

A New Species of the Genus *Tenomerga* (Coleoptera, Cupedidae) from Myanmar

Hiroyuki YOSHITOMI

Ehime University Museum, Bunkyo 3, Matsuyama, 790–8577 Japan

E-mail: hymushi@agr.ehime-u.ac.jp

Abstract *Tenomerga nagaii* sp. nov. is described from Myanmar. This species is similar to *T. anguliscutis* (KOLBE, 1886), but differs from it by the coloration of elytra and male genital structures. Three Southeastern Asian species are also recorded. *Tenomerga moultoni* (GESTRO, 1910) is newly recorded from Sabah State and the Malay Peninsula.

Introduction

The genus *Tenomerga* NEBOISS, 1984 is distributed in the Holarctic Region except for Europe, and represented by 14 species (HÖRNSCHEMEYER, 2009; GE & YANG, 2004). Of these eight species have been recorded from the Oriental Region, but were not sufficiently studied. Additionally there is no collecting record of this genus from the area facing the Indian Ocean (NEBOISS, 1984).

In the present study I describe a new species from Myanmar. In addition, the data of the specimens housed in EUMJ of three species collected from Southeastern Asia are shown.

Materials and Methods

General observations and dissections were made under a Leica MZ95 stereomicroscope. Microstructures of dissected parts were studied in pure glycerine under an Olympus BH-2 compound microscope. After observation, the dissected parts were mounted on the same card with the specimen. Photographs were taken under a Leica MZ95 and combined with Helicon® Focus ver. 4.70.5 Pro (Helicon Soft® Limited).

The materials examined in this study are kept at Ehime University Museum, Matsuyama, Japan (EUMJ); National Museum of Natural Science, Taichung, Taiwan (NMNS); and Taiwan Agricultural Research Institute, Taichung, Taiwan (TARI).

The terminology refers to NEBOISS (1984) for male genital structures, and HÖRNSCHEMEYER (2009) for head protuberances.

Morphological abbreviations used in measurement are as follows: HL – head length in median line; HW – maximum width of head across eyes; PL – length of pronotum in median line; PW – maximum width of pronotum; EL – length of elytra in suture from anterior margin of scutellum to elytral apex; EW – maximum width of elytra; TL – total length (HL+PL+EL). The average is given in parenthesis after the range.

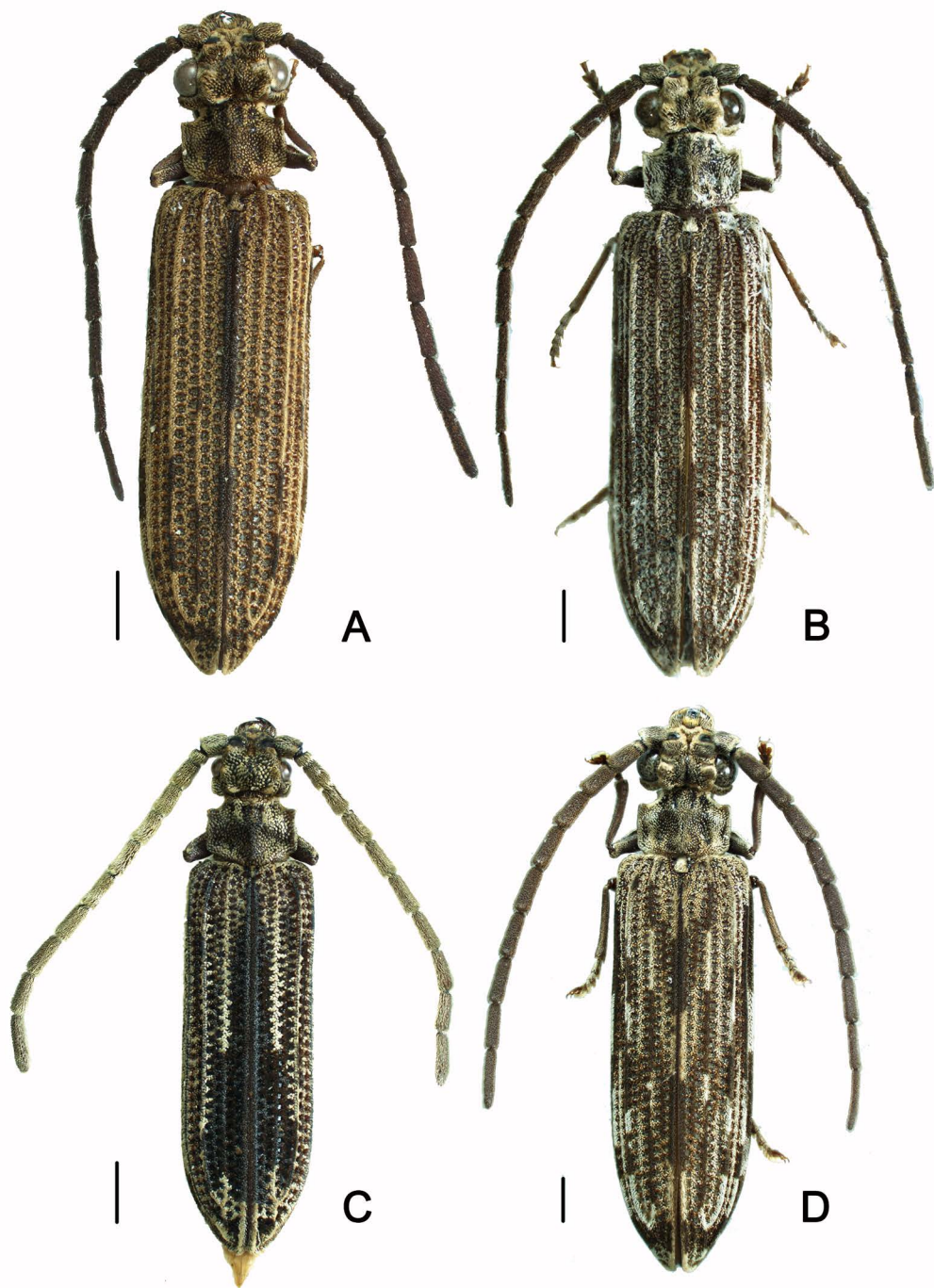


Fig. 1. Habitus of *Tenomerga* spp. — A, *Tenomerga nagaii* sp. nov., holotype; B, *T. anguliscutis*, male; C, *T. moultoni*, female; D, *T. trabecula*, male. Scale bars = 1.0 mm.

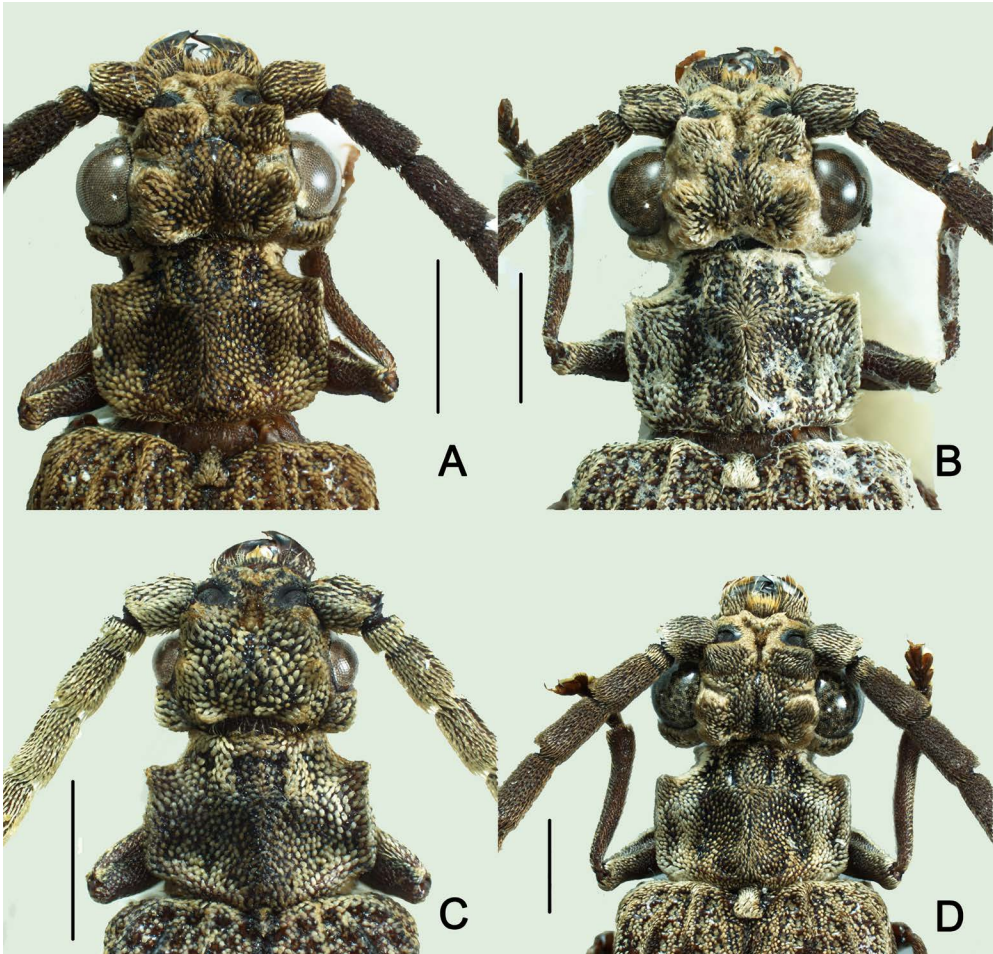


Fig. 2. Head and pronotum of *Tenomerga* spp. — A, *Tenomerga nagaii* sp. nov., holotype; B, *T. anguliscutis*, male; C, *T. moultoni*, female; D, *T. trabecula*, male. Scale bars = 1.0 mm.

Taxonomy

Tenomerga nagaii sp. nov.

(Figs. 1A, 2A & 3)

Type specimen. Holotype (EUMJ): male, “N. Myanmar, Kachin Zan-Phut alt. 1400m 26–30. VI. 2000 S. Nagai & H. Miyama”.

Description. Body (Fig. 1) oblong, flat on ventral side. Coloration of body brown, but middle and hind legs and elytra paler. Scales on head, pronotum and scutellum recumbent, oblong, cream-colored to whitish grey. Scales on elytra oval, smaller than those on pronotum, cream-colored to grey, but black in interval 1 (basal 1/2, apical 2/5 to 1/3), interval 3 (apical 1/4 to 1/5, near connecting point of intervals 3 and 5), interval 5 (apical 2/5 to 1/3), interval 7 (surrounding part of apical 1/2

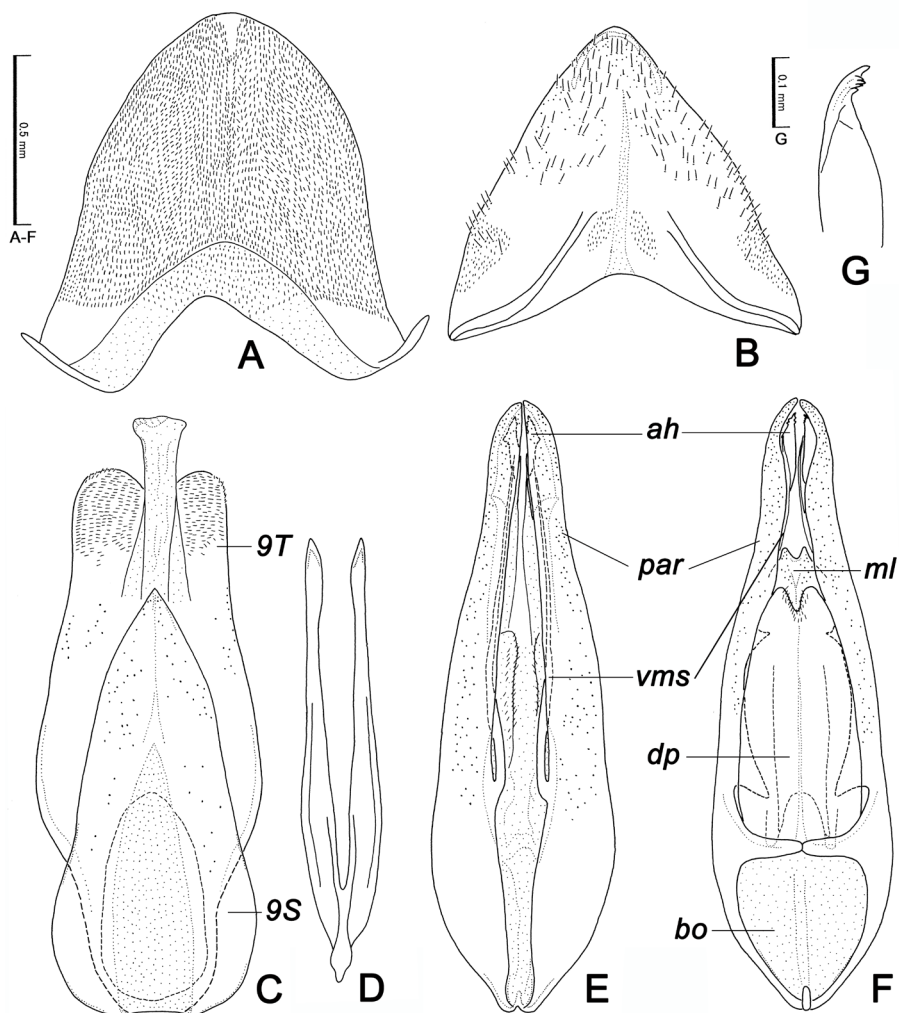


Fig. 3. Male genitalia of *Tenomerga nagaii* sp. nov., holotype. — A, Tergite VIII; B, sternite VIII; C, sternite IX (9S) and tergite IX (9T); D, bifurcate process; E, aedeagus in ventral view; F, ditto in dorsal view; G, apical hook in lateral view. — ah: Apical hook; bo: basal opening; dp: dorsal plate; ml: mesal lobe; par: paramere; vms: ventro-marginal spine.

and 1/5), interval 8 (basal 1/4 to 1/3, around apical 1/5), and margin (surrounding part of apical 2/5 and 1/5).

Head (Fig. 2A) large; P1 (protuberances above antennal insertions) large, acute, projecting antero-laterally; P2 (protuberances above eyes) smaller than P1, projecting antero-laterally; P3 (median protuberances) obscure; median furrow narrow and distinct; HL/HW 0.66. Eyes large, strongly prominent; the distance between eyes about 2.5 times as long as the maximum height of an eye. Antennae long, relatively stout, reaching about apical 1/4 of elytra, closely covered with black short setae on antennomeres II–XI. Pronotum (Fig. 2A) quadrate, subparallel; anterior angles squared; PW/PL 1.27. Elytra (Fig. 1A) parallel-sided, with 9 longitudinal rows of window-punctures; window-

punctures square and regularly arranged; interval 3 distinctly elevated from base to basal 1/6; interval 5 elevated from near base to connecting point with interval 3; interval 7 elevated from humeral part to connecting point with interval 3+5; EL/EW 3.00; EL/PL 5.74; EW/PW 1.51; TL/EW 4.01.

Tergite VIII (Fig. 3A) well sclerotized, subtriangular, closely covered with minute spines; apex glabrous. Sternite VIII (Fig. 3B) slightly sclerotized, triangular, sparsely covered with short setae and fine punctures on apical part. Tergite IX (Fig. 3C) slightly sclerotized, gently tapering distad from basal 1/3; apex rounded, sinuous, closely covered with minute spines. Sternite IX (Fig. 3C) slightly sclerotized, widest at basal 1/6, rather pointed at apex. Bifurcate process (Fig. 3D; segment X? in MORIMOTO, 1986) with short median strut (Y-shaped in HÖRNSCHEMEYER, 2009), similar shape to those of *T. anguliscutis*. Aedeagus (Fig. 3E, F) widest at basal 1/4, gently tapered posteriorly; basal opening (*bo*) oval; dorsal plate (*dp*) deeply notched at apex; paramere (*par*) slender, with two pairs of large triangular projections at inner margin of basal 1/7 and 1/2, curved interiorly in apical part; ventro-marginal spines (*vms*) long, reaching base of apical hooks; apical hook (*ah*; Fig. 3G) simply pointed, with some small basal denticles; mesal lobe (*ml*; penis in HÖRNSCHEMEYER, 2009) short, not reaching apical hooks, deeply notched at apex.

Measurements. Male (n = 1). TL 9.83 mm; HL 1.20 mm; HW 1.82 mm; PW 1.62 mm; PL 1.28 mm; EL 7.35 mm; EW 2.45 mm.

Remarks. This species is similar to *Tenomerga anguliscutis* (KOLBE) in the general appearance and the shape of male genitalia, but differs from it by the following characteristics: 1) coloration of elytra brown with sections of dark brown scales on intervals (grayish brown with dark brown sections in *anguliscutis*); 2) apical hook simply pointed, with some small denticles on the base (bi-pointed in *anguliscutis*, see fig. 17 in NEBOISS, 1984).

Etymology. The species name is given for Mr. Shinji NAGAI, who was a collector of the holotype.

Southeast Asian Species in the Collection of EUMJ, NMNS and TARI

Tenomerga anguliscutis (KOLBE, 1886)

(Figs. 1B & 2B)

Specimens examined. 1 male (EUMJ), “Ban Saleui, 1350m Xamneua, Laos 21–24. VI. 2003 M. Sato leg.”; 1 male (EUMJ), “Ph-Pan, alt. 1750m XamNeua, Laos 28. IV–2. V. 2002 M. Sato leg.”

Distribution. China (Heilongjiang, Jilin, Liaoning. Nanjing, Shanghai, Zhejiang); Taiwan; Vietnam; Laos; Korea.

Tenomerga moultoni (GESTRO, 1910)

(Figs. 1C & 2C)

Specimens examined. 1 ex. (TARI), “cotype”, “Cupes moulbone Gestr. DET Y. MIWA”, “607”; 1 female (EUMJ), “Pahang, Malaysia 19 miles from Tapah, alt. ca 650m 1. IV, 2008 K. Takasuka leg.”; 1 female (EUMJ), “Poling Hot Spring, Borneo 5–VI–1992 M. Takakuwa”.

Remarks. This species has been known only from Sarawak, Borneo (see NEBOISS, 1984). This is the first record from Sabah State and the Malay Peninsula.

Distribution. Borneo (Sarawak, Sabah); the Malay Peninsula.

Tenomerga trabecula NEBOISS, 1984

(Figs. 1D & 2D)

Specimens examined. 1 male (EUMJ), “Fushan, 650m Taipei, Taiwan 8-VII-2001 W. I. Chou leg.”; 1 male (NMNS), “Taiwan: Taipei Chungho 01. VI. 2008, leg. Y.-L. Lin”, “NMNS ENT 7046-14”; 1 male (TARI), “Taiwan: Nantou Nanshanchi 3. VII. 2010, leg. C.-P. Cheng”; 1 male (TARI), “Taiwan: Pingtung Lilongshan 25. V. 2007, leg. Y.-L. Lin”; 1 male (TARI), “Taiwan: Ilan Fushan Botanical Garden 03. VII. 2013, leg. Y. T. Wang”; 1 male (TARI), “Taiwan: Tainan Kantoushan 24. V. 2014. Leg. W.-C. Liao”; 1 male (TARI), “Taiwan: Taichung Dakeng 15-V-2012 C. P. Cheng”.

Distribution. China; Taiwan.

Acknowledgements

A part of this study was based on the late Dr. Masataka SATŌ’s private collection and his notes preserved in EUMJ. I wish to express my deep gratitude to the late Dr. SATŌ and his wife Sumiko for their support. I thank Dr. Chi-Feng LEE (TARI) and Dr. Ming-Luen JENG (NMNS) for giving me the chance to examine the precious materials.

要 約

吉富博之：ミャンマーから発見されたナガヒラタムシ属（鞘翅目ナガヒラタムシ科）の1新種。—— ナガヒラタムシ属 *Tenomerga* は、ヨーロッパを除く全北区から14種が知られており、そのうち8種が東洋区から記録されている。本論文ではミャンマーから1新種 *T. nagaii* sp. nov. を記載した。本種は外見や雄交尾器の特徴からインドシナ地域から知られる *Tenomerga anguliscutis* (KOLBE) に類似するが、鞘翅の色彩や雄交尾器の形質により区別することができる。また愛媛大学ミュージアム、国立自然科学博物館（台中市）および台湾農業試験所（台中市）に所蔵されている東南アジア産3種の採集データも示した。そのうち、*Tenomerga moultoni* (GESTRO) はサバ州（ボルネオ島）とマレー半島からそれぞれ初記録である。

References

- HÖRNSCHEMEYER, T., 2009. The species-level phylogeny of archostematan beetles – where do *Micromalthus debilis* and *Crowsoniella relicta* belong? *Systematic Entomology*, **34**: 533–558.
- MORIMOTO, K., 1986. II. Morphology, adults. Pp. 37–64. In MORIMOTO, K., & N. HAYASHI (eds.), *The Coleoptera of Japan in Color*, **1**. 323 pp., Hoikusha, Osaka. (In Japanese.)
- NEBOISS, A., 1984. Reclassification of *Cupes* FABRICIUS (s. lat.), with descriptions of new genera and species (Cupedidae: Coleoptera). *Systematic Entomology*, **9**: 443–477.
- GE, S.-Q., & X.-K. YANG, 2004. Two new Chinese species of *Tenomerga* NEBOISS (Coleoptera: Cupedidae), with a world catalog of the genus. *Proceedings of the Entomological Society of Washington*, **106**: 631–638.

Manuscript received 11 February 2016;
revised and accepted 7 April 2016.