

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 52

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ZENDING G. F. DE WITTE

met medewerking van

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AFLEVERING 52

1. ISOPTERA, by VICTOR HARRIS (London).
2. CANTHARIDAE, par NOËL MAGIS (Liège).
3. STRATIOMYIIDAE, von ERWIN LINDNER (Stuttgart).



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**I M P R I M E R I E H A Y E Z , s.p.r.l.**  
112, rue de Louvain, 112, Bruxelles  
Gérant: **M. Hayez**, av. de l'Horizon, 39  
Woluwe-Saint-Pierre

**PARC NATIONAL DE L'UPEMBA**

**I. MISSION G. F. DE WITTE**

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**Fascicule 52 (1)**

**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 52 (1)**

# **ISOPTERA**

BY

**W. VICTOR HARRIS (London)**

About three thousand termites were collected by G. F. DE WITTE and his colleagues during the course of their expedition to the Parc National de l'Upemba, in the south-east corner of the Belgian Congo, in 1947. Altogether 18 species are represented, of which it has been possible to ascribe specific names to 13, and of these five are described here as new. In the following list those species which are present only in the alate form are indicated with an A :

#### **KALOTERMITIDAE.**

- A *Kalotermes* sp.  
A *Neotermes sepulvillus* (EMERSON).

#### **TERMITIDAE.**

- Amitermes limpopoensis* FULLER.  
*Crenetermes fruitus* n. sp.  
*Thoracotermes lusingensis* n. sp.  
*Cubitermes munericus* (SJÖSTEDT).  
*Cubitermes minitabundus* (SJÖSTEDT).  
*Cubitermes oblectatus* n. sp.  
A *Cubitermes* spp.  
*Noditermes festivus* n. sp.  
*Anoplotermes* sp.  
*Macrotermes bellicosus* (SMEATHMAN).  
A *Odontotermes badius* (HAVILAND).  
*Odontotermes latericius* (HAVILAND).  
A *Ancistrotermes crucifer* (SJÖSTEDT).  
A *Microtermes upembae* n. sp.  
*Trinervitermes* sp.

The localities between [ ] are outside the boundaries of the Park, but adjacent thereto.

The specimens fall into two groups, those collected at the lower altitudes (550-700 m) being mainly winged adults taken while swarming, while those from the higher altitudes (1,300-1,800 m) are mainly queens and non-reproductive castes from mound building communities. For this reason comparison of the faunas of these broad zones is not possible. A note on nest associations is appended.

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## Ordre ISOPTERA

## Family KALOTERMITIDAE

Genus **KALOTERMES** HAGEN.1. — **Kalotermes** sp.

One alate female, somewhat damaged, of an apparently undescribed species close to *K. mkuzii* COATON, but distinctly more robust.

Kaswabilenga, 700 m, 3-4.XI.1947 (916 a).

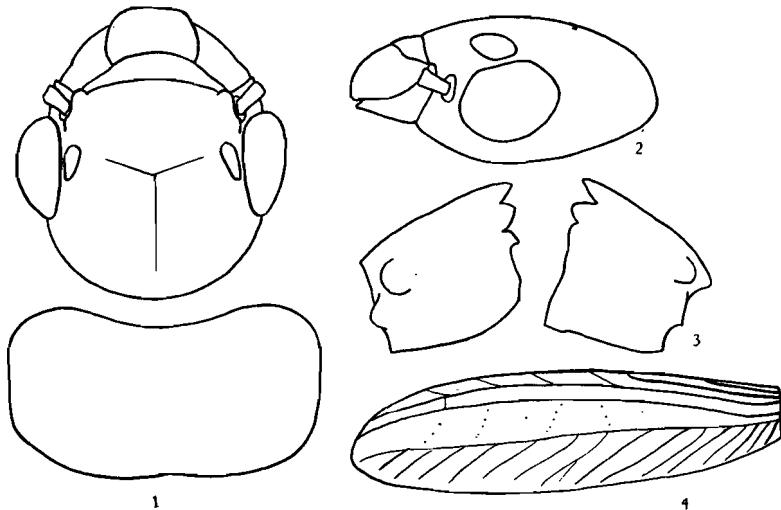


FIG. 1-4. — *Neotermes sepulvillus* (EMERSON).

1 : Head and pronotum of imago. — 2 : Head, lateral view. —  
3 : Mandibles. — 4 : Fore wing.

Genus NEOTERMES HOLMGREN.

2. — **Neotermes sepulvillus** (EMERSON).

(Figs. 1-4.)

*Kalotermes (Neotermes) sepulvillus* EMERSON, 1928, Bull. Amer. Mus. nat. Hist., 57 : 421.

Alates of both sexes agree closely with the description of the holotype from Stanleyville, apart from the forewings being slightly longer. Other

species in Africa are larger, except for *N. aburiensis* SJÖSTEDT as described by GRASSÉ (1937) which differs from *N. sepulvillus* mainly in body colour and wing venation.

Imago, males and females.	Range (5). mm.
Width of head across eyes ... ... ...	1,60- 1,82
Eye, diameter .. .. .. ..	0,59- 0,68
Ocellus, long diameter .. .. .. ..	0,18- 0,27
Ocellus, short diameter . .. .. ..	0,13- 0,18
Pronotum, width ... .. .. ..	1,68- 1,91
Pronotum, length ... .. .. ..	0,95- 1,05
Forewing, length ... .. .. ..	11,00-11,50
Forewing, width ... .. .. ..	2,90- 3,50
Antennal segments . .. .. ..	XVII- XIX

Lukawe, affl. r. dr. Lufira, 700 m, 6-9.X.1947 (814) 1 ♀, 2 ♂;  
riv. Lupiala, affl. dr. Lufira, 700 m, 6-9.X.1947 (807 a) 2 ♀, 1 ♂.

### Family TERMITIDAE WESTWOOD.

#### Subfamily AMITERMITINAE KEMNER.

##### Genus **AMITERMES** SILVESTRIS.

###### 3. — **Amitermes limpopoensis** FULLER.

*Hamitermes limpopoensis* FULLER, 1922, S. Afr. J. nat. Hist., 3 : 124.

This species was described from specimens collected in Northern Transvaal, on the Limpopo River. A single specimen of a soldier from Salisbury, Southern Rhodesia (col. G. A. K. MARSHALL, B. M. N. H. 1911) is also placed in the species, together with numerous examples from Nyasaland (col. SANDS & WILKINSON, 1953).

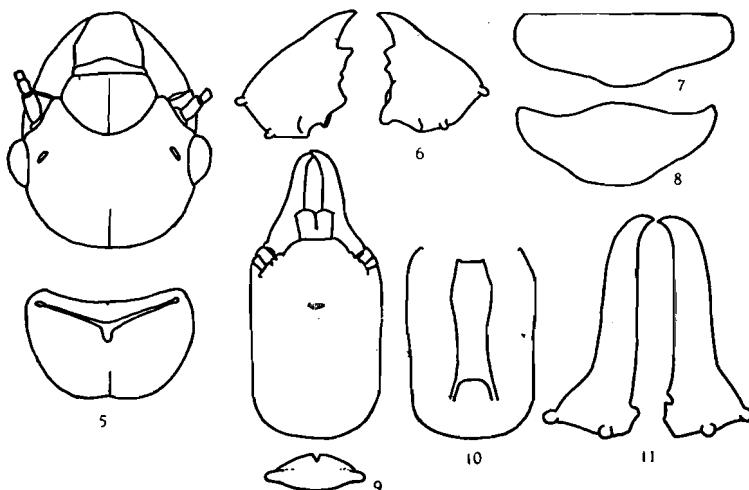
Mabwe, r. E. lac Upemba, 585 m, 17-20.XI.1948 (1950 a) 1 soldier.

## Subfamily TERMITINAE SjÖSTEDT.

Genus **CRENETERMES** SILVESTRIS.4. — **Crenetermes fruitus** n. sp.

(Figs. 5-11.)

**I m a g o - f e m a l e .** — Head dark brown, with postclypeus, labrum and antennae distinctly paler in colour; almost semicircular from above, the width across the eyes exceeding slightly the length from posterior margin

FIG. 5-11. — *Crenetermes fruitus* n. sp.

Imago : 5, Head and pronotum; 6, Mandibles; 7, Sternum of abdominal segment VIII, ♀; 8, Sternum VIII of *C. umbraticola*.  
Soldier : 9, Head and pronotum; 10, Head, ventral view to show gulamentum; 11, Mandibles.

to front of postclypeus. Eyes protruding, rounded. Ocelli small, narrow oval, their long diameter equal to distance from eyes. Postclypeus inflated, anterior margin straight, sides converging towards the front, posterior a regular curve. Labrum with straight anterior, sides slightly sinuate, and posterior margin distinctly emarginate. Mandibles as figured, with the apical tooth far from the marginals. Antennae incomplete, segments II and V equal in length, III shorter than IV, and these two together less than II.

Pronotum about as dark as head with anterior margin unbroken concave, sides curved to lightly emarginate posterior; pale Y-shaped area. Mesonotum and metanota dark brown, with legs paler.

Abdomen with intersegmental membrane densely spotted with minute setae; anterior margin of seventh sternum straight.

**Male.** — In general as female; the unexpanded abdomen a darker brown with abundant pale hairs.

	Female. mm.	Male. mm.
Width of head across eyes . . . . .	1,50	1,50
Eye, maximum diameter . . . . .	0,34	0,36
Ocellus . . . . .	$0,13 \times 0,09$	$0,13 \times 0,09$
Distance from ocellus to eye . . . . .	0,14	0,13
Left mandible, length . . . . .	—	0,73
Pronotum, width . . . . .	1,36	1,32
Pronotum, length . . . . .	0,07	0,82
Hind tibia, length . . . . .	1,59	1,59

Differs from *C. umbraticola* and *C. albotarsalis* in having much smaller ocelli, which are more distant from the eyes; in the anterior margin of the pronotum being more concave; in the hind tibia being distinctly shorter and more robust; and in comparison with *C. umbraticola*, the sternum of segment 8 is broader and with anterior margin straight, not sinuate (see fig. 7 and 8).

**Soldier.** — Head yellow, suffused with brown in the frontal area, mandibles dark with paler bases; thorax, legs and abdomen pallid.

Head long rectangular, anterior slightly wider, sides lightly sinuate, posterior flatly rounded. Mandibles long and straight with sharply in-curved tips. Labrum rectangular with emarginate anterior margin, and parallel sides; pronounced median longitudinal furrow. Fontanelle small and inconspicuous, in a shallow depression, fringed with short pale hairs. Antennae with 15 segments; segment III distinctly shorter than the rest.

Pronotum broad and short, with anterior lobes sharply up-turned, and sides strongly convergent to narrow rounded posterior.

	Range (5). mm.
Length of head with mandibles . . . . .	3,96-4,18
Head, length . . . . .	2,73-2,77
Head, width . . . . .	1,86-2,05
Left mandible, length . . . . .	1,36-1,54
Pronotum, width . . . . .	1,18-1,32
Pronotum, length . . . . .	0,50-0,54
Hind tibia, length . . . . .	1,28-1,36

Differs from the soldier of *C. umbraticola* in being slightly smaller, with the mandibles proportionately longer; in the head being broader towards the anterior, rather than slightly narrower; in the shape of the gula-mentum being less constricted in the middle like an hour-glass; and in the distinctly shorter hind tibiae. Differs from *albotersalis* in having the frontal area sloping back and not overhanging the fontanelle.

**Holotype** : Soldier, Lusinga, 1.760 m, 17.VII.1947 (584 a) Institut des Parcs Nationaux du Congo Belge.

**Morphotypes** : Male and female de-alates from type colony, in same collection.

**Paratypes** : 7 soldiers from type colony, 2 soldiers [Kenia, affl. dr. Lusinga et affl. dr. Lufwa, 1.585 m, 15.VII.1947 (565 a)], in association with *Cubitermes muneris*, etc., in same collection and British Museum.

Genus **THORACOTERMES** WASMANN.

5. — **Thoracotermes lusingensis** n. sp.

(Figs. 12-16.)

**I mag o - f e m a l e .** — Head dark brown, with dense cover of very short hairs, except on vertex, and a few scattered longer hairs; rounded. Ocelli narrow oval, more than their long diameter distant from the eyes. Fontanelle inconspicuous. Frontal area with a triangular depression from fontanelle to clypeus. Postclypeus only slightly inflated, dark brown in colour. Labrum pale brown with unpigmented tip. Mandibles as figured. Antennae dark brown (incomplete), segments III and IV short, together less than either II or V.

Pronotum dark brown, anterior margin straight, corners broadly rounded and sides converging to narrow, lightly emarginate posterior.

Meso- and metanota dark brown, with curved sides converging to narrow posterior margin, distinctly bilobed. Legs and abdominal sclerites dark brown.

	mm.
Width of head across eyes . . . . .	2,00
Eye, maximum diameter . . . . .	0,54
Ocellus . . . . .	$0,20 \times 0,15$
Distance of ocellus from eye . . . . .	0,27
Pronotum . . . . .	$2,05 \times 1,36$
Hind tibia, length . . . . .	2,36

**M a l e .** — Generally similar to female.

Differs from a topotype queen of *T. macrothorax*, determined by SJÖSTEDT, in having the ocelli much smaller and more distant from the eyes, and the posterior lobes of the meso- and metanota rounded and not conspicuously pointed.

**Soldier.** — Head pale brown at vertex, much darker in front; sides lightly curved, converging slightly in front; posterior margin rounded. Fontanelle large, oval, ringed with hairs. Clypeus short and broad.

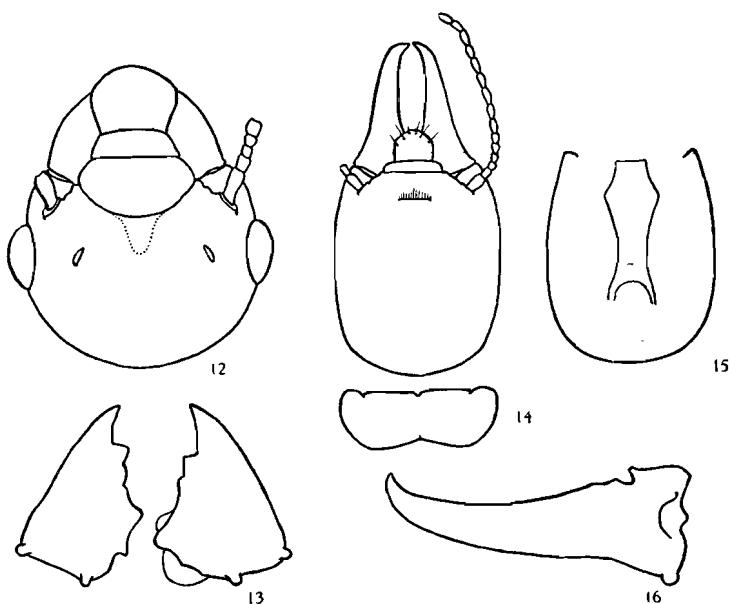


FIG. 12-16. — *Thoracotermes lusingensis* n. sp.

Imago : 12, Head; 13, Mandibles. Soldier : 14, Head and pronotum;  
15, Head, ventral view; 16, Left mandible.

Labrum brown, about as long as broad, with parallel sides and obtuse tip bearing a number of bristles, ventral surface with a strong median rib. Mandibles black, robust, with strongly incurved tips and smooth inner margins, apart from basal teeth. Antennae with 15 segments, III shortest, II and V each slightly longer than IV. Gula-mentum widest a short distance from the anterior margin, middle portion constricted, widening towards the posterior, strongly convex in cross-section.

Pronotum typical of genus, nearly as wide as head, proportionately short, anterior corners rounded and projecting forwards, posterior margin in two shallow lobes.

	Range of 10. mm.	Mean. mm.
Length of head with mandibles ... ...	4,55-4,76	4,63
Head, length . . . . .	2,86-3,00	2,94
Head, width . . . . .	2,23-2,41	2,36
Left mandible, length . . . . .	1,72-1,82	1,78
Pronotum, width . . . . .	2,13-2,27	2,19
Pronotum, length . . . . .	0,86-0,91	0,90
Hind tibia, length . . . . .	1,82	1,82

*T. macrothorax* topotypes determined by SJÖSTEDT have a more rectangular head, less robust mandibles, and gularmentum much more constricted. Emerson's measurements of *macrothorax* from Cameroons and Stanleyville give greater length of head with shorter mandibles, and slightly longer hind tibiae. *T. brevinotus* has sides of head less curved, and anterior margin of pronotum convex without projecting corners.

**H o l o t y p e** : Soldier, Lusinga, 1.760 m, 17.VII.1947 (582 a), in Institut des Parcs Nationaux du Congo Belge.

**M o r p h o t y p e**, female : Queen from type colony, as above, in same collection.

**M o r p h o t y p e**, male : From type colony as above, in same collection.

**P a r a t y p e s** : Four soldiers, numerous workers and nymphs from type colony. Seven soldiers, numerous workers and nymphs from type locality. Two females, one male, eleven soldiers, workers and nymphs [Kenia, affl. dr. Lusinga et s. affl. dr. Lufwa, 1.585 m, 15.VII.1947 (565 a)], in same collection and British Museum.

#### Genus **CUBITERMES** WASMANN.

##### 6. — **Cubitermes muneris** (SJÖSTEDT).

(Figs. 17-19.)

*Eutermes (Cubitermes) muneris* SJÖSTEDT, 1913, Rev. zool. afric., 2 : 370.

*Cubitermes muneris* SJÖSTEDT, 1926, K. sv. Vet. Akad. Handl., (3), 3 (1) : 231.

The soldiers of *Cubitermes muneris* were described from Welgelegen, Katanga, the male and female imagoes — kings and queens — are described here.

**I m a g o - f e m a l e**. — Head dark brown, with numerous short hairs on the frontal area. Fontanelle in a small but distinct depression on the

flat area between the ocelli. Postclypeus brown with median dark line, inflated. Labrum pale brown with many short yellow hairs. Mandibles typical, as figured. Ocelli small, narrow oval, approximately a long diameter distant from the eyes. Antennae with segment III slightly shorter than IV, and both of these shorter than the other segments.

Pronotum dark brown; anterior margin straight; sides sloping to narrow, emarginate posterior; shallow median longitudinal furrow present, with short transverse furrow close to anterior margin.

**Male.** — Generally as female, but limbs and abdominal sclerites darker brown.

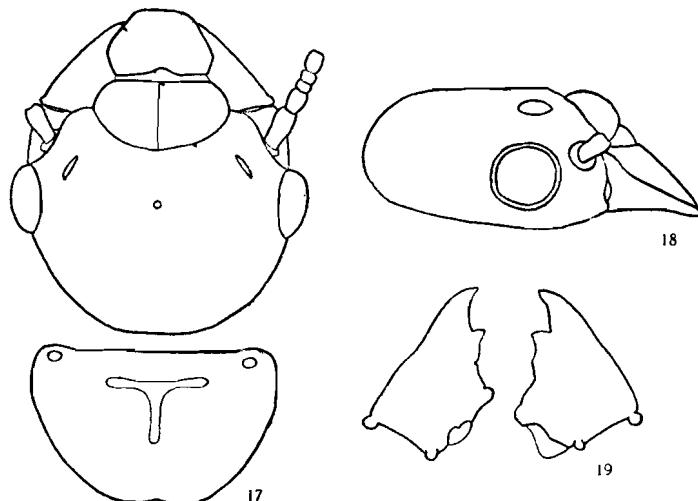


FIG. 17-19. — *Cubitermes munericis* (SJÖSTEDT), morphotype imago.

17 : Head and pronotum. — 18 : Head, lateral view. — 19 : Mandibles.

	Female.		Male.	
Morpho-type.	Range (5).		Morpho-type.	Range (4).
	mm.	mm.		mm.
Width of head across eyes.	1,36	1,36-1,41	1,32	1,32-1,41
Eye, maximum diameter ...	0,32	0,32	0,32	0,30-0,34
Ocellus, long diameter . ...	0,14	0,14-0,18	0,13	0,11-0,15
Ocellus, short diameter . ...	0,09	0,09-0,10	0,09	0,08-0,09
Distance from eye to ocellus.	0,13	0,12-0,15	0,13	0,12-0,15
Pronotum, width ... ... ...	1,18	1,18-1,23	1,14	1,10-1,18
Pronotum, length ... ... ...	0,77	0,73-0,77	0,77	0,70-0,77
Hind tibia, length ... ... ...	1,46	1,41-1,50	1,54	1,46-1,55

## S o l d i e r .

	Range of 6. mm.
Length of head with mandibles ... ...	3,41-3,77
Head, length . . . . .	1,86-2,13
Head, width . . . . .	1,36-1,60
Left mandible, length . . . . .	1,68-1,86
Pronotum, width . . . . .	0,77-0,86
Pronotum, length . . . . .	0,36-0,41
Hind tibia, length . . . . .	1,18-1,28

M o r p h o t y p e male and female : Kankunda, affl. g. Lupiala et s. affl. dr. Lufira, 1.300 m, 26.XI.1947 (1058 a), with 12 soldiers and many workers, in Institut des Parcs Nationaux du Congo Belge.

Kankunda, as above, ♂ and ♀, with 24 soldiers (1059 a).

Kankunda, as above, ♀, with 12 soldiers (1060 a).

Lusinga, 1.760 m, 14.VII.1947, 3 ♂ and 3 ♀, with 1 soldier and 1 worker, (557 a).

Mubale, affl. g. Munte et s. affl. dr. Lufira, 1.480-1.780 m, 10.V.1947, 2 ♀, (353 a).

[Kenia, affl. dr. Lusinga et s. affl. dr. Lufwa, 1.585 m, 28.III.1947, ♂ and ♀, 3 soldiers (116 a)].

[Kenia, as above, 15.VII.1947, 3 ♀ and 1 ♂, from two colonies in association with *Thoracotermes lusingensis*, *Anoplotermes* sp. etc. (565 a)].

#### 7. — **Cubitermes minitabundus** (SJÖSTEDT).

(Figs. 20-23.)

*Eutermes (Cubitermes) minitabundus* SJÖSTEDT, 1913, Rev. zool. afric. **2** : 368.  
*Isognathotermes minitabundus* SJÖSTEDT, 1926, K. sv. Vet. Akad. Handl. (3) **3** (1) : 216.

*Cubitermes minitabundus* SNYDER, 1949, Smithson. misc. Coll. **112** : 161.

The soldiers of *Cubitermes minitabundus* were described from Welgelegen, Katanga and the imagos later from Luluabourg. Specimens in the British Museum (Nat. Hist.) from Abercorn, Northern Rhodesia (col. P. E. Glover, 1947) agree well with the types.

SJÖSTEDT (1926) describes the mounds of this termite as « Erdnest mit oder ohne Hut ». In open grassland the mushroom-like mounds, frequently with double or treble caps, may occur in considerable numbers. In the savannahs south of the Tropical Rain Forest, *C. minitabundus* appears to behave as does *C. fungifaber* in similar country north of the Forest. These two species are also fairly similar in appearance.

## I m a g o s :

	Female (2). mm.	Male (2). mm.
Width of head across eyes . . . . .	1,60	1,64
Eye, maximum diameter . . . . .	0,36	0,41
Ocellus, long diameter . . . . .	0,13	0,13-0,15
Ocellus, short diameter . . . . .	0,09-0,11	0,11
Distance from eye to ocellus . . . . .	0,15-0,18	0,15-0,18
Pronotum, width . . . . .	1,46	1,46
Pronotum, length . . . . .	0,91	0,91
Hind tibia, length . . . . .	1,80-1,82	1,82-1,91

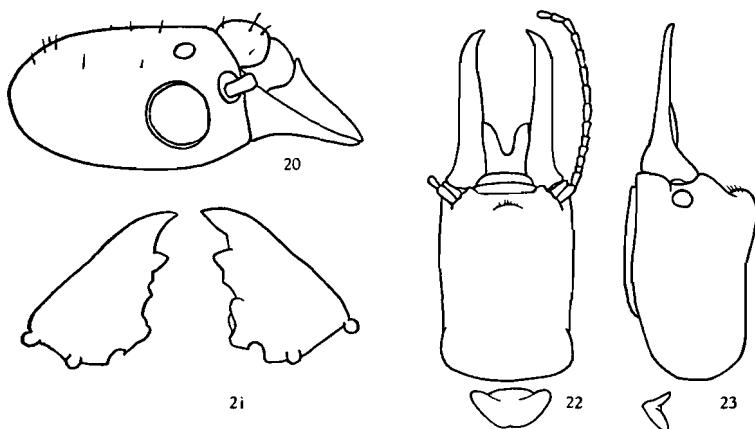


FIG. 20-23. — *Cubitermes minitabundus* (SJÖSTEDT).  
Imago : 20, Head, lateral view; 21, Mandibles. Soldier : 22, Head  
and pronotum; 23, Head and pronotum, lateral view.

## S o l d i e r .

	Range of 5. mm.
Length of head with mandibles . . . . .	5,00-5,45
Head length . . . . .	2,95-3,18
Head, width . . . . .	1,96-2,05
Left mandible, length . . . . .	2,13-2,41
Pronotum, width . . . . .	1,28-1,30
Pronotum, length . . . . .	0,45-0,59
Hind tibia, length . . . . .	1,50-1,68

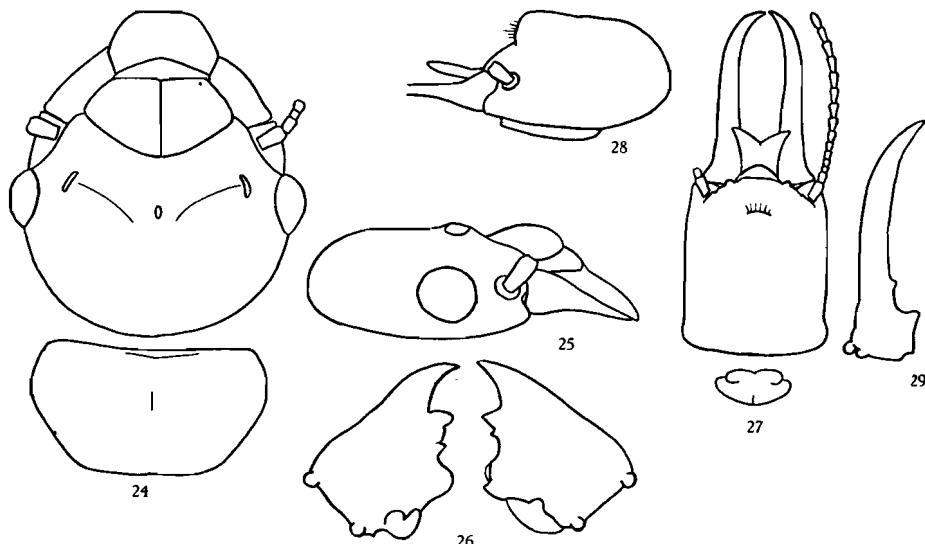
Lusinga, 1.760 m, 17.VII.1947, 1 queen, 1 king, 9 soldiers, numerous workers (583 a).

[Kenia, affl. dr. Lusinga et s. affl. dr. Lufwa, 1.585 m, 28.III.1947,  
1 queen, 1 king, 2 soldiers (118 a)].

8. — ***Cubitermes oblectatus* n. sp.**

(Figs. 24-29.)

Imago - female. — Head dark chestnut brown, with many short pale hairs except on vertex. Frontal area with depression anterior to fontanelle and reaching the margin with clypeus; fontanelle in a small pit on flat area between the ocelli. Postclypeus a little paler than rest of head,

FIG. 24-29. — *Cubitermes oblectatus* n. sp.

Imago : 24, Head and pronotum; 25, Head, lateral view; 26, Mandibles.  
Soldier : 27, Head and pronotum; 28, Head, lateral view; 29, Left mandible.

with a dark median line. Labrum brown with paler margins, and many pale short hairs. Mandibles as figured. Ocelli small, narrow oval, one and a half times their long diameter removed from the eyes. Antennae dark brown; segments III shorter than IV, and both noticeably shorter than the rest.

Pronotum similar in colour to head, and with numerous short pale hairs; anterior margin straight, sides curving to narrow, barely emarginate posterior; median furrow slight. Legs yellow brown. Abdominal tergites uniformly pale brown with numerous short hairs; intersegmental membrane with evenly distributed pale brown spots.

	Range of 3. mm.
Width of head across the eyes ... ...	1,77-1,82
Eye, maximum diameter . ... ...	0,44
Ocellus ... ... ... ...	$0,15 \times 0,11$
Distance from eye to ocellus . ... ...	0,22
Pronotum ... ... ... ...	$1,68 \times 1,04$
Hind tibia, length ... ... ... ...	1,86-1,90

**Soldier.** — Head grey-brown, rectangular, with posterior corners rounded and slightly broader than remainder of head, posterior margin shallowly curved; frontal area slightly raised, with the large fontanelle hidden from above in the steeply cut front. Mandibles robust and about as long as the head, curvature slight to moderate without the tips in-curving strongly, inner margins lightly serrated, left mandible with prominent basal tooth. Labrum large, bifid with pointed lobes, narrower at base than at tips. Antennae with 15 segments, III shorter than IV, dull brown. Gulamentum wide near anterior margin, much narrower for the remaining three-quarters of its length.

Pronotum small, saddle-shaped with anterior lobes up-turned, pale in colour.

	Range of 9. mm.	Mean. mm.
Length of head with mandibles ... ...	5,54-5,86	5,61
Head, length ... ... ... ...	2,64-3,09	2,98
Head, width . ... ... ... ...	2,27-2,54	2,38
Left mandible, length ... ... ...	2,73-3,18	2,98
Pronotum, width ... ... ... ...	1,23-1,36	1,32
Hind tibia, length ... ... ... ...	1,72-1,82	1,79

Soldiers resemble *C. inclitus*, but may be distinguished by their larger size, and by the shape of their labrum which is more shallowly incised. *C. ugandensis* and *C. heggi* are significantly smaller. *C. bulbifrons* is larger, and has the frontal area projecting forward and more swollen.

**Holotype :** Soldier, Lusinga, 1.760 m, 14.VII.1947 (561 a) in Institut des Parcs Nationaux du Congo Belge.

**Morphotype :** Female (queen) from type colony, in same collection.

**Paratypes :** 1 queen, 15 soldiers and numerous workers from type colony. [Kenia, affl. dr. Lusinga et s. affl. dr. Lufwa, 1.585 m, 15.VII.1947, 2 queens, 20 soldiers and numerous workers from 3 nests (565 a)] in same collection and British Museum.

9. — **Cubitermes** spp.

The genus *Cubitermes* is also represented by winged adults of two species, neither of which is included above. In view of the large number of species of this genus which have been described from soldiers alone, or from soldiers and alates taken in association but not in fact belonging to each other, it is not considered desirable to proceed further with these short series of winged forms without soldiers. They belong to two species :

- (i) Lusinga, 1.760 m, 23.III.1947, 1 (106 a); 10.IV.1947, 1 (223 a).  
Kankunda, affl. g. Lupiala et s. affl. dr. Lufira, 1.300 m, 14-20.XI.1947, 1 (1006 a); 22-28.XI.1947, 3 (1032 a); 22-24.XI.1947, 2 (1036 a).  
[Kenia, affl. dr. Lusinga et s. affl. dr. Lufwa, 1.760 m, 28.III.1947, 2 (136 a)].
- (ii) Lupiala, affl. dr. Lufira, 700 m, 6.X.1947, 1 (809 a).  
Kaswabilenga, r. dr. Lufira, 700 m, 8.XI.1947, 1 (970 a).

Genus **NODITERMES** SJÖSTEDT.10. — **Noditermes festivus** n. sp.

(Figs. 30-34.)

**I**mago-female. — Head dark brown with numerous pale hairs; generally rounded in shape. Eyes relatively small. Ocelli large, oval, their distance from the eyes equal to their long diameter. Fontanelle conspicuous as a pale longitudinal streak (!-shaped) in a slight depression. Clypeus inflated, slightly paler than the head with a dark median line, posterior margin near semi-circular. Labrum pale, as long as broad, sides converging from midway to rounded tip. Mandibles as figured, dark brown with large terminal points.

Pronotum dark brown with pale hairs, anterior margin straight, sides curving to short emarginate posterior. Abdominal segments brown, legs paler.

**M**ale. — In general as female.

**F**emale.

mm.

**M**ale.

mm.

Width of head across the eyes ...	... 1,14	1,10
Eye, maximum diameter ...	... 0,26	0,26
Ocellus . . . . .	0,12 × 0,09	0,12 × 0,09
Distance from eye to ocellus ...	... 0,12	0,12
Hind tibia, length ...	... 1,04	1,04
Pronotum . . . . .	0,86 × 0,60	0,91 × 0,58

*N. profestus* differs in having both sexes larger and lacking the long narrow pale fontanelle.

**Soldier.** — Head pale yellow, slightly darker at the margins; rectangular with sinuate sides and flatly curved posterior. Frontal area projecting as an obtuse angled peak, in profile raised above the general level of the head and falling away steeply in front, overhanging the fontanelle. Labrum short, with deep U-shaped notch and finely pointed lobes. Mandibles dark brown, longer than the head, slender, curving slightly from the base,

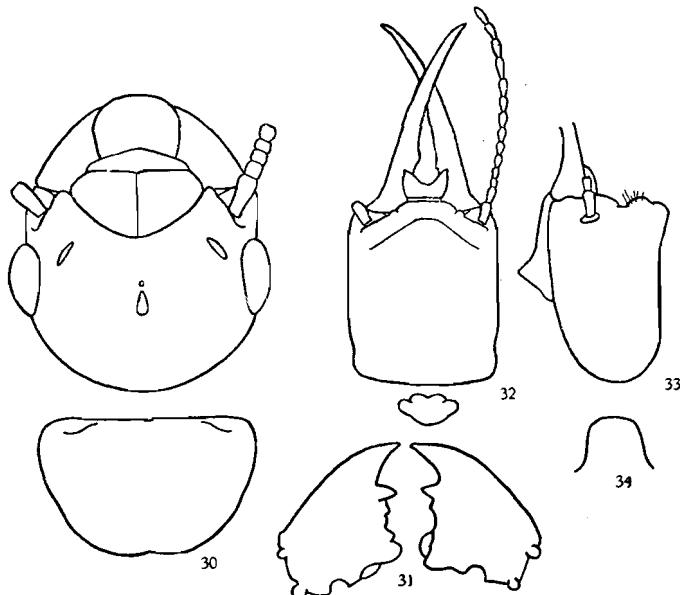


FIG. 30-34. — *Noditermes festivus* n. sp.

Imago : 30, Head and pronotum. Worker : 31, Mandibles.  
Soldier : 32, Head and pronotum; 33, Head, lateral view;  
34, Gula process, frontal view.

points sharp, inner margins each with a single small tooth towards the base. Antennae with 14 segments, IV smaller than III and V. Gulamentum ribbon-like, with prominent process that is acute angled when viewed from the side and from the front is a truncated cone lightly rounded off.

Pronotum small, near white, saddle-shaped with small anterior lobes. Abdomen and legs white.

Range of 4.  
mm.

Length of head with mandibles ...	2,73-2,82
Head, length ... ... ... ... ...	1,41-1,46
Head, width . ... ... ... ... ...	1,14-1,21
Left mandible, length ... ... ... ...	1,50-1,54
Pronotum ... ... ... ... ...	0,54 × 0,23
Hind tibia, length ... ... ... ...	0,82-0,86

*N. indoensis* is near, but differs in having the labrum more deeply incised, and the gula process bilobed when viewed from the front. *N. lamanianus* is larger, with the labrum relatively larger, and mandibles both shorter and more curved. *N. profestus* has the labrum with more obtuse angled notch, mandibles finer and straighter at their tips, and the gula process is more cylindrical from the side, and broader from in front with slightly bilobed margin. In *N. wasambaricus* the frontal projection is greater, and the gula process appears bilobed.

**Holotype** : Soldier, [Kenia, affl. dr. Lusinga et s. affl. dr. Lufwa, 1.585 m, 28.III.1947 (117 a)] in Institut des Parcs Nationaux du Congo Belge.

**Morphotype** : Male and female from type colony as above, in same collection.

**Paratypes** : 3 soldiers with workers from type colony as above; 1 queen, 2 soldiers and workers from type locality, 17.VII.1947 (585 a), in same collection and British Museum.

Genus **ANOPLOTERMES** MÜLLER.

11. — **Anoplotermes** sp.

*Anoplotermes* is represented in the collection by one dealate male « king » and three dealate females, « queens », associated with *Cubitermes spp.* from three nests. This genus is without a soldier caste and is for this reason not so well known as its wide distribution in Africa would warrant. *Anoplotermes* is frequently found in the mounds of various *Cubitermes*, though some, if not all species are capable of an independant existance.

Lusinga, 1.760 m, 14.VII.1947, 1 king, 2 queens (561 a), with *C. oblectatus*.  
[Kenia, affl. dr. Lusinga et s. affl. dr. Lufwa, 1.585 m, 15.VII.1947, 1 queen (565 a) with *Cubitermes spp.*].

## Subfamily MACROTERMITINAE.

Genus **MACROTERMES** HOLMGREN.12. — ***Macrotermes bellicosus*** (SMEATHMAN).

*Termes bellicosus* SMEATHMAN, 1781, Phil. Trans. Roy. Soc. **71** : 141.

*Termes bellicosus* HAGEN, 1858, Catalogue of the Neuropterous insects in the collection of the British Museum. Part I : 17.

*Macrotermes bellicosus* FULLER, 1922, S. Afr. J. nat. Hist. **3** (2) : 72.

*Amplitermes bellicosus* SJÖSTEDT, 1926, K. sv. Vet. Akad., Handl. (3) **3** (1) : 85.

*Bellicositermes bellicosus* SJÖSTEDT, 1926, Rev. zool. afric. **14** : 143.

*Macrotermes bellicosus* SNYDER, 1949, Smithson. misc. Coll. **112** : 209.

This species is represented in the collection by numerous soldiers and workers from Karibwe. The soldiers are robust and deeply pigmented, approximating *M. goliath*, especially in the case of the minor soldiers. *M. goliath* major soldiers from neighbouring localities in Rhodesia and Nyasaland are larger, with pronota broader and distinctly more rounded at the sides.

The following measurements agree closely with those given by EMERSON (1928, Bull. Amer. Mus. nat. Hist. 57 : 446) for this species in localities immediately north of the Tropical Rain Forest.

	Major soldier (5). mm.	Minor soldier (5). mm.
Length of head with mandibles ... ...	9,30-9,60	6,10-6,20
Head, length ... ... ... ...	6,40-6,60	3,80-3,90
Head, width ... ... ... ...	5,10-5,30	2,90-3,30
Left mandible, length ... ... ...	2,86-3,18	2,26-2,36
Pronotum, width ... ... ...	4,09-4,41	2,50-2,64
Pronotum, length ... ... ...	2,00-2,13	1,32-1,41
Hind tibia, length ... ... ...	3,80-4,00	2,90-3,00

Karibwe, affl. Lusinga et s. affl. dr. Lufwa, 1.700 m, 8-10.III.1947, numerous soldiers and workers (15 ♂).

Genus **ODONTOTERMES** HOLMGREN.13. — **Odontotermes badius** (HAVILAND).

*Termes badius* HAVILAND, 1898, J. linn. Soc. (Zool.) **26** : 385.

*Odontotermes (Odontotermes) badius* HOLMGREN, 1912, K. sv. Vet. Akad. Handl. **48** (4) : 36.

This is a widely distributed termite in wooded grassland and deciduous woodland from Ethiopia across to the Cameroons and down to Cape Province. It is represented in this collection by alates from three localities.

Lusinga, 1.760 m, 15.III.1947, 1 (50 a); 17.III.1947, 1 (55 a); 10.IV.1947, 14 (233 a).

Kankunda, r. dr. Lupiala, 1.300 m, 13-27,XI.1947, 1 (963 a).

[Kenia, affl. dr. Lusinga et s. affl. dr. Lufwa, 1.700 m, 8 (126 a); 2 (136 a)].

14. — **Odontotermes latericius** (HAVILAND).

*Termes latericius* HAVILAND, 1898, J. linn. Soc. (Zool.) **26** : 386.

*Odontotermes latericius* HOLMGREN, 1913, Ent. Tidskr. **34** : 328.

[Kenia, affl. dr. Lusinga et s. affl. dr. Lufwa, 1.585 m, 10.XII.1947, 1 soldier (81 b)].

Genus **ANCISTROTERMES** SILVESTRI.15. — **Ancistrotermes crucifer** (SJÖSTEDT).

(Figs. 35-36.)

*Termes crucifer* SJÖSTEDT, 1897, Ent. Tidskr. **18** : 123.

*Microtermes crucifer* HOLMGREN, 1912, K. sv. Vet. Akad. Handl. **48** (4) : 41.  
*Ancistrotermes crucifer* SILVESTRI, 1914, Boll. Lab. zool. Portici **9** : 18.

Two long series of winged imagoes agree closely with co-types from Abo in the Cameroons. *A. crucifer* is widely distributed in West Africa from Dakar to the northern Congo Belge. *A. latinotus* is recorded from Angola, Rhodesia, Nyasaland and East Africa, and in the Luapula area of the Congo Belge. Other species of the genus would appear to be less widely distributed. However in this case the Congo Rain Forest belt does not appear to act as a barrier between northern and southern savannah species, and recently WEIDNER (1956, Pub. Cult. Comp. Diam. Angola **29** : 87) has recorded *A. crucifer* soldiers from the Dundo area of Angola. Head and pronotum of alate *crucifer* and *latinotus* are figured.

Measurements of a male and a female from Lukawe are given below with those of two co-types males from Abo.

	Lukawe (2). mm.	Abo (2). mm.
Width of head across the eyes ... ...	1,68	1,68-1,77
Eye, maximum diameter ... ...	0,50	0,45-0,54
Ocellus, long diameter . ... ...	0,23	0,25-0,27
Ocellus, short diameter . ... ...	0,16-0,18	0,18
Distance of ocellus from eyes ... ...	0,09	0,09
Pronotum, width ... ... ...	1,46-1,50	1,50-1,54
Pronotum, length ... ... ...	0,86-0,91	0,91
Forewing, length ... ... ...	16,00	15,00-16,00
Forewing, width ... ... ...	4,00	3,70-4,00
Antennal segments . ... ... ...	XVII	XVII

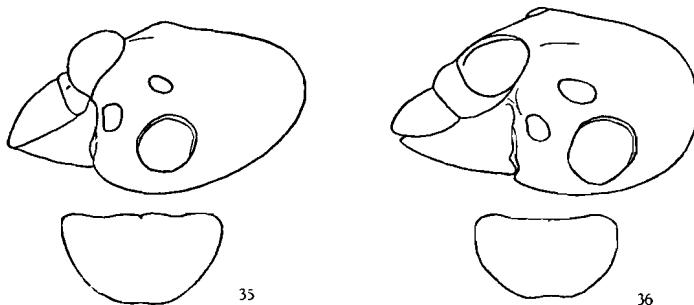


FIG. 35-36. — *Ancistrotermes*.  
Head in lateral view, and pronota of imagoes :  
35, *A. latinotus*; 36, *A. crucifer*.

Riv. Lupiala, affl. dr. Lufira, 700 m, 6-9.X.1947, 72 alates (807 a).  
Lukawe, affl. dr. Lufira, 700 m, 6-9.X.1947, 61 alates (814 a).  
Kaswabilenga, 700 m, 17.X. 1947, 1 alate (845 a).

#### Genus **MICROTERMES** WASMANN.

##### 16. — **Microtermes upembae** n. sp.

(Figs. 37-41.)

**I mago-female.** — Head brown, with numerous small unpigmented spots each with a pale yellow hair; oval, the width across the eyes exceeding the distance from anterior of postclypeus to posterior margin of head by  $\frac{1}{7}$ th. Fontanelle inconspicuous. Eyes large, protruding, black. Ocelli oval, situated close to the eyes. Mandibles as figured. Postclypeus yellow, without a dark median line, slightly inflated, anterior margin straight.

Labrum broad, with rounded tip. Antennae with 14 segments, III scarcely shorter than IV but narrower, IV and V equal.

Pronotum yellow-brown, without a distinct pale T-shaped mark; anterior lightly emarginate, posterior more so. Wings hyaline, slightly pigmented at base, with only sub-costa and radius well defined in yellow, branching of media and cubitus variable. Abdomen and legs yellow-brown.

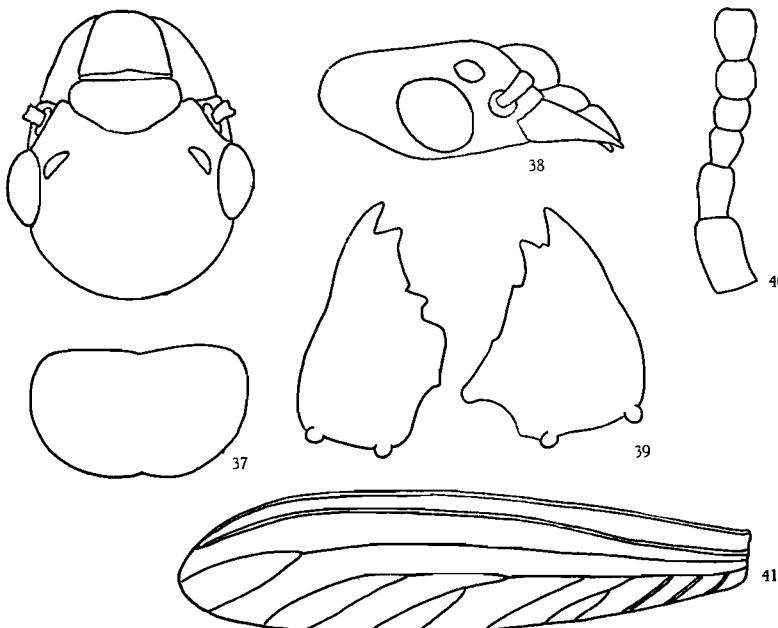


FIG. 37-41. — *Microtermes upembae* n. sp.

Imago : 37, Head and pronotum; 38, Head, lateral view;  
39, Mandibles; 40, Antennal segments I-VI; 41, Fore wing.

Male. — Generally as female but with abdomen less bulky and wings shorter.

	Female (♀).	Male (♂).
	mm.	mm.
Width of head across the eyes ... ...	1,18-1,28	1,18
Eye, maximum diameter ... ...	0,36-0,41	0,36
Ocellus . . . . .	0,18 × 0,13	0,18 × 0,13
Distance of ocellus from eye . . . .	0,04	0,03-0,04
Pronotum, width ... . . . .	1,18	1,00-1,14
Pronotum, length ... . . . .	0,77	0,64-0,68
Hind tibia, length ... . . . .	1,28	1,14-1,23
Forewing, length ... . . . .	13,00-13,50	11,00-11,30
Forewing, width ... . . . .	3,00	2,80-2,90

Described from 2 ♀ and 57 ♂, from Riv. Lupiala, and 60 from elsewhere.

This termite differs from closely related *Microtermes* as follows :

*M. pallidiventris* from Elizabethville has 15-segmented antennae, IV being longer than III, larger ocelli, pronotum with straight anterior margin and definite T-shaped mark; *M. magnocellis* from Tanganyika has larger ocelli and a relatively narrower head; *M. osborni* from Stanleyville is smaller, with a visible fontanelle, and ocelli relatively further from the eyes.

**Holotype** : Alate female, Riv. Lupiala, affl. dr. Lufira, 700 m, 6-9.X.1947 (807 a) in Institut des Parcs Nationaux du Congo Belge.

**Morphotype** : Alate male, as above, in same collection.

**Paratypes** : 1 ♀, and 56 ♂ as above.

Lukawe, affl. r. dr. Lufira, 700 m, 6-9.X.1947, 53 (814 a).

Kaswabilenga, r. dr. Lufira, 700 m, 8.XI.1947, 7 (970 a), in same collection and British Museum.

#### Subfamily NASUTITERMITINAE.

##### Genus **TRINERVITERMES** HOLMGREN.

###### 17. — **Trinervitermes** sp.

One major soldier, three minor soldiers and some workers were associated with *Noditermes festivus*. Such a series is inadequate for determination in a new locality, or for description if a new species, in view of the considerable variation to be met with in *Trinervitermes*. This species is close to *T. dispar*, the soldiers having red-brown heads with the nasus slightly darker in colour, short and cylindrical. Length of head to tip of nasus 2,05 and 1,72 mm in the major and minor forms respectively.

[Kenia, affl. dr. Lusinga et s. affl. dr. Lufwa, 1.585 m, 28.III.1947 (117 a)].

#### NEST ASSOCIATIONS.

Some termites are rarely, if ever, found anywhere else than in the mounds of other termites; others may be able to make mounds of their own but show a preference for associating with another species. The degree of association appears to vary from actual sharing of the galleries of a mound still in the occupation of a « primary mound builder », through a less intimate relationship where the intruder adapts for its own use part of a mound not actually in use, to the complete taking over of a

mound from which the original inhabitants have departed, either by accident or by force. In Africa, large tracts of grassland, both montane and aquatic, and of savanna maintain large populations of small-mound termites, usually species of *Cubitermes*, and their constructions exhibit all degrees of nest association. Such associations involve smaller species of the same genus, related genera such as *Thoracotermes* and *Crenitermes*, and certain specialised genera including *Anoplotermes*, which has no soldier caste, and *Apicotermes* with its highly developed nest construction. These nest associations lead to the mixing of the various castes of the two or more species concerned, and may cause alates and soldiers of different genera to be described as a single new species.

Examples of nest associations found in the present collection are listed. They arise from the presence of two or more species in a tube devoted to the occupants of a single mound.

*Anoplotermes* sp. occurs in three nests of *Cubitermes oblectatus* (561 a & 565).

*Trinervitermes* sp. occurs in a nest of *Noditermes festivus* (117 a).

Three mounds from one locality (565 a) present a more complex picture :

	Mound		
	1.	2.	3.
<i>Cubitermes oblectatus</i> ...	...	x	x
<i>Cubitermes muneric</i> .	...	x	—
<i>Thoracotermes lusingensis</i> ...	...	x	x
<i>Crenitermes fruitus</i> .	...	x	—
<i>Anoplotermes</i> sp. ...	...	—	x

COMMONWEALTH INSTITUTE OF ENTOMOLOGY,  
c/o British Museum (Nat. Hist.), London, S.W. 7.

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ARRANGED ALPHABETICALLY.

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Foto A. JANSENS.

Fig. 1. — Mound of *Cubitermes muneric* (SJÖSTEDT) at Dipidi, alt. 1800 m.



Photo G. F. DE WITTE.

Fig. 2. — *Cubitermes* mounds in low altitude tree savanna at Babazi, alt. 900 m.



Photo G. F. DE WITTE.

Fig. 1. — Mushroom mounds of *Cubitermes* sp., Kanonga, alt. 695 m.



Photo G. F. DE WITTE.

Fig. 2. — Mound of *Macrotermes bellicosus* (SMEATHMAN), Kaswabilenga, alt. 790 m.,  
at edge of escarpment forest.

**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 52 (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).**  
**Aflevering 52 (2)**

## CANTHARIDAE (COLEOPTERA MALACODERMOIDEA)

PAR

NOËL MAGIS (Liège)

Dans son exploration du Parc National de l'Upemba, la Mission G. F. DE WITTE a récolté une trentaine d'exemplaires de *Cantharidae*. Ce nombre restreint d'individus contraste singulièrement avec la richesse et la variété de la faune des *Cantharidae* du Parc National Albert. On retrouve cependant dans la région de l'Upemba les trois genres représentés au Parc Albert.

Le genre *Afronycha* (*Cantharini*) y est représenté par l'espèce *puberula* (BOURGEOIS) et est ainsi commune aux deux régions.

Parmi les *Silidius*, aucune espèce n'est commune; il en est de même pour les *Prosthaptus* (*Malthinini*). Pour ces deux genres, nous avons dû laisser innommés un certain nombre de femelles qu'il n'est pas possible de déterminer dans l'état actuel des connaissances.

Nous voulons remercier M. V. VAN STRAELEN, Président de l'Institut des Parcs Nationaux du Congo Belge, qui a bien voulu nous confier l'étude de ces matériaux; MM. A. COLLART et P. BASILEWSKY, respectivement Chefs des sections d'entomologie à l'Institut royal des Sciences naturelles de Belgique et au Musée royal du Congo Belge, à Tervueren, qui nous ont aimablement donné accès aux collections dont ils ont la garde et permis de comparer et de réétudier de nombreux types dont les descriptions originales sont trop souvent incomplètes, voir même incompréhensibles.

Sauf indication contraire, tous les matériaux ont été recueillis par la Mission G. F. DE WITTE. Les localités situées en dehors des limites du Parc National de l'Upemba sont indiquées entre crochets [ ].

\*\*

## CANTHARINI

Genre **AFRONYCHA** WITTMER, 1949.

*Afronycha* WITTMER, Ann. Mag. Nat. Hist., Sér. 12, II, 1949, p. 746.

**Afronycha puberula** (BOURGEOIS).

*Cantharis puberula* BOURGEOIS, in SJÖSTEDT, Kilim.-Meru Exp., VII, n° 4, 1908, p. 124.

*Afronycha puberula* (BOURGEOIS), WITTMER, loc. cit., p. 746.

6 ex. : Lusinga, riv. Mitoto, 1.760 m, 9.VII.1945, 1 ♂; Lusinga, 1.760 m, 4-8.III.1947, 8.III.1947, 15.III.1947, 1 ♂, 3 ♀♀; [Kenia, affl. Lusinga, 1.700 m, 28.III.1947, 1 ♀].

## SILINI

Genre **SILIDIUS** GORHAM, 1883.

*Silidius* GORHAM, Ann. Mus. civ. Stor. Nat. Genova, XVIII, 1883, p. 595; BOURGEOIS, in SJÖSTEDT Kilim.-Meru Exp., VII, n° 4, 1908, p. 125; MAGIS, Rev. Zool. Bot. afr. (sous presse); Bull. Inst. r. Sc. nat. Belgique (sous presse); Explor. Parc Nat. Albert, Mission G. F. DE WITTE (1933-1935) (sous presse).

**Silidius (Wittmerus) upembensis** n. sp.

(Fig. 1.)

Tête, yeux compris, plus large que le pronotum (♂), aussi large (♀). Clypéus triangulaire. Second article des antennes 2,5 fois plus court que le 3<sup>e</sup>; articles 3-10 subégaux, légèrement sétacés au sommet. Les antennes sont noires à l'exception du scape qui est brun clair. Front concave entre les yeux, ceux-ci saillants (♂). Tête brune, marquée de noir entre les yeux.

Pronotum (♂) subcarré, légèrement transverse (♀), largement arrondi sur son pourtour antéro-latéral avec les angles antérieurs largement tronqués. Angles postérieurs très marqués (♀), aigus et un peu relevés, déchirés (♂), les trabécules rappelant ceux de *S. compressicornis* PIC et *S. delevali* PIC. Fossette médiane circulaire et profonde (♂), plus large et moins déprimée (♀). Roussâtre, marqué d'une tache médiane noire d'étendue variable.

Élytres, à leur base, plus larges que le pronotum, ruguleux, couverts d'une pubescence blonde, marqués, à leur base, de deux côtes assez peu visibles, courtes. Testacés avec parfois une tache humérale noire, ou bien étroitement enfumés ou nettement marqués de noir à l'apex, quelquefois unicolores.

Dessous du corps roussâtre, un peu obscurci dans la région thoracique, quelquefois, abdomen marqué de taches obscures assez diffuses. Hanches et base des fémurs colorées comme le reste du corps, les genoux et les tibias obscurcis, tarses noirs. Long. : 9-10 mm.

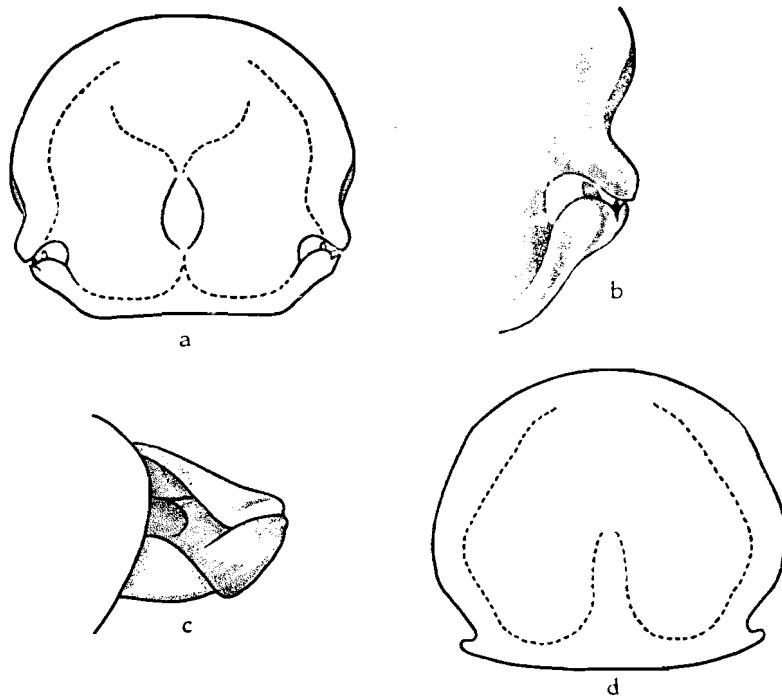


FIG. 1. — *Silidius (Wittmerus) upembensis* n. sp.

a : pronotum, vue dorsale, ♂ ( $\times 50$ ). — b : idem, détails des angles postérieurs ( $\times 80$ ). — c : pygidium, vue de profil, ♂ ( $\times 50$ ). — d : pronotum, vue dorsale, ♀ ( $\times 50$ ).

Cette espèce offre de grandes ressemblances avec *S. (Wittmerus) delevali* Pic; elle s'en écarte par les caractères suivants :

les antennes sont entièrement noires tandis que les articles apicaux sont colorés en jaune chez *S. delevali*;

par la forme du pygidium moins hémisphérique;

par la forme des lobes du dernier sternite abdominal qui, chez *upembensis*, sont manifestement plus larges et dont le bord interne est incurvé alors qu'il est droit chez *S. delevali*.

Elle offre aussi des liens de parenté évidents avec *S. (Wittmerus) compressicornis* PIC — par la forme du pronotum p. ex. — mais s'en distingue, d'une part, par les articles antennaires moins comprimés latéralement et moins trappus et, d'autre part, par l'apex des lobes du dernier sternite abdominal qui ne se termine pas en biseau comme chez *S. compressicornis*.

8 ex. : Kiamakoto-Kiwakishi, 1.070 m, 4-16.X.1948, 1 ♂, 1 ♀ (holo- et allotype); entre riv. Buye-Bala et riv. Katongo, 1.750 m, 27.IX.1948, 3 ♂♂; [riv. Kambi, 1.750 m, 25-27.VI.1945, 1 ♂]; Lusinga, 1.760 m, 1-8.XII.1947, 1 ♂; Kabwe s. riv. dr. Muye, 1.320 m, 20-25.V.1948, 1 ♀ (tous paratypes).

## MALTHININI

Genre **PROSTHAPTUS** GORHAM, 1900.

*Prosthaptus* GORHAM, Ann. Mag. Nat. Hist., 7<sup>e</sup> sér., V, 1900, p. 85. — WITTMER, Rev. Zool. Bot. afr., XLIV, 1951, p. 215.

*Amanimalthodes* PIC, L'Echange, XXVII, 1911, p. 132.

*Collartimalthodes* PIC, Rev. Zool. Bot. afr., XVIII, 1929, p. 309.

### **Prosthaptus sulphurosus** n. sp.

(Fig. 2.)

Tête, yeux compris, aussi large que le pronotum, lisse et luisante. Noire avec la partie antérieure jaune s'étendant jusqu'aux sockets antennaires. Clypéus marqué d'une bosse médiane assez saillante, déprimé latéralement.

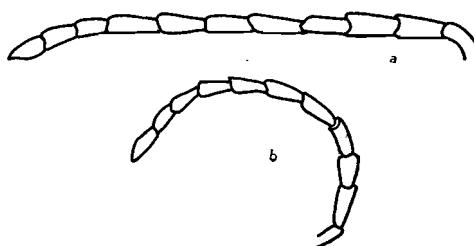


FIG. 2. — *Prosthaptus sulphurosus* n. sp.  
a : antenne ♂ ( $\times 50$ ). — b : idem, ♀ ( $\times 50$ ).

Yeux peu saillants. Antennes longues (♂), dépassant le sommet des élytres; articles basilaires un peu plus épais, 2 égal 3, 4 et suivants plus minces, subégaux, 9-11 plus petits que 8, 11 ovalaire et acuminé au sommet. (♀), antennes plus courtes, 2<sup>e</sup> article un peu plus long que 3. Brunes avec le scape et le second article jaunes.

Pronotum très transverse, à peine rétréci d'arrière en avant. Bord antérieur droit, les latéraux très légèrement obliques, marqués antérieurement d'une protubérance subtransversale. Marge postérieure largement arrondie avec les angles correspondants émoussés. Surface notale finement ponctuée, assez luisante. Entièrement jaune avec des taches discales noires assez diffuses.

Elytres, à leur base, un peu plus larges que le pronotum, légèrement rétrécis à l'apex — dans certains cas ce rétrécissement peut être très sensible —, assez lisses, brunâtres, couverts d'une pubescence grise assez courte; marqués, à l'apex, d'une tache jaune soufré.

Prosternum testacé, les autres parties sternales soit uniformément brunes (♀), soit plus claires avec les derniers sternites abdominaux brun jaunâtre (♂). Long. : 3 mm.

*P. sulphurosus* possède une structure antennaire qui rappelle celle du *P. claudus* GORHAM où les derniers articles sont également plus courts que le 8<sup>e</sup>. Son système de coloration est analogue à celui du *P. semiflavus* WITTMER. La nouvelle espèce s'en écarte pourtant par les dimensions relatives des articles antennaires 4-6 qui sont plus petits que 3 et 7 chez *semiflavus*, ce qui n'est pas le cas chez *sulphurosus*.

Riv. Karibwe, affl. Lusinga, 1.700 m, 8-10.III.1947, 1 ♂ (Holotype); Lusinga 1.760 m, 22.III.1947, 1 ♀ (allotype); Lusinga, 1.760 m, 13.III.1947, 17.III.1947, 1 ♂, 1 ♀ (paratypes).

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Sorti de presse le 31 juillet 1958.

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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 52 (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 52 (3)**

# **STRATIOMYIIDAE**

## **(DIPTERA ORTHORRHAPHA)**

VON

**ERWIN LINDNER (Stuttgart)**

Das « Institut des Parcs Nationaux du Congo Belge » vertraute mir die Stratiomyiiden-Ausbeute der Mission G. F. DE WITTE 1945-1949 zur Bearbeitung an. Sie umfasst zwar nur 12, zum grossen Teil längst bekannte und verbreitete Arten. Das Material enthält aber doch einiges, was geeignet ist, unsere Kenntnisse über die Dipterenfauna des Congo Belge und Afrikas überhaupt zu erweitern, dazu eine neue Pachygastrine. Diese unscheinbaren, kleinen Tiere, die im allgemeinen von den Sammlern im tropischen Afrika wie anderswo vernachlässigt werden, werden allmählich in steigender Zahl bekannt und überraschen, trotz ihrer im allgemeinen uniformen Erscheinung, durch ihre oft unerwarteten morphologischen Merkmale. Bemerkenswert ist ferner, dass an einem Punkt (Mabwe) nicht weniger als 3 *Opłodontha*-Arten gleichzeitig nebeneinander vorkommen.

***Opłodontha* aff. *pulchriceps* (LOEW).**

(Fig. 1.)

1 ♀ von Congo Belge, P.N.U., Mabwe, (Lac Upemba, 585 m), 1-12.VIII. 1947, Mission G. F. DE WITTE, 734 a.

Ich habe in meiner Arbeit [Deutsche Entomologische Zeitschrift, Jahrgang 1934 (1935)] den Kopf der Form aus Süd-Rhodesien abgebildet, die ich für die Art Loews hielt. Hier gebe ich die entsprechende Abbildung des Kopfes des Stückes aus dem Belgischen Kongo. Die Ähnlichkeit ist sehr gross. Einige Unterschiede lassen es aber fraglich erscheinen, ob

dieselbe Art mit grösserer Variationsbreite, eine andere Subspezies oder eine andere Art vorliegt. Aufschluss darüber müsste grösseres Material beider Geschlechter geben.

**Oplodontha stricticella** JAMES, 1940.

(Amer. Mus. Novit. Nr. 1088, p. 2).

1 ♀ von Congo Belge, P.N.U., Mabwe (Lac Upemba), 585 m, 1-12.VIII.1947, Miss. G. F. DE WITTE, 650 a.

Terra typica ist Nigeria.

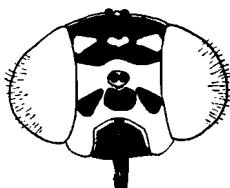


FIG. 1. — *Oplodontha* aff. *pulchriceps* (LOEW),  
Kopf von vorne.

**Oplodontha rubrithorax** MACQUART.

G. F. DE WITTE, 1329 a.

1 ♀ von Congo Belge, P.N.U., Lusinga (riv. Kamitungulu), 1.760 m, 13.VI.1945, Miss. G. F. DE WITTE, 116.

Ich habe diese Art auch in früheren Arbeiten als *rubrithorax* aufgeführt, die ursprünglich von MACQUART als indisch beschrieben wurde. Der letzte Zweifel, ob die afrikanischen Stücke tatsächlich identisch damit sind, müsste erst einmal durch Typenvergleich (?) und grösseres Material geklärt werden.

**Oplodontha circumscripta** BEZZI.

1 ♂, 1 ♀ von Congo Belge, P.N.U., Mabwe (lac Upemba), 585 m, 1-26.III.1947, Miss. G. F. DE WITTE, 722 und 678 a.

**Ptecticus elongatus** FABRICIUS.

4 ♂♂, 1 ♀ von Congo Belge, P.N.U., Kaziba, 1.140 m, 19.II.1948, Miss. G. F. DE WITTE, 1313 a; 24.II.1948.1329 a; riv. Lukawe, affl. dr. Lufira, 700 m, 22.X.1947, 884 a; Ganza, riv. Kamandula, affl. dr. Lukoka, 860 m, 12-18.VI.1949, 2692 a.

**Parasargus aff. africanus** LINDNER, 1934.

(D.E.Z., S. 300.)

1 ♂ von Congo Belge, P.N.U., Lusinga, 1.760 m, 1-8.XII.1947, Miss. G. F. DE WITTE, 1132 a.

Das vorliegende ♂ ist etwas grösser (9 mm) als der Typus bzw. Paratypus von der Sierra Leone und von Uganda (7,5 mm). Die Fühler sind mehr gelbbraun. Die Tarsen der  $p_3$  sind ganz schwarz, die der  $p_1$  und  $p_2$  hell gelblichbraun. Sonst ist leider an dem sehr schlecht erhaltenen Stück (Abdomen zerquetscht, Flügel und  $p$  verklebt und abgebrochen) allzu wenig feststellbar, als dass an eine endgültige spezifische Unterscheidung von *africanus* gedacht werden könnte.

**Microchrysa scutellaris** LOEW.

1 ♀ von Congo Belge, P.N.U., Kanonga, 675 m, 17-22.II.1949, Miss. G. F. DE WITTE, 2347 a.

**Microchrysa stigmatica** ENDERLEIN, 1914.

(Zool. Anz. XLIII, S. 592.)

1 ♂ von Congo Belge, P.N.U., Mabwe, r. E. lac Upemba, 585 m, 1.II.1949, Miss. G. F. DE WITTE, 2300 a.

Terra typica ist Westafrika, Fernando Poo.

**Isomerocera quadrilineata** FABRICIUS.

1 ♀ von R. Bowa, affl. dr. Kalule N. près Kiamalwa, 1.050 m, 3-4.III.1949, Miss. G. F. DE WITTE, 2401 a.

**Argyrobrithes argenteus** GRÜNBERG, 1915.

(Mitt. a. d. Zool. Mus. in Berlin, Bd. 8, S. 46.)

1 ♀ von Congo Belge, P.N.U., Mabwe (lac Upemba), 585 m, 1-12.VIII.1947, Miss. G. F. DE WITTE, 650 a.

**Neopachygaster congoensis** LINDNER, 1938.

(Bull. Mus. roy. d'Hist. nat. de Belgique, XVI, p. 29.)

1 ♀ von Congo Belge, P.N.U., Gorges de la Pelenge, 1.150 m, 19.VI.1947, Miss. G. F. DE WITTE, 520 a.

***Neopachygaster wittei* n. sp.**

(Fig. 2.)

1 ? ♂ Congo Belge, P.N.U., Gorges de la Pelenge, 1.150 m, 19.VI.1947, Miss. G. F. DE WITTE, 520 a.

2 ♂♂ (der Genitalapparat scheint, soweit er sichtbar ist, männlich zu sein; die Stirnbreite ist aber für ein ♂ etwas reichlich). Das Hauptcharakteristikum dieser Art ist eine Anzahl langer, feiner, glänzender, steif abstehender Haare beiderseits der Mittellinie des letzten Tergites.

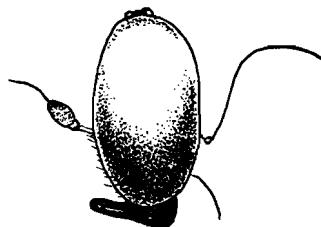


FIG. 2. — *Neopachygaster wittei*, n. sp.,  
Kopf von der Seite.

♂ (?). Schwarz. Kopf etwa doppelt so hoch wie lang; vorn gewölbt; hinten ziemlich flach; von vorn gesehen wenig breiter als hoch. Ozellenhöcker ziemlich hervortretend. Stirn schwarz, glänzend, von 1/5 der Kopfbreite. Gesicht schwarz, glänzend, mit etwas silbernglänzenden, schmalen Seitenrändern. Fühler etwas unter der Profilmittle mit schmalem, verhältnismässig langem Basalglied und kurzem 2. Glied. Beide sind hellbräunlich, ebenso wie das ovale, hell rötlichbraune Komplexglied, das an der Spitze verdunkelt ist; Fühlerborste dunkelbraun. Thorax so breit wie der Kopf, etwas länger als breit. Quernaht tief und in der Mitte stark nach hinten ausgebuchtet. Vor den Seiten der Quernaht und vor dem Schildchen kurze, anliegende, gelblich glänzende Härchen. Schildchen hinten gerundet. Nur mit kurzen Härchen. Pleuren schwarz,  $p$  einschliesslich Coxae hell gelblich; nur  $f_{2+3}$  subapikal mit einem dunkelbraunen, breiten Ring. Flügel etwas schmutziggrau, mit honiggelbem Randmal,  $r_4$  vorhanden. D ziemlich lang;  $r-m$  etwas distal der Basis von  $r_{2+3}$ . Abdomen an der Basis schmal, sonst fast kreisförmig, etwa doppelt so breit wie der Thorax, schwarz, glänzend, oben ziemlich gewölbt, mit unscheinbarer Behaarung auf dem vorletzten Tergit und der oben erwähnten, auffallend langen Behaarung auf dem letzten Tergit.

2,75 mm.

FRÜHERE ARBEITEN DES AUTORS  
ÜBER  
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IMPRIMERIE HAYEZ, s.p.r.l  
112, rue de Louvain, 112, Bruxelles  
Gérant: M. Hayez, av. de l'Horizon, 39  
Woluwe-Saint-Pierre

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