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# Regarding the taxonomic status of *Ophyra* Robineau-Desvoidy (Diptera: Muscidae): A molecular approach

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## Abstract

The muscid genus *Ophyra* has long been the subject of debate over its placement within the family. However, a phylogenetic study has never been conducted that would clarify its systematic position. In the present paper, phylogenetic relationships are examined between *Ophyra albuquerquei* and related muscid genera. The mitochondrial genes Cytochrome Oxidase I and II and tRNA-Leu were used combined with the nuclear genes CAD and Elongation Factor - 1∝ to compose a matrix with 2989 characters (716 parsimony- informative). These characters were analyzed under parsimony resulting in a single most parsimonious tree. Contrary to some recent classifications, our molecular data suggest the placement of *Ophyra albuquerquei* within the Muscinae in a separate position from the azeliine genus *Hydrotaea*.

**Key words**: *Ophyra*, *Hydrotaea*, Muscidae, molecular systematics, CAD, Elongation Factor 1 - α, Cytochrome Oxidase I and II

## Introduction

*Ophyra* Robineau-Desvoidy is a small muscid genus with about 20 species and is distributed in warm climates worldwide. Some of its species, such as *O. chalcogaster* (Wiedemann), have been transported by human activity to many countries, and others, such as *O. aenescens* (Wiedemann), have been used as biological control agents for *Musca domestica* L. (see Skidmore 1985 for details).

The taxonomic position of *Ophyra* has been the subject of debate almost from the time it was first described. In some recent classifications, various morphological characters

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