



E-ISSN: 2320-7078
P-ISSN: 2349-6800 JEZS 2015;
3(3): 201-202 © 2015 JEZS
Received: 18-04-2015
Accepted: 15-05-2015

Nadia Fatima
Department of Zoology, Federal
Urdu University of Arts, Science
& Technology, Gulshan – E –
Iqbal Campus, Karachi- 75300-
Pakistan.

S. Ansar Rizvi
Department of Zoology,
University of Karachi, Karachi-
752500- Pakistan

Abid Raza
Department of Environmental
Science, Federal Urdu University
of Arts, Science & Technology,
Gulshan – E – Iqbal Campus,
Karachi- 75300- Pakistan

S. Shahid Shakuat
Institute of Environmental
Studies, University of Karachi,
Karachi-752500- Pakistan

Naeemuddin Arain
Department of Zoology, Federal
Urdu University of Arts, Science
& Technology, Gulshan – E –
Iqbal Campus, Karachi- 75300-
Pakistan.

Samina Arif
Department of Zoology, Federal
Urdu University of Arts, Science
& Technology, Gulshan – E –
Iqbal Campus, Karachi- 75300-
Pakistan.

Sadaf Tabassum
Department of Zoology, Federal
Urdu University of Arts, Science
& Technology, Gulshan – E –
Iqbal Campus, Karachi- 75300-
Pakistan.

Uzma Mehebob
Department of Zoology, Federal
Urdu University of Arts, Science
& Technology, Gulshan – E –
Iqbal Campus, Karachi- 75300-
Pakistan.

Correspondence:

Abid Raza
Department of Environmental
Science, Federal Urdu University
of Arts, Science & Technology,
Gulshan – E – Iqbal Campus,
Karachi- 75300- Pakistan

A Taxonomic study of *Anthaxia setipennis* collected from Azad Kashmir, Pakistan

Nadia Fatima, S. Ansar Rizvi, Abid Raza, S. Shahid Shakuat, Naeemuddin Arain, Samina Arif, Sadaf Tabassum, Uzma Mehebob

Abstract

A taxonomic revision of the species *Anthaxia setipennis* Obenberger, 1928 from Pakistan is performed. Sample was collected during survey conducted for the collection of Coleoptera from Azad Kashmir, Pakistan in 2010. This sample is kept in Zoological Museum of the Karachi University. The present study deals with the detailed taxonomical description and the species was compared with a closely related species.

Keywords: Coleoptera, Buprestidae, Taxonomy, Zoological Museum

1. Introduction

Buprestidae are known as Jewel beetles. There are more than 15 thousand species of jewel beetles (Buprestidae) in the world; Jewel beetles are widely distributed of which about 80% of species are found in tropical countries of the world [1]. Members of the family Buprestidae of the class Insecta belonging to phylum Arthropoda are usually present in the semi - desert and humid tropical areas. They are found in the leaf parenchyma of various plants including grasses and ferns [2]. The genus *Anthaxia* Eschscholtz, 1829, was established by [3] and widely distributed in the Afro-tropical, Oriental and Palaearctic regions [4, 5, 6]. The body of this insect species is elongated, flattened or cylindrical, covered with strong armor, elytra narrowed at the end. Antennae short, serrated, legs short [7]. The present study consists of taxonomical characterization of *Anthaxia setipennis* whose specimens are deposited in Zoological Museum of Karachi University. This species is compared with a closely related species.

2. Material and Methods

Samples were collected from the Azad Kashmir in 2010 and kept in the Zoological Museum, University of Karachi. Dried specimen was placed in warm water for about 30 minutes, dissected into several large parts, which were further softened and cleared of nonchitinous material in a 10% warm KOH solution. The sample was identified on the basis of its identified taxonomic characters such as elongated, flattened or cylindrical, covered with strong armor, elytra narrowed at the end. Antennae short, serrated, legs short.

3. Results

3.1 Genus *Anthaxia* Eschscholtz, 1829

Anthaxia Eschscholtz, 1829: 9; Dejean, 1833: 80; Richter, 1949: 153., *Paranthaxia* Gozis, 1886: 21., *Anthaxiola* Richter, 1945: 119, 129., *Homalanthaxia* Richter, 1945: 119, 129; Bílý, 1997a: 11., *Cyclanthaxia* Richter, 1945: 121, 129., *Callanthaxia* Richter, 1945: 124., *Cratomerus* (*Trichocratomerus*) Richter, 1945: 111, 126; Richter, 1949: 181.

Eoanthaxites Haupt, 1950: 65.

Body short, convex, stout; antennae scarcely dilated; frons convex, widely depressed or grooved; pronotum long, lateral portion of pronotum flattened, pronotal sides more regularly rounded, maximum pronotal width at anterior third, pronotal sculpture consisting of dense basal microsculpture and regular, polygonal cells somewhat less distinct on medial part of pronotum; metathorax bearing a dorsal and ventral pair of ampullae, ventral groove not bisecting prothoracic plate; scutellum distinct with metallic tinge; elytra truncate at base, rounded at tip; anal sternite roundly truncate in male, regularly rounded in female apically; metatibia in female slender and straight in male, unarmed or very finely serrate on inner margin.

3.2 *Anthaxia setipennis* Obenberger, 1928
syn. *babaulti* Théry 1930g:151.

Material Examined: 5♂, 2♀, Pakistan, Azad Kashmir, Muzaffarabad, Panjkot, 22.VII.2010, leg; Amjad.

Measurement: Male length: 7.5mm; width: 2mm.

Body Shape and Coloration: Body flattened metallic bronze luster, frons metallic green with erected white hairs scarcely, ventral side metallic bronze.

Head: Head very wide, slightly narrower than anterior pronotal margin; frons flat very wide, shiny green with apex metallic coppery, dense punctation with dense recumbent hairs, inner margins of eyes less S-shaped; structure of head consisting of indistinct oval cells; vertex flat; eyes large, projecting beyond outline of the head; clypeus with slightly incurved anterior margin; antennal cavities widely separated, antennae long, serrate, reaching nearly posterior pronotal angles, terminal antennomere ovoid, nearly twice as long as wide.

Pronotum: Pronotum flat and wide, lustrous; always with wide and shallow depressions at posterior angles; anterior pronotal margins feebly arcuate, posterior margins feebly sinuate, lateral margins regularly arcuate; the widest part of pronotum in the middle; structure of pronotum consisting of a network of flat polygonal or oval cells; scutellum small, flat, sub-cordiform. Elytra flat with silky luster because of their fine microstructure; evidently narrowed behind humeral swellings sinuate at middle, then broad and straightly tapering in posterior third, apical part serrate, each elytron truncate separately; epipleura not reaching the apex of elytra; ventral surface very lustrous, prosternum & metasternum with rough ocellata sculpture; legs relatively long, slender, male metatibiae nearly straight with fine, inner preapical serration; tarsal claws very slender, slightly hook-shaped.

Abdomen: Abdominal ventrites with fine, tile-shaped sculpture; anal ventrite apically, finely serrate laterally; anal sternite of male truncate, sharply serrate at latero-apically.

Male Genitalia: Aedeagus widely spindle-shaped, median lobe tubular with rounded apex, longer than parameres, parameres narrow, rounded apically, two median struts elongate, near base of basal plate.

Comparative Note: The species *Anthaxia setipennis* is closely related to *A. conradti* in having elytral shoulders broader than base of pronotum and frons metallic green but can be isolated from previous species in having structure of elytra consisting of fine punctations, colour of body metallic bronze, male aedeagus with median lobe longer than parameres and other characters noted in the description.

3.4 Distribution: Pakistan.

4. Discussion

In the present study *Anthaxia setipennis* belonging to the family Buprestidae has been identified. This species is collected from the Azad Kashmir, Pakistan. This species is very rare. The study of Buprestidae were compared with the previous catalogue of Coleopterorum by (Oberger, 1926).



12.5 mm

Anthaxia setipennis

5. Reference

1. Gornostayev GN. Nasekomie SSSR. Izdatelstvo "Misl". Moskva, 1970, 139-142.
2. Fatima N, Raza A, Rizvi SA, Shaukat SS, Farooq MA. Preliminary Investigation of Buprestidae Fauna (Order, Coleoptera) Records from Pakistan. International Journal of Fauna and Biological Studies 2014; 1(6):11-15
3. Reitter E. Fauna Germanica. Die Käfer des Deutschen Reiches. III. Band. K. G. Lutz' Verlag, Stuttgart plates, 1911, 436, 81-128.
4. Bellamy CL. A catalogue of the higher taxa of the family Buprestidae (Coleoptera). Navorsinge van dieNasionale Museum Bloemfontein 1985; 4(15):405-472.
5. Niehuis M, Tezcan S. Beitrag zur Kenntnis der Agrilus-Arten der Türkei (Coleoptera: Buprestidae). Mitteilungen des Internationalen Entomologischen Vereins, 1993; 18:1-74.
6. Bílý S, Kubáň V. A revision of the genus *Anthaxia* from the Philippines (Coleoptera: Buprestidae: Buprestinae: Anthaxiini). Acta Entomologica Musei Nationalis Pragae. 2012; 52(2):433-442
7. Huseynova EA. Current State of Jewel Beetles (*Buprestidae*) in Azerbaijan. International Caucasian Forestry Symposium, 2013.