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CHEMICAL CONSTITUENTS OF *PARAMIGNYA*

***MONOPHYLLA* (RUTACEAE)**

A THESIS SUBMITTED BY

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IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF

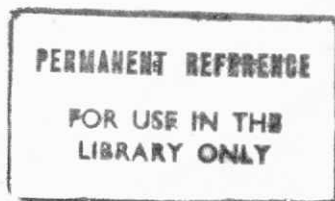
MASTER OF PHILOSOPHY

OF THE

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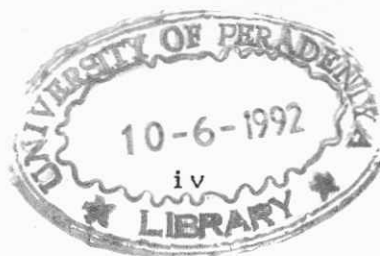
SRI LANKA

August 1991



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ABSTRACT

The thesis describes a phytochemical study of *Paramignya monophylla* (Family Rutaceae), which has found use in the indigenous system of medicine in Sri Lanka. The genus *Paramignya* has not been previously investigated for its chemistry.

The fruits of *P. monophylla* contained mainly triterpenes of the tirucallane type. These included the known flindissone, which has not been previously isolated from a natural source, and deoxyflindissone, together with four new tirucallane derivatives, which are shown by spectroscopic and chemical methods to be 23R-hydroxytirucalla-7,24-dien-3-one and 21,23R-dihydroxytirucalla-7,24-dien-3-one and their 3 β -hydroxy derivatives.

Flindissol and 21,23R-dihydroxytirucalla-7,24-dien-3-one were also shown to be present in the leaves of *P. monophylla*, together with an unidentified flavone, two unidentified triterpenoids and a sterol.

P. monophylla stem bark contained sitosterol, the pyranocoumarins poncitrin and nordentatin and two new prenylated pyranocoumarins, 10-(3',7'-dimethylocta-1',6'-dien-3'-yl)xanthoxyletin and its 5-hydroxy derivative. Its root bark contained, in addition, xanthyletin and the new 10-(7'-hydroxy-3',7'-dimethylocta-1',5'-dien-3'-yl)-xanthoxyletin. The structures of the new coumarins were established using spectroscopic and chemical methods.