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A NEW SPECIES OF *TANYMECUS* GERMAR (COLEOPTERA: CURCULIONIDAE: ENTIMINAE: TANYMECINI) FROM SINDH, PAKISTAN

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ABSTRACT

A new species of *Tanymecus* Germar described as Allotype from Omarkot, Sindh. The present new taxon is described with male and female components of genitalia and their comparison with closest allies.

Keywords: Tanymecini, *Tanymecus sindhensis* n.sp., male and female genitalia.

INTRODUCTION

Marshall (1916) carried out a major work on Indian weevils found in Indian subcontinent. He described 23 species of *Tanymecus* in which only three species *Tanymecus simplex*, *T.mandibularis* and *T.indicus* recorded from those areas which are now included in Pakistan. Hashmi and Tashfeen (1992) listed only thirteen species of *Tanymecus* from Pakistan. Later few genera were reviewed by other workers with their faunistic studies viz., *Myllocerus* Schoenherr (Ramamurthy and Ghai, 1988), *Tanymecus* Germar (Supare *et al*., 1990), *Indomias* Marshall (Ramamurthy and Ayri, 2010). In Pakistan, initiated work was done by Aslam (1966a, 1966b), he described some weevils of the tribe Tanymecini from Pakistan and later Rizvi *et al*. (2003) and Ahmed *et al*. (2006) added two new species of *Tanymecus* from Pakistan.

Due to the large family size, number of invalid taxa needed revision and authenticity, for that Zarazaga and Lyal (2002) synonymized many genera and placed many in different subfamilies and families. After four years, in 2006 they added remaining taxa and provided their position in world catalogue of families and genera of Curculionoidea.

Tanymecus is Indian subcontinent genus, but most of the members of tribe Tanymecici also found in North America (Anderson, 2002). This new species is confined as allotype from Omerkot, Sindh collected on light.

MATERIALS AND METHODS

The present taxon was collected from Omerkot, Sindh by hand picking method. The allotype specimens collected direct in the bottle, filled with alcohol. The measurements and illustrations were made by using ocular grid microscope. For the study of the male and female genitalia, the abdomen was excised at the base and boiled in 10% KOH solution for about 10 minutes. It was then washed in tap water. The aedeagus was dissected out and examined in glycerin. In female genitalia, the ovaries were found filled with fully mature eggs. Spermatheca was lost and only spicule was found. After studying the male genitalia, these were preserved in microvials with a drop of glycerin and pinned with the specimens for deposition in the collection of first author (ZACP).

RESULTS

***Tanymecus sindhensis* n.sp.** (habitus and Figs. a-h)

Measurement. Male, (Ht), 11mm
Female , 11.5mm

***Coloration*.** Black with pale grayish, tinge of green to pinkish scarce in male, much in female, sides of prothorax uniform grayish white with base tinge of pinkish scarce; legs and antennae piceous brown covered with yellow vestiture.

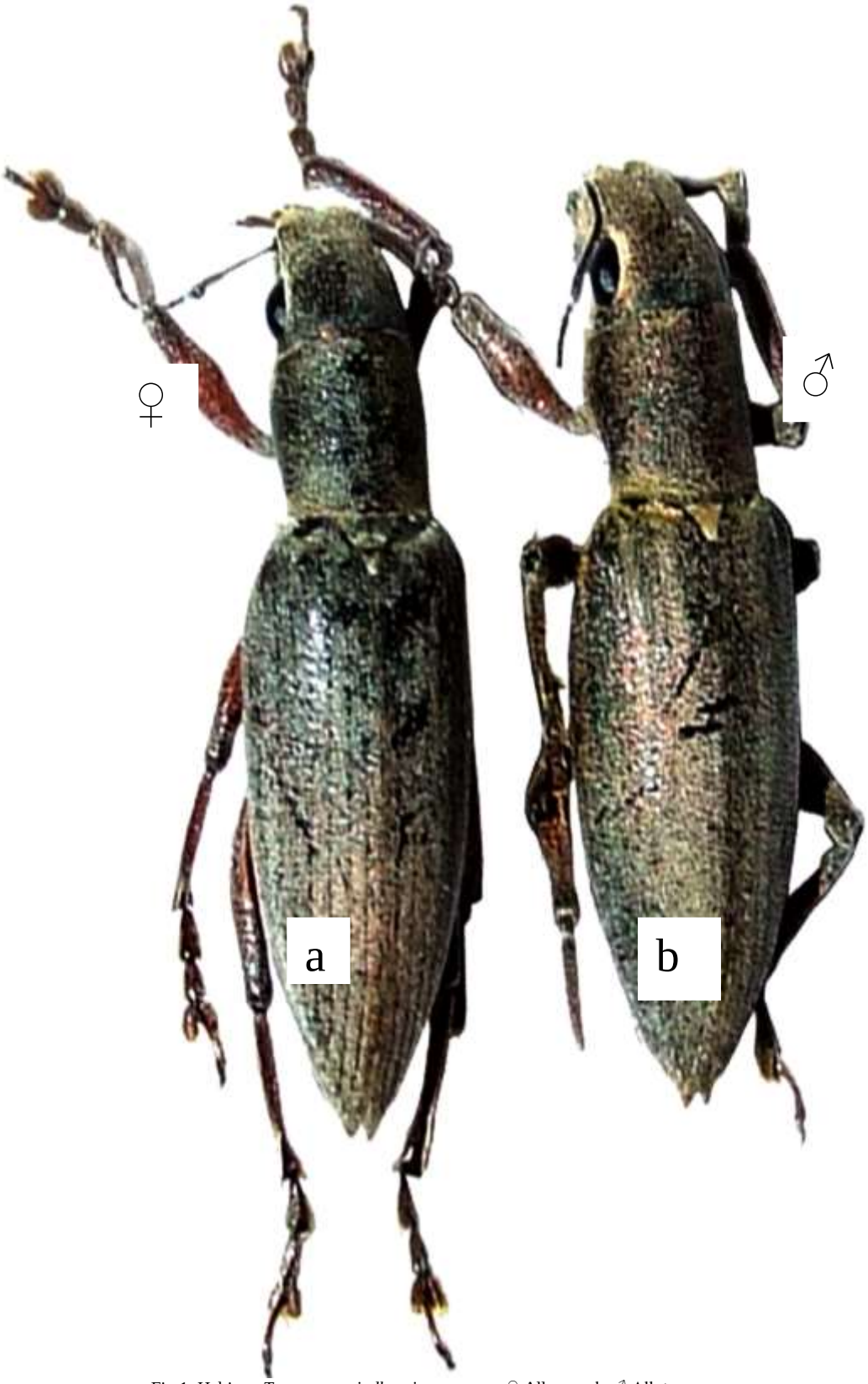

Fig.1. Habitus: *Tanymacus sindhensis* sp. nov. a. ♀ Allotype, b. ♂ Allotype

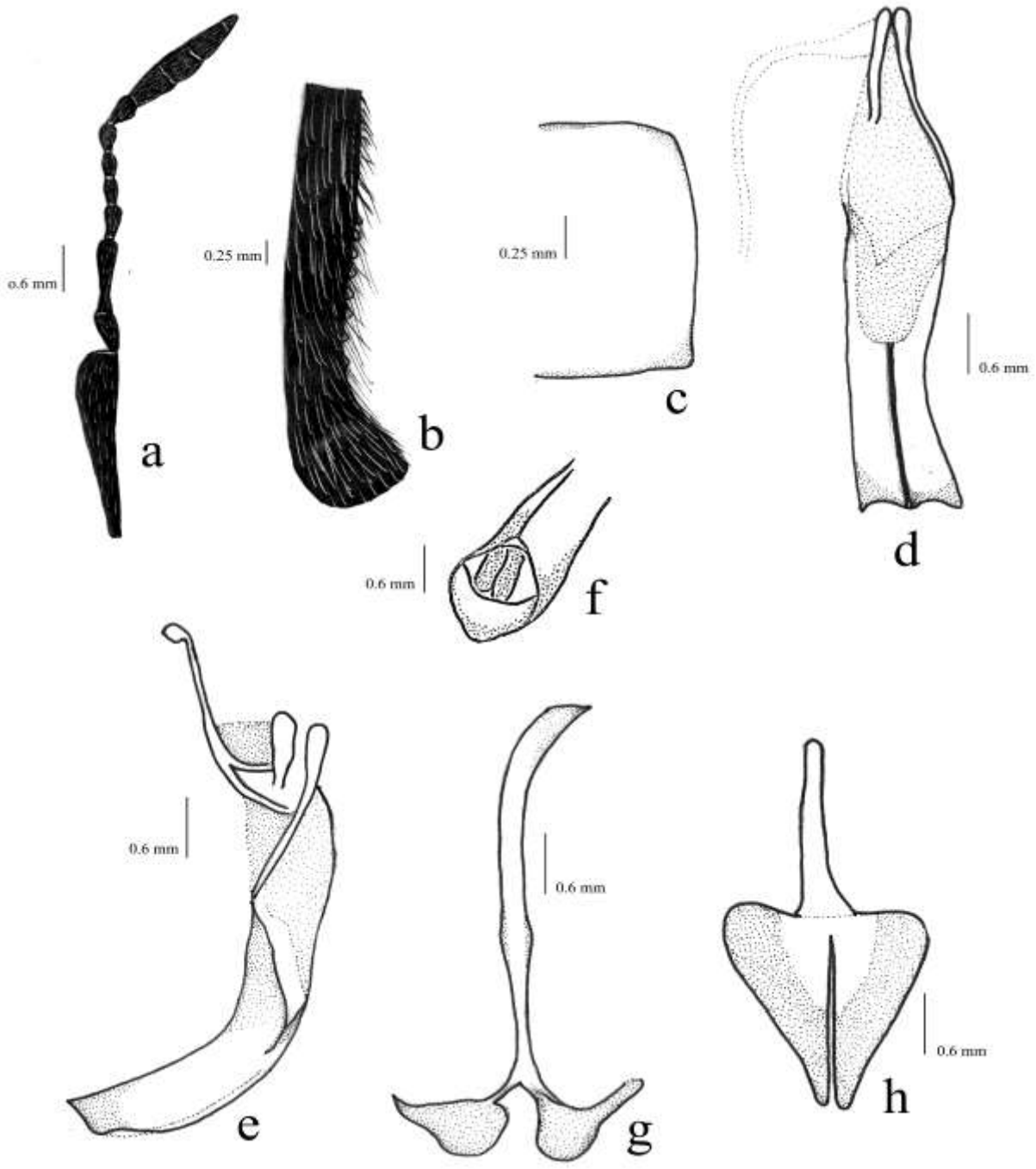

Fig. 2. a-h: *Tanymacus sindhensis* sp. nov.: a. Antenna, b. Hind tibia with denticulate, c. Prothorax, d. Aedeagus, dorsal view, e. Aedeagus, lateral view, f. Aedeagus, ventral view, g. Spiculum gastrale, h. Spicule of female.

Head. Longer than wider including rostrum, covered with dense pile; eyes oblong, convex; rostrum broader than long, apical emergination shallow and triangular excised, central and lateral carinae distinct, the former more prominent and distinctly raised, not broadest at its junction with apical emergination, extending up to the length of rostrum in both sexes, mandibles black, massive, antennae with scape not exceeding the posterior margin of eyes at resting position, conspicuously covered with elongate pale yellow vestiture, first joint of funicle robust and smaller,

second joint longer than previous and others, third to seven joints sub equal, club four jointed, acuminate covered with dense grey pile.

***Prothorax*.** Slightly broader 3.7mm (3.6mm-3.8mm) than longer 3.6mm (3.5mm-3.7mm), broadest beyond the middle, slightly narrowed from base to apex, basal margin scarcely sinuate near the acute posterior angles, upper surface with shallow, confluent puctations, median carina raised in the middle with vestiture throughout dense; elytra broader than base of prothorax, shoulders sloping to a slight extent, apices bears short mucro without divergent, strial margins shallowly punctuate, covered with dense vestiture, striae 1,2,3 and 4 becoming deep and distinct in the apical fourth, elytra vestiture with oval scales, grayish at apex and base, pinkish at middle in both sexes, also dense recumbent pile; legs piceous brown, sparcely clothed with pale grayish vestiture, hind tibiae denticulate internally in their apical half in male sex only; scutellum as dark as elytra, lobate covered with dense yellow to light brown vestiture.

Abdomen: Concealed by elytra, venter with anal segment of female longer than male.

Male genitalia. Aedeagus with penis almost tubular, arcuate, with a dorsal median carina extending from the orifice almost up to base not longer than apophyses, dorsally apical opening constricted with acute medially, a long ridge runs up to base; apical opening slightly pear shaped, apical process elongate, parallel, well protruded; apophyses cylindrical; tegmen with dorsal and basal piece thin, apex ampullate, parameres with apices pointed; spiculum gastrale long, apically truncate with somewhat deflected scarce, beyond middle slightly raised, basal prongs unequal.

Female genitalia. Spermatheca lost, spicule not much elongate, much dilated at base, narrowly at their apices, with a elongate suture medially.

Material Examined.

Holotype ♂ Pakistan: Sindh, Omerkot, 6.vii.2010, Ashraf, Ahmed, Z leg., on light. (NHMUK, ZACP). 7 paratype ♂, same data as holotype. (ZACP).

***Etymology*.** The species is named after type locality.

Comparative note:

The new taxon compares with *Tanymecus sciurus* in having vestiture color grayish with pink shade, aedeagus and spicule in female genitalia in both species but aedeagus with apical opening, apical process and dentition of hind tibiae different from *T. sciurus*; it is also related to *Tanymecus parkiensis* in having male genitalia with spiculum gastrale similar but length of aedeagal tube, shape of apical process, manubriun apex and their apices shaped, prothorax dorsally with a single row of grayish scales while two rows in *T. parkiensis* and other characters noted in the description. There are many characters in male and female genitalia which differ in their shape, size, length breadth ratio which determined the species and compared them.

REFERENCES

Ahmed, Z., S.A. Rizvi, M.A. Akhter and I. Yasir (2006). A new species of *Tanymecus* Germar (Coleoptera:Curculionidae:Tanymecini) from Pakistan. International Journal of Biology and Biotechnology. 3(1): 19-21.

Andesdon, R.S. (2002). Family 131.Curculionidae Latreille 1802. American Beetles, 2: 722-815.

Aslam, N.A. (1966a). A new Tanymecine genus from the Himalayas (Coleoptera, Curculionidae). Annals and Magazine of Natural History, 13(ix): 129-136.

Aslam, N.A. (1966b). Revision of Tanymecine genera, *Achlaenomus* Waterhouse and *Hyperomias* and designation of type for *Strophosomoides* Aslam (Coleoptera, Curculionidae). Annals and Magazine of Natural History, 13(ix): 405-416.

Hashmi,A.A & Tashfeen,A 1992. Coleoptera of Pakistan. *Proc.Pakistan Cong.Zool*., vol 12.pp 133-170.

Lyal, C.H.C and A.M. Zarazaga (2006). Addenda and Corrigenda to A World Catalogue of Families and Genera of Curculionoidea (Insecta:Coleoptera). Zootaxa, 1202: 21-31.

Marshall, G.A.K. (1916). Coleoptera,Rhynchophora:Curculionidae. *Fauna of British India,* 367pp. Taylor and Francis, London.

Ramamurthy, V.V and S. Ayri (2010). Revision of the genus *Indomias* Marshall (Coleoptera, Curculionidae, Entiminae, Tanymecini) from India. Zootaxa, 2357:1-49.

Ramamurthy, V.V. and S. Ghai (1988). A study on the genus *Myllocerus* (Coleoptera:Curculionidae). Oriental Insects, 22:377-500.

Rizvi, S.A., Z. Ahmed, and S. Naz (2003). A new species of the genus *Tanymecus* Germar (Coleoptera: Curculionidae:Brachyderinae) from Karachi, Pakistan. Pakistan Journal of Entomology Karachi, 18(1&2): 19-20.

Supare, N.A., S. Ghai and V.V. Ramamurthy (1990). A revision of *Tanymecus* from India and adjacent countries (Coleoptera:Curculionidae). Oriental Insects, 24:1-126.

Zarazaga, A.M. and C.H.C. Lyal (2002). Addenda and corrigenda to A World Catalogue of Families and Genera of Curculionoidea (Insecta: Coleoptera). Zootaxa, 63:1-37.

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