



Habitat monitoring in Rožu, Aizkraukle and Aklais Mire in 2011 Summary

EC LIFE + project “Restoration of Raised Bog Habitats in the Especially Protected Nature Areas of Latvia”

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The monitoring is aimed at assessment of the effects of mire habitat restoration at three project sites: Rožu Mire, Aizkraukle Mire and Aklais Mire.

In 2010, in order to assess the changes in degraded mire habitats caused by restoration actions 71 monitoring plots were established: 21 in Rožu Mire, 20 in Aizkraukle Mire, and 30 in Aklais Mire. The monitoring plots were located in transect lines perpendicularly to drainage ditches and in sites relatively less affected by drainage, five plots at each transect line. In all cases, the transect lines are parallel to transects of hydrological monitoring.

All plots were described according to a standard protocol, including parameters such as micro-relief, vegetation structure, cover of vascular plant, moss and lichen species (estimated in percent) and vitality of trees, shrubs and dwarf shrubs (estimated in four degrees). Each plot was attributed by an ID code. Geographical coordinates of each plot were recorded and a digital data file created. Additionally, digital photographs of all plots were taken and named according to the ID codes.

In 2011, the plots were repeatedly visited and all parameters estimated according to the standard protocol. Photographs of each plot were repeatedly taken. In 2011, 10 new plots (in Rožu and Aizkraukle Mires – five plots in each) were established in relatively untouched raised bog habitats as reference sites. Totally, data from 81 plots were recorded and summarized into the monitoring report.

In comparison to 2010, in 2011 no significant changes in the plots were observed. The bog vegetation is relatively stable, therefore little changes in species richness and species covers were recorded, which might be annual variation not related to hydrological or other changes in the habitat. Neither the cover of species, nor the vegetation structure and vitality of dwarf shrubs, shrubs and trees were significantly

changed in comparison to 2010. In autumn 2011, the restoration actions were still not carried out, therefore no significant changes could be expected. Overall, the heaviest impact of drainage was observed in plots close to the drainage ditches (no or little cover of sphagnum mosses, dominance of mosses of dry coniferous forests, overgrowing with pines, and well-pronounced dominance of dwarf shrubs). The cover of sphagnum increases with increasing distance from drainage ditches, while the cover of dwarf shrubs decreases.