



## MORPHOLOGICAL CHARACTERIZATION OF THE TETRIGID, *SCELIMENA HARPAGO* SERVILLE (ORTHOPTERA : TETRIGIDAE) FROM RAJASTHAN, INDIA

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### ABSTRACT

The tetrigid, *Scelimena harpago* Serville inhabiting the moist, partly covered to open forest areas of Ranakpur (district-Pali of Rajasthan) has been described. Morphological characterization of the species has been presented to facilitate its identification. The mean linear measurements for the species were: head to pronotum, 21.97 mm; head to abdomen, 14.73 mm; length of pronotum, 20.42 mm; length of hind femur, 8.22 mm; breadth of hind femur, 2.43 mm; and breadth of pronotum from spine to spine, 7.34 mm.

**Key words:** Tetrigidae, *Scelimena*, morphological characterization

### INTRODUCTION

The tetrigids also known as grouse locusts are small sized grasshoppers that inhabit moist, partly covered habitats and feed on fungi, algae, mosses, lichens, grasses and even on vegetable detritus (Mani, 1982). The systematics of family Tetrigidae of India, Pakistan and Sri Lanka have been studied by some earlier workers (Hancock, 1909; 1912; 1915; Kirby, 1914; Gunther, 1938 a, b, 1939; Blackith, 1988 and Wagan and Kevan, 1992) but no systematic work has been done on the tetrigid fauna of Rajasthan. Keeping this fact in view, under the aegis of ICAR Network Project on Insect Biosystematics an extensive survey was carried out in specific locations of Rajasthan, which revealed that genus *Scelimena*, and the species *S. harpago* is a new record from Rajasthan, India; hence, this species has been morphologically characterized and illustrated to facilitate its identification.

### MATERIALS AND METHODS

The specimens of *Scelimena harpago* serville were collected from grassy patches along the banks of rivers, ponds and ditches from the moist partly covered to open forest areas of Ranakpur (District: Pali of Rajasthan). The specimens were killed in a cyanide poison bottle; some of them were pinned, while others were wet preserved in alcohol (70%). Stereo-zoom microscopes (Discovery V<sub>12</sub> and Stemi 2000C) were used for identifying the specimens up to species level using the key provided by Kirby (1914) after updating it. The measurements of the body, pronotum and hind femur were taken with the help of digital imaging

software Axiovision LE Rel. 4.5. Necessary photographs were taken with Canon camera and the morphological illustrations were made by using the drawing tube attached to the motorized stereo-zoom microscope-Discovery V<sub>12</sub>.

### DESCRIPTION OF THE SPECIES

**Adult :** Body rugose, brownish black, thickly granulated; eyes large and prominent; antennae black with white incisions placed below the level of the eyes; pronotum broader than the head; posterior angles of lateral lobes spined; abdomen produced about as far as the extended hind femora; anterior femora compressed, carinate above. Front leg black, tibiae and tarsi spotted with yellow; front femora with two slightly marked teeth above and below; hind femora with a varying number of large and small yellow teeth beneath; lamellae of hind tibiae and first joint of hind tarsi very wide and sub-hyaline. The tegmina are dark in colour and oval. Morphological characterization of *S. harpago* has been described in the Plate-I with the help of suitable photographs and line diagrams. The linear morphological measurements recorded are as:

#### Length and Breadth (mm)

Head to Pronotum	: 21.97 mm
Head to abdomen	: 14.73 mm
Length of pronotum	: 20.42 mm
Length of hind femur	: 8.22 mm
Breadth of hind femur	: 2.43 mm
Breadth of pronotum from spine to spine	: 7.34 mm

**Genus: *Scelimena***

Antennae inserted distinctly below the eyes

Borders of the hind tibiae and of the first joint of the hind tarsi with wide lamellar expansions

Pronotum very long, projecting greatly beyond the abdomen

**Species : *harpago***

Abdomen produced about as far as the extended hind femora

Hind femora strongly spined beneath

Lateral lobes of pronotum with only one spine;  
Spine nearly straight

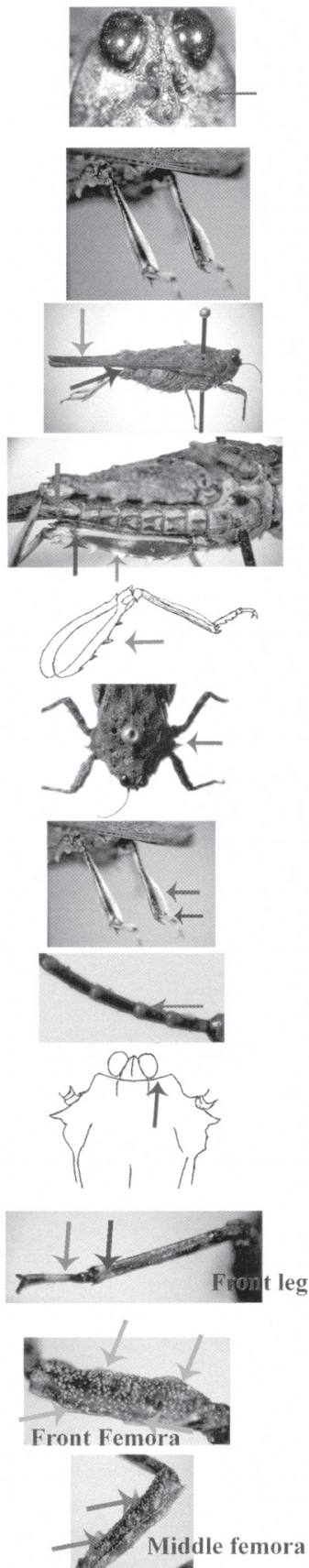
Lamellae of hind tibiae and first joint of hind tarsi very wide, subhyaline

Antennae black, with white incisions

Pronotum broader than the head

Front legs black, tibiae and tarsi spotted with yellow ;  
front femora with two slightly marked teeth above and below

Middle legs black, femora scarcely toothed above ,  
but with two strong yellow teeth below



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