

## New locality of species *Limosella aquatica* L. in the flora of the Republic of Macedonia

### Nove lokalitete vrste *Limosella aquatica* L v flori Republike Makedonije

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#### Abstract

During floristical investigations in the southwest parts of the Republic of Macedonia, on the Mt. Galičica, a new locality of species *Limosella aquatica* L. has been found. Until now, it was known only from the Mt. Bistra. The newly discovered locality of *L. aquatica* represents one of the southernmost localities on the Balkan Peninsula.

#### 1. Introduction

In the frame of the project "The Flora of the Republic of Macedonia" *Limosella aquatica* L. was for the first time found on the Mt. Galičica.

*Limosella aquatica* is a cosmopolitan species. It grows in diverse water habitats – in shallow waters, ponds, irrigation ditches, periodically flooded coast lakes, temporary water basins, which dry during the summer, etc. Its populations, although rare and locally distributed, can be found all over Europe, excluding the Mediterranean region (WEBB 1972: 204). According to the data provided by HAYEK (1929: 154), it is generally distributed only in two areas on the Balkan Peninsula, i.e. in Montenegro and in Serbia.

Later, this species was recorded on several localities in different parts of the Balkan Peninsula. It was noted for Serbia from the surrounding of Danube river, region of Bačka-Ratno Ostrovo, Koviljski Rid, Zabelj, Bezdan, Bečej, Banat-Pančevo, Tomaševac, Kikinda; Fruška gora, surrounding of Belgrade-Ada Ciganlija, Veliko Ratno Ostrovo, NE Serbia-Golubac, E. Serbia: Niš-Bubanj (ČERNJAVSKI 1950, JOVANOVIĆ-DUNJIĆ 1974, STEVANOVIĆ, pers. communication), Montenegro - Javorje and Konjska Planina (ROHLENA 1942, BLAŽENČIĆ 2007), Croatia - Podravina, Moslavina, Posavina, Osijek and Varaždin surroundings, Srem, Bosut- Lipovljan (SCHLOSSER & VUKOTINVIĆ 1869, PLAGVIŠIĆ-GOJKOVIĆ & GAŽI-BASKOVA 1978, NIKOLIĆ & DOBROVIĆ 2005); Slovenia - Subpanonsko območje, Štajersko, Prekmurje (MAYER 1952, WRABER & SKOBERNE 1989, JOGAN & al. 2001, WRABER 2007). It was recorded on several localities in Greece - Sterea Ellas, S. Pindhos, N. Pindhos etc. (STRID & TAN 1991, ARNE STRID from the Flora Hellenica Database, pers. communication) as well as in Bulgaria - Vitoša-Samokov (DELIPAVLOV 1995: 25).

MICEVSKI & MATEVSKI (1986/87: 205) indicated presence of this species for Bistra mountain in the West part of the Republic of Macedonia, where it forms rather vital populations on

small dry depressions where water retains for a longer period of time at the locality of Toni Voda (leg. et det. Micevski K. & Matevski V., 18.07.1985; SKO).

## 2. Results

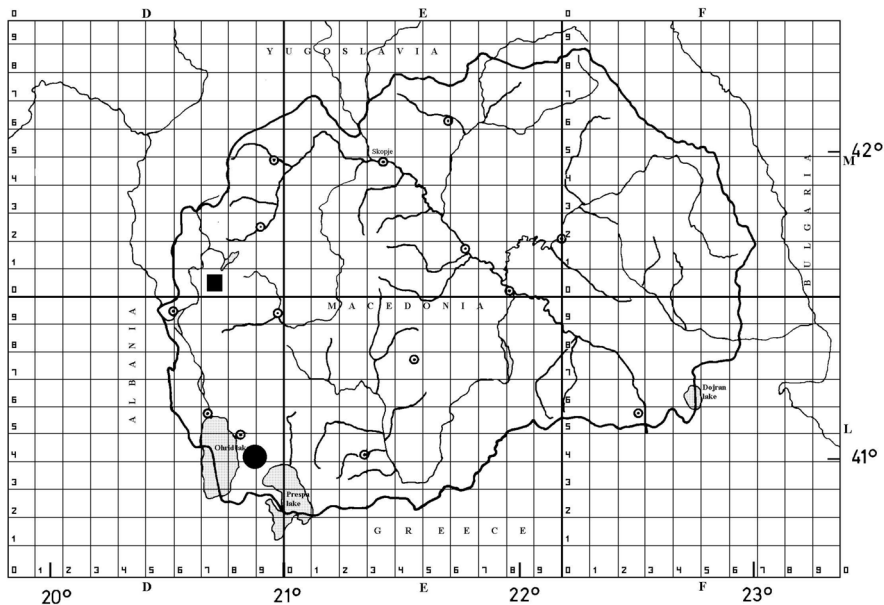
During floristic investigations on the Mt. Galičica (SW Macedonia) a new population of *L. aquatica* was discovered.

**34TDL9040** Macedonia: Galičica, Crvena Lokva between Asan Djura and Džafa (41°03'11"; 20°51'34"), 1448 m s. m. Leg & det. V. Matevski, 26.6.2004; leg. V. Matevski & M. Kostadinovski, 8.6.2008 (SKO).

Crvena Lokva is a temporary water pool on limestone geological bedrock. It completely dries up during the summer, and after that mass expansion of *Limosella aquatica* occurs around the dry edges of the puddle. It is important to note that this newly discovered locality represents the southernmost localities in the Republic of Macedonia.

The known distribution of this species in Macedonia is shown in Figure 1.

The threat status of *Limosella aquatica* in the flora of the Republic of Macedonia is not yet defined due to the lack of Red Data List and Red Book for the flora of the Republic of Macedonia. Most probably, the limited amount of data for the distribution and population status of this species on the Balkans is the main obstacle in determination of the threat



**Figure 1:** Distribution of *Limosella aquatica* in Macedonia.

**Slika 1:** Distribucija vrste *Limosella aquatica* v Republiki Makedoniji.

status according to the IUCN criteria. Thus, the Red Book of vascular flora of Croatia ranks *Limosella aquatica* as threat category I - data deficient (DD) (NIKOLIĆ & TOPIĆ 2005) as well as the Slovenian Red List (ANON. 2002). However, this species is not included in the red books of Serbia (ŠTEVANOVIĆ 1999), Bosnia and Herzegovina (ŠILIĆ 1996), Bulgaria (VELČEV 1984), Greece (PHITOS & al. 1995) or Albania (VANGJELI & al. 1995) i.e. its threat status has not been assessed.

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