

PP95. Volatiles of *Pulicaria vulgaris* Gaertn. (Asteraceae)

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Keywords: essential oil, *Pulicaria vulgaris* Gaertn., presilphiperfolane diol

The genus *Pulicaria* (tribe Inuleae of the Compositae family) consists of *ca.* 100 species with a distribution from Europe to North Africa and Asia, particularly around the Mediterranean [1]. A number of compounds from *Pulicaria* species (flavonoids, sesquiterpenoids, and diterpenoids) possess significant bioactivities, and they could be promising candidates for the development of potential drugs [1]. In the continuation of our investigations of the secondary metabolites of plant taxa from the Serbian flora, we have studied the chemical composition of *Pulicaria vulgaris* Gaertn. essential oil. *Pulicaria vulgaris* is a rare plant species, with golden-yellow flowers, growing on sandy, stony places. To the best of our knowledge, there are no previous studies on either the volatile or nonvolatile secondary metabolites of this species. Analyses by GC and GC/MS of an essential-oil sample obtained from air-dried aerial parts allowed the identification of 106 components (most of which were identified by at least two independent means (mass spectrum and retention index matching)). Sesquiterpenes constituted the most abundant compound class, representing 86.4% of the total essential oil. The remaining part of the essential-oil sample was comprised of monoterpenes and fatty acid-related compounds, 5.5 and 2.5%, respectively. The bulk of the oil was comprised of two oxygenated sesquiterpenoids—*epi-α*-cadinol (23.3%) and presilphiperfolane-7,8-diol (46.4%). No plant species other than *P. vulgaris* are characterized by the presence of presilphiperfolane-7,8-diol. This fact may be of chemotaxonomic/biosynthetic significance since presilphiperfolanes belong to rare triquinane-type sesquiterpenes that represent precursors of angular and propellane triquinane sesquiterpenes.

References:

[1] Liu, L.-L. et al., 2010. Chem. Biodivers. 7, 327–349.

Acknowledgments: This work was supported by the Ministry of Education, Science and Technological Development of Serbia [Project No. 172061].

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