

INSTITUT DES PARCS NATIONAUX  
DU CONGO BELGE

INSTITUUT DER NATIONALE PARKEN  
VAN BELGISCH CONGO

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# Exploration du Parc National Albert

MISSION G. F. DE WITTE (1933-1935)

FASCICULE 91

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# Exploratie van het Nationaal Albert Park

ZENDING G. F. DE WITTE (1933-1935)

AFLEVERING 91

- |                         |                                |
|-------------------------|--------------------------------|
| 1. <b>PYGOSTENINAE,</b> | by DAVID H. KISTNER (Chicago). |
| 2. <b>MELOIDAE,</b>     | von ZOLTÁN KASZAB (Budapest).  |
| 3. <b>CULICIDAE,</b>    | par JOSEPH WOLFS (Bruxelles).  |



BRUXELLES  
1958

BRUSSEL  
1958

# REVISION OF THE PYGOSTENINAE (COLEOPTERA POLYPHAGA)

Fam. STAPHYLINIDAE

BY

DAVID H. KISTNER (Chicago)

In 1950, Dr. MALCOLM CAMERON reported on the *Pygosteninae* of the Albert National Park in a paper which included all of the *Staphylinidae* from this region. In the course of a study of the evolution of the *Pygosteninae*, many facts have been uncovered that make necessary the revision of the entire subfamily, which shall be done at a later time. It is therefore the purpose of this paper of reclassify the material reported by Dr. CAMERON in 1950. To this end, all species known primarily from Albert National Park will be described and illustrated in detail, while species known primarily from other areas will only be cited (1).

It will be noted that the genus *Typhloponemys* REY (Rev. d'Ent., 5, p. 253) has been taken out of synonymy with *Pygostenus* KRAATZ. This was necessary because of the great number of morphological modifications in *Pygostenus* KRAATZ (s. st.). The two genera can be distinguished from each other as follows :

Pronotum large, more than 3 times the length of the head; antennae short, equal to the width of the head; anterior coxae greatly expanded and inflated, so as to cover the entire prothoracic leg in repose .....

*Pygostenus* KRAATZ.

Pronotum smaller, never more than 2 times the length of the head; antennae always longer than the width of the head, anterior coxae only feebly expanded and inflated, never enough to cover the entire leg in repose .....

*Typhloponemys* REY.

(1) All the localities between [ ] are outside of the Park's boundaries



In the revision under preparation these differences and others between the various genera will be more fully documented and keys for the identification of all species will be included.

The author wishes to thank Dr. ALFRED E. EMERSON, University of Chicago, and Dr. CHARLES H. SEEVERS, Roosevelt University, for helpful suggestions incorporated into this paper. Thanks are also given to Mr. J. BALFOUR-BROWNE, British Museum (Natural History), London (B.M.N.H.); Mr. P. BASILEWSKY, Musée Royal du Congo Belge, Tervuren (M.R.C.B.); Mr. GASTON FAGEL, Institut des Parcs Nationaux du Congo Belge, Brussels (I.P.N.C.B.); and Mr. RUPERT L. WENZEL, Chicago Natural History Museum, Chicago (C.N.H.M.); for the loan of specimens included in this study. The letters in parentheses will be used hereinafter to designate the institution where specimens cited are deposited. Specimens retained in the collection of the author are designated (D.K.). Partial financial aid has been given by the Dr. WALLACE C. and CLARA A. ABBOTT Memorial Fund of the University of Chicago.

#### **Typhloponemys wittei** CAMERON.

(Figs. 2, 3, 4, 9.)

*Pygostenus wittei* CAMERON, Explor. Parc Nat. Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 59, 1950, p. 44 (in part).

*Pygostenus schoutedeni* CAMERON, loc. cit. (in part) (nec BERNHAUER).

*Pygostenus fauweli* CAMERON, loc. cit. (in part) (nec WASMANN).

Color dark reddish brown; head and elytra slightly darker than the pronotum, appendages, and venter. Sculpture of the dorsal surface of the head, pronotum, and elytra smooth and shiny, with a few extremely fine, sometimes setae bearing, punctures scattered over the surface. Setae when present are extremely fine and yellowish. Head shaped as in figure 2. Eye, viewed from the side, shaped as in figure 3. Macrochaetotaxy of abdominal tergites II-VIII : 8, 8, 8, 6, 6, 4, 0. These chaetae are smaller and thinner than those found on other species of *Typhloponemys*, such as *T. fauweli* (WASMANN). Segments IX and X are highly modified with macrochaetotaxy as follows : IX : dorso-lateral part, 6; median dorso-lateral part, 5; ventro-lateral part, 4; X : 7. Median lobe of the male genitalia shaped as in figure 4. Spermatheca shaped as in figure 9.

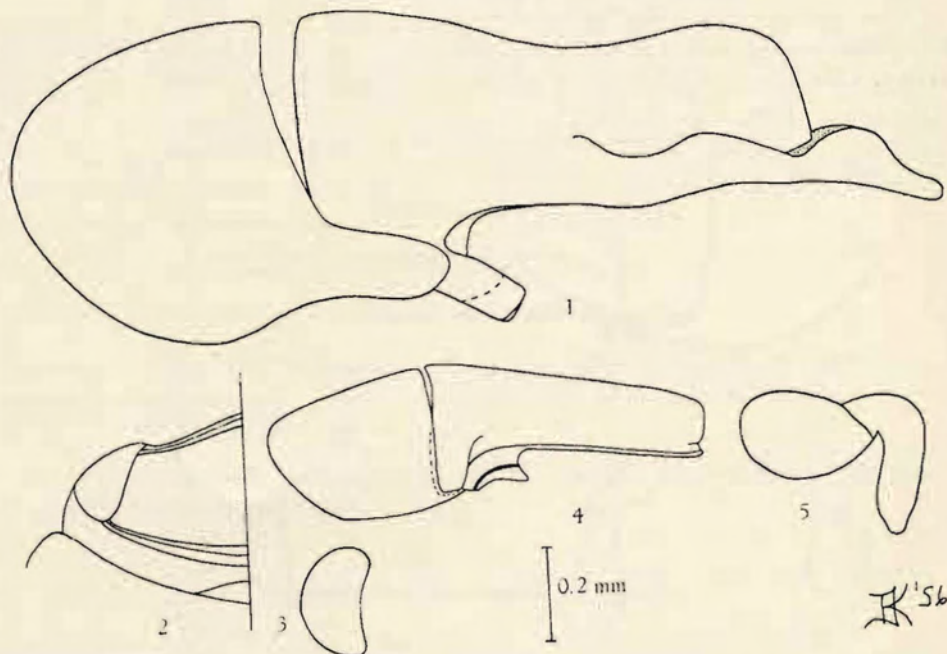
Measurements. — Pronotum length, 0,39-0,72 mm; elytra length, 0,29-0,64 mm; eye length (lateral), 0,16-0,26 mm; gula width (at narrowest constriction), 0,10-0,18 mm; head length, 0,24-0,38 mm; interocular distance, 0,34-0,52 mm. Number measured, 20.

This species can be distinguished from all other species by the shape of the median lobe of the male genitalia, the shape of the spermatheca, the



shape of the eye, and the abdominal macrochaetotaxy. It is most closely related to *Typhloponemys albertensis* n. sp., a description of which follows.

Type material examined : 1 ♀ : No. 1648 : Holotype : Rutshuru, 1.285 m, 6.VI.1935 (I.P.N.C.B.). Paratypes : same locality and altitude : 2 ♂♂, 2 ♀♀ : 3.VII.1935 (I.P.N.C.B., C.N.H.M.); 1 ♂ ; 1 au 6.VI.1935 (I.P.N.C.B.); 1 ♂ : 7.VI.1935 (I.P.N.C.B.); 1 ♂ : 6.VI.1935 (I.P.N.C.B.); 1 ♀ : 16.X.1934



FIGS. 1-5. — 1 : Median lobe of the male genitalia, *Mimocete jageli* n. sp.; 2 : Head, dorsal, *Typhloponemys wittei* CAMERON; 3 : Eye, lateral, *Typhloponemys wittei* CAMERON; 4 : Median lobe of the male genitalia, *Typhloponemys wittei* CAMERON; 5 : Spermatheca, *Mimocete jageli* n. sp.

(I.P.N.C.B.); 1 ♀ : Kivu : Rutshuru (riv. Rutshuru), 1.000 m, 3.VII.1935 (I.P.N.C.B.); 1 ♂ : Kivu : Kalondo (lac Ndalaga, Mokoto), 1.750 m, 22 au 27.III.1934 (I.P.N.C.B.).

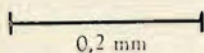
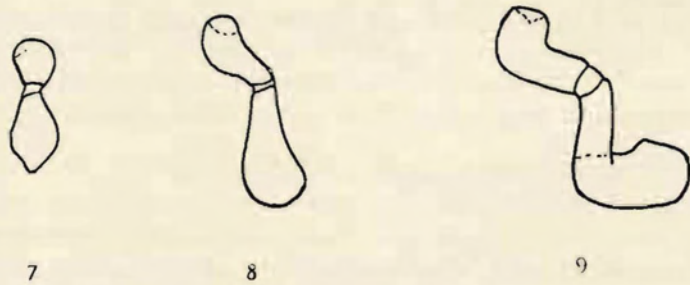
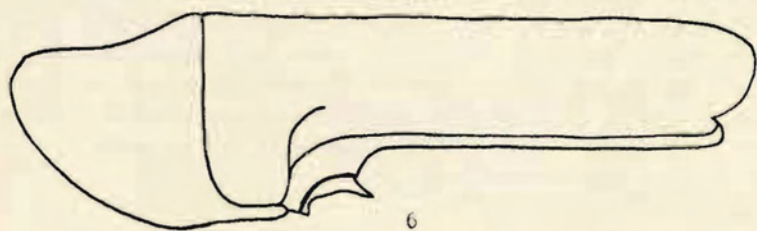
Other material examined : 1 ♀ : Kivu, Rutshuru, 1.285 m, 1 au 6.VI.1935 (I.P.N.C.B.); 1 ♂, 1 ♀ : 1 au 6.VI.1935 (I.P.N.C.B., D.K.); 1 ♂ : 18-23.VI.1934 (I.P.N.C.B.); 1 ♂ : 16.X.1934 (I.P.N.C.B.); 1 ♀ : 3.VII.1935 (I.P.N.C.B.); 1 ♀ : lac Mokoto, c. Kishale, 1.470 m, 23.IX.1935, Miss. H. Damas : 54 (I.P.N.C.B.); 1 ♂, 1 ♀ : Rutshuru, IX-X.1936, Dr. DELVILLE (M.R.C.B., C.N.H.M.); 3 ♂♂, 1 ♀ : terr. Rutshuru, 7.IV.1937, Miss. Prophylactique (M.R.C.B., D.K.); 1 ♀ : terr. Rutshuru, 15.VI.1937, Miss. Prophylactique (M.R.C.B.); [1 ♀ : Haut-Uele : Moto, fin 1922, L. BURGEON (M.R.C.B.)].

***Typhloponemys albertensis* n. sp.**

(Figs. 6, 7, 8.)

*Pygostenus wittei* CAMERON, Explor. Parc Nat. Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 59, 1950, p. 44 (in part).*Pygostenus fauweli* CAMERON, loc. cit. (in part) (nec WASMANN).*Pygostenus* ? sp. nov. CAMERON, in litt.

This species has the same color, head shape, eye shape, abdominal macrochaetolaxy, and sculpture as *Typhloponemys wittei* CAMERON described above. Median lobe of the male genitalia shaped as in figure 6. Sperma-



K'56

FIGS. 6-9. — 6: Median lobe of the male genitalia, *Typhloponemys albertensis* n. sp.; 7: Spermatheca, aberrant, *Typhloponemys albertensis* n. sp.; 8: Spermatheca, normal, *Typhloponemys albertensis* n. sp.; 9: Spermatheca, *Typhloponemys wittei* CAMERON.

theca shaped as in figure 8. Figure 7 illustrates the spermatheca of an aberrant specimen that may someday form the basis of another new species when more specimens are available for study.

Measurements. — Pronotum length, 0,48-0,64 mm; elytra length, 0,44-0,56 mm; eye length, 0,17-0,24 mm; gula width, 0,13-0,16 mm; head length, 0,28-0,34 mm; interocular distance, 0,40-0,48 mm. Number measured, 8.



This species can be distinguished from *T. wittei* CAMERON, by the shape of the male genitalia and the spermatheca alone. A comparison of the measurements of this species with those of *T. wittei* CAMERON shows that this species is less variable, but this is probably due to the more limited sample available for study.

Holotype ♀ : No. 1656 : Mayumbu (volcan Nyamuragira), 2.100 m, 14 au 26.VI.1935 (I.P.N.C.B.).

Paratypes : 1 ♂ : Gitebe (volcan Nyamuragira), 2.324 m, 14 au 26.VI.1935 (I.P.N.C.B.); 1 ♀ : Shamuheru (volcan Nyamuragira), 1.843 m, 15.VI.1935 (I.P.N.C.B.); 1 ♀ (aberrant specimen) : Rweru (volcan Mikenno), 2.400 m (bambous), 26 au 27.VII.1934 (B.M.N.H.); 1 ♀ : Kivu : Kalondo (lac Ndalaga, Mokoto), 1.750 m, 22-27.III.1934 (I.P.N.C.B.); 1 ♀ : Gitebe (volcan Nyamuragira), 2.324 m, 14 au 26.VI.1935 (D.K.); 1 ♂ : Mushuman-gabo (volcan Nyamuragira), 2.075 m, 14 au 26.VI.1935 (I.P.N.C.B.).

#### **Typhloponemys alutaceus** WASMANN.

*Pygostenus alutaceus* WASMANN, Zool. Jahrb., Suppl. 7, 1904, p. 649.

*Pygostenus nigripennis* CAMERON, Explor. Parc Nat. Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 59, 1950, p. 44.

Material examined. — 1 ♀ : Gitebe (volcan Nyamuragira), 2.324 m, 14 au 26.VI.1935 (I.P.N.C.B.).

#### **Typhloponemys fauveli** WASMANN.

*Pygostenus fauveli* WASMANN, Zool. Jahrb., Suppl. 7, 1904, p. 648.

*Pygostenus fauveli* CAMERON, Explor. Parc Nat. Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 59, 1950, p. 44 (in part).

*Pygostenus bicolor* CAMERON, loc. cit. (nec WASMANN).

Material examined. — 2 ♂♂, 1 ♀ : Kivu : Rutshuru, 1.285 m, 23-25.XII.1933, 26-28.XII.1933 (I.P.N.C.B.); 1 ♀ : Rutshuru, 15-25.IX.1933 (I.P.N.C.B.); 1 ♂ : Kivu : Rutshuru (riv. Kanzarue), 1.200 m, 16.VII.1935 (I.P.N.C.B.).

#### **Typhloponemys rufotestaceus** BERNHAUER.

*Pygostenus rufotestaceus* BERNHAUER, Rev. Zool. Bot. Afr., 15, 1927, p. 237.

*Pygostenus rufotestaceus* CAMERON, Explor. Parc Nat. Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 59, 1950, p. 44.

Material examined. — 2 ♂♂ : Tshambi, 975 m, 28.X-7.XI.1933 (I.P.N.C.B., B.M.N.H.); 2 ♂♂, 1 ♀ : Kamande, 925 m, 8.V.1935, Miss. H. DAMAS : 143 (I.P.N.C.B.).



**Typhloponemys schoutedeni** BERNHAUER.

*Pygostenus schoutedeni* BERNHAUER, Rev. Zool. Bot. Afr., 15, 1927, p. 236.

*Pygostenus schoutedeni* CAMERON, Explor. Parc Nat. Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 59, 1950, p. 44 (in part).

*Pygostenus basistriatus* CAMERON, loc. cit.

Material examined. — 1 ♂ : [L. Kivu, I. Idjwi, Luvominga, 27.IX.1935, Miss. H. DAMAS : 56] (I.P.N.C.B.); 1 ♂ : près mont Kamatembe (forêt), 2.200 m, 12.IV.1934 (I.P.N.C.B.); 1 ♀ : Kamatembe (forêt), riv. Bishakishaki, mont Kamatembe, 2.100 m, 14-17.IV.1934 (I.P.N.C.B.); 1 ♂ : près Rutshuru, 1.285 m, 18-23.VI.1934 (I.P.N.C.B.); 1 ♂ : Kivu : Rutshuru, 1.285 m, 16.X.1934 (I.P.N.C.B.); 1 ♂ : Ruanda : lac N'Gando (pied volcan Karisimbi), 2.400 m, 8.III.1935 (I.P.N.C.B.); 1 ♂ : Kivu : Rutshuru, 6.VI.1935 (B.M.N.H.); 2 ♂♂, 2 ♀♀ : Kivu : Rutshuru, 7.VI.1935 (I.P.N.C.B.); 1 ♀ : Gitebe (volcan Nyamuragira), 2.324 m, 14-26.VI.1935 (I.P.N.C.B.); 1 ♂ : Mayumbu (volcan Nyamuragira), 2.100 m, 14-26.VI.1935 (I.P.N.C.B.); 1 ♂ : Kivu : Rutshuru, 1.285 m, 3.VII.1935 (I.P.N.C.B.); 2 ♀♀ : Kivu : Rutshuru, 1.250 m, 5.VII.1935 (I.P.N.C.B.); 2 ♂♂, 1 ♀ : Kivu : Rutshuru, 1.285 m, 13.VII.1935 (I.P.N.C.B.); 1 ♂, 2 ♀♀ : Kivu : Rutshuru (Lubirizi), 1.285 m, 13.VII.1935 (I.P.N.C.B.); 1 ♂, 1 ♀ : Kivu : Rutshuru, 1.285 m, 3.VII.1935 (I.P.N.C.B.).

**Typhloponemys** n. sp.

*Pygostenus punctatus* CAMERON, Explor. Parc Nat. Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 59, 1950, p. 45 (nec FAUVEL).

This species is closely related to *Typhloponemys infimus* WASMANN. It differs from it by its larger size and there are some differences in the male genitalia but these are not to be trusted until more specimens of both species are available for study.

Material examined. — 1 ♂ : No. 1715 : volcan Nyamuragira, 2.100 m, Mayumbu, 14-26.VI.1935 (I.P.N.C.B.).

**Typhloponemys** sp.

*Pygostenus semipunctus* CAMERON, Explor. Parc Nat. Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 59, 1950, p. 45 (nec BERNHAUER).

This species is closely related to *Typhloponemys pallipennis* BERNHAUER, but since only one specimen is available for study at this time, it will remain undetermined.

Material examined. — 1 ♀ : No. 1712 : mont Sesero, près Bitashimwa (bambous), 2.000 m, 1-2.VIII.1934 (I.P.N.C.B.).



**Mimocete fageli** n. sp.

(Figs. 1, 5.)

*Mimocete balaena* CAMERON, Explor. Parc Nat. Albert, Miss. G. F. DE WITTE, 1933-1935, fasc. 59, 1950, p. 45.

Overall body shape oblate spheroid. Color dark reddish brown throughout. Sculpture of the dorsal surface of the head, pronotum, and elytra, and the surface of the metasternum shagreened. Abdomen, mouthparts, legs, antennae, and ventral surface of the head sculptured with fine contour lines from which emerge fine yellow setae, producing an overall reticulate appearance. Pro-, meso-, and metathoracic legs highly specialized with a four-segmented tarsus; first three segments short with membranous projections. Median lobe of the male genitalia shaped as in figure 1. Spermatheca shaped as in figure 5.

Measurements. — Pronotum length, 1.40-1.68 mm; elytra length, 0.94-1.22 mm; interocular distance, 0.92-1.04 mm. Number measured, 12.

This species may be distinguished from *M. balaena* FAUVEL, by the shape of the spermatheca, and the presence of only one apical chaeta on the tenth abdominal segment, whereas *M. balaena* FAUVEL has two.

Holotype ♀ : No. 1701 : May-ya-Moto, 950 m, 10.XI.1934 (I.P.N.C.B.).

Paratypes : 2 ♂♂, 2 ♀♀ : same data as above (I.P.N.C.B., D.K.); 2 ♂♂, 1 ♀ : May-ya-Moto, 950 m, 5 au 9.XI.1934 (I.P.N.C.B., D.K.); 1 ♀ : May-ya-Moto, 950 m, 9.XI.1934 (I.P.N.C.B.); 1 ♀ : Vitshumbi, 925 m, 11.X.1933 (I.P.N.C.B.); 1 ♂ : Kivu : Rutshuru, 1.285 m, 25.XI au 20.XII.1933 (I.P.N.C.B.); [3 ♂♂ : Uele : Dingila, VI.1933, J. V. LEROY (M.R.C.B., C.N.H.M.)]; [1 ♂, 1 ♀ : Haut-Uele : Abimva, VIII.1925, myrmécophile avec *Dorylus*, No. 16, L. BURGEON (M.R.C.B.)]; [1 ♂ : Ruanda : Gabiro, near Bumba, 1.300 m, 5.II.1953, P. BASILEWSKY (M.R.C.B.)].

Remarks. — The specimens above collected by the G. F. DE WITTE Mission had lepidopterous scales on them which usually means that they were caught in light traps. It gives me great pleasure to name this species after Mr. GASTON FAGEL, who has been so helpful to me in securing material for this and other studies.

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