

PP84. Chemical composition of the essential oil of *Ziziphora clinopodioides* Lam. (Lamiaceae) from Georgia

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Taxa belonging to the *Ziziphora* L. genus are represented in the Caucasian flora [1,2] and are commonly used in traditional food and for medicinal purposes [2]. *Ziziphora clinopodioides* Lam. (Lamiaceae), known as blue mint bush is widespread in the Caucasus region and used to treat gastrointestinal disorders and as an aperitive, carminative, antiseptic and wound healing material [2]. To the best of our knowledge, there are limited data on the composition of *Z. clinopodioides* essential oil and no previous studies of the essential-oil constituents of *Z. clinopodioides* aerial parts from Georgia. The plant material used for the present study was collected near Jvari Monastery, Mtskheta, Georgia and subjected to hydrodistillation for 3 h using a Clevenger-type apparatus to produce the essential oil. The essential oil was analyzed by GC and GC-MS and this allowed the identification of 28 constituents representing 99% of the total detected GC-peak areas. The essential oil of *Z. clinopodioides* aerial parts from Georgia was found to be characterized by high levels of oxygenated monoterpenes, with the main components identified as pulegone (29.4%), *p*-menth-3-en-8-ol (15.2%), germacrene D (9.2%), neomenthol (5.6%), *cis*-pulegol (5.3%), menthofuran (4.5%), piperitenone (4.3%) and piperitone (3.1%). Pulegone, the most abundant constituent, is a widespread component of the Lamiaceae essential oils [3], however, it has been proven to be highly toxic to laboratory animals, primarily expressing pulmonary and hepatotoxic effects [4]. Having in mind that pulegone represents almost one-third of the oil, further toxicological studies of the *Z. clinopodioides* aerial parts essential oil are needed.

References:

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