

ISOLATION OF ISOMULTIFLORENOL, A POSSIBLE TRITERPENOID ARTEFACT, FROM *PLEIOCOCCA WILCOXIANA* (RUTACEAE)

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Pleiococca wilcoxiana F. Muell. is a small tree of the family Rutaceae once found in rain forest on the coastal strip near the New South Wales–Queensland border. Because of the clearing of its restricted habitat, *P. wilcoxiana* must now be considered rare. A compound, probably the triterpene alcohol multiflorenol,¹ was isolated from the plant extracts, but from extracts which had been heated with acid only isomultiflorenol¹ could be isolated. The extractions were done twenty years ago and further supplies of *P. wilcoxiana* are not available to enable multiflorenol to be rigidly identified.

Isomultiflorenol does not appear to have been isolated directly from any natural source, but it has been obtained from multiflorenol, a triterpene alcohol from *Gelonium multiflorum* A. Juss. (family Euphorbiaceae) by a rearrangement involving the shift of a C7,C8 double bond to the C8,C9 position.¹ Failure to isolate isomultiflorenol from extracts which had not been heated with acid indicates that it may be an artefact, possibly derived from multiflorenol. Although isomultiflorenol may be an artefact, its isolation in high yield is of some chemotaxonomic interest.

Experimental

(1) Milled dried bark (600 g) of *P. wilcoxiana* (herbarium voucher specimen SN 4452) was extracted with hot light petroleum in a continuous extractor, and the crude extract after removal of solvent was heated with aqueous hydrochloric acid (5%). As samples of the filtered aqueous acid solution gave a negative test for alkaloids with Mayer's reagent, the crude extract was subjected to steam distillation to remove volatile material. The solution was concentrated almost to dryness, and chromatography on alumina of the benzene-soluble portion of the non-volatile residue afforded a series of fractions which crystallized from methanol to give 1.19 g (0.2%) of colourless crystals. Recrystallization from methanol gave colourless needles, m.p. 184–185° (corr.), $[\alpha]_D + 24^\circ$ (c, 1.8 in CHCl_3) (Found: C, 84.4; H, 11.6; O, 3.7. Calc. for $\text{C}_{30}\text{H}_{50}\text{O}$: C, 84.4; H, 11.8; O, 3.8%). For isomultiflorenol, m.p. 181–182°, $[\alpha]_D + 24^\circ$ (CHCl_3) have been recorded.¹ The *O*-acetyl derivative, m.p. 230–232° (corr.), $[\alpha]_D + 37^\circ$ (c, 3.2 in CHCl_3), was identical in its i.r. and mass spectra with an authentic specimen of *O*-acetyl isomultiflorenol (lit.¹ m.p. 227–228°, $[\alpha]_D + 30^\circ$ in CHCl_3) and there was no depression of m.p. in a mixed m.p. determination.

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¹ Sengupta, P., and Khastgir, H. N., *Tetrahedron*, 1963, **19**, 123.

(2) Milled dried bark (380 g) of *P. wilcoxiana* was extracted by cold percolation with trichloroethylene. The tarry residue remaining on evaporation of the extracts was extracted with ethanol, and the ethanol solution filtered to remove undissolved material. The ethanolic solution was evaporated and the benzene-soluble portion of the residue was chromatographed on alumina. A series of crystalline fractions was combined and crystallization from methanol gave a triterpene alcohol (1.06 g, 0.28%) as colourless needles, m.p. 189–190°, $[\alpha]_D -20^\circ$ (c, 0.76 in CHCl_3). For multiflorenol, m.p. 188–189°, $[\alpha]_D -28^\circ$ (CHCl_3) has been recorded.¹

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