

PP91. The chemical composition of the essential oil of *Hypericum hirsutum* L. from Suva planina (SE Serbia)

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The genus *Hypericum* (family Hypericaceae) includes over 500 species with a nearly worldwide distribution, missing only from tropical lowlands, deserts, and polar regions. *Hypericum hirsutum* L., known as Hairy St. John's wort, is very similar to the main representative of genus *Hypericum* - *Hypericum perforatum* L. (St. John's wort). *Hypericum hirsutum* has the typical St. John's wort flower about half an inch or more across and a pale yellow color; blunt, oval, translucent-dotted leaves about 2.5-5 cm long on a smooth, hairy and generally unbranched stem up to about 30-60 cm tall. This perennial species is widely distributed throughout Europe (except the Mediterranean region), northwestern Africa, China and southwestern Asia [1].

Herein, we analyzed by GC-MS the composition of the hydrodistilled essential oil from the aboveground parts of *H. hirsutum*, leaves and stems, and brown capsules (with seeds) at the fruiting stage, separately. The yield of both essential-oil samples was rather low (0.038%, and 0.055%, for leaves and stems, and capsules, respectively), based on the weight of air-dried plant material collected from Suva planina, a mountain in southeastern Serbia. The GC-MS analysis allowed the identification of 90 components in the essential oil of the leaves and stems, and 45 components from the essential oil of the capsules, representing ca. 90% of the total GC-peak areas detected (for both samples). The main components of the leaf essential oil were: *n*-nonane (16.8%), *n*-undecane (10.1%), (*E*)- β -farnesene (9.3), caryophyllene oxide (5.0%), spathulenol (4.5%), (*E,E*)- α -farnesene (4.0%), δ -cadinene (3.5%), (*E*)-caryophyllene (3.2%), germacrene D (3.0%), and (*E*)- β -ocimene (2.1%); and the main components in the essential-oil sample from the capsules were: alloaromadendrene (11.5%), caryophyllene oxide (11.1%), *n*-undecane (7.6%), (*E*)-caryophyllene (6.1%), γ -humulene (5.8%), δ -cadinene (5.6%), α -longipinene (5.4%), α -bisabolol (3.6%), and *n*-nonane (3.3%).

References:

[1] Heydon, P.A. et al., 2011. Can. Field Nat. 125, 248–251.

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