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ANTHOCYANINS OF CORNACEAE, *CORNUS CANADENSIS*

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Key Word Index—*Cornus canadensis*; Cornaceae; pelargonidin and cyanidin 3-robinobiosides.

Plant and source. Cornus canadensis, collected from Acadia National Park ground, Maine, U.S.A. *Uses.* Ornamental. *Previous work on anthocyanins of Cornaceae.*[1,2] *Plant parts examined.* The ripe berries were extracted with 1% methanolic HCl and purified as previously described.[1,2] Examination of the purified pigment extract on *n*-BuOH-formic-H_2O (20:5:12, upper) chromatograms showed the presence of four major orange colored anthocyanins and other minor pigments. Identifications were based on results of partial and complete acid hydrolysis, H_2O_2 oxidation, UV and visible spectra, and comparison of the pigments and their hydrolysis products with authentic markers. The major anthocyanins were identified as the 3-glucoside, 3-galactoside, 3-rutinoside and 3-robinobioside of pelargonidin. The minor and trace pigments were the 3-glucoside, 3-galactoside, 3-rutinoside, 3-robinobioside of cyanidin and 3-sophoroside of pelargonidin. This is the first reported co-occurrence of these closely related glucose and galactose containing glycosides of pelargonidin and cyanidin in the same plant source.

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BETULINIC ACID IN THE DILLENIACEAE AND A REVIEW OF ITS NATURAL DISTRIBUTION*

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Key Word Index—*Dillenia*; *Wormia*; *Acrotrema* spp.; Dilleniaceae; betulinic acid; triterpene acid.

Dillenia indica L. was investigated by Bhattacharjee and Chatterjee[1] and the occurrence of 0·75% betulinic acid in the bark was observed. As a part of a study on Ceylonese Plants.

* Part IX in the series "Chemical Investigation of Ceylonese Plants".

[1] BHATTACHARJEE, S. R. and CHATTERJEE, A. (1962) *J. Indian Chem. Soc.* **39**, 276.