Phytochemistry, 1975, Vol. 14, p. 1641. Pergamon Press. Printed in England.

PHYTOCHEMICAL REPORTS

FLAVONE GLUCURONIDES OF THE NEW ZEALAND LIVERWORT *MARCHANTIA MACROPORA*

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(*Received* 10 *February* 1975)

Key Word Index—*Marchantia macropora*; liverworts; apigenin 7-*O*-glucuronide; chrysoeriol 7-*O*-glucuronide; luteolin 7-*O*-glucuronide; luteolin 3′-*O*-glucuronide; luteolin 7,3′-di-*O*-glucuronide.

Plant. Marchantia macropora Mitt. (Marchantiaceae) is a thallose liverwort found only in New Zealand [1].

Source. Supplied by Miss Ella O. Campbell, Massey University, Palmerston North (Voucher specimen No. MPN 17004).

Present work. Fresh gametophyte tissue was extracted with acetone–water as described previously [2]. The flavonoids were separated by successive 1-D PC in TBA and 15% HOAc. The PC homogeneous flavonoids were identified from their UV spectra, hydrolyses and identification of the constituent aglycone and sugar, and co-chromatography with the relevant flavone glucuronide previously isolated from other *Marchantia* species [2,3].

The major flavonoids of *Marchantia macropora* are luteolin, luteolin 3′-*O*-glucuronide and luteolin 7,3′-di-*O*-glucuronide. These are accompanied by lesser amounts of the 7-*O*-glucuronides of apigenin, chrysoeriol and luteolin.

The present work completes our survey of *Marchantia* species native to New Zealand. *M. macropora* displays features in its flavonoid chemistry common to *M. polymorpha* [1], *M. foliacea* [3] and *M. berteroana* [4].

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Phytochemistry, 1975, Vol. 14, pp. 1641–1642. Pergamon Press. Printed in England.

TRITERPENES FROM RHIZOMES OF *POLYPODIUM LEUCOTOMOS*

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(*Received* 11 *November* 1974)

Key Word Index—*Polypodium leucotomos*; Polypodiaceae; fern; triterpenes; fernene; dryocrassol; neriifoliol.

Plant. Polypodium leucotomos (syn. *P. decumanum, Phlebodium decumanum* [1], "Calaguala"). *Source.* Wild specimens growing on *Palma africana* trees along the northern seashore of Honduras. *Uses.* Folk medicines. *Previous work.* Infusions of rhizomes are active against malignant tumours and leukaemias [2]. *Plant part examined.* Rhizomes.

Present work. Fern-9(11)-ene and dryocrassol were isolated and characterized. Spectroscopic evidence is presented and discussed which fully supports the conclusion from chemical reactivity [3,4] that dryocrassol is the C-22 epimer of neriifoliol [5].

Dryocrassol and neriifoliol [5] give virtually