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Volatile aroma compounds in fresh flowering stems and fresh rosette leaves of mountain tea (*Sideritis raeseri* Boiss. & Heldr.) from Republic of Macedonia

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The chemical composition of volatile aroma compounds was determined in four samples of mountain tea (*Sideritis raeseri*), collected from four different localities in National Park Galichica in Republic of Macedonia on 2012 and 2013. Two types of plant material of each sample were analyzed: fresh flowering stems (homogenized samples from flower, leaf and stem) (F-S) and the fresh rosette leaves (F-RL). The analyses were made by gas chromatography – mass spectrometry (GC/FID/MS) on HP5-MS column and equipped with automated headspace system with Heated Syringe (HS) sampler. 0.3 g of fresh plant material was put in sealed vials, heated (5 minutes, 80 oC) and the gas phase was investigated. Total of thirty-two individual components (15 monoterpenes representing 78.66-93.65% and 17 sesquiterpenes representing 3.97-20.10% of the entire volatiles) were identified as aroma components in F-S samples. The predominant components in all samples were β-pinene, α–pinene, δ-3-carene, limonene, α-copaene and trans-caryophyllene. In the F-RL samples of S. raeseri, 27 individual components were identified, 12 monoterpenes (51.90-87.08%) and 15 sesquiterpenes (7.22-46.59%). Prevailing components in all tested F-RL samples were β-pinene, α-pinene, limonene, α-copaene, trans-caryophyllene, germacrene D and δ-cadinene. There was almost no difference in the chemical profiles of the aroma compounds between F-S and F-RL. Fresh rosette leaves exhibit very similar aroma compounds profile with the flowering stems of *Sideritis raeseri*.

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Notes:

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