

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

JERZY A. LIS

Department of Biosystematics, Division of Invertebrate Zoology, University of Opole,
Oleska 22, 45-052 Opole, Poland, e-mail: cydnus@uni.opole.pl

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.

Acknowledgements

I express my thanks to Dr. UGO DALL'ASTA (Musée Royal de l'Afrique Centrale, Tervuren, Belgium) for the loan of material.

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.

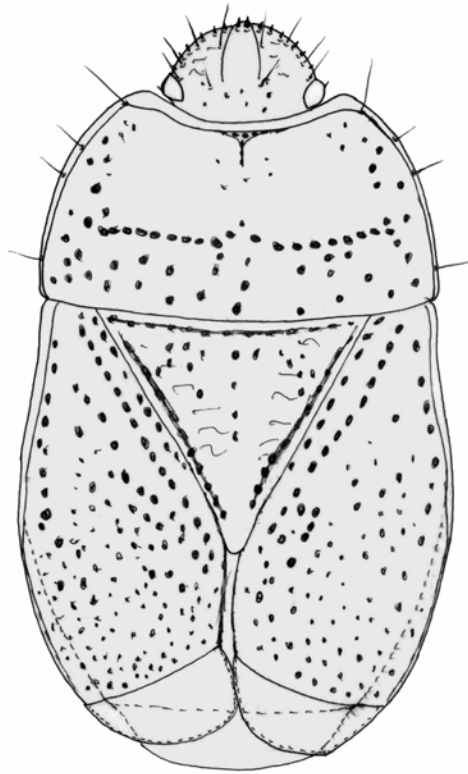


Fig. 1. *Chilocoris kotejai* sp. n. – general outline.

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 peritrema 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

Holotype female: [Democratic Republic of Congo]: Mus. Roy. Afr. Centr., Kivu: Itombwe, Tête de source Kahololo, 2800 m., B. 121 N. Leleup, I-1960; Biot. N° 121, humus forêt mont. avec bambous; in the collection of the Musée Royal de L'Afrique Centrale (Tervuren, Belgium).

Paratypes, two females: [Democratic Republic of Congo]: I.R.S.A.C.-Mus. Congo, Kivu: Mont Muhi, ruiss., Isale, 3025 m. (humus), VII-1955, N. Leleup; one paratype in the collection of the Musée Royal de l'Afrique Centrale (Tervuren, Belgium), the second paratype in the author's collection.

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

- LINNAVUORI R.E. 1993. Cydnidae of West, Central and North-East Africa (Heteroptera). *Acta zoologica fennica* **192**: 1–148.
- LIS J.A. 1994. A revision of Oriental burrower bugs (Heteroptera: Cydnidae). Upper Silesian Museum, Bytom, 349 pp.
- LIS J.A. 1999a. Burrower bugs of the Old World – a catalogue (Hemiptera: Heteroptera: Cydnidae). *Genus (Wrocław)* **10**: 165–249.
- LIS J.A. 1999b. The genus *Chilocoris* (Heteroptera: Cydnidae) in Australia. *Acta Societatis Zoologicae Bohemicae* **63**: 139–155.
- LIS J.A. 2001. Two new Oriental species of the burrower bug genus *Chilocoris* MAYR (Hemiptera: Heteroptera: Cydnidae). *Genus (Wrocław)* **12**: 269–274.
- LIS J.A. 2002. The mesothoracic wing and its phylogenetic significance in Cydnidae (Hemiptera: Heteroptera). *Polskie Pismo entomologiczne* **71**: 43–71.
- SCHUH R.T., SLATER J.A. 1995. True bugs of the World (Hemiptera: Heteroptera). Classification and natural history. Cornell University Press, Ithaca & London, 336 pp.
- SLATER J.A. 1975. On the biology and zoogeography of Australian Lygaeidae (Hemiptera: Heteroptera) with special reference to the southwest fauna. *Journal of the Australian entomological Society* **14**: 47–64.

Received: May 5, 2006

Accepted: May 31, 2006

