

A NEW GENUS AND A NEW SPECIES OF TERMITE (TERMITIDAE : NASUTITERMITINAE) FROM SABAH, MALAYSIA

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Received February 1994

THAPA, R.S. 1997. A new genus and a new species of termite (Termitidae: Nasutitermitinae) from Sabah, Malaysia. This paper describes a new genus and a new species of termite belonging to the subfamily Nasutitermitinae, family Termitidae, collected from the foothill, c. 1000 m a.s.l., of Gunung Lumaku in the Crocker Range, Sipitang District, Sabah, Malaysia.

Key words: Termite - *Sabahitermes* - imago - soldier

THAPA, R.S. 1997. Genus dan spesies baru anai-anai (Termitidae : Nasutitermitinae) dari Sabah, Malaysia. Kertas ini menerangkan mengenai genus baru dan spesies baru anai-anai daripada subfamili Nasutitermitinae, famili Termitidae, yang diambil daripada kaki bukit, kira-kira 1000 m p.a.l., Gunung Lumaku di Banjaran Crocker, Daerah Sipitang, Sabah, Malaysia.

Sabahitermes: new genus

Imago

Head, pronotum, wing scale and abdominal tergites densely hairy with long and short bristles. Wings microscopically hairy. Head smoky brown. Fontanelle pale.

Head suboval. Fontanelle slit-like to oval. Antennae 15 segmented, 3 one-and-a-half times as long as 2. Postclypeus less than half as long as broad. In both the mandibles apical tooth slightly longer than 1st marginal tooth. Left mandible with cutting edge of 1st plus 2nd marginal teeth weakly convex with a notch before 3rd marginal tooth. (Worker mandible has a wide notch before 3rd marginal tooth). Right mandible with posterior cutting edge of 2nd marginal tooth concave. Left mandibular index 0.4. Pronotum with posterior margin deeply emarginate. Wings with median vein running closer to cubitus than to radial sector. Forewing with all veins arising independently. Hindwing with median arising from radial sector outside the suture.

Soldier

Head yellowish-brown, rostrum reddish-brown. Head and rostrum microscopically hairy. Rostrum with thick coat of long hairs all over the ventral surface. Abdominal tergites with long and short bristles.

Head without rostrum subrectangular. Rostrum broadly conical; in profile gradually raised up anteriorly like a duck's beak with a broad notch at the base on ventral margin. Antennae 14 segmented, 3 one-and-a-half times as long as 2. Mandibles without points. Tibia equal to or shorter than head-capsule.

Comparisons

The new genus *Sabahitermes* is close to genus *Nasutitermes* Holmgren but differs as follows:- In imago - worker mandible pattern the apical tooth is slightly longer than 1st marginal tooth; left mandible has a wide notch before 3rd marginal tooth and the right mandible has concave posterior cutting edge of 2nd marginal tooth. In the soldier caste the rostrum is weakly raised up apically like a duck's beak with thick coat of long hairs on ventral surface, and has a wide notch at its base on ventral margin.

In having a notch before 3rd marginal tooth of left mandible, left mandibular index 0.4., and concave posterior cutting edge of 2nd marginal tooth of right mandible, the new genus *Sabahitermes* resembles the genus *Aciculioditermes* Ahmad, but the latter has apical tooth shorter than the 1st marginal tooth with a wider angle between them. The soldier caste of the genus *Aciculioditermes* Ahmad has cylindrical rostrum.

Sabahitermes malakuni: new species

Material

A vial with two imagoes, and a few soldiers and workers were collected from the foothill, c. 1000 m a.s.l., of Gunung Lumaku in the Crocker Range, Sipitang District, Sabah, Malaysia by Humphrey Charles on 14 December 1991 *ex* rotting wood.

Descriptions

Imago (Figure 1)

Head smoky brown; fontanelle pale; anteclypeus white; postclypeus brownish yellow; antennae and abdominal tergites dark brown; pronotum dark brown with yellowish Y-area; legs yellow with brownish tinge. Head, pronotum and wingscale densely hairy with long and short bristles; labrum with a few bristles on disc; postclypeus with long and short bristles; wings microscopically hairy; abdominal tergites densely covered with long bristles.

Head : Suboval, longer than broad. *Fontanelle* : Slit-like to oval, depressed. *Antennae* : 15 segmented, 3 more than one-and-a-half times as long as 2, 4 slightly longer than 3, 5-15 gradually increasing in size. *Eyes* : Large, bulging, almost touching the lower margin of head. *Ocelli* : Large, subcircular, almost touching the eyes. *Anteclypeus* : Trapezoid. *Postclypeus* : Weakly swollen, less than half as long as broad. *Mandibles* : Left mandible with apical tooth slightly longer than 1st marginal tooth; cutting edge of 1st plus 2nd marginal teeth weakly convex with a distinct notch before 3rd marginal tooth; (in worker caste the left mandible has a wide notch before 3rd marginal tooth); left mandibular index 0.4. Right mandible with apical tooth slightly longer than 1st marginal tooth; posterior cutting edge of 2nd marginal tooth concave. *Pronotum* : Narrower than head with eyes; anterior margin nearly straight, anterolateral corners narrowly rounded; posterior margin deeply emarginate. *Wings* : All veins sclerotised. *Forewing* : Costa, subcosta and radius joined to form the anterior border, radial sector running close to and parallel with costal border, unbranched; median running closer to cubitus than to radial sector, bifurcated; cubitus with 12 branches. *Hindwing* : Costa, subcosta, radius and radial sector as in forewing; median arising from radial sector outside the suture and running closer to cubitus than to radial sector, bifurcated; cubitus with 12 branches. *Legs* : Moderately long; tibial spurs 2 : 2 : 2

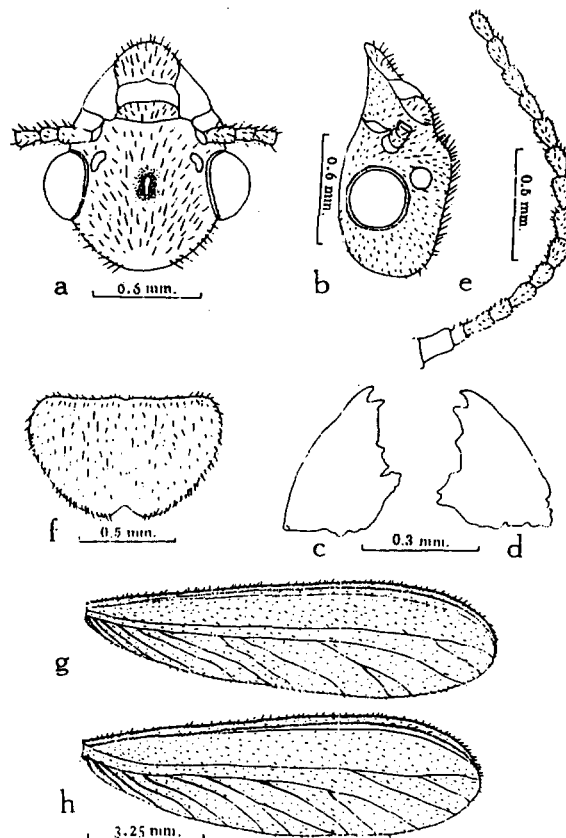


Figure 1. *Sabahitermes malakuni* n. sp. (a) dorsal view of head, (b) side view of head, (c) left mandible, (d) right mandible, (e) antenna, (f) pronotum, (g) forewing, (h) hindwing

Table 1. Measurements of two imagoes of *Sabahitermes malakuni* n. sp.

	Range (mm)
Length of head to tip of labrum	1.25 - 1.27
Length of head to side base of mandibles	0.80 - 0.87
Width of head (with eyes)	1.15 - 1.22
Long diameter of eye	0.42 - 0.45
Short diameter of eye	0.37 - 0.49
Eye from lower margin of head	0.037
Length of ocellus	0.15
Width of ocellus	0.10 - 0.12
Ocellus from eye	0.025
Length of pronotum	0.62 - 0.67
Width of pronotum	1.00 - 1.07
Length of forewing	12.00
Length of hindwing	11.50

Soldier (Figure 2)

Head without rostrum and antennae yellowish-brown; rostrum reddish-brown; pronotum yellow with anterior margin brown; abdominal tergites yellowish; legs pale yellow. Head with microscopic hairs; rostrum with 4 short bristles at the tip and with thick coat of long hairs all over the ventral surface; pronotum with long and short bristles; abdominal tergites covered with long and short bristles.

Head : Head without rostrum subrectangular, slightly longer than wide, sides weakly convex. *Rostrum* : Broadly conical; in profile gradually raised up anteriorly like a ducks beak, ventral margin broadly notched at base; rostrum - head index 0.66 - 0.77. *Antennae* : 14 segmented, 3 one-and-a-half times as long as 2, 4 subequal to 3, 5-14 gradually increasing in size. *Mandibles* : Small, without points. *Pronotum* : Anterior margin weakly notched in middle. *Legs* : Short, length of hind tibia 1.10 mm tibial spurs 2 : 2 : 2.

Table 2. Measurements of 10 soldiers of *Sabahitermes malakuni* n. sp.

	Holotype (mm)	Range (mm)
Length of head with rostrum	1.95	1.77 - 1.95
Length of head without rostrum	1.10	1.07 - 1.15
Length of rostrum	0.85	1.70 - 0.82
Rostrum/head index	0.77	0.66 - 0.77
Width of head	1.07	0.87 - 1.07
Height of head	0.77	0.67 - 0.77
Length of pronotum	0.02	0.01 - 0.02
Width of pronotum	0.52	0.47 - 0.55

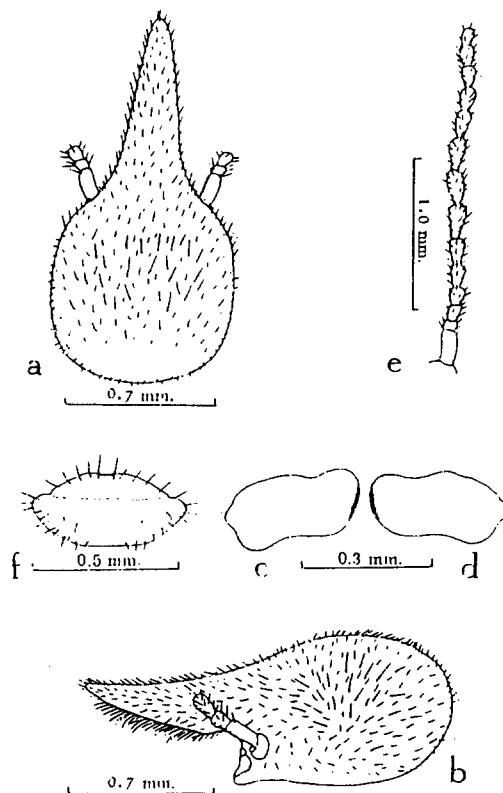


Figure 2. *Sabahitermes malakuni* n. sp. Soldier. (a) dorsal view of head, (b) side view of head, (c) left mandible, (d) right mandible, (e) antenna, (f) pronotum

Type locality

Sabah: Foothill, c. 1000 m a.s. l., of Gunung Lumaku, Crocker Range, Sipitang District.

Type specimens

Type specimens have been deposited as follows:

1. Holotype, morphotype, paratype and paramorphotype have been deposited at the Forest Research Centre, Sandakan, Sabah, Malaysia;
2. Paratype and paramorphotype have also been deposited at the Forest Research Institute, Dehra Dun, Uttar Pradesh, India.