### PARC NATIONAL DE L'UPEMBA

I. MISSION G. F. DE WITTE

en collaboration avec

W. ADAM, A. JANSSENS, L. VAN MEEL et R. VERHEYEN (1946-1949).

Fascicule 50 (3)

#### NATIONAAL UPEMBA PARK

#### I. ZENDING G. F. DE WITTE

met medewerking van

W. ADAM, A. JANSSENS, L. VAN MEEL en R. VERHEYEN (1946-1949).

Aflevering 50 (3)

# TINGIDAE (') (HEMIPTERA HETEROPTERA)

BY

## CARL J. DRAKE (Washington)

This paper deals entirely with lace-bugs of the family *Tingidae* of a Parc National Upemba » of the Belgian Congo. The collection contains 14 species divided among 8 genera, and all three subfamilies of tingids are represented. Three of the 14 species are described herein as new to science.

I wish to express my appreciation to the trustees of the « Institut des Parcs Nationaux du Congo Belge » for giving me the opportunity of studying this fine collection of lace-bugs. The types of the two new species and as well as other specimens have been returned to the above institution. The measurements of structures in the description are all of equal value and such that they may be converted into millimeters by dividing by 80.

## Subfamily CANTACADERINAE STÅL, 1873.

#### Cantacader afzelii Stål.

Cantacader afzelii Stål, 1873, Enum. Hem., 3:116. (Type male, Sierra Leone.)

Cantacader afzelii Distant, 1902, Ann. Soc. So. Afr. Mus., 2(9): 238. (Figured type from Sierra Leone.)

Cantacader afzelii Schouteden, 1923, Rev. Zool. Afr., 11(1):2. (Belgian Congo: Luebo, Kasai et Luebo.)

<sup>(1)</sup> Unless otherwise mentioned all specimens recorded in this paper were collected by Miss. G. F. de Witte.

All the localities between [] are without the Park's boundaries.

Three specimens: Kaswabilenga, 700 m, 3-8.XI.1947. Widely distributed in the Belgian Congo. Other specimens are at hand from Kenya Colony, Sierra Leone, French Gold Coast, French Guinea and Angola. Specimens were collected « at light » at Elisabethville.

#### Cantacader divisus BERGROTH.

Cantacader divisus Bergroth, 1908, Rev. Russ. Ent., 7:108. (Ethiopia.)

One specimen: Lusinga, 1.760 m, 19.III.1947. Originally described from Ethiopia and new to the fauna of the Belgian Congo. Numerous other specimens are at hand from Kenya Colony (Nairobi et Turi) and Tanganyika Territory (Arushia-Ju). The shorter antennae, uniform brown color without elytral fasciae and also transverse adventitious vein in subcostal and discoidal areas distinguish this species from *C. tenuipes* Stål.

#### Cantacader tenuipes STÅL.

Cantacader tenuipes Stål, 1865, Hem. Afr., 3:26. (Sierra Leone.)

Cantacader tenuipes Stål, 1873, Hem. Enum., 3:116. (Sierra Leone.)

Cantacader tenuipes Distant, 1902, Ann. So. Afr. Mus., 2:238, pl. 15, fig. 2. (Illustrated Stål's type from Sierra Leone.)

Cantacader tenuipes Schouteden, 1923, Rev. Zool. Afr., 11(1): 2. (Belgian Congo: Eala, Tshela et Makaia-N'Tete.)

Cantacader tenuipes Drake, 1954, Inst. roy. Sci. Belg., 30(17): 1-2. (Belgian Congo: Libenge et Mission Manuya.)

Three specimens: Lusinga, 1.760 m, 19.III.1947; riv. Lupiala, affl. dr. Lufira, 700 m, 6-9.XI.1947; Kaswabilenga, 700 m, 3-4.XI.1947. The third antennal segment shows considerable variation in length, also cephalic spines. Widely distributed in the Belgian Congo. It is also recorded in the literature from Kenya Colony, Angola, Sierra Leone, French Gold Coast and French Guinea. This species and a number of other members of the genus are at time captured « at light », sometimes in considerable numbers.

## Subfamily TINGINAE STÅL, 1873.

#### Monanthia vulcanorum Schouteden.

Monanthia vulcanorum Schouteden, 1953, Rev. Zool. Bot. Afr., 48(3-4): 200-201. (Belgian Congo: Mutura et Nya Musinga, volc. Karisimbi, Kisengi et Nkui, all from Ranuda; type in Musée Royal du Congo Belge, Tervuren.)

One specimen: Munoi, bif. Lupiala, affl. dr. Lufira, 890 m, 15-21.VI.1948 (netted on shrubs). Originally described from the Belgian Congo. I also have several specimens from Kenya Colony (Turi, taken by D. C. Thomas).

#### Cochlochila aemula n. sp.

Oblong, head and pronotum deep black, shining, the lacy network of paranota and elytra brownish testaceous with some veinlets dark brown and fuscous to blackish fuscous. Body beneath deep black, moderately shining. Legs brownish testaceous with all femora (save base and apex) blackish fuscous. Head with five pale testaceous spines, the hind pair very long, slender and appressed. Antennae testaceous with first two segments brown and fourth largely blackish, measurements: I, 10; II, 8; III, 78, IV, 25. Labium brownish, reaching to metasternum; laminae pale, parallel on mesosternum, more widely separated and convergent posteriorly on metasternum. Orifice present, difficult to see, as black and shiny as the pleura. Hypocostal laminae testaceous, uniseriate.

Pronotum 1,70 mm long and 1,15 mm wide, strongly convex, without hairy clothing, deeply coarsely punctate, tricarinate; median carina elevated, composed of one row of small areolae; lateral carinae concealed by paranota; paranota broad, yellowish brown with some veinlets darkened, reflexed, with outer margin turned down so that its exterior edge rests upon pronotal surface, not quite in contact with median carina, then divergent posteriorly, inflated and elevated but with its surface not very high above pronotum; collar raised, testaceous, areolate; hind process areolate, testaceous. Elytra with areolae hyaline; costal area composed of one row of large, mostly quadrate, clear areolae; subcostal area very little wider than costal, biseriate; discoidal area extending a little beyond middle of elytra, with apical half of outer boundary vein strongly bowed outwardly and there extending deeply concavely into subcostal area, with boundary vein raised at base and apex of bow, widest a little anteriorly to apex, there four cells deep; sutural area with fairly large cells.

Length, 3,10 mm; width, 1,50 mm.

Holotype (male) and allotype (female): Lusinga, 1.760 m, 16.IV.1947; 3 paratypes: same locality as type, III-IV.1947; Mukana, 1.810 m, 19.III.1948; Mukana-Lusinga, 18.III.1948; Kafwe, affl. Lufwa, 15-19.I.1948; Kafwe, affl. dr. riv. Lufwa, sous-affl. dr. Lufira, 1.780 m, 5.III.1948.

Distinguished from *C. kilimensis* Horvath by its smaller size, less elevated paranota and blackish fuscous femora. *C. ituriensis* Schouteden is a smaller species, which has yellowish testaceous legs as in *kilimensis*.

#### Compseuta ornatella STÅL.

Tropidocheila ornatella Stål, 1855, Öfv. Vet.-Ak. Förh., 1:37. (Caffraria.) Monanthia (Physatochila) ornatella Stål, 1865, Hem. Afr., 1:28. (Caffraria.)

Monanthia (Compseuta) ornatella STÅL, 1973, Enum. Hem., 3:133. (Caffraria.)

Monanthia ornatella Distant, 1902, Ann. So. Afr. Mus., 2:242, pl. 15, fig. 9. (Figured type in Stockholm Mus.)

Compseuta nigristernum Horvath, 1910, Kilimandjaro-Meru Exp. Hem., 12(5): 69. (Type locality: Kibonoto, Kilimandjaro.)

Compseuta ornatella Schouteden, 1918, Rev. Zool. Afr., 6(1): 143. (Listed tingids of Belgian Congo.)

Compseuta ornatella Schouteden, 1923, Rev. Zool. Afr., 3:27. (Madgu, Haut-Uele, Belgian Congo.)

Compseuta ornatella Drake, 1948, Proc. Ent. Soc. Wash., 50(8): 197-204. (Described 5 new spp. and 2 new subsp.; list of species of the world.)

One specimen: Lusinga, 1.760 m, 10.III.1947. This is a fairly common species and widely distributed in central and southern Africa. Specimens have been studied from Kenya Colony, Tanganyika Territory, North Rhodesia and South Africa. The color (blackish markings), paranota and especially the development (length) of lateral carinae are quite variable. In four specimens from Upemba National Park (Lusinga, 5.III.1947; riv. Kamitungulu, 1.760 m, 16.IV.1947; [riv. Kenia, 1.585 m, 28.III.1947]), the lateral carinae are very long and terminate anteriorly at the base of calli. As these specimens represent a new subspecies, C. tenella carinata, I am designating a female from Lusinga as the holotype. In the typical form of C. ornatella, the lateral carinae terminate anteriorly before reaching the middle of the pronotal disc.

#### Sinuessa waelbroecki (Schouteden).

Phyllontocheila waelbroecki Schouteden, 1916, Rev. Zool. Afr., 4(3): 292. (Type from Kinchassa, Belgian Congo.)

Phyllontocheila (Sinuessa) waelbroecki Schouteden, 1923, Rev. Zool. Afr., 11(10): 14 et 21. (Placed waelbroecki in subgenus Sinuessa Horvath; Kinchassa et Kisantu, Belgian Congo.)

Fourteen specimens: 8 specimens, Lusinga, 1.760 m, at various times during years 1945, 1947-1949; Kalumengongo, affl. Lualaba, 1.830 m, 21.I.1948; riv. Kenia, affl. Lusinga, 1.585 m, 19.XII.1947: These specimens exhibit a little variation in size, some variation in color markings and length of third antennal segments. Specimens from Kenya Colony (Nairobi and Turi) and Belgian Congo do not show as much variation.

#### Ammainus bobangensis (Schouteden).

Phyllontocheila (Phyllontochila) bobangensis Schouteden, 1923, Rev. Zool. Afr., 11:14 et 15-16. (Orig. desc.; type from Bolobo, Moyen-Congo.)

Two specimens: Kaswabilenga, 700 m, 21.X.1947. Known only from the Belgian Congo.

#### Cochlochila kilimensis HORVATH.

Cochlochila kilimensis Horvath, 1910, Kilimandjaro-Meru Exp. Hem., 12(5): 67-68. (Orig. desc.; Kibonoto, Kilimandjaro.)

Cochlochila kilimensis Drake, Notes d'Ent. Chinoise, Mus. Heude, 12(16): 181. (Cat. species of world; desc. one new sp.)

One specimen: Kankunda, 1.300 m, 19-24.XI.1947. New to the fauna of the Belgian Congo. Heretofore recorded from Kenya Colony, N. Rhodesia and Tanganyika Territory.

#### Cochlochila ituriensis Schouteden.

Cochlochila ituriensis Schouteden, 1953, Rev. Zool. Bot. Afr., 48(3-4): 167. (Belgian Congo: Yebo Molo, Abimva et Mongbwala.)

Two specimens: Lusinga, 1.760 m, 22.III.1947. Known only from the Belgian Congo. These two specimens agree very well with the original description.

## Paracopium bequaerti (SCHOUTEDEN).

Copium bequaerti (Schouteden), 1923, Rev. Zool. Afr., 21(1): 5-6. (Belgian Congo: Sankisia, Katanga.)

Paracopium bequaerti DRAKE, 1954, Great Basin Nat., 14(1-2): 4. (Transferred from Copium to Paracopium.)

Five specimen: 2 specimens, Munoi, bif. Lupiala, affl. Lufira, 890 m, 6-15.VI.1948; 1 specimen, riv. Bowa, affl. Kalule, près Kiamalwa, 1-3.III.1949; 1 specimen, Kabwekanono, rég. Lusinga, 1.815 m, 25.IV.1949; 1 specimen, Kaswabilenga, 700 m, 16.X.1947. This gall-making insect is known only from the Belgian Congo.

#### Eteoneus inopinus DRAKE.

Eteoneus inopinus Brake, 1946, Bull. So. Calif. Acad. Sci., 44(3): 99. (Type male, Bulawayo, So. Rhodesia.)

One female specimen: Lusinga, 1.760 m, 11-18.VII.1947. Known heretefore only from the male type. The allotype (female) is reddish brown and agrees very closely with the male in size, form and color. The measurements of the antennal segments are: I, 9; II, 8; III, 52; and IV, 34.

## Subfamily AGRAMMINAE Douglas et Scott, 1865.

#### Agramma longuria n. sp.

Elongate, very slender, appendages long and slender. Head black with frontal spines short, with pale apices; bucculae brownish testaceous, areolate, meeting anteriorly. Labium brownish testaceous, scarcely attaining mesosternum. Antennae 1,64 mm long, subequal in length to the length of head and pronotum combined, finely granulate, black-fuscous with first two segments darker, clothed with short, subappressed, pale pubescence, measurements: I, 19; II, 18; III, 58; IV, 24. Orifice with the dark channel upright and slightly curving posteriorly. Hypocostal laminae narrow, uniseriate, testaceous. Legs black with tibiae largely reddish fuscous. Body beneath black with venter fuscous-black.

Pronotum black with front margin of collar whitish and hind triangular process testaceous, slightly shining, coarsely punctate, unicarinate, the median carina fairly district. Elytra 2,50 mm long, slightly more than three times as long as wide, almost parallel-sided, entirely testaceous; costal area very narrow, horizontal, composed of one row of very small, oval areolae; subcostal area sloping obliquely downward, triseriate, the areolae small and rounded; discoidal and sutural areas on same level, horizontal, not clearly differentiated, areolae same size as in subcostal area. Wings whitish, almost as long as elytra.

Length, 3,00 mm; width, 0,78 mm.

Holotype (male) and allotype (female), Lusinga, Belgian Congo, March 22, 1947. Altitude, 1.760 meters. Paratypes: 3 specimens, taken with type.

Separated from African congeners by its long slender form, long antennae, feebly convex pronotum and almost entirely black appendages; from A. leleupi (Schouteden) (described as Drakea leleupi Schouteden) by its less convex pronotum and the lack of a deep furrow on each sides of pronotum. The genus Drakea Schouteden (1953, Rev. Zool. Bot. Afr., 48(3-4): 166) (monobasic) is here suppressed as a synonym of Agramma Westwood. (New Synonymy.)

#### Agramma pulla n. sp.

(Fig. 1.)

Head and pronotum black, shining, with two cephalic spines and anterior half of collar whitish testaceous; elytra smoky fuscous with costal area whitish testaceous and median anterior part of elytra slightly testaceous. Antennae and legs blackish fuscous with tibiae not as dark as

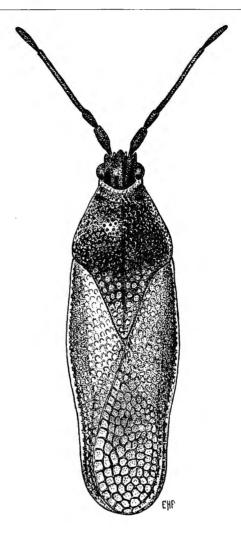


Fig. 1. — Agramma pulla n. sp. ×40.

femora. Body beneath blackish fuscous with inferior margin of bucculae and hind margin of head beneath whitish. Head slightly convex above, armed with a pair of short spines in front; eyes reddish black; labium brownish, scarcely extending beyond prosternum; laminae dark. Antennae 1,10 mm long, slender, feebly granulate, sparsely clothed with short, pale, decumbent pubescence, measurements: I, 14; II, 12; III, 42; IV, 20. Orifice distinct. Hypocostal laminae narrowed posteriorly, uniseriate.

Pronotum strongly convex, very coarsely punctate, with median carina visible for its entire length; posterior process areolate, blackish fuscous. Median length of pronotum and head longer than antennae, 1,22 mm long,

the pronotum 0,90 mm long. Elytra 1,75 mm long, extending beyond apex of abdomen, slightly shining, with areolae hyaline; costal area very narrow, horizontal, composed of one row of small ovate areolae; subcostal area sloping obliquely downward, triseriate, with areolae a little larger than in costal area; discoidal and sutural areas not entirely defined, both on same horizontal level, with areolae small in discoidal and larger apically in sutural area. Wings whitish, longer than abdomen.

Length, 2,40 mm; width, 0,75 mm.

 ${
m Holotype}$  (male), Mukana-Lusinga, 1.810 m, 15-19.I.1948. Female unknown.

The dark color of body and appendages (save costal area) separate this species from its congeners in Central Africa.

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## INDEX ARRANGED ALPHABETICALLY.

#### SPECIES.

												Pages.
aemula nov. (Cochlochila)				•••		•••			•••	•••		27
afzelii Stål (Cantacader)	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	25
bequaerti (Schouteden) (Paracopium)								•••				29
bobangensis (Schouteden) (Ammainus,	)	•••	•••	•••	•••	-,	•••	•••	•••	•••	•••	29
divisus Векскотн (Cantacader)	•••	•••	•••	•••	•••	•••			***		•••	26
inopinus Drake (Eteonus)			•••	•••			•••		•••			29
ituriensis Schouteden (Cochlochila).	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	29
kilimensis Horvath (Cochlochila)	•••	•••	•••	•••	•••						•••	29
longuria nov. (Agramma)	•••		•••		•••	•••	•••	•••	•••	•••		30
ornatella Stål (Compseuta)	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	28
pulla nov. (Agramma)		•••	•••	•••	•••	•••	•••		•••	•••	•••	30
tenuipes Stål (Cantacader)	•••	•••	•••	•••	•••	***	•••	•••	•••	•••	•••	26
vulcanorum Schouteden (Monanthia)	•••	•••	•••	•••	•••	•••	•••	•••	•••	• • •	•••	26
waelbroecki (Schouteden) (Sinuessa)	•••											28

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