



## Three new species of Hawaiian moths from Kahoolawe island (Lepidoptera: Crambidae & Coleophoridae)

MATTHEW J MEDEIROS<sup>1,3</sup> & DAVID ADAMSKI<sup>2</sup>

<sup>1</sup>The Urban School of San Francisco, 1563 Page St, San Francisco, CA, 94117 USA, and Department of Integrative Biology, 3060 Valley Life Sciences Building, University of California, Berkeley, CA, 94720 USA. E-mail: matt.j.medeiros@gmail.com

<sup>2</sup>Department of Entomology, National Museum of Natural History, P.O. Box 37012, E - 518, Smithsonian Institution, Washington, DC 20013-7012 USA. E-mail: adamskid@si.edu

<sup>3</sup>Corresponding author

### Abstract

Three new species of Hawaiian Lepidoptera are described herein: *Pigritia uuku* **sp. nov.** (Coleophoridae: Blastobasinae), *Orthomecyna keoniae* **sp. nov.** (Crambidae), and *Tamsica kawikae* **sp. nov.** (Crambidae) from Kahoolawe Island.

**Key words:** Blastobasini, endemic species, Hawai'i, Kaho'olawe, morphology, taxonomy

### Introduction

Many species of Lepidoptera within the Hawaiian Islands remain undescribed, particularly in areas that are difficult to access such as Kahoolawe Island, which has no permanent inhabitants. While the Hawaiian Islands as a whole are in a state of environmental distress, with numerous documented extinctions of the endemic flora and fauna, Kahoolawe Island may have suffered the most from human activity. Not only have introduced grazers and predators long decimated the native plant, bird, and insect populations (Zimmerman 1978), the island was used as a bombing range by the United States military from World War II until recently. Large-scale fires burned much of the vegetation, and subsequent erosion on Kahoolawe removed most of the topsoil. In 1990, the US military ceased using the island for target practice, and the Kahoolawe Island Reserve Commission (KIRC) was set up to oversee current efforts to restore the island's natural and cultural heritage (<http://kahoolawe.hawaii.gov>). Remarkably, some plants and animals endemic to Kahoolawe have survived through the grazing, bombing, and burning (e.g. Starr, Starr & Loope 2006). Here, we describe three new species of Lepidoptera from Kahoolawe.

### Material and methods

Two collecting trips to Kahoolawe were made, one in October 2008 and one in July 2011, for the purpose of documenting Lepidoptera on the island. Specimens were collected at night with use of a blacklight and sheet, and were pinned shortly after collecting. All holotypes and paratypes are deposited in the Bernice P. Bishop Museum, Honolulu, HI, U.S.A.

### Abbreviations:

BPBM      Bernice P. Bishop Museum, Honolulu, U.S.A.

UHIM      University of Hawaii Insect Museum, Manoa, U.S.A.