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Review of the Blastobasinae of Costa Rica (Lepidoptera: Gelechioidea: Blastobasidae)

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Abstract

The Blastobasinae (Lepidoptera: Gelechioidea: Blastobasidae) of Costa Rica are reviewed. Five new genera, *Barbaloba*, *Hallicis*, *Koleps*, *Pheos*, and *Pseudokoleps*, and 101 new species are described. They include: *Barbaloba jubae*, *B. meleagrisellae*, *Hallicis bisetosellus*, *H. calvicula*, *Koleps angulatus*, *Pheos aculeatus*, *Pseudokoleps akainae*, *Blastobasis abollae*, *B. achaea*, *B. aedes*, *B. babae*, *B. balucis*, *B. beo*, *B. caetrae*, *B. chanes*, *B. custodis*, *B. dapis*, *B. deae*, *B. deliciolarum*, *B. dicionis*, *B. echus*, *B. erae*, *B. fax*, *B. furtivus*, *B. iuanae*, *B. lex*, *B. litis*, *B. lygdi*, *B. manto*, *B. neniae*, *B. nivis*, *B. orithyia*, *B. paludis*, *B. phaedra*, *B. rotae*, *B. rotullae*, *B. tapetae*, *B. thyone*, *B. usurae*, *B. vesta*, *B. xiphiae*, *Hypatopa actes*, *H. acus*, *H. agnae*, *H. arxcis*, *H. bilobata*, *H. caedis*, *H. caepae*, *H. cladis*, *H. cotis*, *H. cotyto*, *H. crux*, *H. cyane*, *H. dicax*, *H. dolo*, *H. dux*, *H. edax*, *H. eos*, *H. erato*, *H. fio*, *H. gena*, *H. hecate*, *H. hera*, *H. hora*, *H. io*, *H. ira*, *H. leda*, *H. limae*, *H. lucina*, *H. joniella*, *H. juno*, *H. manus*, *H. mora*, *H. musa*, *H. nex*, *H. nox*, *H. phoebe*, *H. pica*, *H. plebis*, *H. rabio*, *H. rea*, *H. rego*, *H. rudis*, *H. sais*, *H. scobis*, *H. semela*, *H. solea*, *H. styga*, *H. texla*, *H. texo*, *H. umbra*, *H. verax*, *H. vitis*, *H. vox*, *Pigritia dido*, *P. faux*, *P. gruis*, *P. haha*, *P. sedis*, *P. stips*, and *P. ululae*. Diagnoses, descriptions, and type data are provided for each species. Photographs of imagos, illustrations of wing venation for selected species, male and female genitalia, and distribution maps are furnished. Keys to all genera in Blastobasinae and keys to all species within each genus are provided to assist with identifications. In addition, scanning electron micrographs of the inner surface of the dilated first antennal flagellomere and associated sex scales for all *Blastobasis* are provided. *Blastobasis coffeaella* (Busck, 1925), *B. graminea* Adamski, 1999, *Hypatopa tapadulcea* Adamski, 1999, and *Pigritia marjoriella* Adamski, 1998 are redescribed.

Key Words: Central America, Costa Rica, Lepidoptera Survey, INBio, morphology, taxonomy

Resumen

Blastobasidea se revisa de Blastobasinae (Lepidoptera: Gelechioidea: Blastobasidae) de Costa Rica. Se describen 5 nuevos géneros, *Barbaloba*, *Hallicis*, *Koleps*, *Pheos*, y *Pseudokoleps*, y 101 nuevas especies. Ellas incluyen: *Barbaloba jubae*, *B. meleagrisellae*, *Hallicis bisetosellus*, *H. calvicula*, *Koleps angulatus*, *Pheos aculeatus*, *Pseudokoleps akainae*, *Blastobasis abollae*, *B. achaea*, *B. aedes*, *B. babae*, *B. balucis*, *B. beo*, *B. caetrae*, *B. chanes*, *B. custodis*, *B. dapis*, *B. deae*, *B. deliciolarum*, *B. dicionis*, *B. echus*, *B. erae*, *B. fax*, *B. furtivus*, *B. iuanae*, *B. lex*, *B. litis*, *B. lygdi*, *B. manto*, *B. neniae*, *B. nivis*, *B. orithyia*, *B. paludis*, *B. phaedra*, *B. rotae*, *B. rotullae*, *B. tapetae*, *B. thyone*, *B. usurae*, *B. vesta*, *B. xiphiae*, *Hypatopa actes*, *H. acus*, *H. agnae*, *H. arxcis*, *H. bilobata*, *H. caedis*, *H. caepae*, *H. cladis*, *H. cotis*, *H. cotyto*, *H. crux*, *H. cyane*, *H. dicax*, *H. dolo*, *H. dux*, *H. edax*, *H. eos*, *H. erato*, *H. fio*, *H. gena*, *H. hecate*, *H. hera*, *H. hora*, *H. io*, *H. ira*, *H. leda*, *H. limae*, *H. lucina*, *H. joniella*, *H. juno*, *H. manus*, *H. mora*, *H. musa*, *H. nex*, *H. nox*, *H. phoebe*, *H. pica*, *H. plebis*, *H. rabio*, *H. rea*, *H. rego*, *H. rudis*, *H. sais*, *H. scobis*, *H. semela*, *H. solea*, *H. styga*, *H. texla*, *H. texo*, *H. umbra*, *H. verax*, *H. vitis*, *H. vox*, *Pigritia dido*, *P. faux*, *P. gruis*, *P. haha*, *P. sedis*, *P. stips*, y *P. ululae*. Se presentan las diagnosis, descripciones y datos de los tipos para cada especie. Fotografías de imagos, ilustraciones de venación de las alas de especies seleccionadas y de los genitales de macho y hembra, y los mapas de distribución son proporcionados. Claves para todos los géneros de Blastobasinae y las claves para todas las especies dentro de cada género son proveídos para asistir en las identificaciones. En adición, la superficie interior del primer flagelómero antenal dilatado y de las escamas sexuales asociadas para todas las especies de *Blastobasis*, obtenidas a partir de micrografías con el microscopio electrónico de barrido, son suministrados. *Blastobasis coffeaella* (Busck, 1925), *B. graminea* Adamski, 1999, *Hypatopa tapadulcea* Adamski, 1999 y *Pigritia marjoriella* Adamski, 1998 son redescritas.

Key words: Blastobasidae, Central America, Costa Rica, Lepidoptera Survey, INBio, morphology, taxonomy

Introduction

The thoroughness of a study of any taxon is dependent upon the amount of field work that has been conducted over its geographical range. Field work is almost always geographically disproportionate, leaving gaps in our knowledge contributing to inaccurate portrayals of distribution and poorly resolved hypotheses of relationships among species and species groups. Although global studies are critical for validating monophyly and providing accurate numbers regarding species richness, well organized regional surveys can contribute to the overall completeness of both paths of inquiry.

The Lepidoptera Survey of Costa Rica is part of a larger mission to collect and identify the biota of Costa Rica. It is managed by Instituto Nacional de Biodiversidad (INBio), Santo Domingode Heredia, Costa Rica. This present