Chilocoris kotejai sp. n. (Hemiptera: Heteroptera: Cydnidae) from the Democratic Republic of Congo, the first true coleopterous burrower bug

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ABSTRACT. Chilocoris kotejai sp. n. from the Democratic Republic of Congo is described and compared with Ch. congoensis Wagner, 1962. This new taxon is the first Chilocoris-species with modified mesothoracic and metathoracic wings, and the first true coleopterous burrower bug.

KEY WORDS: Hemiptera, Heteroptera, Cydnidae, Chilocoris, new species, coleoptery, Afrotropical Region, Democratic Republic of Congo.

INTRODUCTION

The genus Chilocoris Mayr, 1865 is the species-richest genus within the entire family Cydnidae; it is represented by 83 species, of which 17 are distributed in the Afrotropics (Linnavuori 1993, Lis 1994, 1999a, b, 2001). Among the material borrowed from the Musée Royal de l’Afrique Centrale (Tervuren, Belgium) I have found three females representing a new Afrotropical species of this genus. Its description is presented below.

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SYSTEMATICS

Genus Chilocoris Mayr, 1865

Type species: Chilocoris nitidus Mayr, 1865
Chilocoris kotejai sp. n.
(Fig. 1)

**Diagnosis**

The new species is similar to *Ch. congoensis* WAGNER, 1963 but can easily be separated from it by its coleopterous hemelytra, as well as by the absence of ocelli. These two characters clearly separate this new species also from all other representatives of the genus.

![Fig. 1. Chilocoris kotejai sp. n. – general outline.](image)

**Description**

**Body.** Dorsally unicolorous, reddish brown or castaneous, polished, punctures dark brown or dark chestnut, distinctly darker than the dorsum; antennae pale brown, membrane translucent, embrowned; body length 3.05–3.20; body width 1.76–1.85.

**Head.** Dorsally transversely wrinkled, impunctate except for setigerous punctures and several punctures between eyes; clypeus almost as long as paraclypei, slightly tapering apicad, clypeal apex bearing a pair of dark brown sharply ended pegs; each paraclypeus with submarginal row of 8–9 setigerous punctures (6 pegs and 2–3 hair-like setae); eyes
small and narrow, reddish brown, ocular index about 4.0-5.0; ocelli absent; antennae with the 2nd segment minute; rostrum pale brown, reaching middle coxae.

**Prothorax.** Pronotum with disc divided into two distinct lobes by transverse arcuate rows of punctures behind calli; several punctures present also in lateral parts of the disc and on its posterior lobe; lateral margins with four setigerous punctures bearing long hair-like setae (three in anterior lobe, one in the posterior). Propleuron brown, polished; anterior and posterior convexities impunctate, median depression almost impunctate.

**Mesothorax.** Scutellar disc sparsely punctured; basal and lateral rows of coarse punctures well developed, the lateral ones ending somewhat from the scutellar apex. Corium large, coleopteroid-like, undivided into clavus, meso- and exocorium, evenly punctured, punctures distinctly smaller than those on scutellum except for two incomplete rows of large punctures close to scutellum; membrane reduced, very small, not reaching the tip of abdomen; costal margin well differentiated, insinuate in its basal third, bearing no setigerous punctures. Mesopleuron with evaporatorium typical of the genus.

**Metathorax.** Metapleuron with evaporatorium and peritreme typical of the genus; metathoracic wings small, flap-like.

** Legs.** Pale brown, tibial spines dark brown; posterior tibiae somewhat flattened.

**Abdomen.** Sterna brown with lateral parts slightly paler in shade, impunctate and polished except for a row of small punctures accompanying each sternal suture.

**Type material**


**Etymology**

This species is dedicated to the late Professor JAN KOTEJA, the eminent Polish specialist on the taxonomy and classification of fossil and recent Hemiptera.

**Remarks**

Wing modifications occur rather often in Heteroptera and, according to SLATER (1975) and SCHUH & SLATER (1995), they can be grouped within eight categories (aptery, microptery, staphylinoidy, brachyptery, coleoptery, submacroptery, macroptery and
caduceous wings).

In the Cydnidae, known modifications of wings can be classified only within two categories, so far (staphylinoidy and submacroptery – see LIS 2002). All hitherto described species of the genus Chilocoris have the mesothoracic and metathoracic wings normally developed, whereas the new species described in this paper shows the first case of coleoptery in the genus, as well as in the entire family.

The coleoptery, as suggested by SLATER (1975) and SCHUH & SLATER (1995), usually appears in ground-living bugs, which do not need to fly; most probably it is the case, because (as the collecting data suggest) the new bug lives in humus in the mountain tropical forest.

REFERENCES


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