Stuttgarter Beiträge zur Naturkunde
Serie A (Biologie)

Herausgeber:

Staatliches Museum für Naturkunde, Rosenstein 1, D-70191 Stuttgart

Stuttgarter Beitr. Naturk.	Ser. A	Nr. 691	9 S., 28 Abb.	Stuttgart, 20. IV. 2006

Contribution to the knowledge of African Clytrinae (Coleoptera: Chrysomelidae)

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Abstract

Three new species of African Clytrinae are described: *Clytra pubipennis* **n. sp.** and *Clytra camerunica* **n. sp.** from Cameroon, *Coptocephala pubescens* **n. sp.** from Guinea and Guinea-Bissau. New synonyms: *Clytra monardi* Pic **n. syn.** = *Clytra lacerofasciata* Quedenfeld; *Clytra weisei* L. Medvedev **n. syn.** = *Clytra scutellaris* Weise; *C. juncta* Pic **n. syn.** and *C. dartevellei* Burgeon **n. syn.** = *Coptocephala imitans imitans* Jacoby. Keys for the *Clytra maxima* and *Coptocephala imitans* species groups are given.
Keywords: Chrysomelidae, Clytrinae, *Clytra*, *Coptocephala*, Africa, new species, new synonyms.

Zusammenfassung

Drei neue Clytrinae aus Afrika werden beschrieben: *Clytra pubipennis* **n. sp.** und *Clytra camerunica* **n. sp.** aus Kamerun, *Coptocephala pubescens* **n. sp.** aus Guinea und Guinea-Bissau. Neue Synonyme: *Clytra monardi* Pic **n. syn.** = *Clytra lacerofasciata* Quedenfeld; *Clytra weisei* L. Medvedev **n. syn.** = *Clytra scutellaris* Weise; *C. juncta* Pic **n. syn.** und *C. dartevellei* Burgeon **n. syn.** = *Coptocephala imitans imitans* Jacoby. Bestimmungsschlüssel für die *Clytra maxima*- und *Coptocephala imitans*-Artengruppen werden gegeben.

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1 Introduction

African Clytrinae are still unsatisfactorily investigated (MEDVEDEV 1993, MEDVEDEV & ERBER 2003). In the present paper I revise two poorly known species groups, the *Clytra maxima*-group and the *Coptocephala imitans*-group.

The genus *Clytra* Laicharting, 1781 is represented in Africa by a number of natural species groups which are poorly known. This concerns primarily the *C. maxima*-group which consists of six described species: *C. maxima* Jacoby, 1895, *C. lacerofasciata* Quedenfeld, 1888, *C. scutellaris* Weise, 1912, *C. monardi* Pic, 1939, *C. nigrohumeralis* Pic, 1939 and *C. weisei* L. Medvedev, 1969. This group is characterized by the combination of the following four characters: entirely black prothorax; pubescent propleurae; a peculiar structure of the aedeagus which is very deeply concave dorsally all along its length; elytra usually fulvous, but often with black pattern, sometimes more or less pubescent dorsally. By a number of characters and its general appearance this species group is comparable with the subgenus *Ovoclytra* L. Medvedev, 1961 from the Near East.

All species of the *C. maxima*-group, especially males, are extremely rare in museum collections. Having been involved in the study of African Clytrinae since 50 years, I have about 20 specimens belonging to this group at my disposal, and some of them I am inclined to consider as new species. As far as I can judge, the structure of the aedeagus in this group is highly characteristic, hence making the distinction of the species easy. A key to the species and descriptions of two species new for science are provided below.

The *Coptocephala imitans*-group is comparatively common and widely distributed, but the species are variable in the colour of the upperside, so that many aberrations have been described as separate species. After having investigated the structure of the aedeagus, I propose a key for this group and describe a new species.

Acronyms of depositories

LM	Collection of L. MEDVEDEV, Moscow, Russia
SMNS	Staatliches Museum für Naturkunde, Stuttgart, Germany

Acknowledgments

The author is grateful to JAN BEZDĚK (Brno) for valuable remarks.

2 Taxonomy

2.1 *Clytra maxima*-group

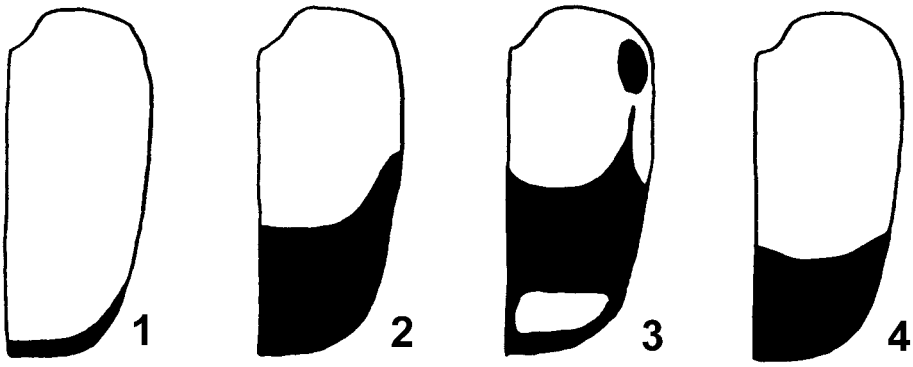
2.1.1 *Clytra pubipennis* **n. sp.** (Figs. 1, 8)

Holotype (♀): Cameroon, leg. JANGERN, V.1912, coll. L. KOLIN (LM).
Paratype: 1 ♀, Uganda, leg. GRAUER (LM).

Description

Black, elytra fulvous with apex and hind part of lateral margin narrowly black (Fig. 1), antennal segments 2 and 3 reddish, at least below. Pubescence white yellow.

Body cylindrical. Clypeus shining, sparsely punctate, with a few short hairs, its anterior margin triangularly incised. Frons distinctly pubescent, with coarse longi-



Figs. 1–4. *Clytra* spp., pattern of elytron. – **1**. *C. pubipennis* n. sp. **2**. *C.* sp. A. **3**. *C. lacerofasciata*. **4**. *C. maxima*.

tudinal rugosity in middle and granulate near inner side of eyes, granules weakened anteriorly. Vertex pubescent, finely punctate, with longitudinal central groove. Antennae serrate from the 5th segment on. Prothorax with comparatively dense (holotype) or very sparse (paratype) adpressed pubescence, finely punctate, dull, with interspaces microscopically dotted; lateral margins reflexed throughout its length. Scutellum triangular, pubescent and punctured except mid line and extreme apex. Elytra densely pubescent and punctured, dull. Spermatheca as in Fig. 8. Body length 11.0–11.5 mm.

2.1.2 *Clytra camerunica* **n. sp.** (Figs. 7, 10)

Holotype (♂): Cameroon, Joko (LM).
Paratype: 1 ♀, Cameroon, Batanga (LM).

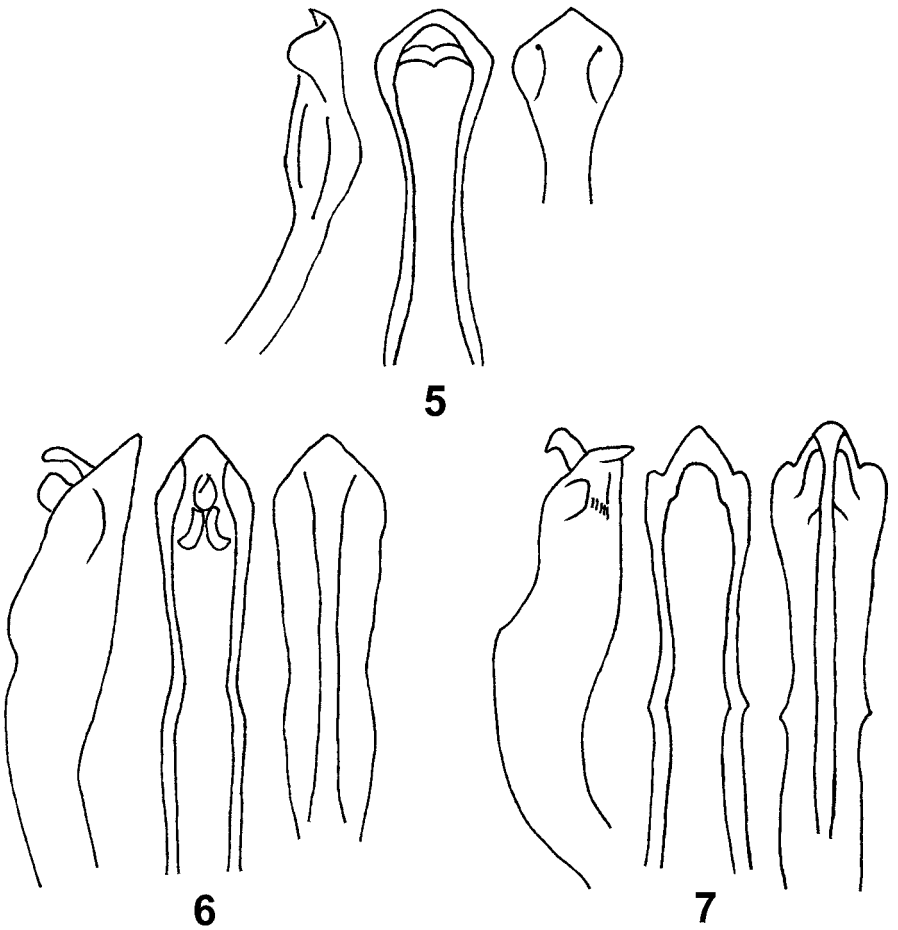
Description

Black, elytra fulvous with extreme apex narrowly black (indistinct in ♂), antennal segments 2 and 3 reddish. Pubescence silvery white.

Body elongate ovate. Clypeus shining, sparsely punctate, its anterior margin broadly incised. Frons densely pubescent along inner margin of eyes, with coarse punctures and rugosity, longitudinally grooved in middle. Vertex convex, with dense erect pubescence and fine punctures. Antennae serrate from the 5th segment on. Upperside not pubescent. Prothorax shining, very finely punctate, lateral margin narrowly reflexed in anterior half, but much broader behind middle. Scutellum triangular with truncate apex, pubescent and punctured except mid line and apex. Elytra shining, finely punctate. Last abdominal sternite of male deeply incised on middle of hind margin. Aedeagus feebly undulate in lateral view, not bulbous before apex, with broad and obtuse longitudinal ridge on underside; deep impression of upperside does not reach the apex (Fig. 7). Spermatheca thin, with very long, thin and clubbed ductus (Fig. 10). Body length of ♂ 12.6 mm, of ♀ 11.3 mm.

2.1.3 Key to species of *Clytra maxima*-group

1 Upperside pubescent. – Prothorax densely punctate. Elytra not shining. Body cylindrical [♂♂ unknown] **2**



Figs. 5–7. *Clytra* spp., aedeagus lateral, dorsal and ventral. – **5**. *C. maxima*. **6**. *C. scutellaris*. **7**. *C. camerunica* n. sp.

– Upperside not pubescent, or only apical slope of elytra finely pubescent **4**

2 Prothorax bare, moderately shining. – Extreme apex of elytra narrowly black. Body length 9.2 mm. – South Cameroon [Possibly a local form of *C. pubipennis*] .... ***C.* sp. B**

– Prothorax pubescent, dull **3**

3 Only extreme apex of elytra narrowly black (Fig. 1). Body length 11.0–11.5 mm. – Cameroon, Uganda ..... ***C. pubipennis* n. sp.**

– Apical half of elytra black (Fig. 2), humerus with feeble traces of a dark spot. Body length 10.5 mm. – West Africa (Uelleburg) [Possibly a local form of *C. pubipennis*] ... ***C.* sp. A**

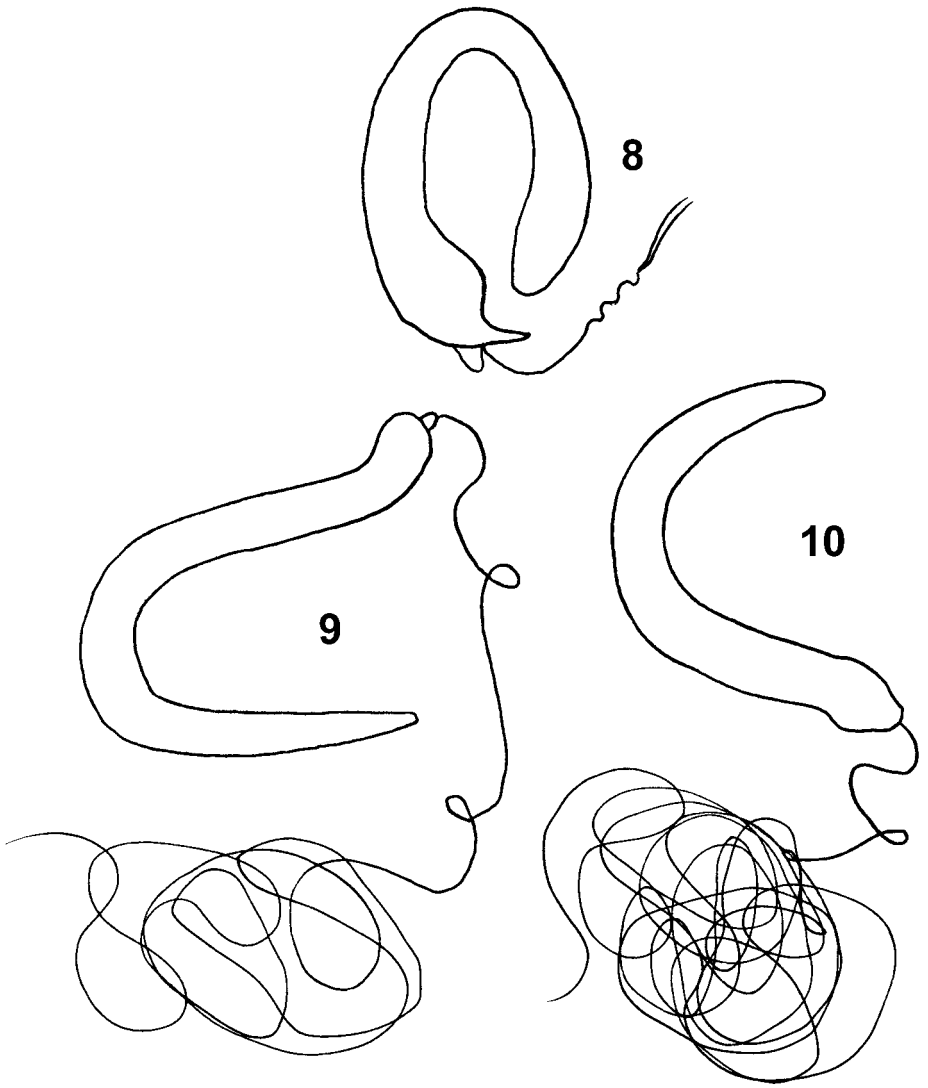
4 Apical slope of elytra pubescent; elytra not shining, with black apical half, as in Fig. 2. Prothorax densely punctate. – Body cylindrical. Body length 9.4 mm. – Congo (Bambesa) [1 ♀ examined; possibly a local form of *C. pubipennis*] ..... ***C.* sp. C**

– Elytra bare and shining. Prothorax not densely punctate **5**

5 Elytra with large humeral spot **6**

– Elytra without humeral spot and postmedian band **8**

6 Postmedian band of elytra strongly reduced or absent, extreme apex black. – Body length 9–12 mm. – Angola (Bimbi) [Very possibly identical with *C. lacerofasciata* Quedenfeld] ..... ***C. nigrohumeralis*** Pic, 1939



Figs. 8–10. *Clytra* spp., spermatheca. – **8**. *C. pubipennis* n. sp. **9**. *C. lacerofasciata*. **10**. *C. camerunica* n. sp.

– Elytra with well developed postmedian band **7**

7 Extreme apex of elytra narrowly black (Fig. 3). – Body elongate ovate. Spermatheca as in Fig. 9. Body length 11.3–12.3 mm. – Guinea?, Cameroon [The species was described from "Guinea, Kassai", but it seems that "Kassai" means the river Kasai in Congo] [= *C. monardi* Pic, 1939 **n. syn.**] ..... ***C. lacerofasciata*** Quedenfeld, 1888

– Extreme apex of elytra not black. – "West Africa" [1 ♀ examined; possibly identical with *C. lacerofasciata* Quedenfeld] ..... ***C.* sp. D**

8 Apical third of elytra black (Fig. 4). Underside of aedeagus with acute longitudinal ridge and bulbous on each side before apex (Fig. 5). – Body length 9.5–12.5 mm. – Sierra Leone (Rhodomp), Guinea (Old Calabar) [According to the original description, males should have only the extreme apex of the elytra black, whereas the apical quarter is black in the

females; I have studied a series of males, including types, and they all have the apical third or quarter black] ..... ***C. maxima*** Jacoby, 1895
– Only extreme apex of elytra black. Underside of aedeagus with broad and obtuse longitudinal ridge, not bulbous before apex **9**
9 Scutellum and elytra red fulvous (terracotta). – Congo (Lukulola) [♂♂ unknown] .... ***C.* sp. E**
– Scutellum black, elytra fulvous **10**
10 Species from East Africa. Body cylindrical, elytra distinctly punctate. Aedeagus (Fig. 6) strongly undulate in lateral view, the deep impression of the upperside reaches the apex. Body length 9.7–13 mm. – Uganda, Tanzania, Kenya(?) [A type specimen from Beni was studied] [= *C. weisei* L. Medvedev, 1969 **n. syn.**] ..... ***C. scutellaris*** Weise, 1912
– Species from West Africa. Body elongate ovate, elytra finely punctate. Aedeagus (Fig. 7) feebly undulate in lateral view, the deep impression of the upperside does not reach the apex. Body length 11.4–12.7 mm. – Cameroon ..... ***C. camerunica* n. sp.**

2.2 *Coptocephala imitans*-group

2.2.1 General

This small group of species is characterized by the dull and fulvous upperside, usually with more or less developed black patterns, and the broad head of the male, which is as wide as the anterior margin of the prothorax and usually bicoloured. Aedeagus more or less of the same type in all species, with elongate triangular apical part.

Types of all species, except *C. occipitalis* Jacoby, were investigated by MEDVEDEV (1992, 1993).

2.2.2 *Coptocephala pubescens* **n. sp.** (Fig. 24)

Holotype (♂): Guinea, Tabuna valley, 15.II.1984, leg. S. MURZIN (LM).
Paratypes: Guinea-Bissau [Portugal Guinea], leg. FERIM, 1 ♂ (LM), 1 ♀ (SMNS).

Description

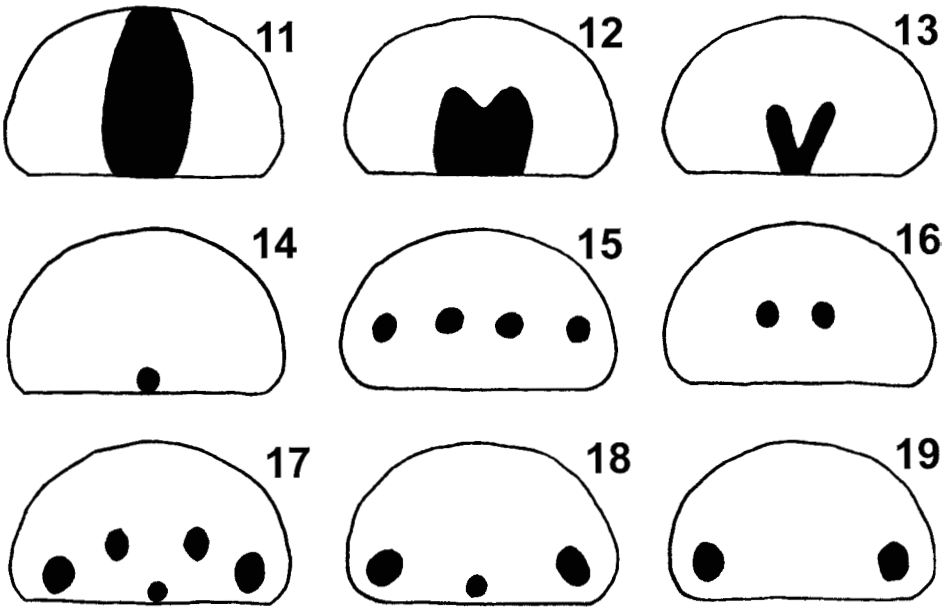
Fulvous; antennae except 3 basal segments, 2 small round spots in middle of prothorax, postbasal (sometimes strongly reduced) and preapical spot of elytra, underside and sometimes legs black.

♂. Body narrow and elongate, parallel-sided. Head as wide as prothorax, frons and clypeus punctate, anterior margin of clypeus arcuately emarginate, vertex impunctate, frons broad, 2.8 times as wide as diameter of eye, with large groove in middle. Antennae serrate from the 4th segment on. Prothorax twice as wide as long, with very short pubescence in holotype, smooth in paratype, distinctly punctate, shining, with impression on each side behind middle. Scutellum triangular, convex, punctate. Elytra 1.8 times as long as wide, parallel-sided, with short erect pubescence, densely punctate, interspaces microsculptured. Anterior legs a little longer than mid and hind ones. Aedeagus as in Fig. 24. Body length 6.6–7.5 mm.

♀. Head narrower than prothorax which is 1.7 times as wide as long. Elytra 1.6 times as long as wide. Body length 6.9 mm.

Remarks

It seems that the anterior elytral spot is well developed in the female and strongly reduced in the male.



Figs. 11–19. *Coptocephala* spp., pattern of prothorax. – **11–14**. *C. maculaticollis*. **15, 16**. *C. occipitalis*. **17**. *C.* sp. A. **18, 19**. *C.* sp. B.

2.2.3 Key to species of *Coptocephala imitans*-group

1 Elytra pubescent. Body more elongate and parallel-sided. – Prothorax with 2 black spots in middle. ♂: Anterior margin of clypeus arcuately emarginate. Body length 6.6–7.5 mm. – Guinea, Guinea-Bissau ..... ***C. pubescens* n. sp.**

– Elytra not pubescent. Body more robust **2**

2 Suture of elytra with narrow but very distinct black stripe. Head fulvous with black spots near eyes, sometimes connected. – Prothorax with large spot on each side, connected along basal margin, rarely with 5 spots. Elytra with broad central stripe from humerus to apical slope. Underside and legs black or femora fulvous beneath. Aedeagus as in Fig. 25. Body length 6.5–9 mm. – Tanzania ..... ***C. kigomana*** Burgeon, 1942

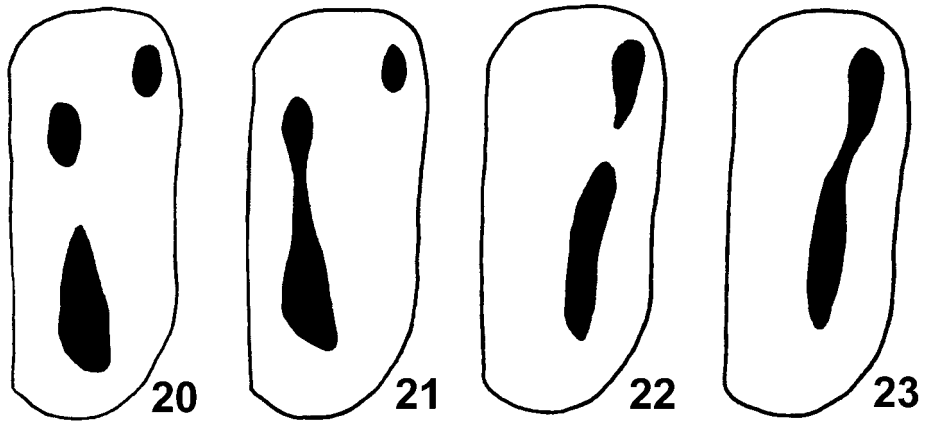
– Suture of elytra fulvous. Head black with fulvous clypeus or fulvous with black spots near eyes **3**

3 Prothorax with very dense and coarse punctures, interspaces smaller than punctures, convex, more or less rugose. – Head black with fulvous clypeus and (sometimes) frons; prothorax with central black spot, sometimes more or less divided; elytra with humeral spot and central longitudinal patch black, underside and legs black. Very rarely upperside entirely and legs partly fulvous (1 specimen from Musosa, Congo). ♂: Anterior margin of clypeus with deep arcuate emargination; aedeagus as in Fig. 26. Body length 7.0–7.8 mm. – Congo ..... ***C. opaca*** Burgeon, 1942

– Prothorax finely punctate, with interspaces flat and much larger than punctures **4**

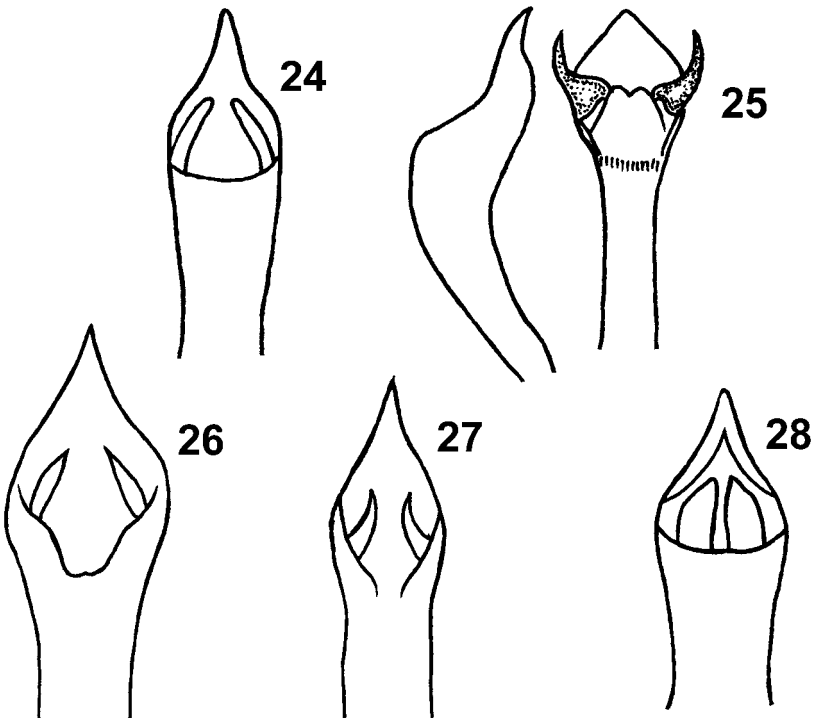
4 Anterior margin of clypeus with quadrangular or trapeziform emargination in male. Fulvous, posterior part of head black; prothorax with central black spot, sometimes more or less reduced (Figs. 11–14); elytra with black stripe from humerus to apical slope, underside and legs black, but tibiae often more or less fulvous. Aedeagus as in Fig. 27. Body length 5.5–6.2 mm. – Cameroon, Central African Republic, Sudan, Congo ..... ***C. maculaticollis*** Pic, 1927

– Anterior margin of clypeus with arcuate emargination. Prothorax without central black spot **5**



Figs. 20–23. *Coptocephala* spp., pattern of elytron. – **20**, **21**. *C. occipitalis*. **22**, **23**. *C.* sp. B.

5 Prothorax without black spots. – Anterior margin of clypeus with deep, almost semicircular emargination in male. Elytra with black humeral spot and longitudinal spot in middle, sometimes connected with humerus; rarely elytra unspotted. Body length 5.6–6.6 mm **6**
– Prothorax with 2–5 black spots **7**
6 Head fulvous with black stripes along inner margin of eyes. Legs fulvous or black with fulvous tibiae. – Aedeagus as in Fig. 28. – West Africa: Dahomey, Ivory Coast, Togo, Benin, Niger, Congo [= *C. binotaticeps* Pic, 1927, *C. juncta* Pic, 1927 **n. syn.**, *C. diversiceps* Pic, 1927, *C. dartevellei* Burgeon, 1942 **n. syn.**, *C. villiersi* Pic, 1950) ..... ***C. imitans imitans*** Jacoby, 1895
– Head fulvous with black vertex. Legs black or with partly fulvous tibiae. – East Africa: Tanzania ..... ***C. imitans opacipennis*** Weise, 1902
7 Elytra with black humeral and postscutellar spot and elongate patch in center (Figs. 20, 21). Head fulvous, sometimes with narrow stripe on inner margin of eyes or with 2 small spots on vertex black. – Prothorax with 2 or 4 black spots arranged in transverse row in middle (Figs. 15, 16). Underside black, legs usually entirely fulvous. Spots of upperside sometimes reduced or postscutellar spot of elytra connected with elongate patch. Anterior margin of clypeus with shallow emargination in male. Body length 5.8–6.7 mm. – Congo, Zambezi, Tanzania ..... ***C. occipitalis*** Jacoby, 1903
– Elytra without prescutellar spot. Head black with fulvous clypeus **8**
8 Prothorax with 4 spots arranged in arcuate row and small spot before scutellum black (Fig. 17). Elytral pattern as in *C. maculaticollis* Pic. Body length 5.7–5.8 mm. – Congo (Kafakumba), Tanzania (Kigonsera) [♂♂ unknown] [Possibly identical with *C. imitans* Jacoby] ..... ***C.* sp. A**
– Prothorax with 2 spots at sides and sometimes with small spot before scutellum (Figs. 18, 19). Humeral spot of elytra elongate and sometimes connected with central spot (Figs. 22, 23). ♂: Anterior margin of clypeus with rather deep arcuate excavation, aedeagus identical with *C. imitans* Jacoby. Body length 5.4–5.8 mm. – Congo (Musosa) [Possibly only colour form of *C. imitans* Jacoby] ..... ***C.* sp. B**



Figs. 24–28. *Coptocephala* spp., aedeagus dorsal (25 also lateral). – **24**. *Coptocephala pubescens* n. sp. **25**. *C. kigomana*. **26**. *C. opaca*. **27**. *C. maculaticollis*. **28**. *C. imitans*.

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Manuscript received: 3.XI.2005, accepted: 27.XII.2005.

ISSN 0341-0145

Autoren-Richtlinien: http://www.naturkundemuseum-bw.de/stuttgart/schriften
Schriftleitung: Dr. Hans-Peter Tschorsnig, Rosenstein 1, 70191 Stuttgart
Gesamtherstellung: Gulde-Druck, 72072 Tübingen

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Zeitschrift/Journal: Stuttgarter Beiträge Naturkunde Serie A [Biologie]

Jahr/Year: 2006

Band/Volume: 691_A

Autor(en)/Author(s): Medvedev Lev N.

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