Amphimela raydahensis sp. nov. from the Kingdom of Saudi Arabia
(Coleoptera: Chrysomelidae: Galerucinae: Alticinae)

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Abstract

Amphimela raydahensis sp. nov. is described from Garf Raydah Nature Reserve (Abha, Asir Province), southwestern Kingdom of Saudi Arabia. This species was collected using black light traps at different elevations dominated by cacti and wild olive trees. This is the first confirmed species of Amphimela known from the Arabian Peninsula.

Key words: Leaf beetles, taxonomy, Arabian Peninsula, new species

Introduction

The Chrysomelidae is one of the largest beetle families with an estimated 37,000-40,000 described species (Jolivet 1988; Schmitt 1996; Jolivet & Verma 2002), perhaps exceeding 60,000 species (Reid 1995). Approximately 500 genera and between 8,000 and 10,000 alticine species are recognized worldwide (Scherer 1988) with the majority of species occurring in the tropical regions of South America, Africa, and Asia (Konstantinov & Vandenberg 1996; Santiago-Blay 2004). The genus Amphimela was proposed by Chapuis, 1875 based on the Oriental species A. mouhoti Chapuis (Fig. 6) from Laos. Currently, the genus is recognized from the Afrotropical, Australian, eastern Palearctic and Oriental regions (Döberl 2010; Biondi and D’Alessandro 2010, 2012). Species belonging to this genus have been treated by Baly (1875, 1876); Jacoby (1897, 1899); Fairmaire (1898); Weise (1901); Maulik (1929); Csiki (In Heikertinger & Csiki, 1940); Bechyne (1958) and Scherer (1961).

Medvedev (1996) included a species of Amphimela in his key based on a single unidentified specimen from Abha (Asir Province), Saudi Arabia (KSA). In this publication, we describe the first species of Amphimela from KSA. The genus has been adequately characterized by Konstantinov & Vandenberg (1996) and Biondi & D’Alessandro (2010, 2012). Gressitt & Kimoto (1963) reported Citrus spp. and Zanthoxylum spp. as host plants.

We provide comparative descriptions of the two most closely similar species, the Afrotropical A. citri (Bryant, 1922) and A. quadrinotata (Bryant, 1936) to facilitate diagnostic comparisons.

Material and methods

This publication is based on the study of adult specimens that were collected by black-light traps used to inventory the insect biodiversity of Garf Raydah Nature Reserve (Asir Province) in the southwestern KSA (Fig. 1). Specimens were examined using Wild M3 binocular microscope. A LEICA MZ 125 stereo-binocular microscope fitted with a digital camera (Q-imaging Micro Publisher 5.0 RTV) at King Saud University Museum of Arthropods, College of Food and Agriculture Sciences, King Saud University was used to prepare the images. Photo automontage was performed by Zerene Stacker program version 1.04. Measurements were made with a micrometer in an eyepiece using a stereo-binocular microscope МС–9 (Russia). The holotype and paratypes of the new