

## **Population biology and ecology of the species *Phyteuma orbiculare* L.**

### **Abstract**

This diploma's thesis deals with *Phyteuma orbiculare* L. (Round-headed Rampion) from family *Campanulaceae*. According to the law (MŽP ČR 395/1992 Sb.) the studied species is classified as a seriously endangered species of the Czech flora. Two of its distinguished subspecies (subsp. *montanum* and *flexuosum*) are on the Red list of vascular plant species (Procházka 2001) of critically endangered species. One of the outputs of this thesis are grid maps of all localities of the species in the following time intervals: until 1949, 1950 – 1989, 1990 – 1999 and 2000 – 2010. As information sources about location of *P. orbiculare* I used herbaria collections, literature, botanical databases, and Protected Landscape Area Administrative reports. Some data were obtained from botanical experts and some from my personal field-work.

One of the main results of thesis is comparison of the distribution of historical and recent localities of the species. I studied chemical composition of soil, species composition and number of flowering plants amount of populations in 21 recent and 19 historical localities in Czech Republic. Recent localities are richer in species and poorer in nutritive substances than the historical localities. Number of flowering individuals tends to fluctuate over time. Localities differ in the number of flowering individuals.

Many habitats of *P. orbiculare* disappeared from our landscape due to the incorrect and thoughtless management, competition of other species or due to small local population size. In spite of the decrease of the population in many localities are recent populations of species viable.

**Key words:** *P. orbiculare*, population ecology, distribution of the species in Czech Republic, comparison of historical and recent localities