BIFLAVONES IN THE LEAVES OF PODOCARPUS TAXIFOLIA

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Key Word Index—*Podocarpus taxifolia*; Podocarpaceae; biflavones; bilobetin; podocarpusflavone-A; sequoiaflavone.

Plant. Podocarpus taxifolia Kunth. (Podocarpaceae). Source. Collected in Lyod Botanical Gardens, Darjeeling, India. Previous work. On P. macrophylla and P. nagi¹ and on P. gracilior.²

Present work. The phenolic extract obtained from the leaves and purified by usual methods gave three biflavone fractions PT-1, PT-2 and PT-3 by preparative TLC. PT-1 was homogeneous and characterized as amentoflavone (I) by NMR studies of its acetate and methyl ether. PT-3 was found to be a mixture of dimethyl ethers of amentoflavone, which could not be further characterized.

$$R_{4}O = \begin{pmatrix} 0 & & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

PT-2 on methylation gave a mixture of amentoflavone hexamethyl ether (II) and hinokiflavone pentamethyl ether³ suggesting that PT-2 is a mixture of amentoflavone monomethyl ether and hinokiflavone. PT-2 (150 mg) was, therefore, separated into three fractions by counter current distribution method (130 transfers) between methyl ethyl ketone and a borate buffer (pH 9·5). They were characterized as bilobetin⁴ (III, 30 mg from tubes Nos. 16–50), podocarpusflavone- A^1 (IV, 55 mg from tubes Nos. 61–90) and sequoiaflavone⁵ (V, 40 mg from tubes Nos. 96–120) by comparison of their acetates with authentic samples respectively (m.m.ps and NMR spectra).

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