

ISSN 1175-5326 (print edition)

 ZOOTAXA

 ISSN 1175-5334 (online edition)



## Nomenclatural validation of three North American species of Heliothinae (Lepidoptera: Noctuidae) and the adult description of *Heliolonche joaquinensis* Hardwick

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## Abstract

Article 13.1.1 of the International Code of Zoological Nomenclature states that names published after 1930 must have a description that defines and differentiates the taxon with characters. Three species of Heliothinae described by Hardwick (1996) are not in conformance with this Article; thus, they are **nomina nuda**. The following species are validated by descriptions and illustrations of the adult and genitalia: *Schinia angulilinea* **new species** (= *S. arizonensis* Hardwick), *S. maculata* **new species** (= *S. blanca* Hardwick), and *S. erythrias* **new species** (= *S. pulchra* Hardwick). The adult of *Heliolonche joaquinensis* Hardwick is described, along with illustrations of the adult and genitalia.

Key words: new species, Schinia, Heliolonche, redescription

## Introduction

This is the seventh in a series of papers resolving taxonomic problems within North American Heliothinae. Previous papers dealt with various species groups and descriptions of new species in the genus *Schinia* Hübner 1818 (Knudson et al. 2003, Pogue and Harp 2003a, b, c, Pogue and Harp 2004, Pogue and Harp 2005). In this paper, I provide descriptions for three species of *Schinia* for which Hardwick (1996) created nomina nuda in his revision of the group; I also describe the adult of *Heliolonche joaquinensis* Hardwick.

Hardwick (1996) proposed the names *Schinia arizonensis* Hardwick, *S. pulchra* Hardwick, and *S. blanca* Hardwick, but did not validate them according to Article 13 of the International Code of Zoological Nomenclature (1999) (Heppner 1996, Adams 1998,