Chromenes and Prenylated Benzoic Acid Derivatives from the Liverwort

*Pedinophyllum interruptum*

Hildegard Feld\(^a\), David S. Rycroft\(^b\), and Josef Zapp\(^a\)

\(^a\) FR 8.7, Pharmakognosie und Analytische Phytochemie der Universität des Saarlandes, 66041 Saarbrücken, Germany

\(^b\) Chemistry Department, The University of Glasgow, Glasgow G12 8QQ, Scotland, UK

Reprint requests to Dr. Josef Zapp. Fax: +49-681-302-2476. E-mail: j.zapp@mx.uni-saarland.de


The chemical composition of a diethyl ether extract of the Scottish liverwort *Pedinophyllum interruptum* has been examined. Two new prenylated benzoic acid derivatives, methyl 2,6-dihydroxy-4-methoxy-3-(3'-methyl-2'-butenyl)benzoate and methyl 2,4,6-trihydroxy-3-(3'-methyl-2'-butenyl)benzoate, two new chromenes, methyl 5,7-dihydroxy-2,2-dimethyl-2\(^H\)-chromene-6-carboxylate and methyl 7-hydroxy-5-methoxy-2,2-dimethyl-2\(^H\)-chromene-8-carboxylate, and the two known chromenes methyl 8-hydroxy-2,2-dimethyl-2\(^H\)-chromene-6-carboxylate and methyl 8-methoxy-2,2-dimethyl-2\(^H\)-chromene-6-carboxylate were isolated. Methyl 2,4,6-trihydroxy-3-(3'-methyl-2'-butenyl)benzoate was unstable in air and was quickly converted into methyl 2,4,6-trihydroxy-3-(2'-hydroperoxy-3'-methyl-3'-butenyl)benzoate. All structures were elucidated by means of NMR spectroscopic techniques and mass spectrometry.

Key words: *Pedinophyllum interruptum*, Prenylated Benzoic Acid Derivatives, Chromenes