REDESCRIPTION OF **MYLLOCERUS DENTIFER** (FABRICIUS) (COLEOPTERA: CURCULIONIDAE) WITH REFERENCE TO MALE AND FEMALE GENITALIA FROM PAKISTAN

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ABSTRACT

*Myllocerus dentifer* (Fabricius) is redescribed with reference to its male and female genitalia from Sindh, Pakistan. The present taxon is compared with its closest allies.

**Key words:** Redescription, *Myllocerus dentifer* (Fabricius) Coleoptera, genitalia, Sindh, Pakistan

INTRODUCTION

The members of the family Curculionidae including *Myllocerus dentifer* (Fabricius) feed on vegetable substances, but mostly they are the serious pest of cereals, fruits and vegetables. Stebbing (1914) described 7 species of the genus *Myllocerus* Schoenherr with their economic importance. Marshall (1916) described and keyed out 72 species of *Myllocerus* Schoenherr in his Fauna of British India including Ceylon and Burma, also reported from the areas, now included in Pakistan. Chaudhary, et. al. (1966) reported only 4 species from Pakistan but four years later, he reported 10 species of *Myllocerus* from Pakistan. Ramamurthy and Ghai (1988) described and keyed out 73 species of *Myllocerus* Schoenherr from India and neighboring countries. Hashmi and Tashfeen (1992) only listed out 28 species from Pakistan. Their detailed description and diagrams were not available in the literature. Therefore, the present species is redescribed and illustrated in details with special reference to its male and female genitalia and presently its systematic position is also briefly discussed.

MATERIALS AND METHODS

The present taxon was collected from Malir, Quaidabad, Korangi, Karachi. The measurements and illustrations were made by using ocular grid microscope. For the study of 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 and spermatheca were dissected out and examined under glycerin. After studying the male and female genitalia, these were placed in microvials with a drop of glycerin and pinned with the specimens for Natural Herbarium Museum University of Karachi (NHMUK).

RESULTS

*Myllocerus dentifer* Fabricius, 1792: 488; Bohemman in Schoenhften, 1834: 430; Marshall, 1916: 347 (CM). *(Figs. 1A–1G)*

Coloration

Head with eyes black, vestiture light ochraceous circular scales and gray recumbent hairs; thorax black with circular gray scales; elytra black with circular gray scales and rows of light gray recumbent hairs; antenna up to funicle piceous black with light gray suberect hairs, club dark brown; leg piceous black with gray round scaling and hairs.

Head

Cuboidal shaped, longer 0.9mm (0.85mm-1.0mm) than rostrum 0.6mm (0.5mm-0.7mm); interocular distance 0.9mm, oculcar 1.1mm; eyes faceted, subdorsal, strongly convex, almost oval; apex of rostrum slightly dilated, apical emergination shallow, obtuse, central carina and lateral carinae distinct; antennae inserted from scrobes just before
the eyes, scape long, curved, cylindrical, slightly clavate at apex, funicle seven segmented, 1st and 2nd segments subequal (0.4mm), rest small and subequal 0.15mm (0.1mm-0.2mm), club three segmented, compact.

Fig. 1 (A-G). 1A: Myllocerus dentifer Male: dorsal view, 1B: Myllocerus dentifer Female: dorsal view, 1C: Aedeagus, 1D: Tegmen, 1E: Speculum gastrale, 1F: Spermatheca, 1G: Spicule.
Thorax

Slightly longer, 1.3mm (1.2mm-1.35mm) than broad 1.1mm (1.0mm-1.15mm) apex truncate, base bisinuate, laterally prominently convex, angles acute; mesosternum shorter than metasternum, mesoepisternum somewhat triangular shaped, anteriorly depressed, laterally dilated, mesoepimeron triangular shaped; metaepisternum triangular shaped, laterally dilated; scutellum oblong, small; elytra with apex broader than base of prothorax, narrow at base in male, striae ten in number with fine punctation, between intervals whitish gray circular scales and rows of recumbent hairs; legs simple, prothoracic and mesothoracic femora with two teeth, hind femora tridentate, all tibiae internally slightly angulate, tarsi four segmented, 3rd segment bilobed and hairy, claws curved.

Abdomen

Convex beneath, longer than broad. Total length: Male 6.4 mm (Fig. 1A). Total length: Female 7.2mm (Fig. 1B).

Male genitalia

Aedeagus (Fig. 1C) with penis distinctly broad, apical process distinct, not protruding, internal sac tubular, apical area with chitinous patches; flagellum visible at apex, apophyses slender and one fourth more long than penis, apices rounded; tegmen (Fig. 1D) with manubrium long, slender, paramere triangular, apex truncate; speculum gastrale (Fig.1E) long, stout, apex deflected with chitinous flap, basal prong subequal.

Female genitalia

Spermatheca (Fig. 1F) with proximal arm at least twice stouter than cornu, their junction not constricted, nodulus deflected internally, almost rectangular shaped, ramus slightly raised, cornu narrow at terminal and curved; spicule (Fig. 1G) very slender, variously curved, apex spatulate.

Material examined

Males (12), Females (3), Pakistan: Sindh; Karachi, Malir, Korangi, Quaidabad on A1fa alfa and falsa, 24-5-2001; leg Ahmed, Z., Akhter, M. A. and Baig, A., deposited in NHMUK.

Comparative note

Myllocerus dentifer (Fabricius) is most closely related to Myllocerus discolor Bohemann in having head length same, vestiture color, tubular internal sac, funicule segmentation, but it can be separated from M. discolor by apices of basal prongs bluntly rounded, spiculum gastrale with apex spatulate, apex of manubrium truncate in M. discolor and by the other characters shown in the illustrations.

DISCUSSION

Myllocerus dentifer was first described under the name of Curculio dentifer by Fabricius in 1792, later Marshall in 1916 described the genus Myllocerus with the reference of their vestiture, dentitions on legs and male and female genital from Indian region. The present taxonomic work on the species is first time in Pakistan. The specimens were collected on vegetables of different regions of Karachi, Pakistan.

REFERENCE


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