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FLAVONOIDS FROM *COMPTONIA PEREGRINA**

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Plant. Comptonia peregrina (L.) Coult. (Syn. *Myrica asplenifolia* L., *Liquidambar peregrina* L.) (Voucher specimen in the College of Pharmacy).[1] *Common name.* Meadow fern, sweet fern.[2] *Source.* Wolf Rock, near Kingston, Rhode Island. Collected in July 1970. *Uses.* Fruits as antidiarrheic,[1] whole plant as plaster in cancer.[2] *Previous work.* Tannins,[1] essential oil,[3–6] phytochemical and biological screening.[7]

Present work. The dried, powdered leaf material (840 g) was defatted with light petrol. (b.p. 30–60°) and then extracted by maceration with 70% MeOH. The concentrate (120 g) was fractionated into Et_2O (32 g) and EtOAc (21 g) soluble fractions.

Et_2O fraction. Repeated preparative 2-D PC on sheets (46 × 57 cm) of Whatman 3MM paper with BAW (4:1:5) and 15% HOAc followed by preparative 1-D PC or TLC (microcrystalline cellulose, Avicel PH-105) with either BAW, 15% HOAc or Forestal yielded upon elution with MeOH the flavonoids galangin, myricetin, kaempferol and quercetin, identified by their characteristic color reactions (UV, NH_3, diazotized sulfanilic acid, $AlCl_3$), UV spectral analysis with the usual diagnostic reagents (MeOH, $AlCl_3$, $AlCl_3$ + HCl, NaOAc, NaOAc + H_3BO_3),[8] R_f (PC and TLC with BAW, 15% HOAc, Forestal and TBA, 3:1:1), and co-chromatography with authentic samples. (The identity of the rather rare flavonoid galangin, was carefully checked and its properties agreed in all respects with the authentic specimen.) An additional compound possessing an intense purplish violet fluorescence (UV, 254 nm) was identified as gallic acid by comparison with an authentic sample, UV, color reactions (UV, NH_3, diazotized sulfanilic acid), R_f and co-chromatography (PC and TLC with BAW, 15% HOAc and TBA).

EtOAc fraction. The extract worked up as described for the Et_2O fraction yielded more myricetin, galangin and gallic acid. In addition, two flavonoid glycosides with intense purple fluorescences were also isolated and are presently being characterized.

* Part I in the projected series "Flavonoids of Myricaceae Plants".

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