

## ABSTRACT

This thesis is focused in the representatives of beetle families Hydrophilidae and Hydraenidae of West Indies and adjacent regions. It consists of two parts, the phylogenetic part and the systematic part.

The phylogenetic part focuses on the hydrophilid genera *Phaenonotum* and *Crenitulus* of Greater Antilles: beetles were sampled in all four main islands (Cuba, Hispaniola, Puerto Rico and Jamaica) and analyzed using the combination of molecular and morphological data. The genus *Phaenonotum* contains four single-island endemics, of which those from Cuba, Jamaica and Hispaniola are wingless and form a clade that diversified ca. 46 million years ago (Ma) and likely colonized the Caribbean via the GAARlandia land bridge. In contrast, the Puerto Rican endemic and the two remaining non-endemic species colonized the Greater Antilles by over-water dispersal during the Oligocene-Miocene. The analysis of the genus *Crenitulus* revealed that Greater Antillean species belong to two separate clades: the *Crenitulus yunque* clade endemic for Cuba and Hispaniola, and the *Crenitulus suturalis* clade containing specimens from Greater Antilles and from northern America. A detailed revision of the *Crenitulus yunque* clade using morphology and molecular-based species delimitation recognized 11 species locally endemic for particular mountain ranges in Cuba and Hispaniola.

Systematic part includes taxonomic revisions and larval studies of selected genera of the Greater Antillean Hydrophilidae and Hydraenidae. In total, taxonomic treatment is provided for 46 species, including 25 species new to science, and larvae of 9 species are described. In the family Hydrophilidae, I described a new species of the genus *Phaenonotum* from eastern Cuba and reviewed the type material of the Central American species of the genus. The Cuban fauna of the genus *Berosus* was reviewed taxonomically and larvae of three species were described. Ten species were recorded in the Caribbean for *Oosternum*, of which seven are described as new. The studies of the family Hydraenidae focused on morphological description of immature stages of Cuban species and description of two new hygropetric species of the genus *Hydraena* from Cuba.