Vegetation monitoring

Summary

Monitoring of habitats was carried out at all project sites. The main objective of the monitoring was to assess the impacts of management interventions implemented during the project on plant communities. At the Havranické vřesoviště project site, the population of the Greater pasqueflower (*Pulsatilla grandis*), which is also the subject of protection of this Special Area of Conservation (SAC), was also monitored.

The extent of habitats was monitored through a full-scale vegetation mapping in the first and last year of the project implementation. The methodology was derived from the approach used for Czech standard habitat mapping.

Habitats 8230, 6210, 6260, and 233 were restored in the anticipated or greater spatial extent considering the project objectives. As for the habitat 4030 i.e. European dry heathlands, conditions for its development over the entire target area have been created. Regarding a longer time to fully develop, we assume that heathlands will gradually expand to the space created (after the clearings) over the next five years.

Ninety phytosociological relevés were observed in forty blocks of 1,692 m^2 and 14 transects with a total length of 586 m, on which a total of 507 plots of 0,25 m^2 were evaluated for the presence or absence of site-specific indicators.

Monitoring of vegetation transects demonstrates an improvement in vegetation quality over the course of the implementation of the management interventions for nine of the fourteen transects monitored, i.e. 65%. On three transects there is no specific trend (Mašovická střelnice, Načeratický kopec) and only for two transects, one at Pánov and one at Havranické vřesoviště, a slightly negative trend in vegetation development was recorded. The cases of indefinite and negative development can be attributed to the delay of the effect behind the implementation of the interventions. Their location generally corresponds to sites that are further away from the place where grazing or other management interventions started and thus the result is in line with expectations in the context of the duration of the implemented measures.

The most significant changes in vegetation are of course in areas where significant disturbance and clearance have been carried out and thus the initial succession stages have been restored. The development of psammophytic communities was evident at Pánov. Steppic vegetation is gradually

expanding on the cleared areas at Pánov and Blšanský chlum, and a significant positive trend was observed in the areas next to the acclimatisation enclosure at Mašovická střelnice. A less evident trend, or rather stagnation, was observed at Načeratický kopec, where the restoration of populations of steppic species has not yet occurred after elimination of black locust (*Robinia pseudoacacia*), and the eutrophic areas dominated by false oat-grass (*Arrhenatherum elatius*) have not yet become colonised by steppic species despite the introduction of regular grazing. In any case, the negative trends of shrub overgrowth have been decisively halted in most of the project areas. The project sites grazed by sheep (Blšanský chlum, Načeratický kopec) show a slower and non-significant increase in the number of plant speciesthan sites disturbed more heavily by driving or horse grazing.

Monitoring confirms that the management interventions implemented at the Havranické vřesoviště project site have not had a negative impact on the population of Greater pasqueflower.