



A distinctive new species of *Euglyphis* Hübner (Lepidoptera: Lasiocampidae) from Costa Rica, with a checklist of the *Euglyphis* known from Costa Rica

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Abstract

Euglyphis jessiehillae Montero, new species, is described from Costa Rican rain forest. Photographs of the adult, larva and cocoon, as well as male and female genitalia, are provided. In addition to its description and natural history, we include a checklist for the described members of the genus *Euglyphis* known from Costa Rica.

Key words: *Euglyphis jessiehillae*, Macromphaliinae, Neotropical rain forest, moth, Area de Conservación Guanacaste, caterpillar

Introduction

The family Lasiocampidae includes about 2000 described species in about 150 genera, occurs almost worldwide, and most of its species are in tropical countries (Lemaire & Minet 1998). Macromphaliinae occurs only in the New World, and Becker & Heppner (1996) listed 584 species in 15 genera in this subfamily. There are about 130 species of Macromphaliinae known from Costa Rica (Chacón & Montero 2007).

The most speciose lasiocampid genus, *Euglyphis* Hübner 1820, ranges from Mexico throughout Central and South America, and the Lesser and Greater Antilles. It contains 354 described species (Becker & Heppner 1996) and there are 63 described species (see Appendix 1) plus 20 additional morphospecies in Costa Rica. The male genitalia of this genus have a normal uncus, well developed gnathos, absent or much reduced socii, and valves usually consisting of two parts—a lower membranous lobe (sacculus) and an upper or costal lobe that is usually well sclerotized (Franclemont 1973).

In northwestern Costa Rica, a 30-year+inventory (Janzen *et al.* 2009, 2010) has found and reared about 84 species of Lasiocampidae from wild-caught caterpillars on both the Pacific and Caribbean sides, from 0 to 2000 m elevation, feeding on host plants belong to the families Annonaceae, Chrysobalanaceae, Clusiaceae, Lauraceae, Malpighiaceae, Malvaceae, Melastomataceae, Myristicaceae, Myrtaceae, Piperaceae and Sapotaceae (Janzen & Hallwachs 2009). A parasitoid summary of the same caterpillars found them to be heavily attacked by Braconidae, Eulophidae and Ichneumonidae (Hymenoptera), and Tachinidae (Diptera) (Janzen & Hallwachs 2009).

While this lasiocampid inventory has located a number of undescribed species that are very similar to described species, one new species is especially distinctive as an adult and no specimens have been encountered among museum collections other than those collected by INBio parataxonomists (Janzen 2004) in Costa Rica. Here we describe this unambiguously new and distinctive species in recognition of the strong support by its patronymic namesake for the conservation of forest in Area de Conservación Guanacaste (ACG), the best-known homeland of this moth.