Sixth addition to the revision of Itarinae (Orthoptera: Gryllidae)

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Itara (*Gryllitara*) *curupi* **sp. nov.** and *I.* (*Phormincter*) *melanocephala sumatrae* **subsp. nov.** from Southern Sumatra as well as *Inditara* **subgen. nov.** and *I.* (*Inditara*) *indiae* **sp. nov.** from South India are described. *Itara curupi* distinctly differs from all the other species of *Gryllitara* in having two rows of denticles on the dorsal surface of the epiphallus, *I. melanocephala sumatrae* differs from the nominotypical subspecies by a shorter distal part of the ectoparameres, and *I. indiae* strongly differs from all the other representatives of *Itara* in possessing a smaller tegminal mirror, more simple oblique veins in the male tegmina, and a specific structure of the male genitalia.

Key words: Orthoptera, Gryllidae, Itarinae, *Itara, Inditara,* new subspecies, new species, new subgenus

INTRODUCTION

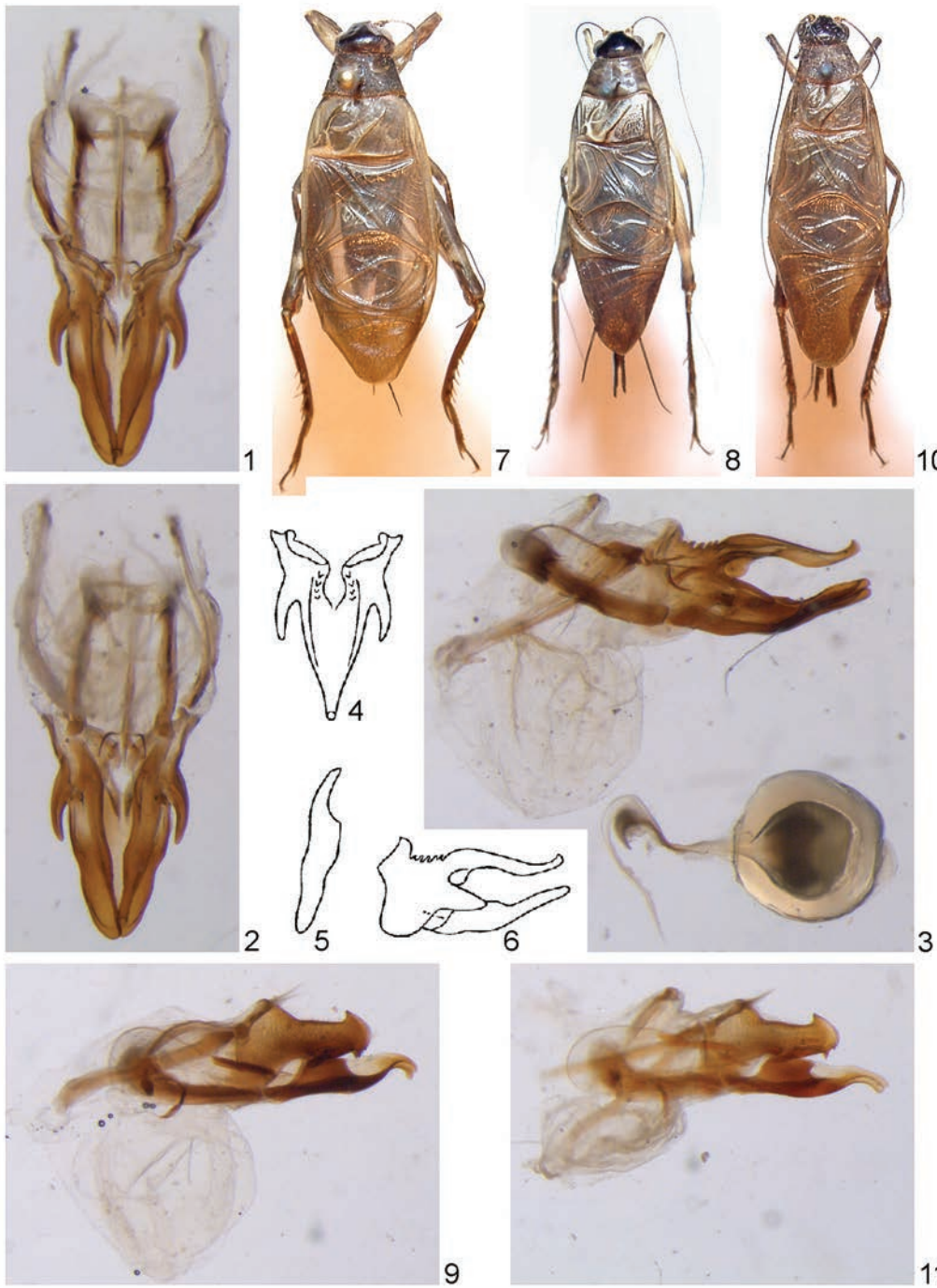
This paper is one of the series of publications on taxonomy of the Indo-Malayan subfamily Itarinae (Gorochov, 1997, 2001a, 2001b, 2004, 2007, 2008). The first of them is a partial revision of this subfamily, and the others are five additions containing mainly descriptions of new taxa. A new species described below (*Itara curupi* **sp. nov.**) is very interesting as it almost undoubtedly belongs to the subgenus *Gryllitara* Chopard, 1931 but is distinguished from all known species of the latter genus by the presence of two rows of denticles on the dorsal epiphallic surface (Figs 1–6). This feature is characteristic of the subgenera *Singitara* Gorochov, 1997, *Noctitara* Gorochov, 1997, and *Maxitara* Gorochov, 2001 (in *Noctitara*, there is only a single row of these denticles owing to possible fusion of two such rows with each other). So, the presence of two rows of epiphalic denticles are probably a primitive character which might have been present in an ancestor of the genus *Itara* Walker, 1869 or in a general ancestor of only the above-mentioned subgenera.

TAXONOMIC PART

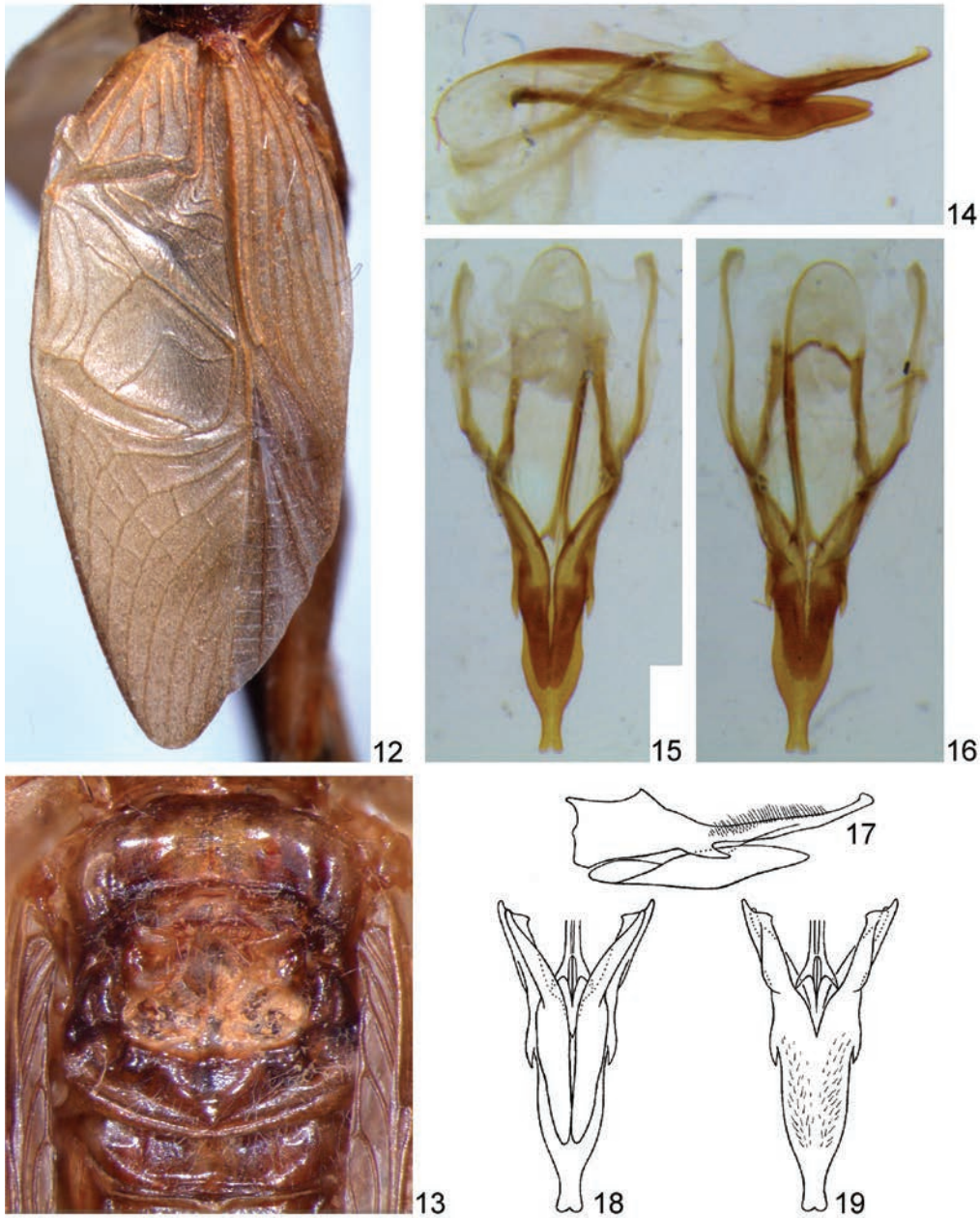
Order ORTHOPTERA
Family GRYLLIDAE
Subfamily ITARINAE
Genus *Itara* Walker, 1869
Itara (*Gryllitara*) *curupi* sp. nov.

Holotype. Male; **Indonesia**: Southern Sumatra, *Bengkulu Prov.*, environs of town Curup (not very far from Bengkulu City), volcano Bukit Kaba, 03°28–29′ S, 102°31–38′ E, 1000–1500 m, on leaves of bush in secondary forest; 24 Apr. – 2 May 2009; coll. A. Gorochov, M. Berezin, E. Tkatsheva. Holotype deposited in Zoological Institute, Russian Academy of Sciences, St. Petersburg.

Description. Male (holotype). Body moderately large; its shape typical of genus *Itara* (Fig. 7). Colouration of head light brown with rather dark dorsal part (from median ocellus and eyes to occiput) and brownish grey (lighter than dorsal part of head, but darker than other head parts) antennal flagellum; pronotum brownish grey (almost as antennal flagellum) with lighter narrow ventral area of lateral lobes and a



Figs 1–11. *Itara*, male. **1–7**, *I. curupi* **sp. nov.**; **8**, **9**, *I. melanocephala sumatrae* **subsp. nov.**; **10**, **11**, *I. melanocephala melanocephala*. Photograph of genitalia from above (1), from below (2), and from side (9, 11); same and spermatophore from side (3); drawing of epiphallus from above (4), of ectoparamere from below (5), and of epiphallus and ectoparamere from side (6); photograph of body from above (7, 8, 10).



Figs 12–19. *Itara indiae* **sp. nov.**, male: **12**, photograph of right tegmen; **13**, photograph of metanotal gland from above; **14–16**, photograph of genitalia from side (14), from below (15), and from above (16); drawing of epiphallus, ectoparameres, and distal part of virga from side (17), from below (18), and from above (19).

pair of spots on disc; legs very light brown, but with somewhat darkened distal part of fore and middle femora as well as brownish grey fore and middle tibiae and tarsi, numerous oblique lines on outer surface of hind femora, dorsal and apical areas of these femora (proximal part of dorsal area distinctly lighter, and ring between this area and apical one much lighter), and most part of hind tibiae (base of these tibiae, their spines and spurs, and hind tarsi distinctly lighter); tegmina greyish, rather light, but membranes of their stridulatory apparatus and most part of lateral field almost transparent, spots on basal part of dorsal field and band along dorsal edge of lateral field almost whitish; distal parts of hind wings (in rest position) grey, somewhat darker than tegmina; ventral part of thorax very light; abdomen more or less light brown. Head comparatively small; pronotum strongly widened to hind edge; dorsal field of tegmina wide, with large and oval (moderately transverse) mirror, normal oblique veins, small area formed by curved distal part of longest of these veins, and rather short apical area (Fig. 7); hind wings shortened (their apex slightly not reaching tegminal apex); anal plate somewhat narrowing to roundly truncate apex; genital plate typical of this genus. Genitalia similar to those of representatives of *Gryllitara* (Figs 1–6), but proximal part of dorsal epiphallic surface with two rows of distinct denticles, ventral surface of hind median epiphallic lobe with a pair of small rounded lamellar lobules, and ectoparameres long, weakly curved in profile, and without hooked dorsolateral lobe at proximal part; spermatophore as in Fig. 3.

Female unknown.

Length in mm: body 17; pronotum 2.7; tegmina 18; hind femora 11.

Comparison. The new species differs from all the other species of the subgenus *Gryllitara* in the presence of the above-mentioned denticles on epiphallic dorsum. Additionally it is distinguished from *I.* (*G.*) *pendleburyi* (Chopard, 1931) by the more transverse mirror, longer apical area of male tegmina, and absence of hooked dorsolateral lobe at ectoparameral proximal part; from *I.* (*Grillitara*) *diligens* Gorochov, 1997, by the more transverse mirror, shorter apical area of male tegmina, and longer and weakly curved ectoparameres; from *I.* (*Grillitara*) *ampla* Gorochov, 2001, by the shorter apical area of male tegmina and weakly curved and distinctly longer ectoparameres.

Itara (*Phormincter*) *melanocephala sumatrae* subsp. nov.

Holotype. Male; **Indonesia**, Southern Sumatra, *Lampung Prov.*, National part Bukit Barisan Selatan, 20–30 km WWN of Town of Kotaagung, environs of Village of Sukaraja, 05˚30–31´S, 104˚25–27´E, about 600 m, on leaves of bush in primary forest; 14–18 April 2009; coll. A. Gorochov, M. Berezin, E. Tkatsheva.

Paratype, female, same data.

Holotype and paratype deposited in Zoological Institute, Russian Academy of Sciences, St. Petersburg.

Description. Male (holotype). Body structure and colouration very similar to those of *I.* (*Phormingter*) *m. melanocephala* Gorochov, 1988 from Java, but basal part of dorsal tegminal field with dense net of distinct whitish veinlets (Fig. 8) (in *I. m. melanocephala*, these veinlets clearly more sparse and significantly less distinct, i.e. with colouration almost as in membranes of this part; Fig. 10), and genitalia with somewhat shorter and more curved distal part of ectoparameres (Fig. 9) (for comparison see also Fig. 11).

Female. Body structure and colouration practically indistinguished from female of *I. m. melanocephala* (see Gorochov, 1988).

Length in mm, body: male 14, female 11.5; body with wings: male 22, female 20.5; pronotum: male 2.5, female 2.3; tegmina: male 15.5, female 13; hind femora: male 9, female 9; ovipositor 7.

Comparison. The differences of this subspecies from nominotypical one are given above in the description of *I. m. sumatrae*.

Subgenus *Inditara* subgen. nov.

Type species: *Itara* (*Inditara*) *indiae* **sp. nov**.

Diagnosis. General appearance similar to that of other representatives of *Itara*. Body small. Colouration light brown (almost yellowish) with greyish tinge and darkenings on head and pronotum. Male tegmina comparatively narrow; mirror distinctly smaller than in other subgenera of this genus, more or less rectangular, not transverse (its width and length almost equal), and with dividing vein strongly (angularly) curved (Fig. 12); oblique veins not connected with each other by additional veinlets near stridulatory vein (Fig. 12). Male anal plate triangularly rounded, but with almost truncate apex; male genital plate elongate (normal for *Itara*); male genitalia somewhat similar to those of subgenus *Gryllitara* Chop., but with distinctly lower epiphallus having much smaller lateral lobes, almost straight ectoparameres, and long spermatophore sac (Figs 14–19).

Included species: type species.

***Itara* (*Inditara*) *indiae* sp. nov.**
(Figs 12–19)

Holotype. Male; **South India**, "Anamalai Hills, Cinchona, 3500 ft., P.S.N.", May 1959.

Paratypes. Two males, same data, but one of them collected in Oct. 1960; one male, six females, **South India**, "Nilgiri Hills, Devala, 3200 ft., P.S.N.", May 1961. Holotype and some paratypes deposited in Manchester University, United Kingdom, some paratypes, in Zoological Institute, Russian Academy of Sciences, St. Petersburg.

Description. Male (holotype). Head light with dark brown large spot between ocelli, pair of brown longitudinal stripes running from this spot to hind part of vertex, pair of similar (but shorter) stripes between previous stripes and eyes, brownish face under rostral apex and antennal cavities, brownish genae under eyes, and small brownish spot at base of mandibles; pronotal disc brown with several light brown marks; pronotal lateral lobes light with darker (brownish) upper half. Metanotal gland as in Fig. 13. Tegmina rather long, with long apical area having six branches of MP+CuA1, with four oblique veins (two shortest of them strongly curved, and two longest, much less curved, but sinuous), with seven or eight almost parallel longitudinal veins in lateral field (forth and fifth of these veins branching from third one, if one counts from M), and structure of mirror and chords as in Fig. 12; hind wings much longer than tegmina. Fore tibiae distinctly inflated, with rather large and open outer tympanum, and very large and slit-like inner tympanum (inner tympanum and space between it and apex of fore tibia almost equal in length). Genitalia as in Figs 14–19.

Variation. One of paratypes with rounded medial edge of tegminal mirror; another paratype with additional oblique vein in tegmina (this vein strongly curved and shorter than all other oblique veins of tegmina).

Female. General appearance similar to that of male, but dorsal tegminal field with 10–13 parallel longitudinal veins (including their branches) having slightly irregular structure in basal and lateroproximal parts of tegmina, and lateral tegminal field with seven to nine almost parallel longitudinal veins (including their branches). Genital structures typical of *Itara* females.

Length in mm, body: male 15–16, female 15–18; body with wings: male 21–23, female 24–26; pronotum: male 2–2.2, female 2.3–2.5; tegmina: male 12–13, female 14–15; hind femora: male 8.3–8.6, female 9–10; ovipositor 12–13.

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