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Revision of the Genus *Psectrotarsia* Dognin, 1907 (Lepidoptera: Noctuidae: Heliothinae)

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Abstract

Based on characters of the male and female genitalia, the genus *Erythroecia* Hampson, 1910 is considered a **new synonym** of *Psectrotarsia* Dognin, 1907. *Psectrotarsia* contains five species: *P. flava* Dognin (type species); *P. suavis* (H. Edwards), **new combination**; *P. hebardi* (Skinner), **new combination**; *P. euposis* (Dyar), **new combination and revised status**; and *P. rhodophora* (Hampson), **new combination**. Each species is redescribed and illustrated. *Copitarsia fuscirena* (Hampson), **new combination,** and *C. tamsi* (Giacomelli), **new combination**, are transferred from *Psectrotarsia* to *Copitarsia* Hampson, 1906. *Psectrotarsia* ranges from the northeastern, midwestern, and southwestern United States to Guatemala.

Key words: systematics, genitalia, new synonym, new combination, revised status, *Erythroecia*

Introduction

Psectrotarsia Dognin, 1907 was used first in combination with the type species, *P. flava* Dognin, but a formal description of the genus was not provided. Hampson (1908) used *Psectrotarsia* in a key to the genera of Acronyctinae, but did not include species names (Poole, 1989). Hampson (1910) did not regard *Psectrotarsia* as formally described, and therefore, redescribed it and designated *P. fuscirena* Hampson as the type species; thus, he created both a junior synonym and homonym of *Psectrotarsia* Dognin.

Prior to this study, *Psectrotarsia* contained three species: *P. flava*, *P. fuscirena*, and *P. tamsi* Giacomelli. However, *P. fuscirena* and *P. tamsi* have a series of large robust spines on the basitarsus of the proleg, a synapomorphy of *Copitarsia* Hampson, 1906 (Simmons and Pogue, 2004). Thus, *C. fuscirena*, **new combination**, and *C. tamsi*, **new combination,** are transferred from *Psectrotarsia* to *Copitarsia*. *Copitarsia* is currently under revision, and DNA and morphological evidence places it in the subfamily Noctuinae (Simmons, pers. comm.).

Materials and Methods

Images of adult moths and genitalia were captured with a Microptics Digital Imaging System using a Nikon D1X camera with a modified K2 long-distance lens and a pulsed xenon flash. Images were enhanced with Adobe PhotoShop® CS. The adults in Figs. 6–15 are approximately 1.4 times natural size.

Dissections of genitalia followed the methods of Pogue (2002) but genitalia were mounted in euparol. The vesica was inflated with 99% isopropyl alcohol and stained in Orcein. Genitalic morphological terminology follows Forbes (1954).

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