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Termites (Isoptera) of Burma¹

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The account of the termites of Burma presented here is based on specimens collected by the author during a short visit there, from October 16 to October 24, 1961. Holotypes, morphotypes, and paratypes are deposited in the American Museum of Natural History. Duplicate paratypes are deposited in the United States National Museum, Smithsonian Institution, Washington, D. C.; in the British Museum (Natural History), London; and with Dr. Muzaffer Ahmad, Department of Zoology, University of the Panjab, Lahore, Pakistan.

Our knowledge of the termites of Burma has been fragmentary. Snyder in 1949 listed 21 species, as follows:

Coptotermes curvignathus Holmgren

Coptotermes gestroi (Wasmann)

Schedorhinotermes sarawakensis (Holmgren)

Speculitermes cyclops Wasmann

Globitermes audax Silvestri [now a synonym of *G. sulphureus* (Haviland)]

Microcerotermes burmanicus Ahmad [now a synonym of *M. crassus* Snyder]

Microcerotermes crassus Snyder

Termes marjoriae (Snyder)

Capritermes garthwaitei Gardner [now *Dicuspiditermes garthwaitei* (Gardner)]

¹ Financial assistance for the collection and study of these termites was furnished by the National Science Foundation (Grant G-14701 and Grant GB-388) and by the Ridgeway Fund of the University of Chicago. I am indebted to Dr. A. E. Emerson for confirming some of the new synonymies; to Mr. Thomas Hayden for drawing figures 7, 8, and 9; and to my wife, Mrs. Valerie Krishna, for editorial assistance.

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Capritermes laetus Silvestri [now *Dicuspiditermes laetus* (Silvestri)]
Macrotermes annandalei (Silvestri)
Macrotermes azarellii (Wasmann) [now a synonym of *M. gilvus* (Hagen)]
Macrotermes serrulatus Snyder
Odontotermes feae (Wasmann)
Odontotermes formosanus (Shiraki)
Odontotermes gravelyi Silvestri
Odontotermes taprobanes (Walker)
Hypotermes xenotermitis (Wasmann)
Nasutitermes roboratus (Silvestri)
Hospitalitermes birmanicus (Snyder)
Hospitalitermes jepsoni (Snyder)

Since the publication of Snyder's catalogue, only five species and one subspecies have been described—*Indotermes maymensis* Roonwal and Sen-Sarma (1960), *Capritermes orientalis* Mathur and Sen-Sarma (1961), *Odontotermes parlatigula* Chatterjee and Sen-Sarma (1962), *Hospitalitermes ataramensis* Prashad and Sen-Sarma (1960), *Hospitalitermes brevirostratus* Prashad and Sen-Sarma (1960), and *Macrotermes serrulatus hopini* Roonwal and Sen-Sarma (1956). Roonwal and Pant (1953), Roonwal and Sen-Sarma (1960), Roonwal and Chhotani (1961), and Mathur and Thapa (1962) have reported from Burma the following species and subspecies: *Odontotermes assamensis* (Holmgren), *Neotermes artocarpi* (Haviland), *Macrotermes gilvus malayanus* (Haviland), and *Coptotermes travians* (Haviland), respectively.

As shown in the following list, 20 species are described, six of which are new to science. Also, one new genus and one hitherto unknown imago are described. Three species are assigned to different genera, 10 species and nine subspecies or forms are placed in synonymy, and two genera and four species are recorded for the first time from this region.

Indotermes maymensis Roonwal and Chhotani
Euhamitermes hamatus (Holmgren)
Globitermes sulphureus (Haviland)
Microcerotermes crassus Snyder
Microcerotermes uncatus, new species
Angulitermes paanensis, new species
Angulitermes resimus, new species
Mirocapritermes valeriae, new species
Pericapritermes semarangi (Holmgren), new combination
Pericapritermes tetraphilus (Silvestri), new combination
Dicuspiditermes garthwaitei (Gardner), new combination
Macrotermes gilvus (Hagen)
Macrotermes serrulatus Snyder
Odontotermes feae (Wasmann)
Odontotermes hainanensis (Light)
Odontotermes obesus (Rambur)

Hypotermes xenotermitis (Wasmann)
Microtermes obesi Holmgren
Microtermes pakistanicus Ahmad
Bulbitermes prabhae, new species
Aciculitermes maymyensis, new species

Termites were collected from two localities: Maymyo (latitude 22° 5' N., longitude 96° 30' E.) and Pa-an (latitude 17° 56' N., longitude 97° 36' E.), Karen State, Burma. Maymyo, a hill town 40 miles east of Mandalay, is at an altitude of 3300 feet. The average annual rainfall is 59 inches, and the annual maximum and minimum temperatures are 84° C. and 39° C. This region is covered by evergreen hill forests. Pa-an is east of the Salween River, about 30 miles north of Moulmein. The average annual rainfall is about 190 inches. This region is either cultivated or covered by dense, tropical evergreen forests.

FAMILY TERMITIDAE

SUBFAMILY AMITERMITINAE

Indotermes maymensis Roonwal and Sen-Sarma

Indotermes maymensis ROONWAL AND SEN-SARMA, in Roonwal, 1958, pp. 81–82, pl. 2.

Indotermes maymensis ROONWAL AND SEN-SARMA, 1960, pp. 42–45.

Roonwal and Sen-Sarma in 1960 described the monotypic genus *Indotermes* for *Indotermes maymensis*, based on the characters of the soldier caste alone. The authors placed this genus in a new family, the Indotermitidae. Ahmad (1963) has shown that *Indotermes* is very closely related to *Speculitermes*, does not deserve family rank, and belongs to the subfamily Amitermitinae of the family Termitidae.

The workers of *Indotermes* and *Speculitermes* resemble one another so closely that it is very difficult to distinguish them. They have similar mandibular dentition, head and body shape, color, and Y sutures. Both have three-jointed tarsi, and both have a middorsal spot (Ahmad, 1963). The soldiers of these two genera, however, are easily distinguishable.

The workers that I have collected from Maymyo and Pa-an have all the above characters, but in the shape of the Y suture and the median line of the postclypeus they are closer to the workers of *Indotermes* than to those of *Speculitermes*. I am, therefore, tentatively placing these workers in *Indotermes maymensis*.

MEASUREMENTS (IN MM.): Range of measurements of seven workers: length of head to side base of mandibles, 1.01–1.07; width of head, 1.20–1.32; maximum length of pronotum, 0.40–0.46; width of pronotum,

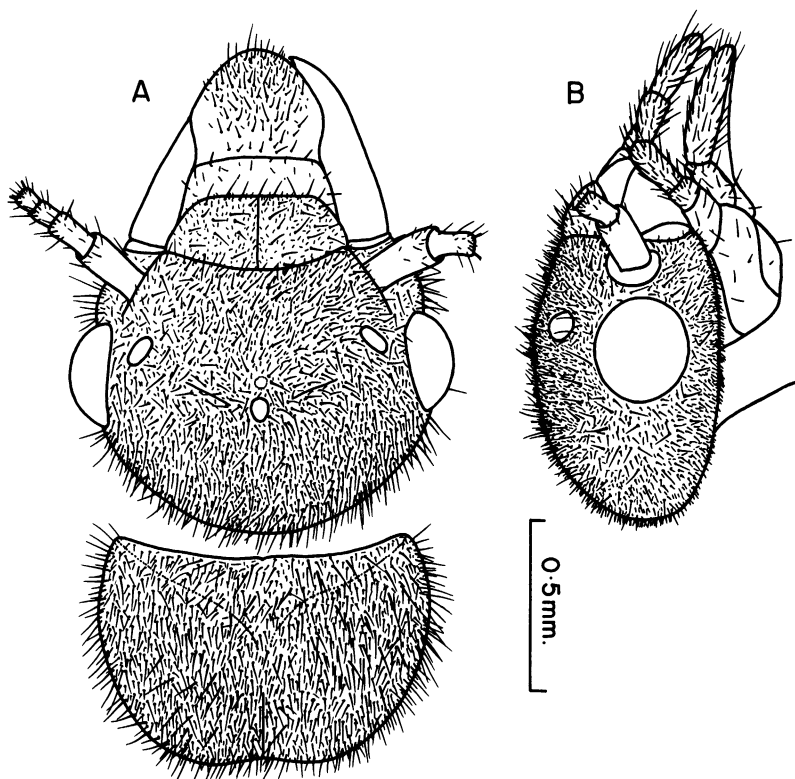


FIG. 1. Morphotype king of *Euhamitermes hamatus* (Holmgren). A. Head and pronotum from above. B. Head from side.

0.66–0.74; length of hind tibia, 1.48–1.58; diameter of middorsal spot, 0.07–0.13.

LOCALITIES AND MATERIAL: Botanical Garden, Maymyo, Burma, workers, collected by K. Krishna, October 20, 1961. Maibung, east of Salween River, Pa-an, Karen State, Burma, workers, collected by K. Krishna, October 16, 1961.

Euhamitermes hamatus (Holmgren)

Hamitermes (*Euhamitermes*) *hamatus* HOLMGREN, 1912a, p. 89.

Euhamitermes hamatus: SNYDER, 1949, p. 112.

Holmgren in 1912 described this species from the soldier caste alone. The imago is described here for the first time. This species has previously been recorded from the Malay Peninsula.

KING (FIG. 1): Head rusty brown posteriorly; postclypeus lighter; light round markings in front of ocelli; numerous light dots at bases of hairs and bristles; other small, light markings on frons; small, round, light markings immediately in front of middorsal, hyaline spot; anteclypeus whitish; labrum pale yellow; mandibles pale yellow at bases, reddish brown at tips; antennae light yellowish brown; pronotum same color as postclypeus; legs yellowish brown; tergites darker than sternites. Head and pronotum densely covered with numerous bristles and short hairs, the short hairs forming a conspicuous mat, contrasting with longer bristles. Head shaped as in figure, a white, hyaline, oval spot situated medially at arms of Y suture. Y suture faintly visible. Eyes small, shaped as in figure. Ocellus roundish, approximately 0.08–0.10 mm. from eye. Antenna with 15 articles; third article shortest. Pronotum slightly narrower than head; anterior margin concave; posterior margin slightly emarginate. Tibial spurs 3:2:2.

TABLE 1
MEASUREMENTS (IN MILLIMETERS) OF FOUR IMAGOS OF
Euhamitermes hamatus (HOLMGREN)

	King	Queen, Range
Length of head to tip of labrum	1.40	1.45–1.51
Length of head to side base of mandibles	0.87	0.92–0.94
Width of head	1.15	1.20–1.22
Diameter of eye	0.31	0.31
Eye from lower margin	0.08	0.08–0.10
Length of ocellus	0.10	0.10
Ocellus from eye	0.08	0.10–0.12
Median length of pronotum	0.61	0.64–0.71
Width of pronotum	0.98	1.12–1.22
Length of hind tibia	1.10	1.10–1.15

MEASUREMENTS (IN MM.): Range of measurements of two soldiers: length of head to side base of mandibles, 1.66–1.68; width of head, 1.20–1.23; height of head, 0.97; length of left mandible, 0.79; maximum width of postmentum, 0.41; minimum width of postmentum, 0.24; length of postmentum, 1.12–1.15; median length of pronotum, 0.41; width of pronotum, 0.66–0.77; length of hind tibia, 0.92–0.94.

LOCALITY AND MATERIAL: Maibung, east of Salween River, Pa-an, Karen State, Burma, king (morphotype), queens (paramorphotypes), soldiers (homotypes), workers, collected by K. Krishna, October 16, 1961.

Globitermes sulphureus (Haviland)

Termes sulphureus HAVILAND, 1898, p. 405.

Globitermes audax SILVESTRI, 1914, p. 432. New synonymy.

Globitermes audax: SNYDER, 1949, p. 129.

Globitermes sulphureus: SNYDER, 1949, p. 30.

Globitermes audax: MATHUR AND SEN-SARMA, 1958, pp. 1-9.

Globitermes audax: MATHUR AND THAPA, 1962, p. 43.

MEASUREMENTS (IN MM.): Range of measurements of eight soldiers: length of head to side base of mandibles, 0.89-1.02; width of head, 0.97-1.15; height of head, 0.77-0.84; length of left mandible, 0.87-1.02; width of postmentum in middle, 0.26-0.31; length of postmentum, 0.38-0.46; maximum length of pronotum, 0.36-0.43; width of pronotum, 0.71-0.82; length of hind tibia, 1.00-1.12.

LOCALITY AND MATERIAL: Maibung, east of Salween River, Pa-an, Karen State, Burma, two vials containing soldiers, workers, collected by K. Krishna, October 16, 1961.

Microcerotermes crassus Snyder

Microcerotermes crassus SNYDER, 1934, pp. 22-23.

Microcerotermes burmanicus AHMAD, 1947, p. 6. New synonymy.

Microcerotermes burmanicus: SNYDER, 1949, p. 135.

Microcerotermes crassus: SNYDER, 1949, p. 136.

Microcerotermes burmanicus: MATHUR AND SEN-SARMA, 1958, pp. 1-9.

Microcerotermes burmanicus: MATHUR AND THAPA, 1962, p. 46.

Snyder in 1934 described *Microcerotermes crassus* from the soldier caste alone. The imago of *M. burmanicus* was described for the first time by Mathur and Sen-Sarma in 1958. In the present paper *M. burmanicus* is considered a synonym of *M. crassus*.

DEALATE IMAGO (FIG. 2): Head reddish brown; postclypeus yellowish brown; antennae and labrum pale yellowish; pronotum brown; legs brownish yellow; tergites darker than sternites. Head and pronotum moderately covered with various-sized bristles. Head shaped as in figure, length to base of mandibles less than width. Dorsal hyaline spot or "fontanelle" not visible. Y suture very faintly visible. Postclypeus swollen, medially divided by a dark longitudinal line. Eyes shaped as in figure. Ocellus suboval, approximately 0.05 mm. from eye. Antenna with 14 articles; third article shortest, second longer than fourth. Pronotum narrower than head; anterior margin angularly emarginate; posterior margin straight or deeply incised in middle.

MEASUREMENTS (IN MM.): Range of measurements of two imagoes: length of head to tip of labrum, 1.25-1.28; length of head to side base of mandibles, 0.92; width of head, 1.00-1.01; diameter of eye, 0.29-0.30;

eye from lower margin, 0.08; length of ocellus, 0.10–0.13; ocellus from eye, 0.05; median length of pronotum, 0.51; width of pronotum, 0.71–0.77; length of hind tibia, 1.05–1.07.

Range of measurements of nine soldiers: length of head to side base of mandibles, 1.50–1.79; width of head, 0.98–1.14; height of head, 0.88–1.02; length of left mandible, 1.14–1.23; maximum width of postmentum,

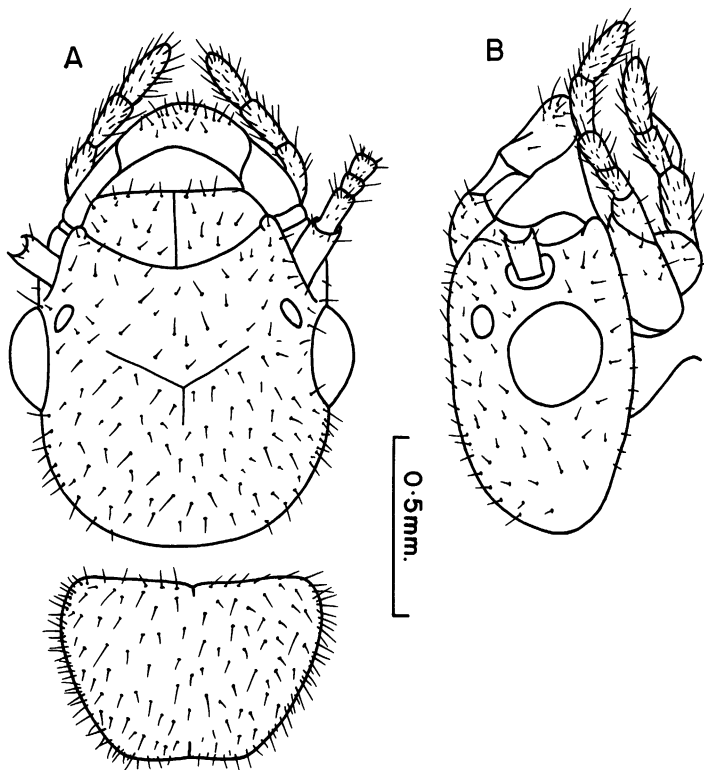


FIG. 2. Imago of *Microcerotermes crassus* Snyder, topotype colony from Meitkyina, Burma. A. Head and pronotum from above. B. Head from side.

0.34–0.36; minimum width of postmentum, 0.24–0.27; length of postmentum, 0.92–1.12; maximum length of pronotum, 0.36–0.42; width of pronotum, 0.61–0.74; length of hind tibia, 0.84–0.95.

LOCALITIES AND MATERIAL: Meitkyina (latitude 25° 24' N., longitude 97° 26' E.), Burma, imagoes, one soldier (homotype, topotype), workers, June 7, 1912. Maibung, east of Salween River, Pa-an, Karen State, Burma, three vials containing workers, collected by K. Krishna, October

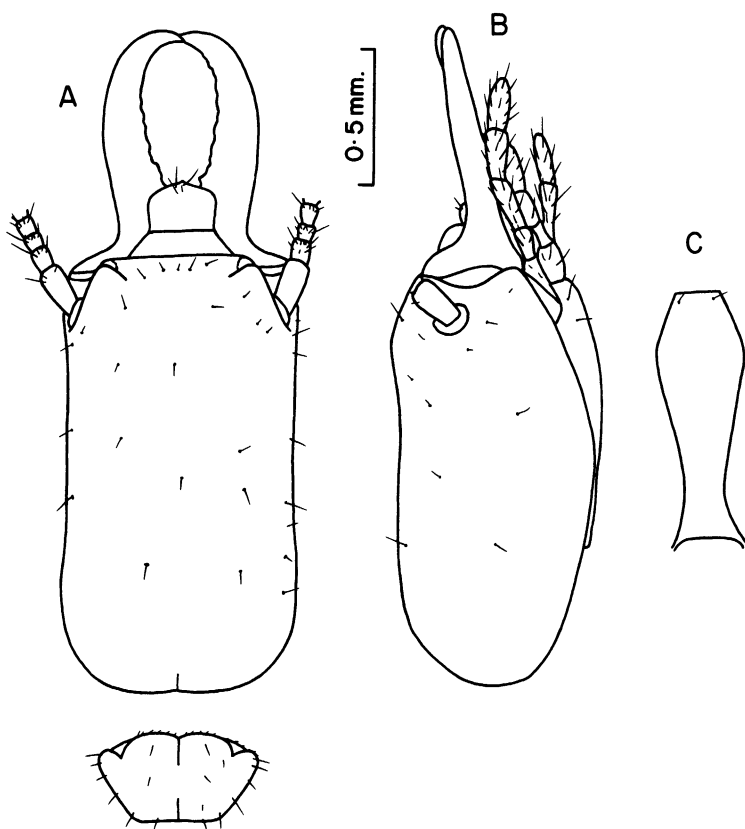


FIG. 3. Soldier of *Microcerotermes uncatus*, new species, paratype from type colony. A. Head and pronotum from above. B. Head from side. C. Postmentum from below.

16, 1961. Yegaw, Pa-an, Karen State, Burma, two vials containing soldiers (homotypes), workers, collected by K. Krishna, October 17, 1961.

***Microcerotermes uncatus*, new species**

IMAGO: Unknown.

SOLDIER (FIG. 3): Head yellowish, with frons slightly darker; anteclypeus whitish; labrum and antennae yellowish; mandibles reddish brown, yellowish at bases; pronotum lighter than head; legs pale yellow; abdomen dirty white. Head and pronotum sparsely covered with short bristles.

Head elongate, subrectangular, with sides slightly concave in middle; frons with surface wrinkled and slightly depressed. Mandibles much shorter than head capsule, stout and strongly hooked; inner margin coarsely serrated. Antenna with 13 articles; third article shortest, second subequal to fourth. Postmentum shaped as in figure; contraction index, 0.50–0.58. Pronotum saddle-shaped; anterior margin notched in middle; posterior margin emarginate.

COMPARISONS: The soldier of *Microcerotermes uncatu*s most closely resembles that of *M. annandalei* Silvestri, that of *M. sakesarensis* Ahmad, and that of *M. serrula* (Desneux). It differs from that of *M. annandalei* in the following respects: the head is shorter and narrower, the mandibles, though similar in shape, are shorter, the middle of the postmentum is less constricted, and the pronotum is shorter and narrower. *Microcerotermes sakesarensis* has broader and longer mandibles, which are not so strongly hooked at the tips. In *M. serrula* the surface of the frons is smoother, the anterior margin of the labrum is two-faceted, the middle of the postmentum is less constricted, and the mandibles are not so strongly hooked at the tips.

TABLE 2
MEASUREMENTS (IN MILLIMETERS) OF TEN SOLDIERS OF
*Microcerotermes uncatu*s, NEW SPECIES

	Holotype	Paratype, Range
Length of head to side base of mandibles	1.58	1.57–1.63
Width of head	0.89	0.89–0.91
Height of head	0.82	0.79–0.82
Length of left mandible	0.91	0.89–0.94
Maximum width of postmentum	0.33	0.32–0.33
Minimum width of postmentum	0.18	0.17–0.19
Length of postmentum	1.00	0.97–1.05
Median length of pronotum	0.28	0.28–0.31
Maximum length of pronotum	0.31	0.31–0.33
Width of pronotum	0.59	0.59–0.61
Length of hind tibia	0.77	0.77–0.79

TYPE LOCALITY: Maymyo, 24 miles east of Mandalay, Burma (type locality), soldiers (holotypes, paratypes), workers, collected by K. Krishna, October 24, 1961; soldiers (paratypes), workers, collected by K. Krishna, October 24, 1961.

SUBFAMILY TERMITINAE

***Angulitermes paanensis*, new species**

IMAGO: Unknown.

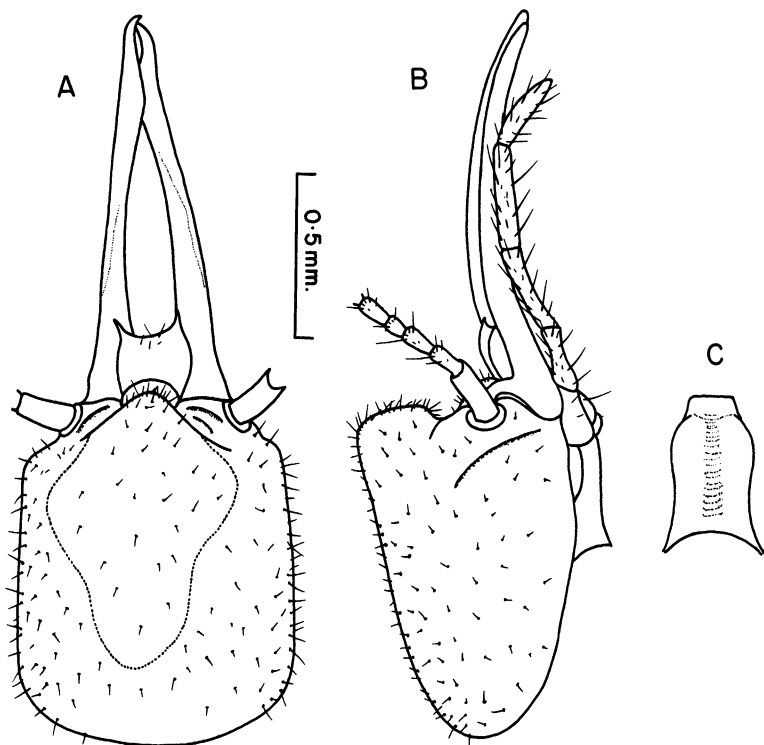
SOLDIER (FIG. 4): Coloration same as that of *Angulitermes resimus*, new

FIG. 4. Holotype soldier of *Angulitermes paanensis*, new species. A. Head from above. B. Head from side. C. Postmentum from below.

species. Head moderately pilose; pronotum with a few bristles; abdomen densely pilose; fontanelle surrounded by numerous short bristles. Head rectangular, widest posteriorly; frontal projection with broadly rounded tip; in profile anterior margin even and sloping almost vertically. Labrum more broadly concave than that of *A. resimus*; anterior corners pointed. Mandibles long, slender, hooked at tips, and of the snapping type. Postmentum shaped as in figure; contraction index, 0.86. Antenna with

14 articles; second article subequal to third, fourth shorter than second or third. Pronotum saddle-shaped; anterior margin even.

MEASUREMENTS (IN MM.) OF HOLOTYPE SOLDIER: Length of head to side base of mandibles, 1.00; width of head, 0.84; height of head, 0.77; length of left mandible, 1.21; maximum width of postmentum, 0.14; minimum width of postmentum, 0.12; length of postmentum, 0.43; median length of pronotum, 0.15; width of pronotum, 0.33; length of hind tibia, 0.74.

COMPARISONS: The soldier of *Angulitermes paanensis* closely resembles that of *A. hussaini* Ahmad but differs from it in the following respects: the head is more pilose, the frontal projection has a broader base and a front margin that is even in profile (indented in *A. hussaini*), the mandibles are shorter, and the anterior margin of the labrum is more broadly concave.

TYPE LOCALITY: Yegaw, Pa-an, Karen State, Burma (type locality), one soldier (holotype), workers, collected by K. Krishna, October 17, 1961.

Angulitermes resimus, new species

IMAGO: Unknown.

SOLDIER (FIG. 5): Head pale yellow, with lighter frontal gland region; antennae yellowish; mandibles reddish brown; pronotum and labrum lighter than head; legs and abdomen whitish, with tinge of yellow. Head and pronotum with a few bristles; fontanelle surrounded by erect bristles. Abdomen densely pilose. Head rectangular, widest at anterolateral cor-

TABLE 3
MEASUREMENTS (IN MILLIMETERS) OF THREE SOLDIERS OF
Angulitermes resimus, NEW SPECIES

	Holotype	Paratypes, Range
Length of head to side base of mandibles	1.38	1.38-1.45
Width of head	1.02	1.05
Height of head	0.87	0.89
Length of left mandible	1.45	1.42-1.44
Maximum width of postmentum	0.36	0.32-0.33
Minimum width of postmentum	0.27	0.26-0.28
Length of postmentum	0.49	0.54
Median length of pronotum	0.18	0.15
Width of pronotum	0.49	0.51
Length of hind tibia	0.92	0.96-0.97

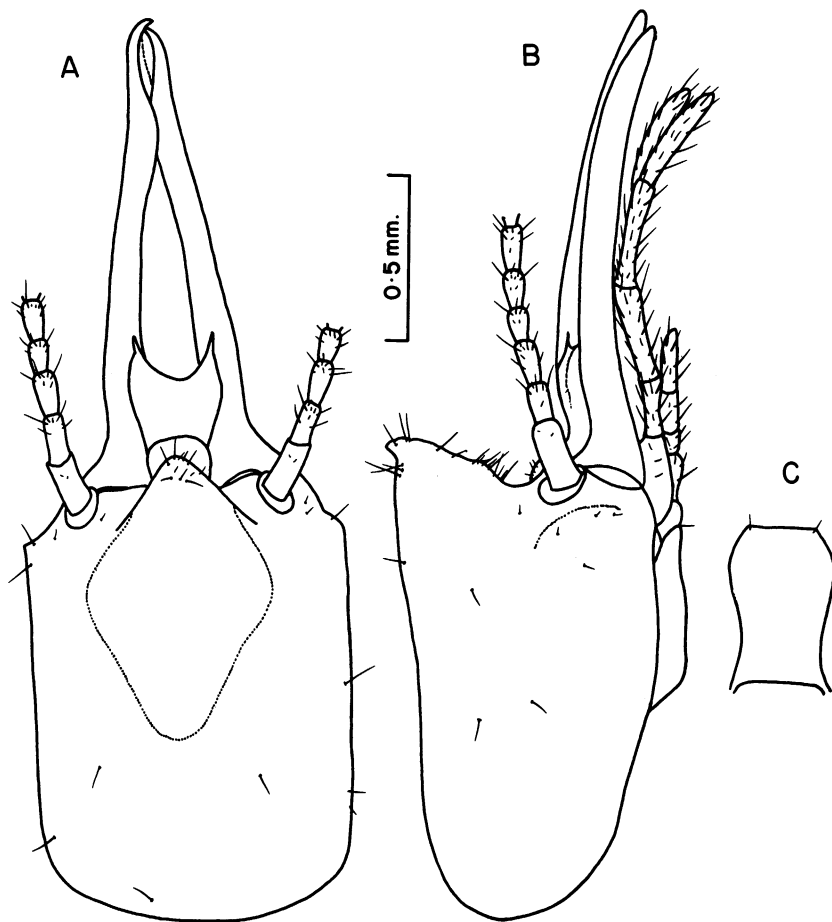


FIG. 5. Holotype soldier of *Angulitermes resimus*, new species. A. Head from above. B. Head from side. C. Postmentum from below.

ners; anterolateral margin near antennal socket distinctly angular; frontal projection conical, with apex pointed and turned upward, front margin sinuate in profile, with fontanelle below. Labrum with anterior margin deeply concave and anterior corners pointed. Mandibles long, slender, hooked at apex, and of the symmetrical snapping type. Postmentum shaped as in figure; contraction index, 0.75–0.84. Antenna with 14 articles; third article longer than second, second subequal to fourth. Pronotum small and saddle-shaped; anterior lobe raised; anterior margin without median notch.

COMPARISONS: The soldier of *Angulitermes resimus* closely resembles that of *A. fletcheri* (K. and N. Holmgren) and that of *A. acutus* Mathur and Sen-Sarma. It differs from that of *A. fletcheri* in the following respects: the head is broader, with more prominent anterolateral angles, the frontal projection is broader at its base and less pilose, and in profile the apex of the frontal projection is more sharply turned upward. In *A. acutus* the head is shorter and narrower, the frontal projection is less prominent, and the anterior margin of the labrum is more broadly concave.

TYPE LOCALITY: Maymyo, 22 miles east of Mandalay, Burma (type locality), soldiers (holotype, paratypes), workers, collected by K. Krishna, October 23, 1961.

REMARK: The genus *Angulitermes* has not hitherto been recorded from Burma and Malaya.

TABLE 4
MEASUREMENTS (IN MILLIMETERS) OF TWO SOLDIERS OF
Mirocapritermes valeriae, NEW SPECIES

	Holotype	Paratype
Length of head to side base of mandibles	1.37	1.38
Width of head	0.96	0.97
Height of head	0.89	0.89
Length of left mandible	1.38	1.38
Length of right mandible	1.30	1.33
Maximum width of postmentum	0.26	0.27
Minimum width of postmentum	0.21	0.20
Length of postmentum	0.64	0.65
Maximum length of pronotum	0.23	0.26
Width of pronotum	0.55	0.57
Length of hind tibia	0.78	0.79

Mirocapritermes valeriae, new species

IMAGO: Unknown.

SOLDIER (FIG. 6): Head pale yellow; frontal gland region creamy; labrum, pronotum, legs, and abdomen yellowish white; antennae yellowish; mandibles brown, yellowish at bases, left mandible darker than right. Head moderately covered with bristles and hairs; frontal projection with minute bristles and hairs above and below; pronotum with a few bristles on margin and on disc. Head approximately rectangular; sides almost parallel, converging slightly anteriorly; frontal projection prominent,

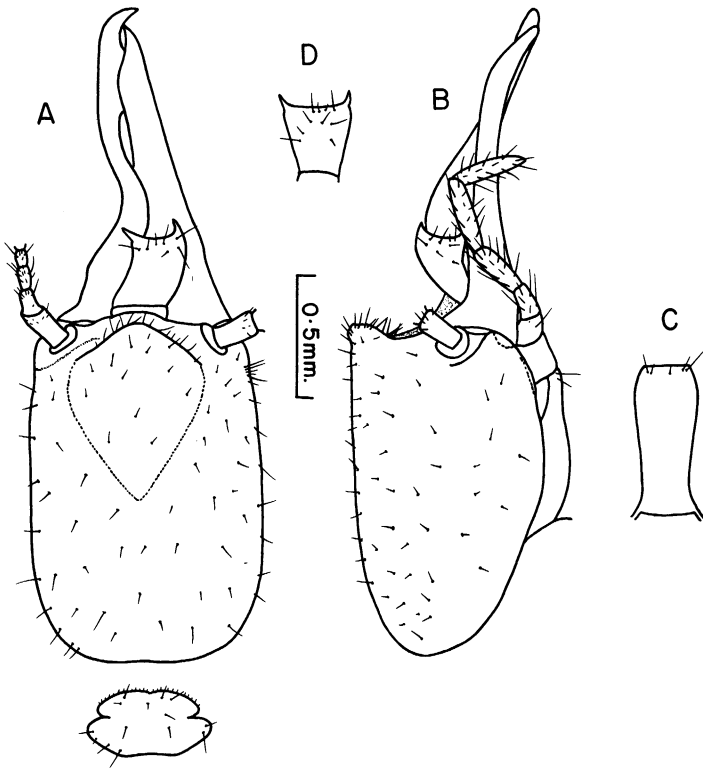


FIG. 6. Holotype soldier of *Mirocapritermes valeriae*, new species. A. Head and pronotum from above. B. Head from side. C. Postmentum from below. D. Labrum from above.

with margin viewed from above obtuse-angled and tip blunt and rounded; fontanelle situated below projecting frontal process. Labrum longer than broad, asymmetrically placed, with front margin broadly concave and anterolateral margins projected into short, spine-like processes. Mandibles asymmetrical; left mandible longer than right, distinctly hooked at tip, with blunt tooth in inner margin and projection below in basal region; right mandible with thorn-like process in basal inner margin. Postmentum shaped as in figure; contraction index, 0.74–0.81. Antenna with 14 articles; second article subequal to third, fourth slightly shorter than third. Pronotum saddle-shaped; anterior margin slightly notched in middle. Tibial spurs 3:2:2. Fore tibia with a number of short, thick spines; middle tibia with two outer spines.

COMPARISONS: *Mirocapritermes connectens* Holmgren is smaller through-

out; its frontal projection is less prominent; and its labrum is narrower, with a more concave anterior margin.

TYPE LOCALITY: Botanical Garden, Maymyo, Burma (type locality), one soldier (holotype), workers, collected by K. Krishna, October 20, 1961; one soldier (paratype), workers, collected by K. Krishna, October 20, 1961.

This species is named in honor of my wife, Mrs. Valerie Krishna.

Pericapritermes semarangi (Holmgren), new combination

Capritermes semarangi HOLMGREN, 1913b, p. 247.

Capritermes semarangi: KEMNER, 1934, pp. 10, 17.

Capritermes semarangi: SNYDER, 1949, p. 197.

The genus *Pericapritermes* has been reported, from the Ethiopian Region only, by Snyder (1949) and Emerson (1955). My preliminary study has shown that the genus *Capritermes* as treated by Snyder (1949) is a heterogeneous group and that many of the species from the Indo-Malayan Region actually belong to the genus *Pericapritermes*.

Pericapritermes semarangi has been reported from Java and Sumatra. It is reported for the first time from Burma in the present paper.

MEASUREMENTS (IN MM.): Range of measurements of 10 soldiers: length of head to side base of mandibles, 1.56–1.79; width of head, 0.82–0.89; height of head, 0.74–0.79; length of left mandible, 1.00–1.02; length of right mandible, 0.94–1.00; maximum width of postmentum, 0.32–0.33; minimum width of postmentum, 0.18–0.20; length of postmentum, 1.02–1.17; median length of pronotum, 0.25–0.28; width of pronotum, 0.50–0.57; length of hind tibia, 0.69–0.74.

LOCALITY AND MATERIAL: Botanical Garden, Maymyo, Burma, soldiers, workers, collected by K. Krishna, October 20, 1961.

Pericapritermes tetraphilus (Silvestri), new combination

Capritermes tetraphilus SILVESTRI, 1922, pp. 543–545.

Capritermes tetraphilus: SNYDER, 1949, p. 198.

Capritermes orientalis MATHUR AND SEN-SARMA, 1961, pp. 1–4. New synonymy.

MEASUREMENTS (IN MM.): Range of measurements of nine soldiers: length of head to side base of mandibles, 2.45–3.06; width of head, 1.48–1.56; height of head, 1.22–1.43; length of left mandible, 1.68–1.84; length of right mandible, 1.63–1.79; maximum width of postmentum, 0.46–0.54; minimum width of postmentum, 0.24–0.31; length of postmentum, 1.48–1.94; maximum length of pronotum, 0.39–0.47; width of pronotum, 0.79–1.03; length of hind tibia, 1.33–1.38.

LOCALITIES AND MATERIAL: Yegaw, Pa-an, Karen State, Burma, five vials containing soldiers, workers, collected by K. Krishna, October 17, 1961. Botanical Garden, Maymyo, Burma, two vials containing soldiers, workers, collected by K. Krishna, October 22, 1961.

The taxonomy and phylogeny of the genus *Capritermes* are in a confused state. My study indicates that the species from Indo-Malaya and New Guinea treated by Snyder (1949) and Emerson (1955) do not belong to *Capritermes* and must be placed in several other genera. Further study is needed to re-evaluate the taxonomic status of this genus and to regroup these species. I am presently engaged in the revision of *Capritermes* and related genera and plan to publish this study in the near future.

DICUSPIDITERMES, NEW GENUS¹

< Genus *Capritermes*: SNYDER, 1949, p. 192.

< Genus *Capritermes*: EMERSON, 1955, pp. 469, 478, 480, 486, 488, 489, 501, 512.

TYPE SPECIES: *Dicuspiditermes obtusus* (Silvestri) (= *Capritermes obtusus* Silvestri).

I am proposing this new genus for some of the species that were previously placed by Snyder (1949) in the genus *Capritermes*. The genus *Dicuspiditermes* differs from the genus *Capritermes* Wasmann in the following respects: (1) the anterior margin of the soldier labrum is deeply concave, with its lateral corners produced into long, needle-like projections; (2) the anterolateral corners of the soldier head have pointed projections in front of and below the antennal sockets; (3) in the left imago-worker mandible the distance between the first (plus fused second) marginal tooth and the apical tooth is less, and the posterior margin of the first (plus fused second) is longer; (4) the imago is more densely covered with bristles and a mat of short hairs; and (5) the imago fontanelle is longitudinal and slitlike (oval in *Capritermes*).

IMAGO (FIG. 7): Head and pronotum covered with numerous bristles and short hairs, the short hairs forming a conspicuous mat, contrasting with longer bristles. Fontanelle longitudinal, slit-shaped, with a small, round marking in front of it. Ocellus not touching eye. Antenna with 14 or 15 articles. Mandible dentition as shown in figure 8. Tibial spurs 3:2:2. Middle tibia with one or two outer spines.

SOLDIER (FIG. 9): Head rectangular, anterolateral corners with pointed projections in front of and below antennal sockets. Frontal gland area in

¹ A more detailed account of this new genus will appear in a later publication.

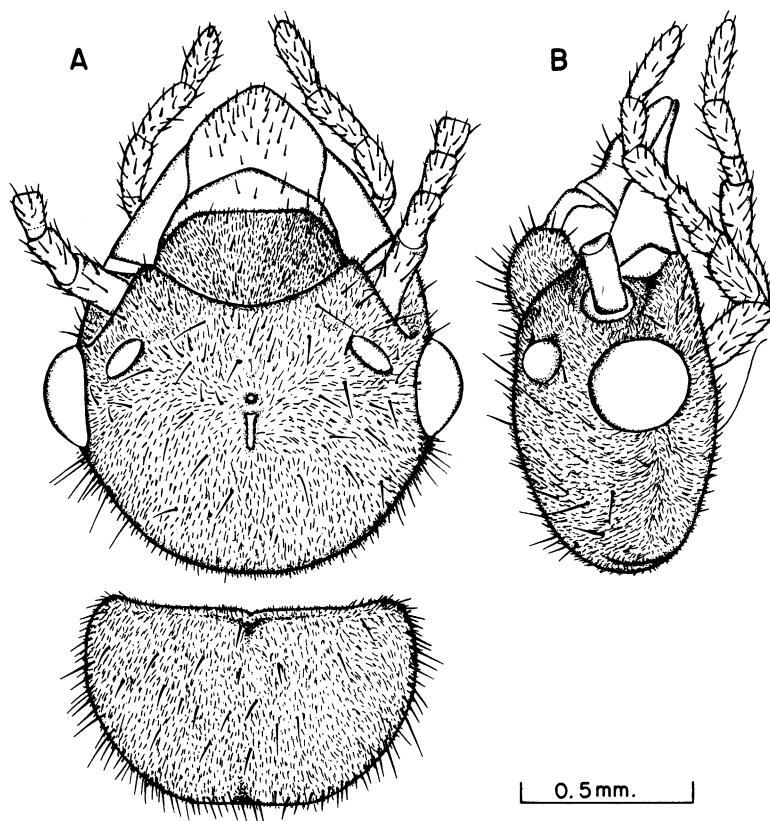


FIG. 7. Imago of *Dicuspiditermes obtusus* (Silvestri), cotype. A. Head and pronotum from above. B. Head from side. Barkuda Island, Chilka Lake, India.

some cases raised; frons in some species steep, in others gradually sloping; fontanelle circular or oval. Labrum oblique, anterior margin deeply concave, with its lateral corners produced into long, needle-like projections; anterolateral margins in some cases serrated. Mandibles asymmetrical; tip of left mandible in the form of a beak, usually with a small, toothlike projection below. Antenna with 14 or 15 articles. Tibial spurs 3:2:2. Middle tibia with one or two outer spines.

SPECIES INCLUDED

D. fletcheri (K. and N. Holmgren), new combination = *Capritermes fletcheri* K. and N. Holmgren, 1917

- D. garthwaitei* (Gardner), new combination = *Capritermes garthwaitei* Gardner, 1944
D. gravelyi (Silvestri), new combination = *Capritermes gravelyi* Silvestri, 1922
D. hutsoni (Kemner), new combination = *Capritermes hutsoni* Kemner, 1926
D. incola (Wasmann), new combination = *Eutermes incola* Wasmann, 1893
D. incola var. *cornutella* (Silvestri), new combination = *Capritermes longirostris* var. *cornutella* Silvestri, 1922
D. laetus (Silvestri), new combination = *Capritermes laetus* Silvestri, 1914
D. nemorosus (Haviland), new combination = *Termes nemorosus* Haviland, 1898
D. obtusus (Silvestri), new combination = *Capritermes obtusus* Silvestri, 1923

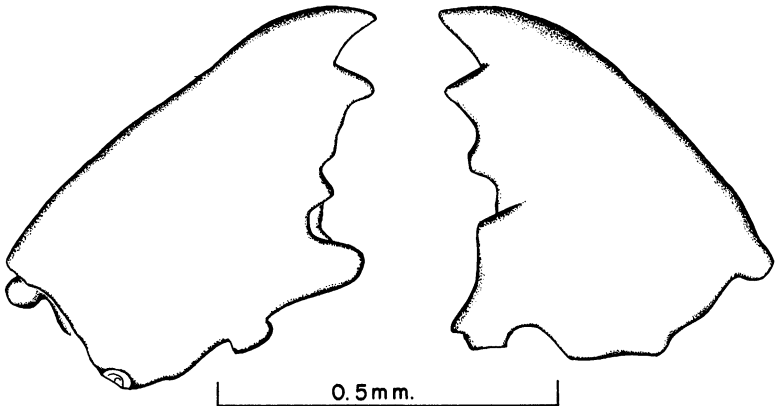


FIG. 8. Mandibles of worker of *Dicuspiditermes obtusus* (Silvestri), cotype. Barkuda Island, Chilka Lake, India.

- D. obtusus* var. *abbreviatus* (Silvestri), new combination = *Capritermes obtusus* var. *abbreviatus* Silvestri, 1923
D. punjabensis (K. and N. Holmgren), new combination = *Capritermes punjabensis* K. and N. Holmgren, 1917
D. santschi (Silvestri), new combination = *Capritermes santschi* Silvestri, 1922

GEOGRAPHICAL DISTRIBUTION: Oriental Region: Borneo, Burma, Ceylon, India, Malay Peninsula, Pakistan, Sumatra.

Dicuspiditermes garthwaitei (Gardner), new combination

Capritermes garthwaitei GARDNER, 1944, pp. 106-108.
Capritermes garthwaitei: SNYDER, 1949, p. 194.

MEASUREMENTS (IN MM.): Range of measurements of seven soldiers: length of head to side base of mandibles, 2.24-2.35; width of head, 1.38-1.53; height of head, 1.28-1.34; length of left mandible, 1.89-1.94; length of right mandible, 1.89-1.94; maximum width of postmentum,

0.39–0.41; minimum width of postmentum, 0.20–0.23; length of postmentum, 0.97–1.02; maximum length of pronotum, 0.28–0.31; width of pronotum, 0.66–0.75; length of hind tibia, 1.17–1.26.

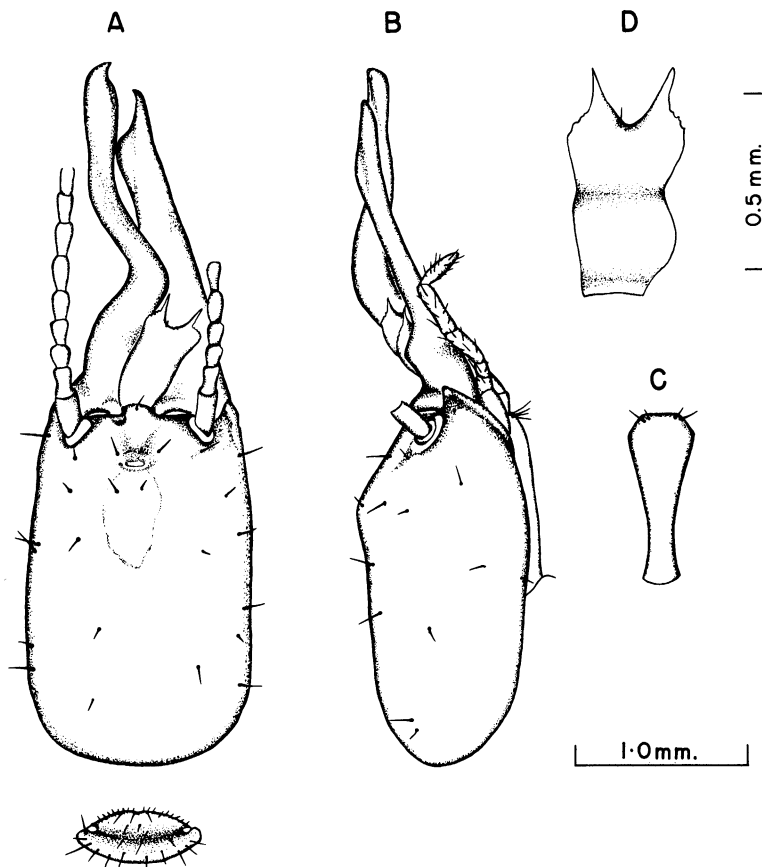


FIG. 9. Soldier of *Dicuspiditermes obtusus* (Silvestri), cotype. A. Head and pronotum from above. B. Head from side. C. Postmentum from below. D. Labrum from above. Barkuda Island, Chilka Lake, India.

LOCALITIES AND MATERIAL: Botanical Garden, Maymyo, Burma, three vials containing soldiers, workers, collected by K. Krishna, October 20, 1961. Half a mile from Botanical Garden, Maymyo, Burma, soldiers, workers, collected by K. Krishna, October 21, 1961.

TABLE 5
MEASUREMENTS (IN MILLIMETERS) OF IMAGOS OF
Macrotermes gilvus (HAGEN)

	King	Queen
Length of head to side base of mandibles	1.95	1.85
Width of head	2.53	2.40
Diameter of eye	0.92	0.92
Eye from lower margin	0.30	0.30
Length of ocellus	0.41	0.36
Ocellus from eye	0.05	0.05
Maximum length of pronotum	1.60	1.60
Width of pronotum	2.40	2.50
Length of hind tibia	3.60	3.50

SUBFAMILY MACROTERMITINAE

Macrotermes gilvus (Hagen)

Termes gilvus HAGEN, 1858, p. 148.
Termes azarellii WASMANN, 1896, pp. 626-628. New synonymy.
Termes malayanus HAVILAND, 1898, pp. 381-384. New synonymy.
Termes (*Macrotermes*) *philippinensis* OSHIMA, 1914, p. 566. New synonymy.
Macrotermes gilvus var. *borneensis* KEMNER, 1933, p. 27. New synonymy.
Macrotermes gilvus f. *angusticeps* KEMNER, 1934, pp. 77-79. New synonymy.
Macrotermes gilvus f. *kalshoveni* KEMNER, 1934, pp. 80-82. New synonymy.

TABLE 6
MEASUREMENTS (IN MILLIMETERS) OF SOLDIERS OF
Macrotermes gilvus (HAGEN)

	Ten Major Soldiers, Range	Seven Minor Soldiers, Range
Length of head to side base of mandibles	3.60-3.90	1.89-2.50
Width of head	3.00-3.30	1.63-2.04
Height of head	2.00-2.20	1.17-1.43
Length of left mandible	1.60-1.70	1.28-1.48
Maximum width of postmentum	0.80-0.88	0.51-0.66
Minimum width of postmentum	0.50-0.63	0.46-0.61
Length of postmentum	2.50-2.75	1.23-1.63
Maximum length of pronotum	1.15-1.30	0.71-0.87
Width of pronotum	2.25-2.70	1.10-1.48
Length of hind tibia	2.50-2.70	1.73-2.14

- Macrotermes gilvus* f. *latinotum* KEMNER, 1934, pp. 79-80. New synonymy.
Macrotermes gilvus subsp. *madurensis* KEMNER, 1934, pp. 82-83. New synonymy.
Macrotermes gilvus f. *padangensis* KEMNER, 1934, pp. 306-307. New synonymy.
Macrotermes gilvus f. *angusticeps*: SNYDER, 1949, p. 211.
Macrotermes azarellii: SNYDER, 1949, p. 209.
Macrotermes gilvus var. *borneensis*: SNYDER, 1949, p. 211.
Macrotermes gilvus f. *kalshoveni*: SNYDER, 1949, p. 212.
Macrotermes gilvus f. *latinotum*: SNYDER, 1949, p. 212.
Macrotermes gilvus subsp. *madurensis*: SNYDER, 1949, p. 212.
Macrotermes gilvus subsp. *malayanus*: SNYDER, 1949, p. 212.
Macrotermes gilvus f. *padangensis*: SNYDER, 1949, p. 212.
Macrotermes gilvus f. *philippinensis*: SNYDER, 1949, p. 212.
Macrotermes gilvus malayanus: ROONWAL AND CHHOTANI, 1961, pp. 308-316.
Macrotermes azarellii: WEIDNER, 1962, pp. 129-133.
Macrotermes gilvus malayanus: WEIDNER, 1962, pp. 129-133.
Macrotermes gilvus gilvus: MATHUR AND THAPA, 1963, p. 55.

Eight forms, varieties, and subspecies of *Macrotermes gilvus* have been mentioned (Snyder, 1949). My studies have shown that this species is so variable that no infraspecific categories can be recognized. My studies have also shown that *M. azarellii* (Wasmann) is conspecific with *M. gilvus*.

LOCALITIES AND MATERIAL: Maibung, east of Salween River, Pa-an, Karen State, Burma, two vials containing king, queen, major and minor soldiers, workers, collected by K. Krishna, October 16, 1961. Yegaw, Pa-an, Karen State, Burma, two vials containing king, queen, major and minor soldiers, workers, collected by K. Krishna, October 17, 1961.

Macrotermes serrulatus Snyder

- Macrotermes* (*Macrotermes*) *serrulatus* SNYDER, 1934, pp. 6-9.
Macrotermes serrulatus: SNYDER, 1949, p. 217 (imago probably not *serrulatus*).

TABLE 7
 MEASUREMENTS (IN MILLIMETERS) OF IMAGOS OF
Macrotermes serrulatus SNYDER

	King	Queen
Length of head to side base of mandibles	2.30	2.00
Width of head	2.70	2.60
Diameter of eye	0.87	0.87
Eye from lower margin	0.05	0.05
Length of ocellus	0.36	0.34
Ocellus from eye	0.15	0.16
Maximum length of pronotum	1.50	1.50
Width of pronotum	2.40	2.30
Length of hind tibia	3.60	3.50

TABLE 8
MEASUREMENTS (IN MILLIMETERS) OF SOLDIERS OF *Macrotermes*
serrulatus SNYDER

	Five Major Soldiers, Range	Five Minor Soldiers, Range
Length of head to side base of mandibles	3.90-4.25	2.04-2.35
Width of head	3.20-3.45	1.68-1.89
Height of head	2.00-2.20	1.15-1.30
Length of left mandible	1.80-1.90	1.20-1.43
Maximum width of postmentum	0.90	0.51-0.56
Minimum width of postmentum	0.55-0.60	0.46-0.51
Length of postmentum	2.50-2.80	1.28-1.53
Maximum length of pronotum	1.10-1.20	0.66-0.76
Width of pronotum	2.03-2.20	1.10-1.28
Length of hind tibia	2.50-2.80	1.80-1.99

Macrotermes serrulatus: WEIDNER, 1962, pp. 129, 130, 131, 132, 133.

Macrotermes serrulatus serrulatus: MATHUR AND THAPA, 1962, p. 57.

The soldiers from Maymyo, though slightly smaller, match the cotype soldier. However, the imagoes reported here differ from the comorpho-type imagoes described by Snyder (1934) in the following respects: the head and the pronotum are smaller and less thickly covered with bristles and hairs, the ocellus is closer to the eye, and the third segment of the antenna is longer than or subequal to the second. The comorphotype imagoes that Snyder described were not in an associated series with the soldiers. It is likely therefore that the imagoes he reported were not those of *Macrotermes serrulatus*.

LOCALITIES AND MATERIAL: Maymyo, 24 miles east of Mandalay, Burma, king, queen, major and minor soldiers, workers, collected by K. Krishna, October 23, 1961. Botanical Garden, Maymyo, Burma, major and minor soldiers, workers, collected by K. Krishna, October 20, 1961.

Odontotermes feae (Wasmann)

Termes feae WASMANN, 1896, pp. 625-626.

Odontotermes (*Odontotermes*) *feae*: SNYDER, 1949, pp. 226, 227 (localities in Burma only; localities in India doubtful).

Odontotermes feae: MATHUR AND THAPA, 1963, p. 63 (localities in Burma only; localities in India doubtful).

MEASUREMENTS (IN MM.): Range of measurements of five imagoes:

length of head to side base of mandibles, 1.84–2.04; width of head, 2.70; diameter of eye, 0.66–0.74; eye from lower margin, 0.05–0.10; length of ocellus, 0.31–0.32; ocellus from eye, 0.14–0.15; maximum length of pronotum, 1.33–1.38; width of pronotum, 2.35–2.45; length of hind tibia, 3.06–3.11; length of forewing from suture, 27.50–28.00; width of forewing, 7.00–7.10.

TABLE 9
MEASUREMENTS (IN MILLIMETERS) OF SOLDIERS OF
Odontotermes feae (WASMANN)

	No.	Range	Dwarf Specimens from Maymyo	
			No.	Range
Length of head to side base of mandibles	10	2.55–3.11	5	2.19–2.30
Width of head	10	2.24–2.55	5	1.78–1.84
Height of head	10	1.68–1.99	5	1.28
Length of left mandible	10	1.38–1.53	5	1.22–1.28
Distance between apical tooth and tooth of left mandible	10	0.69–0.77	5	0.77–0.82
Maximum width of postmentum	10	0.77–0.96	5	0.66–0.71
Minimum width of postmentum	10	0.71–0.89	5	0.61–0.66
Length of postmentum	10	1.68–1.89	5	1.38–1.43
Maximum length of pronotum	10	0.82–0.92	5	0.69–0.72
Width of pronotum	10	1.48–1.84	5	1.22–1.32
Length of hind tibia	10	1.84–2.30	5	1.48–1.58

LOCALITIES AND MATERIAL: Botanical Garden, Maymyo, Burma, three vials containing imagoes, soldiers, workers, collected by K. Krishna, October 20, 1961; dwarf soldiers, workers, collected by K. Krishna, October 22, 1961. Maibung, east of Salween River, Pa-an, Karen State, Burma, soldiers, workers, collected by K. Krishna, October 16, 1961.

Odontotermes hainanensis (Light)

Termes hainanensis LIGHT, 1924, pp. 53–54.
Odontotermes (*Odontotermes*) *hainanensis*: SNYDER, 1949, p. 229.

Odontotermes hainanensis has been known from Hainan Island and from Hanoi, North Vietnam. It is reported for the first time from Burma in the present paper.

MEASUREMENTS (IN MM.): Range of measurements of 20 soldiers: length of head to side base of mandibles, 1.07–1.28; width of head, 0.94–1.12; height of head, 0.73–0.79; length of left mandible, 0.61–0.73; distance

between apical tip and tooth of left mandible, 0.17–0.22; width of postmentum at anterior margin, 0.28–0.32; width of postmentum in middle, 0.46–0.52; length of postmentum, 0.59–0.79; maximum length of pronotum, 0.41–0.49; width of pronotum, 0.64–0.77; length of hind tibia, 0.79–0.93.

LOCALITIES AND MATERIAL: Botanical Garden, Maymyo, Burma, three vials containing soldiers, workers, collected by K. Krishna, October 20, 1961; three vials containing soldiers, workers, collected by K. Krishna, October 22, 1961; soldiers, workers, collected by K. Krishna, October 21, 1961. Maymyo, 21 miles east of Mandalay, Burma, soldiers, workers, collected by K. Krishna, October 23, 1961. Yegaw, Pa-an, Karen State, Burma, two vials containing soldiers, workers, collected by K. Krishna, October 17, 1961.

Odontotermes obesus (Rambur)

Termes obesus RAMBUR, 1842, p. 304.

Odontotermes (*Cyclotermes*) *assamensis* HOLMGREN, 1913b, p. 114. New synonymy.

Odontotermes (*Odontotermes*) *bangalorensis* HOLMGREN, 1913a, pp. 105–109. New synonymy.

Odontotermes (*Odontotermes*) *obesus* var. *oculatus* SILVESTRI, 1923, pp. 224–225. New synonymy.

Odontotermes (*Odontotermes*) *orissae* SNYDER, 1934, pp. 10–11. New synonymy.

Odontotermes (*Odontotermes*) *assamensis*: SNYDER, 1949, p. 220.

Odontotermes (*Odontotermes*) *bangalorensis*: SNYDER, 1949, p. 221.

Odontotermes (*Odontotermes*) *obesus*: SNYDER, 1949, p. 235.

Odontotermes (*Odontotermes*) *obesus* var. *oculatus*: SNYDER, 1949, p. 235.

Odontotermes (*Odontotermes*) *obesus*: ROONWAL AND PANT, 1953, p. 55.

Odontotermes assamensis: ROONWAL AND CHHOTANI, 1962, pp. 335–337.

Odontotermes obesus: MATHUR AND THAPA, 1962, p. 68.

Odontotermes assamensis: MATHUR AND THAPA, 1962, p. 61.

Odontotermes bangalorensis: MATHUR AND THAPA, 1962, p. 61.

Odontotermes obesus has been reported from Burma by Roonwal and Pant (1953) and by Mathur and Thapa (1962). It is a variable species and is widely distributed in India.

MEASUREMENTS (IN MM.): Range of measurements of eight soldiers: length of head to side base of mandibles, 1.20–1.28; width of head, 1.02–1.10; height of head, 0.77–0.79; length of left mandible, 0.74–0.82; distance between apical tip and tooth of left mandible, 0.24–0.27; width of postmentum at anterior margin, 0.31–0.33; width of postmentum in middle, 0.49–0.51; length of postmentum, 0.69–0.74; maximum length of pronotum, 0.51–0.54; width of pronotum, 0.77–0.82; length of hind tibia, 1.07–1.12.

LOCALITY AND MATERIAL: Maymyo, 24 miles east of Mandalay, Burma,

two vials containing soldiers, workers, collected by K. Krishna, October 24, 1961.

Hypotermes xenotermitis (Wasmann)

Termes xenotermitis WASMANN, 1896, p. 628.

Odontotermes (Hypotermes) xenotermitis: SNYDER, 1949, p. 244.

Hypotermes nongpriangi ROONWAL AND SEN-SARMA, 1956, pp. 21-26. New synonymy.

Hypotermes nongpriangi: ROONWAL AND CHHOTANI, 1962, pp. 359-360.

Hypotermes obscuriceps: ROONWAL AND CHHOTANI, 1962, pp. 360-361.

Hypotermes xenotermitis: ROONWAL AND CHHOTANI, 1962, p. 362.

Hypotermes xenotermitis: MATHUR AND THAPA, 1962, p. 54.

Hypotermes nongpriangi: CHATTERJEE AND THAKUR, 1963, pp. 174-175.

Hypotermes xenotermitis: CHATTERJEE AND THAKUR, 1963, pp. 172, 174, 197-203.

MEASUREMENTS (IN MM.): Range of measurements of 15 soldiers: length of head to side base of mandibles, 1.23-1.43; width of head, 1.00-1.15; height of head, 0.77-0.87; length of left mandible, 0.61-0.69; width of postmentum at anterior margin, 0.31-0.36; width of postmentum in middle, 0.46-0.55; length of postmentum, 0.69-0.82; maximum length of pronotum, 0.46-0.56; width of pronotum, 0.77-0.87; length of hind tibia, 1.12-1.25.

LOCALITY AND MATERIAL: Botanical Garden, Maymyo, Burma, soldiers, workers, collected by K. Krishna, October 21, 1961; two vials containing soldiers, workers, collected by K. Krishna, October 20, 1961; soldiers, workers, collected by K. Krishna, October 22, 1961.

Microtermes obesi Holmgren

Microtermes obesi HOLMGREN, 1912b, p. 787.

Microtermes anandi HOLMGREN, 1913a, p. 114.

Microtermes obesi: HOLMGREN, 1913b, p. 150.

Microtermes anandi: ROONWAL AND SEN-SARMA, 1956, p. 27.

Microtermes obesi: SNYDER, 1949, p. 252.

Microtermes anandi: ROONWAL AND CHHOTANI, 1962, pp. 362-364.

Microtermes anandi: MATHUR AND THAPA, 1962, p. 58.

Roonwal and Sen-Sarma (1956) stated that the name *Microtermes anandi* Holmgren has priority over *M. obesi* Holmgren, as *M. anandi* was first published on April 21, 1913, and *M. obesi* on May 23, 1913, and they treat the latter name as a synonym. Although it is true that *M. anandi* was first described on April 21, 1913, *M. obesi* was actually described for the first time by Holmgren in 1912. Thus Snyder (1949) is correct in using *M. obesi*, as it has priority over *M. anandi*.

Microtermes obesi has previously been recorded from India and Ceylon.

It is reported here for the first time from Burma.

MEASUREMENTS (IN MM.): Range of measurements of 21 soldiers: length of head to side base of mandibles, 0.82–1.10; width of head, 0.77–0.94; height of head, 0.61–0.77; length of left mandible, 0.51–0.59; maximum width of postmentum, 0.36–0.45; width of postmentum at waist, 0.33–0.40; length of postmentum, 0.43–0.51; maximum length of pronotum, 0.33–0.40; width of pronotum, 0.50–0.64; length of fore tibia, 0.56–0.66.

LOCALITIES AND MATERIAL: Botanical Garden, Maymyo, Burma, three vials containing soldiers, workers, collected by K. Krishna, October 20,

TABLE 10
MEASUREMENTS (IN MILLIMETERS) OF SOLDIERS OF *Microtermes*
pakistanicus AHMAD

	Six Large Soldiers, Range	Six Small Soldiers, Range
Length of head to side base of mandibles	1.00–1.07	0.84–0.97
Width of head	0.97–1.05	0.82–0.91
Height of head	0.82–0.84	0.68–0.74
Length of left mandible	0.66–0.69	0.59–0.66
Maximum width of postmentum	0.51–0.56	0.43–0.49
Width of postmentum at waist	0.43–0.44	0.31–0.34
Length of postmentum	0.59–0.66	0.49–0.59
Maximum length of pronotum	0.46–0.49	0.36–0.41
Width of pronotum	0.71–0.79	0.59–0.69
Length of hind tibia	1.00–1.07	0.82–0.89

1961. Maymyo, 22 miles east of Mandalay, Burma, soldiers, workers, collected by K. Krishna, October 24, 1961. Maibung, east of Salween River, Pa-an, Karen State, Burma, soldiers, workers, collected by K. Krishna, October 16, 1961.

Microtermes pakistanicus Ahmad

Microtermes pakistanicus AHMAD, 1955, pp. 25–27.
Termes pallidus HAVILAND, 1898, p. 389. New synonymy.
Microtermes pallidus: HOLMGREN, 1912a, p. 43 (Java record = *M. insperatus* Kemner).
Microtermes pallidus: HOLMGREN, 1913b, pp. 147–148 (Java record = *M. insperatus* Kemner).
Microtermes pallidus: HOLMGREN, 1914, p. 251 (Java record = *M. insperatus* Kemner).
Microtermes pallidus: KEMNER, 1934, pp. 22, 104, 109.

Microtermes pallidus: SNYDER, 1949, p. 252 (Java record = *M. insperatus* Kemner).

Microtermes pallidus: HARRIS, 1957, pp. 25, 29, 30.

Microtermes pakistanicus: ROONWAL, 1958, p. 80.

Microtermes umsae ROONWAL AND CHHOTANI, 1962, pp. 370-373. New synonymy.

The name *Termes pallidus* Haviland (1898) is preoccupied by *Termes pallidus* Rambur (1842) and *Termes pallidus* Walker (1853). My studies have shown that *M. pallidus* (Haviland) is conspecific with *M. pakistanicus* Ahmad. Therefore the name *M. pakistanicus* Ahmad should be used instead of *M. pallidus* (Haviland).

LOCALITIES AND MATERIAL: Yegaw, Pa-an, Karen State, Burma, two vials containing soldiers, workers, collected by K. Krishna, October 17, 1961. Botanical Garden, Maymyo, Burma, soldiers, workers, collected by K. Krishna, October 20, 1961. Maymyo, 20 miles east of Mandalay, Burma, soldiers, workers, collected by K. Krishna, October 24, 1961.

SUBFAMILY NASUTITERMITINAE

***Bulbitermes prabhae*, new species**

IMAGO: Unknown.

SOLDIER (FIG. 10): Head rusty brown, lighter at anterior half of rostrum; pronotum and tergites brown; antennae pale yellowish brown; legs pale yellow. Head without bristles or hairs; rostrum with four bristles at tip; pronotum with only very minute bristles; tergites with almost no bristles. Great variation in over-all size; two distinct sizes with gradations between. Head shaped as in figure; slight constriction behind bases of antennae; in profile, dorsal margin concave. Mandibles with points. Antenna with 14 articles; third article longer than second, fourth subequal to third. Pronotum with anterior margin faintly notched in middle.

COMPARISONS: The soldier of *Bulbitermes prabhae* differs from that of *B. constrictiformis* (Holmgren) in the following respects: the head is narrower, darker in color, and less constricted behind the bases of the antennae, and the rostrum is narrower at its base. *Bulbitermes gedéensis* (Kemner) has a more constricted, more lightly colored head and a shorter, more broadly based rostrum. *Bulbitermes germanus* (Haviland) and *B. sarawakensis* (Haviland) have more lightly colored heads and shorter, more broadly based rostra. *Bulbitermes rosae* (Kemner) has a proportionately shorter rostrum and a more lightly colored head.

TYPE LOCALITY AND DISTRIBUTION: Quarter of a mile from Botanical Garden, Maymyo, Burma (type locality), soldiers (holotype, paratypes), workers, collected by K. Krishna, October 21, 1961. Botanical Garden,

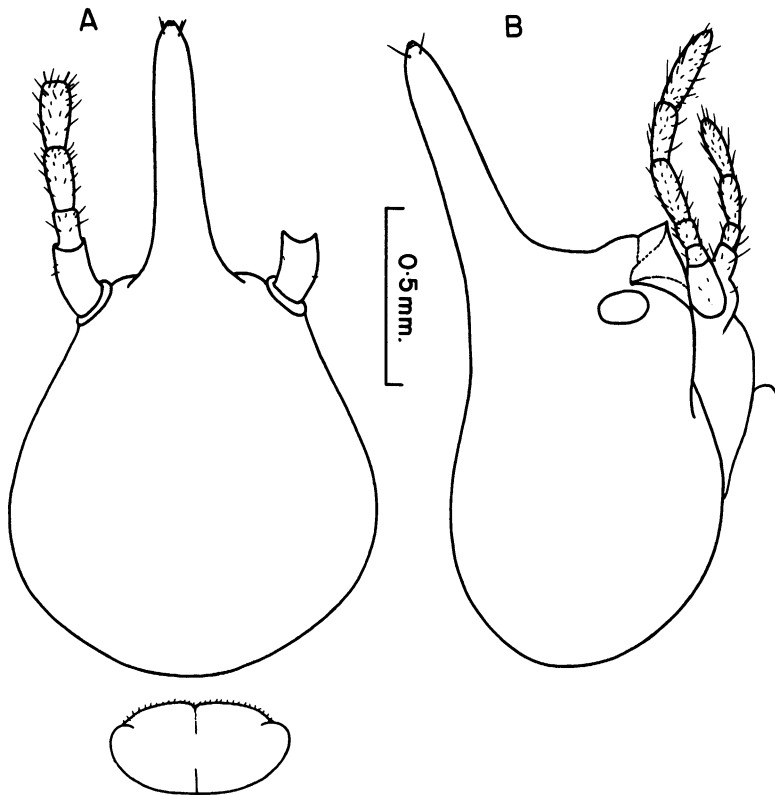


FIG. 10. Soldier of *Bulbitermes prabhae*, new species, paratype from type colony. A. Head and pronotum from above. B. Head from side.

TABLE 11
MEASUREMENTS (IN MILLIMETERS) OF SOLDIERS OF
Bulbitermes prabhae, NEW SPECIES

	Holotype	Type and Paratype Colonies from Maymyo No. Range		Paratype Colony from Pa-an No. Range	
Length of head to tip of rostrum	1.89	30	1.67-1.94	20	1.56-1.79
Length of rostrum	0.71	30	0.64-0.77	20	0.64-0.74
Width of head	1.10	30	0.92-1.17	20	0.79-1.00
Height of head	0.97	30	0.81-0.97	20	0.71-0.84
Maximum length of pronotum	0.27	30	0.23-0.28	20	0.21-0.27
Width of pronotum	0.56	30	0.49-0.56	20	0.46-0.49
Length of hind tibia	1.58	30	1.42-1.63	20	1.38-1.53

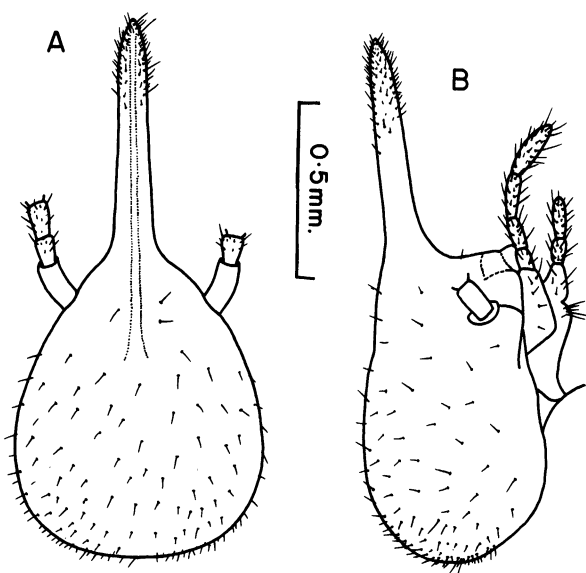


FIG. 11. Soldier of *Aciculitermes maymyoensis*, new species, paratype from type colony. A. Head from above. B. Head from below.

Maymyo, Burma, soldiers (paratypes), workers, collected by K. Krishna, October 22, 1961. Yegaw, Pa-an, Karen State, Burma, soldiers (paratypes), workers, collected by K. Krishna, October 17, 1961.

This species is named in honor of Dr. Prabha Prakash, who assisted me during my collecting trip in Burma.

***Aciculitermes maymyoensis*, new species**

IMAGO: Unknown.

SOLDIER (FIG. 11): Head pale yellowish, rostrum brown; antennae pale brownish yellow; pronotum and legs creamy. Head covered with moderate number of short bristles and many hairs; rostrum at tip densely pilose, posterior half without hairs or bristles; pronotum with a few bristles; tergites with many rows of short bristles. Head without rostrum pear-shaped; dorsal margin in profile with a slight hump posterior to rostrum; rostrum slender, not broad at base. Mandibles without points. Antenna with 12 articles; third article subequal to second or fourth. Pronotum saddle-shaped; anterior margin convex, without a median notch. Fore tibia faintly swollen.

COMPARISONS: The soldier of *Aciculitermes maymyoensis* differs from that

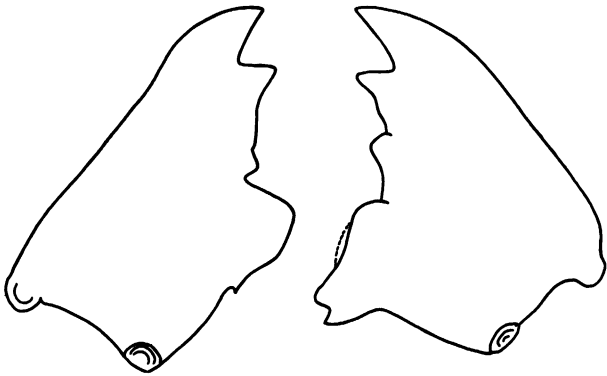


FIG. 12. Mandibles of worker of *Aciculitermes maymyoensis*, new species, paratype from type colony.

of *A. aciculatus* (Haviland) in having a longer, broader, thicker head and a longer rostrum.

TABLE 12
MEASUREMENTS (IN MILLIMETERS) OF TEN SOLDIERS OF
Aciculitermes maymyoensis, NEW SPECIES

	Holotype	Paratypes, Range
Length of head to tip of rostrum	1.58	1.56-1.61
Length of rostrum	0.66	0.65-0.69
Width of head	0.77	0.75-0.79
Height of head	0.61	0.63-0.64
Maximum length of pronotum	0.18	0.18-0.20
Width of pronotum	0.41	0.41-0.46
Length of hind tibia	0.82	0.83-0.84

TYPE LOCALITY: Botanical Garden, Maymyo, Burma (type locality), soldiers (holotype, paratypes), workers, collected by K. Krishna, October 22, 1961.

SUMMARY

Two families of termites are found in Burma, the Rhinotermitidae and the Termitidae. This study brings the total valid reported species to 39,

grouped into 20 genera. Out of the 39 species, 21 are reported in this paper.

In the present paper one new genus, *Dicuspiditermes*, is described, with *Capritermes obtusus* Silvestri as its type species. Ten species previously included in the genus *Capritermes* are transferred to *Dicuspiditermes*. Two of these species, *D. garthwaitei* (Gardner) and *D. laetus* (Silvestri), are from Burma.

Six new species, *Microcerotermes uncatus*, *Angulitermes paanensis*, *Angulitermes resimus*, *Mirocapritermes valeriae*, *Bulbitermes prabhae*, and *Aciculitermes maymyoensis*, are described and illustrated. The imago of *Euhamitermes hamatus* (Holmgren) is described for the first time.

Two species previously described under the names *Capritermes semarangi* Holmgren and *Capritermes tetraphilus* Silvestri are now transferred to *Pericapritermes semarangi* (Holmgren), new combination, and *Pericapritermes tetraphilus* (Silvestri), new combination.

The following 10 species and nine forms and subspecies have been relegated into synonymy: *Globitermes audax* Silvestri, *Microcerotermes burmanicus* Ahmad, *Capritermes orientalis* Mathur and Sen-Sarma, *Macrotermes azarellii* (Wasmann), *Odontotermes assamensis* Holmgren, *Odontotermes bangalorensis* Holmgren, *Odontotermes orissae* (Snyder), *Hypotermes nongpriangi* Roonwal and Sen-Sarma, *Microtermes pallidus* (Haviland), *Microtermes umsaе* Roonwal and Chhotani, *Macrotermes gilvus* f. *angusticeps* Kemner, *Macrotermes gilvus* var. *borneensis* Kemner, *Macrotermes gilvus* f. *kalshoveni* Kemner, *Macrotermes gilvus* f. *latinotum* Kemner, *Macrotermes gilvus* subsp. *madurensis* Kemner, *Macrotermes gilvus* subsp. *malayanus* (Haviland), *Macrotermes gilvus* f. *padangensis* Kemner, *Macrotermes gilvus* f. *philippinensis* (Oshima), and *Odontotermes obesus* var. *oculatus* Silvestri.

The genus *Angulitermes* and four species, *Euhamitermes hamatus* (Holmgren), *Pericapritermes semarangi* (Holmgren), *Odontotermes hainanensis* (Light), and *Microtermes obesi* Holmgren, are reported here for the first time from Burma.

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