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Cover: Green Sea Turtle *Chelonia mydas* watercolour by Elakshi Mahika Molur.



of the thorax, the procoxae almost in the middle of the prosternum and claws free (Ramamurthy & Ghai 1988). Currently, it is placed under the subtribe Mylocerina, tribe Cyphicerini, and subfamily Entiminae (Alonso-Zarazaga & Lyal 1999).

Marshall (1916) was the pioneering researcher who studied 71 species including 42 new species and provided a key to identifying the species from British India. Ramamurthy & Ghai (1988) redescribed the genus *Mylocerus*, examining 73 species, including 15 new species from India and adjacent countries. Ramamurthy et al. (1992) transferred six species to the genus *Mylocerus* and synonymised the name *Hyperstylus* Roelofs, 1873 with *Mylocerus*, and additionally described three new species under *Mylocerus*. Following Ramamurthy et al. (1992), there has been a scarcity of taxonomic studies on *Mylocerus* in India.

This paper focuses on describing of two new species of *Mylocerus* from Tamil Nadu, Karnataka, Telangana, and Andhra Pradesh.

MATERIAL AND METHODS

The studied specimens were collected during the survey conducted in different regions of India from 2016 to 2021. The morphological characters were studied using standard techniques for dried insect specimens (Marshall 1916; Ramamurthy & Ghai 1988). The diagnostic characters were photographed using Lecia M205A stereozoom microscope with AutoMontage facility utilizing Leica application suite V4.12 software.

The identification keys provided by Marshall (1916) and Ramamurthy & Ghai (1988) were used for identifying the species. Original descriptions and authentically identified specimens were compared. Standard terminologies were used for the species description following glossary of weevil characters by C.H.C. Lyal (2021) in International Weevil Community website. The type specimens are deposited in the National Insect Museum, ICAR-National Bureau of Agricultural Insect Resources (ICAR-NBAIR), Bengaluru.

RESULTS

1. *Mylocerus vathalmalaiensis* Mahendiran, sp. nov.

(Image 1A–K)

urn:lsid:zoobank.org:act:F6E1EEA4-06E0-42B0-9A4D-24DCE482B305

Material examined: Holotype: Male, NIM/NBAIR/COL/MYLL/H-201223-A, 25.viii.2014, India: Tamil Nadu: Vathalmalai, Palsilambu, 12°02'50"N 78°13'51"E, 1,047 m, coll. G. Mahendiran, on C. leaves, National Insect

Museum (NIM), ICAR-NBAIR, Bengaluru, India.

Paratypes: 10 specimens, NIM/NBAIR/COL/MYLL/P1-201223-A, NIM/NBAIR/COL/MYLL/P2-201223-A, NIM/NBAIR/COL/MYLL/P3-201223-A, NIM/NBAIR/COL/MYLL/P4-201223-A, NIM/NBAIR/COL/MYLL/P5-201223-A, NIM/NBAIR/COL/MYLL/P6-201223-A, NIM/NBAIR/COL/MYLL/P7-201223-A, NIM/NBAIR/COL/MYLL/P8-201223-A, NIM/NBAIR/COL/MYLL/P9-201223-A, NIM/NBAIR/COL/MYLL/P10-201223-A, same data as holotype (NIM).

Diagnostic characters: This species can be distinguished from *M. lineaticollis* (Boheman, 1842) in possessing a fine central carina on the impressed rostrum, the second funicle segment longer than the first one and a tegmen without parameres.

Description: Body length (without rostrum) 5.09–6.64 mm; width 1.80–2.51 mm; rostrum length 0.76–0.93 mm, width 0.91–1.08 mm. Body: colour black, covered uniformly with dense greenish scales laterally, brownish scales on dorsal side. Head: with prominent eyes, which is convex, oval and dorso-lateral in position, forehead broader than the space between the scrobes (Image 1A & B). Rostrum: as long as head, with apical emergination well defined forming an acute angle, impressed dorsally, with a fine central carina, which reaches middle of the head, sides narrowed gradually then dilated at apex. Antennae: reddish-brown or black, covered with fine whitish setae, scape slightly bent in middle, funicle segment second longer than first, other segments subequal (Image 1F). Pronotum: slightly broader than long, weakly rounded at sides, anterior margin slightly broader than posterior margin, broadest about middle and shallowly constricted before and behind the middle, depressed posteriorly, covered with rounded greenish scales with strips of brownish narrow scales on dorsal side (Image 1C). Legs: black or reddish brown, covered with green scales and white setae, all femora with a single sharp spine at middle. Elytra: with distinct humeri, base subtruncate and slightly sinuate in middle, broadest behind the middle, punctato-striate, rounded green scale densely covered lateral parts, dorsally marked with irregular patches of brown scales, also covered with long, stout, erect setae (Image 1D & E). Male genitalia: aedeagus with penis membranous, apophyses longer than penis and moderately chitinated; tegmen without parameres, manubrium longer and slender; spiculum gastrale stouter, with strongly curved flattened apex (Image 1G–I). Female genitalia: spermatheca with nodulus stout, rounded; ramus distinct, perpendicular to proximal arm; cornu narrowing toward apex, apex curved and bluntly pointed (Image 1J). Spiculum ventrale

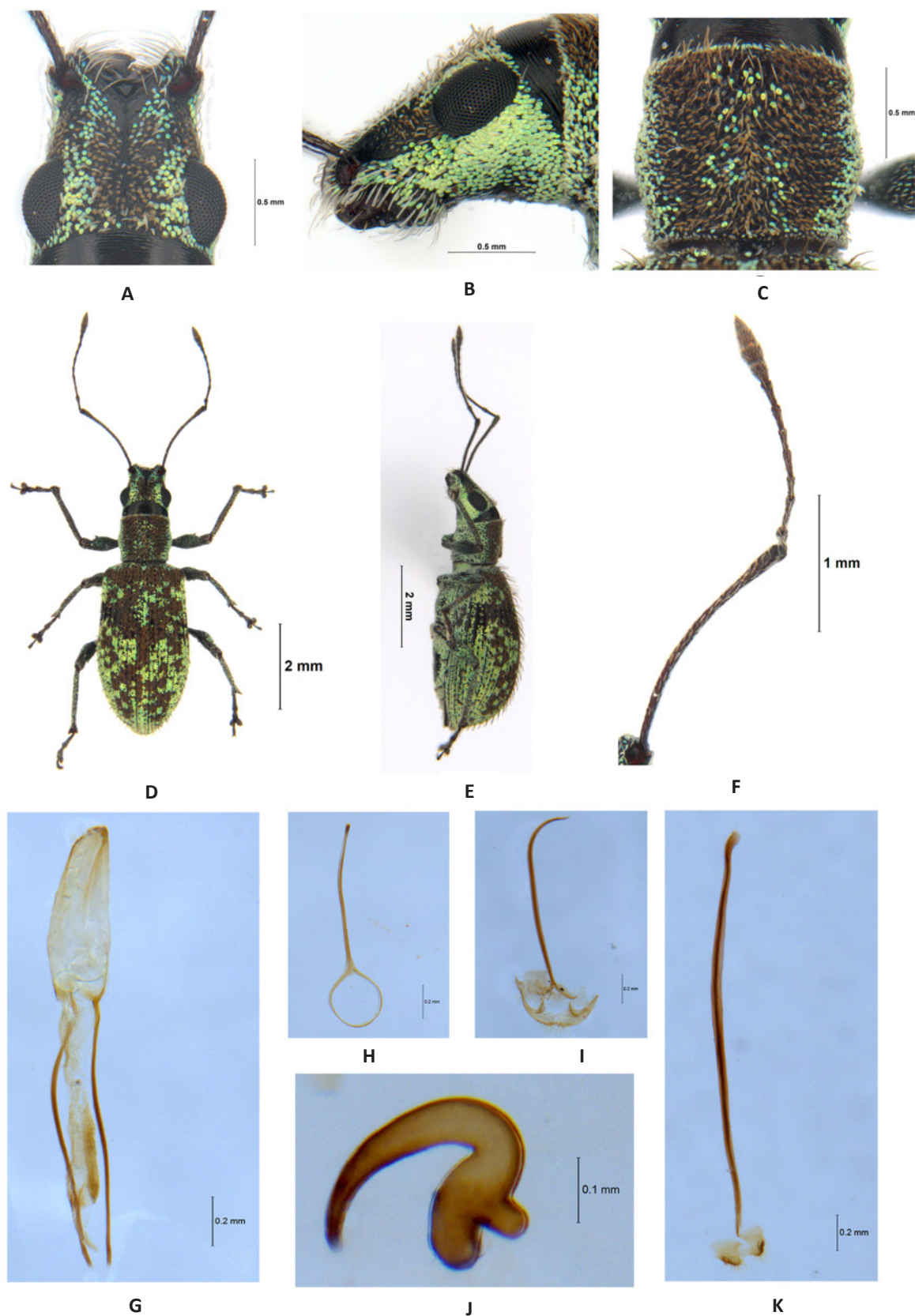


Image 1. *Myloccerus vathalmalaensis* sp. nov: A—head in dorsal view | B—head in lateral view | C—prothorax | D—dorsal habitus | E—lateral habitus | F—antenna | G—penis | H—tegmen | I—spiculum gastrale | J—spermatheca | K—spiculum ventrale. © A-K—G. Mahendiran.

with shaft elongate, thicker in the middle and narrowing towards both ends basal plate bilobed, its apex clubbed (Image 1K).

Etymology: The species name is the latinised form of its type locality, Vathalmalai.

Host plant: Curry Leaf *Murraya koenigii* (L.) Spreng.

Distribution: India: Tamil Nadu.

2. *Myllocerus depressus* Mahendiran, sp. nov.

(Image 2A–K)

urn:lsid:zoobank.org:act:561E201C-53B8-4860-B82F-5026B7683E6A

Material examined: Holotype: Male, NIM/NBAIR/COL/MYLL/H-201223-B, 6.ix.2018, India: Andhra Pradesh: Rajahmundry: Dowalawarum, 16°57'53.8"N 81°47'08.0"E, on *Pongamia pinnata* L., coll. G. Mahendiran, National Insect Museum (NIM), ICAR-NBAIR, Bengaluru, India.

Paratypes: 4 specimens, NIM/NBAIR/COL/MYLL/P1-201223-B, NIM/NBAIR/COL/MYLL/P2-201223-B, NIM/NBAIR/COL/MYLL/P3-201223-B, NIM/NBAIR/COL/MYLL/P4-201223-B, same as holotype, on Water Apple *Syzygium aqueum* Burm.; 2 specimens, NIM/NBAIR/COL/MYLL/P5-201223-B, NIM/NBAIR/COL/MYLL/P6-201223-B, same as holotype, on Cacao *Theobroma cacao* L.; 2 specimens, NIM/NBAIR/COL/MYLL/P7-201223-B, NIM/NBAIR/COL/MYLL/P8-201223-B, 13.x.2018, Telangana, Hyderabad, Rajendranagar, 17°19'23.2"N 78°23'57.3"E, on Water Apple, coll. M.M. Nagaraja; 2 specimens, NIM/NBAIR/COL/MYLL/P9-201223-B, NIM/NBAIR/COL/MYLL/P10-201223-B, 13.x.2018, Telangana, Hyderabad, Rajendranagar, 17°19'23.2"N 78°23'57.3"E, on *Acacia* sp., coll. M.M. Nagaraja; 2 specimens, NIM/NBAIR/COL/MYLL/P11-201223-B, NIM/NBAIR/COL/MYLL/P12-201223-B, 15.x.2018, Telangana, Hyderabad, Rajendranagar, 17°19'23.2"N 78°23'57.3"E, on Jamoon *Syzygium cumini* L., coll. M.M. Nagaraja; 1 specimen, NIM/NBAIR/COL/MYLL/P13-201223-B, 15.x.2018, Telangana, Hyderabad, Rajendranagar, 17°19'23.2"N 78°23'57.3"E, Mango *Mangifera indica* L., coll. M.M. Nagaraja; 1 specimen, NIM/NBAIR/COL/MYLL/P14-201223-B, Telangana, Hyderabad, Rajendranagar, 17°19'23.2"N 78°23'57.3"E, 21.x.2018, Sapota, coll. M.M. Nagaraja; 2 specimens, NIM/NBAIR/COL/MYLL/P15-201223-B, NIM/NBAIR/COL/MYLL/P16-201223-B, Telangana, Hyderabad, Rajendranagar, 17°19'23.2"N 78°23'57.3"E, 14.x.2018, Raintree *Samanea saman* Jacq., coll. M.M. Nagaraja; 1 specimen, NIM/NBAIR/COL/MYLL/P17-201223-B, Telangana, Hyderabad, Rajendranagar, 17°19'23.2"N 78°23'57.3"E, 14.x.2018, Tulip Tree *Liriodendron tulipifera* L., coll. M.M. Nagaraja;

2 specimens, NIM/NBAIR/COL/MYLL/P18-201223-B, NIM/NBAIR/COL/MYLL/P19-201223-B, Telangana, Hyderabad, Rajendranagar, 17°19'23.2"N 78°23'57.3"E, 14.x.2018, *Pongamia pinnata*, coll. M.M. Nagaraja; 2 specimens, NIM/NBAIR/COL/MYLL/P20-201223-B, NIM/NBAIR/COL/MYLL/P21-201223-B, Telangana, Hyderabad, Rajendranagar, 17°19'23.2"N 78°23'57.3"E, 14.x.2018, ornamental plant, coll. M.M. Nagaraja; 2 specimens, NIM/NBAIR/COL/MYLL/P22-201223-B, NIM/NBAIR/COL/MYLL/P23-201223-B, Telangana, Hyderabad, Rajendranagar, 17°19'23.2"N 78°23'57.3"E, 15.x.2018, ornamental plant, coll. M.M. Nagaraja; 1 specimen, NIM/NBAIR/COL/MYLL/P24-201223-B, Telangana, Hyderabad, Rajendranagar, 17°19'23.2"N 78°23'57.3"E, 15.x.2018, Lemon, coll. M.M. Nagaraja; 3 specimens, NIM/NBAIR/COL/MYLL/P25-201223-B, NIM/NBAIR/COL/MYLL/P26-201223-B, NIM/NBAIR/COL/MYLL/P27-201223-B, Tamil Nadu, TNAU, Coimbatore, 11°14'00.0"N 77°18'00.0"E, 21.ix.2018, Sapota *Manilkara zapota* Mill., coll. M.M. Nagaraja; 1 specimen, NIM/NBAIR/COL/MYLL/P28-201223-B, Tamil Nadu, TNAU, Coimbatore, 11°14'00.0"N 77°18'00.0"E, 21.ix.2018, Jamoon *Syzygium cumini* L., coll. M.M. Nagaraja; 2 specimens, NIM/NBAIR/COL/MYLL/P29-201223-B, NIM/NBAIR/COL/MYLL/P30-201223-B, Tamil Nadu, TNAU, Coimbatore, 11°14'00.0"N 77°18'00.0"E, 22.ix.2018, ornamental plant, coll. M.M. Nagaraja; 1 specimen, NIM/NBAIR/COL/MYLL/P31-201223-B, Tamil Nadu, TNAU, Coimbatore, 11°14'00.0"N 77°18'00.0"E, 22.ix.2018, Lucern, coll. M.M. Nagaraja; 1 specimen, NIM/NBAIR/COL/MYLL/P32-201223-B, Tamil Nadu, TNAU, Coimbatore, 11°14'00.0"N 77°18'00.0"E, 20.ix.2018, Sunflower *Helianthus annuus* L., coll. M.M. Nagaraja. The types are deposited in the National Insect Museum (NIM), ICAR-NBAIR, Bengaluru, India.

Diagnostic characters: This species can be distinguished from *M. cardoni* Marshall, 1916 by having the dorsally depressed rostrum, which is longer than the head, a prothorax depressed and constricted near the posterior margin, the antennae and legs black in colour, the hind femora with a single spine and a spermatheca with curved nodulus.

Description: Body length (without rostrum) 6.50–8.60 mm; width 2.52–3.79 mm; rostrum length 0.94–1.31 mm, width 1.21–1.58 mm. Body: colour black, covered with dense dull whitish, which prominent laterally, elytra variegated with irregular patches of brown scales. Head: with eyes subdorsal, forehead little broader than space between the scrobes. Rostrum: longer than head, broader than long, sides subparallel, dilated at apex, the apical emargination deep and acute in angle, distinctly depressed dorsally, with a fine central carinae,

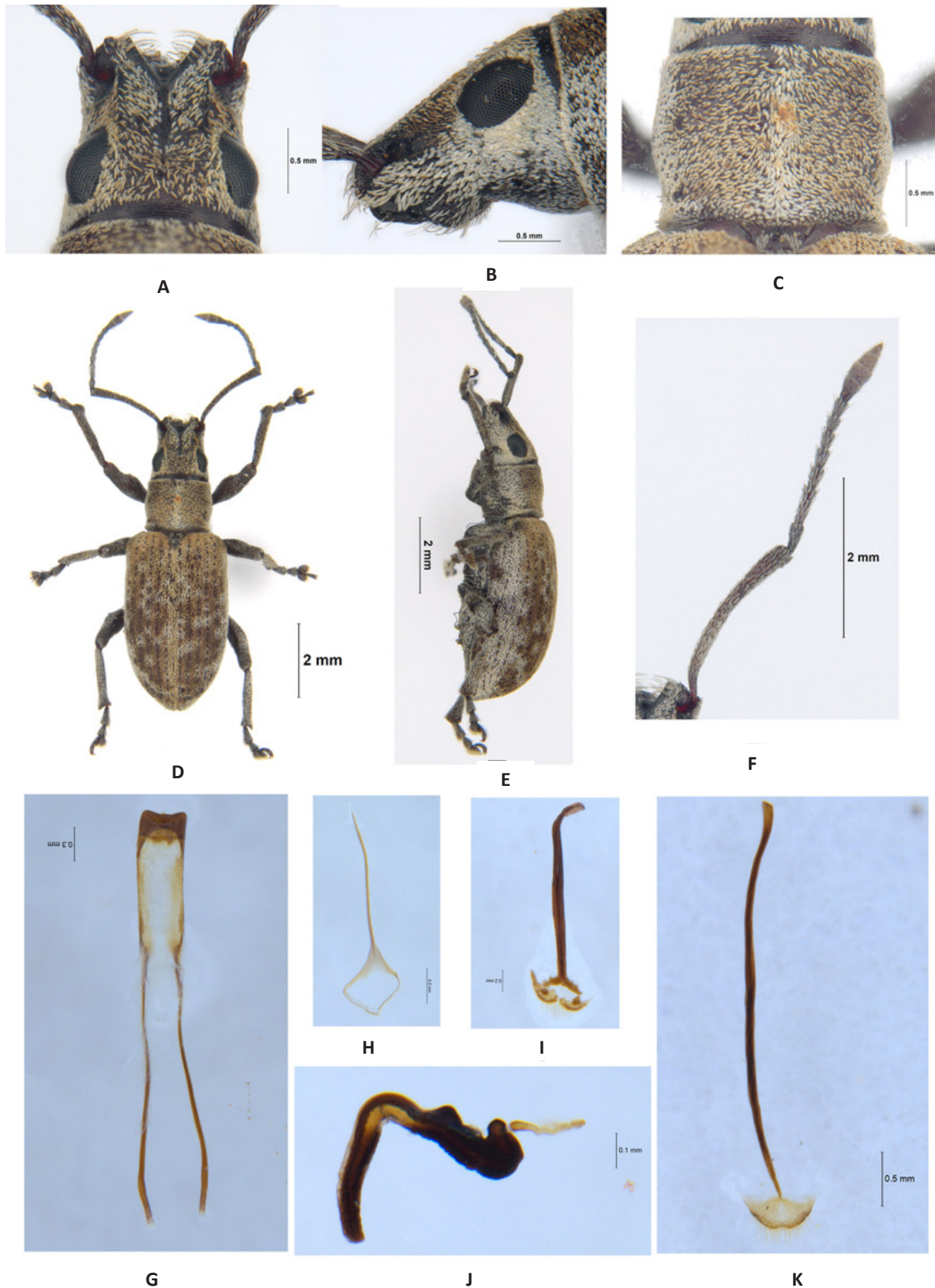


Image 2. *Myloccerus depressus* sp. nov.: A—head in dorsal view | B—head in lateral view | C—prothorax | D—dorsal habitus | E—lateral habitus | F—antenna | G—penis | H—tegmen | I—spiculum gastrale | J—spermatheca | K—spiculum ventrale. © A-K – G. Mahendiran.

lateral carina subparallel, sides narrowed gradually then dilated at apex (Image 2A & B). Antennae: black, covered with fine whitish setae, scape stout, gradually widening base to apex, curved at base, funicle segment second longer than first, other segments subequal (Image 2F). Pronotum: much broader than long, sides slightly rounded before middle, broadest about middle, constricted and depressed near posterior margin, anterior margin truncate, posterior margin slightly bisinuate, shallowly punctate dorsally (Image 2C). Legs: black, covered with whitish scales and setae, all femora with a single sharp spine. Elytra: with distinct shoulders, base separately rounded, broadest behind the middle, punctato-striate, scales depressed, less prominent, dorsally marked with irregular patches of brown scales, without erect setae (Image 2D & E). Male genitalia: aedeagus with penis broader with distinct apical processes, apex sinuate and chitinated; apophyses longer than penis; tegmen without parameres, manubrium longer and slender; spiculum gastrale stout, much thicker than apophyses, apex flattened, strongly covered (Image 2G–I). Female genitalia: spermatheca with nodulus prominent, curved backward; ramus distinct, rounded, cornu slightly curved, apex bluntly pointed (Image 2J). Spiculum ventrale with shaft very long, thicker, basal plate broadly rounded, its apex slightly flattened (Image 2K).

Etymology: The species name '*depressus*' derived from the verb 'depress' (press down) + "-us" (adjective-derivational suffix) denoting its depressed rostrum dorsally.

Distribution: India: Tamil Nadu, Karnataka, Telangana and Andhra Pradesh

Host plant: *Pongamia pinnata* L., Water Apple *Syzygium aqueum* Burm., Cacao *Theobroma cacao* L., *Acacia* sp., Jamoon *Syzygium cumini* L., Mango *Mangifera indica* L., Sapota *Manilkara zapota* Mill., Raintree *Samanea saman* Jacq., Tulip Tree *Liriodendron tulipifera* L., Lemon *Citrus limon* L., Lucerne *Medicago sativa* L., Sunflower *Helianthus annuus* L. and ornamental plants.

DISCUSSION

Myloccerus vathalmalaensis sp. nov. was collected from the Vathalmalai hills, which lies in the Eastern Ghats of India. This species heavily defoliates Curry Leaf *Murraya koenigii* during August to October. *Myloccerus depressus* sp. nov. was collected from southern states namely, Tamil Nadu, Karnataka, Telangana, and Andhra Pradesh. This species is found polyphagous in nature, feeding on different plants such as Pongamia, Water Apple, Cacao, *Acacia* sp., Jamoon, Mango, Sapota *Manilkara zapota*, Indian Raintree *Albizia lebeck*, Tulip Tree *Liriodendron tulipifera*, Lemon *Citrus limon*, Lucerne *Medicago sativa*, Sunflower *Helianthus annuus*, and ornamental plants. The number of *Myloccerus* species in India rises to 88 with the description of these two new species. There are many more weevil species waiting to be discovered, particularly under the genus *Myloccerus*, as they feed on a wide variety of plant species.

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