

A NEW SPECIES OF *TORYMUS* DALMAN (HYMENOPTERA: TORYMIDAE) FROM WEST MALAYSIA

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ABSTRACT

A new species of *Torymus*, *Torymus kovaci*, phytophagous on the clumps of *Gigantochloa scortechinii* Gamble in West Malaysia is described.

KEYWORDS

Hymenoptera, West Malaysia, *Torymidae*, *Torymus kovaci* sp. nov., new species.

ABBREVIATIONS

DZUC - Department of Zoology University of Calicut; F1-F7 - Funicular segments 1 to 7; MV - Marginal vein; OOL - Ocellocular distance; PMV - Postmarginal vein; POL - Postocellar distance; SMV - Submarginal vein; STV - Stigmal vein; ZSIC - Zoological Survey of India, Western Ghats Regional Station, Kozhikode.

The genus *Torymus* was erected by Dalman in 1820 based on the type species *Ichneumon bedeguaris* Linnaeus. Graham and Gijswijt (1998) revised the European species of *Torymus* and synonymised *Diomorus* Walker with *Torymus*. In the Oriental Region, *Torymus* is represented by 11 species, namely, *T. cupreus* (Spinola) (= *Diomorus cupreus* (Spinola)), *T. indicus* (Ahmad) (= *Diomorus orientalis* Masi), *T. calcaratus* (Nees) (= *Diomorus calcaratus* (Nees)), *T. ailomorphi* (Kamijo) (= *Diomorus ailomorphi* Kamijo), *T. orissaensis* (Mani), *T. chaubattiensis* Bhatnagar, *T. nepalensis* Narendran, *T. sharmai* Sureshan & Narendran, *T. beneficus* Yasumatsu & Kamijo, *T. sinensis* Kamijo and *T. varians* Walker (Narendran, 1994; Grissell, 1995; Graham & Gijswijt, 1998; Sureshan & Narendran, 2002; Noyes, 2004). Here one new species is described from West Malaysia.

Torymus kovaci sp. nov.

(Figs. 1-6)

Material examined

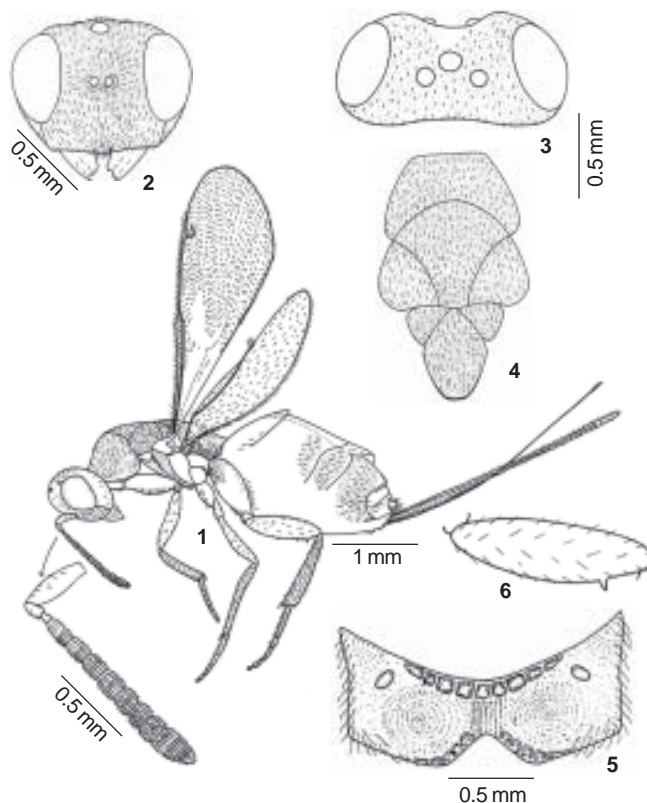
Holotype: Female, 11.viii.1994, Ulu Gombak, West Malaysia, Coll. D. Kovac.

Paratypes: 2 Females, 7.iv.1995, Gombak Field Studies Centre, West Malaysia; 2 Females, 8.iv.1995, Ulu Gombak, West Malaysia. All specimens are collected by D. Kovac.

All type specimens are deposited in TCN Collections in the Systematic Entomology Laboratory, Department of Zoology, University of Calicut (DZUC) for the time being but eventually will be transferred to the Western Ghats Regional Station, Zoological Survey of India, Kozhikode (ZSIC).

Etymology

Named in honour of Dr. D. Kovac (Germany) who collected the specimens.



Figures 1-6. *Torymus kovaci* sp. nov. (female)
1 - Body profile (lateral view); 2 - Head (front view);
3 - Head (dorsal view); 4 - Pronotum, mesoscutum and
scutellum; 5 - Propodeum; 6 - Hind femur

Diagnostic features

Female: Length 4.86mm (excluding ovipositor sheath); ovipositor sheath 3.5mm. Head and dorsum of mesosoma brown with metallic green reflections; scape, pedicel and anellus yellowish-brown, funicular segments black; clava dark brown; eye reddish-grey; ocelli yellowish-brown; mandible reddish-brown; mesopleuron, epimeron and metapleuron dark brown; mesepisternum brown with metallic-green reflections; basal part of hind coxa dorsally having brownish patch up to middle; all femora yellowish-brown; apical tarsal segment pale brownish; all tibia pale yellow; all tarsi yellowish-white; claws dark brown; first gastral tergum brown, remaining portion upto middle of gaster pale yellowish-white, beyond middle dark brown with metallic green reflections; wings hyaline; venation dark brown; dorsal valve of ovipositor sheath dark brown, ventral valve pale brown, ovipositor brownish-red with pinkish reflections.

Head: Width (Fig. 2) 1.33x its median length up to lower clypeal margin (excluding mandibles); head (Fig. 3) width in dorsal view 2.53x its median length; eyes bare; POL 1.23x OOL; vertex, frons and face granuloso-striate (Fig. 2); clypeus smooth; malar space 0.32x length of eye; malar sulcus distinct (Fig. 2); mandibles tridentate; head with dense pubescence. Antennal formula 11173 (Fig. 1); relative measurements of length: breadth of antennal segments: scape 24.5 : 7.5; pedicel - 7:4; anellus 4:3; F₁ - 10:5; F₂ - 9:6; F₃ - 8.6:6.5; F₄ - 9:7.5; F₅ - 7:6.75; F₆ - 7:8; F₇ - 7:9; clava - 16:9; scape reaching median ocellus.

Mesosoma: Pronotum, mesoscutum and scutellum with dense pubescence except at lateral part of pronotum; median width 2.79x its median length (Fig. 4); pronotum with distinct anterior dorsal carina, area anterior to dorsal pronotal carina smooth, pronotum with transverse striations. Mesoscutum median length 2.17x pronotal median length; maximal width of mesoscutum 1.41x its median length (Fig. 4); mesoscutum with midlobe transversely striated, lateral lobe granuloso-striate; notauli deep. Scutellum length 1.43x its width (Fig. 4); axilla and scutellum with transverse striations; hind margin of scutellum carinate separated by a narrow groove; frenal area almost smooth. Propodeum shiny with faint striations (Fig. 5), median carina absent, spiracle oval shaped, lateral margin with a few long hairs extending towards posterior margin. Metapleuron, mesepimeron and epimeron smooth without hairs except at posterior margin of metapleuron near to hind coxa; mesepisternum with faint transverse striations, medially with a row of long hairs (Fig. 1). Hind coxa stout, length 2.6x width, almost shiny; dorsal area of coxae near to trochanter having few long hairs; hind femur slender with distinct subapical tooth (Fig. 6). Forewing (Fig. 1) length 2.91x its maximum width; length of costal cell 1.85x length of MV, MV 3.05x PMV, PMV 1.8x STV; SMV with a row of dorsal setae; speculum bare; cubital line of setae extending to cubital cell.

Gaster: (Fig. 1) sessile; 1.34x longer than mesosoma; exerted part of ovipositor distinctly shorter than combined length of mesosoma and gaster; ovipositor sheath 1.38x length of gaster; pilosity on ovipositor sheath moderately long.

Male: Unknown.

Remarks

The specimens are phytophagous on the culms of Bamboo plant *Gigantochloa scortechinii* Gamble (Family: Poaceae).

This new species closely resembles *T. indicus* (Ahmad) in having (1) length of exerted part of ovipositor distinctly less than length of thorax and gaster; (2) frenum smooth and shiny and (3) propodeum without a median carina or fovea. However this species differs from *T. indicus* in having (1) length of ovipositor sheath 3.5mm (in *T. indicus*, length of ovipositor sheath 2.1mm); (2) hind femur yellowish-brown (in *T. indicus*, hind femur metallic green with more violet and bluish tinge; its apex brown); (3) hind tibia pale yellow (in *T. indicus*, hind tibia proximal half yellow; distal half blackish-brown); (4) POL 1.23x OOL (in *T. indicus*, POL 2x OOL); (5) scape reaching front ocellus, about

2.5x as long as F₁ (in *T. indicus*, scape not reaching front ocellus, about 2x as long as F₁); (6) forewing with MV 2.88x PMV; STV 0.55x PMV (in *T. indicus*, forewing with MV 1.55x PMV; STV 0.38x PMV).

T. kovaci sp. nov. is also similar to *T. calcaratus* (Nees) in having (1) ovipositor length more than 2.5x length of hind tibia; (2) malar space more than 0.3x length of eye and (3) external surface of hind coxa largely smooth. However, *T. kovaci* sp. nov. differs from *T. calcaratus* (Nees) in the following features: (1) propodeum between spiracles shiny with faint circular striations on two sides, some weak longitudinal striations in the middle area and some large pits on anterior and posterior margin of propodeum (in *T. calcaratus*, propodeum between spiracles areolate rugose); (2) pronotum about 2.79x as wide as long (in *T. calcaratus*, pronotum about 2.33x as wide as long); (3) exerted part of ovipositor distinctly shorter than length of body (in *T. calcaratus*, exerted part of ovipositor distinctly longer than length of body); (4) dorsal area of coxae near to trochanter having few long hairs (in *T. calcaratus*, hind coxa dorsally bare).

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