

# Identification of Volatile Compounds Emitted by *Artemisia ordosica* (Artemisia, Asteraceae) and Changes due to Mechanical Damage and Weevil Infestation

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Z. Naturforsch. **68c**, 313–317 (2013); received August 12, 2012/June 4, 2013

Volatiles emitted by healthy, mechanically damaged, and weevil-infested *Artemisia ordosica* (Asteraceae) were obtained through a dynamic headspace method and analysed by automatic thermal desorption/gas chromatography/mass spectrometry (ATD/GC/MS). Twenty-eight compounds in all were identified, and the qualitative as well as quantitative differences were compared. The green leaf volatiles 2-hexenal, (*Z*)-3-hexen-1-ol, 2-hexen-1-ol, 1-hexanol, and (*Z*)-3-hexen-1-ol acetate were present in all of the damaged plants, but in relatively lower portions when plants were infested by the weevil *Adosopius* sp., while the terpenoids -copaene, -cedrene, and (*E,E*)- -farnesene and the ester methyl salicylate were only present in weevil-damaged plants. The volatiles from healthy and weevil-infested leaves were dominated by D-limonene, whereas mechanically damaged leaves emitted -pinene as the dominant compound.

*Key words:* *Artemisia ordosica*, Mechanically and Weevil-Damaged, Volatile Compounds