

INSTITUT DES PARCS NATIONAUX
DU CONGO BELGE

INSTITUUT DER NATIONALE PARKEN
VAN BELGISCH CONGO

Exploration du Parc National de l'Upemba

MISSION G. F. DE WITTE

en collaboration avec

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

FASCICULE 58

Exploratie van het Nationaal Upemba Park

ZENDING G. F. DE WITTE

met medewerking van

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

AFLEVERING 58

1. **SCARABAEINI, GYMNOPLURINI, CANTHONINI and COPRINI (Coleoptera Lamellicornia)** by MARIA C. FERREIRA (Lourenço Marques).
2. **ACHILIDAE (Homoptera Fulgoroidea)** par HENRI SYNAVE (Bruxelles).



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Bruxelles 15

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Afllevering 58 (1)

SCARABAEINI, GYMNOPLEURINI,
CANTHONINI AND COPRINI
(COLEOPTERA LAMELLICORNIA)
Fam. SCARABAEIDAE

BY

MARIA C. FERREIRA, F. R. E. S. (Lourenço Marques)

INTRODUCTION

The material, on which the present work is based, was collected in the Upemba National Park (Belgian Congo).

The late Mr. ANDRÉ JANSSENS initiated this study but unfortunately could not complete it.

This material consists of only four tribes of the *Scarabaeidae*, viz. : *Scarabaeini*, *Gymnopleurini*, *Canthonini* and *Coprini*. On the tribes, *Onitini* and *Oniticellini* Mr. JANSSENS had already published two excellent papers in 1952 and 1953.

Of the present material the number of different species is not great.

Of the two genera, *Copris* GEOFFROY and *Catharsius* HOPE, whose monography is at the moment being written, two new species are herein described.

I wish to express my sincerest thanks to the President of the Institut des Parcs Nationaux du Congo Belge who allowed me to study this material. My thanks, also, go to Mr. G. FAGEL, entomologist of the above Institute, who sent to me, on loan, the various type specimens of the GILLET collection.

Superfam. LAMELLICORNIA

Fam. SCARABAEIDAE

Subfam. COPRINAE

Tribe SCARABAEINI.

Ateuchites CASTELNAU, 1840, Hist. Nat. Col., **2** : 63.

Ateuchides REICHE, 1841, Rev. Zool. : 211; 1841, Ann. Soc. Ent. Fr., **11** : 59. — WESTWOOD, 1847, Trans. Ent. Soc. Lond., **4** : 225. — LACORDAIRE, 1856, Gen. Col., **3** : 64, 65. — LANSBERGE, 1874, Ann. Soc. Ent. Belg., **17** : 177-193.

Ateuchidae REICHE, 1842, Ann. Soc. Ent. Fr., **12** : 22. — BURMEISTER, 1846, Gen. Ins., **10**, nr. 27.

Ateuchini ERICHSON, 1847, Naturg. Ins. Deutschl., **1** (3) : 788.

Scarabaeini DOHRN, 1875, Stett. Ent. Zeit., **36** : 157-187. — HAROLD, 1879, Col. Hefte, **16** : 35. — PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 21. — GILLET, 1911, Col. Cat., JUNK, **38** : 4.

Genus **KHEPER** A. JANSSENS.

Kheper A. JANSSENS, 1940, Mém. Mus. royal d'Hist. nat. Belg., 2^e série, (16) : 14. — FERREIRA, 1952, Bol. Soc. Est. Moç., **23** (78) : 5; 1953, Estudos Coloniais, Revista da Escola Superior Colonial, **3** : 3.

1. — **Kheper festivus** (HAROLD).

Ateuchus festivus HAROLD, 1868, Col. Hefte, **4** : 79.

Kheper festivus A. JANSSENS, 1940, Mém. Mus. royal d'Hist. nat. Belg., 2^e série (16) : 64, 70. — FERREIRA, 1953, Estudos Coloniais, Revista da Escola Superior Colonial, **3** : 10, 18; 1954, Durban Museum Novitates, **4** (7) : 95.

Scarabaeus paganus HAROLD, 1878, Mitt. Ent. Munch. Ver., **2** : 191; 1879, Col. Hefte, **16** : 34. — QUEDENFELDT, 1884, Berl. Ent. Zeit., 268, pl. 2, f. 5. — GILLET, 1911, Col. Cat., JUNK, **38** : 11. — PAULIAN, 1937, Mém. Est. Mus. Zool. Univ. Coimbra, **1** (105) : 6.

Scarabaeus mashunus PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 28, 32, pl. 37, f. 5. — GILLET, 1907, Ann. Mus. Civ. Genova, (3) : 593.

Scarabaeus vanderkelleni LANSBERGE, 1886, Notes Leyden Museum, **8** : 70. — GILLET, 1909, Notes Leyden Museum, **31** : 194; 1911, Col. Cat., JUNK, **38** : 12 (ab.).

Kheper festivus HAROLD var. *vanderkelleni* A. JANSSENS, 1940, Mém. Mus. royal d'Hist. nat. Belg., 2^e série, (16) : 64.

P.N.U. : Mabwe (585 m); Kaswabilenga (700 m); Kilwezi (750 m); Road Kaswabilenga-Mabwe (750 m); Lupiala (700-850 m); Ganza (860 m); right tributary of the Lukoka River; Munoi (880 m), bifurcation Lupiala and Lufira Rivers; Kimiala (900 m), near Sampwe (Kundelungu); Road Lupiala (900-1.200 m); Kateke (960 m), right tributary of Lufira River; R. Bowa, right tributary of the Kalule River near Kiamalwa; Kaziba (1.140 m); Pelenge (1.150 m); Kabenga (1.240 m); Kankunda (1.300 m); Kabwe (1.320 m) on the right shore of the Muye River; Shinkulu (1.450 m); Mubale (1.480 m); Kimilombo (1.700 m), tributary of Lusinga River; Kamamulongo River (1.700 m), tributary of the Lusinga River; Dipidi (1.700 m); Lufwa (1.700 m), right tributary of the Lusinga River; Kafwi (1.700 m), right tributary of the Lufwa River; Lusinga (1.760 m), tributary of the Kamitungulu River; Mukana (1.810 m); Bowa River, right tributary of the Kalule River, near Kiamalwa.

Number of specimens : 1.500.

Geographical distribution. — Southern Rhodesia (Salisbury); Guinea; Angola (Caconda, Bimbi, Kakindo, Makindo, Mbalé River, Lunda, Kwangu, Ndongo); Mozambique; Tanganyika (Marangu, Kilimandjaro); Belgian Congo.

2. — *Kheper intermedius* (GILLET).

Scarabaeus intermedius GILLET, 1909, Notes Leyden Museum, **31** : 193.

Kheper intermedius A. JANSSENS, 1940, Mém. Mus. royal d'Hist. nat. Belg., 2^e série, (16) : 64, 71.

Scarabaeus paganus LANSBERGE (non HAROLD), 1886, Notes Leyden Museum, **8** : 70.

P.N.U. : Kaswabilenga (700 m); Kankunda (1.300 m); Mubale (1.480 m); Ngozie (1.600 m), road to Mitwaba; Kimilombo (1.700 m), tributary of the Lusinga River; Kamitungulu River (1.700 m), tributary of the Lusinga River; Dipidi (1.700 m); Kafwi (1.700 m), right tributary of the Lufwa River; Kampadika (1.700 m), tributary of the Kafwi River; Lusinga (1.760 m), tributary of the Kamitungulu River; Kapelwa (1.780 m), left tributary of the Grand Kafwe River; Mukana (1.810 m); Kabwekanono (1.815 m); Kalumengongo (1.830 m), origin of the right tributary of the Lualaba.

Number of specimens : 342.

Geographical distribution. — Angola (Humpata); Belgian Congo (Kalele river, Katanga, P.N.U.).

Genus **SCELIAGES** WESTWOOD.

Sceliages WESTWOOD, 1837, Proc. Zool. Soc. Lond., **5** : 12; 1838, Trans. Zool. Soc. Lond., **2** : 159. — LACORDAIRE, 1856, Gen. Col., **3** : 66, 71. — SHIPP, 1895, Entomologist, **28** : 37. — PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 22, 62. — A. JANSSENS, 1938, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (21) : 8.

3. — **Sceliages augias** GILLET.

Sceliages augias GILLET, 1908, Mém. Soc. Ent. Belg., **16** : 64.

Sceliages sulcipennis FELSCHE, 1910, Deutsche Ent. Zeitschr., 339.

P.N.U. : Kankunda (1.300 m) (1 ♂); Kapelwa River (1.780 m) (1 ♂); Mukana (1.810 m) (1 ♀).

Geographical distribution. — Angola. Belgian Congo. Northern Rhodesia.

Tribe **GYMNOPLEURINI.**

Gymnopleurini FERREIRA, Rev. Fac. Ciênc. Lisboa (in print).

Gymnopleurides LACORDAIRE, 1856, Gen. Col., **3** : 65, 77 (pars). — PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 21 (pars). — GILLET, 1911, Col. Cat., JUNK, **38** : 16. — A. JANSSENS, 1938, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (21) : 30; 1940, Mém. Mus. royal d'Hist. nat. Belg., **18** : 9. — GOMES ALVES, 1950, Anais Junta Inv. Colon., **6** (5) : 160.

Gymnopleurinae KOLBE, 1905, Zool. Jahr. Suppl., **8** : 552.

Genus **GYMNOPLEURUS** ILLIGER.

Gymnopleurus ILLIGER, 1803, Mag. Ins., **2** : 199 (ex parte). — LATREILLE, 1807, Gen. Crust. Ins., **2** : 78 (ex parte). — LACORDAIRE, 1856, Gen. Col., **3** : 72, 73 (ex parte). — REITTER, 1893, Best. Tab., **24** : 158, 163; 1893 (1894), Verh. Naturf. Ver. Brunn., **31** : 37, 42. — SHIPP, 1897, Entomologist, **30** : 62, 166. — KOLBE, 1897, Käfer D. O. Afr. : 135 (ex parte). — PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 22, 64 (ex parte). — GILLET, 1911, Col. Cat., JUNK, **38** : 16 (ex parte). — GARRETA, 1914, Bull. Soc. Ent. Fr., 51, 55. — ARROW, 1931, Fauna Brit. India, Col. Lamell., **3** Copr. : 46 (ex parte). — A. JANSSENS, 1938, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (21) : 30; 1940, Mém. Mus. royal d'Hist. nat. Belg., **18** : 15, 40. — FERREIRA, 1956, Arquivos Mus. Bocage, Lisboa, **27** : 10.

Spinigymnopleurus SHIPP, 1897, Entom., **30** : 166.

4. — **Gymnopleurus jacksoni** WATERHOUSE.

Gymnopleurus jacksoni WATERHOUSE, 1890, Ann. Mag. Nat. Hist., **5** (6) : 370. — A. JANSSENS, 1938, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (21) : 39, 57; 1940, Mém. Mus. royal d'Hist. nat. Belg., (18) : 50, 64.

Gymnopleurus atrovirens KOLBE, 1895, Stett. Ent. Zeit., **54** : 335. — GARRETA, 1914, Bull. Soc. Ent. Fr., 359.

P.N.U. : Mabwe (lac Upemba) (585 m); Ngozie (600 m), road to Mitwaba; Kaswabi-lenga (700 m); Kankunda (1.300 m); Mubale (1.480 m); Kenya (1.585 m), right tributary of the Lusinga River; Dipidi (1.700 m), origin of the Lusinga River; Kafwi (1.700 m), right tributary of the Lufwa River; Buye-Bala (1.750 m), left tributary of the Muye

River; Lusinga (1.760 m), tributary of the Kamitungulu River; Kapelwa (1.780 m), left tributary of the Grand Kafwe River; Mukana (1.810 m); Kabwekanono (1.815 m); Kalumengongo (1.830 m), origin of the tributary of the Lualaba.

Number of specimens : 186.

Geographical distribution. — Victoria-Nyansa. Belgian Congo.

5. — *Gymnopleurus virens* ERICHSON.

Gymnopleurus virens ERICHSON, 1843, Archiv. Naturg., **9** (1) : 231. — GERSTAECKER, 1871, Archiv. Naturg., **37** : 49. — HAROLD, 1871, Col. Hefte, **8** : 5; 1897, Käfer D. O. Afr. : 138. — PÉRINGUEY, 1900, Trans. S. Afr. Phil. Soc., **12** : 67, 76. — GARRETA, 1914, Bull. Soc. Ent. Fr., 53. — A. JANSSENS, 1938, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (21) : 35, 52; 1940, Mém. Mus. royal d'Hist. nat. Belg., **18** : 45, 60. — GOMES ALVES, 1950, Anais Junta Inv. Colon., **5** (6) : 163. — FERREIRA, 1956, Arquivos Mus. Bocage, Lisboa, **27** : 12.

Gymnopleurus virens ERICHSON var. *pumilus* REICHE, 1847 (1850), in FERRET & GALINIER, Voy. Abyss., **3** : 308.

Gymnopleurus virens ERICHSON var. *vanderkelleni* LANSBERGE, 1886, Notes Leyden Museum, **8** : 72. — GILLET, 1911, Ann. Soc. Ent. Belg., **55** : 310. — A. JANSSENS, 1940, Mém. Mus. royal d'Hist. nat. Belg., **18** : 45, 60. — GOMES ALVES, 1950, Anais Junta Inv. Colon., **5** (6) : 163. — FERREIRA, 1956, Arquivos Mus. Bocage, Lisboa, **27** : 12.

Gymnopleurus virens ERICHSON var. *gibbosus* ROTH, 1851, Archiv. Naturg., **1** (17) : 123.

Gymnopleurus virens ERICHSON ssp. *sternalis* MULLER, 1942, Atti del Mus. Civ. Stor. Nat. Trieste, **14** (3) : 76.

P.N.U. : Mabwe (lac Upemba) (585 m); Kaswabilenga (700 m); Kilwezi (730 m); Kateke (960 m), right tributary of the Lufira River; Kiamakoto-Kiwakishi (1.070 m).

Number of specimens : 1.210.

Geographical distribution. — Angola (Dundo); Belgian Congo (Gandajika, Kapelekese River, Kapanga, Kafakumba, Muteba, Mayidi, Kiliba, Mulche, Mukolosimba, Albertville, Bokalakala, Itawa, P.N.U.); Tanganyika (Kigonsera, Ufipa plateau); Guinea; French Congo; South West Africa (Ovampoland, Damaraland, Omrramba).

Genus **GARRETA** A. JANSSENS.

Garreta A. JANSSENS, 1940, Mém. Mus. royal d'Hist. nat. Belg., **18** : 15, 22. — PAULIAN, 1945, Faune de l'Empire franç., 50. — FERREIRA, 1956, Arquivos Mus. Bocage, Lisboa, **27** : 10.

Gymnopleurus ILLIGER, 1803, Mag. Ins., **2** : 199 (pars).

Paragymnopleurus SHIPP, 1897, Entom., **30** : 166 (pars). — GARRETA, 1914, Bull. Soc. Ent. Fr., 52. — A. JANSSENS, 1938, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (21) : 32.

6. — **Garreta azureus** (FABRICIUS).

- Scarabaeus azureus* FABRICIUS, 1801, Syst. Eleuth., **1** : 57.
- Gymnopleurus azureus* KOLBE, 1897, Käfer D. O. Afr. : 136, 147. — ARROW, 1906, Ann. Mag. Nat. Hist., **18** : 129.
- Paragymnopleurus azureus* A. JANSSENS, 1938, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (21) : 59.
- Garreta azureus* A. JANSSENS, 1940, Mém. Mus. royal d'Hist. nat. Belg., **18** : 23, 28, pl. I, f. 4. — GOMES ALVES, 1950, Anais Junta Inv. Colon., **5** (6) : 161. — FERREIRA, 1954, Mém. Mus. Dr. Álvaro de Castro, (3) : 72; 1956, Arquivos Mus. Bocage, Lisboa, (27) : 15.
- Gymnopleurus olivaceus* QUEDENFELDT, 1884, Berl. Ent. Zeitschr., **28** : 269.
- Gymnopleurus azureus* (FABRICIUS) var. *olivaceus* A. JANSSENS, 1938, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (21) : 59.
- Garreta azureus* (FABRICIUS) var. *olivaceus* A. JANSSENS, 1940, Mém. Mus. royal d'Hist. nat. Belg., (18) : 29.
- Gymnopleurus cupreovirens* KOLBE, 1895, Stett. Ent. Zeit., **56** : 333; 1897, Käfer D. O. Afr. : 137.
- Gymnopleurus azureus* (FABRICIUS) var. *cupreovirens* A. JANSSENS, 1928, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (21) : 59.
- Garreta azureus* (FABRICIUS) var. *cupreovirens* A. JANSSENS, 1940, Mém. Mus. royal d'Hist. Nat. Belg., (18) : 29.
- Gymnopleurus insidiosus* PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 66, 69.
- Garreta azureus* (FABRICIUS) var. *insidiosus* A. JANSSENS, 1940, Mém. Mus. royal d'Hist. nat. Belg., (18) : 29.
- Gymnopleurus azureus* (FABRICIUS) var. *rubrocupreus* A. JANSSENS, 1938, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (21) : 59.
- Garreta azureus* (FABRICIUS) var. *rubrocupreus* A. JANSSENS, 1940, Mém. Mus. royal d'Hist. nat. Belg., (18) : 29.
- Gymnopleurus azureus* (FABRICIUS) var. *ebenus* A. JANSSENS, 1938, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (21) : 59.
- Garreta azureus* (FABRICIUS) var. *ebenus* A. JANSSENS, 1940, Mém. Mus. royal d'Hist. nat. Belg., (18) : 29.

P.N.U. : Kaswabilenga (700 m); Kateke (960 m), right tributary of the Lufira River; Kaziba (1.140 m); Pelenge (1.150 m); Kankunda (1.300 m).

Number of specimens : 1.475 ♂♂, 1.619 ♀♀.

Geographical distribution. — Tanganyika (Kigonsera, Usambara, Tosamaganga, Rubaza, Peramiho); Abissynia; Uganda (Kampala, Bussu, Busoga, Kibili); Eritrea (Medrizien, Guasaso, Tembien); Belgian Congo (Molegbwe, Kapanga, Lundji River, Lusambo, Bokuma, Yangambi, Kibaro, Vitsumbi, Tshambi, Molindi River, Kitumba, Katanda, May ya Moto, Mabenga, Rwindi, Parc Nat. Upemba); Angola; Cameroun (Joko); Southern Rhodesia (Salisbury, Mt. Selinda, Bulawayo, Penkridge); Mozambique (Garuzo).

7. — **Garreta malleolus** (KOLBE).

- Gymnopleurus malleolus* KOLBE, 1895, Stett. Ent. Zeit., **56** : 334.
Paragymnopleurus malleolus A. JANSSENS, 1938, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (21) : 45, 61.
Garreta malleolus A. JANSSENS, 1940, Mém. Mus. royal d'Hist. nat. Belg., (18) : 25, 30. — FERREIRA, 1954, Mém. Mus. Dr. Alvaro de Castro, (3) : 73; 1956, Arquivos Mus. Bocage, Lisboa, **27** : 15.
Gymnopleurus consanguineus KOLBE, 1895, Stett. Ent. Zeit., **56** : 334. — GILLET, 1911, Col. Cat., JUNK, **38** : 17.
Gymnopleurus fastiditus PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 66, 70 (non HAROLD).

P.N.U. : Mabwe (lac Upemba) (585 m); Kaswabilenga (700 m); Munoi (880 m), bifurcation Lupiala and Lufira Rivers; Kankunda (1.300 m); Mubale (1.480 m); Kenia (1.585 m), right tributary of the Lusinga River; Ngozie (1.600 m), road to Mitwaba; Kimilombo (1.700 m), tributary of the Lusinga River; Kamitungulu River (1.700 m), tributary of the Lusinga River; Dipidi (1.700 m), origin of the Lusinga River; Kafwi (1.700 m), right tributary of the Lufwa River; Manda River (1.715 m), tributary of the Kalumengongo River; Buye-Bala (1.750 m), left tributary of the Muye River; Lusinga (1.760 m), tributary of the Kamitungulu River; Kapelwa (1.780 m), left tributary of the Grand-Kafwe River; Mukana (1.810 m); Kabwekanono (1.815 m); Kalumengongo (1.830 m), origin of the right tributary of the Lualaba; Dipwa River (1.900 m).

Number of specimens : 981 ♂♂, 1.215 ♀♀.

Geographical distribution. — Southern Rhodesia (Umtali, Sebakwe); Mozambique (Manica); Natal (Malvern); Northern Rhodesia (Kashitu); Uganda (Kakoma, Bussu Busoga); Belgian Congo (Katanga, P.N.U.)

8. — **Garreta nitens** (OLIVIER) var. **coeruleovirens** (KOLBE).

- Gymnopleurus nitens* (OLIVIER) var. *coeruleovirens* KOLBE, 1897, Käfer D. O. Afr., 138. — A. JANSSENS, 1938, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (21) : 46.
Garreta nitens (OLIVIER) var. *coeruleovirens* A. JANSSENS, 1940, Mém. Mus. royal d'Hist. nat. Belg., (18) : 27, 32.

P.N.U. : Mabwe (585 m); Kaswabilenga (700 m).

Number of specimens : 206 ♂♂, 157 ♀♀.

Geographical distribution. — Nyassa See; Belgian Congo.

Tribe **CANTHONINI**.

- Canthonides* PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 22.
Canthoninae KOLBE, 1905, Zool. Jahrb. Suppl., **8** : 551.

Genus **ANACHALCOS** HOPE.

Anachalcos HOPE, 1837, Coleopt. Manual, **1** : 50. — PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 22, 81. — GILLET, 1911, Col. Cat. JUNK, **38** : 37.

Chalconotus REICHE, 1841, Rev. Zool. : 212.

9. — **Anachalcos convexus** BOHEMAN.

Anachalcos convexus BOHEMAN, 1857, Ins. Caffr., **2** : 196. — KOLBE, 1897, Käfer D. O. Afr. : 139. — PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 82. — GILLET, 1911, Col. Cat., JUNK, **38** : 37.

P.N.U. : Mabwe (585 m); Kaswabilenga (700 m); Road Kaswabilenga-Mabwe (750 m); Kateke (960 m), right tributary of the Lufira River; Kaziba (1.140 m); Kankunda (1.300 m); Mukana (1.810 m).

Number of specimens : 415.

Geographical distribution. — Sudafrika; Senegal; Somalia.

10. — **Anachalcos procerus** GERSTAECKER.

Anachalcos procerus GERSTAECKER, 1874, Archiv. Naturg., **37** (1) : 49; 1871, v. d. Deckens Reise : 127, t. 7, f. 3. — HAROLD, 1879, Col. Hefte, **16** : 35. — KOLBE, 1897, Käfer D. O. Afr. : 139. — GILLET, 1911, Col. Cat., JUNK, **38** : 37.

P.N.U. : Mabwe (585 m); Kaswabilenga (700 m); Kateke (960 m), right tributary of the Lufira River; Pelenge (1.150 m); Kankunda (1.300 m); Kabwe (1.320 m), on the right shore of the Muye River; Mubale (1.480 m); Dipwa River (1.900 m).

Number of specimens : 73 ♂♂, 198 ♀♀.

Geographical distribution. — Kilimanjaro; Belgian Congo; Tanganyika.

Tribe **COPRINI**.

Copris BURMEISTER, 1846, Gen. Ins., Heft. **10**, Col. nr. 27. — LACORDAIRE, 1856, Gen. Col., **3** : 96.

Coprinae KOLBE, 1905, Zool. Jahrb. Suppl., **8** : 549.

Coprides GILLET, 1911, Col. Cat., JUNK, **38** : 63.

Coprini A. JANSSENS, 1939, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (29) : 5.

Genus **COPRIS** GEOFFROY.

- Copris* GEOFFROY, 1762, Ins. des envir. de Paris, **1** : 87. — BURMEISTER, 1846, Gen. Ins., Heft., **10**, Col. nr. 27. — ERICHSON, 1847, Naturg. Ins. Deutschl., **1** (3) : 761, 786. — LACORDAIRE, 1856, Gen. Col., **3** : 95, 96. — REITTER, 1893, Best. Tab., **24** : 160, 214; 1893 (1894), Verh. naturf. Ver. Brunn., **31** : 39, 93. — PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 110, 342. — SCHAEFFER, 1906, Trans. Ann. Ent. Soc., **32** : 255. — GILLET, 1911, Col. Cat., JUNK, **38** : 71; 1921, Faune Entom. Indoch. Fr., **4**, *Scarab. Lepar.* : 10. — BOUCOMONT, 1914, Ann. Soc. Ent. Fr., **83** : 330. — ARROW, 1931, Fauna Brit. India, Col. Lam., **3**, Copr. : 102. — BALTHASAR, 1935, Best. Tab. europ. Col., **115** (1) : 66. — A. JANSSENS, 1939, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (29) : 40.
- Subg. *Litocopris* WATERHOUSE, 1891, Ann. Mag. Nat. Hist., **8** (6) : 53. — A. JANSSENS, 1939, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (29) : 41.

11. — **Litocopris muticus** (BOHEMAN).

- Copris muticus* BOHEMAN, 1857, Ins. Caffr., **2** : 238.
- Litocopris muticus* WATERHOUSE, 1891, Ann. Mag. Nat. Hist., **8** (6) : 54. — A. JANSSENS, 1939, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (29) : 41, 42.

P.N.U. : Mabwe (585 m); Kaswabilenga (700 m); Kanonga (700 m); Lukawe (700 m); Road Kaswabilenga-Mabwe (750 m); Kateke (960 m), right tributary of the Lufira River; Kaziba (1.140 m); Lusinga (1.760 m), tributary of the Kamitungulu River; Mukana (1.810 m).

Number of specimens : 3.981.

Geographical distribution. — Belgian Congo (P.N.A., P.N.U.); Cafraria.

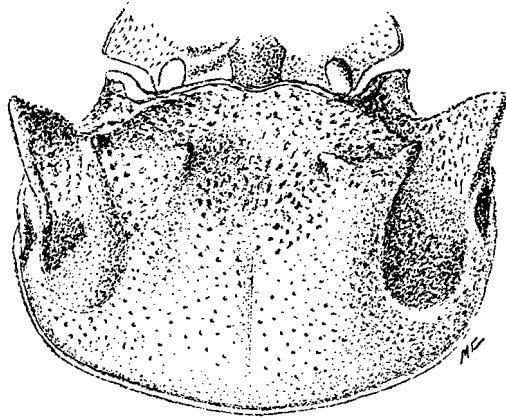
12. — **Copris armiger** GILLET.

- Copris armiger* GILLET, 1910, Notes Leyden Mus., **32** : 1; 1911, Col. Cat., JUNK, **38** : 72.

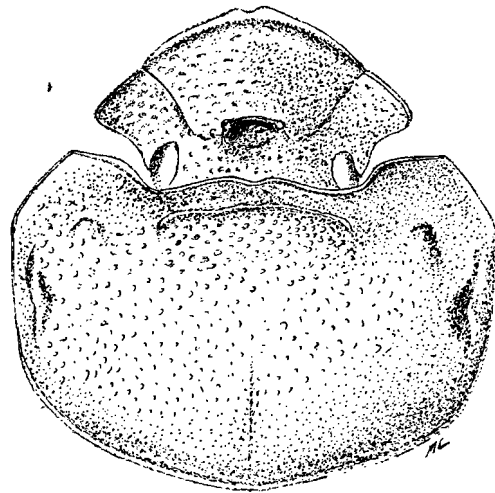
P.N.U. : Kaswabilenga (700 m); Kateke (960 m); Kaziba (1.140 m); Mukana (1.870 m).

Number of specimens : 19 ♂♂, 14 ♀♀.

Geographical distribution. — Belgian Congo; Tanganyika (Usambara).



1



2

Copris dracunculus n. sp.

FIG. 1 : Head and pronotum (♂). — FIG. 2 : Head and pronotum (♀).

13. — **Copris inhalatus** QUEDENFELDT.

Copris inhalatus QUEDENFELDT, 1844, Berl. Ent. Zeitschr., **28** : 272. — GILLET, 1911, Col. Cat. JUNK, **38** : 75.

Copris rugosus GILLET, 1908, Mém. Soc. Ent. Belg., **16** : 77, f. 7; 1911, Ann. Soc. Ent. Belg., **55** : 311.

P.N.U. : Kankunda (1.300 m); Ngozie (1.600 m), road to Mitwaba.

Number of specimens : 6 ♀ ♀.

Geographical distribution. — Angola; Belgian Congo.

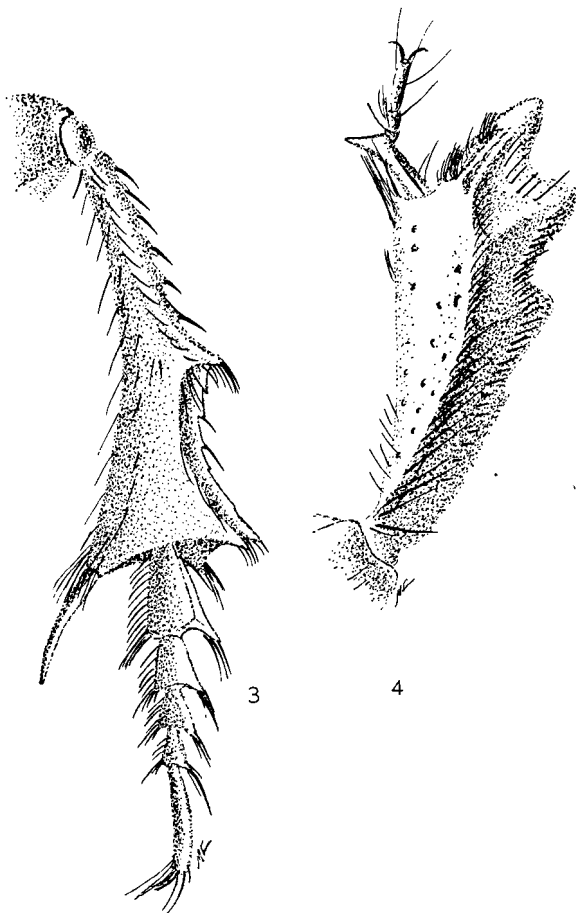
14. — **Copris dracunculus** n. sp.

(Figs. 1-4)

Copris dracunculus A. JANSSENS (in litt.).

Black; head and pronotum nearly dull; elytra shiny; pubescence reddish.

Male : Head rugose-punctate; anteriorly marginate; clypeus slightly concave at middle; genae punctate; frons having a strong horn about 1 cm. long, slightly curved backwards; laterally subcarinate at base and in the anterior part; posteriorly carinate on the median part, the carina produced in a dentiform salience, situated above the base; horn very rugose; head, on the lateral part near the horn, with two concavities, shiny and smooth, separated by a wrinkle; vertex smooth. Pronotum having two median processes on the anterior and declivous part; these are bituberculate, and are separated by a small depression; the outer tubercle extending on the declivous part as a carina; on each side of these processes, there are two very big concavities which are limited laterally by a very strong tooth directed outwardly; this tooth is near the lateral carina of the pronotum which is sinuate near the lateral fovea; anteriorly, behind the lateral tooth, the pronotum is concave; disc grooved at middle; anterior angles sharp and directed outwardly; intermediate angle strong; hind angles round; anterior margin concave at middle and marginate. Prothoracic episternum punctate and pubescent anteriorly and laterally, having an anterior transverse carina which reaches the margin of the pronotum. Elytra large, striated; striae punctate; intervals with a very fine punctation which is visible with a ten times magnification. Metasternum longitudinally grooved at middle; anteriorly depressed; with a very small posterior fovea; the anterior lateral part with small wrinkles and punctate behind; sides very punctate and pubescent. Pygidium entirely marginate and punctate. Abdominal sternites with punctations on the sides and near the anterior margin. Anterior femora having the ventral face strongly punctate and pubescent; intermediate and hind femora with small punctations on the



Copris dracunculus n. sp.

FIG. 3 : Hind leg (dorsal). — FIG. 4 : Anterior tibia of the male (dorsal).

ventral face; at apex the punctations are strong and big, with long hairs. Anterior tibiae with 3 strong teeth and a fourth reduced one; the second one is further separated from the third than the latter is from the fourth; anterior spur obliquely truncate and directed inwardly.

♂ minor : The cephalic horn is shorter than in the ♂ major, but it has two teeth above the base on the posterior face. The process of the pronotum are less developed, as also lateral concavities and the lateral teeth.

Female : The head of the female has a lamiform horn ending in two teeth; these teeth are separated behind by a semicircular depression the horn is punctate; at the base of the horn and of the genal suture, there

is a very small depression; vertex smooth. The pronotum has a median cariniform process; laterally there is a small depression and a tubercle which is situated behind the lateral carina; the surface is granulose as in the male, except for the posterior median part which is punctate; the disc is longitudinally grooved at middle; the anterior spur is sharp at apex and curved inwardly. Length : 21-28 mm.

Belgian Congo (P.N.U.) : Mabwe (585 m) (4 ♀ ♀ paratypes); Kanonga (700 m) (2 ♂ ♂ paratypes); Kafwi (1.700 m) (1 ♀ paratype); Dipidi River (1.700 m) (7 ♂ ♂, 6 ♀ ♀ paratypes); Kenia (1.700 m) (4 ♂ ♂ paratypes; 3 ♀ ♀ paratypes); Buye-Bala (1.750 m) (2 ♂ ♂ paratypes); Katongo (1.750 m), tributary of the Mubale River (1 ♂ paratype); Lusinga (1.760 m) (11 ♂ ♂ paratypes; 10 ♀ ♀ paratypes); Mukana (1.810 m) (12 ♂ ♂ paratypes); Kabwekanono (1.815 m) (2 ♀ ♀ paratypes); Kalumengongo (1.830 m), right tributary of Lualaba River (1 ♀ paratype). Belgian Congo — Katanga : Kundelungu (1.880 m) (tributary of the Lualaba — Bassin L. Moero), leg. N. LELEUP (1 ♂ paratype, Musée royal du Congo Belge). Types, P.N.U., in Institut des Parcs Nationaux du Congo Belge.

This species is very near *C. draco* WATERHOUSE, from which it is easily distinguished by the following characters :

♂ 1. In *draco* the cephalis horn is very long and has posteriorly, at the apical part, two rows of tubercles; in *dracunculus* the cephalic horn is smaller, is not tuberculated hindly at apical part and it has, laterally, at base, a median carina;

2. In *draco*, the lateral teeth of the pronotum are mixed with the lateral carina which is dentate behind the big teeth, which have the inner surface slightly concave and are much bigger and the lateral outer borders of the carina are parallel; in *dracunculus*, the lateral teeth of the pronotum are not mixed with the lateral carina; the latter is not dentate behind; the outer border is oblique;

3. In *draco*, the process of the pronotum are 3-dentate; in *dracunculus* they are 2-tuberculate;

4. In *draco*, the process of the pronotum are produced posteriorly and laterally on the disc, into parallel carinae; in *dracunculus*, the process of the pronotum are not produced laterally into carinae.

♀ 1. In *draco*, the cephalic horn is produced behind into two divergent lines; the anterior surface is inclined and carinate; in *dracunculus*, the cephalic horn has an apical concavity limited outwardly by two small tubercles;

2. In *draco*, the median anterior process of the pronotum is 3-tuberculate; in *dracunculus*, it is carinate and slightly produced at middle;

3. In *draco*, there are two lateral longitudinal and parallel carinae; in *dracunculus*, there is only a single lateral longitudinal carina near the lateral fovea, and an anterior and lateral small tubercle.

15. — **Copris elphenor** KLUG.

Copris elphenor KLUG, 1855, Monatsb. Berlin Akad., 655; 1862, Peters' Reise : 241, t. 13, f. 8, 9. — BOHEMAN, 1857, Ins. Caffr., 2 : 227. — PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., 12 : 345, 357, t. 33, f. 15, 19. — GILLET, 1911, Col. Cat., JUNK, 38 : 73.

Copris laticornis BOHEMAN, 1857, Ins. Caffr., 2 : 226. — GILLET, 1909, Deutsche Ent. Zeitschr., 298, 300.

P.N.U. : Mabwe (585 m); Kaswabilenga (700 m); Kateke (960 m), right tributary of the Lufira River; Lusinga (1.760 m), tributary of the Kamitungulu River; Mukana (1.810 m); Kabwekanono (1.815 m).

Number of specimens : 84 ♂♂ major, 40 ♂♂ minor, 104 ♀♀.

Geographical distribution. — Mozambique; Belgian Congo; Somalia; Transvaal; Southern Rhodesia; Bechuanaland (Kalahari); Cape Province; Natal; Orange Free State; South West Africa; Northern Rhodesia.

16. — **Copris insidiosus** PÉRINGUEY.

Copris insidiosus PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., 12 : 346, 366. — GILLET, 1911, Col. Cat., JUNK, 38 : 75.

P.N.U. : Mabwe (585 m) (r. E. lac Upemba); Kaswabilenga (700 m); Kanonga (700 m); Lusinga (760 m); Kateke, tributary of the Lufira River (960 m); Kankunda (1.300 m); Luanana (1.400-1.600 m) close the intersection of the tracks Pelenge-Lufira; Lufwa River (1.700 m), tributary of the Lusinga; Dipidi (1.700 m), origin of the Lusinga River; Buye-Bala (1.750 m), left tributary of the Muye River; Kamitunu (1.800 m), tributary of the Lusinga River; Mukana (1.870 m); Kalumengongo (1.830 m), origin of the right tributary of the Lualaba.

Number of specimens : 92 ♂♂, 72 ♀♀.

Geographical distribution. — Belgian Congo; Southern Rhodesia.

17. — **Copris integer** REICHE.

Copris integer REICHE, 1847 (1850), in FERRET et GALINIER, Voy. Abyss., 3 : 312, t. 19, f. 2. — GILLET, 1907, Ann. Soc. Ent. Belg., 51 : 180; 1909, Deutsche Ent. Zeitschr. : 299, 300; 1911, Col. Cat., JUNK, 38 : 75.

Copris pronus GERSTAECKER, 1884, Jahrb. wiss Anstalt. Hamburgs, 1 : 50. — KOLBE, 1897, Käfer D. O. Afr. : 144. — GILLET, 1908, Ann. Soc. Ent. Belg., 52 : 59, note.

Copris troglodytarum ROTH, 1851, Arch. Naturg., 17 (4) : 124. — HAROLD, 1869, Col. Hefte, 5 : 61.

P.N.U. : Mabwe (585 m); Kaswabilenga (700 m); Kateke (960 m), tributary of the Lusinga; Dipidi (1.700 m); Lusinga (1.760 m); Mukana (1.810 m).

Number of specimens : 3 ♂♂ minor, 3 ♀♀.

Geographical distribution. — Abissinia; Tanganyika; Belgian Congo; Angola; Mozambique.

18. — **Copris mesacanthus** HAROLD.

Copris mesacanthus HAROLD, 1878, Mitth. Munch. Ent. Ver., **2** : 45. — PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 345, 362, t. 33, f. 7. — GILLET, 1911, Col. Cat., JUNK, **38** : 76.

P.N.U. : Kaswabilenga (700 m); Kanonga (700 m); Gorges de la Pelenge (1.150 m); Kankunda (1.300 m); Dipwa River (1.300 m); Mubale (1.480 m); Lusinga (1.760 m); Mukana (1.810 m).

Number of specimens : 3 ♂♂, 10 ♀♀.

Geographical distribution. — Belgian Congo; Southern Rhodesia; Transvaal; Natal; Cape Province.

19. — **Copris misellus** PÉRINGUEY.

Copris misellus PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 344, 349. — GILLET, 1911, Col. Cat., JUNK, **38** : 76.

P.N.U. : Mabwe (585 m); Kaswabilenga (700 m); Kateke (950 m), tributary of the Lufira River; Ngozie (1.600 m); Kafwi River (1.700 m); Dipidi River (1.700 m); Buye-Bala (1.750 m); Lusinga (1.760 m); Kapelwa River (1.780 m); Mitwaba (1.810); Kabwekanono (1.815 m); Kalumengongo (1.830 m), right tributary of the Lualaba River.

Number of specimens : 83 ♂♂, 47 ♀♀.

Geographical distribution. — Belgian Congo; Southern Rhodesia; Transvaal; Natal; Mozambique; South West Africa.

Genus **CATHARSIUS** HOPE.

Catharsius HOPE, 1837, Coleopt. Manual, **1** : 21. — BURMEISTER, 1846, Gen. Ins., Heft. **10**, Col. nr. 27. — LACORDAIRE, 1856, Gen. Col., **3** : 98. — PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 109, 323. — GILLET, 1911, Col. Cat., JUNK, **38** : 67; 1921, Faune Entom. Indoch. Fr., **4**, Scarab. : 7. — ARROW, 1931, Fauna Brit. India, Col. Lam., **3**, Copr. : 32. — BALTHASAR, 1935, Best. Tab. europ. Col., 115, Copr., **1** : 62. — PAULIAN, 1939, Rev. Fr. Ent., **6** : 13. — A. JANSSENS, 1939, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (29) : 44.

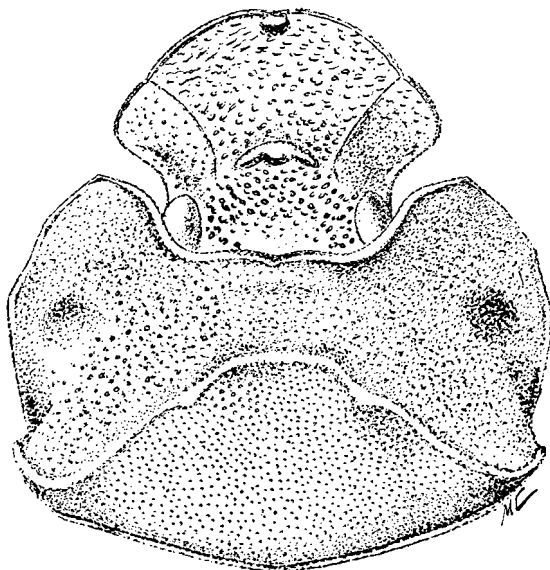
Metacatharsius PAULIAN, 1939, Rev. Fr. Ent., **6** : 13.

20. — **Catharsius duciformis** n. sp.

(Fig. 5)

Black and dull. Pubescence reddish brown.

Male : Head semicircular, with the genae projecting beyond the lateral part of the clypeus; epistoma transversely wrinkled and having a median strong and short tooth near the clypeus; frons having a strong and semi-circular carina, which is tri-lobed posteriorly; genae covered with distinct,

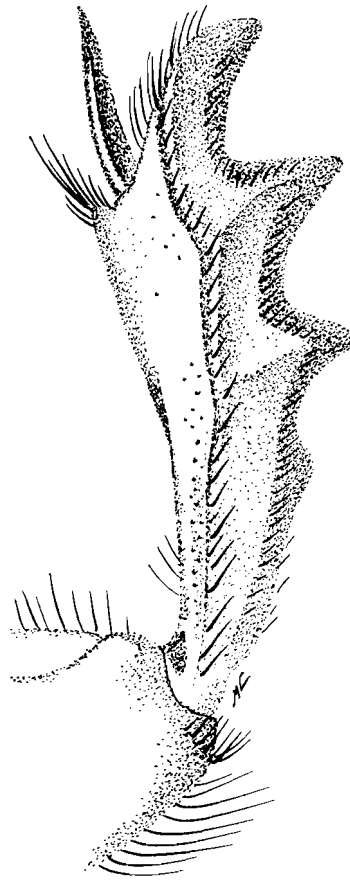


5

Catharsius duciformis n. sp.

FIG. 5 : Head and pronotum (♂).

small granules; genal sutures strong; the lower margin of the clypeus is smooth and in the centre there is a salience; the remaining surface punctate and pubescent. Antennae reddish brown. Submentum with a big median fovea; laterally punctate and pubescent. Pronotum abruptly truncate in front, the truncate part declivous and edged by a transverse carina slightly emarginate on each side and ending in a lateral round angle which is in a line with a lateral impression which is not very deep; anterior angles obtuse; anterior margin distinctly emarginate in the centre; the whole surface covered with very closely set granules. Prosternal episternum heavily very



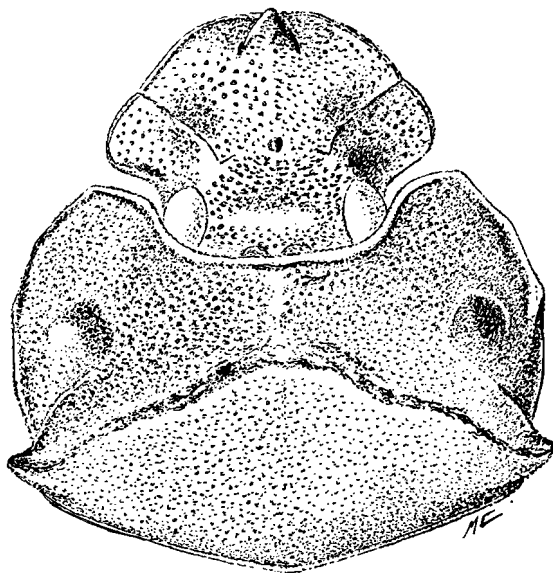
6

Catharsius dux HAROLD.

FIG. 6 : Anterior tibia (dorsal).

punctate and hairy. Elytra as broad as the prothorax at base, convex; dull and shagreened with the base carinate; slightly striated; the striae not punctate; the eight striae very sharply carinate, extends from the base to the thirds of its length. Mesosternum very closely punctate and hairy. Metasternum ending anteriorly in a « Δ », marginate; punctate and hairy; the two thirds of the median part smooth and longitudinally grooved at middle punctate behind and with a small salience on each side; laterally densely punctate and hairy. Epimeron closely punctate and hairy. 1st abdominal sternite entirely punctate and hairy; the punctation of the other sternites is

less close, especially in the centre which is smooth. Pygidium marginate and finely punctate, the punctation being stronger laterally. Legs : Procoxae with the angulose part punctate and hairy. Anterior tibiae with 4 teeth outwardly, the 1st one very small; spur of the anterior tibiae sharp, long and carinate dorsally. Intermediate femora very wide and strong, with



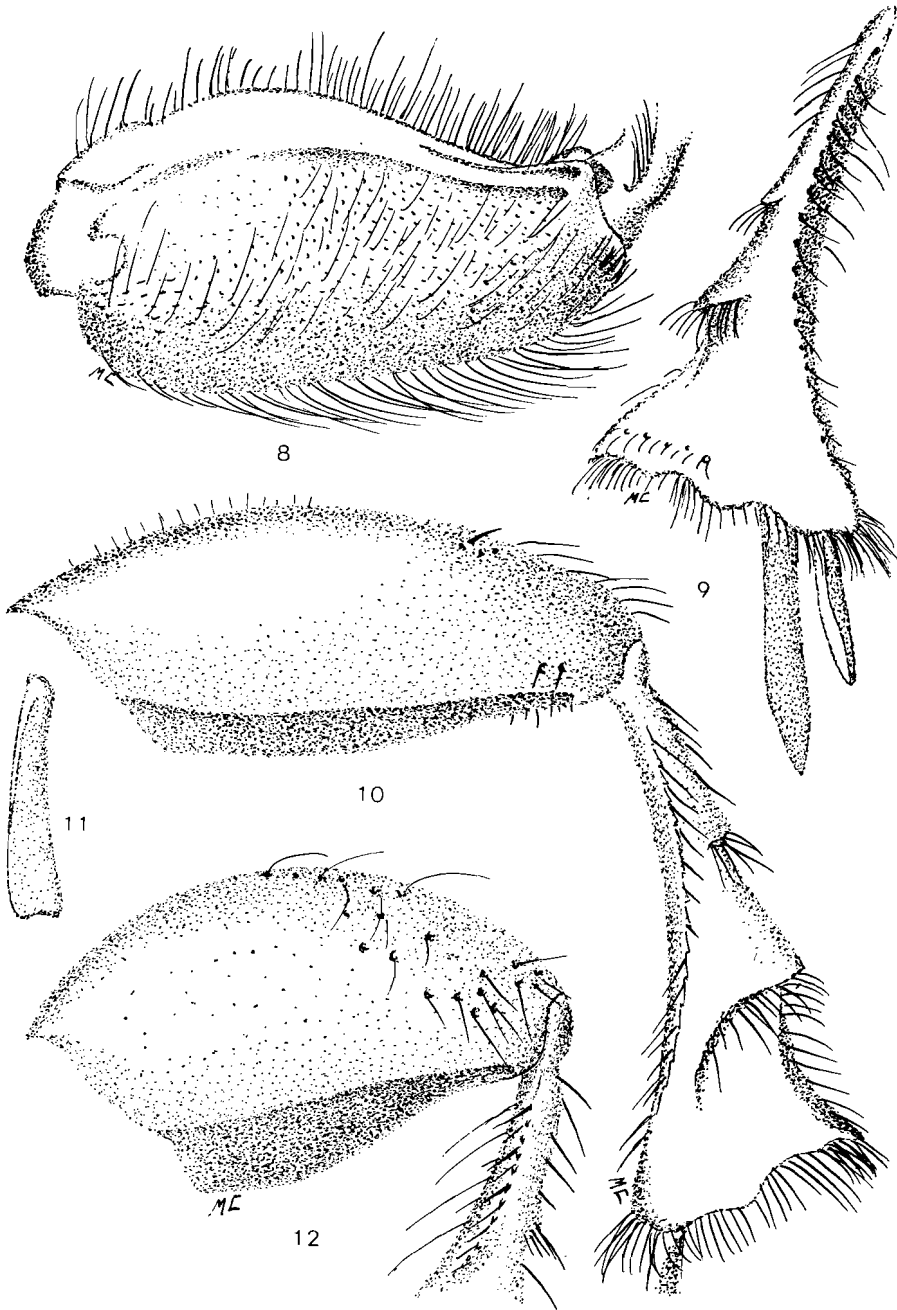
7

Catharsius dux HAROLD.

FIG. 7 : Head and pronotum (♂).

strong punctations at apex. Hind femora wide and strong, with some strong punctations at anterior margin and at apex. Intermediate and hind tibiae as in *C. dux* HAROLD. Intermediate and hind tarsi as in *C. dux* HAROLD. Length 33-40 mm.

Female : The shape of the head is similar to that of the male, but it has a strong transverse and angulose carina in front a little elevated in the middle. The pronotum is also declivous anteriorly, and the declivity is bounded by a carina; the carina is placed more forward than in the male, occupies the median part of the disk and is in a line with the lateral impression. The sculpture is similar to that of the male.



Catharsius dux HAROLD.

FIG. 8 : Anterior femur (ventral). — FIG. 9 : Intermediate tibia (ventral). — FIG. 10 : Hind leg (ventral). — FIG. 11 : Hind spur. — FIG. 12 : Intermediate tibia (ventral).

Belgian Congo (P.N.U.) : Kaziba (1.140 m) (holotype ♂, alotype ♀, 7 paratypes, Institut des Parcs Nationaux du Congo Belge); Gorges de la Pelenge (1.150 m) (paratype ♀, Institut des Parcs Nationaux du Congo Belge); Mubale (1.480 m) (paratype ♀, Institut des Parcs Nationaux du Congo Belge); Munoi to Lupiala (890 m) (paratype ♀, Institut des Parcs Nationaux du Congo Belge).

C. duciformis is very near *C. dux* HAROLD (figs. 6-13). It is distinguished by the following characteristics.



13

Catharsius dux HAROLD.

FIG. 13 : Aedeagus.

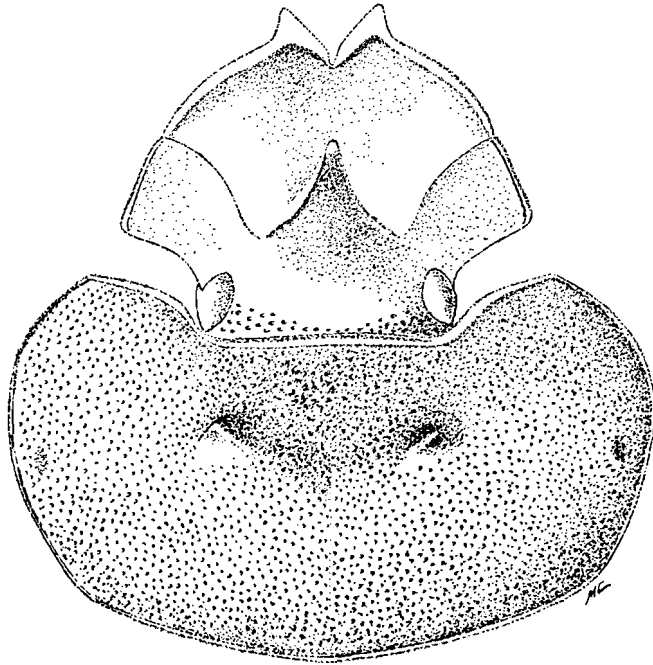
Male : 1. In *dux* the head has a triangular tooth on the epistoma, near the clypeus, and a small frontal tubercle; in *duciformis* the head has a vestigial tubercle, sometimes not visible in the ♂♂ minor, near the clypeus, and the frons is strongly carinate in the shape of a « Λ ».

2. In *dux* the transverse carina of the declivous part of the pronotum is crenulate laterally; the lateral border of the pronotum is elevated at middle; in *duciformis*, the transverse carina of the declivous part of the pronotum is not crenulate, the lateral border of the pronotum is not elevated at middle.

3. In *dux*, the striae of the elytra are punctate; in *duciformis*, the striae of the elytra are not punctate.

Female : 1. In *dux*, the striae of the elytra are punctate; in *duciformis*, the striae of the elytra are not punctate.

2. In *dux*, the frontal carina is sharp and in the centre has a strong tubercle; in *duciformis*, the frontal carina is angulose in the centre.



14

Catharsius eteocles CASTELNAU.

FIG. 14 : Head and pronotum.

21. — **Catharsius eteocles** CASTELNAU.

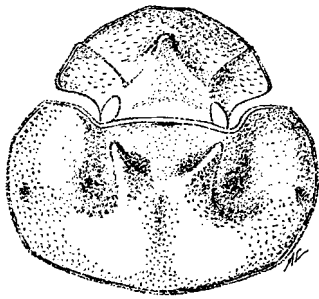
(Fig. 14)

Catharsius eteocles CASTELNAU, 1840, Hist. Nat. Col., 2 : 78. — GILLET, 1911, Col. Cat., JUNK, 38 : 68.

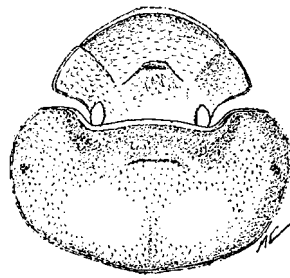
P.N.U. : Kabwekanono (1.815 m); Kankunda (1.300 m).

Number of specimens : 1 ♂, 1 ♀.

Geographical distribution. — Senegal; Portuguese Guinea; Belgian Congo.



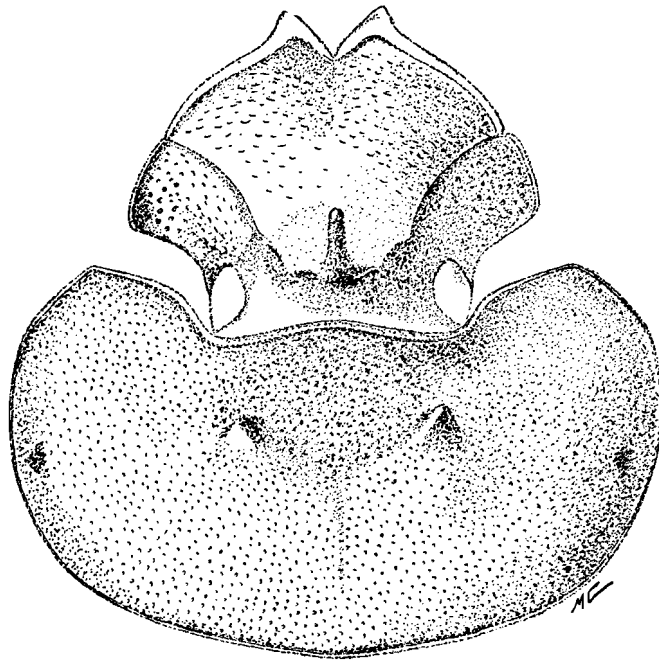
15



16

Catharsius neptunus KOLBE.

FIG. 15 : Head and pronotum (♂). — FIG. 16 : Head and pronotum (♀).



17

Catharsius pandion HAROLD.

FIG. 17 : Head and pronotum (♂).

22. — **Catharsius neptunus** KOLBE.

(Figs. 15-16)

Catharsius neptunus KOLBE, 1893, Sitz. Ber. Ges. naturf. Fr. Berlin : 140; 1897, Käfer D. O. Afr. : 142, pl. 1, f. 11; 1914, Wiss. erg. Deuts. Zentr. Afr. Exped., 1907-1908, 5 (3) Scarab. : 314. — A. JANSSENS, 1939, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (29) : 45, pl. 1, f. 2, 3.

P.N.U.; reg. de Gabiro (Ruanda).

Number of specimens : 1 ♂, 1 ♀.

Geographical distribution. — Belgian Congo; Equatorial Africa.

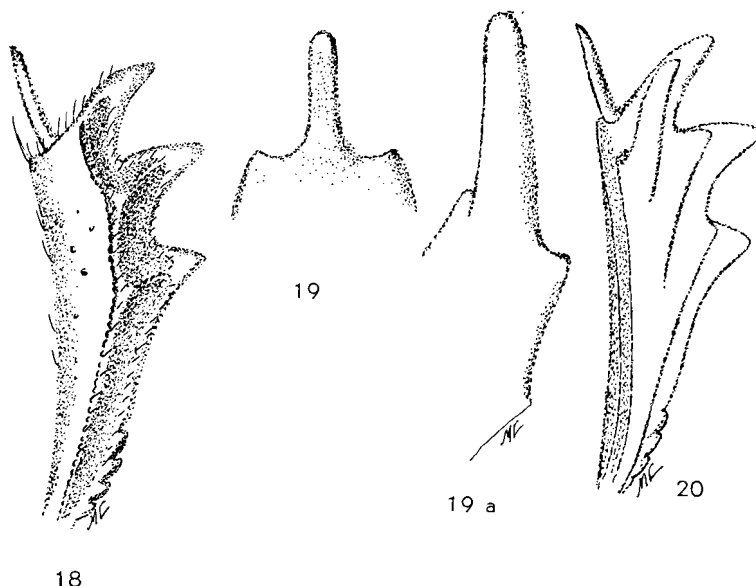
*Catharsius pandion* HAROLD.

FIG. 18 : Anterior tibia (dorsal). — FIGS. 19-19 a : Frontal horn.
FIG. 20 : Anterior tibia (ventral).

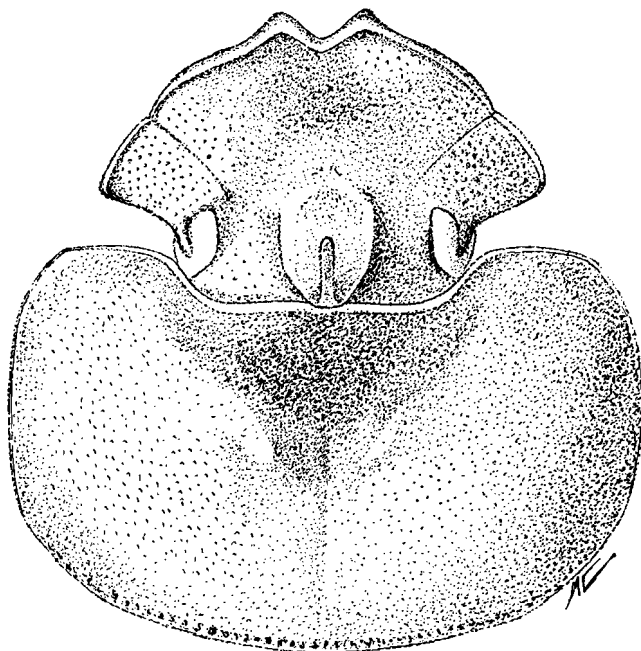
23. — **Catharsius pandion** HAROLD.

(Figs. 17-20.)

Catharsius pandion HAROLD, 1877, Mitth. Munch. Entom. Ver., 1 : 97. — GILLET, 1911, Col. Cat., JUNK, 38 : 69.

P.N.U. : Kaswabilenga (700 m); Kateke (950 m), tributary of the Lufira River; Kankunda (1.300 m).

Geographical distribution. — Belgian Congo; South Africa.



21

Catharsius peleus OLIVIER.

FIG. 21 : Head and pronotum (♂).

24. — **Catharsius peleus** OLIVIER.

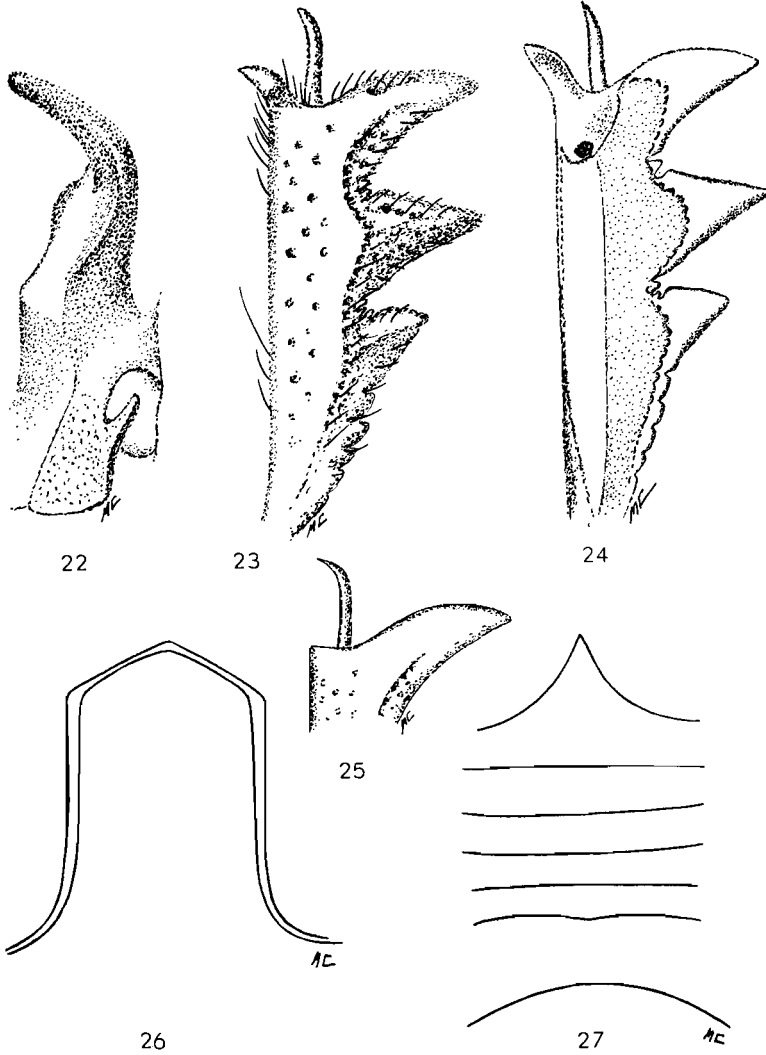
(Figs. 21-27)

Catharsius peleus OLIVIER, 1789, Entom., **1** Scarab. : 186, t. 28, f. 249; 1790, Encycl. méth., **5** : 167. — HAROLD, 1878, Mitth. Munch. Entom. Ver., **2** : 42. — GILLET, 1911, Col. Cat., JUNK, **38** : 69.

P.N.U. : Mabwe (585 m).

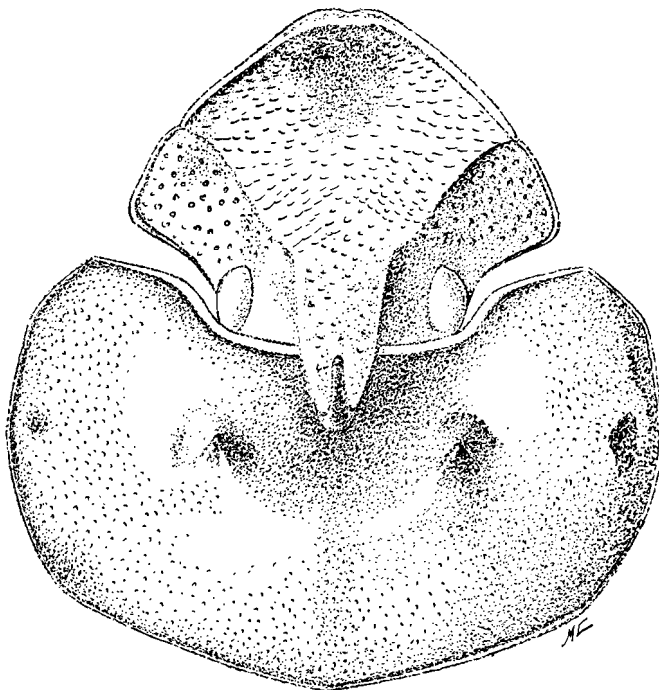
Number of specimens : 1 ♂, 1 ♀.

Geographical distribution. — Senegal (Dakar); Belgian Congo.



Catharsius peleus OLIVIER.

FIG. 22: Frontal horn (♂). — FIG. 23: Anterior tibia (dorsal).
 FIG. 24: Anterior tibia (ventral) (♂). — FIG. 25: Anterior tibia (dorsal) (♀).
 FIG. 26: Metasternum. — FIG. 27: Abdominal sternites.



28

Catharsius phidias OLIVIER.

FIG. 28 : Head and pronotum (♂).

25. — **Catharsius phidias** OLIVIER.

(Fig. 28)

Catharsius phidias OLIVIER, 1789, Entom., **1** Scarab. : 106, t. 17, f. 153. — CASTELNAU, 1840, Hist. Nat. Col., **2** : 77. — GILLET, 1911, Col. Cat., JUNK, **38** : 69.

P.N.U. : Mabwe (585 m); Kanonga (700 m); Kilwezi (730 m); Kankunda (1.300 m); Katanga; Kimiala Sampwe (1.500 m) (Kundelungu); Kenia (1.585 m), right tributary of the Lusinga River; Ngozie (1.600 m), road to Mitwaba; Dipidi (1.700 m), origin of the Lusinga River; Kafwi (1.700 m), right tributary of the Lufwa River; Katongo (1.750 m), tributary of the Mubale River; Buye-Bala (1.750 m), left tributary of the Muye River; Lusinga (1.760 m), tributary of the Kamitungulu River; Kapelwa (1.780 m), left tributary of the Grande-Katwe River; Mukana (1.810 m); Kabwekanono (1.815 m); Kalumengongo (1.830 m), origin of the right tributary of the Lualaba River.

Number of specimens : 94 ♂♂, 97 ♀♀.

Geographical distribution. — Belgian Congo; Senegal.

26. — **Catharsius platynotus** FELSCHE.

Catharsius platynotus FELSCHE, 1907, Deutsche Ent. Zeitschr. : 281. — GILLET, 1911, Col. Cat., JUNK, **38** : 70.

P.N.U. : Mabwe (585 m); Kaswabilenga (700 m); Kaswabilenga-Mabwe (750 m); Mukana (1.810 m).

Geographical distribution. — Kameroun; Belgian Congo.

27. — **Catharsius satyrus** KOLBE.

Catharsius satyrus KOLBE, 1893, Sitz. Ber. Ges. naturf. Fr. Berlin : 137. — GILLET, 1911, Col. Cat. JUNK, **38** : 70.

P.N.U. : Gorges de la Pelenge (1.150 m); Kabwe-sur-Muye (1.320 m); Mubale (1.480 m); Kabwe River (1.700 m), tributary of the Lusinga River.

Geographical distribution. — Tanganyika; Belgian Congo; Angola.

28. — **Catharsius sesostris** WATERHOUSE.

Catharsius sesostris WATERHOUSE, 1888, Proc. Zool. Soc. Lond. : 86. — BALTHASAR, 1935, Best. Tab. europ. Col. : 115, Scarab. (1) : 66. — A. JANSSENS, 1939, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (29) : 44, pl. 1, f. 7, 8.

Copris pithecius OLIVIER (non FABRICIUS), 1789, Entom., **1**, Scarab. : 117, pl. 9, f. 73; 1790, Encycl. méth., **5** : 159. — CASTELNAU, 1840, Hist. Nat. Col., **2** : 78.

Catharsius pylades PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 325, 332, pl. 33, f. 25; pl. 39, f. 38; 1908, Trans. S. Afr. Phil. Soc. : 629. — GILLET, 1907, Ann. Mus. Civ. Genova, **3** (3) : 597.

P.N.U. : Kaswabilenga (700 m); Kateke (950 m), tributary of the Lufira River; Kankunda (1.300 m); Lusinga (1.760 m); Mukana (1.810 m).

Number of specimens : 49 ♂♂, 14 ♀♀.

Geographical distribution. — Belgian Congo; French Guinea; Southern Rhodesia; Natal; Nigeria; Tanganyika; Mozambique.

29. — **Catharsius tricornutus** DEGEER.

(Fig. 29.)

Catharsius tricornutus DEGEER, 1778, Mém. Ins., **7** : 637, t. 47, f. 16. — KOLBE, 1893, Sitz. Ber. Ges. naturf. Fr. Berlin : 139. — PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 325, 333, t. 33, f. 13. — GILLET, 1911, Col. Cat., JUNK, **38** : 71.

Catharsius areolatus BOHEMAN, 1857, Ins. Caffr., **2** : 222.

Catharsius nemestrinus FABRICIUS, 1781, Spec. Ins., 22. — HERBST, 1789, Käfer, **2** : 6, t. 7, f. 6. — BOHEMAN, 1859, Ins. Caffr., **2** : 220.

P.N.U. : Mabwe (585 m).

Number of specimens : 28 ♂♂, 19 ♀♀.

Geographical distribution. — Mozambique; Belgian Congo; Transvaal; Southern Rhodesia; Cape Province.

Genus **PSEUDOPEDARIA** FELSCHÉ.

Pseudopedaria FELSCHÉ, 1904, Arkiv. Zool., **1** : 400. — GILLET, 1911, Col. Cat., JUNK, **38** : 79. — A. JANSSENS, 1939, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (29) : 39.

30. — **Pseudopedaria tubericollis** (FELSCHÉ).

Copris tubericollis FELSCHÉ, 1910, Deutsche Ent. Zeitschr. : 349.

Pseudopedaria tubericollis A. JANSSENS, 1939, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (29) : 40, pl. 1, f. 6.

Pseudopedaria gilleti ARROW, 1933, Ann. Mag. Nat. Hist., **12** (10) : 424.

P.N.U. : Buye-Bala (750 m); Dipidi (1.700 m), rég. Lusinga; Katongo (1.750 m), tributary of the Mubale River; Mukelengia (1.750 m), tributary of the Kalumengongo River; Lusinga (1.760 m), tributary of the Kamitungulu River; Kapelwa (1.780 m), left tributary of the Grande-Kafwe River; Kamitunu (1.800 m), tributary of the Lusinga River; Mukana (1.810 m); Kalumengongo (1.830 m), head of the right tributary of the Lualaba River.

Number of specimens : 199.

Geographical distribution. — Tanganyika; Northern Rhodesia; Belgian Congo.

Genus **COPTORHINA** HOPE.

Coptorhina HOPE, 1830, Trans. Zool. Soc. Lond., **1** : 95. — CASTELNAU, 1840, Hist. Nat. Col., **2** : 79. — LACORDAIRE, 1857, Gen. Col., **3** : 90. — PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 109, 286. — GILLET, 1911, Col. Cat., JUNK, **38** : 47. — A. JANSSENS, 1939, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (29) : 31. — FERREIRA, 1954, Bol. Soc. Est. Moç., **87** : 1.

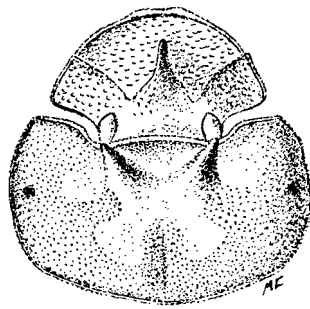
31. — **Coptorhina Davidi** A. JANSSENS.

Coptorhina Davidi A. JANSSENS, 1939, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (29) : 38.

P.N.U. : Dipidi River (1.700 m).

Number of specimens : 1.

Geographical distribution. — Belgian Congo (Ankoro, Kundelungu, Dipidi River); Northern Rhodesia (Mpika); Tanganyika.



29

Catharsius tricornutus DEGEER.

FIG. 29 : Head and pronotum (♂).

Genus **PEDARIA** CASTELNAU.

Pedaria CASTELNAU, 1832, Ann. Soc. Ent. Fr., **1** : 403. — LACORDAIRE, 1856, Gen. Col., **3** : 88, 89. — PÉRINGUEY, 1900 (1901), Trans. S. Afr. Phil. Soc., **12** : 109, 277. — GILLET, 1911, Col. Cat., JUNK, **38** : 45. — BOUCOMONT, 1922, Bull. Mus. Hist. Nat. Paris, **7** : 490. — LEA, 1923, Rec. S. Austr. Mus., **2** : 394. — CARTER, 1936, Proc. Linn. Soc. N. S. Wales, **61** : 101. — BALTHASAR, 1937, Arb. morph. tax. Ent. Berl., **4** : 202. — A. JANSSENS, 1939, Expl. Parc Nat. Albert, Mission G. F. DE WITTE, (29) : 9.

32. — **Pedaria criberrima** WATERHOUSE.

Pedaria criberrima WATERHOUSE, 1890, Ann. Mag. Nat. Hist., **6** (6) : 377. — BOUCOMONT, 1922, Bull. Mus. Hist. Nat. Paris, (7) : 492.

P.N.U. : Kaswabilenga (700 m).

Number of specimens : 2.

Geographical distribution. — Senegamb; Belgian Congo; Dahomey; Côte d'Ivoire; Ghana; Bahr-el-Ghazal; Sudan.

33. — ***Pedaria taylori*** WATERHOUSE var. ***decorsei*** BOUCOMONT.

Pedaria taylori WATERHOUSE, 1890, Ann. Mag. Nat. Hist., **6** (6) : 375.

Pedaria taylori WATERHOUSE var. *decorsei* BOUCOMONT, 1922, Bull. Mus. Hist. Nat. Paris, (7) : 492.

P.N.U. : Kaswabilenga (700 m).

Number of specimens : 115.

Geographical distribution. — Congo; Bahr-el-Ghazal; Northern Rhodesia.

34. — ***Pedaria tuberculigera*** WATERHOUSE.

Pedaria tuberculigera WATERHOUSE, 1890, Ann. Mag. Nat. Hist., **6** (6) : 375.
— BOUCOMONT, 1922, Bull. Mus. Hist. Nat. Paris, (7) : 491.

P.N.U. : Mukana.

Number of specimens : 20.

Geographical distribution. — Senegamb; Senegal; Belgian Congo; Northern Rhodesia.

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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 58 (2)

NATIONAAL UPEMBA PARK
I. ZENDING G. F. DE WITTE
met medewerking van
W. ADAM, A. JANSSENS, L. VAN MEEL
en R. VERHEYEN (1946-1949).
Afllevering 58 (2)

ACHILIDAE (HOMOPTERA FULGOROIDEA)

PAR

HENRI SYNAVE (Bruxelles)

L'étude détaillée de cette famille ayant été traitée dans une publication consacrée aux matériaux récoltés au Parc National Albert, par la Mission G. F. DE WITTE, 1933-1935, les récoltes effectuées au Parc National de l'Upemba, par la même Mission, pendant les années 1946-1949, ont été étudiées conjointement avec les précédentes. Ceci explique pourquoi ci-dessous ne figure qu'une simple liste de captures et que les espèces ou genres nouveaux ont été décrits dans l'étude précédente.

Parmi les 136 exemplaires, 7 genres et 16 espèces différentes ont été reconnus.

Les localités placées entre [] sont situées en dehors des limites du Parc.

I. — Genre **MABIRA** FENNAH.

FENNAH, R. G., 1950, *Bullet. Brit. Mus.*, vol. 1, p. 33.

Mabira karaseki SCHMIDT.

SCHMIDT, E., 1905, *Wien. Ent. Zeit.*, XXIV, H. IX, X, p. 285, *Helicopter*a.

FENNAH, R. G., 1950, *Bullet. Brit. Mus. (Nat. Hist.)*, vol. 1, p. 33, *M. pallida*.

4 ex. : Munoi, bif. Lupiala, 890 m, 1-5.VI.1948; Kaziba, aff. g. Senze, 1.140 m, 15-27.II.1948.

II. — Genre **KAWANDELLA** SYNAVE.

SYNAVE, H., 1959, Explorat. Parc National Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 96, p. 25.

Kawandella pallidomaculata SYNAVE.

SYNAVE, H., 1959, Explorat. Parc National Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 96, p. 27.

3 ex. : (type et paratypes) : Kabwe s. Muye, 1.320 m, 26.IV-5.V.1948; id. 13-14.V.1948; riv. Mubale, 1.480 m, 9.V.1947.

III. — Genre **APHYPIA** MÉLICHAR.

MELICHAR, L., 1908, Cas. Ceske Spol. Ent., 5, p. 6.

Aphygia longipennis MÉLICHAR.

MELICHAR, L., 1908, Cas. Ceske Spol. Ent., 5, p. 7, fig. 3 a-b.

10 ex. : Kaziba, 1.140 m, 17-24.II.1948, 15-27.II.1948; 19.II.1948; 12.II.1948; 8-14.II.1948; 21.II.1948; Ganza, pr. r. Kamandula, aff. dr. Lukoka, 860 m, 20-25.VI.1949; Lusinga, 1.760 m, 23.IV.1949.

IV. — Genre **CNIDUS** STÅL.

STÅL, C., 1866, Hem. Afric., IV, p. 185.

JACOBI, A., 1910, Y. SJÖSTEDT's Swed. Zool. Exp. Kilim.-Meru, Bd. II, abt. 12, p. 105, *Necho*.

1. — **Cnidus naevius** JACOBI.

JACOBI, A., 1910, Y. SJÖSTEDT's Swed. Zool. Exp. Kilim.-Meru, Bd. II, p. 105, pl. I, fig. 14 a-b. *Necho*.

20 ex. : riv. Mubale, 1.480 m, 6.V.1947; Kabwe s. Muye, 1.320 m, 13-14.V.1948; Munoi, bif. Lupiala aff. dr. Lufira, 890 m, 15-21.VI.1948; riv. Munte, 1.480 m, 16.V.1947.

2. — **Cnidus striatifrons** SYNAVE.

SYNAVE, H., 1959, Explorat. Parc National Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 96, p. 44.

2 ex. (paratypes) : Kaziba, 1.140 m, 24.II.1948; Ganza, 860 m, 12-18.VI.1949.

V. — Genre **LEPTARCIELLA** FENNAH.

FENNAH, R. G., 1958, *Bullet. I.F.A.N.*, t. XX, A, 2, p. 505.

1. — **Leptarciella kanongensis** SYNAVE.

SYNAVE, H., 1959, *Explorat. Parc National Albert*, Miss. G. F. DE WITTE, 1933-1935, fasc. 96, p. 51.

20 ex. (paratypes) : Kanonga, 675 m, 17-22.II.1949; Kaswabilenga, 700 m, 21.XI.1947; Lusinga, 1.760 m, 9-18.IV.1949; 16.IV.1947; riv. Munte, 1.480 m, 16.V.1947; Kabwe s. Muye, 1.320 m, 16-25.V.1948; 6-14.V.1948; Kilwezi, 750 m, 16-21.VIII.1948; [riv. Dipidi, 1.700 m, 22.IV.1947]; Munoi, bif. Lupiala, 890 m, 1-5.VI.1948; riv. Mubale, 1.480 m, 14-V.1947; Mukana-Lusinga, 1.510 m, 19.IV.1949; Mabwe, lac Upemba, 585 m, 21-28.VIII.1947.

2. — **Leptarciella bifida** SYNAVE.

SYNAVE, H., 1959, *Explorat. Parc National Albert*, Miss. G. F. DE WITTE, 1933-1935, fasc. 96, p. 52.

15 ex. (paratypes) : Kabwe s. Muye, aff. dr. Lufira, 1.320 m, 26.IV-5.V.1948; 6-14.V.1948; Kamitungulu, 1.700 m, 16.IV.1947; riv. Mubale, 1.480 m, 10.V.1947; 9.V.1947; Lusinga, 1.760 m, 1-8.XII.1947; 12-17.XII.1947; riv. Munte, 1.480 m, 16.V.1947; rég. confl. Mubale Munte, 480 m, 1-6.V.1947.

VI. — Genre **MLANJELLA** FENNAH.

FENNAH, R. G., 1950, *Bullet. Brit. Mus.*, vol. 1, I, p. 117.

1. — **Mlanjella binotata** SYNAVE.

SYNAVE, H., 1959, *Explorat. Parc National Albert*, Miss. G. F. DE WITTE, 1933-1935, fasc. 96, p. 59.

1 ex. (type) : Kankunda, aff. g. Lupiala, 1.300 m, 22-28.XI.1947.

2. — **Mlanjella** sp. apud **binotata** SYNAVE.

2 ex. : Kaziba, aff. g. Senze, s. aff. dr. Lufira, 1.140 m, 8-14.II.1948.

3. — **Mlanjella similis** SYNAVE.

SYNAVE, H., 1959, *Explorat. Parc National Albert*, Miss. G. F. DE WITTE, 1933-1935, fasc. 96, p. 61.

1 ex. (type) : Kaziba, 1.140 m, 19.II.1948.

4. — **Mlanjella bivittata** SYNAVE.

SYNAVE, H., 1959, Explorat. Parc National Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 96, p. 62.

3 ex. (type et paratypes) : riv. Mubale, 1.480 m, 10.V.1947; Kabwe s. Muye, 1.320 m, 16-25.V.1948; 13-14.V.1948.

VII. — Genre **BALLOMARIUS** JACOBI.

JACOBI, A., 1941, Zool. Jahrb., Bd. 74, H. 4, p. 294.

1. — **Ballomarius kawandanus** FENNAH.

FENNAH, R. G., 1955, Ann. Mus. Roy. Congo Belge, in-8°, vol. 40, 2, p. 437, fig. 8 A-F.

7 ex. : Kabwe s. Muye, 1.320 m, 26.IV-5.V.1948; 13-14.V.1948; riv. Mubale, 1.480 m, 10.V.1947; Lusinga, 1.760 m, 9-18.IV.1949; riv. Bowa, aff. dr. Kalule Nord, près Kiamalwa, 3.III.1949.

2. — **Ballomarius kabashensis** SYNAVE.

SYNAVE, H., 1959, Explorat. Parc National Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 96, p. 77.

31 ex. (paratypes) : riv. Munte, 1.480 m, 22.IV.1947; 16.V.1947; riv. Mubale, 1.480 m, 10.V.1947; Mukana, 1.810 m, 22-23.IV.1949; riv. Lufwa, 1.700 m, 16.I.1948; gorges de la Pelenge, 1.150 m, 10-14.VI.1947; Lusinga, 1.760 m, 23.IV.1949; rég. confl. Mubale-Munte, 1.480 m, 13-18.V.1947; Mukana-Lusinga, 1.810 m, 15-19.I.1948; Kabwe s. Muye, aff. dr. Lufira, 1.320 m, 6-12.V.1948.

3. — **Ballomarius kivuensis** SYNAVE.

SYNAVE, H., 1959, Explorat. Parc National Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 96, p. 81.

1 ex. (paratype) : Mabwe, lac Upemba, 585 m, 1-12.VIII.1947.

4. — **Ballomarius guttatus** FENNAH.

FENNAH, R. G., 1955, Ann. Mus. Congo Belge, in-8°, Zool., 40, p. 438, fig. 9 a-f.

10 ex. : Kabwe s. Muye, 1.320 m, 6-12.V.1948; 26.IV-5.V.1948; Kaziba, aff. g. Senze, aff. dr. Lufira, 1.140 m, 8-14.II.1948; 24.II.1948; 11-15.II.1948; 19.II.1948; Lusinga, 1.760 m, 15.III.1947.

5. — **Ballomarius munoiensis** SYNAVE.

SYNAVE, H., 1959, Explorat. Parc National Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 96, p. 84.

6 ex. (type et paratypes) : Munoi, bif. Lupiala, 890 m, 6-15.VI.1948; même localité; 1-5.VI.1948; Kaziba, 1.140 m, 19.II.1948; Ganza, pr. riv. Kamandula, aff. dr. Lukoka, 860 m, 4-6.VII.1949; Kanonga, aff. dr. Fungwe, 700 m.

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