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Taxonomic studies on the *Neotropical* Landrevinae with description of new taxa (Orthoptera, Grylloidea, Gryllidae)

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Abstract

The understanding of the subfamily Landrevinae has been modified by different authors since its creation. In the neotropics three genera are known to the present: *Odontogryllus* Saussure, 1877 (one from México, the others amazonian), *Brasilodontus* de Mello, 1992 with two species (from Brazilian Atlantic Forest), and *Valchica* de Mello, 1992 with one species (from Costa Rica). De Mello (1992) erroneously created the tribe Odontogryllini for this cluster of neotropical genera, here suppressed. In the present paper we revise and add new species to *Brasilodontus* and describe two monotypic genera, *Xulavuna* n. gen. and *Yarrubura*, n. gen. An identification key to the genera of neotropical Landrevinae is presented as well as one for the species of *Brasilodontus*. The male fore wings of *Xulavuna adenoptera* n. sp. is remarkable regarding its shape and its glandular condition.

Key words: Landrevinae, Orthoptera, glandular wing, description, new taxa, *Neotropica*

Resumo

O entendimento da subfamília Landrevinae tem sido alterada por diferentes autores desde sua criação. Até o momento, três gêneros são conhecidos da Neotropica: *Odontogryllus* Saussure, 1877 com 11 espécies (uma das quais do México, as demais amazônicas), *Brasilodontus* de Mello, 1992 com duas espécies (da Floresta Atlântica brasileira), e *Valchica* de Mello, 1992 monotípico (da Costa Rica). De Mello (1992) erroneamente erigiu a tribo Odontogryllini para esse grupo de gêneros neotropicais, aqui suprimida. No presente trabalho revisamos e adicionamos novas espécies ao gênero *Brasilodontus* e descrevemos novos gêneros monotípicos, *Xulavuna* gen. n. e *Yarrubura*, gen. n. Uma chave de identificação para os gêneros de Landrevinae neotropicais é apresentada, assim como uma para as espécies de *Brasilodontus*.

As asas mesonotais do macho de *Xulavuna adenoptera* sp. n. são notáveis quanto à forma e sua condição glandular.

Palavras-chave: Landrevinae, Orthoptera, asa glandular, descrição, novos táxons, *Neotropica*

Introduction

Landrevinae Gorochov, 1982 was initially described as the legion Landrevites Saussure, 1878, comprising *Odontogryllus* Sauss., 1877 and *Landreva* Walker, 1869. Chopard (1967) transferred the genera from Landrevites to the Gryllomorphini (Gryllinae). Gorochov (1982) reallocated these genera to his Landrevinae, tribe Landrevini. Otte (1988) described 13 genera and 31 species of Landrevinae from the western pacific region but improperly regarded them as Pteroplistinae Chopard, 1936. De Mello (1992) followed that author and created the tribe Odontogryllini for the neotropical members of Pteroplistinae, i.e., the genera *Odontogryllus* Sauss., 1877, *Brasilodontus* de Mello, 1992 and *Valchica* de Mello, 1992.

Gorochov *et al.* (2004) mention that the Landrevinae are more related to the Eneopterinae and Hemigryllinae while the Pteroplistinae has affinities to Phalangopsinae. Gorochov (2005) erected the tribe Prolandrevini, now comprising three genera from southern South Africa. Posteriorly, Odontogryllini de Mello, 1992 was removed from Pteroplistinae to Landrevinae (Gorochov, 2013).

- 3a. apex of pseudepiphallus with a row of denticles; tip of ectophallic fold located posteriorly to the apex of pseudepiphallic parameres; copulatory papilla elongate 4
- 3b. apex of pseudepiphallus without a row of denticles; tip of ectophallic fold located at the level of the apex of pseudepiphallic parameres; copulatory papilla drop-shape. 5
- 4a. median ocellus smaller than lateral ones (fig. 4D); male fore wings reaching hind margin of second abdominal segment (fig. 4A, F), stridulatory file with *ca.* 100 teeth; apex of pseudepiphallus clavate (fig. 6A, B, C); fringe of bristles on main lobes of pseudepiphallus located distally; copulatory papilla: the lateral lines, as seen from dorsum, somewhat concave, wider at first fourth, the apex white (fig. 15A1), proximal margin ventrally blunt (fig 15A2) *B. itabunensis*, **n. sp.**
- 4b. all ocelli similar in size; male fore wings extending beyond hind margin of second abdominal segment (fig. 1F), stridulatory file with *ca.* 67 teeth; apex of pseudepiphallus dilated as seen from the sides (fig. 3C); fringe of bristles on main lobes of pseudepiphallus located dorsally, before the apex (figs. 3A, B, C); copulatory papilla: the lateral lines, as seen from dorsum, not concave, wider at first third, the apex same color as the rest of the structure (fig. 15F) ... *B. mucuriensis* de Mello, 1992
- 5a. frons and gena with a light brown sagittal band from median ocellus to inferior margin of clypeus; stridulatory file with *ca.* 77 teeth; posterior margin of subgenital plate slightly sinuose (fig. 5I); apex of pseudepiphallus twisted and truncate; ectophallic apodemes rather short and slender; proximal margin of copulatory papilla with a shallow invagination (fig. 15B2) *B. itamarajuensis*, **n. sp.**
- 5b. frons with oval yellowish maculae just below median ocellus; fore wings stridulatory vein with *ca.* 75 teeth; posterior margin of subgenital plate concave (fig. 7I); apex of pseudepiphallus truncate as seen by the sides (fig. 9C), ectophallic apodemes long (fig. 9A, B); proximal margin of copulatory papilla with a deep invagination (fig. 15D2) *B. portosegurensis*, **n. sp.**

Key for the genera of neotropical Landrevinae

- 1a. male fore wings without stridulatory file; subgenital plate elongate 2
- 1b. male fore wings with stridulatory file; subgenital plate short (does not apply to *Brasilodontus apterus*) 3
- 2a. median ocellus large; fore wings without a gland; female fore wings very small, scale-shaped ... *Odontogryllus* **Sassure, 1877**
- 2b. median ocellus small; fore wings with a gland, strongly modified; female fore wings absent *Xulavuna*, **n. gen.**
- 3a. fore wings without harp veins; pseudepiphallus short, main lobes of pseudepiphallus slightly invaginated posteriorly 4
- 3b. fore wings with harp veins; pseudepiphallus long, main lobes of pseudepiphallus deeply invaginated *Brasilodontus* **de Mello, 1992**
- 4a. hind wings present; metanotal gland present; dorsum abdominal sclerite I not modified, without a complex glandular structure; posterior margin of pseudepiphallus concave; ectophallic apodeme very small *Valchica* **de Mello, 1992**
- 4b. hind wings absent; metanotal gland absent; dorsum abdominal sclerite I strongly modified, almost completely fused and concealing sclerite II, also bearing a complex glandular structure (fig. 14E–G); pseudepiphallus bilobate at the apex; ectophallic apodeme long *Yarrubura*, **n. gen.**

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