The Chemical Investigation of some local plants of the Ebenaceae and Rubiaceae families

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Abstract

This thesis is composed of two principal parts. The first part includes the isolation and identification of some naphthaquinones and triterpenes, from eleven Diospyros species endemic to Sri Lanka. The data obtained have been used to support the view that the taxon Maba has no generic status and that it should be amalgamated within the genus Diospyros. Data obtained in this study also suggests that the recently reported endemic new taxon Diospyros spinescens is not distinct from the already recorded species Diospyros montana.

The quinone content of the investigated species is of some interest in considering the evolution of species within the Diospyros genus.

The second part describes the isolation and characterisation of some indole alkaloids and pentacyclic triterpenes from Uncaria thwaitesii. Two of the alkaloids are of the roxburghine type, derived from two tryptophane moieties and one C-10 loganin unit. The alkaloid roxburghine I is reported for the first time. The three trihydroxy compounds isolated from the timber of Uncaria thwaitesii are the first examples of naturally occurring tertiary hydroxy terpenoid acids, belonging to the ursene or oleanene series.

This part also describes the isolation of quinovaic acid, acetyl quinovaic acid and the coumarin scopoletin from Canthium dicoccum.