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The Hydraenidae of Cuba (Insecta: Coleoptera) I: Contribution to the fauna of eastern Cuba

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Abstract

Beginning in eastern Cuba, a systematic survey on the aquatic beetle fauna of that country is presently being carried out. We present a comprehensive account of the six species of the family Hydraenidae (Insecta: Coleoptera) so far collected in this region. A new species, *Hydraena franklyni* is described. Detailed data on the new record of *H. guadelupensis* and the four previously known Cuban species are also included. Remarks on their external morphology, descriptions of some morphological features not previously described, distributional maps, and notes on their ecology are given for all six species. In order to facilitate their identification, a simple key to adults of the six species is provided. Although the fauna of Hydraenidae in eastern Cuba may not include further species, the total Cuban fauna of this family is not yet completely known.

Key words: Coleoptera, Hydraenidae, eastern Cuba, new species, new locality records

Resumen

Un programa de muestreo exhaustivo está siendo realizado con el fin de estudiar la composición faunística de los coleópteros acuáticos de Cuba. La primera fase de este proyecto se ha realizado en el oriente de Cuba. En este trabajo ofrecemos un amplio estudio de las seis especies de la familia Hydraenidae (Insecta: Coleoptera) recolectadas hasta la fecha en esta región. Se describe la nueva especie *Hydraena franklyni*. Igualmente se dan datos precisos sobre la reciente cita en la isla de Cuba de *H. guadelupensis*, así como de las otras cuatro especies previamente citadas. Se incluyen mapas de distribución, datos sobre su morfología externa (algunos previamente no estudiados) y sobre hábitats preferentes de las seis especies. También se ofrece una clave sencilla, a fin de facilitar la identificación de las especies cubanas a personas no familiarizadas con este grupo. Aunque en términos generales la fauna de Hydraenidae en el oriente de Cuba puede considerarse como bien conocida, cabe esperar la captura de nuevas especies en el resto del país que aún queda por explorar.

Palabras clave: Coleoptera, Hydraenidae, Cuba oriental, nueva especie, nuevas localidades

Introduction

Cuba, the largest of the Greater Antilles, is a long and narrow island which would be better described as an archipelago composed of a principal landmass (with over 106,757 km²), the lesser Isla de la Juventud (2,419 km²) and a set of more than 4000 cays and islets (with a total area of around 3,126 km²). Nearly 70% of Cuba consists largely of flatlands, specially the central and western regions, supporting a complex array of both limnetic and palustrine habitats, many of them considerably modified by humans (AEC 2011). Also, Cuba contains extensive coastal lowlands with mixohaline mangrove swamps and other coastal aquatic ecosystems, but only few significant mountain ranges: The western Sierra de Guaniguanico, the central range of Guamuahaya and Sierra Maestra, and the eastern Nipe-Sagua-Baracoa Mountains. These ranges have been traditionally used to define three major geographical regions in Cuba, frequently used in studies of freshwater macro-invertebrates (Naranjo *et al.* 2010). Cuban mountain ranges contain the only well preserved freshwater habitats, such as the headwaters of streams and