



## First survey for myxomycetes on Mahe island in the Seychelles

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With 4 figures

**Abstract:** The results of the first survey for myxomycetes on Mahé Island in the Seychelles in the Indian Ocean are reported. Forty-seven species and infraspecific taxa were recorded. All of these are new for Mahé Island, 23 are reported for the first time from the Seychelles, four species (*Diderma chondrioderma*, *Didymium dubium*, *Perichaena dictyonema* and *Physarum auriscalpium*) and two infraspecific taxa (*Fuligo septica* var. *candida* and *Physarum melleum* f. *luteum*) are new records for islands in the Indian Ocean. Another species (*Physarum* sp.) is probably new to science but will require additional material before being formally described. Thirty-three taxa of myxomycetes were identified from field collections and 21 species were recovered from moist chambers cultures prepared with samples of the bark from living lianas. The survey was designed to assess the biodiversity and ecology of the assemblages of myxomycetes associated with three types of plant communities and several different types of substrates on the island. Most of the species recorded occurred on plant litter and on different the different types of substrates provided by coconut trees. A comparison of the myxomycetes assemblage of Mahé Island with the Aldabra Atoll, La Réunion Island and Madagascar show less than 50% similarity among these islands in terms of species diversity.

**Key words:** ecology, island biogeography, myxomycetes, tropics.

### Introduction

Most tropical islands have been geographically isolated for a long period of time and are recognized among the world's biodiversity hotspots (Stephenson et al. 2008). Remote islands often provide important habitats for migratory species, some of which may breed only on a single island. Over time, these isolated species have

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