

## SUMMARY

### **Lichen recolonization in the area of Doupovské hory hills after reduction of the atmospheric pollution**

Doupovské hory hills are part of the area which was till late 1990s heavily polluted by sulphur dioxide that caused extinction of almost all the epiphytic lichens. Presented study is focused on the lichen recolonization in this area after fall of sulphur dioxide levels. This includes the evaluation of the environmental factors affecting recolonization process. Next aim is to describe biodiversity of lichens in this area.

Survey of the area revealed 84 epiphytic lichen species including many of rare and sensitive species like *Evernia divaricata*, *E. mesomorpha* and eight *Usnea* species. *U. glabrata* that was considered to be extinct in the Czech Republic was rediscovered.

Statistic analysis demonstrated substrate to be the most important factor influencing species composition and confirmed that presence of shrubs (especially *Prunus spinosa* and *Crataegus* sp.), which host better developed lichen communities than trees, facilitates the process of recolonization.

Comparison of species richness among localities showed that lichenflora of the northwestern part of the area still reflects higher pollution levels from the past decades.