N_{b} -METHYLTETRAHYDROHARMAN FROM SPATHIOSTEMON JAVENSIS (EUPHORBIACEAE)

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Spathiostemon javensis Bl. (synonym: Homonoia javensis (Bl.) Muell. Arg.) is a New Guinea rain-forest tree of the family Euphorbiaceae. The leaves and bark of a small tree (herbarium voucher number TGH 10766) gave positive field tests for alkaloids, and extraction of dried leaves in the laboratory afforded $c.\,0.2\%$ of crude alkaloids. Examination by thin-layer chromatography indicated the presence of only one major constituent, and chromatography on a column of alumina gave a high yield of $N_{\rm b}$ -methyltetrahydroharman, identical with the alkaloid previously isolated from $Acacia\ complanata.^1$

Experimental

Leaves were collected from a tree (10 ft high, 2 in. diameter) growing in rain forest bordering the Uberi Road at Ower's Corner, Western Section, Papua (lat. 9° 22′ S., long. 147° 28′ E.).

The dried leaves (1·7 kg) were pulverized in a hammer mill and extracted by continuous percolation with methanol. The crude alkaloids (3·48 g) were extracted by the method previously described.² The crude alkaloids were dissolved in benzene-chloroform (95:5) and poured into a column of neutral alumina, and elution with benzene-chloroform (95:5) gave a series of crystalline fractions which were combined and crystallized from a small volume of acetone. N_b -Methyltetrahydroharman was obtained as colourless crystals, m.p. $109-110^\circ$, $[\alpha]_b \pm 0^\circ$ in CHCl₃. A mixed m.p. determination and comparison of i.r. spectra confirmed the identity of the alkaloid with N_b -methyltetrahydroharman isolated from Acacia complanata.¹

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¹ Johns, S. R., Lamberton, J. A., and Sioumis, A. A., Aust. J. Chem., 1966, 19, 1539.

² Johns, S. R., Lamberton, J. A., and Sioumis, A. A., Aust. J. Chem., 1966, 19, 2331.