

TABLE 1. ANTHOCYANINS IN SOME MEMBERS OF THE PODOCARPACEAE

Plant	Anthocyanins	Organ
Subfamily Phyllocladoideae	Cyanidin-3-glucoside	present in cones and young leaves
* <i>Phyllocladus asplenifolius</i> Labill		cones only
Subfamily Pterosphaeroideae	Cyanidin-3-glucoside	
* <i>Microstrobos niphophilus</i> Gardner & Johnson		
Subfamily Podocarpoideae	Cyanidin-3-glucoside	cones only
* <i>Dacrydium franklinii</i> Soland.		
* <i>Microcachrys tetragyna</i> Hook.	Cyanidin-3-glucoside, Pelargonidin 3-glucoside (major), + unidentified pelargonidin derivative (trace)	cones only
<i>Podocarpus lawrencii</i> Hook.	Cyanidin-3-glucoside, Cyanidin-3-rutinoside (major) + two unidentified cyanidin derivatives (traces)	cones and young leaves cones only

\* Endemic to Tasmania.

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## ANGIOSPERMAE DICOTYLEDONAE

### ACANTHACEAE

#### SCUTELLAREIN 7-RHAMNOSYLGLUCOSIDE FROM *BARLERIA PRIONITIS*

J. B. HARBORNE

Phytochemical Unit, Department of Botany, The University, Reading RG1 5AQ

and

S. SANKARA SUBRAMANIAN and A. G. R. NAIR

Department of Chemistry, Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry 6, India

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*Plant.* *Barleria prionitis* L.

*Source.* Collected locally in Pondicherry.

*Uses.* Leaves and roots used medicinally.

*Previous work.* None.

*Present Work.* On flower pigment.

A flavonoid, m.p. 230–235°, was isolated from EtOAc fraction of a MeOH extr. of fresh flowers. It had  $\lambda_{\text{max}}^{\text{MeOH}}$  277, 333;  $\Delta \lambda$  NaOEt + 54;  $\Delta \lambda$  AlCl<sub>3</sub> + 26 nm; no shifts with NaOAc and AlCl<sub>3</sub>. Acid hydrolysis gave rhamnose and glucose in approx. 1:1 ratio and

scutellarein (5,6,7,4'-tetrahydroxyflavone), identified by spectral and chromatographic comparison with authentic material (mol. formula by mass spectrum 286.0480,  $C_{15}H_{10}O_6$  requires 286.0477). Partial acid hydrolysis (N HCl, 100°, 5 min) gave scutellarein 7-glucoside.  $R_f$  data (see Table) confirm that the compound is a diglycoside and is, therefore, formulated as scutellarein 7-rhamnosylglucoside, a new glycoside of scutellarein.

This is the first report of 6-hydroxyflavones in the Acanthaceae, but such compounds are now well known in neighbouring Tubiflorae families such as the Scrophulariaceae (cf. Harborne and Williams).<sup>1</sup> This scutellarein glycoside has also been provisionally identified in *Andrographis echinoides* (Acanthaceae) a plant from which an 8-methoxylated flavone wightin has previously been isolated.<sup>2</sup>

TABLE.  $R_f$ S OF SCUTELLAREIN GLYCOSIDES

Glycosides	BAW	$R_f$ (X100) in		
		H <sub>2</sub> O	15% HOAc	PhOH
7-Glucoside	35	01	13	64
7-Glucuronide*	29	05	16	21
7-Rhamnosylglucoside	30	10	37	67

\*  $R_f$ s of flavone glucuronides in aqueous solvents appear to be very temperature-sensitive and much higher values, relative to the 7-glucosides, have often been recorded; these were measured at ca. 15°.

<sup>1</sup> J. B. HARBORNE and C. A. WILLIAMS, *Phytochem.* **10**, 367 (1971).

<sup>2</sup> T. R. GOVINDACHARI, P. C. PARTHASARTHY, B. R. PAI and P. S. SUBRAMANIAN, *Tetrahedron* **21**, 2633 (1965).

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## ANONACEAE

### ISOLATION OF CUMINAL FROM *XYLOPIA AETHIOPICA*\*

A. U. OGAN

Department of Biochemistry, Division of Biological Sciences, University of Nigeria, Nsukka, Nigeria

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RECENT studies of the dried fruits of *Xylopi aethiopica* A. Rich led to the isolation of a new diterpene acid, xylopic acid,<sup>1</sup> and five other kaurane diterpenes.<sup>2</sup> There was a high yield (2.1 %) of fragrant essential oil.

*Xylopi aethiopica* essential oil obtained by direct steam distillation of the dried and crushed fruits gave a strong positive reaction for aldehydes with Tollen's reagent. 107 g of

\* Part V in the series "Studies on West African Medicinal Plant". For Part IV see D. E. U. EKONG and A. U. OGAN, *J. Chem. Soc. C*, 311 (1968).

<sup>1</sup> D. E. U. EKONG and A. U. OGAN, *J. Chem. Soc. C*, 311 (1968).

<sup>2</sup> D. E. U. EKONG, E. O. OLAGBEMI and F. A. ODUTOLA, *Phytochem.* **8**, 1053 (1969).