

***Leleja arkadiyi* gen. et sp.n., a new genus and species of crickets
(Orthoptera: Gryllidae: Gryllinae) from Thailand*****Leleja arkadiyi* gen. et sp.n. — новые род и вид сверчков
(Orthoptera: Gryllidae: Gryllinae) из Таиланда**

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Key words: crickets, Orthoptera, Gryllidae, Gryllinae, Gryllini, Thailand, new taxa.**Ключевые слова:** сверчки, Orthoptera, Gryllidae, Gryllinae, Gryllini, Таиланд, новые таксоны.

Abstract. *Leleja arkadiyi* gen. et sp.n. is described from Thailand. This cricket genus belongs to the tribe Gryllini and is remotely similar to some short-winged Indo-Malayan genera of this tribe, but it is clearly distinguished from them by a characteristic shape of the male head and different structure of the male genitalia.

Резюме. Из Таиланда описывается *Leleja arkadiyi* gen. et sp.n. Этот род сверчков принадлежит к трибе Gryllini и отдаленно напоминает некоторые короткокрылые роды этой трибы из Индомалайской области, но четко отличается от них характерной формой головы самца и иным строением его гениталий.

Introduction

This paper is dedicated to the anniversary of the well-known Russian entomologist-hymenopterist Professor Arkadiy Stepanovich Lelej, over the years heading entomological research in the Institute of Biology and Soil Science, Far East Branch of the Russian Academy of Sciences, Vladivostok.

Material considered in this paper was collected in the tropical forests of Thailand by the Russian entomologist V.G. Bezborodov. The type specimens are dry, pinned and deposited at the Zoological Institute, Russian Academy of Sciences, Saint Petersburg. Their photographs were made with a Leica M216 stereomicroscope.

Taxonomy

Gryllini

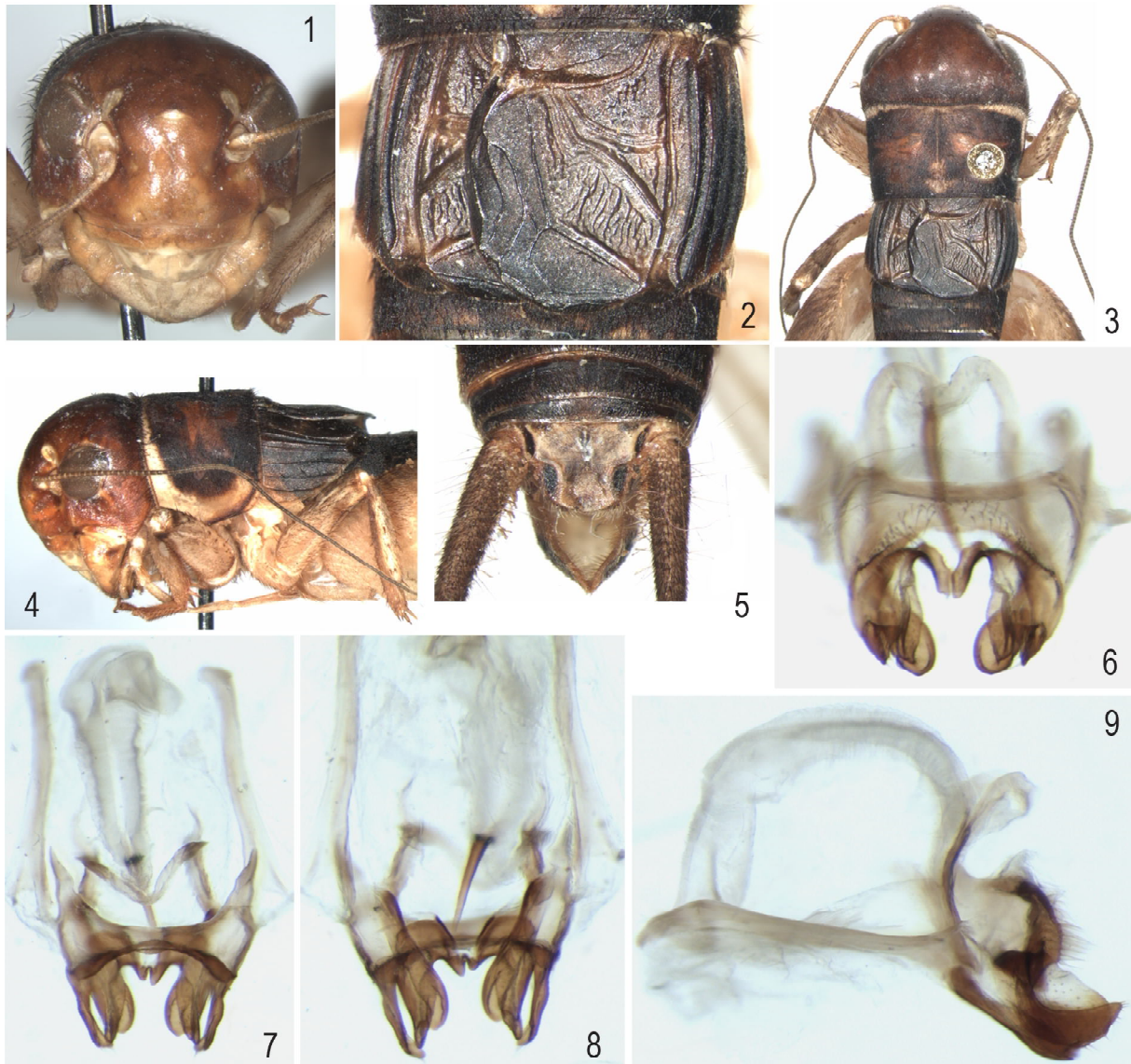
***Leleja* gen.n.**Type species: *Leleja arkadiyi* sp.n.

Diagnosis. Body medium-sized for this tribe. Head of male very large, almost semi-globular and with somewhat inflated rostral part (Figs 1, 3, 4); rostrum between antennal cavities approximately 3.7 times as wide as scape; eyes moderately large, weakly convex; ocelli located in corners of strongly transverse triangle; clypeal suture completely developed, barely sinuate; mandibles normal but with distinct

convexity on lateroproximal part (Fig. 1). Pronotum clearly transverse, slightly widening to head, with anterior and posterior edges of disc more or less straight, with rather high lateral lobes having almost straight (barely oblique) ventral edge. Tegmina of male strongly shortened, reaching third abdominal tergite, with developed stridulatory apparatus having two oblique veins and strongly transverse mirror, and with very short apical area and a few almost parallel longitudinal veins in lateral field (Figs 2–4). Fore and middle legs rather short but not very robust (tibiae somewhat shorter than femora); outer tympanum developed, long; inner one absent; hind legs large, i.e. comparatively long, with rather strongly widened femur, with moderately robust tibia distinctly shorter than this femur and having five pairs of dorsal spines and three pairs of apical spurs (inner spurs slightly longer than outer ones; longest dorsal and middle inner spurs reaching middle of basitarsus), and with several strong denticles on both edges of dorsal surface of basitarsus; all tarsi not shortened. Male anal plate rather simple in shape, with widely rounded apex (Fig. 5); male genital plate somewhat longer, with distal part narrowing to angular apex (Fig. 5) and having dorsolateral edges slightly sinuate in profile. Male genitalia with almost H-shaped epiphallus having rather short anterolateral apodemes and rather long posterolateral processes (in lateral view, these processes curved upwards and separated from main body of epiphallus by deep dorsal notch; Figs 6, 7, 9); ectoparameres complicated, with vertical lobe-like and semi-membranous distal part, with almost stick-like proximal part, and with large and strongly curved mesal lobe having rather wide proximal part and narrower and vertical distal part (latter part distinctly projected behind median part of epiphallus; Figs 6–9); endoparameres narrow and arcuately curved, having not large apodeme in middle part and lacking any distinct apodeme in upper part (latter endoparameral parts fused with each other by their ends; Figs 6, 7, 9); virga not long and moderately thick; spermatophore sac (sacculus) not very large and without distinct apodemes; rami well developed, almost straight and rather long (Figs 7–9).

Included species. Type species only.

Comparison. The new genus is somewhat similar to the genus *Coiblemmus* Chopard, 1936 and subgenus *Pseudocoiblemmus* Gorochov, 2001 of the genus *Velarifictorus* Randall, 1964, but distinguished from them by the male head



Figs 1–9. *Leleja arkadiyi* sp.n. male. 1–5 — habitus: 1 — head in front; 2 — tegmina in rest position from above; 3, 4 — body without posterior part (3 — from above, 4 — from side); 5 — abdominal apex from above. 6–9 — male genitalia: 6 — posterodorsal view (without anterior half); 7 — dorsal view; 8 — ventral view (without anterior part); 9 — lateral view.

Рис. 1–5. *Leleja arkadiyi* sp.n., самец. 1–5 — общий вид: 1 — голова спереди; 2 — надкрылья в состоянии покоя сверху; 3, 4 — тело без задней части (3 — сверху, 4 — сбоку); 5 — вершина брюшка сверху. 6–9 — гениталии самца: 6 — вид сзади и сверху (без передней половины); 7 — вид сверху; 8 — вид снизу (без передней части); 9 — вид сбоку.

rostrum distinctly rounded (not more or less tubercle-like or spine-like) in the profile, and ectoparameres of the male genitalia more complicated in the shape and with a larger (wider) mesal lobe clearly projected behind the median epiphallic part; from *Coiblemmus* only, by the sacculus without any large apodeme; from *Pseudocoiblemmus* only, by the epiphallus lacking any median posteroventral projection and endoparameres without large apodemes in their upper part [Gorochov, 2001; Tan et al., 2015]. The genus *Doroshenkoa* Gorochov, 2004 is also more or less similar to *Leleja* gen.n., but the latter genus differs in the presence of mirror in the male tegmina, much narrower posterolateral epiphallic processes, one pair (not two pairs) of ectoparameres, wider and shorter mesal lobe not isolated from the

main body of ectoparamere, and clearly larger sacculus [Gorochov, 2004]. The new genus differs from *Trullus* Gorochov, 2000, another short-winged genus from Thailand, in the epiphallus H-shaped (not in the shape of elongate plate with a widened base), a very different structure of the ectoparameres, larger sacculus, and much narrower and longer rami [Gorochov, 2000]; from *Sphecogryllus* Chopard, 1933 (known after female only), in the ocelli situated in the corners of a triangle (not almost on a straight line), and in a less concave anterior edge of pronotal disc [Chopard, 1969]; from all other more or less similar genera (*Gryllopsis* Chopard, 1928; *Turanogryllus* Tarbisky, 1940; *Hemitrullus* Gorochov, 2001, etc.), in the following combination of characters: a very large head of male, completely developed (not partly obliterated).

ated) clypeal suture, much wider and somewhat inflates head rostrum, absence of abdominal gland in male, and male genitalia without articulated lateral processes of the epiphallus but with complicated mesal lobes of the ectoparameres distinctly visible behind the epiphallic median part.

Leleja arkadiyi sp.n.

Type material. Holotype: ♂, Thailand, Nakhon Ratchasima (Karat) Prov.: Nong Bun Nak, 12.V.2010, V.G. Bezborodov leg. Paratypes: 1♂, same data as for holotype, but 19.V.2010; 1♂, same province, but Khorn Buri Lake, 2.VIII.2009, V.G. Bezborodov leg.

Description. Male (holotype). Coloration of body rather contrast: head light reddish brown with slightly darker (reddish brown) dorsal part, almost yellowish mouthparts (except upper half of clypeus), grey eyes, whitish ocelli, light brown scape and pedicel, brown proximal part of antennal flagellum, and dark brown its rest part (Figs 1, 3, 4); pronotum dark brown with large reddish brown areas on disc, yellowish band on each lateral lobe along its ventral edge, and yellowish stripe on same lobe but along anterior edge (these light areas outlined by dark line on ventral and anterior edges; Figs 3, 4); tegmina dark brown with almost blackish medial part and most part of lateral field, smoky darkish large membranes in lateral part of dorsal field, and light (brownish to yellowish) area along costal edge (Figs 2, 4); legs light brown with small brown area on apical part of fore femur, at base of this femur and on ventral part of middle tibia, as well as with numerous darkish oblique stripes on dorsolateral surface of hind femur and large dark brown area in middle part of its inner surface and on distal part of this femur; abdomen with dark brown (almost blackish) dorsum of tergites, greyish brown cerci, and light brown rest parts but having small dark marks on distolateral parts of genital plate and on anal plate (Fig. 5). Structure of head, pronotum and tegmina as in Figs 1–4; legs with three rather large apical spurs on fore femur (inner and ventral spurs longest, outer one clearly shorter), small lobe-like (for digging?) inner dorsoapical process near these spurs, two pairs of apical

spurs on middle tibia, and four inner and six outer dorsal denticles (except apical ones) on hind basitarsus; anal plate and genitalia as in Figs 5–9.

Length. Body 17.0–19.0 mm; pronotum 3.5–3.7 mm; tegmina 4.5–4.9 mm; fore femora 4.0–4.3 mm; fore tibiae 3.8–4.1 mm; fore tarsi 2.4–2.6 mm; hind femora 11.5–12.3 mm; hind tibiae 7.5–8.0 mm; hind tarsi 5.7–6.0 mm.

Variations. Paratypes with dorsum of head dark brown; one of them with pronotal disc almost completely reddish brown and with hind femur distinctly less dark than in holotype.

Female unknown.

Acknowledgments

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