kang, 2006, *P. nigrocornis* Liu et Kang, 2006, *P. fuscomarginalis* Liu et Kang, 2006, *P. brevicauda* Liu, 2011)

Calopsyra (Calopsyra) octomaculata (Westwood, 1848)
 (Figs 1–3, 8–11)

Material. 1♂, neotype (here designated) (ZIN), Indonesia, Sumatra I., Aceh Prov. not far from border with North Sumatra Prov., environs of Ketambe vill. on Alas River near Gunung Leuser National Park, 3°41–42'N / 97°38–39'E, 300–500 m, 29.01–8.02.2023 (A. Gorochov, M. Omelko, A. Fomitshv); 1♂ (ZIN), same data as for neotype.

Redescription. Male (neotype). Body rather large and moderately slender. Colouration variegated (Fig. 1): head yellowish with blackish transverse band behind eyes (this band running along posterior edges of genae to subgenae, gradually narrowing under eyes and with dark brownish rose anterior border between eyes and subgenae), a few light brown small and poorly distinct marks on rest of epicranial dorsum, rose tinge on dorsal half of antennal cavity as well as on scape and pedicel (scape also with distinct brown dot at middle of dorsal surface), light brown to brown proximal part of antennal flagellum and dark brown to blackish rest of this flagellum (but flagellum additionally with small and very sparse yellowish to whitish spots; Figs 1, 2); pronotum yellowish with dark brown disc and a few blackish marks (line along anterior edge of pronotum, stripe along posterior edge of disc, a pair of small marks at middle of disc and oblique areas on anterodorsal parts of lateral lobes contacting with dark disc; Fig. 2); tegmina yellowish (greenish in living condition) with 4–5 large dark brown spots in lateral field (left tegmen with 5 spots, but right one with 4 spots: 2 proximal spots fused with each other), numerous brown dots in cells around MA vein, as well as light brown, brownish rose, dark brown and blackish marks in dorsal fields (Figs 1, 3, 8, 9); hind wings transparent with yellowish venation and some membranes in costal and apical parts as well as yellowish tinge of rest membranes (Fig. 1); legs yellowish with rose fore trochanter, brown fore femur (this femur also with blackish dorsal and apical areas as well as a few small marks at base of ventromedial spinules), dark brown to blackish distal portions of middle and hind femora as well as proximal third of fore tibia (Fig. 2), rose distal third of this tibia, brown to light brown dorsal longitudinal stripe on middle tibia as well as distal areas and ventral spines of this tibia, dark brown to blackish hind tibia having numerous reddish brown transverse bands and spots, and with a few small darkened marks on apical segment of all tarsi; rest of body yellowish with rose tinge on dorsum of pterothorax, rose to light brown most part of abdominal tergites (but last tergite blackish, and almost each of other abdominal tergites with brown dorsal spot or area), dark brown epiproct and paraprocts as well as bases of cerci and small lateral areas of genital plate, brownish rose rest of cerci (but its apices more darkened), and rose rest of genital plate (including styles; Figs 10, 11) and areas on abdominal sternites.

Head typical of Phaneropterinae, rather high and with following features: antennal cavities practically contacting with each other; upper rostral tubercle located above and behind place of this contact as well as having small rounded apical tubercle and somewhat higher rest part (this part with dorsal edge slightly arcuate in profile, with distinct longitudinal median groove



Figs 1–7. *Calopsyra (Calopsyra)*, males, general view and details of structure.

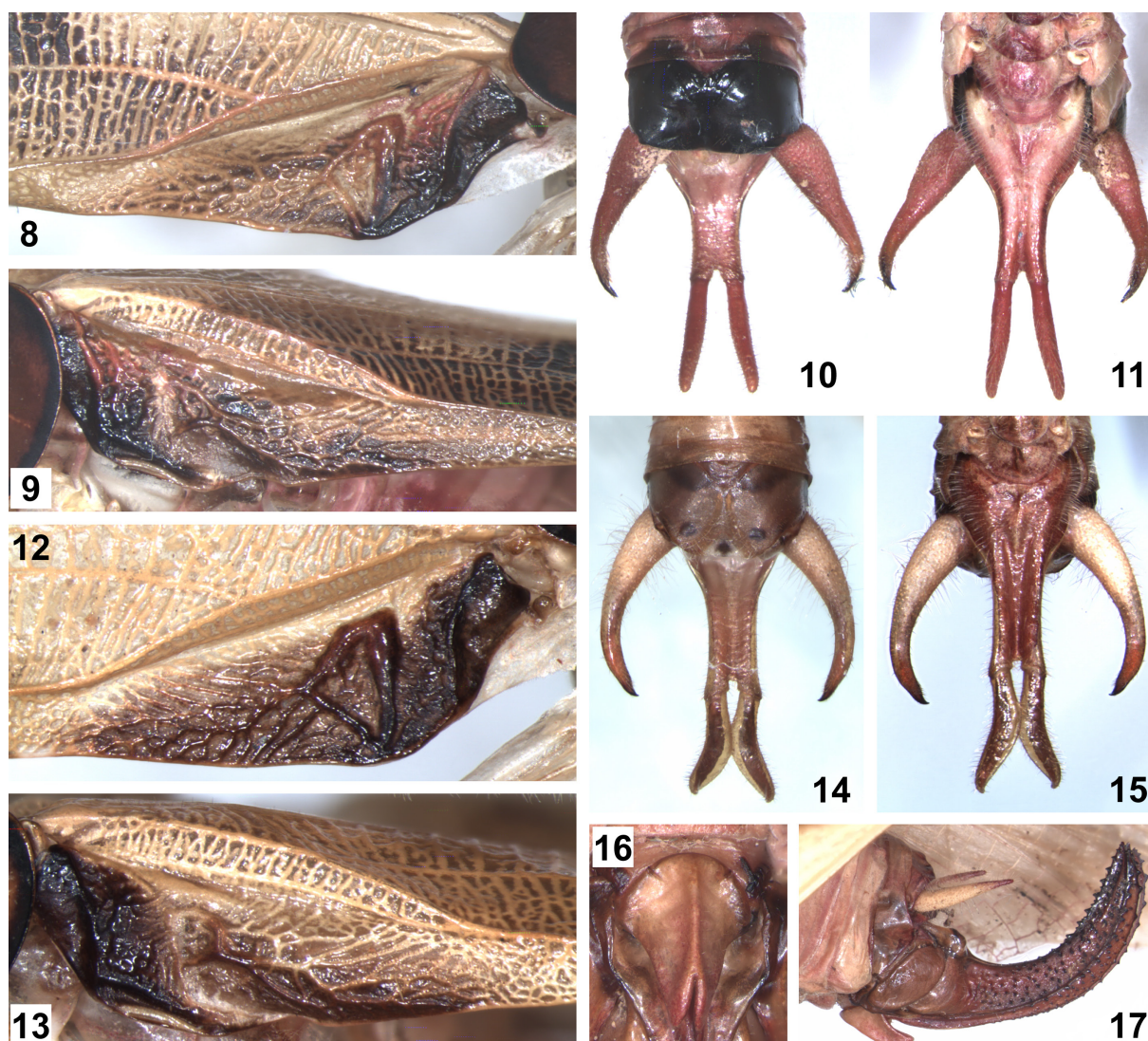
1–3 – *C. (C.) octomaculata*, neotype; 4–7 – *C. (C.) sexmaculata* sp. n.: 4, 7 – holotype, 5–6 – paratype. 1, 4 – general view of body with spread left wings; 2, 5–6 – head with pronotum and fore leg, dorsolateral and partly anterior view; 3, 7 – stridulatory vein of left tegmen from below.

Рис. 1–7. *Calopsyra (Calopsyra)*, самцы, общий вид и детали строения.

1–3 – *C. (C.) octomaculata*, неотип; 4–7 – *C. (C.) sexmaculata* sp. n.: 4, 7 – голотип, 5–6 – паратип. 1, 4 – общий вид тела с расправленными левыми крыльями; 2, 5–6 – голова с переднеспинкой и передней ногой, вид сверху/сбоку и частично спереди; 3, 7 – стридуляционная жилка левого надкрыля снизу.

dorsally and with rather large oval lateral ocelli located laterally and almost vertically); lower rostral tubercle rather low, narrow and located between anterior keels of antennal cavities but slightly before place of contact of these cavities (Fig. 2). Pronotum rather high and short, with almost straight anterior edge of disc, clearly concave anterior edge of each lateral lobe, strongly convex ventral edge of this lobe (this edge separated from latter edge by short and almost angular projection), oblique ventral portion of posterior

edge of this lobe, roundly angular dorsal portion of this edge having also distinct and widely rounded humeral notch above, and with rather wide and moderately long hind lobe of disc having almost truncated posterior part as well as rounded posterolateral corners (Figs 1, 2). Tegmina long and narrow, significantly protruding beyond apices of hind femora, with 4 branches of RS branching from RA (proximal branch of RS distally fused with MA), with apical part narrowly rounded, and with stridulatory apparatus



Figs 8–17. *Calopsyra* (*Calopsyra*), details of structure.
8–11 – *C. (C.) octomaculata*, neotype; 12–17 – *C. (C.) sexmaculata* sp. n.: 12–15 – holotype, 16–17 – paratype. 8–9, 12–13 – stridulatory apparatus in dorsal fields of male tegmina from above; 8, 12 – in left, 9, 13 – in right; 10–11, 14–15 – male abdominal apex: 10, 14 – from above, 11, 15 – from below; 16 – female genital plate from below; 17 – ovipositor and genital plate of female from side.

Рис. 8–17. *Calopsyra* (*Calopsyra*), детали строения.

8–11 – *C. (C.) octomaculata*, неотип; 12–17 – *C. (C.) sexmaculata* sp. n.: 12–15 – голотип, 16–17 – паратип. 8–9, 12–13 – стридуляционный аппарат в дорсальных полях надкрылий самца сверху; 8, 12 – в левом, 9, 13 – в правом; 10–11, 14–15 – вершина брюшка самца: 10, 14 – сверху, 11, 15 – снизу; 16 – генитальная пластинка самки снизу; 17 – яйцеклад и генитальная пластинка самки сбоку.

as in Figs 3, 8, 9; hind wings insignificantly protruding beyond tegminal apices (Fig. 1). Legs rather thin and moderately long, with following characters: fore coxa with distinct spine; proximal part of fore tibia somewhat widened, having large open outer tympanum and almost slit-like but practically not inflated inner tympanum (Fig. 2); hind femur with slightly widened proximal half; a few small spinules developed on ventromedial edge of fore femur and ventrolateral edge of middle femur as well as on both ventral edges of hind femur; 2 such spinules located on dorsolateral edge of fore tibia; a pair of similar dorsoapical spinules located on middle tibia; numerous and slightly larger spinules developed on all (4) edges of hind tibia. Abdomen with all tergites simple, but last tergite with rather short and roundly angular posteromedian projection curved downwards and having longitudinal median concavity; epiproct and paraprocts also simple, roundly triangular (almost not elongate), but paraprocts smaller than epiproct which directed

downwards/forwards; cerci with wide and very short bases as well as elongately conical rest parts having rather thin and arcuate distal portions (apices of these portions acute and directed somewhat medially; Figs 10, 11); genital plate with wide proximal half and narrow distal one having small posteromedian notch and a pair of very long stick-like styles (Fig. 11); genitalia membranous.

Variations. Second male with pronotal disc barely lighter (brown), 5 dark spots on each lateral tegminal field, hind tibia with dark parts distinctly larger than lighter parts, epiproct brownish rose with dark brown median stripe dorsally, and posteromedian notch of genital plate (between bases for styles) barely deeper.

Female unknown (but see notes below).

Length (in mm). Body 21–22; body with wings 53–55; pronotum 5.3–5.7; tegmina 46–48; hind femora 26–27.

Notes. This species was very briefly described from a female collected in “Sumatra” [Westwood, 1848]. However,

there are more than one species with a very similar appearance but different some male sexual characters including the characteristic shape of the male genital plate styles (see the description of a new species from Borneo below; Figs 10, 11, 14, 15). Moreover, the males from Sumatra described above have the same shape of these styles as the unique male from Borneo deposited in the Natural History Museum (London, UK) and identified as *C. octomaculata* [Natural History Museum, 2018]; thus, they may belong to the same widely distributed species sympatric to a new species from Borneo. So, we also cannot be sure that the new species is absent in Sumatra. In this connection, it is impossible to attribute Westwood's description to any of these species, because this description is insufficient and contains mainly data about tegminal spots (Westwood wrote about 8 spots on both tegmina, but the above-mentioned Sumatran specimens have 9–10 such spots, the London's specimen has 12 spots, and the new species has 6 spots), and the type material on *C. octomaculata* is not preserved [Natural History Museum, 2018; Cigliano et al., 2023]. It is a reason that here I designate one of my Sumatran males (see above) as a neotype of this species ("*Phylloptera 8-maculata*" in the original variant).

Calopsyra (Calopsyra) sexmaculata Gorochov, **sp. n.**
(Figs 4–7, 12–17)

Material. Holotype, ♂ (ZIN): Malaysia, Borneo I., Sabah State, Trus Madi Mt, ~1000 m, primary/secondary forest, at light, 13–25.05.2007 (A. Gorochov). Paratypes: 1♂, 1♀ (ZIN), same data as for holotype; 1♂ (ZIN), same locality, but 13–24.01.2007 (A. Sotshivko).

Description. Male (holotype). General appearance similar to that of neotype of *C. octomaculata*, but body slightly smaller, and colouration with following differences (Fig. 4): head also yellowish but with light brown epicranial dorsum having a pair of small brown marks on dorsal part of posterior half of upper rostral tubercle and 3 dark brown longitudinal stripes between posterior parts of eyes and behind them, as well as with light brown proximal part of antennal flagellum and brown to dark brown rest of this flagellum (this flagellum additionally with light spots as in *C. octomaculata*); pronotum with light brown disc having anterior edge dark brown, a pair of stripes along lateral edges (but before hind lobe) brown, lateral and posterior edges of hind lobe blackish, and stripe along latter edges brown to dark brown, but lateral pronotal lobes completely yellowish (as in Figs 5, 6); wings of same colour as in *C. octomaculata*, but tegmina with only 3 (not 4 or 5) darkened spots in each lateral field (these spots brown and clearly smaller than in this species; compare Figs 1 and 4), and widened parts of dorsal tegminal fields with darkened structures as in Figs 12, 13; legs with lighter (almost yellowish) distal parts of fore and middle tibiae as well as smaller dark (dark brown to blackish) spots on hind tibia which clearly smaller than rose to light brown spots of this tibia (shape of these spots more or less similar to that of *C. octomaculata*); rest of body yellowish with rose tinge on majority of abdominal tergites and sternites, almost completely brownish rose genital plate, light brown apical (last) tergite and lower parts of subapical tergite as well as median part of epiproct and distal parts of cerci (but apical tergite also with brown anterodorsal spot and 3 dots along posterior edge; Figs 14, 15). Structure of body almost identical to that of *C. octomaculata*, but: tegmina with all 4 branches of RS free, and with stridulatory apparatus as in Figs 7, 12, 13; cerci slightly arcuate in all parts (vs straight but with arcuate distal parts; see Figs 10, 14); narrowed part of genital plate slightly longer, and styles of this plate distinctly widened in middle parts and with distal halves curved somewhat laterally (for comparison see Figs 11, 15).

Variations. Other males with median dark stripe on epicranial dorsum divided into 2 spots (Fig. 5), or all 3 dark stripes on this dorsum partly fused with each other; hind lobe of pronotal disc sometimes completely dark brown and with greenish tinge; light parts of coxae and femora sometimes greenish; light parts of fore and middle tibiae sometimes partly rose (Figs 5, 6); hind tibia often with dark spots somewhat larger than lighter ones; brown anterodorsal spot on last tergite sometimes divided into a pair of spots; epiproct often with darker (brown) median part.

Female. Colouration and structure of body very similar to those of holotype, but dark median stripe on epicranial dorsum wider, dorsal tegminal field uniformly yellowish (greenish in living condition) but with small brown mark at base, last tergite and epiproct rose to light brown (without darker marks), genital plate light brown, and ovipositor brown with dark brown apical part and denticles of rest part (Figs 16, 17), venation of dorsal tegminal fields irregularly and densely reticular but with one longitudinal vein near (along) anal edge of widened part of this field, last tergite smaller and with small posteromedian concavity (instead short posteromedian lobe), cerci shorter and straighter as well as somewhat thinner and almost fusiform (their apices not acute), and last abdominal sternite distinctly wider than other abdominal sternites. Genital plate rather small and narrow, with keel-like median longitudinal bend, short and rounded anterior projection, moderately deep and very narrow posteromedian notch as well as angular lobules around it (latter lobules located in subvertical planes and almost pressed to each other; Figs 16, 17); ovipositor rather long and not very wide (not very high), moderately curved upwards and with numerous distinct (strong) denticles along dorsal and ventral edges as well as on both lateral surfaces (Fig. 17).

Length (in mm). Body: males 21–28, female 26; body with wings: males 50–52, female 58; pronotum: males 5–5.5, female 6; tegmina: males 41.5–43, female 48; hind femora: males 24.5–25.5, female 27; ovipositor 12.5.

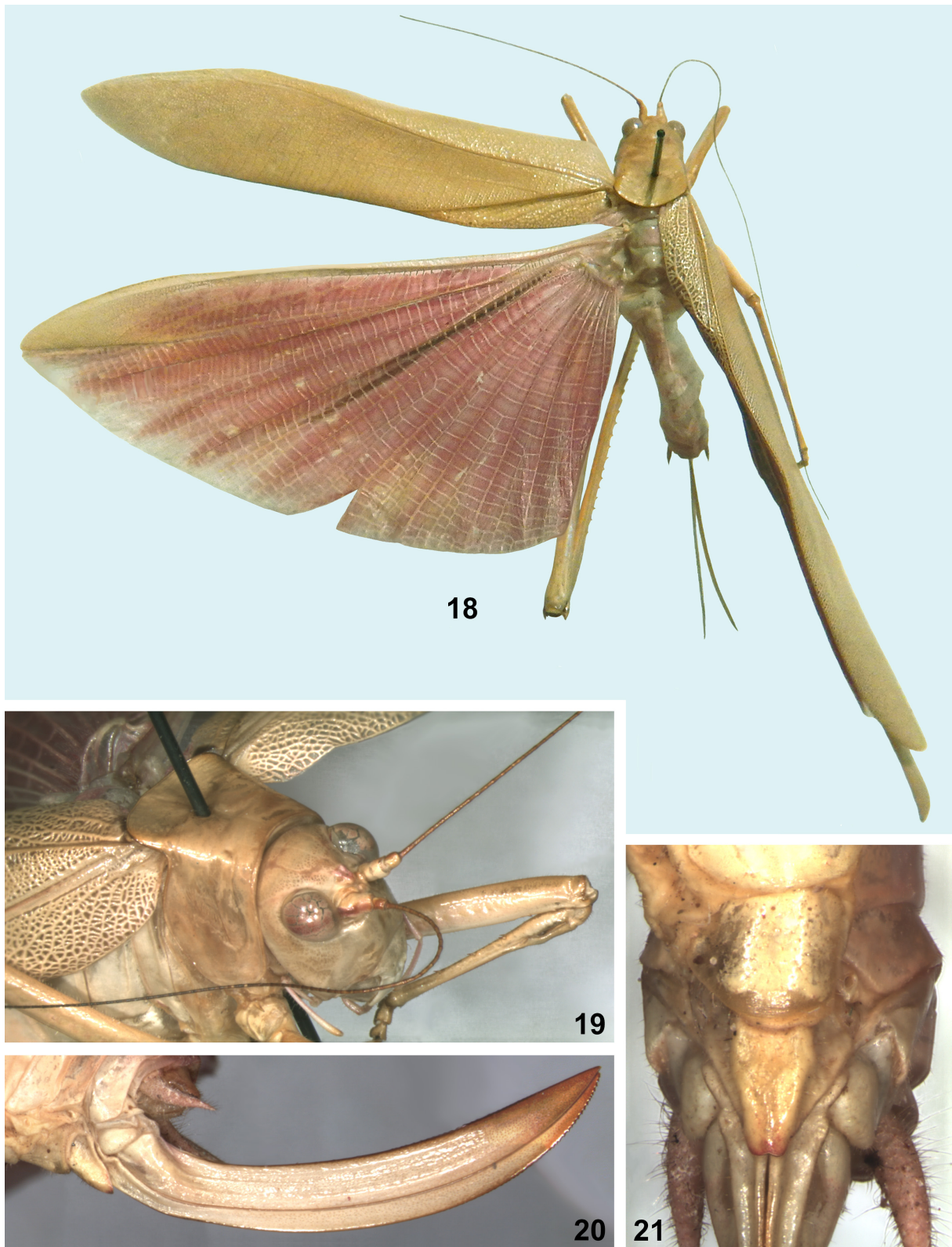
Comparison. The differences between the new species and *C. (C.) octomaculata* are given in the description of *C. (C.) sexmaculata* **sp. n.**; the most distinct of these are the absence of any darkenings on the pronotal lateral lobes and a different shape of the male genital plate styles (compare Figs 10, 11 and 14, 15). From *C. (? C.) obliterated*, the third possible species of this genus described from Malay Peninsula, the new species is distinguished by a more variegated body colouration including the presence of darkened spots on the tegminal lateral fields (the body colouration in *C. obliterated* is more uniformly greenish, without darkened spots on these fields), and by much larger styles of the male genital plate.

Etymology. This species name consists of the Latin words "sex" (six) and "maculata" (spotted) due to the characteristic tegminal colouration.

Calopsyra (Rhodopsyra) roseolata Gorochov, **sp. n.**
(Figs 18–21)

Material. Holotype, ♀ (ZIN): Indonesia, Sumatra I., Lampung Prov., 15–20 km NE of Krui Town, Bukit Barisan Selatan National Park, Kubu Prah Camp, 5°4.341'S / 104°3.093' E, ~600 m, primary forest, at light, 18–19.04.2009 (A. Gorochov, M. Berezin, E. Tkatsheva).

Description. Female (holotype). Body size moderately large. Colouration more or less uniformly yellowish (light greenish in living condition), but upper rostral tubercle and maxillary palpi mostly rose, scape with reddish rose lobitudinal band on dorsal surface, dorsal part of pedicel and proximal part of antennal flagellum light brown with rose tinge, rest of this flagellum brown to dark brown (Fig. 19), dorsum of metathorax and abdominal tergites with rose tinge, tegmina with very small brown spot at base of each dorsal field and small rose membrane between this



Figs 18–21. *Calopsyra (Rhodopsyra) roseoalata* sp. n., female, holotype, general view and details of structure.
 18 – general view of body with spread left wings; 19 – head with pronotum and fore leg, dorsolateral and partly anterior view; 20 – ovipositor and genital plate from side; 21 – genital plate with last sternite from below.

Рис. 18–21. *Calopsyra (Rhodopsyra) roseoalata* sp. n., самка, голотип, общий вид и детали строения.
 18 – общий вид тела с расправленными левыми крыльями; 19 – голова с переднеспинкой и передней ногой, вид сверху/сбоку и частично спереди; 20 – яйцеклад и генитальная пластинка сбоку; 21 – генитальная пластинка и последний стернит снизу.

field and mesothorax, hind wings intensively rose with yellowish to greyish venation and whitish or transparent membranes along costal edge as well as in distal part of costal lobe (extremely narrow transparent or whitish stripes developed also on rose membranes along both edges of crossveins, but some membranes between 1A and 2A brownish grey or partly brownish grey; Fig. 18), legs with small light brown marks at apex of hind femur and on apical parts of spines in hind tibia as well as a few very small brown to dark brown marks on all tarsi, and ovipositor with light brown apical part (Fig. 20). Head relatively larger than in *Calopsyra* s. str. and with following features: interspace between antennal cavities very narrow; upper and lower rostral tubercles less separated from each other than in this subgenus; apices of these tubercles slightly wider; apical denticle of upper rostral tubercle dorsally almost flattened; more posterior part of this tubercle shorter and with shorter dorsomedian groove; lateral ocelli somewhat smaller (Fig. 19). Pronotum with disc separated from lateral lobes by less rounded (in transverse section) bends, with lateral lobes higher in lower halves and having less deep (almost rectangular) humeral notches, with anterior edge concave in dorsal part and almost straight in lateral parts, as well as with distinctly convex posterior edge (Figs 18, 19); tegmina long and moderately narrow, with dorsal fields and apical parts of lateral fields similar to those of female of *Calopsyra* s. str., but with 2–3 slightly oblique longitudinal veins in widened part of dorsal field as well as with proximal branch of RS biramous and not fused with MA (two more distal branches of RS branching from RA; Fig. 18); hind wings distinctly (but not strongly) protruding beyond tegminal apices (Fig. 18); legs with fore and middle femora lacking spinules (only ventral inner edge of fore femur with one very small ventral inner spinule), but tympana and armament of hind femur and of all tibiae more or less similar to those of *Calopsyra* s. str.; last tergite simple (without any lobes or other specializations); epiproct lobe-like and more or less rounded distally; paraprocts somewhat smaller than epiproct and roundly triangular; last sternite also unspecialized; genital plate not large, more or less triangular but with partly vertical lateral sides and very small apical notch (Fig. 21); ovipositor very long, slightly curved upwards, in profile barely widening from basal part to middle one and then gradually narrowing to acute apex (dorsal edge of ovipositor with traces of numerous and very small denticles, but its ventral edge with more distinct such denticles in distal part; Fig. 20).

Male unknown.

Length (in mm). Body 27; body with wings 57; pronotum 5.9; tegmina 44; hind femora 29; ovipositor 16.5.

Comparison. *Calopsyra* (*Rh.*) *roseolata* sp. n. is very similar to *C. (Rh.) muricetincta* comb. n. from Malay Peninsula and may be only its Sumatran subspecies, but this question cannot be decided until the discovery of unknown males of these species. The new species differs

from this congener in the absence of light stripes and their traces on the pronotal disc, the presence of a small notch at the apex of the female genital plate (vs this plate has a clearly rounded apex, judging by a picture in the original description) [Karny, 1926a: fig. 19], and the ovipositor shorter (in *C. muricetincta*, the hind femur is 1.55 times as long as the ovipositor, but in *C. roseolata* sp. n., this ratio is about 1.75). The new species is also similar to *C. (Rh.) laticauda* comb. n. described from the same peninsula and having the female genital plate also with a posteromedian notch, but it is distinguished from the latter species by the ovipositor distinctly less high [Karny, 1926a: fig. 20].

Etymology. This species name consists of the Latin word “alata” (winged) and the Latin prefix “roseo-” (rose) due to the characteristic colouration of the hind wings.

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