

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 49 (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 49 (3)

GENUS FORMICOMUS
(COLEOPTERA POLYPHAGA)
(Fam. ANTHICIDAE)

BY

JOHAN C. VAN HILLE (Grahamstown, S. Africa)

In this collection the genus *Formicomus* is represented by 215 specimens, distributed over the following ten species :

<i>F. wittei</i> n. sp.	111 specimens.
<i>F. jordani</i> n. sp.	26 specimens.
<i>F. upembensis</i> n. sp.	45 specimens.
<i>F. dollmani</i> VAN HILLE	10 specimens.
<i>F. spatulatus</i> VAN HILLE	2 specimens.
<i>F. rubricollis</i> LAFERTÉ	4 specimens.
<i>F. tuberculifer</i> PIC	9 specimens.
<i>F. subinflatus</i> PIC	5 specimens.
<i>F. tropicalis</i> KREKICH	2 specimens.
<i>F. lacustris</i> KREKICH	1 specimen.

The three species described as new form 85 % of the collection. They belong to the group of black species with dark, metallic-blue elytra which especially in tropical Africa is represented by a large number of very similar species of limited geographical distribution. All these species are very alike in form and colour, while in several species progressive and regressive colourations occur. In the author's opinion only the secondary sex characteristics provide reliable data for identifications. Of the three

species described below the males can be distinguished externally by the shape of the femoral spine on the front legs. The females which do not have external sex characteristics are very difficult to separate. Identification was carried out on the external features summarized in the following key.

- 1a. Elytra with posthumeral band of white hairs 2
 b. Elytra without posthumeral band of hairs 3
- 2a. Prothorax dorsally somewhat shagreened but not flattened and with two dorsal pits in front of the posterior margin; the distance between these pits exceeds the diameter of each pit; ♂ with short triangular femoral spine on front leg *F. jordani* n. sp.
 b. Prothorax dorsally smooth and glossy with very insignificant pits in front of the posterior margin, not much larger than the punctures; ♂ with large downward pointing femoral spine on front leg
F. wittei n. sp.
3. Prothorax dorsally somewhat flattened and shagreened; the dorsal pits on the prothorax not always visible; when visible the distance between them does not exceed the diameter of each pit; ♂ with slender femoral spine on front leg *F. upembensis* n. sp.

The band of white hairs on the elytra is easily rubbed off, but even then the places where the hairs were implanted are clearly visible. The shagreen appearance on the thorax is not a constant characteristic in *F. jordani* and the author is not sure to what extent this feature is caused or emphasised by the drying out of the specimens.

The geographical distribution of these three species is nearly identical. They were all collected in an area of which the diameter does not exceed 60 km and at altitudes between 1.070-1.820 m, apart from two specimens of *F. jordani* collected at Mabwe, 585 m, on the east coast of Lake Upemba (not Kabwe on the river Muye, 1.320 m).

1. — **Formicomus wittei** n. sp. ⁽¹⁾.

(Fig. 1.)

Head, thorax and abdomen black; elytra with metallic blue or greenish-blue reflection; appendages black.

Head finely punctured, with scattered, dark, procumbent hairs anteriorly.

Prothorax glossy; punctures finer than on head; with fine recumbent hairs which are black in middle area, but grey anteriorly, posteriorly and laterally.

⁽¹⁾ The localities between [] are outside the Park's boundaries.

Elytra with posthumeral constriction carrying a band of stiff white hairs, which does not reach the median suture; surface highly glossy, with very few punctures in front of the band, slightly more densely punctured behind the band, but less densely than on head; hairs on central area of elytra black; greyish-white posteriorly and laterally.

Sexual characteristics :

♂ : Front legs with large, downward pointing femoral spine and a tubercle on distal third of tibia (fig. 1 A). Last exposed abdominal sternite having a semicircular incision on the posterior margin (fig. 1 B). Sternite of retractile abdominal segment with narrow median sclerite; side-lobes with narrow ventral prong and broad, pointed, dorsal prong; very hairy (fig. 1 C). Tergite of retractile abdominal segment as figured (fig. 1 D). Tegmen of aedeagus with three terminal subequal lobes (fig. 1 E).

♀ : Retractable segment weakly sclerotized; sternite with irregular, blunt, median point and well developed side-lobes (fig. 1 F).

(The last exposed sternite of ♂ is very similar to that of *F. pagnioni* PIC but in all other details the parts are different.)

Length : 3,5-4,2 mm, average 4,0 mm.

Width (over widest part of elytra) : 1,2-1,3 mm, average 1,25 mm.

Holotype : ♂, Grande Kafwe, affl. dr. Lufwa, affl. dr. Lufira, 1.780 m, 5.III.1948.

Allotype : ♀, Mukana, Lusinga, 1.810 m, 1.IV.1947.

Geographical distribution : Mukana, Lusinga, 1.810 m, 17 ♂♂, 20 ♀♀; Mukana, 1.810 m, 8 ♂♂, 12 ♀♀; Lusinga, 1.760 m, 3 ♂♂, 3 ♀♀; riv. Lufwa, affl. dr. Lufira, 1.700 m, 17 ♂♂, 8 ♀♀; [Grande Kafwe, affl. dr. Lufira, 1.780 m, 10 ♂♂, 2 ♀♀]; région confl. Mubale-Munte, 1.480 m, 7 ♂♂, 2 ♀♀; [Kiamakoto-Kiwakishi, 1.070 m, 1 ♂]; Kankunda, 1.300 m, 1 ♀.

2. — *Formicomus jordani* n. sp.

(Fig. 2.)

Head, thorax and abdomen black; elytra with metallic blue reflection; appendages black.

Head finely punctured; with scattered dark hairs, procumbent in front and laterally, recumbent dorsally.

Prothorax in many specimens shagreened over posterior, dorsal third, in other specimens smooth and glossy; more densely punctured and more hairy than head; hairs black, but greyish white over posterior fifth; near posterior margin two pits, further apart than the diameter of each pit.

Elytra with a slight posthumeral constriction, carrying a band of stiff, white, recumbent hairs, not extending to the median suture; surface highly glossy with few punctures; hairs black, but greyish white laterally and over posterior third.

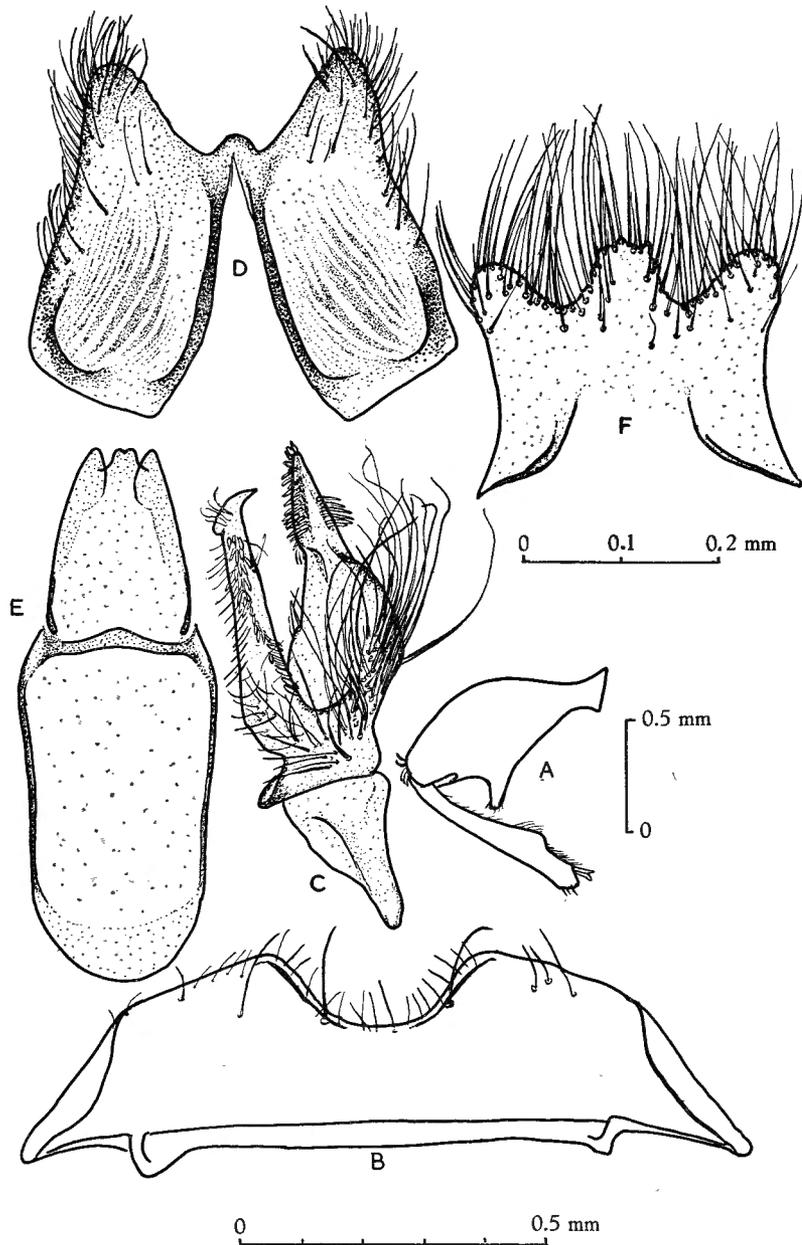


FIG. 1. — *Formicomus wittei* n. sp.

A : Femur and tibia of front leg of ♂. — B : Last exposed abdominal sternite of ♂. — C : Ventral view of right sidelobe of sternite of retractile segment of ♂. — D : Tergite of retractile segment of ♂. — E : Tegmen of aedeagus.

F : Sternite of retractile segment of ♀.

(B, C, D and E at same scale; A and F as indicated.)

Sexual characteristics :

♂ : Front legs with short triangular femoral spine and small tubercle on distal third of tibia (fig. 2A). Last exposed abdominal sternite with slightly sinuous posterior margin (fig. 2B). Sternite of retractile abdominal segment with narrow median sclerite and broad, simple side-lobes with lateral hair tufts (fig. 2C). Tergite of retractile abdominal segment as figured (fig. 2D). Tegmen of aedeagus with three terminal lobes of which the middle one is slightly shorter than the lateral ones (fig. 2D).

♀ : Retractable segment weakly sclerotized; sternite with well developed median point and side-lobes (fig. 2F).

Length : 2,9-4 mm, average 3,7 mm.

Width (over widest part of elytra) : 1-1,3 mm, average 1,16 mm.

Holotype ♂ : Lufwa, affl. dr. Lufira, 1.700 m, 16.I.1948.

Allotype ♀ : [Grande Kafwe, affl. dr. Lufwa, affl. dr. Lufira, 1.780 m, 5.III.1948].

Geographical distribution : Lusinga, 1.760 m, 1 ♂, 5 ♀♀; Mukana, Lusinga, 1.810 m, 1 ♂, 4 ♀♀; Mukana, 1.810 m, 1 ♂, 1 ♀; [riv. Lufwa, affl. dr. Lufira, 1.700 m, 1 ♂, 3 ♀♀]; [Grande Kafwe, affl. dr. Lufwa, 1.700 m, 2 ♀♀]; riv. Kampadika, affl. Kafwe, 1.700 m, 1 ♀; Mabwe (rive Est lac Upemba), 585 m, 1 ♂, 1 ♀; Kalumengongo (tête source), affl. dr. Lualaba, 1.750 m, 1 ♂; [riv. Kenia, affl. dr. Lusinga, sous-affl. dr. Lufira (nid rat-taupe), 1.585 m, 1 ♀]; rég. confl. Mubale-Munte, 1.480 m, 1 ♀; Kabwe s/Muye, affl. dr. Lufira, 1.320 m, 1 ♂.

This species also occurs in Angola where Prof. K. JORDAN collected 1 ♂ and 4 ♀♀ in Quirimbo, 1934; these specimens belong to the British Museum.

3. — *Formicomus upembensis* n. sp.

(Fig. 3.)

Head, thorax and abdomen black; elytra with very faint blue reflection, often appearing black; appendages dark testaceous (especially the antennae and tarsi) to black.

Head finely punctured, with scattered black and grey hairs.

Prothorax with few black and grey hairs; the posterior half to third of the middorsal area is finely shagreened and flattened; in some specimens pits are visible near the posterior margin; these are about as far apart as the diameter of each pit.

Elytra slightly indented behind the humerus; without transverse band of white hairs; hairs fine and scattered, grey or greyish white.

Sexual characteristics :

♂ : Front legs with slender femoral spine and small tubercle on distal fourth of tibia (fig. 3A). Last exposed abdominal sternite with posterior

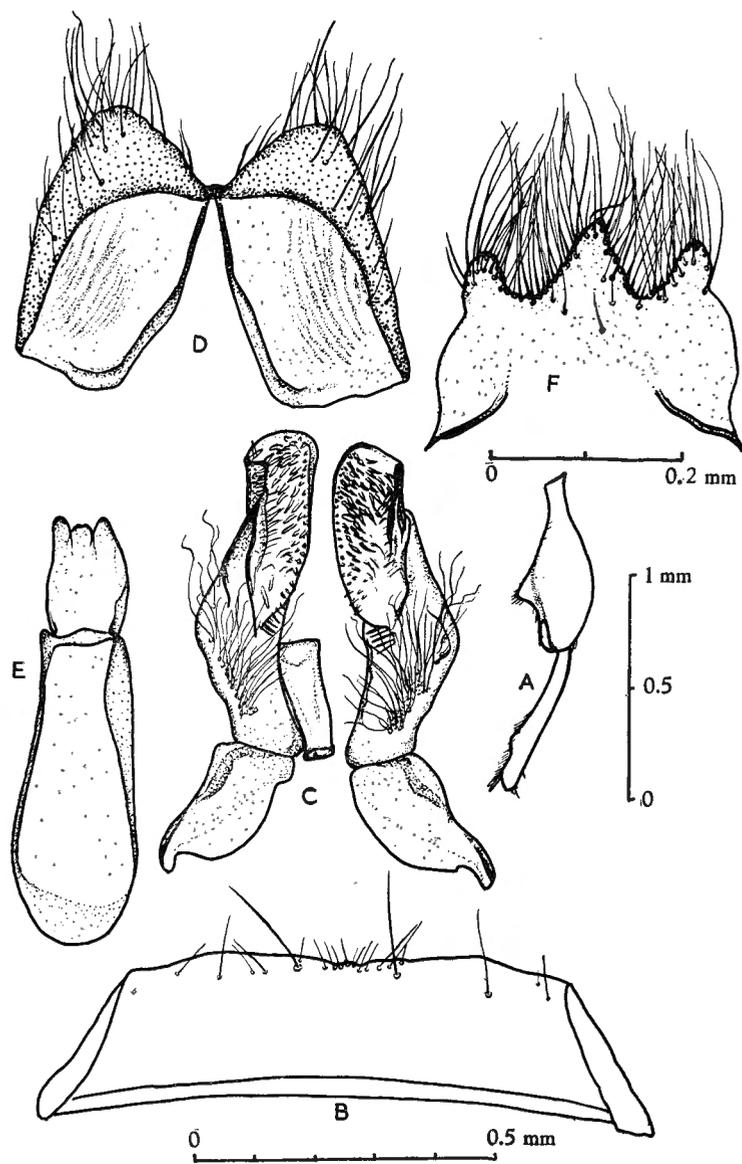


FIG. 2. — *Formicomus jordani* n. sp.

A : Femur and tibia of front leg of ♂. — B : Last exposed abdominal sternite of ♂. — C : Sternite of retractile segment of ♂. — D : Tergite of retractile segment of ♂. — E : Tegmen of aedeagus. — F : Sternite of retractile segment of ♀.

(B, C, D and E at same scale; A and F as indicated.)

margin somewhat cut in and with a small, median protuberance (fig. 3 B). Sternite of retractile abdominal segment with rhomboid median sclerite and simple elongated side-lobes (fig. 3 C). Tergite of retractile abdominal segment as figured (fig. 3 D). Tegmen of aedeagus very slightly incised at the tip (fig. 3 E).

♀ : Retractable segment weakly sclerotized; the sternite without median point or tubercle (fig. 3 F).

Length : 3,5-4,2 mm, average 3,8 mm.

Width (over widest part of elytra) : 1,1-1,3 mm, average 1,2 mm.

Holotype ♂ : Buye-Bala, 1.750 m, 25-31.III.1948.

Allotype ♀ : Buye-Bala, 1.750 m, 25-31.III.1948.

Geographical distribution : Buye-Bala, 1.750 m, 2 ♂♂, 27 ♀♀; [riv. Lufwa, affl. dr. Lufira, 1.700 m, 1 ♂, 2 ♀♀]; région confl. Mubale-Munte, 1.480 m, 1 ♀; Lubanga, affl. dr. Senze (affl. dr. Lufira), 1.750 m, 2 ♀♀; Mukana, 1.810 m, 3 ♀♀; Kabwe s/Muye, affl. dr. Lufira, 1.320 m, 1 ♀; riv. Kampadika, affl. Kafwe, 1.700 m, 1 ♂, 4 ♀♀; Katongo, affl. g. Mubale, sous-affl. g. Munte, 1.750 m, 1 ♀.

4. — *Formicomus dollmani* VAN HILLE.

Proc. Roy. ent. Soc. Lond., (B), 22, 1953, p. 151.

Distribution. — [Riv. Lufwa, affl. dr. Lufira, 1.700 m, 6 ♂♂]; Mukana, 1.810 m, 3 ♂♂, 1 ♀.

Described from Namwala and Chinenga, w. half of N. Rhodesia.

5. — *Formicomus spatulatus* VAN HILLE.

J. ent. Soc. S. Afr., 13, 1950, p. 68-72.

Distribution. — Kanonga, 675 m, 1 ♂; Mabwe (rive Est lac Upemba), 585 m, 1 ♀.

Described from Nairobi (Kenya) and recorded from Mwengwa (N. Rhodesia), Kanna (Urundi) and Bugarama (Ruanda).

6. — *Formicomus rubricollis* LA FERTÉ.

Monographie des *Anthicus*, Paris, 1848, p. 75.

Distribution. — Ganza, 860 m, 1 ♂, 2 ♀♀; Kaswabilenga, 700 m, 1 ♀.

Described from S. Africa and occurring over the whole eastern half of Africa from Lake Victoria to the Cape Province.

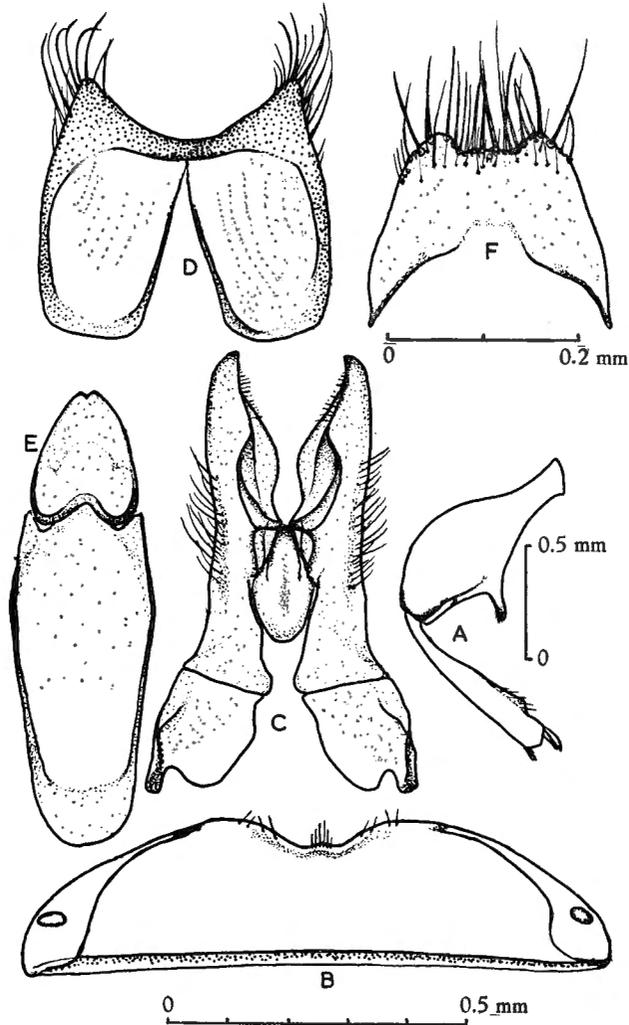


FIG. 3. — *Formicomus upembensis* n. sp.

A : Femur and tibia of front leg of ♂. — B : Last exposed abdominal sternite of ♂. — C : Sternite of retractile segment of ♂. — D : Tergite of retractile segment of ♂. — E : Tegmen of aedeagus. — F : Sternite of retractile segment of ♀.

(B, C, D and E at same scale; A and F as indicated.)

7. — **Formicomus tuberculifer** PIC.

Naturaliste, 19, 1897, p. 340.

Distribution. — Mabwe, rive Est lac Upemba, 4 ♂♂, 1 ♀; Kaziba, affl. g. Senze, sous-affl. dr. Lufira, 1.140 m, 2 ♀♀; Mukana-Lusinga, 1.810 m, 1 ♀; Kiamakoto (entre Masombwe et Mukana) rive dr. Lukima, affl. dr. Grande Kafwe, 1.070 m, 1 ♀.

Described from S. Africa and recorded from Kenya, Uganda, Belgian Congo, N. and S. Rhodesia, Nyasaland, Angola and S. Africa.

8. — **Formicomus subinflatus** PIC.

Rev. Ent. Caen, 20, 1901, p. 97.

Distribution. — Kaswabilenga, 1.700 m, 1 ♂; riv. Kande (affl. g. Lupiala), sous-affl. dr. Lufira, 700 m, 1 ♂; riv. Lupiala, affl. dr. Lufira, 700 m, 1 ♀; Kanonga, affl. dr. Fungwe, 700 m, 2 ♀♀.

Described from S. Rhodesia and recorded from N. and S. Rhodesia and Nyasaland.

9. — **Formicomus tropicalis** KREKICH-STRASSOLDO.

Ann. Mus. Stor. nat. Genova, 52, 1928, pp. 1-4.

Distribution. — Mabwe, rive Est lac Upemba, 585 m, 1 ♂, 1 ♀.

Described from S. Rhodesia and recorded from N. and S. Rhodesia, Nyasaland, S. Angola, S. W. Africa and S. Africa.

10. — **Formicomus lacustris** KREKICH-STRASSOLDO.

Ann. Mus. Stor. nat. Genova, 52, 1928, pp. 1-4.

Distribution. — Mabwe, rive Est lac Upemba, 585 m, 1 ♀.

Described from Lake Rudolf (British Somaliland) and recorded from S. Ethiopia, Gold Coast, Lake Victoria, N. and S. Rhodesia, Portuguese East Africa and Zululand (South Africa).

