Two new species of Rhopalovalva Kuznetsov (Lepidoptera: Tortricidae) from China

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Abstract

Two new species of Rhopalovalva Kuznetsov are described and illustrated from China: R. rhombea, sp. nov., and R. triangulata, sp. nov. Photographs of the adults and illustrations of the genitalia are provided. The hairy lobe at the distal end of the sacculus in the male genitalia is confirmed as an autapomorphy for the genus. A comparison of Rhopalovalva with other related genera is presented, along with a checklist of the known species of Rhopalovalva.

Key words: Olethreutinae, Eucosmini, Rhopalovalva, morphology, taxonomy

Introduction

Kuznetsov (1964) proposed the genus Rhopalovalva for Eudemis lascivana Christoph, 1881 and transferred three additional species from Acroclita to it, i.e., R. exartemana (Kennel), R. cordelia (Meyrick) and R. grapholitana (Caradja). Clarke (1958) previously had synonymized A. cordelia with A. grapholitana. Diakonoff (1973) transferred R. catharotorna (Meyrick) from Acroclita Lederer to Rhopalovalva, and Kuznetzov (1976) transferred R. pulchra (Butler) from Phoxopteryx Sodoffsky to the genus. Oku (1974, 2005) described two species from Japan, and Zhang & Li (2004) described two species from China. As currently defined, Rhopalovalva is comprised of nine species distributed in the Palaearctic and Oriental regions (Oku 2005, Baixeras et al. 2009); seven of them have been recorded from China (Razowski 1999, Kuznetsov 2001, Liu & Li 2002, Zhang & Li 2004).

During recent studies on Eucosmini, we recognized two undescribed species of Rhopalovalva from China. The purpose of this paper is to describe and illustrate the two new species and present a checklist of the species worldwide.

Larval hosts have been reported for three species: R. pulchra Butler from Quercus sp. (Fagaceae) (Kawabe 1982) and Fraxinus mandshurica Rupe. (Oleaceae) (Bae & Sakamaki 1995); R. lascivana (Christoph) from Quercus mongolica Fisch. ex Ledeb. (Fagaceae) (Kawabe 1982); and R. grapholitana (Caradja) from Lespedeza bicolor Turcz. (Leguminosae) (Kuznetsov 2001).

Material and methods

This study is based on the examination of specimens collected using light traps in the forests and mountains in China. Genitalia dissection follows the methods of Li (2002). Terminology for forewing pattern follows Brown & Powell (1991) as refined by Baixeras (2002). Type specimens are deposited in the Insect Collection, College of Life Sciences, Nankai University, Tianjin, P. R. China.

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