

# CATTLE GRAZING AS A TOOL FOR INVASIVE WEED MANAGEMENT AND ENDANGERED SPECIES SUPPORT ON FORMER PASTURES IN MOUNTAIN NATURE RESERVE

Josef Holec, Michaela Kolářová, Marie Mrázková, Radek Štencl, Luděk Tyšer

Czech University of Life Sciences Prague, Faculty of Agrobiolgy, Food and Natural Resources,  
Department of Agroecology and Crop Production, Kamýcká 129, 165 21 Prague 6, Czech Republic.

E-mail: [mkolarova@af.czu.cz](mailto:mkolarova@af.czu.cz)

## INTRODUCTION

Grazing is considered as a suitable tool to maintain biodiversity of grassland. Once the pasture is abandoned, natural succession take place with highly competitive species expanding their dominance. As a result, many herbs including rare and endangered species may disappear. In 2012, grazing was restored in the Hrubý Jeseník Mts. (the Praděd National Natural Reserve) in northeastern part of the Czech Republic.



## STUDY AREA AND METHODS

The aim of the study was to estimate changes in plant species occurrence in the locality of Švýcárna (1304 m a.s.l.), where the cattle grazing after the long-term management cessation was introduced on the pasture area of 3.6 ha in 2012. The pasture was divided into two grazing plots: P1 (Nar) with dominance of *Nardus stricta* and *Avenella flexuosa* and P2 (Des) with dominance of *Deschampsia cespitosa*. For grazing, Highland cattle was used with stocking rate up to 1 livestock unit per ha and year. Floristic composition was evaluated and statistically analyzed.

## RESULTS

After six years of restored grazing the overall species richness enhanced and a higher occurrence of rare and endangered species was found. The occurrence of some common and often dominant species like *Avenella flexuosa*, *Vaccinium myrtillus*, and *Calamagrostis villosa* tended to decrease within a grazing period in favor of new species colonisation. On most of the plots, an increase in the number of rare and endangered species was noticed. For some species like *Allium schoenoprasum* subsp. *schoenoprasum* L., however, grazing seems to be probably unsuitable as it disappeared on the grazing plot within a study period.

