

DERMAPTERA

BY

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The following notes form a supplement to the writer's earlier report (1938) on the *Dermaptera* of the Albert National Park of the Belgian Congo. The present paper is based on a small collection of 128 specimens submitted through the courtesy of Prof. V. VAN STRAELEN. Six immature nymphs cannot be determined and of the remaining 122 specimens no less than 102 belong to the ubiquitous *Diaperasticus erythrocephalus* (OLIVIER), a species which is certainly the commonest and most widely distributer of all the tropical African earwigs. The remaining material represents seven species and whilst it is too meagre to warrant more than the briefest notes it provides five additions to the 1938 list. These new species are marked with an asterisk *.

Since the 1938 report appeared the first part of the writer's revision of the *Dermaptera* of the Belgian Congo (1951), dealing with the *Pygidicranidæ*, has been published. This deals in greater detail with the species recorded in the 1938 paper and in the present report, as far as concerns this family.

The writer wishes to express his thanks to Prof. V. VAN STRAELEN for allowing him to examine the present collection.

Family PYGIDICRANIDÆ.

Diplatys macrocephalus (PALISOT DE BEAUVOIS).

Forficula macrocephala PALISOT DE BEAUVOIS, 1805, Ins. Afr. Amer., 36, Orth., t. 1, fig. 3 (♂, Benin).

Diplatys macrocephalus (PALISOT DE BEAUVOIS) HINCKS, 1951, Ann. Mus. Congo Belge, Sci. Zool., 8, 18, fig. 1, 2.

Material examined. — 1 ♀, Rutshuru, 1.285 m, 18-23.VI.1934 (Miss. G. F. DE WITTE).

Family **LABIDURIDÆ.****Forcipula gariazzii** BORELLI.

Forcipula gariazzii (sic!) BORELLI, 1900, Boll. Mus. Zool. Anat. Comp. Torino; **15**, n° 381, 1 (♂, Belgian Congo : Madimba); REHN, 1924, Bull. Amer. Mus. Nat. Hist., **49**, 407.

Material examined. — 1 ♀, 2 nymphs : Kimboho, 920 m, 27.XI.1935 (Miss. H. DAMAS).

This West African species has been recorded from the Gold Coast and Cameroons, from French Equatorial Africa and the Belgian Congo where it is widely distributed. The females appear to be more frequently collected than the males.

Family **LABIIDÆ.****Chætospania ugandana** BORELLI.

Chætospania ugandana BORELLI, 1907, Boll. Mus. Zool. Anat. Comp. Torino, **22**, n° 558, 4 (♂ ♀, Uganda : Ibanda); 1909, Il Ruwenzori, Relazioni scientifiche, **1**, 12, fig. 3 (sep.).

Material examined. — 1 ♀ : Kivu : Kalondo (lac Ndalaga, Mokoto), 1.750 m, 22-27.III.1934 (Miss. G. F. DE WITTE).

In addition to Uganda this species is known to occur in the Cameroons and the Belgian Congo. MENOZZI (1935, Rev. Zool. Bot. Afr., **27**, 26, fig. 7 F) has recorded a number of specimens from the Belgian Congo and figured the male genitalia. The writer also has examined some Belgian Congo material of this species which has not yet been put on record.

Family **FORFICULIDÆ.****Forficula senegalensis** SERVILLE.

Forficula senegalensis SERVILLE, 1839, Hist. Nat. Ins. Orth., 39 (♂ ♀, Sénégal); REHN, 1924, Bull. Amer. Mus. Nat. Hist., **49**, 387, fig. 32, 390, 411.

Material examined. — 1 ♀ : lac Ndalaga, 1.725 m, 10.VIII.1935 (Miss. H. DAMAS).

This is the most widely distributed African species of the genus. In normal specimens *F. senegalensis* is fully winged. The female in the present collection however is wingless, having the tegmina reduced and obliquely truncate caudad. In several, probably many, species of *Dermaptera* there are two forms, the macropterous characterized by complete tegmina and complete or but slightly reduced wings, and the brachypterous in which the wings are absent or very much reduced and the tegmina

usually somewhat reduced, rarely complete. There appear to be no intermediates between the two forms in the present species, and in *Diaperasticus* ssp. (see below).

The brachypterous form of *F. senegalensis* closely resembles the montane *F. sjöstedti* BURR, which is only known in the brachypterous condition. The latter is distinguished by its smaller size and by differences in the shape of the pronotum.

Thalperus kuhlgatzi (BURR).

Hypurgus kuhlgatzi BURR, 1909, Ann. Mag. nat. Hist., (8), **4**, 116 (♂ ♀, Togo, Bismarkburg).

Material examined. — 1 ♀ : Ruwenzori : Mutwanga, 1.000-1.300 m, VIII.1937 (coll. H. HACKARS).

In a forthcoming paper on the *Dermoptera* of the Nimba Mountains, the writer proposes to deal in some detail with the question of the identity of the often misidentified species of this genus.

Cordax formosus (BURR).

Opisthocosmia formosa BURR, 1905, Ann. Mag. nat. Hist., (7), **16**, 492 (♂, Cameroons).

Cordax formosus (BURR) REHN, 1936, Proc. Acad. nat. Sci. Philad., **88**, 517.

Material examined. — 1 ♀ : S. lac Édouard : Katahunda, 1.600 m, 5.III.1936 (coll. L. LIPPENS).

This little known species was long ago sunk by its author as a synonym of *Ancistrogaster poecilocera* BORG. REHN (1936) has shown it to be distinct and has published a careful redescription. The above recorded female has been compared with the material of *C. formosus* in the BURR collection at the British Museum (Nat. Hist.) and has been found to agree.

Diaperasticus erythrocephalus (OLIVIER).

Forficula erythrocephala OLIVIER, 1791, Encycl. Méthod., Ins., **6**, 468 (♂, Cape of Good Hope).

Diaperasticus erythrocephalus (OLIVIER) REHN, 1924, Bull. Amer. Mus. Nat. Hist., **49**, 396, 398, fig. 40, 412.

Material examined. — 3 ♂, 6 ♀, 8 nymphs : Ishango, 1.000 m, 11-14.XII.1935 (Miss. H. DAMAS); 5 ♀, 1 nymph : Kimboho, 925 m, 28.XI.1935 (Miss. H. DAMAS); 1 nymph : Kimboho près Luniasenge, 925 m, 30.XI.1935 (Miss. H. DAMAS); 2 ♀, 5 nymphs : Kamande, 925 m, 18.XI.1935 (Miss. H. DAMAS); 1 ♀ : Kamande, Talia, 925 m, 21.XI.1935 (Miss. H. DAMAS); 1 nymph : Rwindi, 1.000 m, 20-24.XI.1934 (Miss. G. F. DE WITTE); 1 ♀ : Mayya-Moto, 950 m, 15.XI.1934 (Miss. G. F. DE WITTE); 1 nymph : S. lac Édouard :

Vitshumbi, 925 m, 15.IV.1936 (coll. L. LIPPENS); 1 ♂, 6 ♀ : S. lac Édouard : Kamande, 925 m, 1.X.1935, 8.IV.1936 (coll. L. LIPPENS); 2 nymphs : S. lac Édouard : Tshambi, 975 m, 11.II.1936 (coll. L. LIPPENS); 2 ♂, 4 ♀ : riv. Rwindi, 1.000 m, 25.IV.1936 (coll. L. LIPPENS); 6 ♂, 9 ♀, 11 nymphs : lac Édouard : Ishango (Semliki), 14.XII.1935 (Miss. H. DAMAS); 4 ♀ : lac Édouard : Vitshumbi, 15-16.I.1936 (Miss. H. DAMAS); 4 ♂, 2 ♀ : [Uele : Monga (riv. Bili), 450 m] ⁽¹⁾, 18.IV-8.V.1935 (Miss. G. F. DE WITTE); 1 nymph : [Uele : Buta, 450 m], IV.1935 (Miss. G. F. DE WITTE); 1 ♀ : Ruwenzori : Mutwanga, 1.000-1.300 m, XI.1936-II.1937 (coll. HACKARS); 2 ♀, 1 ♂, 4 nymphs : Kivu : Rutshuru, 1.285 m, 16.X.1934, 6.IV-6.VII.1935 (Miss. G. F. DE WITTE); 1 nymph : Kivu : Rutshuru (riv. Musugereza), 1.100 m, 4.VII.1935 (Miss. G. F. DE WITTE); 1 nymph : Kivu : Rutshuru (envir. du poste), 1.285 m, 18-23.VI.1934 (Miss. G. F. DE WITTE); 1 ♀ : [lac Kivu : N.W. Bobandana], 20.II.1936 (Miss. H. DAMAS); 1 nymph : lac Kibuga : S. Rutshuru; 1 nymph : lac Mokoto : c. Kishale, 23.IX.1935 (Miss. H. DAMAS).

This species is very abundant throughout Africa, south of the Sahara. It occurs everywhere in the Belgian Congo at altitudes below about 1.400 m.

Macropterous and brachypterous individuals occur together and there appear to be no intermediates between the two forms. The antennæ of the adults probably comprise 13 or 14 segments but one or more terminal segments are missing in all the specimens in the present collection. The progressive increase in the number of antennal segments in the four immature stages appear to be as follows : Stage 1, 8 segments; Stage 2, 10 segments; Stage 3, 11 segments; Stage 4, 12 segments.

***Diaperasticus erythrocephalus* var. *cagnii* (BORELLI).**

Apterygida cagnii BORELLI, 1906, Boll. Mus. Zool. Anat. Comp. Torino, **21**, n° 541, 3 (♂, Uganda : Ibanda).

Material examined. — 1 ♂ : Ruanda : lac Bulero (Bitale), 1.862 m, 10-11.IX.1934 (Miss. G. F. DE WITTE).

This is a striking melanic form of *D. erythrocephalus* in which the whole insect is shining black except for the red head. It seems to be quite rare as I have seen only two specimens in several hundreds of the typical form.

***Diaperasticus sansibaricus* (KARSCH).**

Sphingotabis sansibarica KARSCH, 1886, Berl. ent. Z., **30**, 90, pl. 3, fig. 8 (♂, Zanzibar).

Diaperasticus sansibaricus (KARSCH) REHN, 1924, Bull. Amer. Mus. Nat. Hist., **49**, 396, fig. 39, 412.

Material examined. — 1 ♂ : Ruanda : Ruhengeri (riv. Penge), 1.800-1.825 m, 4-5.X.1934 (Miss. G. F. DE WITTE); 1 ♀ : Kitondo (près Gandjo),

(1) All the localities between [] are without the Park's region.

2.000 m, 7-23.I.1935 (Miss. G. F. DE WITTE); 2 ♀ : Bobandana, 1.460 m, 21.II.1936 (Miss. H. DAMAS); 1 ♂ : lac Magera, 2.000 m, 26-27.II.1934 (Miss. G. F. DE WITTE); 1 ♀, 2 ♂ : Mutsora, 1939 (coll. H. HACKARS); 1 ♂ : Kivu : Kinyamahura (Djomba), 1.800 m, 23.VIII.1934 (Miss. G. F. DE WITTE); 1 ♂, 1 ♀ : S. lac Édouard : Katahunda, 1.600 m, 5.III.1936 (coll. L. LIPPENS); 1 nymph : S. lac Édouard : Kitembo, 925 m, 4.IV.1936 (coll. L. LIPPENS).

Although by no means as abundant as *D. erythrocephalus*, this species is common and widely distributed throughout tropical Africa. As in the related species, macropterous and brachypterous forms occur and in addition, there is a melanic form comparable to the var. *cagnii* of *D. erythrocephalus*. The three Mutsora specimens recorded above tend to be melanic and one male has the body entirely black with the fore-parts dark brown.

REFERENCES.

- HINCKS, W. D., 1938, Exploration du Parc National Albert, Mission G. F. DE WITTE (1933-1935), fasc. 17 : *Dermoptera*, p. 16.
- 1951, The *Dermoptera* of the Belgian Congo. Part I : *Pygidicranidæ* (*Ann. Mus. Congo Belge*, Sci. zool., VIII, 1-50, fig.).
- MENOZZI, C., 1935, Contributo alla conoscenza dei Dermopterri del Congo Belga (*Rev. Zool. Bot. Afr.*, XXVII, 15-32).
- REHN, J. A. G., 1924, The *Dermoptera* of the American Muscum Congo Expedition, with a Catalogue of the Belgian Congo species (*Bull. Amer. Mus. Nat. Hist.*, XLIX, 349-413).
- 1936, Zoological Results of the GEORGE VANDERBILT African Expedition of 1934. Part V : *Dermoptera* (*Proc. Acad. nat. Sci. Philad.*, LXXXVIII, 507-526).
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