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Redescription of *Dalader acuticosta* (Coreidae: Coreinae: Daladerini): First report from Jammu and Kashmir, India

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Abstract

Dalader acuticosta a member of Coreidae (Coreinae: Daladerini), has been reported first time from Jammu region of Jammu and Kashmir, India. It belongs to the Phylum Arthropoda, Class Insecta, Order Hemiptera, Family Coreidae, and Subfamily Coreinae. In India it is found in West Bengal, Sikkim, Assam, Meghalaya and Himachal Pradesh. It is very beautiful bug. It is rare species and only two specimens have been collected on the ground with moist soil from Jammu region of Jammu and Kashmir that too for the very first time. Earlier it was not reported from Jammu and Kashmir. Adults of Dalader acuticosta are fried and eaten in north-eastern India.

Keywords: Dalader, insecta, coreidae, Coreinae, Daladerini, hemiptera

Introduction

Dalader is a genus of Coreid bugs from Asia, chiefly found in Southeast Asia. The genus name is derived from the Sanskrit roots 'dal' meaning 'leaf' and 'dhru' meaning bearer (Amyot *et al.*, 1843) ^[1]. It belongs to the phylum Arthropoda, Class Insecta, order Hemiptera, Family Coreidae, Subfamily Coreinae and Tribe Daladerini. This plant bug genus has flattened and ridged proterminal antennal segment and the terminal segment being paler and pear shaped (Nelson, 2009) ^[3]. Adults of *Dalader acuticosta* are fried and eaten in north-eastern India (Parveen and Ramamurthy, 2009; Chakravorthy *et al.*, 2011) ^[4, 2].

Morphology

Dorsal Coloration

Head Brown, Antennal segments 1-III reddish brown, Segment IV light brown, Antennae pubescent, eyes reddish brown, Ocelli light orange, Pronotum reddish brown with posterolateral margins more reddish, Clavus brown with brown punctures, Corium light brown with dark brown punctures, Hemelytral Membrane dark brown, Connexival segments reddish brown with light spots in between segments.

Ventral Colouration

Venter of Head brown, Rostral segments dark reddish brown, Prosternum, mesosternum and metasternum dark brown with dark brown punctures, Anterior and Posterior lobes of metathoracic peritreme brownish yellow, Abdominal sternites red with brown punctres, Dark brown patches on sternites.

Head

Head sub-quadrate, wider than long, paraclypei longer than clypeus, a depression below clypeus medially dividing continued above eyes, clypeus and paraclypei not fused, paraclypei round and protruding inwardly, length of anteocular region more than remainder of head; antenniferous tubercles widely separated; antennal segment I stout, segment II slender, clylindrical, segment III modified into a leaf like structure, segment IV fusiform, antennae pubescent, antennal formula IV<III<II,I; buccula long, extending beyond antenniferous tubercle; rostrum not reaching anterior margin of meta-sternum, rostral formula III<IIV<I.

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Thorax

Pronotum gradually declivent, length exactly half of width, anterior angles sub-acute, anterolateral margins convex with minute spines, posterolateral margins sinuate and serrate, anterior and posterior margins convex, humeral angles curved anteriorly; scutellum triangular, apex sub-acute, wider than long; anterior costal margins of corium serrate, posterior margin slightly raised above; ostiolar peritreme with anterior projection prominent, lateral projection subround, posterolateral projection prominent and subround: evaporatoria laterally well developed, anteriorly prominent and narrow, posteriorly prominent.

Abdomen

Hemelytral membrane not reaching last abdominal segment; connexiva raised above terga, lateral margins of connexiva serrate, pubescent, posterior angles produced into short obtuse projections, spiracles large in size, ventroposterior margin of abdominal sternites VIII concave.

Legs

Legs slender, Femora apically dilated spines on femora of proleg, mesoleg and metaleg.

Male Genitalia

Pygophore oblong with ventro-anterior margin sub-straight, outer margin anteriorly subround, round up to middle then sub-straight and become narrow, ventro-posterior margin or lip round, hair on posterior margin; paramere broad and thick with medially sub-prominent sub-straight outer margin, blade thick and short with spines, apex subround with subround sub-acute projection, outer and inner margins subround, stem short with inner margin round; aedeagus with phallosoma wide but short, conjunctiva with a pair of very long ventral appendages which are broad at middle but narrow toward base and apex, basal plate with pivot, vesica very thick but not coiled.



Fig 1: Dalader acuticosta

Female Genitalia

Ist gonocoxa broader than long with outer lateral margins subaround, apex broad and sub-around, 8th paratergite triangular with lateral margins subround and broad apex, inner margin sub-straight, 9th paratergite smaller than 8th and squarish, lateral margin subround with broad apex, with spines; spermatheca with spherical bulb, distal spermathecal duct short and loosely coiled and thick, median dilation small and thick, proximal flange prominent, proximal spermathecal duct thick and of moderate size.

Measurement (in mm)

Head Length: 2.00-2.40; Width across eyes: 2.50; Length of anteocular region:1.10- 1.20; Length of remainder Head: 0.80-1.30; Interocular space: 1.50-1.60; Interocellar space: 0.50-0.60; Length of antennal segments I: 4.60, II: 3.60, III: 3.10, IV: 1.75; Length of labial segments I: 1,20, II: 0.90, III: 0.80, IV: 1.00; Pronotum length: 5.50, Width across humeral angles: 11.10; Scutellar length: 2.10-2.50; Width: 2-50-3.00; Length base scutellum to apex Clavus: 4.00-4.50; Length apex scutellum to apex abdomen including membrane: 12.00-

14.50; Maximum width of abdomen: 12.50-13.00; Total body length: 23.00.

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