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FLAVONOID DIGLYCOSIDES FROM *MYOPORUM TENUIFOLIUM*

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Myoporum tenuifolium G. Forster is widely used in the gardens of eastern Spain. We have been conducting an investigation on foliar flavonoids of this plant. The hydroalcoholic extract was successively extracted with Et_2O, EtOAc and *n*-BuOH. The Et_2O and EtOAc extracts, which especially extract free aglycones and mono-glycosides, respectively, were studied previously, and luteolin, chrysoeriol, apigenin, tricin, luteolin-7-*O*-β-D-glucoside, and tricin-7-*O*-β-D-glucuronide were isolated and identified from them (1,2).

In continuation of this previous work, we have now studied the diglycoside flavonoid compounds present in the *n*-BuOH extract, and luteolin-7-*O*-β-D-rutinoside, chrysoeriol-7-*O*-β-D-rutinoside, apigenin-7-*O*-β-D-rutinoside, eriodictyol-7-*O*-β-D-rutinoside, luteolin-7-*O*-β-D-gentiobioside, and chrysoeriol-7-*O*-β-D-gentiobioside were isolated and identified.

The structures were determined by uv, ms, and ^{1}H-nmr standard procedures (3-6), followed by hydrolysis and chromatographic studies of the resulting aglycones and sugars (7-9).

This is the first report of flavonoid diglycosides from a member of the Myoporaceae. Previously the dihydroflavonol, pinobanksin, was isolated from *Eremophila alternifolia* and *Eremophila ramosissima* (10), 5-hydroxy-3,6,7,3′,4′,5′-hexamethoxyflavone from *Eremophila fraseri* (11), and luteolin, apigenin, chrysoeriol, tricin, luteolin-7-*O*-β-D-glucoside, and tricin-7-*O*-β-D-glucuronide from the Et_2O and EtOAc extracts of *M. tenuifolium* (2).

EXPERIMENTAL

PLANT MATERIAL.—Plant material was collected from Cabo-Roig in southeastern Spain in April, 1982, by the senior author and identified by Dr. F. Alcaraz. A voucher specimen is deposited in the Herbarium of the Faculty of Biology, University of Murcia (accession no. 3732).

EXTRACTION AND ISOLATION OF FLAVONOIDS.—Powdered leaf material (1 kg) was extracted with EtOH-H_2O (7:3). The EtOH was removed under reduced pressure, and the aqueous concentrate extracted with Et_2O, EtOAc, and *n*-BuOH, successively. The diglycosides were isolated from the *n*-BuOH extracts by preparative pc on Whatman No. 3 with H_2O and 30% HOAc and on Whatman No. 1 with *n*-BuOH-EtOH-H_2O (20:5:11). Compounds were purified by tlc on Polyamide DC-6 with H_2O-MeCOEt-*n*-BuOH-HOAc (7:1:1:1).

ELUCIDATION OF STRUCTURES.—Standard methods of uv, ir, ms, and ^{1}H nmr, including comparisons with authentic samples (3-6), were employed for elucidation of structures. Acid hydrolysis of the compounds yielded apigenin, luteolin, chrysoeriol, eriodictyol, rhamnose, and glucose. The sugar sequence and the interglycosidic linkage were established by ms of the permethylated derivatives (6) and confirmed by ^{1}H nmr.

Full details of the isolation and identification of the compounds are available from the senior author.

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