

ALKALOIDS OF ANTHOTROCHE (SOLANACEAE)

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Anthotroche, an Australian genus of about six species is closely related to Duboisia and Anthocercis and in a current taxonomic revision, four of the species are assigned to the section Anthotroche (Haegi 1980). From a taxonomic viewpoint the distribution of tropane alkaloids within the genus could be of considerable interest. Previous work (Bremner and Cannon, 1968) has demonstrated the occurrence of hyoscyamine and six other unidentified alkaloids in Anthotroche pannosa. We report here on the alkaloid composition of three species of section Anthotroche (the fourth species A. healiana is known only from the specimen described in 1891).

The alkaloid-mixtures from the aerial parts and roots were separately extracted and then fractionated by column and preparative chromatography (Evans and Treagust 1973). Individual alkaloids were characterised by chemical and physical data. The results are summarised below:

Plant material	Total alkaloid* % Dry weight	Alkaloids identified						
		A	B	C	D	E	F	G
<u>A. myoporoides</u> , aerial parts	0.04	+	+	++	?+	+		
" " , roots	0.02	+		+			++	+
<u>A. pannosa</u> , aerial parts	0.01	++	+	+	+		+	
" " , roots	0.02	+		+			+	
<u>A. walcottii</u> , aerial parts	0.02	++	?+	++	+	+		+
" " , roots	0.04	++		+				

\*Calculated as hyoscyamine, modified Vitali-Morin assay. A = hyoscyamine, B = hyoscine, C = norhyoscyamine, D = apotropane, E = aponotropane, F = tropine, G = 3 $\alpha$ -acetyltropine.

It is apparent that the three species of Anthotroche studied constitute a uniform chemotaxonomic group with hyoscyamine and norhyoscyamine as principal alkaloids. The total alkaloid content is relatively low compared with that of Duboisia and the range of alkaloids detected is not as extensive as in either Duboisia or Anthocercis (Evans and Treagust 1973).

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