

**Cybalobotys gen. n. with the
description of three new species
(Lepidoptera Pyraloidea Crambidae Pyraustinae)**

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Abstract

A new genus, *Cybalobotys*, with three new species : *C. nyasalis* sp. n., *C. kakamegae* sp. n. and *C. manengoubae* sp. n. are described from Africa. Species of this genus occur in the highlands of Western, Eastern and Southern Africa.

Keywords : *Cybalobotys* gen. n., *C. nyasalis* sp. n., *C. kakamegae* sp. n., *C. manengoubae* sp. n., Pyraustinae, Africa.

Samenvatting

Een nieuw genus, *Cybalobotys* met drie nieuwe soorten *C. nyasalis* sp. n., *C. kakamegae* sp. n. and *C. manengoubae* sp. n. wordt hier beschreven van Africa. De soorten zijn over verschillende hooglanden in West, Oost en Zuidelijk Afrika verspreid.

Introduction

This paper is a result of a study on the Pyraustinae of Africa. Preparation of the slides (genitalia and tympanal organs) follows MAES (1985). The intraspecific and interspecific variability of the characters used in this group and the nomenclature of the tympanal organs is discussed in MAES, 1995.

A new genus, *Cybalobotys*, with three new species : *C. nyasalis* sp. n., *C. kakamegae* sp. n. and *C. manengoubae* sp. n. are described from Africa. Species of this genus occur in the highlands of Western, Eastern and Southern Africa.

The genus is placed in the Pyraustinae (Crambidae) because of the presence of the editum and sella in the male genitalia and the deeply invaginated tympanal organs with a narrow fornix tympani positioned underneath the venula prima. This genus takes a peculiar place within the true Pyraustinae because of the unique formed transtilla in the male genitalia and the unique signum on the corpus bursae in the female genitalia. The signum resembles to that found in a number of *Cybalomia* species (Cybalomiinae).

Abbreviations used : ABSRC : AgroBioSys Reference Collection, Wetteren, Belgium; NMK : National Museums of Kenya, Nairobi, Kenya; USNM : National Museum of Natural History, Smithsonian Institution, Washington.

Descriptions

Cybalobotys gen. n.

Gender : male.

Type species : *Cybalobotys manengoubae* sp. n.

Diagnosis

The ground colour is yellow to orange with a clear <-shaped antemedian line. The male genitalia have an editum with modified setae and a more or less strongly developed sella near the ventral border of the valva. The transtilla is medially strongly developed into a ridge covered with minute simple spines. The female genitalia have a short ductus bursae and a large corpus bursae covered for about half its surface with a signum consisting of numerous needle-shaped sclerotizations.

Description

External Characters :

Head : frons rounded, maxillary palpi clearly visible, terminally covered with long scales; labial palpi porrect, triangular; legs normally developed : spurs 0,2,4.

Wings : triangular, Sc near Costa of the wing, ending before termen. R1 before front angle of cell, ending before termen; stem of R2+R3+R4 from front angle of cell, R4 ending in termen; R5 and M1 approaching each other at their base, further on parallel over their whole length; M2 and M3 from one point originating from the back angle of the cell; Cu1 and Cu2 on Cu stem, base of Cu2 and R1 approximately at same height. Male with simple frenulum and retinaculum hook. Females with double frenulum, no retinaculum hook.

Wingspan : 17-21mm

Internal Characters :

Tympanal organs : deeply invaginated in the abdomen; praecinctorium terminally bilobed; fornix tympani narrow, underneath the venula prima; venula

secundae short; saccus tympani deep and well developed; no specific characters present on the zona glabra tympani.

Male genitalia : uncus long triangular, transtilla ventrally quite broad and rounded saccus small; transtilla well developed, forming two plates medially bordered by simple ventrally directed spines; juxta bifurcated; valva with an editum covered with modified setae and a more or less strongly developed sella near the ventral border of the valva covered with some small simple spines; aedeagus tubular, no cornuti present.

Female genitalia : very short, Ostium bursae broad without sclerotizations; ductus bursae narrow and short; corpus bursae very large about half its surface covered with a signum consisting of numerous needle-shaped sclerotizations.

Etymology : The name is compiled from two genus names in the Crambidae : *Cybalomia* and *Botys*. *Cybalomia* because of the resemblance of the female genitalia in *Cybalomia* with these species. *Botys* was commonly used for true Pyraustinae by authors in the 18th century.

Life Cycle : unknown.

Distribution : Cameroon, Uganda, Kenya, Malawi.

List of species

Cybalobotys nyalalis sp. n.

Cybalobotys kakamegae sp. n.

Cybalobotys manengoubae sp. n.

Key to species of the genus *Cybalobotys* based on the male genitalia

- 1 Transtilla large with numerous spines on the inner ridge 2
 Transtilla only poorly developed with a few spines *C. nyalalis*
- 2 Transtilla touching in medial dorsal part *C. manengoubae*
 Transtilla medially separated at dorsal part *C. kakamegae*

Description of species

Cybalobotys manengoubae sp. n.

Diagnosis

Ground colour orange to yellow with reddish brown transverse lines. Male genitalia with a very broad juxta with two lateral flaps; uncus triangular but broader and shorter than in *C. kakamegae*; transtilla strongly developed, in the median part dorsally touching and on the edges bordered with numerous short simple spines.

Description

External Characters : as for the genus.

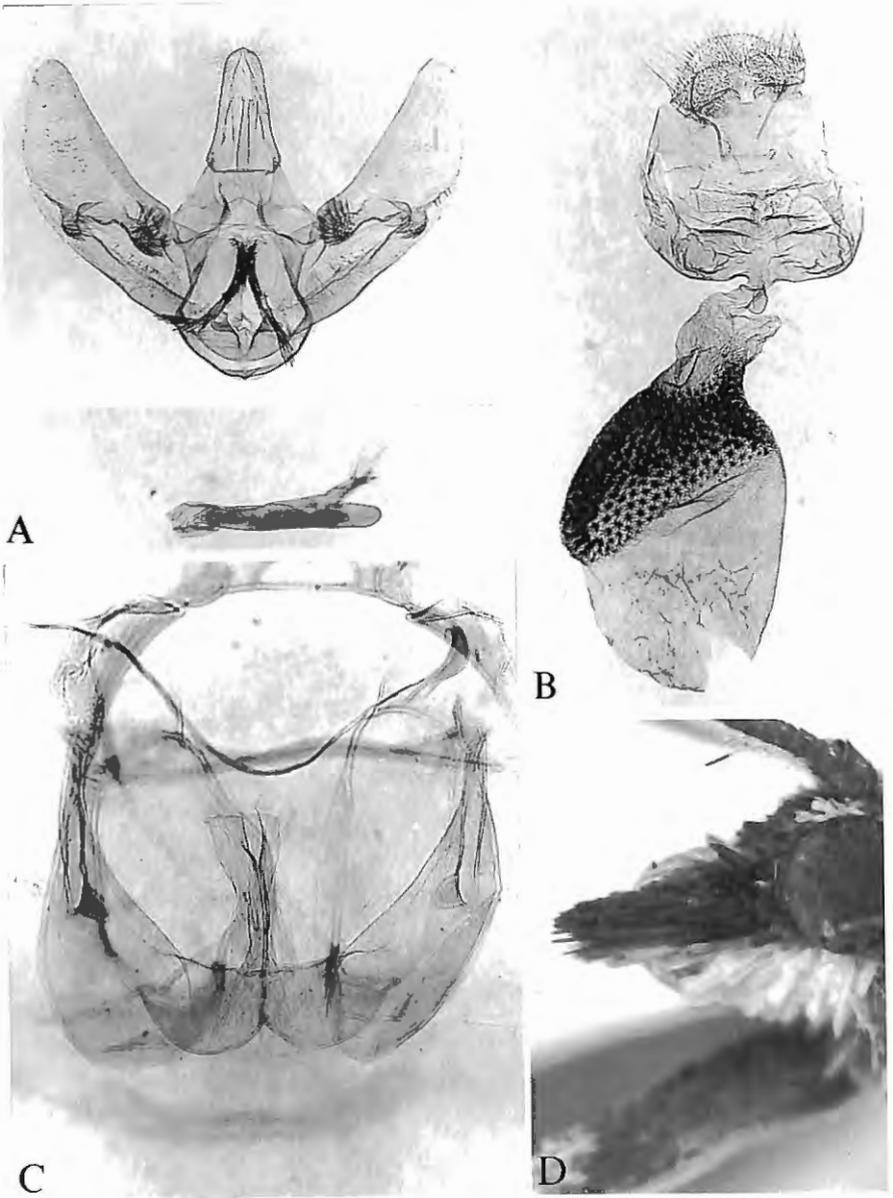


Plate 1. *Cybalobotys*. A : Male genitalia : *C. manengoubae* Holotype GPKM ♂484; B : Female genitalia : *C. manengoubae* Paratype GPKM ♀486; C : Tympanal organs : *C. manengoubae* Paratype GPKM ♀486; D : Lateral view head.

Wingspan : 17-21mm

Internal Characters :

Tympanal organs : as for the genus.

Male genitalia : as for the genus but uncus broader and shorter than in *C. kakamegae*, transtilla strongly developed, in the median part dorsally touching; numerous short spines on the ridge of the transtilla. Juxta very broad with two wing-like rounded flaps near the middle.

Female genitalia : As for the genus. Ostium bursae more rectangular than in *C. kakamegae*. Needle-shaped spines in signum more dense as in *C. kakamegae*.

Life Cycle : unknown

Distribution : Cameroon

Etymology : The species was named after the type locality : Mt. Manengouba in Western Cameroon.

Type material examined : HT : Cameroon Manengouba 1890m 17.II.1983 K.Maes; GPKM ♂484 (ABSRC). PT : 1 ♀ : Cameroon Dschang 1400m 18.VIII.1992 K.Maes; GPKM ♀485 (ABSRC); 1 ♀ : Cameroon Dschang 1400m 19.III.1991 K.Maes; GPKM ♀486 (ABSRC).

Cybalobotys nyasalis sp. n.

Diagnosis

Ground colour as in *C. manengoubae*. Male genitalia without a clear sella; juxta strongly bilobed.

Description

External Characters : as for the genus.

Wingspan : 17mm.

Internal Characters :

Tympanal organs : as for the genus.

Male genitalia : Editum broader as in the two other species, sella not developed. Juxta strongly bilobed.

Female genitalia : unknown.

Life Cycle : unknown

Distribution : Malawi

Etymology : The species was named after the old name : Nyasa-land formerly used for what is currently Malawi.

Type material examined : HT : [Malawi] Limke Nyasaland H.Barlow/ Collection Wm Schaus; GPKM ♂20165 (AMNH).

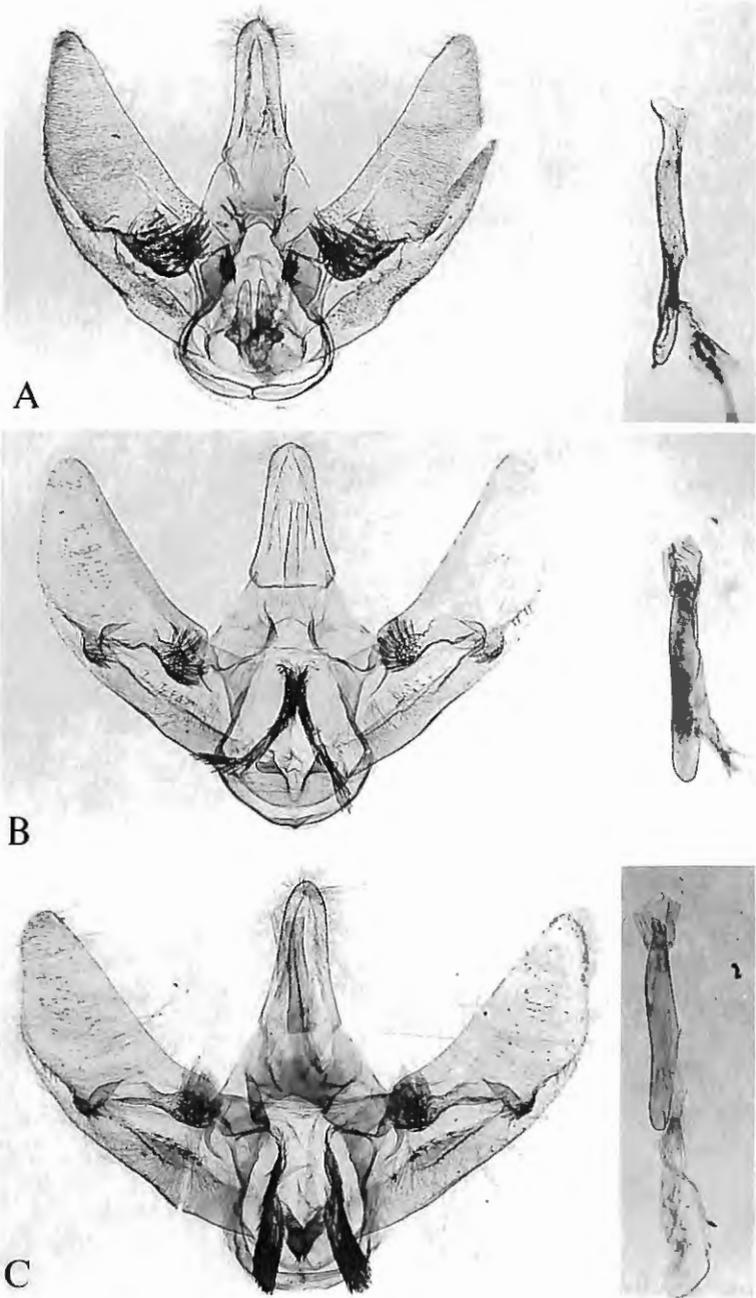


Plate 2. Male genitalia *Cybalobotys* species. A : *C. nyasalis* Holotype GPKM ♂20165; B : *C. manengoubae* Holotype GPKM ♂484; C : *C. kakamegae* Holotype GPKM ♂873.

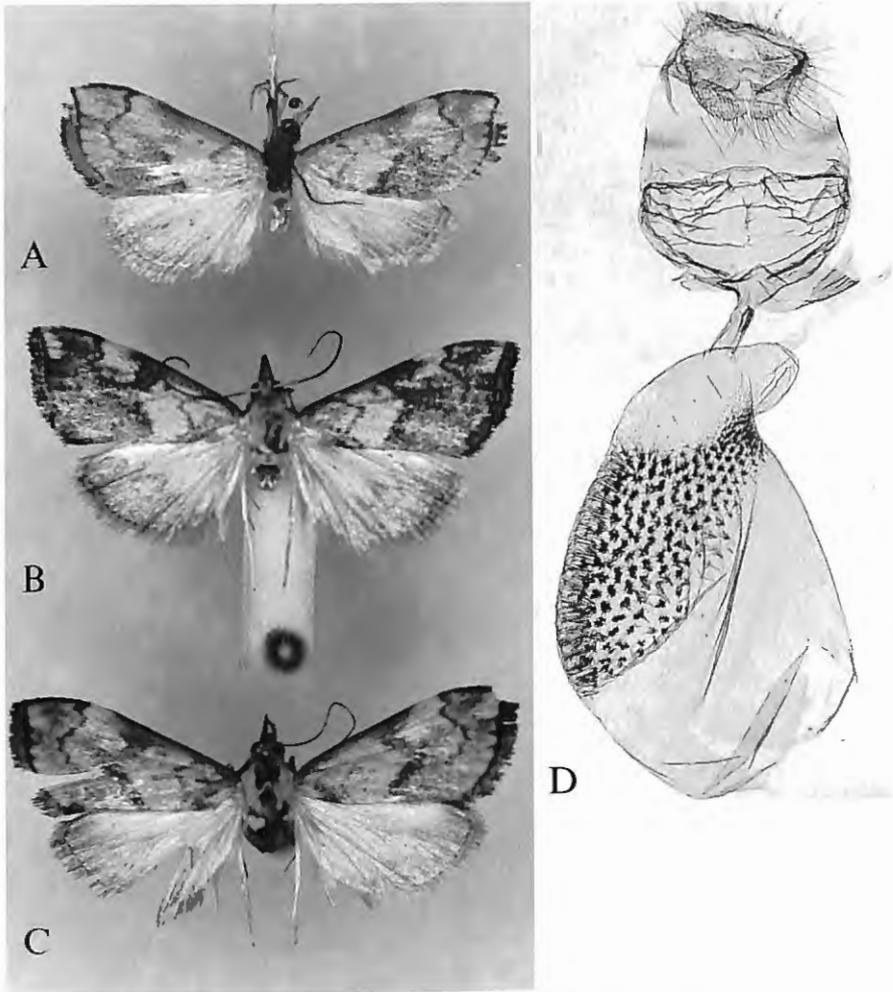


Plate 3. Adult moths. A : *C. nyasalis* Holotype GPKM ♂20165; B : *C. kakamegae* Paratype; C : *C. manengoubae* Paratype GPKM ♀486. D : Female genitalia : *C. kakamegae* Paratype GPKM ♀20.111.

Cybalobotys kakamegae sp. n.

Diagnosis

Ground colour yellow with dark brown transverse markings. Male genitalia strongly resembling *C. manengoubae* but juxta clearly different : here it consists of two plates. Transtilla medially not touching in the dorsal part, spines on ventral part of transtilla more numerous in *C. manengoubae*.

Description

External characters : as for the genus.

Wingspan : 16-18mm

Internal Characters

Tympanal organs : as for the genus.

Male genitalia : More robust than *C. manengoubae*. Differs in the structure of the juxta and amount of spines on the ridges of the transtilla. Juxta very broad with two wing-like flaps near the middle, here the flaps are pointed, not rounded. Ridges of transtilla medially not touching and densely covered with spines.

Female genitalia : ostium bursae not rectangular more U-shaped. Needle like spines in signum on corpus bursae less dense.

Life Cycle : unknown

Distribution : Kenya, Uganda.

Etymology : The name refers to the type locality : Kakamega forest, where several specimens were collected.

Type material examined : HT : Kenya, Western, Kakamega Forest, Rondo Retreat. 00°13'38"N. 34°53'07"E. 1588m. Mercury Vapor Light. 30.V.1999. K.Maes; GPKM ♂873 (ABSRC). 5 PT : 2♂ : Kenya, Western, Kakamega Forest, Rondo Retreat. 00°13'38"N. 34°53'07"E. 1588m. Mercury Vapor Light. 26.VIII.1999. K.Maes (ABSRC); 1♂ : Uganda Kigezi Kayonza Mar.1967 R.C.Otieno GPKM ♂20429 (NMK); 1♀ : Uganda Kigezi Kayonza Mar.1967 R.C.Otieno GPKM ♂20111 (NMK).

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