Sindh Univ. Res. Jour. (Sci. Ser.) Vol. 47 (1) 147-148 (2015)

SINDH UNIVERSITY RESEARCH JOURNAL (SCIENCE SERIES)

Notes on New Sub-Species of Genus Sphingonotus (Oedipodinae: Acrididae: Orthoptera) from Baluchistan Province of Pakistan.

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Received 19th October, 2014 and Revised 10th December 2014

Abstract: *Sphingonotus nebulosis tokhai* n.sp is described from Baluchistan Province of Pakistan.

Keywords: New species, *Sphingonotus nebulosis tokhai* , Baluchistan.

1. INTRODUCTION

The genus Sphingonotus and its species were divided and described by Mistchenko (1936). This new subspecies is very closely related to *S. nebulosus anatolica* Uvarov but,4 mm longer. There are some isolated Orthopteran species that were studied by previous workers as well as Rhen and Grant (1961) and Randell (1963).In this new sub species the bases of wings transparent and hind tibia light yellowish whereas in *S. nebulosus anatolica* the bases of wings light greenish blue and hind tibia greenish blue or blue. This subspecies has been collected from the rocky areas of the Baluchistan.

2. MATERIAL AND METHODS

Specimens were collected using insect nets and were properly spread and mounted in insect storage boxes, labeled with scientific names, place and date of collection and deposited in the insect collection of the Department of Zoology, University of Sindh, Jamshoro, Pakistan for further study. The collected specimens were preserved in 70% alcohol. Dry mounts were also prepared for best understanding of certain characters like size, colour, texture etc. In addition to study of various components of genitalia, the apical Part of female bodies were cut off and boiled in a test tube containing 10% KOH solution to make the material transparent.

3. RESULTS AND DESCRIPTION

Diagnostic characters of female holotype:

The large in size, fairly slender. Antennae long, filiform, longer than head and pronotum together. Head smoothly punctured and weakly projecting above the pronotum. Eyes large oval not strongly projecting side ways; frons vertical, frontal ridge weakly concave, almost flat widened between the antennae. Fastigium of vertex strongly sloping, vertex little raised with margins; foveolae of vertex indistinct and weakly punctured. Pronotum saddle shaped, weakly compressed in prozona; transverse furrows distinct, the first furrow in the middle of prozona, second furrow with a deep concavity in the middle, interspace between furrows rough; prozona shorter than metazona; latter strongly wrinkled and tuberculate, with obtuse posterior angle weakly rounded. Tegmina and wings fully developed. Hind femur slender, dorsal carina entire and protruded in the form of flat lobe, dorsal genicular lobes comparatively rounded. Hind tibia moderate with 10 inner and 9 outer black tipped spines. Arolium small and rounded.

Body Coloration: Generally dirty paler brown in color. Tegmina semitransparent, base with a band. Wings with a wide, dark band narrow beyond the middle towards the posterior end and far from reaching to inner and the posterior margin. Hind femur paler brown with two black bands from the inner side. Hind tibia light yellowish without band.

Female: Cerci moderate, cylindrical with blunt apices, dorsally ovipositor of the smooth structure; without a deep narrow notch and toothed-like process.

Spermatheca: The spermatheca with pre-apical diverticulum straight upwarded smaller, rectangular at apex. Apical diverticulum larger sac-like oval rounded at base. In *Sphingonotus nebulosustokhai*; pre-apical diverticulum laterally placed, but thick fairly broad with obtuse rounded apices. Apical diverticulum sac like, wide and smoothly rounded at base.

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Measurements in millimeters (mm)

Table. I . The Measurements of different body parameters of Sphingonotus

Body Parameters	Female(n = 4)	
	(Mean ± Sd)	(Range)
Length of Body	28.82±0.52	28-29.2
Length of Antennae	10.15±0.28	10-10.2
Length of Pronotum	5.45±0.63	5.4-6.0
Length of Tegmina	32.62±0.70	32.5-33.0
Maximum width of Tegmina	6.76±0.47	6.5-7.0
Length of hind Femur	16.17±0.37	16-16.3
Maximum width of hind Femur	3.06±0.46	3.5-4.0
Length of hind tibia	12.17±0.45	12-12.3



Fig.c, Spermatheca

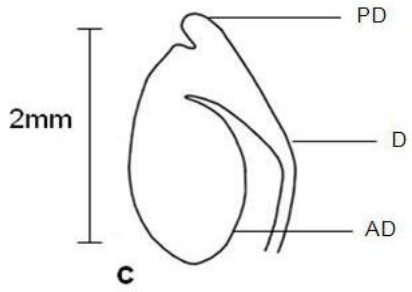


Fig. d. *Sphingonotus nebulosis tokhai* n.sp Female

Species remarks: This subspecies is very closely related to *S. nebulosus anatolica* Uvarov but4 mm longer. In this new sub species the base s of wings transparent and hind tibia light yellowish whereas in *S. nebulosus anatolica* the base s of wings light greenish blue and hind tibia greenish blue or blue.

Etymology This new subspecies is named in the honour of its collector, Mr. Sadullah Tokhai

Depository. Voucher specimens are deposited in the museum Department of Zoology, University of Sindh Jamshoro .Pakistan.

Material examined: Balochistan: Loralai:(Surghuand), 29.ix.94 . 4 Female (Sadaullah Tokhai).

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