

Coleocydnus ernsti gen. et sp. n., a coleopteroid representative of burrower bugs from tropical Africa, and new records of three recently described African species of the family
(Heteroptera: Cydnidae)

JERZY A. LIS

Department of Applied Biology, University of Opole, Oleska 48, 45-951 Opole, Poland

ABSTRACT. *Coleocydnus ernsti* gen. et sp. n. from Rwanda and Zaire is described and illustrated. The characters separating the new genus from other African genera of the tribe *Geotomini* are also given. Additionally, *Megacydnus signatus* Lv., *Geocnethus ornatus* Lv. and *Sehirus (Lalervis) alticola* Lv. are reported for the first time from Gabon, Cameroon and Rwanda, respectively. Notes on morphology of *Megacydnus signatus* are also provided.

The burrower bugs of West, Central and North-East Africa were recently revised by LINNAVUORI (1993). The present paper provides a description of *Coleocydnus ernsti* both genus and species new to the science, and gives new records for three species described recently by LINNAVUORI (op. cit.), namely *Megacydnus signatus*, *Geocnethus ornatus* and *Sehirus (Lalervis) alticola*.

***Coleocydnus* gen. n.**

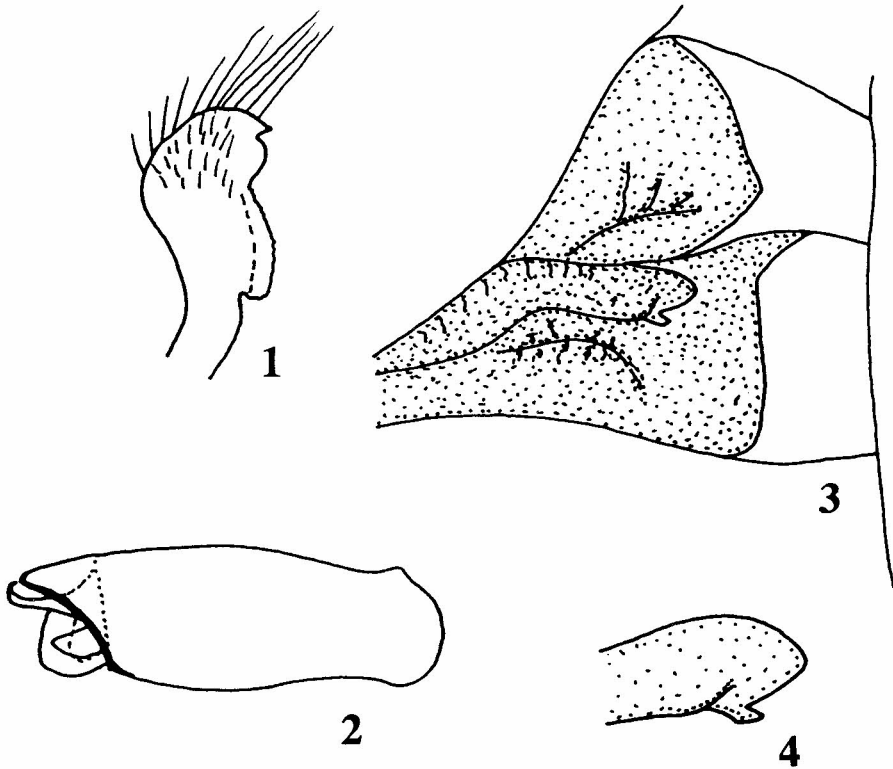
DIAGNOSIS

A coleopteroid hemelytra bearing short membrane and lacking the clavo-corial suture, and the absence of ocelli are the most remarkable characters of the new genus making it unique within the African representatives of the tribe *Geotomini*. In general habitus the genus is somewhat similar to *Peltoscytus* LIS (described recently from the Pacific islands - LIS, 1993a, 1993b), particularly in structure of the hemelytra. Nevertheless, the two genera differ distinctly in head shape and, as the most important, in the shape of a peritremal apex.

DESCRIPTION

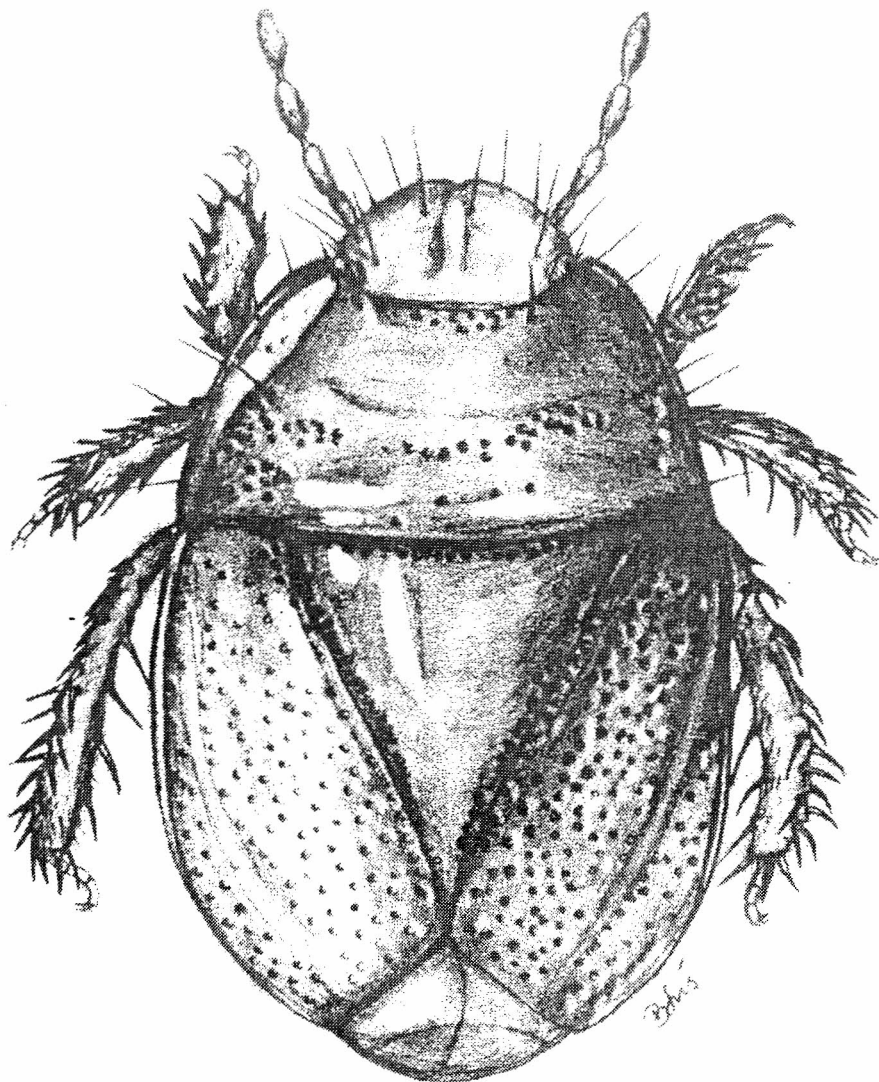
Head: Broader than long, its anterior part semicircular in outline; clypeus free; paraclypei with a submarginal row of setigerous punctures bearing hair-like setae; eyes narrow, not prominent, almost entirely immersed in head, each eye with the apical long seta; ocelli absent; antennae 5-segmented, incrassate, hair covering of segments 3-5 dense, semierect.

Thorax: Pronotum broader than long, narrowed anteriorly, its disc convex; anterior margin angularly insinuated, posterior almost straight; lateral margins carinated, each with a row of submarginal hair-like setae. Scutellum conspicuously longer than broad, its disc convex, with distinct basal and lateral rows of punctures; apex narrow, tongue-like. Corium longer than scutellum, punctured; clavo-corial



1-4. *Coleocydnus ernsti* gen. et. sp. n.: 1 - paramere; 2 - penis; 3 - evaporatoria; 4 - apex of peritreme

suture absent; membranal suture slightly sinuated or almost straight, membrane short. Propleural depression conspicuously developed. Evaporatoria large (fig. 3), apex of peritreme posteriorly with sharp tooth (fig. 4); osteolar opening not visible in ventral view. Middle and posterior femora distinctly broadened and compressed, margins with many strong spines and several setae.



5. *Coleocydnus ernsti* gen. et. sp. n. - general habitus, dorsal view

Abdomen: Arrangement of trichobothria typical of the subfamily *Cydninae*.

Genitalia: Male genitalia of usual geotomine type.

Type species: *Coleocydnus ernsti* sp. n.

***Coleocydnus ernsti* sp. n.**

(figs. 1-5)

DESCRIPTION

Body (fig. 5): Reddish brown or dark castaneous.

Head: Impunctate, clypeus laterally slightly covered by paraclypei, subapically without setigerous punctures; each paraclypeus with 3-4 submarginal setigerous punctures; eyes red, ocular index 4.80 in male or 4.40-4.53 in female; antennae yellowish brown, rostrum pale brown, reaching mid coxae.

Thorax: Pronotum with several punctures behind head, a few laterally, and with more or less conspicuous band of punctures behind the middle of a disc; each lateral margin with a row of 5-6 submarginal hair-like setae. Scutellum impunctate, except basal and lateral rows of punctures. Corium densely punctured, punctures large; costal margins depressed, each without or with a single setigerous puncture; membrane browned, reaching or slightly surpassing the tip of abdomen. Propleuron alutaceous, depression with small punctures; evaporatoria as in fig. 3, apex of peritreme as in fig. 4. Legs brown or yellowish brown, spines dark reddish brown.

Abdomen: Sternites glossy in the middle, laterally punctured.

Genitalia: Paramere as in fig. 1, penis as in fig. 2.

Measurements (in mm) (male and female respectively): body length 4.95, 5.25-5.69; body width 3.09, 3.28-3.53; head length 0.65, 0.88-1.05; head width 1.32, 1.37-1.57; pronotum length 1.47, 1.57-1.64; pronotum width 2.89, 2.94-3.38; scutellum length 2.11, 2.45-2.65; scutellum width 1.91, 2.01-2.25; antennal segments: 0.25 : 0.24 : 0.25 : 0.32 : 0.37, 0.23-0.29 : 0.22-0.27 : 0.26-0.28 : 0.32-0.33 : 0.40-0.44.

TYPE MATERIAL

Holotype male: Rwanda, Ostafrika, Prov. Cyangugu, Nyakabuye, Regenwald, 20-25 I 84, HEISS; ex coll. E. HEISS, Innsbruck. Paratypes: 1 female: Rwanda, Ostafrika, Prov. Cyangugu, Nyakabuye, Regenwald, 20-25 I 84, HEISS; ex coll. E. HEISS, Innsbruck; 1 female: Zaire (Congo), Provinz Kivu, Mt. Kahuzi, 220m, 27 V 85, MÜHLE; ex coll. E. HEISS, Innsbruck. Holotype and one paratype in the author's collection, the second paratype in E. HEISS collection (Innsbruck).

ETYMOLOGY

The species is dedicated to Dipl. ing. Ernst HEISS (Innsbruck, Austria), who has kindly put the *Cydnidae* from his collection at my disposal.

***Megacydnus signatus* LINNAVUORI, 1993**

MATERIAL EXAMINED

CAMEROON: Kamerun, südl. v. Jaunde, 1 male, SCHUBERT leg. ded. 8.VII.1913 (author's coll.). GABON: Ssibange, Gabon, 1 female, SOYAUX leg., ded. 21.I.1885 (Zool. Inst. & Mus., Hamburg University).

NOTES

Described from Ivory Coast, Ghana, Nigeria and Cameroon. New to Gabon. The studied specimens match exactly the original description of LINNAVUORI (1993), except the body length (12.74 mm in male, 10.78 mm in female - conspicuously smaller than the type specimens). LINNAVUORI (op. cit.) wrote also: "chetotaxy of head not visible". Fortunately it is visible in the studied specimens - three primary setigerous punctures bearing hair-like setae, among them the single preocular, are present.

***Geocnethus ornatus* LINNAVUORI, 1993**

MATERIAL EXAMINED

CAMEROON: Douala, Kamerun, 16.5.1956, 1 female, F. ZIELINSKI leg., Eing. Nr. 15, 1956 (Zool. Inst. & Mus., Hamburg University).

NOTE

Described from Sierra Leone, Guinea, Ivory Coast, Ghana, Nigeria, Republic of Congo, and Central African Republic; new to Cameroon.

***Sehirus (Lalervis) alticola* LINNAVUORI, 1993**

MATERIAL EXAMINED

RWANDA: Ostafrika, Prov. Cyangugu, Nyakabuye, Regenwald, 1 male 20-25 I 84 HEISS, 1 male IV 84 MÜHLE (ex coll. E. HEISS, Innsbruck).

NOTE

Described from Ethiopia and Cameroon; new to Rwanda.

ACKNOWLEDGEMENTS

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REFERENCES

- LINNAVUORI, R.E. 1993. *Cydnidae* of West, Central and North-East Africa (*Heteroptera*). Acta Zool. Fennica, **192**: 1-148.
- LIS, J.A. 1993a. Studies on *Cydnidae* of the Australian Region. I. A review of species from Solomon Islands (*Heteroptera: Pentatomoidea*). Ann. Upper Siles. Mus., Ent., **4**: 13-24.
- LIS, J.A. 1993b. Studies on *Cydnidae* of the Australian Region IV. Two new species of *Peltoscytus* Lis from the Pacific islands (*Heteroptera: Pentatomoidea*). Genus, Wrocław, **4** (4): 303-308.