# ABSTRACT

The Isolation and Biological Activity of Secondary Metabolites from the Jamaican Sponges *Neofibularia nolitangere*, *Iotrochota birotulata* and *Amphimedon compressa*

Monique Natasha Thompson

This research project was aimed at characterizing secondary metabolites from the above named species collected in Jamaica. The thesis is presented in four chapters: in Chapter one a literature review of the Desmacellidae family and the isolates of the *Neofibularia nolitangere* is presented.

In Chapter two the progress made from the genus *Iotrochota* and the compounds isolated from the species *Iotrochota birotulata* are highlighted. Renierapurpurin, β-sitosterol and a tyrosine derivative were isolated from the Jamaican *I. birotulata*.

In Chapter three the metabolites isolated from the *Amphimedon* genus are presented and also those isolated from *Amphimedon compressa*. Two known compounds, namely amphitoxin and 3-indole carbaldehyde, were isolated from the Jamaican *A. compressa*.

In Chapter four the bioactivity of extracts of *N. nolitangere* and *I. birotulata* are evaluated.



Keywords: Monique Natasha Thompson; Secondary metabolites; *Neofibularia nolitangere*, *Iotrochota birotulata*; *Amphimedon compressa*.