

Distribution of *Achillea clavennae* L., var. *clavennae* Hayek (*Asteraceae*) in Macedonia

Agim Haziri

State University of Tetova, Faculty of Science, Department of Biology, Republic of Macedonia

Abstract: From the current knowledge of flora in Macedonia *Achillea clavennae* L., var. *clavennae* Hayek (*Asteraceae*) is presented only in Galičica: 40° 56' N, 20° 48' E. During the research of this species in Macedonia, another new locality, was recognized which represents a new record of distribution of this species in the flora of Macedonia. Examine specimens: new locality in Cerovo: 612 m, 41° 48' N, 20° 55' E, 26 June 2012, A. Haziri. Specimens of this species are deposited in the Herbarium of the Department of Biology, State University of Tetova.

Keywords: *Achillea clavennae* L., new locality, *Asteraceae*, Macedonia.

1. Introduction

The genus *Achillea* L. comprises more than 50 species in Europe, with more than 43 species in the Balkans [8], [6]. In Macedonia is represented with the 17 species. Most species of genus *Achillea* L., are beautiful, fragrant and medicinal, therefore it is suitable and interesting to cultivate them in botanic gardens or close to pharmaceutical or medicinal enterprises. The most interesting species, rare and endemic in the Balkans, are analysed [4], [2], [3], [7], [9]. *Achillea clavennae* L., is represented by three varieties: var. *argentea*, var. *intercedens* and var. *clavennae*. *Achillea clavennae* L., var. *clavennae* Hayek (*Asteraceae*) is presented in Albania, Kosovo, Macedonia, Slovenia, Croatia, Bosnia and Herzegovina, Serbia, Montenegro and Greece [5]. From the current knowledge of flora in Macedonia *Achillea clavennae* L., var. *clavennae* Hayek (*Asteraceae*) is presented only in Galičica. This species is recorded for the first time and in Cerovo and was recognized which represents a new locality of distribution of this species in the flora of Macedonia.

2. Methodology

For the realization of this study are applied standard methods for floristic research. Such studies involve the identification of individual species and also the assessment of abundance of species. The techniques applied are known as floristic methods of vegetation description. Is used the literature necessary for determining the varieties of *Achillea clavennae* L. Specimens of this species are deposited in the Herbarium of the Department of Biology, State University of Tetova.

3. Results and Discussion

Achillea clavennae L., var. *clavennae* Hayek; *A. clavennae* L. var. *engleri* Aschers; 1873, ÖBZ 23:9; Hayek 1931, Prodr. Fl. Pen. Balc. 2:635; *A. clavennae* L., var. *capitata* Heim., 1884, DAWW 48:153 [4], [1]. Examine specimens: locality Cerovo: 612 m, 41° 48' N, 20° 55' E, 26 June 2012, A. Haziri. Is an annual herbs which grows up to 60 cm tall with a branched stem (pedicle) which is dense and covered with glandular hair.



Figure 1: *Achillea clavennae* L., var. *clavennae* Hayek (foto by Haziri).

The first leaves are oval, a little toothed and the leaves are on opposite sides of the stem. The oval leaves mature up to triangular, margin denticulate, and are covered with dense hairs, especially at the lips of lappet. The subspherical capitula grow up to 12-18 mm, and have involucre with internal and external bracts. Receptacle conical, with scales. Peripheral florets, whitish, female ligulate, 4-6 in quantity, have a triple tongue. It has central tubular florets, which are yellow, hermaphrodite, 15-30 in quantity. Pappus-scales aristate. Achenes, obovoid-prismatic, brown to black. A single plant can produce up to 7500 of these achenes. The cotyledons orbicular, 4-8 mm. *Achillea clavennae* L., var. *clavennae* Hayek differs significantly from var. *argentea* by the largest number of capitula. Flowering May-October. Specimens of this species are deposited in the Herbarium of the Department of Biology, State University of Tetova.

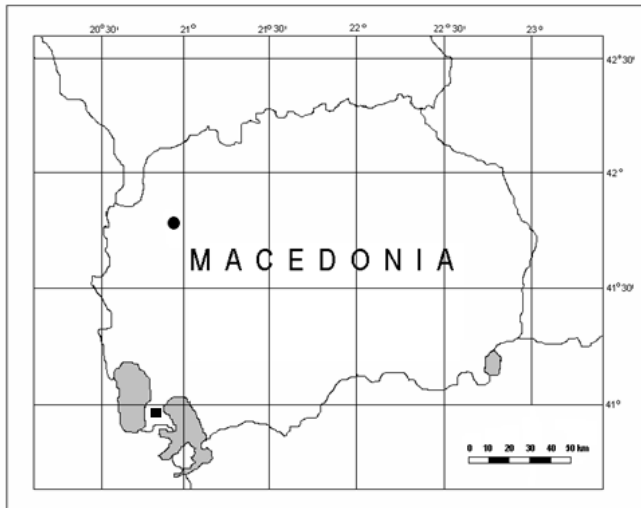


Figure 2: Distribution of *Achillea clavennae* L., var. *clavennae* Hayek in Macedonia: locality in Galičica (■) and new locality in Cerovo (●).

Author Profile



Agim Haziri is working as Professor of Botany in the Department of Biology, Faculty of Natural Sciences, State University of Tetova, Republic of Macedonia

4. Conclusions

Based on what was said above, we can conclude that:

1. From the current knowledge of flora in Macedonia *Achillea clavennae* L., var. *clavennae* Hayek (*Asteraceae*) is presented only in Galičica: 40° 56' N, 20° 48' E.
2. New locality in Cerovo (612 m, 41° 48' N, 20° 55' E, 26 June 2012, A. Haziri) represents a new record of distribution of this species in the flora of Macedonia.

References

- [1] Funk V. A., Susanna A., Stuessy T. F., and Robinson H., 2009. Classification of Compositae in Systematics, Evolution, and Biogeography of Compositae, Vienna, International Association for Plant Taxonomy (IAPT), pp.171-189.
- [2] Martinčič A., Wraber T., Jogan N., Ravnik V., Podobnik A., Turk B., Vreš B., 1999. Mala flora Slovenije, Ljubljana: Tehniška založba Slovenije.
- [3] Millaku F., Rexhepi., Krasniqi E., Pajazitaj Q., Mala Xh., Berisha N., 2013. The red book of vascular flora of the Republic of Kosovo. Pristina, Kosovo. pp. 189.
- [4] Josifović M., Stjepanović L., Janković Kojić M., 1975. Flore de la Republique Socialiste de Serbie. VII. Academie Serbe des Sciences et des Arts. Belgrade. pp. 97-98.
- [5] Josifović M., 1976. In Flora Serbie. IX. Academie Serbe des Sciences et des Arts. Belgrade.
- [6] Pignatti S., 1982. Flora d'Italia. Volume 3, Bologna, Edagricole, pag. 80.
- [7] Rexhepi F., 1998. Genus Achillea L. in Balkans and the possibility cultivation in botanic gardens. Museol.sci., 14 (1), Italia.
- [8] Tutin T.G., Heywood V.H., Burges N.A., Moore D.M., Valentine D.H., Walters S.M., Webb D.A., (Eds.) 1976. Flora Europaea, Vol. 4. Cambridge. Cambridge University Press.
- [9] Vangjeli J., Ruci B., Mullaj A., Papanisto K., Qosja Xh., 2000. Flore de l'Albanie. Vol. 4. Academie des