

**LIFE08 NAT/LV/000449**

**Inception Report**  
**Covering the project activities from 01/02/2010 to 01/10/2010**

Reporting Date

**31/10/2010**

**Restoration of Raised Bog Habitats in the Especially  
Protected Nature Areas of Latvia**

Data Project

<b>Project location</b>	Latvia
<b>Project start date:</b>	01.02.2010.
<b>Project end date:</b>	31.08.2013.
<b>Total budget</b>	€ 726.714
<b>EC contribution:</b>	€545.035
<b>(%) of eligible costs</b>	€726.714

Data Beneficiary

<b>Name Beneficiary</b>	University of Latvia
<b>Contact person</b>	Dr. Mara Pakalne
<b>Postal address</b>	Kandavas Street 2, University of Latvia Botanical Garden, Riga, Latvia, LV-1083
<b>Telephone</b>	+ 371-29511001
<b>Fax:</b>	+ 371-67024420
<b>E-mail</b>	mar.pakalne@lu.lv
<b>Project Website</b>	www.purvi.lv

## Table of contents

<b>1.</b>	<b><i>List of abbreviations.....</i></b>	<b>3</b>
<b>2.</b>	<b><i>Executive summary.....</i></b>	<b>3</b>
2.1	General progress.....	3
2.2	Assessment as to whether the project objectives and work plan are still viable ....	6
2.3	Problems encountered. ....	7
<b>3.</b>	<b><i>Administrative part.....</i></b>	<b>7</b>
3.1	Description of project management .....	7
3.2	Organigramme of the project team and the project management structure .....	8
3.3	Partnership agreements status (incl. date of signature) and key content.....	8
<b>4.</b>	<b><i>Technical part.....</i></b>	<b>8</b>
4.1	<b>Actions (please follow the structure of your proposal). ....</b>	<b>9</b>
	A. Preparatory actions, elaboration of management plans and/or of action plans.....	9
	ACTION A.1 .....	9
	ACTION A.2 .....	10
	ACTION A.3 .....	10
	B. Purchase/lease of land and/or compensation payments for use rights .....	11
	C. Concrete conservation actions .....	11
	ACTION C.1 .....	11
	D. Public awareness and dissemination of results .....	11
	ACTION D.1 .....	11
	ACTION D.2 .....	12
	ACTION D.3 .....	12
	ACTION D.4 .....	13
	ACTION D.5 .....	13
	ACTION D.6 .....	13
	ACTION D.7 .....	14
	E. Overall project operation and monitoring .....	14
	ACTION E.1 .....	14
	ACTION E.2 .....	16
	ACTION E.3 .....	17
	ACTION E.4 .....	18
	ACTION E.5 .....	18
4.2	Availability of appropriate licences and authorisations .....	18
4.3	Envisaged progress until next report. ....	19
<b>5.</b>	<b><i>Annexes.....</i></b>	<b>22</b>
5.1	Partnership agreements.....	22
5.2	Deliverables.....	26
5.3	Maps of the project sites .....	27
5.4	Program of the project First Project Seminar, copies of presentations, minutes of seminar and list of participants.....	32
5.5	Programs of the Management Plan meetings, copies of presentations and especially protected species and habitats in the project sites .....	34
5.6	Copies of public tender documentation and agreements.....	46
5.7	Programme of the Project Steering Group meeting, copies of presentations, minutes and list of participants.....	47
5.8	Photos from the activities .....	49
5.9	Copies from home page, publicity of project and film scenario .....	70
5.10	Detailed information about Study tours and seminar .....	78

## **1. List of abbreviations**

PSG - Project Steering Group  
MPSG – Management plan Steering Group  
NPB - Nature Protection Board  
NR – Nature Reserve  
MP – Management Plan  
TD – Technical design  
LFN – Latvian Fund for Nature

## **2. Executive summary**

### ***2.1 General progress.***

In the Reporting period all the planned project actions are being realised according to the Time Schedule. The aim of the project “Restoration of Raised bog Habitats in the Especially Protected Nature areas” is to re-establish the active raised bog habitats (7110\*) in the areas influenced by drainage, restore project site hydrology and to protect the raised bog bird species of EU importance.

At present all the planned project actions are viable and are being realised as planned. From the 16 project actions, 11 are being currently realised. The other actions are planned according to the Time Schedule. In the reporting period the following actions are in progress:

1. Elaboration of management plans (A1)
2. Hydro-geological studies for the elaboration of technical designs for building dams (A2)
3. Organisation of public tender, preparation of agreements and contracts (A3)
4. Organisation of seminars (D1)
5. Creation and updating of the project home page (D2)
6. Elaboration and publishing of information booklets and boards (D3)
7. Production of a documentary film (D5)
8. Establishment of the raised bog exhibition (D6)
9. Project administration by the University of Latvia (E1)
10. Monitoring the effects of management actions on raised bog habitats, bird species and site hydrology (E2)
11. Cooperation with LIFE+ projects, participation in study tours, seminars and conferences (E3)

In 2010 one of the main project actions is the Elaboration of the management plans (Action A1) and Hydro-geological studies for the elaboration of technical designs for building dams (Action A2). These actions will allow the realisation of practical management actions (Action C1).

Name of the Deliverable	Action	Deadline	Progress
The first project booklet published in Latvian and English	D3	May 2010	Completed, Inception Report Annex 6.2
Up-to date photographic information about the progress of the project	D2	April 2010	Home page updated with the latest information about the project actions. Inception Report Annex 6.10
Up-to date photographic information about the progress of the project	D2	July 2010	Home page updated with the latest information about the project actions. Inception Report Annex 6.10
Up-to date photographic information about the progress of the project	D2	October 2010	Home page updated with the latest information about the project actions. Inception Report Annex 6.10
Raised bog exhibition prepared	D6	November 2010	In Progress, will be according to the Time Schedule
Monitoring Protocols summarised in Monitoring Reports	E2	November 2010	In Progress, will be according to the Time Schedule
Up-to date photographic information about the progress of the project	D2	January 2011	-
4 technical designs for the restoration of active raised bog habitats and hydrology in Aklais, Melnais Lake, Aizkraukle Mire and Forests and Rožu Mires completed	A2	February 2011	In progress, will be completed according to the Time schedule.
Management plans for Aizkraukle, Aklais Mire, Rožu and Melnais Lake Mire completed	A1	March 2011	In progress, will be completed according to the Time schedule.
Up-to date photographic information about the progress of the project	D2	April 2011	-
Up-to date photographic information about the progress of the project	D2	July 2011	-
Information booklets about Aizkraukle, Aklais Mire, Rožu Melnais Lake Mire Nature Reserves published	D3	September 2011	-
Information boards for Aizkraukle Mire and Forests, Rožu Mire, Aklais Mire and Melnais Lake Mire set up	D3	September 2011	-
Up-to date photographic information about the progress of the project	D2	October 2011	-
Monitoring Protocols summarised in Monitoring Reports	E2	November 2011	-
Up-to date photographic information about	D2	January	-



the progress of the project		2012	
Up-to date photographic information about the progress of the project	D2	April 2012	-
Up-to date photographic information about the progress of the project	D2	July 2012	-
Up-to date photographic information about the progress of the project	D2	October 2012	-
Monitoring Protocols summarised in Monitoring Reports	D2	November 2012	-
One documentary film produced	D6	December 2012	In progress, will be completed according to the Time Schedule
Up-to date photographic information about the progress of the project	D2	January 2013	-
Up-to date photographic information about the progress of the project	D2	April 2013	-
Up-to date photographic information about the progress of the project	D2	August 2013	-
Methodology for the active raised bog restoration published	D5	July 2013	-
Monitoring Protocols summarised in Monitoring Reports	D2	July 2013	-
Layman's report published	D7	July 2013	-
After-LIFE Conservation Plan prepared	E5	July 2013	-

### MILESTONES OF THE PROJECT

Name of the Milestone	Code of the associated action	Deadline	Progress
First project Seminar in organised	D1	March 2010	Completed in March 2010, Inception Report Annex 6.5
Project Steering Committee established	E1	March 2010	Completed in March 2010, Inception Report
Information for the web page prepared	D2	March 2010	Completed in April, 2010
Monitoring plots established	E2	September 2010	Completed in October, 2010.
Monitoring wells established	E2	November 2010	In progress
Second project seminar organised	D1	November 2010	In progress
Third project seminar organised	D1	May 2011	-
Fourth project seminar organised	D1	September 2011	-
International seminar organised	D1	June 2012	-
Final project Seminar organised	D1	January 2013	-
Independent audit of the project realised	F4	July 2013	-
Dam building completed in Rožu Mire	C1	July 2011	-
Dam building completed in Melnais Lake Mire	C1	July 2011	-
Dam building completed in Aizkraukle Mire	C1	October 2011	-
Dam building completed in Aklais Mire	C1	October 2011	-
Final acceptance of the built dams from the sub-contractor	C1	July 2013	-

## ***2.2 Assessment as to whether the project objectives and work plan are still viable***

All the project objectives and the work plan is viable, the project is realised in accordance with the Project objectives that are as follows:

- Secure the most favourable conservation status and the restoration for the priority active raised bog habitat (7110\*) of Habitats Directive and raised bog bird species of Birds Directive.
- Promote and demonstrate good practice for the management of active raised bog habitats by holding seminars for various interest groups and hosting project web site.
- Demonstrate and share the results of the raised bog conservation and restoration by involving local society and stakeholders in the conservation and management activities as well as to explain the need for the restoration actions.
- Raise public awareness regionally to influence local inhabitant's attitude towards the safeguarding of internationally valuable active raised bog habitat as well nationally and internationally through the practical raised bog restoration works and awareness raising activities as well as improve the understanding of the current nature conservation issues, habitats of EU importance and Natura 2000 network.

It is planned that the planned project results will be reached:

- The project will carry out practical restoration work to address the threats to the active raised bog habitats (7110\*) and bird species of Birds Directive of the raised bogs.
- The project will bring significant and sustained improvement in the condition of the active raised bog habitat (7110\*) and site hydrology in the 4 especially protected nature areas in the area of 290 ha, which in turn promote complimentary raised bog restoration work locally, nationally and internationally.
- The 4 management plans and regulatory documents for all the project sites - Melnais Lake Mire, Aizkraukle Mire and Forests, Aklais Mire and Rozu Mire will be elaborated and approved by the Ministry of Environment of Latvia.
- In the 6 project seminars and project meetings the good practice of active raised bog restoration will be demonstrated; stakeholders, schoolchildren, teachers and local public will be educated about the need of raised bog restoration, people involved in practical active raised bog conservation and restoration.
- The 5 project information booklets, Layman's report in Latvian and English, Raised bog exhibition, web page will raise awareness about the value of active raised bog habitat (7110\*) as well as for the bird species of Birds Directive and the need of their conservation and restoration regionally, nationally and internationally.
- Methodology that is based on the experience on raised bog restoration of the LIFE – Nature and LIFE+ projects in Latvia and other EU countries will be elaborated to demonstrate the best practice on active raised bog habitat conservation and restoration.
- It is expected that the project will make a significant contribution to the further active raised bog conservation in Latvia and other EU countries.

In the implementation of the project activities 2 associated beneficiaries – Latvian Fund for Nature, “Foundation ELM MEDIA” and 2 co-financers that include Latvian Environment Fund that has taken over the co-financing from the Ministry of Environment of Latvia and Riga Forests Ltd. will participate.

### **The main conservation issues addressed as follows:**

- Negative influence from drainage

- Loss of active raised bog bird species of Birds Directive due to drainage
- Lack of awareness about conservation and restoration need of active raised bog habitat

The Inception Report includes the following chapters – Executive Summary, Administrative Part, Technical Part, Financial Part and 11 Annexes.

## 2.3 Problems encountered.

There are no serious problems or difficulties encountered or foreseen and their implications for future actions.

Still, not substantial changes are planned in the location of dams for raising the water level in the drained areas of the project sites as it is revealed by the site study results made by project experts (hydrologist, geologist, habitat and species expert) subcontractor “Meliorprojekts”. There is larger drainage influenced area in Rozu Mire, but less in Aizkraukle Mire, as some places are already flooded by beavers and very wet habitats have established there already. Still, the final location of dams will be determined by February 28, 2011 when the technical designs will be completed. Changes in the location of dams were planned according in the Action A2 that tells the exact location of dams will be determined during the elaboration of technical designs.

Administration of the project takes more time as planned as a lot of documentation has to be prepared for the University departments. Still, it does not make substantial delays in the implementation of the project actions.

## 3. Administrative part

### 3.1 Description of project management

The project Coordinating beneficiary has hired the project staff - project manager Mara Pakalne, project assistant Aivars Slisans, information coordinator Daiga Brakmane and field manager Gunars Balodis exclusively for the project implementation and for the whole duration of the project. Project Steering Group was established, project staff meetings are organised every week by the project manager to discuss the progress of the project actions. The coordinating beneficiary has provided facilities for the project staff in the Botanical Garden of the University of Latvia.

The project implementation is supported administration of the University of Latvia and its various Departments (Fig. 1).

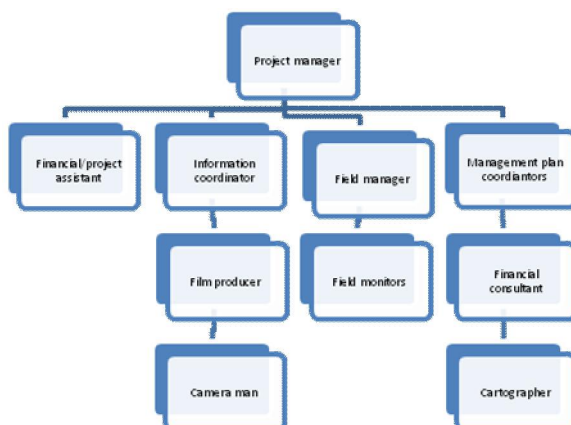


Fig.1. Structure of the University of Latvia

Project is coordinated by the Department of Development and Planning where all the original project documentation is kept. Finance and Accounting Department controls the project financial documentation.

The project manager coordinates the timely execution of all the project actions, is a contact person with the project associated beneficiaries and co-financers. All the planned project actions are being realized according to the Time Schedule. The project manager has established contacts with the LIFE projects in Germany and Wales and organised the two study tours.

### ***3.2 Organigramme of the project team and the project management structure***



### ***3.3 Partnership agreements status (incl. date of signature) and key content***

Agreements have been made with the 2 project associated beneficiaries: Latvian Fund for Nature for the elaboration of management plans (signed on April 26, 2010) and ELM MEDIA for shooting a film (signed on May 25, 2010) and the 2 co-financers (Latvian Environment Fund/Ministry of Environment) (signed on May 28, 2010) and “Riga Forests” Ltd (dated October 25, 2010). The partnership agreements were prepared in accordance with the Guidelines available at the LIFE website. All the agreements are added in Annex 5.1.

## **4. Technical part**

Active raised bog (7110\*) is a priority habitat of Habitats Directive and one of the Europe’s most rare and threatened habitats. The aim of the project is to re-establish the active raised bog habitats (7110\*) in the areas influenced by drainage, restore project site hydrology and to protect the raised bog bird species of EU importance. The project includes 4 especially protected nature areas (Nature Reserves) that are also Natura 2000 sites: Melnais Lake Mire, Aizkraukle Mire and Forests, Aklais Mire and Rožu Mire with the total area of 4843 ha, from which 290 ha are degraded areas in critical need of restoration as are subjected to the influence from drainage and peat extraction.

## **4.1 Actions (please follow the structure of your proposal).**

### **A. Preparatory actions, elaboration of management plans and/or of action plans**

#### **ACTION A.1**

**Name of the action: Elaboration of management plans**

**Time plan: II 2010 – III 2011**

**Progress:** Elaboration of the management plans (MP) was started in March, 2010. Management plans are being prepared by the project associated beneficiary – Latvian Fund for Nature according to the Latvian legislation for the 4 project sites – Aizkraukle Mire and Forests, Aklais Mire, Melnais Lake Mire and Rozu Mire NR. Management Plan Steering Groups (MPSG) were organized by the Nature Protection Board (NPB) to monitor the process of the elaboration of management plans. Participants from Municipalities, Regional Environmental Boards, NPB, forestry's, stakeholders, private landowners, NGOs, other interested persons or institutions are included in the group. Before and after the MPSG meetings regional mass media was informed about the start of elaboration of management plans. Information is also published in the project home page.

To elaborate the MP Introduction meetings were organised in June, 2010 as well as the meetings of the MPSG in September and October, 2010. Draft Management plans were prepared by the management plan coordinators who have summarised the information from the expert reports. Digital maps of the sites with the habitats of EU importance are being prepared.

Draft MP was elaborated by the Latvian Fund for Nature for all the project sites. They include maps with habitats of EU importance, maps with the provisional information about the planned management and monitoring areas as well as information on legislation, evaluation of biodiversity values, factors influencing the site and management activities.

Each management plan has a management plan coordinator who has summarised all the information about the project sites, coordinates also the experts and edits the plan. Management plan coordinators are hired as personnel. Therefore, the management plan coordinators are hired as personnel for one year (working part time) to prepare the management plan but management plan experts are contracted as external assistance For the MP the following experts were hired by the Latvian Fund for Nature - habitat and plant species experts, geologist, hydrologist, ornithologist, invertebrate expert, expert in mammals, lake expert, expert in amphibians and cartographer.

Mapping of the habitats in the project sites is a part of the elaboration of the management plans. Maps were prepared that include the mapped habitats, location of the management actions as well as zoning of the project sites. All the habitats of EU importance were mapped, like active raised bogs (7110\*), bog woodland (91D0\*), degraded raised bogs still capable of natural regeneration (7120), transition mires and quaking bogs (7140), depressions on peat substrates of the *Rhynchosporion* (7150), natural dystrophic lakes and ponds (3160).

**Variations/complications/delays: No**

**Additional information:** Annex 5.3. Maps of the Project sites. Annex 5.7. Programmes of the Management Plan Steering Group meetings, especially protected species and habitats in the project sites. Annex 5.8. Photos of the Project actions and publicity of the project.

## **ACTION A.2**

**Name of the action:** Hydro-geological studies for the elaboration of technical designs for building dams

**Time plan:** II 2010 – III 2011

**Progress:** In order to carry out the restoration of the active raised bog in the drained parts of the 4 project sites – Aizkraukle Mire and Forests, Aklais Mire, Melnais Lake Mire and Rožu Mire Nature Reserves, the hydrological assessment of the sites was carried out as well as peat stratigraphical analysis was carried out by a geologist. Impact studies of the change of the water level are carried out as well as the assessment of the possible risk of flooding of the surrounding area. Technical designs (TD) are currently elaborated by the subcontractor - “Meliorprojekts” Ltd. according to Latvian legislation that was chosen after the organisation of public tender by the University of Latvia. A large-scale map 1:10000 is used for recording of all data and the exact number and location of the dams in the project sites. Field studies needed for the elaboration of TD are completed. The possible implications of management of the site are evaluated during the preparation of technical designs (TD) and discussed during the meetings of MPSG. Aerial photographs and GIS (Geographical Information Systems) for the site management as well as historical maps are used. The precise number of dams will be a part of the technical designs, where also their size and construction type will be stated. It will be known by February 28, 2011 when the technical designs have to be completed.

**Variations/complications/delays:** Detailed field studies carried out by project experts (hydrologist, geologist, habitat and species expert) as well as site inventory by subcontractor State company “Meliorprojekts” show that changes have to be made in the location of the dams. There is larger drainage influenced are in Rožu Mire, but less in Aizkraukle Mire, as some places are already flooded by beavers and very wet habitats have established there already. Still, the final location of dams will be determined by February 28, 2011 when the technical designs have to be completed.

**Additional information:** Annex 5.8. Photos from the project activities.

## **ACTION A.3**

**Name of the action:** Organisation of public tender, preparation of agreements and contracts

**Time plan:** I – II 2010, I - II 2011

**Progress:** University of Latvia has organised 4 public tenders for such actions: 1) hydro-geological studies for the elaboration of technical designs for building dams (A2), 2) Renting of the project cars (E1); 3) Preparation of the project Raised Bog exhibition (D6); Public tender for printing of booklets was organised for whole the University of Latvia and there was no need to organise a separate for the project. As a result of public tender, technical designs for building of dams are currently made by State Company “Meliorprojekts”, Raised Bog exhibition is prepared by photo society “Foto klubs Ogre”. Project booklet was printed in printing house “Latgales druka” and “Auto 26” Ltd. for renting of cars.

For public tenders Terms of Reference were prepared containing a set of requirements needed for the actions, also methods and resources as well as the final result was identified. After receiving of the proposals they were evaluated by Public Tender Commission of the University of Latvia. After tenders agreements were prepared and signed with the selected organisation. Agreements were made and signed with the project associate beneficiaries and co-financers.

**Variations/complications/delays:** No

**Additional information:** Annex 5.6. Copies of public tender documentation and agreements with subcontractors.

## **B. Purchase/lease of land and/or compensation payments for use rights**

NON APPLICABLE

## **C. Concrete conservation actions**

### **ACTION C.1**

**Name of the action:** Re-establishing the active raised bog habitats and natural raised bog hydrology

**Time span:** I 2011 - III 2013

**Progress:** No

This actions will be started after the management plans for the project sites are elaborated under Action A1 as well as technical designs prepared by the subcontractor “Meliorprojekts” under Action A2, public tender organised by the University of Latvia and a subcontractor chosen for building of dams on the drainage ditches. It is planned that all the dams will be built in 2011 according to the Time Schedule.

**Variations/complications/delays:** No

**Additional information:** No

## **D. Public awareness and dissemination of results**

LIFE+ and Natura 2000 logo was used in printing the First Project information booklet. It has a reference to Natura 2000. Acknowledgement to LIFE + programme support was given.

### **ACTION D.1**

**Name of the action:** Organisation of seminars

**Time span:** I, IV 2010, II-III 2011, I-II, 2012,

**Progress:** In total, 6 seminars are planned during the project. On March 30, 2010 the First project seminar was organised in Viesīte Town Municipality for the stakeholders of the project sites, local Municipalities, Nature Protection Board, representatives from regional environmental boards and project associated beneficiaries and co-financers.

The aim of the First project seminar was to inform about the start of the project, its objectives and planned activities as well as to establish contacts between all the stakeholders who will be involved in the various project activities. Seminar was organised in co-operation with the stakeholders that provide facilities for the seminars in Viesīte Town.

The First project seminar was attended by the project stakeholders - Riga Forests, Joint-Stock Company “Latvian State Forests”, Municipalities, Nature Protection Board, representatives from regional environmental boards and project associated beneficiaries and co-financers. In total, there were 26 participants.

Next seminar is planned in November 2010 under the title “The value of raised bog conservation” and during it the raised bog exhibition will be opened, the preparation for the seminar has started. Other 4 seminars are planned in 2011 and 2012.

**Variations/complications/delays:** No

**Additional information:** Annex 5.4. Programme of the First project seminar, copies of the presentations, minutes and list of participants. Annex 5.9. Copies from the home page and publicity of the project. Annex 5.8. Photos from the project activities.

## **ACTION D.2**

**Name of the action:** Creation and updating of the project home page

**Time span:** I 2010 – III 2013

**Progress:** Home page, especially for the project, was established ([www.purvi.lv](http://www.purvi.lv)) and started to run on April 2010. All the project information both in Latvian and English is published together with photos: information about current actions of the project, Project Steering Group meeting and the Management Plan actions (Steering Group Meetings, field work and management plan meetings), study tours, participation in conferences. Also project leaflet and information about public awareness is published in the home page, as well as progress of the project actions one by one is described. There is also the information about the project sites, nature values. Photos for the project actions are added. The home page is regularly updated with the information about project activities, photos of the project actions, habitats and species of EU Importance. Home page of the project includes LIFE logo and acknowledgement for the support of LIFE. The home page of the project is administrated (information and updating) by Public Awareness Coordinator.

Digital camera was purchased in order to provide up-to-date photographic information about the progress of the project. Camera is also used for reporting needs (Action E1) as well as for the monitoring in the project sites (Action E2).

**Variations/complications/delays:** The home page was planned as a part of home page of University of Latvia but was decided that all information about the project will be lost in the huge amount of information given in the home page of University of Latvia. Home page is linked with Botanical Garden of University of Latvia and Latvian Fund for Nature home pages.

**Additional information:** Annex 5.9. Copies from the project home page.

## **ACTION D.3**

**Name of the action:** Elaboration and publishing of information booklets and boards

**Time span:** I 2010, I-IV 2011

**Progress:** The first booklet about the project was prepared and printed in May, 2010 (2000 copies) in Latvian and English and consists of information about the project aims, activities, planned actions, nature values and general information about the project territories.

The booklet was distributed to the project partners, stakeholders, and local inhabitants of the projects sites and regional environmental boards during the nature management plan meetings, other national meetings and project's international visits (Germany, Wales, Slovakia and Poland). The booklet includes both LIFE and *Natura* 2000 logos, acknowledgement to the LIFE+ financial support, logos of the University of Latvia, associated beneficiaries and co-financiers. Environmentally friendly material was used for the booklet. The booklet was prepared by the Public Awareness Coordinator, designed by a specialist and produced by a printing house. The booklet is published in project home page. Four booklets and information boards about the project sites will be prepared after the management plans will be prepared in 2011.

**Variations/complications/delays:** No

**Additional information:** Annex 5.2. Deliverables. The First project booklet.



#### **ACTION D.4**

**Name of the action:** Elaboration of Methodology for active raised bog restoration in Latvia

**Time span:** II 2011- III 2013

**Progress:** No

**Variations/complications/delays:** No

**Additional information:** No

#### **ACTION D.5**

**Name of the action:** Production of a documentary film

**Time span:** I 2010- IV 2012

**Progress:** The project Documentary film is produced by the associate beneficiary “ELM MEDIA”. It is planned that the film will create the visual material that will illustrate the project activities and allow a wider audience to learn about the raised bog habitats in the project sites as well as cover different project actions. During the reporting period the main activities of ELM MEDIA were focused on filming of the project sites and preparation of the draft script of the project film. In order to reach this goal the director together with the scriptwriter, cinematographer and sound engineer travelled to project sites – Rožu Mire, Aklais Mire, Aizkraule Mire and Forests and Melnais Lake Mire several times. The team gathered information on the site (from local inhabitants) as well as filmed the project territories and recorded nature sounds to be used in the editing process. Depending on the purpose of each trip (research, filming or filming/sound recording) the team travelled in different combinations – on some occasions the director travelled together with sound engineer but on other trips – together with cinematographer and scriptwriter. On several occasions the filming team also joined the experts of the University of Latvia and Latvian Fund for Nature during their expeditions to project sites. The scriptwriter and director together with the cinematographer also worked on developing the visual style for the film. The outcomes of the reporting period are draft scenario as well as filmed material about project territories in different seasons. According to the agreement with ELM MEDIA filmed material demonstrated to the project staff and the planned content of the film discussed. In addition to that, equipment necessary for filming and storing the filmed material was purchased. The expected duration of the whole film is 30 minutes.

**Variations/complications/delays:** No

**Additional information:** Annex 5.8. Photos from the project activities.

#### **ACTION D.6**

**Name of the action:** Establishment of the Raised Bog exhibition

**Time span:** II 2011 – III 2013

**Progress:** Raised bog exhibition is currently being prepared by the subcontractor “Ogres fotoklubs” who was selected after the organisation of public tender by the University of Latvia. For this purpose 12 transportable information boards are prepared. Photos for the exhibition are selected. The Raised bog exhibition will be opened in November/December, 2010 when the second project seminar will be organised in Viesīte Municipality. After that it will be displayed in Daudzese school, University of Latvia, Botanical Garden.

**Variations/complications/delays:** No

**Additional information:** No

## ACTION D.7

**Name of the action:** Elaboration and printing of Layman's Report

**Time span:** III –IV 2012 – III 2013

**Progress:** No

**Variations/complications/delays:** No

**Additional information:** No

## E. Overall project operation and monitoring

The project is being realised in cooperation with the project stakeholders, associate beneficiaries and co-financers (Fig. 1).

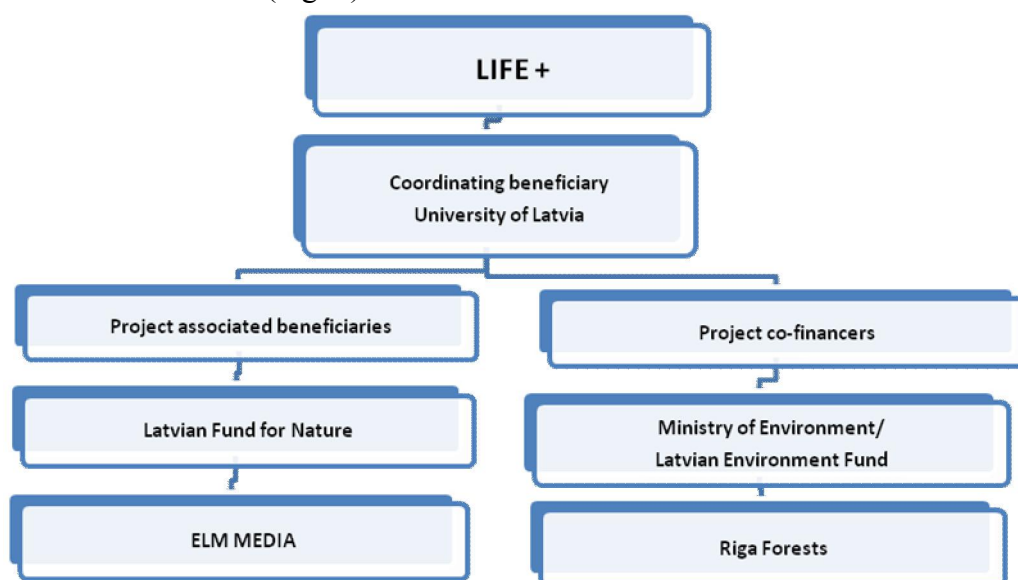


Figure 1. Project structure and coordination

## ACTION E.1

**Name of the action:** Project administration by the University of Latvia

**Time span:** I 2010 – III 2013

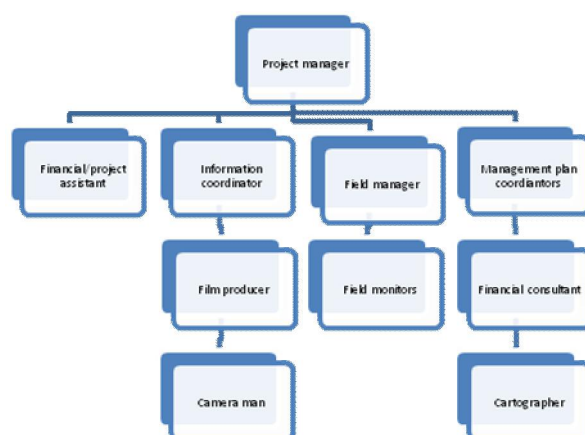


Figure 2. Structure of project administration.

**Progress:** The project team consists of the project manager, project assistant, information coordinator and field manager (Figure 2). Project manager (part-time contract) Mara Pakalne coordinates the overall project performance (Action E1), smoothly and timely execution of project actions, controls and monitors the whole project and teamwork. Project manager has organised 2 study tours, cooperation with the other LIFE+ projects in Latvia and in other EU countries (Action E3), coordinates the monitoring of management actions (action E2).

Project assistant/financial assistant (part-time contract) Aivars Slisans keeps the accounts of the project and prepares financial reports for the project management documentation, prepares documentation for public tenders, prepare agreements (Actions E1, A3), participate in the organisation of seminars (Action D1), Study tours (Action E3), prepares financial reports for the European Commission. Information (public awareness) coordinator (part-time contract) Daiga Brakmane participates in the organisation of seminars (Action D1), prepares information for the home page in Latvian and English (Action D2), is responsible for sending information letters about seminars and meetings, organises correspondence with project partners, stakeholders and Ministry of Environment, organises meetings of the Steering Group, as well as provide feedback from the partners, organises study tours (Action E3). Experience in organisation of public awareness actions is required. Field manager (part-time contract) Gunars Balodis works in the field and participates in the field work concerning the elaboration of technical designs.

Management plan coordinators (Short-term contract) are subcontracted by the project associated beneficiary - Latvian Fund for Nature. They have prepared Draft management plans for the project sites that were discussed at the Steering Group meetings, as well as participated also in the field work and collected data on species and habitats that is needed for management plans, as well as have take part in the meetings of Management plan Steering Group meetings and in the discussions about the management plan actions in the project sites (Action A1). Field monitors (2) are subcontracted by the University of Latvia (species and habitat expert, hydrologist) to monitor the changes of raised bog restoration in the project sites. Cartographer of the Latvian Fund for Nature has prepared the maps for the management plans, (Action A1).

The project coordinating staff is based in Riga at the Botanical Garden of the University of Latvia. For the project needs two 4x4 wheel drive cars were rented after the public tender was organised by the University of Latvia. The cars were leased (including insurance) as external assistance for the actions related to the site visits during the elaboration of management plans and restoration activities. For the successful management of the project, office equipment (4 laptop computers, computer programmes, a printer, video projector, digital photo camera) were bought.

The Project Steering group was established. The Steering Group includes representatives from the project stakeholders - Riga Forests, Joint- Stock company "Latvian State Forests", Ministry of the Environment, local Municipalities, Nature Protection Board and Regional Environment Protection boards, project associated beneficiaries. Information about the Steering Group meeting was published on the home page of the Project.

On August 19<sup>th</sup>, 2010 in Olaine Art and History Museum the first meeting of the project Steering Group was held. In total, 21 participants attended the meeting, representing stakeholders, project associated beneficiaries, co-financers and project experts. The meeting of the project Steering Group was opened by Vija Busa from the Ministry of Environment, Department of Nature Protection.

At the start of the meeting the project manager Mara Pakalne informed about the results in LIFE project – field studies at the project sites, study trip to the LIFE project areas in Germany (Lower Saxony and Bavaria) and participation in the symposium of the

International Mire Conservation Group in Slovakia and Poland, as well as planned activities of the project. Aija Dēliņa – a project hydrologist told about the hydrological studies in the project sites and the planned management activities – raising of water level in the drained areas of the project sites. Latvian Fund for Nature was represented by Valda Baroniņa who is the coordinator for Melnais Lake Mire and Aizkraukle Mire and Forests Nature Reserve Management Plans. She informed that field studies in all the project sites are completed and management plan coordinators are summarizing information for the MP. Project Information Coordinator Daiga Brakmane informed about the home page of the project as well about the booklet and presented further public activities for the project: seminars, exhibition, booklets, information boards and book. Representatives from Foundation “ELM MEDIA” Kaspars Goba and Ieva Ubele presented the ideas for project film – shooting of the film is going on, film scenario is elaborated with innovative technical solutions, even using a digital camera with macro filming. Project assistant Aivars Slisans informed about the project financial situation – project income and expenditure is as planned in the project.

**Variations/complications/delays:** Latvian Fund for Nature has decided not to hire a mire habitat expert as all the management plan coordinators have an experience in elaborations of management plans for the areas including raised bogs.

**Additional information:** Annex 5.7. Programme of the First Project Steering Group meeting, copies of the presentations, minutes and list of participants. Annex 5.8. Photos from the project activities and project publicity.

## **ACTION E.2**

**Name of the action: Monitoring the effects of management actions on raised bog habitats, bird species and site hydrology**

**Time span: I 2010 – III 2013.**

**Progress:** Field studies, habitat and hydrological monitoring were started in all the project sites - Melnais Lake Mire, Aklais Mire, Aizkraukle Mire and Forests and Rožu Mire Nature Reserves. The monitoring experts have evaluated the drained and intact areas of the project sites and have set up the monitoring plots in the areas where management actions will be carried out (near ditches and in the peat fields in Melnais Lake Mire Nature Reserve) as well as in natural areas of the raised bogs to compare both intact and degraded habitats. In total 21 plots in the diameter of 4 m were set up in Rožu Mire, 20 in Aizkraukle Mire, 40 in Aklais Mire and 52 in Melnais Lake Mire Nature Reserve. The size of the monitoring plots has a diameter of 4m<sup>2</sup> or 1m<sup>2</sup>. In the monitoring plots, water level measurement is carried out. Plant species composition and percentage cover was evaluated. Habitat changes are monitored using on-site photographs taken in order to compare the state of habitats before and after management. Observation points for habitat and ground water level measurements are marked by GPS. Monitoring results are revealed in the Monitoring Protocols and later will be summarised in reports. Monitoring indicators are as follows -groundwater level in the project sites, plant species in the monitoring plots, bird species in the project sites, peat chemical properties. Sources of verification include - raise of groundwater table after building of dams on the drainage ditches, re-establishment of *Sphagnum* species in the drainage ditches, re-appearance of typical active raised bog species in the degraded project areas, occurrence of raised bog bird species in the open active raised bog areas. The Monitoring Methodology for Mire Habitats was applied in the project sites. Currently the field data about the habitats in the project sites is summarised in the monitoring protocols. Also the set up groundwater wells was started and will be completed in November, 2010. Peat analysis was carried out by the geologist to understand the effects of bog restoration, peat composition.

**Variations/complications/delays:** No

**Additional information:** Annex 5.8. Photos from the project activities.

### **ACTION E.3**

**Name of the action:** Cooperation with LIFE+ projects, participation in study tours, seminars and conferences

**Time span:** II- IV-2010, II- IV-2011, II – IV 2012.

**Progress:** In March 2-3, 2010 the project manager Mara Pakalne and assistant Aivars Slisans participated in the kick-off meeting for LIFE08 projects in Tallinn. The meeting has given valuable information about technical and financial aspects of LIFE + projects.

In the Report period two Study tours were organised. From June 6-18, 2010 the first study tour was to Germany to see the results of the project LIFE05NAT/D/000053 “Rosenheimer master basin bogs”. Ralf Strohwasser, the manager of the project introduced the project team with the raised bog area where the water level was successfully raised by building dams 70-100 long. Raised bog habitat restoration has started there – bog hummocks and hollows are developing. To show the bog values near the Bad Feilnbach in Sterntaler Filze a board walk was built there. The project team went also to Lower Saxony, in Wiefelstede, Stapeler Moor where under the guidance of Heinrich Belting and local experts the project team was taken to the peatlands where the bog restoration was started nearly a decade ago. This milled area is surrounded by natural raised bog vegetation which is included in a protected nature area. Suzanne Belting in Großen Torfmoores near Lübbecke, the manager of LIFE project "Regeneration des Großen Torfmoores" guided to the restored areas of the raised bog. In the study tour the whole LIFE project core team participated: project manager Mara Pakalne, field manager Gunars Balodis, project assistant Aivars Slisans and public awareness coordinator Daiga Brakmane.

From September 1<sup>st</sup> to 7<sup>th</sup>, 2010 the LIFE project team was on study tour in Wales to get to know the experience of EC LIFE 07NAT/UK/000948 project “Anglesey and Llyn Fens - Restoring Alkaline and Calcareous Fens within the Corsydd Mon a Llyn (Anglesey & llyn Fens) Special Areas of Conservation in Wales” and LIFE 06NAT/UK/000134 “Restoring Active Blanket Bog in the Berwyn and Migneint Special Areas of Conservation in Wales” Mr. Les Colley who works for Countryside Council for Wales guided to the sites of the EC LIFE project “Anglesey and Llyn Fens - Restoring Alkaline and Calcareous Fens within the Corsydd Mon a Llyn (Anglesey & llyn Fens) Special Areas of Conservation in Wales” and introduced with the restoration work carried out in Anglessey and Llyn fens. The EC LIFE project manager Mike Morris and his team working for the LIFE project “Restoring Active Blanket Bog in the Berwyn and Migneint Special Areas of Conservation in Wales” showed the project sites around Lake Vyrnwy and blanket bogs where bog restoration has been carried out since 2007. The area near Penan was also visited where excavator was currently building dams on the drainage ditches. In the study tour trip all the project team participated: Project manager Mara Pakalne, project assistant Aivars Slisans, field manager Gunars Balodis and Public awareness coordinator Daiga Brakmane.

From September 7<sup>th</sup> to 9<sup>th</sup>, 2010 the Project manager Mara Pakalne and assistant Aivars Slisans participated in Aberystwyth and Corsa Fochno seminar which was dedicated to the Welsh raised bog protection and management. Workshop was organized by the specialists from Countryside Council for Wales. It included both presentation and field visits to the raised bog where with the discussions on wetland management and hydrological observation methodology were continued.

During the Study tours the project manager and other project staff members told about the first project results and the planned activities as well as distributed the first project booklet.

From July 5-18, 2010 the project manager Mara Pakalne participated in the field trip symposium and a conference of the International Mire Conservation Group in Poland and

Slovakia. Presentation about the LIFE project was given by Mara Pakalne under the title “EC LIFE project: Restoration of Raised Bog Habitats in the Especially Protected Nature Areas of Latvia”. The project booklet was distributed at the conference.

From September 21<sup>st</sup> to 22<sup>nd</sup>, 2010 the Welsh colleagues from the EC LIFE project “Restoring Active Blanket Bog in the Berwyn Migneint and Special Areas of Conservation (SACs) in Wales” visited the LIFE project sites in Latvia where raised bog restoration was carried out – the area of LIFE project “Conservation of wetlands in Kemeru National Park” (guided by Janis Kuze, project manager). During the project the restoration of mire habitats and hydrology was carried out both in the peat fields and in the areas influenced the drainage ditches, Cena Mire – the site of EC the LIFE project “Restoration of Raised Bog Habitats in the Especially Protected Nature Areas of Latvia”. The EC LIFE project manager Dr. Mara Pakalne introduced with the experience of bog restoration and monitoring in Cena Mire Nature Reserve, Engure Lake Nature Park where EC LIFE project “Implementation of management plan for Lake Engure Nature Park” was carried out. The visit of the representatives from the Welsh LIFE project was a great possibility to discuss the raised bog restoration results in Latvia and compare them with those in the Welsh LIFE sites.

**Variations/complications/delays:** No

**Additional information:** Annex 5.1. Partnership agreements. Annex 5.8. Photos of the project activities. Annex 5.10. Detailed information about the study tours and the seminar.

#### **ACTION E.4**

**Name of the action:** Independent audit of the project

**Time span:** II-III 2013

**Progress:** Independent audit for financial statements of the project will be performed during preparation of the Final report. The auditor will not only verify the accounts with the respect of national legislation and accounting rules but will also certify that all costs incurred do respect the LIFE+ Common Provisions.

**Variations/complications/delays:** No

**Additional information:** No

#### **ACTION E.5**

**Name of the action:** Elaboration of After-LIFE Conservation Plan

**Time span:** II-III 2013

**Progress:** No

**Variations/complications/delays:** No

**Additional information:** No

### ***4.2 Availability of appropriate licences and authorisations***

No

### 4.3 Envisaged progress until next report.

Tasks/ Activities		2010				2011				2012				2013			
		1T	2T	3T	4T	1T	2T	3T	4T	1T	2T	3T	4T	1T	2T	3T	4T
Overall project schedule	Proposed	01.02.10.						O	Mid-Term				O	31.08.13			
					X	X				X		X	X=Progress reports				
	Actual	●							●								
Action A1	Proposed	■	■	■	■	■	■	■									
	Actual	■															
Action A2	Proposed	■	■	■	■	■	■										
	Actual	■															
Action A3	Proposed	■	■	■		■	■							■			
	Actual	■															
Action C1	Proposed				■	■	■	■	■	■	■	■	■	■	■	■	■
	Actual																
Action D1	Proposed	■	■		■	■		■	■		■	■		■	■		■
	Actual	■															
Action D2	Proposed	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Actual	■															
Action D3	Proposed	■	■				■	■	■	■	■	■					
	Actual	■															
Action D4	Proposed					■	■	■	■	■	■	■	■	■	■	■	■
	Actual																
Action D5	Proposed	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Actual	■															
Action D6	Proposed		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Actual	■															
Action D7	Proposed										■	■	■	■	■	■	■
	Actual																
Action E1	Proposed	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Actual	■															
Action E2	Proposed	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Actual	■															
Action E3	Proposed		■	■	■	■		■	■	■		■	■	■			
	Actual	■															
Action E4	Proposed														■	■	
	Actual																
Action E5	Proposed														■	■	■
	Actual																

**Action A1 (Elaboration of management plans).** In December, 2010 the second management plan Steering Group meetings for all the project sites will be organised. Until March 31, 2011 all the management plans of the project sites will be completed by the Latvian Fund for Nature and handed to the Ministry of Environment of Latvia and the Nature Protection Board

**Action A2 (Hydro-geological studies for the elaboration of technical designs for building of dams)** Until February 28, 2011 the technical designs for the project sites for building of dams on the drainage ditches will be completed.

**Action A3 (Organisation of public tender, preparation of agreements and contracts.** In April, 2011 the public tender for building of dams on the drainage ditches will be organised by the Coordinating beneficiary – University of Latvia.

**Action C1 (Re-establishing of active raised bog habitats and natural raised bog hydrology).**

It is planned that the dams in the project sites will be built according to the Time Schedule – until July 2011 in Rozu and Melnais Lake Mire and until October 2011 in Aizkraukle and Aklais Mires.

**Action D1 (Organisation of seminars)** In November/December, 2010 the second project seminar under the title of “The value of Raised Bog conservation” is planned. The project associated beneficiary will prepare and demonstrate a short 5 minute film about the project sites, management actions and nature values. In the second seminar will be the opening of the Raised Bog exhibition that will include with 12 information boards with photos of the project sites, species and habitats of EU importance. In May, 2011 the third seminar under the title “Education of teachers on conservation and restoration need of the active raised bog habitats” is planned but in September 2011 the fourth seminar under the title “Education of schoolchildren on raised bog values”.

**Action D2 (Creation and updating of the project home page)** Project home page will be regularly updated with the recent information about the project actions, photos of the activities will be added.

**Action D3 (Elaboration and publishing of information booklets and boards)** After the elaboration of management plans the information booklets will be published about the project sites as well as information boards set in Aklais, Rozu, Melnais Lake and Aizkraukle Mire and Forests Nature Reserves.

**Action D5 (Production of a documentary film)** Until November, 2010 to make a short (5 minutes) clip about the project that can be used as a promotional material for the project during different informational events as well as filming some research activities indoor during the winter period.

**Action D6 (Establishment of Raised bog exhibition)** It will be completed in November, 2010 and the opening of this exhibition will be in the second seminar of the project.

**Action E1 (Project administration by the University of Latvia)** Project manager and the team will continue to realise the planned project actions. The next Project Steering Group meeting is planned in February/March 2011.

**Action E2 (Monitoring the effects of management actions on raised bog habitats, bird and site hydrology)** The field monitoring data will be summarised in the Monitoring Protocols until November, 2010 and all the groundwater monitoring wells set up in the project sites.

**Action E3 (Cooperation with LIFE+ projects, participation in study tours, seminars and conferences)**

From April 6-9, 2011 it is planned to participate in the 20<sup>th</sup> workshop of the European Vegetation survey in Rome, Italy with the presentation about the results of the project actions under the title “Restoration of habitat restoration in Latvia LIFE project “Raised bogs”.

From June 20-24, 2011 it is planned to participate in the 54<sup>th</sup> IAVS Symposium in Lyon, France. The special theme is “Vegetation in and around water: pattern, processes and threats.” The symposium topics include such that are important for the project realisation. It is planned to give a presentation about the LIFE project results.



## ACTIVITY REPORTS FORESEEN

Type of report	Deadline
Inception Report	October 31, 2010
Mid-term Report with payment request	June 30, 2011
Progress Report	September 30, 2012
Final Report with payment request	October 31, 2013

## **5. Annexes**

### ***5.1 Partnership agreements***

1. Agreement with associate beneficiary Latvian Fund for Nature.

2. Agreement with associate beneficiary Foundation “ELM MEDIA”.

3. Agreement with the co-financer Latvian Environmental Fund and a document confirming co-funding obligations of the Ministry of the Environment.

4. Agreement with the co-financer “Riga Forests”.

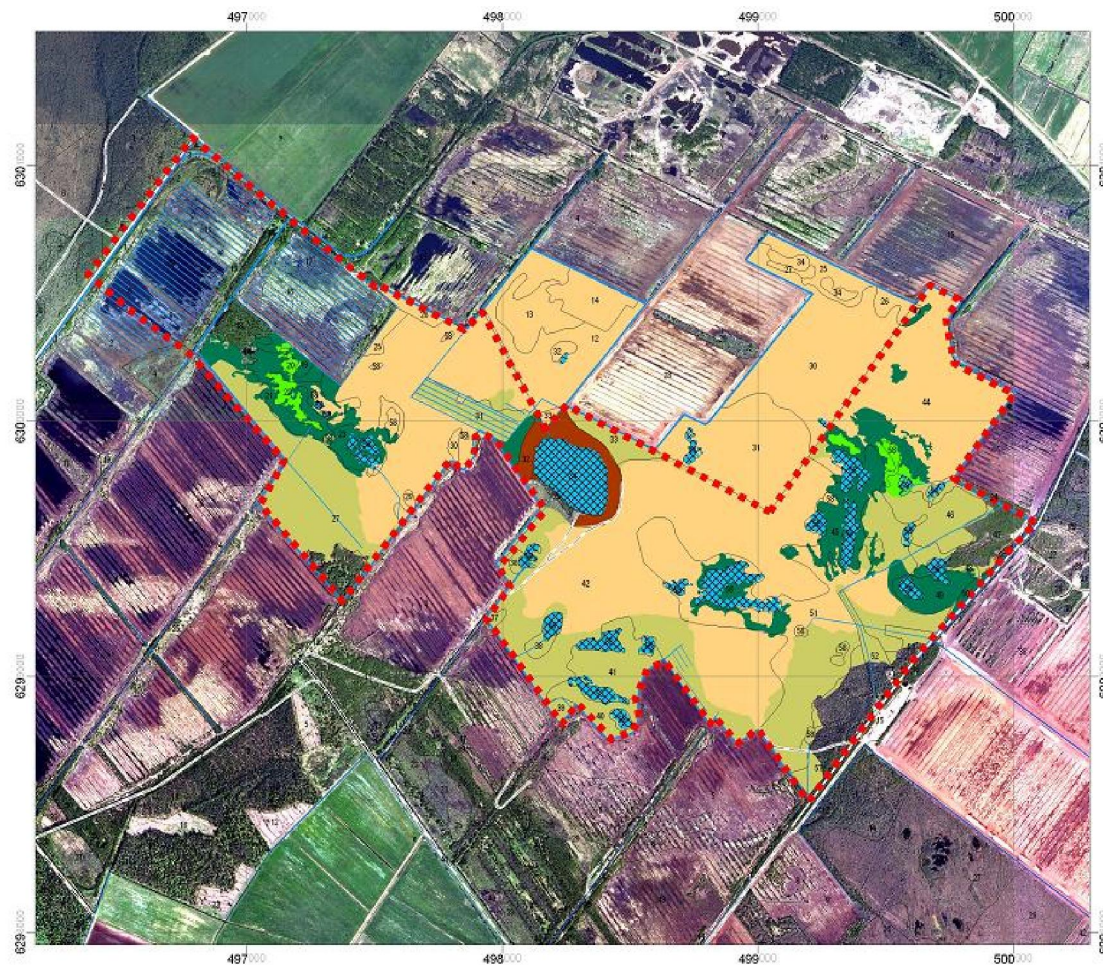
## **5.2    *Deliverables***

**The First project booklet.**

### 5.3 Maps of the project sites

#### Maps of the location of the project sites





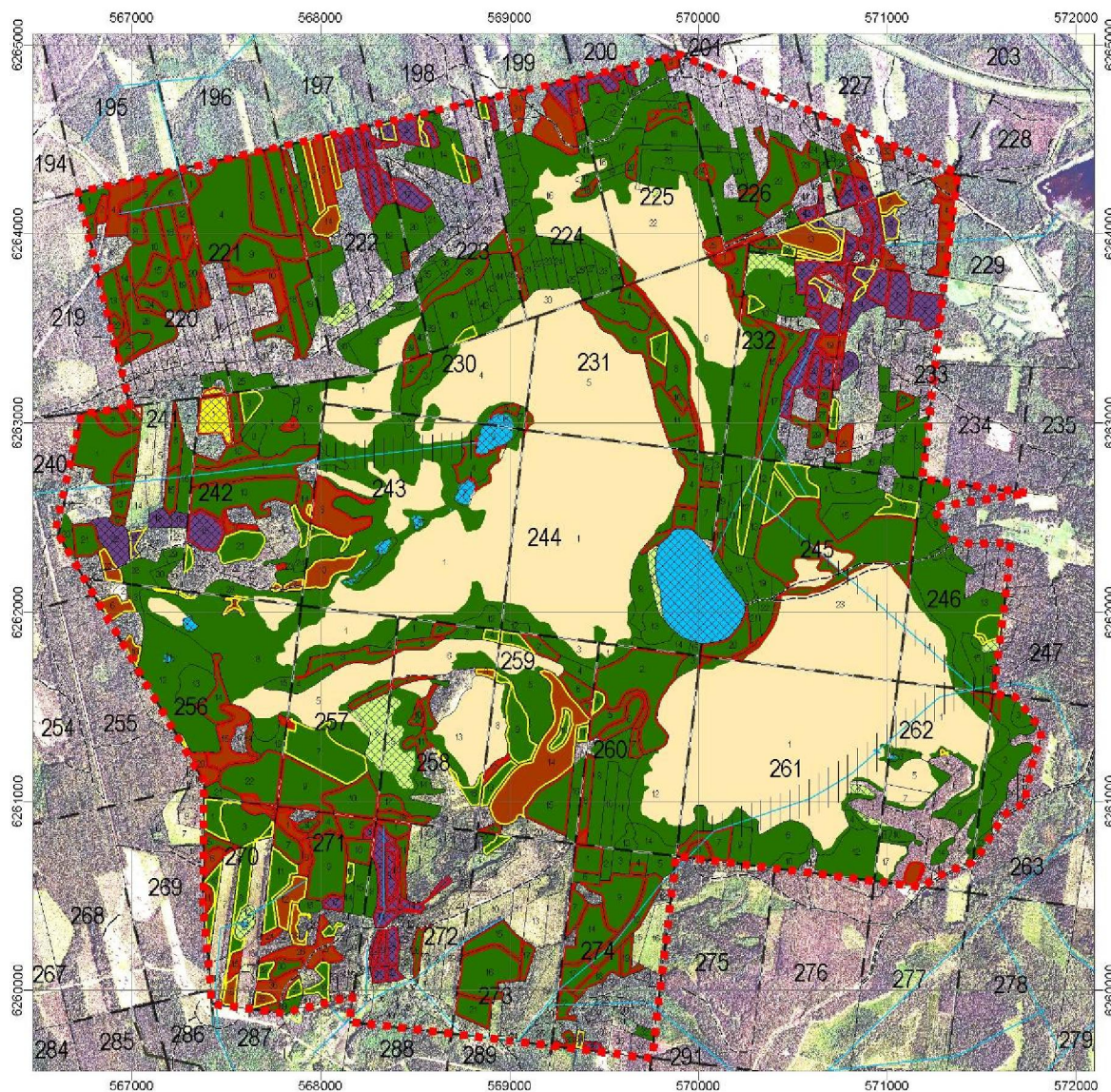
# Habitats of EU importance and especially protected habitats in Melnais Lake Mire

- Potential Key forest habitats
- Especially protected habitats of Latvia
- 3160 Dystrophic lakes
- 7110\* Active raised bogs
- 7120 Degraded raised bogs still capable of natural regeneration
- 7140 Transition mires and quacking bogs
- 9010\* Western taiga
- 91D0\* Bog woodland
- 34 Forest compartment numbers
- 323 Forest block numbers
- Border of the especially protected nature area
- Ditches
- Roads

Scale 1:20 000  
0 200 400 600 m

Ortophoto LĢIA, 2007.



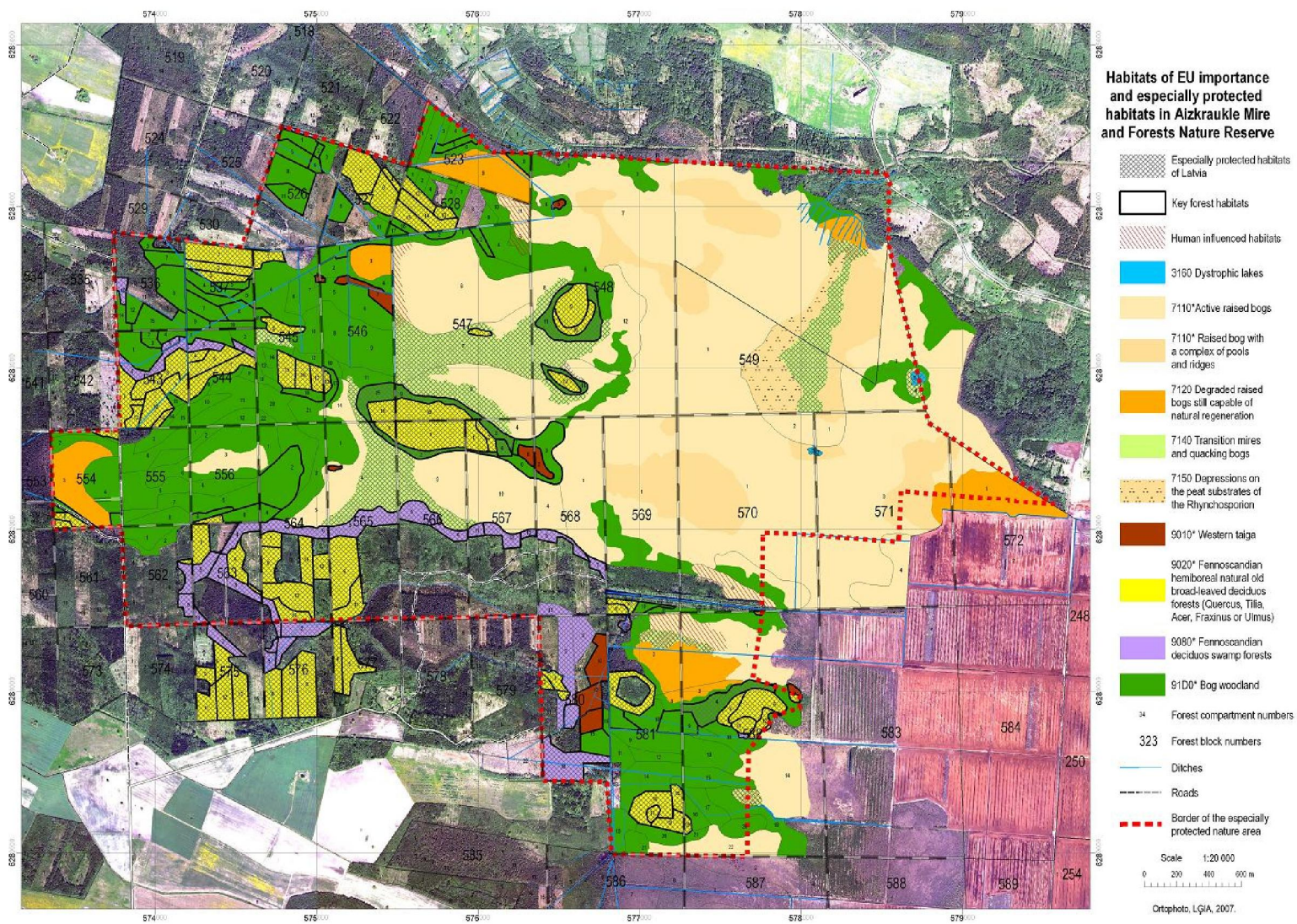


## Habitats of EU importance and especially protected habitats in Aklais Mire Nature Reserve

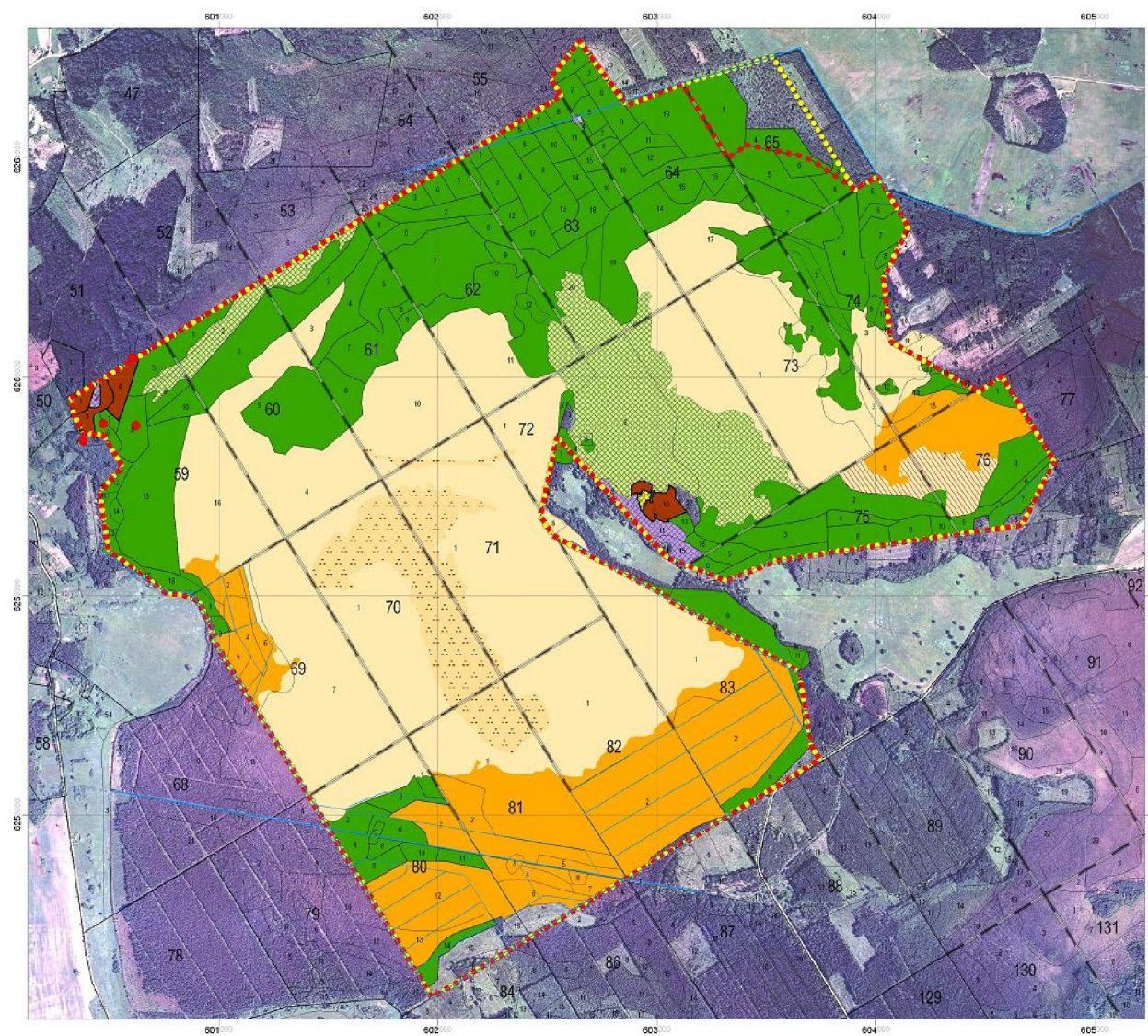
- 198 Forest compartment numbers
- 323 Forest block numbers
- Ditches
- Roads
- Border of the especially protected nature area
- Key forest habitats
- Perspective key forest habitats
- Especially protected habitats of Latvia
- 3160 Dystrophic lakes
- 7110\* Active raised bogs
- 7140 Transition mires and quacking bogs
- 9010\* Western taiga
- 9020\* Fennoscandian hemiboreal natural old broad-leaved deciduous forests
- 9080\* Fennoscandian deciduous swamp forests
- 91D0\* Bog woodland
- Drainage influenced raised bog habitats

Scale 1:29,000  
0 300 600 900 m  
Ortophoto: 2007, LGIA









# Habitats of EU importance and especially protected habitats in Rožu Mire Nature Reserve

- Especially protected habitats of Latvia
- Key forest habitats
- Human influenced habitats
- 7110\* Active raised bogs
- 7120 Degraded raised bogs still capable of natural regeneration
- 7140 Transition mires and quacking bogs
- 7150 Depressions on the peat substrates of the Rhynchosporion
- 9010\* Western taiga
- 9020\* Fennoscandian hemiboreal natural old broad-leaved deciduous forests (Quercus, Tilia, Acer, Fraxinus or Ulmus)
- 9080\* Fennoscandian deciduous swamp forests
- 91D0\* Bog woodland
- 7160 Fennoscandian mineral-rich springs and springens
- Forest compartment numbers
- Forest block numbers
- Ditches
- Clear-cut lines
- Border of the especially protected nature area (according to the Regulation of the Cabinet of Ministers Nr. 212)
- Border of Natura 2000 site

Scale 1:17 000  
0 170 340 510 m  
Ortophoto LĢIA, 2005.

#### ***5.4 Program of the project First Project Seminar, copies of presentations, minutes of seminar and list of participants***



**LATVIJAS  
UNIVERSITĀTE**  
ANNO 1919

**LIFE 08NAT/LV/000449 Restoration of Raised Bog Habitats in the Especially Protected Nature Areas in Latvia”.**



#### **Programme**

Viesīte Municipality, Smilšu Street 2, Viesīte  
March 29, 2010

10.30 Arrival

11.00. – 11.15. **Introduction to the project “Restoration of Raised Bog Habitats in the Especially Protected Nature Areas in Latvia”.** Mara Pakalne, project manager University of Latvia

11.15- 12.00. **Documentary Film “Life in the Mire”** produced by ELM MEDIA

12.00 –12.30. **Information about the LIFE project “Restoration of Raised Bog Habitats in the Especially Protected Nature Areas in Latvia”.** Mara Pakalne, project manager University of Latvia

12.30.- 12.50. **Discussion**, information from the stakeholders and project partners

12.50. Closing of the seminar

#### **Contact information:**

University of Latvia, Botanical Garden, Kandavas Street 2, Riga, Latvia, LV-1983.

Project manager: Mara Pakalne, e-mail: [mara.pakalne@lu.lv](mailto:mara.pakalne@lu.lv), phone mob.: 29511001.

Information coordinator: Daiga Brakmane, e-mail: [daiga.brakmane@lu.lv](mailto:daiga.brakmane@lu.lv), phone: 26454504.

Project assistant: Aivars Slisans, e-mail: [aivars.slisans@lu.lv](mailto:aivars.slisans@lu.lv), phone: 26765031.

Field manager: Gunars Balodis, e-mail: [gunars.balodis@lu.lv](mailto:gunars.balodis@lu.lv).



VIDES



MINISTRIJA



Latvijas  
vides  
aizsardzības  
fonds



**ELM**  
m e d i a

## **Minutes of the First Project seminar**

On March 29<sup>th</sup>, 2010 the First Project Seminar was held in Viesīte Municipality. The aim of the was to introduce the project stakeholders, associate beneficiaries, co-financers, inhabitants of the project areas with the new LIFE project aiming in conservation and management of the habitat of EU importance – active raised bog as well as with the LIFE+ programme. Experience from other LIFE projects that have been carried out in Latvia was discussed. Also a film made by Foundation “ELM MEDIA” was shown that has prepared already 4 movies about LIFE projects in Latvia.

The First Project Seminar was attended by the representatives from the project stakeholders - Rīga Forests, Joint-Stock Company “Latvian State Forests”, Municipalities, Ministry of the Environment of Latvia, Nature Protection Board, regional environmental boards and project associated beneficiaries and co-financers. In total 26 persons participated in the First Project Seminar.

At the beginning of seminar the project manager Dr. Mara Pakalne introduced the participants of the seminar with the LIFE+ Programme and the LIFE project “Restoration of Raised Bog Habitats in the Especially Protected Nature Areas of Latvia” financed by EC LIFE+ Programme. After the first presentation a film „Life in the Mire” was shown made by Foundation ELM MEDIA.

The second presentation of the project manager Mara Pakalne was devoted to the planned activities of the LIFE Project. Afterwards the project public awareness coordinator Daiga Brakmane told about the project activities devoted to public awareness and dissemination of results. Then everyone was invited to watch a film „The Story of Bogs” made by ELM Foundation MEDIA.

The seminar ended with the discussion part. Vija Busa from the Ministry of Environment, Juris Jatnieks, the director Teici Nature Reserve Administration (Nature Protection Board) and Inese Vitola from Viesīte Municipality wished the project luck and encouraged to prepare more projects like this.

The First project seminar was a good possibility for the project stakeholders and co-financers to meet with each other and the experts from the project associate beneficiary – Latvian Fund for Nature who prepares management plans for all the 4 project sites and establish good contacts needed for the successful further cooperation.



**5.5 Programs of the Management Plan meetings, copies of presentations and especially protected species and habitats in the project sites**



**LATVIJAS  
UNIVERSITATE**  
ANNO 1919

**Programme  
of Information meeting about the start of elaboration of management plan  
for Melnais Lake Nature Reserve**

**June 3, 2010**

**Olaines Museum of Art and History  
Zemgale Street 33, Olaine**



- 10.00 – 10.05 **Opening of the meeting.** Valda Baronina, coordinator of the management plan, Latvian Fund for Nature.
- 10.05 – 10.30 **Overview about the actions of the LIFE project „Restoration of Raised Bog Habitats in the Especially Protected Nature Areas in Latvia”.** Mara Pakalne, project manager, University of Latvia
- 10.30 – 10.45 **The order of the elaboration of management plans** Agnese Priede, Nature Protection Board
- 10.45 – 11.15 **Elaboration of the management plan for Melnais Lake Nature Reserve.** Valda Baronina, coordinator of the management plan, Latvian Fund for Nature.
- 11.15 – 11.45 **Actual questions and problems concerning the nature reserve. Discussion.**

Contact information: V. Baronina phone: 67830993;  
e-mail: [valda.baronina@ldf.lv](mailto:valda.baronina@ldf.lv); home page: [www.ldf.lv](http://www.ldf.lv)



**LIFE 08NAT/LV/000449 Restoration of Raised Bog Habitats in the Especially Protected Nature Areas in Latvia”.**

**Programme  
of Information meeting about the start of elaboration of management plan  
for Aizkraukle Mire and Forests Nature Reserve**

**May 26, 2010  
Aizkraukle District Municipality  
Kalna Street 20, Aizkraukle**



- 11.00 – 11.05 **Opening of the meeting.** Valda Baronina, coordinator of the management plan, Latvian Fund for Nature.
- 11.05 – 11.30 **Overview about the actions of the LIFE project „Restoration of Raised Bog Habitats in the Especially Protected Nature Areas in Latvia”.** Mara Pakalne, project manager, University of Latvia
- 11.30 – 11.45 **The order of the elaboration of management plans** Agnese Priede, Nature Protection Board
- 11.45 – 12.15 **Elaboration of management plan for Aizkraukle Mire and Forests”** Valda Baronina, coordinator of the management plan, Latvian Fund for Nature.
- 12.15 – 12.45 **Actual questions and problems concerning the nature reserve. Discussion.**

Contact information: V. Baronina phone: 67830993;  
e-mail: [valda.baronina@ldf.lv](mailto:valda.baronina@ldf.lv); home page: [www.ldf.lv](http://www.ldf.lv)



**LATVIJAS  
UNIVERSITĀTE**  
ANNO 1919

**LIFE 08NAT/LV/000449 Restoration of Raised Bog Habitats in the Especially Protected Nature Areas in Latvia”.**

**Programme  
of Information meeting about the start of elaboration of management plan  
in Rožu Mire Nature Reserve**

**June 21, 2010. 11.00 o'clock  
Skolas Street, 2, Sala Municipality**



- 11.00 – 11.05 **Opening of the meeting.** Gundega Freimane, coordinator of the management plan, Latvian Fund for Nature.
- 11.05 – 11.30 **Overview about the actions of the LIFE project „Restoration of Raised Bog Habitats in the Especially Protected Nature Areas in Latvia”.** Mara Pakalne, project manager, University of Latvia
- 11.30 – 11.45 **The order of the elaboration of management plans.** Vija Kreile, Nature Protection Board
- 11.45 – 12.15 **Elaboration of management plan for Rožu Mire Nature Reserve.**  
Gundega Freimane, coordinator of the management plan, Latvian Fund for Nature.
- 12.15 – 12.45 **Actual questions and problems, discussion**
- Contact information: Gundega Freimane, coordinator of the management plan, Latvian Fund for Nature.

Phone: 67830993; mob. 26525560

E-mail: [gundega.freimane@gmail.com](mailto:gundega.freimane@gmail.com) [www.ldf.lv](http://www.ldf.lv)





**LIFE 08NAT/LV/000449 Restoration of Raised Bog Habitats in the Especially Protected Nature Areas in Latvia”.**

**Programme  
of Information meeting about the start of elaboration of management plan  
in Aklais Mire Nature Reserve**

**June 21, 2010. 15.00 o'clock  
Daudzese Municipality**



**11.00 – 11.05 Opening of the meeting.** Janis Reihmanis, coordinator of the management plan, Latvian Fund for Nature.

**11.05 – 11.30 Overview about the actions of the LIFE project „Restoration of Raised Bog Habitats in the Especially Protected Nature Areas in Latvia”.** Mara Pakalne, project manager, University of Latvia

**11.30 – 11.45 The order of the elaboration of management plans.** Vija Kreile, Nature Protection Board

**11.45 – 12.15 Elaboration of management plan for Aklais Mire Nature Reserve.** Janis Reihmanis, coordinator of the management plan, Latvian Fund for Nature.

**12.15 – 12.45 Actual questions and problems, discussion**

Contact information: Janis Reihmanis, coordinator of the management plan, Latvian Fund for Nature.

Phone : 29451116

E-mail: Janis.reihmanis@ldf.lv



**LIFE 08NAT/LV/000449 Restoration of Raised Bog Habitats in the Especially Protected Nature Areas in Latvia”  
Programme  
of the first Management plan Steering Group for Rožu Mire Nature Reserve management plan**

**September 17, 2010. 11.00 o'clock  
Sala Municipality, Skolas Street 2**

Management plan is elaborated by Latvian Fund for Nature



**11.00 Opening of the meeting.** Alda Pupila, Nature Protection boards, Teici Nature Reserve Administration

**11. 10. Information about the progress of the elaboration of the management plan for Rožu Mire Nature reserve.** Gundega Freimane, coordinator of the management plan, Latvian Fund for Nature

Information about the site  
Nature values in the site – summary from expert field work  
Short-term and long-term aims of the protection of the nature reserve  
The main management actions  
Other questions

**11. 50 Discussion**

**12. 15. Visit to Rožu Mire Nature Reserve, the area where dam building is planned.**

**Contact information:** Gundega Freimane, Coordinator of the management plan, Latvian Fund for Nature.

Phone: 67830993; mob. 26525560

E-mail: [gundega.freimane@gmail.com](mailto:gundega.freimane@gmail.com); [www.ldf.lv](http://www.ldf.lv)



**LIFE 08NAT/LV/000449 Restoration of Raised Bog Habitats in the Especially Protected Nature Areas in Latvia”  
Programme  
of the first Management plan Steering Group for Melnais Lake Reserve  
management plan**

**October 4, 2010. 10.30 o'clock  
Olaine Museum of History and Art, Olaine**

Management plan is elaborated by Latvian Fund for Nature



**10.30. Opening of the meeting.**

**10. 40. Information about the progress of the elaboration of the management plan for Melnais Lake Management Plan.** Valda Baronina, coordinator of the management plan, Latvian Fund for Nature

General information about the site  
Nature values in the site – summary from expert field work  
Short-term and long-term aims of the protection of the nature reserve  
The main management actions  
Other questions

Contact information: V. Baronina t. 67830993; [valda.baronina@ldf.lv](mailto:valda.baronina@ldf.lv); [www.ldf.lv](http://www.ldf.lv)



**LIFE 08NAT/LV/000449 Restoration of Raised Bog Habitats in the Especially Protected Nature Areas in Latvia”  
Programme  
of the first Management plan Steering Group for Aizkraukle Mire and Forests management plan**

**October 14, 2010. 10.30 o'clock  
Aizkraukle Municipality  
Kalna Street 20, Aizkraukle**

Management plan is elaborated by Latvian Fund for Nature



**10.30. Opening of the meeting.** Janis Krumins. Nature Protection board. Gauja National Park administration.

**10. 40. Information about the progress of the elaboration of the management plan for Aizkraukle Mire and Forests Management Plan.** Valda Baronina, coordinator of the management plan, Latvian Fund for Nature

General information about the site  
Nature values in the site – summary from expert field work  
Short-term and long-term aims of the protection of the nature reserve  
The main management actions  
Other questions

**Contact information:** Valda Baronina Coordinator of the management plan, Latvian Fund for Nature, phone: 67830993; [valda.baronina@ldf.lv](mailto:valda.baronina@ldf.lv); [www.ldf.lv](http://www.ldf.lv)



**LIFE 08NAT/LV/000449 Restoration of Raised Bog Habitats in the Especially Protected Nature Areas in Latvia”  
Programme  
of the first Management plan Steering Group for Aklais Mire Nature Reserve management plan**

**October 14, 2010. 15.00 o'clock  
Daudzeva School**

Management plan is elaborated by Latvian Fund for Nature



**14.00 Opening of the meeting.** Alda Pupila, Nature Protection boards, Teici Nature Reserve Administration

**14. 10. Information about the progress of the elaboration of the management plan for Aklais Mire Nature reserve.** Janis Reihmanis, coordinator of the management plan, Latvian Fund for Nature

Information about the site  
Nature values in the site – summary from expert field work  
Short-term and long-term aims of the protection of the nature reserve  
The main management actions

**15.00 Discussion**

**Contact information:** Janis Reihmanis, Coordinator of the management plan, Latvian Fund for Nature.

**Especially protected species of Latvia and of EU importance in Melnais Lake Nature Reserve**

Species group	Especially protected species Latvia as		Annexes of Habitats Directive			Bird's Directive
	Regulations Nr. 396 of Cabinet of Ministers	Regulations Nr. 45 of Cabinet of Ministers	II	IV	V	I
Vascular plants	1				2	
Birds	15	5				17
Invertebrates	2		2			
Amphibians	1			2		
Mammals	3		2	2	1	
<b>Total</b>	<b>21</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>17</b>

**Especially protected habitats of Latvia and of EU importance in Melnais Lake Nature Reserve**

Nr.	Biotopa nosaukums	Habitats of Habitats Directive Annex 1	Area (ha)
1.	Dystrophic lakes	3160	18,4
2.	Intact raised bogs	7110*	125,1
3.	Degraded raised bogs still capable of natural regeneration	7120	82,7
4.	Transition mires and quacking bogs	7140	3,7
5.	Boreal Forest	9010*	5,1
6.	Bog woodland	91D0*	31,3
	<b>Total</b>		<b>266,3</b>

**Rare and especially protected lichen, bryophyte and vascular plant species in Aizkraukle Mire Nature Reserve**

Species name	Especially protected plant species of Latvia	Species for which micro-reserves can be established	Species – specialists of key forest habitats (1) and indicator species	Species of Habitats Directive II, IV and V –
<i>Fomitopsis rosea</i>	A	x	1	-
<i>Rhodotus palmatus</i>	A	x	-	-
<i>Lobaria pulmonaria</i>	A	-	1	-
<i>Pertusaria pertusa</i>	A	-	2	-
<i>Thelotrema lepadinum</i>	A	x	1	-
<i>Anastrophyllum hellerianum</i>	A	x	1	-
<i>Barbilophozia attenuata</i>	A	-	1	-
<i>Bazzania trilobata</i>	A	x	1	-
<i>Dicranum viride</i>	A	-	1	II, V
<i>Geocalyx graveolens</i>	A	x	1	-
<i>Jamesoniella autumnalis</i>	-	-	2	-
<i>Jungermannia leiantha</i>	A	x	1	-
<i>Lejeunea cavifolia</i>	A	x	1	-
<i>Leucobryum glaucum</i>	-	-	2	V
<i>Metzgeria furcata</i>	-	-	1	-
<i>Neckera complanata</i>	-	-	2	-
<i>Neckera pennata</i>	-	-	2	-
<i>Odontoschisma denudatum</i>	A	x	1	-
<i>Plagiothecium latebricola</i>	A	x	1	-
<i>Scapania apiculata</i>	-	-	1	-
<i>Scapania irrigua</i>	-	-	1	-
<i>Schistostega pennata</i>	A	-	2	-
<i>Allium ursinum</i>	A	x	1	-
<i>Androsace filiformis</i>	-	-	-	-
<i>Botrychium virginianum</i>	A	x	-	-
<i>Carex disperma</i>	A	x	1	-
<i>Carex paupercula</i>	A	x	-	-
<i>Corallorhiza trifida</i>	A	x	2	-
<i>Dactylorhiza baltica</i>	A	-	-	-
<i>Dactylorhiza fuchsii</i>	A	-	-	-
<i>Dactylorhiza incarnata</i>	A	-	-	-
<i>Dactylorhiza maculata</i>	A	-	-	-
<i>Dactylorhiza russowii</i>	A	x	-	-
<i>Dentaria bulbifera</i>	A	x	1	-
<i>Epipogium aphyllum</i>	A	x	1	-
<i>Euonymus verrucosa</i>	A	-	-	-
<i>Festuca altissima</i>	A	x	1	-
<i>Gladiolus imbricatus</i>	A	x	-	-
<i>Glyceria lithuanica</i>	A	x	1	-
<i>Hammarbya paludosa</i>	A	-	-	-
<i>Huperzia selago</i>	B	-	-	HD V
<i>Lycopodium annotinum</i>	B	-	-	HD V
<i>Malaxis monophyllos</i>	A	-	-	-
<i>Platanthera bifolia</i>	A	-	-	-
<i>Platanthera chlorantha</i>	A	-	-	-
<i>Poa remota</i>	A	x	1	-
<i>Salix myrtilloides</i>	A	-	-	-

**Number of especially protected species of Latvia and EU importance in Aizkraukle Mire and Forests Nature Reserve**

Species group	Especially protected species of Latvia		Annexes of Habitats Directive			Annexes of Birds Directive
	Regulations of the Cabinet of Ministers Nr. 396	Regulations of the Cabinet of Ministers Nr 45	II	IV	V	I
Vascular plants	23	12			2	
Bryophytes	10	7	1		1	
Lichens	1	1				
Fungi	2	2				
Bird species	17	8				21
Invertebrates	14	2	2	2	1	
Amphibians				2		
Mammals	8		3	4	1	
<b>Total</b>	<b>75</b>	<b>32</b>	<b>6</b>	<b>8</b>	<b>6</b>	<b>21</b>

**Rare and especially protected lichen, bryophyre and vascular plant species in Aizkraukle Mire Nature Reserve**

Species name	Especially protected plant species of Latvia	Species for which micro-reserves can be established	Species – specialists of key forest habitats (1) and indicator species of key forest habitats	Species of Habitats Directive II, IV and V – Annexes of the Directive
<i>Fomitopsis rosea</i>	A	x	1	-
<i>Rhodotus palmatus</i>	A	x	-	-
<i>Lobaria pulmonaria</i>	A	-	1	-
<i>Pertusaria pertusa</i>	A	-	2	-
<i>Thelotrema lepadinum</i>	A	x	1	-
<i>Anastrophyllum hellerianum</i>	A	x	1	-
<i>Barbilophozia attenuata</i>	A	-	1	-
<i>Bazzania trilobata</i>	A	x	1	-
<i>Dicranum viride</i>	A	-	1	II, V
<i>Geocalyx graveolens</i>	A	x	1	-
<i>Jamesoniella autumnalis</i>	-	-	2	-
<i>Jungermannia leiantha</i>	A	x	1	-
<i>Lejeunea cavifolia</i>	A	x	1	-
<i>Leucobryum glaucum</i>	-	-	2	V
<i>Metzgeria furcata</i>	-	-	1	-



<i>Neckera complanata</i>	-	-	2	-
<i>Neckera pennata</i>	-	-	2	-
<i>Odontoschisma denudatum</i>	A	x	1	-
<i>Plagiothecium latebricola</i>	A	x	1	-
<i>Scapania apiculata</i>	-	-	1	-
<i>Scapania irrigua</i>	-	-	1	-
<i>Schistostega pennata</i>	A	-	2	-
<i>Allium ursinum</i>	A	x	1	-
<i>Androsace filiformis</i>	-	-	-	-
<i>Botrychium virginianum</i>	A	x	-	-
<i>Carex disperma</i>	A	x	1	-
<i>Carex paupercula</i>	A	x	-	-
<i>Corallorhiza trifida</i>	A	x	2	-
<i>Dactylorhiza baltica</i>	A	-	-	-
<i>Dactylorhiza fuchsii</i>	A	-	-	-
<i>Dactylorhiza incarnata</i>	A	-	-	-
<i>Dactylorhiza maculata</i>	A	-	-	-
<i>Dactylorhiza russowii</i>	A	x	-	-
<i>Dentaria bulbifera</i>	A	x	1	-
<i>Epipogium aphyllum</i>	A	x	1	-
<i>Euonymus verrucosa</i>	A	-	-	-
<i>Festuca altissima</i>	A	x	1	-
<i>Gladiolus imbricatus</i>	A	x	-	-
<i>Glyceria lithuanica</i>	A	x	1	-
<i>Hammarbya paludosa</i>	A	-	-	-
<i>Huperzia selago</i>	B	-	-	HD V
<i>Lycopodium annotinum</i>	B	-	-	HD V
<i>Malaxis monophyllos</i>	A	-	-	-
<i>Platanthera bifolia</i>	A	-	-	-
<i>Platanthera chlorantha</i>	A	-	-	-
<i>Poa remota</i>	A	x	1	-
<i>Salix myrtilloides</i>	A	-	-	-

**Especially protected mammal species of Latvia and EU importance in Aklais Mire Nature Reserve**

No	Species name	Annexes of Habitats Directive	Especially protected species of Latvia
1	<i>Neomys fodiens</i>		
2	<i>Eptesicus nilssonii</i>		+
3	<i>Castor fiber</i>	HD II,IV	
4	<i>Lepus timidus</i>		+
5	<i>Lynx lynx</i>	HD IV	+
6	<i>Canis lupus</i>	HD II,IV,V	+
7	<i>Lutra lutra</i>	HD II,IV	+
8	<i>Martes martes</i>	HD V	+
9	<i>Mustela putorius</i>		+
10	<i>Mustela erminea</i>		
11	<i>Pipistrellus nathusii</i>		+
12	<i>Pipistrellus pipistrellus</i>		+
13	<i>Plecotus auritus</i>		+
14	<i>Mustela putorius</i>		

## ***5.6 Copies of public tender documentation and agreements***

## **5.7 Programme of the Project Steering Group meeting, copies of presentations, minutes and list of participants**



**LATVIJAS  
UNIVERSITĀTE**  
ANNO 1919

**LIFE 08 NAT/LV/000449 ECLIFE project**

**„Restoration of Raised Bog Habitats in the Especially protected Nature Areas of Latvia”**



### **Project Steering Group meeting**

August 19, 2010

Olaine Museum of Art and History Zemgale Street 33, Olaine

### **Programme**

**10.30** Arrival

**11.00 - 11.20** Mara Pakalne. University of Latvia, project manager. *Overview about the results of the LIFE project „Restoration of Raised Bog Habitats in the Especially Protected Nature Areas of Latvia”*

**11.20 - 11.40** Aija Delina. University of Latvia, Faculty of Geography and Earth Sciences, hydrologist. *Hydrological studies in the project sites and relation to the management actions*

**11.40 - 12.00** Valda Baronina. Latvian Fund for Nature, coordinator of the management plans. *The current results of the management plans*

**12.00 - 12.20** Daiga Brakmane. University of Latvia, Project information coordinator. Project public relation activities.

**12.20 - 12.40** Kaspars Goba. ELM MEDIA. *Information par the progress of film shooting*

**12.40 - 12.45** Aivars Slisans. University of Latvia, project assistant. *Overview about the project finances.*

**12.45** Discussion

Project coordinator: University of Latvia

Co-financers: Ministry of Environment of Latvia/ Latvian Nature Protection Fund, Riga Forests Ltd.

Project partners: Latvian Fund for Nature and ELM MEDIA.



**VIDES**



**MINISTRIJA**



**Latvijas  
vides  
aizsardzības  
fonds**



## **Minutes of the First Steering Group Meeting**

On August 19th, 2010 in Olaine Museum of History and Art the first meeting of the project Steering Group of the EC LIFE project 08 LIFE NAT/LV/000449 “Restoration of Raised Bog Habitats in the Especially Protected Nature Areas of Latvia” was held.

In total 21 participant attended the meeting, representing stakeholders, project associated beneficiaries, co-financers and project experts. The meeting of the project Steering Group was opened by the chair of the Project Steering Group Vija Busa from the Ministry of Environment of Latvia, Department of Nature Protection.

At the start of the meeting the project manager Dr. Mara Pakalne informed with the results of the EC LIFE project "Restoration of Raised Bog Habitats in the Especially Protected Nature Areas of Latvia" – field studies in the project sites, study tour to the LIFE project areas in Germany (Lower Saxony and Bavaria) and participation in the Symposium of the International Mire Conservation Group in Slovakia and Poland, as well as planned activities of the project.

Aija Delina – a project hydrologist told about the hydrological studies in the project sites and the planned management activities – raising of water level in the drained areas of the project sites.

Latvian Fund for Nature was represented by Valda Baronina who is the Coordinator of Melnais Lake Mire and Aizkraukle Mire and Forests Nature Management Plans. She informed that field studies in all the project sites are completed and management plan coordinators are summarizing information from the field experts for the management plans.

Project Information Coordinator Daiga Brakmane informed about the project public awareness actions, like, seminars, home page of the project as well about the booklet and presented further public activities for the project: seminars, Raised Bog exhibition, booklets about the project sites, information boards and Methodology for Raised Bog Conservation and Management.

Representatives from Foundation ELM MEDIA – producer Kaspars Goba and assistant Ieva Ubele presented the ideas for project film – shooting of the film is going on, film scenario is elaborated, innovative technical solutions even using a digital camera macro filming are planned.

Project Finance Assistant Aivars Slisans informed about the project financial situation – project incomes and expenditures are as planned in the project.

At the closing of the meeting V.Busa was interested to know about the future meetings of the Steering Group. Project Manager M.Pakalne informed that the Steering Group Meetings are planned every 6 months during the project and it is also possible to attend other project activities, such as seminars and Management Plan Steering Group Meetings.

## 5.8 Photos from the activities

### A1 Elaboration of management plans



Informative meeting for "Aizkraukle Mires and Forest" management plan- 26.05.2010.  
Photo: Aivars Slisāns



Informative meeting for "Aizkraukle Mires and Forest" management plan - 26.05.2010.  
Photo: Aivars Slisāns



Informative meeting "Aizkraukle Mires and Forest" - 26.05.2010. Photo: Aivars Slisāns



Informative meeting "Aizkraukle Mires and Forest" - 26.05.2010. Photo: Aivars Slisāns



Informative meeting "Melnais Lake Mire" - 03.06.2010. Photo: Aivars Slisāns



Informative meeting "Melnais Lake Mire" - 03.06.2010. Photo: Aivars Slisāns





Informative meeting "Melnais Lake Mire" -  
03.06.2010. Photo: Aivars Slisāns



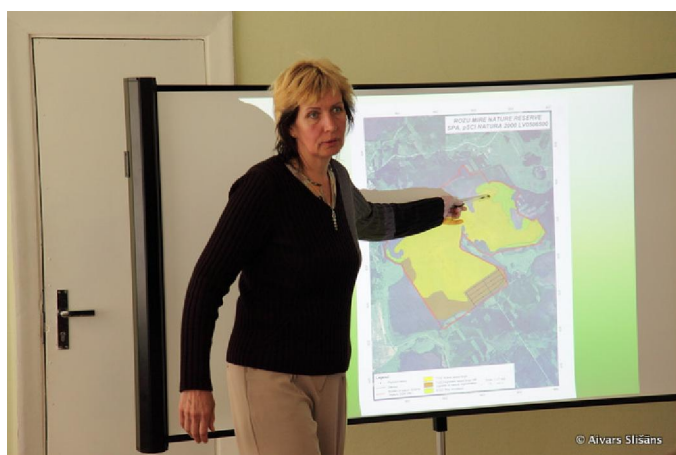
Informative meeting "Melnais Lake Mire" -  
03.06.2010. Photo: Aivars Slisāns



[Informative meeting "Rožu Mire" - 21.06.2010.](#)  
Photo: Aivars Slisāns



[Informative meeting "Rožu Mire" - 21.06.2010.](#)  
Photo: Aivars Slisāns



[Informative meeting "Rožu Mire" - 21.06.2010.](#)  
Photo: Aivars Slisāns



[Informative meeting "Rožu Mire" - 21.06.2010.](#)  
Photo: Aivars Slisāns



[Informative meeting "Aklais Mire" - 21.06.2010.](#)

Photo: Aivars Slisāns



[Informative meeting "Aklais Mire" - 21.06.2010.](#)

Photo: Aivars Slisāns



[Informative meeting "Aklais Mire" - 21.06.2010.](#)

Photo: Aivars Slisāns



[Informative meeting "Aklais Mire" - 21.06.2010.](#)

Photo: Aivars Slisāns



First Management Plan Steering Group meeting  
"Rožu Mire" - 17.09.2010. Photo: Mara Pakalne



First Management Plan Steering Group meeting  
"Rožu Mire" - 17.09.2010. Photo: Mara Pakalne





First Steering Group meeting "Rožu Mire" -  
17.09.2010. Photo: Mara Pakalne



First Steering Group meeting in "Rožu Mire" -  
17.09.2010. Photo: Mara Pakalne



Raised bog habitats in [Aizkraukle Mire and Forests](#).  
Photo: Valda Baronina



Raised bog island in [Aizkraukle Mire and Forests](#).  
Photo: Mara Pakalne



Raised bog pool in [Aizkraukle Mire and Forests](#).  
Photo: Mara Pakalne



Raised bog pools in [Aizkraukle Mire and Forests](#).  
Photo: Mara Pakalne



	
<p>Raised bog pools in <a href="#">Aklais Mire</a> Photo: Mara Pakalne</p>	<p><i>Sphagnum cuspidatum</i> in a bog hollow of Aklais Mire Photo: Mara Pakalne</p>
	
<p><i>Schistostega pennata</i> in <a href="#">Aklais Mire</a> – rare bryophyte. Photo: Aivars Slisans</p>	<p><a href="#">Aklais Mire</a> Nature Reserve, experts in the site. Photo: Mara Pakalne</p>
	
<p><a href="#">Melnais Lake Mire</a> Nature Reserve. Photo: Mara Pakalne</p>	<p><a href="#">Melnais Lake Mire</a> Nature Reserve. Photo: Mara Pakalne</p>





[Melnais Lake Mire](#) Nature Reserve.  
Photo: Mara Pakalne



[Melnais Lake Mire](#) Nature Reserve.  
Photo: Mara Pakalne



Raised bog habitats in [Rožu Mire](#).  
Photo: Mara Pakalne



Raised bog habitats in [Rožu Mire](#).  
Photo: Mara Pakalne



Raised bog pools in [Rožu Mire](#).  
Photo: Mara Pakalne



Raised bog habitats in [Rožu Mire](#).  
Photo: Mara Pakalne





Gundega Freimane, Coordinator of Rožu Mire Management Plan. Photo: Mara Pakalne



Valda Baronina Coordinator of Melnais Lake Mire and Aizkraukle Mires Management Plans. Photo: Aivars Slisans



Janis Reihmanis, Coordinator of Aklaish Mire Management Plans. Photo: Aivars Slisans



Ruta Sniedze, species and habitat expert Photo: Aivars Slisans



Edmunds Racinskis, ornithologist. Photo: Aivars Slisans



Aivars Petrins, ornithologist. Photo: Aivars Slisans





Dr. biol. Voldemars Spungis, invertebrate specialist.  
Photo: Valda Baronina



Uvis Susko, species and habitat expert.  
Photo: Mara Pakalne



Dr. geogr. Laimdota Kalnina, geologist.  
Photo: Mara Pakalne



Dr. geol. Aija Delina, hydrologist.  
Photo: Mara Pakalne









Field work in Aklais Mire.  
Photo: Mara Pakalne



Field work in Aklais Mire.  
Photo: Aivars Slisans



## A2 Hydro-geological studies for the elaboration of technical designs for building dams

	
<p>Drainage ditch in Aizkraukle Mire. Photo: Valda Baronina</p>	<p>Drainage ditch in Aizkraukle Mire. Photo: Valda Baronina</p>
	
<p>Drainage ditch in Aizkraukle Mire. Photo: Mara Pakalne</p>	<p>Drainage ditch and peat fields in Aizkraukle Mire and Forests Nature Reserve. Photo: Mara Pakalne</p>
	
<p>Drainage ditches in Melnais Lake Mire. Photo: Valda Baronina</p>	<p>Peat fields in Melnais Lake Mire Nature Reserve. Photo: Valda Baronina</p>





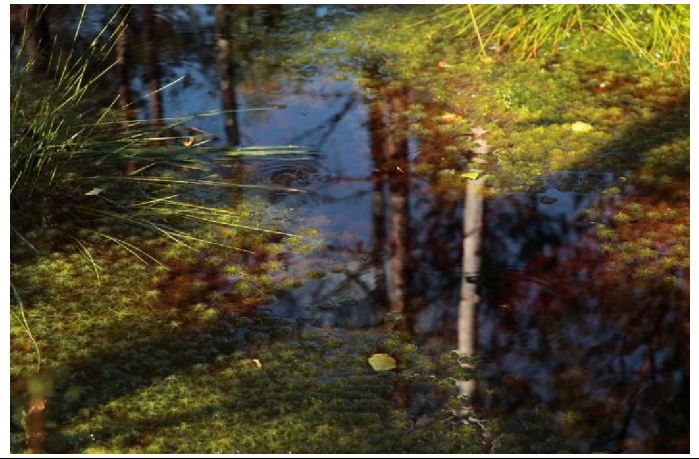
Melnais Lake Mire Nature Reserve.  
Photo: Mara Pakalne



Melnais Lake Mire Nature Reserve.  
Photo: Valda Baronina



Drainage ditch in Rozu Mire.  
Photo: Aivars Slisans



Drainage ditch in Rozu Mire.  
Photo: Mara Pakalne



Drainage ditch in Rozu Mire Nature Reserve.  
Photo: Mara Pakalne



Drainage ditch in Rozu Mire Nature Reserve.  
Photo: Mara Pakalne

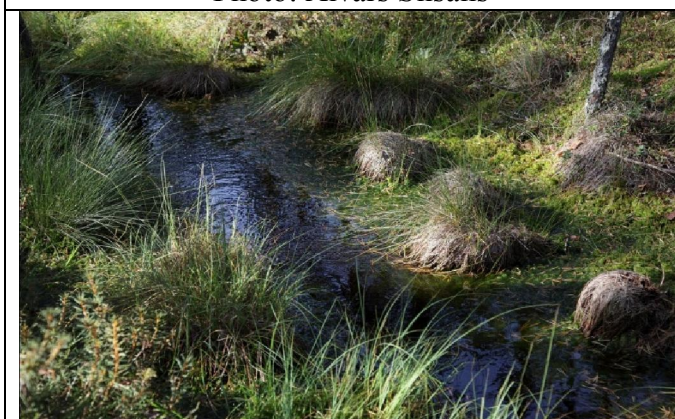




Drainage ditch in Aklais Mire.  
Photo: Aivars Slisans



Drainage ditch in Aklais Mire.  
Photo: Mara Pakalne



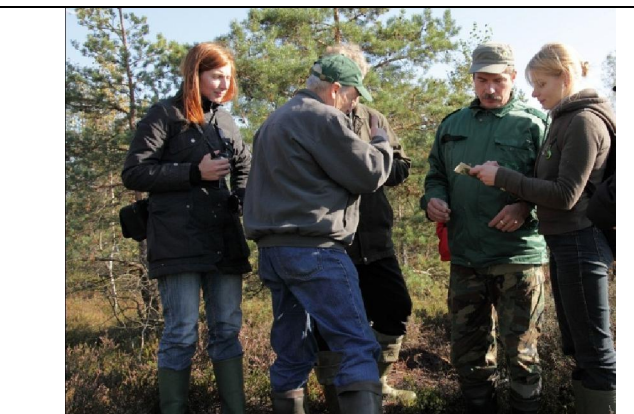
Drainage ditch in Aklais Mire.  
Photo: Mara Pakalne



Drainage ditch in Aklais Mire.  
Photo: Mara Pakalne



Discussions about the planned location of dams  
Photo: Aivars Slisans



Discussions about the planned location of dams in  
Melnais Lake Mire. Photo: Mara Pakalne



## D1 Organisation of seminars



Participants of the [First project seminar – 29.03.2010.](#)  
Photo: Aivars Slisans



[First seminar – 29.03.2010.](#) – project manager Mara Pakalne telling about the project.  
Photo: Aivars Slisans



[First seminar – 29.03.2010.](#) – Vija Busa from the Ministry of Environment. Photo: Aivars Slisans



[First seminar – 29.03.2010.](#) – Viesite Town local representative Inese Vitola. Photo: Aivars Slisans



[First seminar – 29.03.2010.](#) – Nature Protection Board, Teici Nature Reserve administration Juris Jatnieks. Photo: Aivars Slisans



[First seminar – 29.03.2010.](#) – discussion after the formal part.  
Photo: Aivars Slisans



## D5 Production of a documentary film



Kaspars Goba, film producer.  
Photo: Mara Pakalne



Ieva Ubele, film assistant.  
Photo: Aivars Slisans



Filming Nature Management Plan meeting.  
Photo: Aivars Slisans



LIFE project from Wales visiting Latvia 21.-  
22.09.2010. – filming the visit. Photo: Mara Pakalne



Lelde Goba  
Photo: Mara Pakalne



Filming an expert working.  
Photo: Mara Pakalne



## E1 Project administration by the University of Latvia



Dr. biol. Mara Pakalne, project manager  
Photo: Aldis Vite



Aivars Slisans, project assistant  
Photo: Mara Pakalne



Gunars Balodis, field manager.  
Photo: Aivars Slisans



Daiga Brakmane, information coordinator.  
Photo: Aivars Slisans



Rolands Ratfelders visits the project team.  
Photo: Aivars Slisans



Project team together in Germany.





[First Project Steering Group Meeting - 19.08.2010.](#) – participants and project manager Mara Pakalne speaking. Photo: Aivars Slisāns



[First Project Steering Group Meeting - 19.08.2010.](#) – chair of the meeting Vija Busa. Photo: Aivars Slisāns



[First Project Steering Group Meeting - 19.08.2010.](#) – Dr.geol. Aija Delina explaining raised bog hydrology. Photo: Aivars Slisāns



[First Project Steering Group Meeting - 19.08.2010.](#) – Valda Baronina telling about nature management plans. Photo: Aivars Slisāns



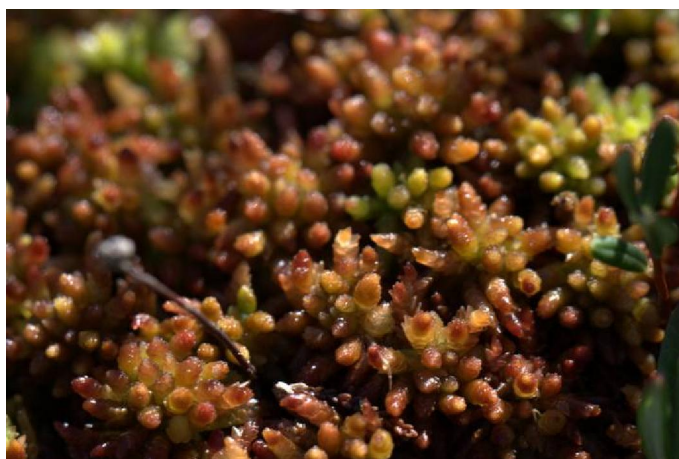
[First Project Steering Group Meeting - 19.08.2010.](#) – participants. Photo: Aivars Slisāns



[First Project Steering Group Meeting - 19.08.2010.](#) – Aivars Slisāns presenting finances of the project. Photo: Mara Pakalne



## E2 Monitoring the effects of management actions on raised bog habitats, bird species and site hydrology



Bryophyte *Sphagnum magellanicum* in the monitoring plots. Photo: Mara Pakalne



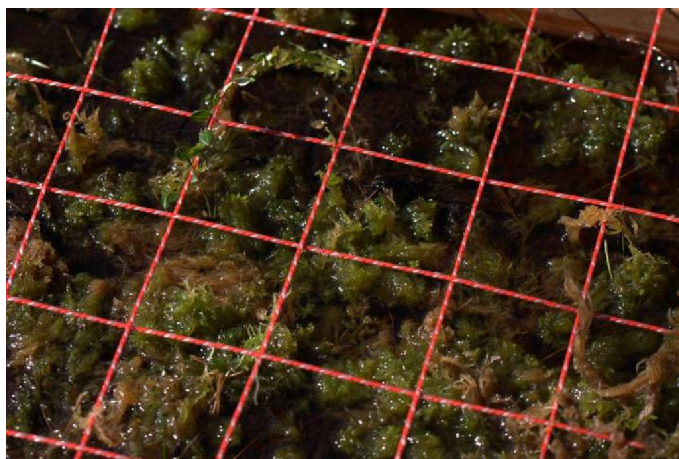
Establishing monitoring plots in Melnais Lake Mire. Photo: Mara Pakalne



Monitoring habitats in Melnais Lake Mire. Photo: Mara Pakalne



Sundew *Drosera rotundifolia* in the monitoring plot. Photo: Mara Pakalne



Sphagnum species in the monitoring plot. Photo: Mara Pakalne



The monitored habitats in Melnais Lake Mire. Photo: Mara Pakalne



### E3 Cooperation with LIFE+ projects, participation in study tours, seminars and conferences



Study tour trip to Germany 06.-18.06.2010.  
Photo: Aivars Slisans



Experience exchange trip to Germany 06.-18.06.2010. Photo: Aivars Slisans



Study tour trip to Germany 06.-18.06.2010.



Building dams in the Bavarian LIFE project.  
Photo: Aivars Slisans



The restored bog area in Bavarian Raised bog.  
Photo: Mara Pakalne



The restored bog area in Bavarian LIFE project.  
Photo: Mara Pakalne





[Field Symposium of the International Mire Conservation Group in Slovakia and Poland 05.-17.07.2010.](#)



[Field Symposium of the International Mire Conservation Group in Slovakia and Poland 05.-17.07.2010.](#) Photo: Mara Pakalne



[Field Symposium of the International Mire Conservation Group in Slovakia and Poland 05.-17.07.2010.](#) Photo: Mara Pakalne



[Field Symposium of the International Mire Conservation Group in Slovakia and Poland 05.-17.07.2010.](#) Photo: Mara Pakalne



*Utricularia vulgaris* - [Field Symposium of the International Mire Conservation Group in Slovakia and Poland 05.-17.07.2010.](#) Photo: Mara Pakalne



*Gladiolus palustre* in Slovakian mires - [Field Symposium of the International Mire Conservation Group 05.-17.07.2010.](#) Photo: Mara Pakalne





[Experience exchange trip to Wales 01.-09.09.2010.](#)

Photo: Mara Pakalne



Restored bog in [to Wales 01.-09.09.2010.](#)

Photo: Mara Pakalne



[Blanket bogs in Wales](#)

Photo: Mara Pakalne



*Erica tetralix* in the bogs in Wales

Photo: Mara Pakalne



Discussions about site hydrological monitoring equipment – loggers in Wales. Photo: Mara Pakalne



Building of dams in the blanket bogs in [Wales 01.-09.09.2010.](#) Photo: Mara Pakalne





LIFE project team in the blanket bogs in [Wales 01.-09.09.2010](#). Photo: Mara Pakalne



Project team and Welsh LIFE project team  
Photo: Mara Pakalne



LIFE project from Wales visiting Latvia, Kemerī National Park. Photo: Mara Pakalne



LIFE project from Wales visiting Latvia visiting Cena Mire. Photo: Mara Pakalne



LIFE project from Wales visiting Latvia 21.-22.09.2010. – visiting Cena Mire.  
Photo: Mara Pakalne



LIFE project from Wales visiting Latvia 21.-22.09.2010. – visiting Engure Lake Nature Park  
Photo: Mara Pakalne





LIFE project from Wales visiting Latvia 21.-  
22.09.2010. – visiting Raganu Mire  
Photo: Mara Pakalne



LIFE project from Wales visiting Latvia 21.-  
22.09.2010. - visiting Engure Lake Nature Park  
Photo: Mara Pakalne

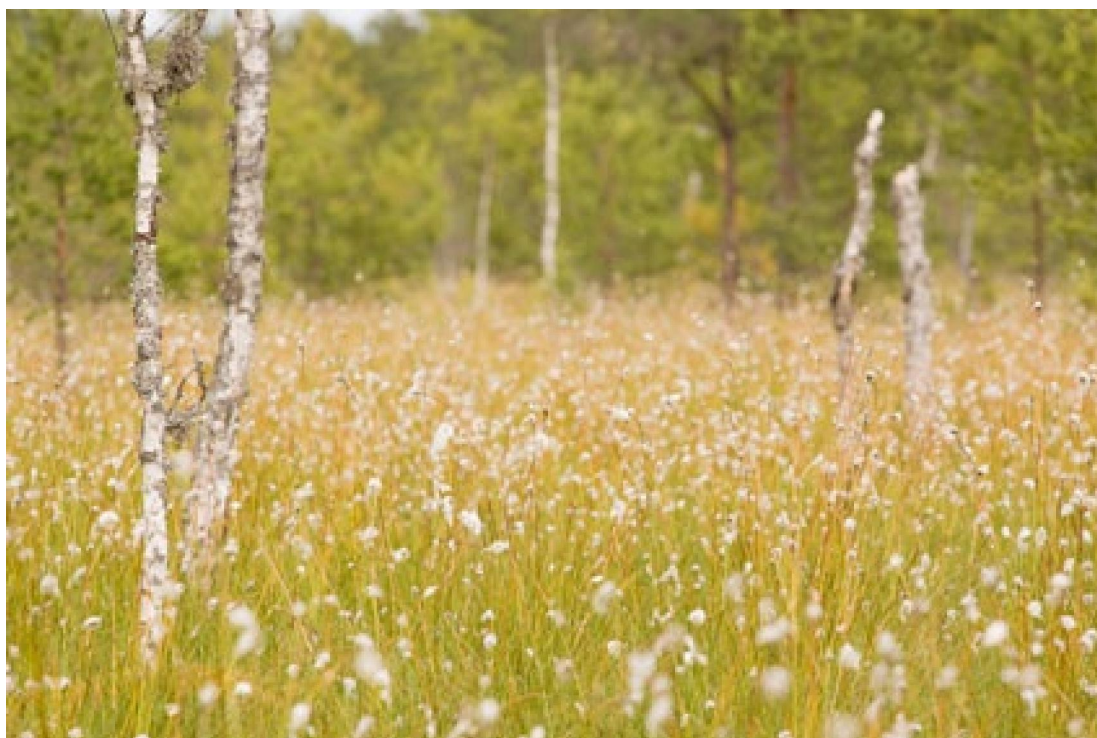
## ***5.9 Copies from home page, publicity of project and film scenario***

**EC Project LIFE 08NAT/LV/000449 „Restoration of Raised Bog Habitats in  
the Especially Protected Nature Areas of Latvia”**

EK Projekta „Augstā purva biotopu atjaunošana īpaši aizsargājamās dabas teritorijās Latvijā  
(.LIFE 08NAT/LV/000449)

**Scenario of the documentary film of the project with the English summary  
dokumentālās filmas scenārijs**

**VERSIJA 1.0**



**Jūlijs 2010**

## Summary

The documentary film will include the following themes:

- Characteristics of the nature values in the project sites with the stress to the habitats of EU importance - active raised bogs in the 4 project areas – in raised bogs near Aizkraukle, Aklais Mire in Aizkraukle District and Rozu Mire in Jekabpils District and Melnais Lake Mire in Olaine District, including macro shooting of different plant and animal species with the expert comments;
- Cultural and historical characteristics of the Project area including stories about historical development of the area, life stories of the local people and memories about the changes during the last decades, stories how the raised bogs have been influenced by human activities and what these changes give to the local people and what influence does it leave to the mire (hunting, berry picking, peat extraction, etc.)
- Project activities will be covered in the documentary film (raised bog habitat studies, elaboration of management plans, setting up of information boards, building of dams on the drainage ditches, etc.

### IEVADS

Viena no Eiropas Komisijas LIFE-Daba projekta „Augstā purvu biotopu atjaunošana īpaši aizsargājamajās dabas teritorijās” aktivitātēm ir dokumentālās filmas veidošana, kuras mērķis ir parādīt plašākam skatītāju lokam gan projekta teritoriju dabas bagātības, gan aizsargājamo biotopu atjaunošanas aktivitātes, kas tiks īstenotas projekta laikā. Esošais scenārija variants ir izstrādāts balstoties uz pieredzi, ko filmas autori ir guvuši veidojot filmas par citu Eiropas Komisijas LIFE-Daba projektu īstenošana („Dabas aizsardzības plāna izstrāde Engures ezera dabas parkam” un „Purvu biotopu aizsardzības plāna īstenošana Latvijā”).

### STRUKTŪRA UN VIZUĀLAIS STILS

Iepriekšējā pieredze rāda, ka mēģinot vienā filmā aptvert dažādas projekta teritorijas (jo īpaši, ja tās atrodas salīdzinoši tālu viena no otras) un visas projekta aktivitātes, filmas skatītājiem rodas ļoti fragmentārs ieskaits par projekta aktivitātēm, teritoriju atrašanās vietām un kopējo projekta aktivitāšu ietekmi. Līdz ar to filmas autori ir pieņēmuši lēmumu veidot vienu izvērstu filmu par vienu no projekta teritorijām, pie tam filmas darbību neaprobežojot tikai ar dabas lieguma teritoriju, bet iekļaujot arī apkārtesošās teritorijas un to ietekmi uz projekta teritoriju un otrādi.

Izvērstajā filmas versijā plānots ietvert sekojošas tēmas:

- Konkrētās teritorijas biotopu raksturojums (flora un fauna un ekspertu komentāri par dabas vērtībām un to saglabāšanu);
- Teritorijas kultūrvēsturiskais raksturojums ietverot stāstus par teritorijas vēsturisko attīstību, vietējo iedzīvotāju dzīvesstāstus un atmiņas par purvu pārmaiņām laika gaitā un stāstus par to, kā purvs tiek izmantots un kādu labumu katra no šīm aktivitātēm dod vietējiem iedzīvotājiem un kādu ietekmi tā atstāj uz purvu (medības, ogošana, kūdras ieguve u.c.);

- Projekta aktivitātes (biotopu apsekošana, dabas aizsardzības plānu izstrāde, stendu uzstādīšana, dambju būvēšana u.c.).

Šobrīd tiek veikta padziļināta izpēte, lai pieņemtu lēmumu, kurā no projekta teritorijām ir pieejams visplašākais tēmu klāsts un attiecīgi, par kuru no tām būtu iespējams veidot izvērsto filmas versiju.

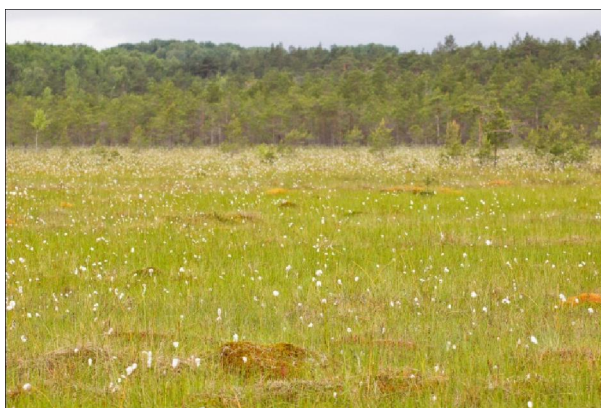
Papildus tam tiks sagatavotas īsfilmu-sižeti par katru no pārējām projekta teritorijām, kurās galvenais uzsvars tiks likts uz teritoriju floras un faunas atainojumu un tajā īstenotajām projekta aktivitātēm. Šobrīd scenārija uzmetumi ir sagatavoti īsfilmām visām projekta teritorijām (skatīt nākamajā sadaļā).

Visām īsfilmām būs vienots vizuālais stils – purvu floras un faunas un projekta aktivitāšu atainojums mīsies ar projekta darbinieku un citu projektā iesaistīto ekspertu stāstījumu un diktora tekstu. Savukārt, filmas izvērstajā versijā paredzēts izmantot diktora tekstu to kombinējot ar intervijām ar vietējiem iedzīvotājiem un projekta darbiniekiem. Iespēju robežās filmās tiks izmantoti arhīva materiāli, bet dažādu purvā notiekošo procesu attēlošanai skatītājam saprotamā veidā tiks izmantotas videografikas. Tā kā filmas autori jau ir veidojuši vairākas filmas par purvu tematiku („Dzīvība purvā” (2008), „Pieci stāsti par dabu: stāsts par purviem (2009)), esošo vizuālo risinājumu klāsts ir ticis plaši izmantots. Līdz ar to projekta dokumentālajā filmā ir paredzēts izmantot jaunus vizuālos risinājumus – zemūdens kadrus, filmēšanu no krāna un citus – kas dotu skatītājiem iespēju vērot purvu no vēl nebijuša skatu punkta.

## ĪSFILMU TĒMAS

### Rožu purvs

Dabas liegums „Rožu purvs” dibināts 1987. gadā un ir nozīmīga teritorija augsto purvu un purvainu aizsardzībai, kurā konstatēti arī ES Biotopu direktīvas biotopi - ieplakas purvos un melnalkšņu staignāji. Īsfilmā plānots parādīt dažādos biotopus, tajā skaitā atklātā purva teritorijas, kā arī tajos dzīvojošos putnus, zīdītājus un retās bezmugurkaulnieku sugas - spilgto purvuspāre un skrajmežu vīngliemezi.



mežu

Foto: D.Drazdovskis

### Aklais purvs



Dabas liegums Aklā jeb Jūgu purva aizsardzībai ir dibināts 1999. gadā un aptver dažādus biotopus, kurus plānots parādīt īsfilmā - augsto purvu ar parasto kasandru, distrofos ezerus, purvainos mežus, zāļu un pārejas purvus un vairākus dabisko mežu biotopus. Pateicoties zemajam iedzīvotāju blīvumam apkārtējās teritorijās un teritorijas atšķirtībai no lieliem apdzīvotajiem centriem, Aklajā purvā saglabājušās daudzas neskartas un cilvēka maz ietekmētas purva teritorijas, līdz ar to viena no filmas tēmām būs cilvēka darbības ietekme uz purvu biotopiem.



Tā kā lieguma teritorijā sastopamas daudzas ES Putnu direktīvas sugas (kā melnkokla gārgale, sējas zoss, zivju ērglis, jūras ērglis, mednis, mežirbe) un vairākas aizsargājamo augu sugas - fuksa dzegužpirkstīte un spilvainais ancītis – filmā plānots ietvert arī floras un faunas atainojumu.

Foto: D.Drazdovskis

### Aizkraukles purvi un meži

Īsfilma par Aizkraukles purviem un mežiem uzsvērtu plānots likt uz lielo un meža augšanas apstākļu tipu daudzveidību, kas ietvers purva salu atainojumu ar dažādajiem meža - gāršu, vēri, dumbbrāju, purva salas (ar koku mežiem – liepu gāršu un ošu audzēm uz tām), dažādo meža tipu mozaīku un vecās mežaudzes, kas ir mājvieta daudzām bezmugurkaulnieku un retām putnu sugām.



purvu

tipiem  
lapu

sugām

Foto: D.Drazdovskis

### Melnā ezera purvs

Īsfilma par Melnā ezera purva dabas liegumu plānots pievērsties divām galvenajām tēmām – purvu susināšanas negatīvajai ietekmei, ko vizualizē Melnā ezera tuvumā esošie kūdras lauki, kā arī purvainais mežs, un purvu nozīmei putnu dzīvē.



Melnā ezera purva teritorija ir ļoti nozīmīga putniem, tajā konstatētas 13 aizsargājamas putnu sugas. Līdz ar to filmā ornitologu komentāri par purvu nozīmi putnu ligzdošanai un migrācijai tiks kombinēti ar putnu atainojumu, uzsvērtu liekot uz lieguma nozīmīgākajām sugām - purva tilbīti, ūpi, ormanīti, gugatni, ziemeļu gulbi un lielo dumpi. Ar ilustratīviem kadriem plānots parādīt arī putnu migrēšanas laiku, kad purvā atpūšas sējas un baltpieres zosis.

Foto: D.Drazdovskis



## Publicity of the project

Date	Title of the edition	Title	Photos	Summary	Audience
11/05/10	Latvijas Vestnesis	Pazinojums	0*	Invitation to Aizkrauke Mire and Forests Management plan informative meeting (i)**	1'150
14/05/10	Latvijas Vestnesis	Pazinojums	0	Invitation to Aizkrauke Mire and Forests Management plan informative meeting (i)	1'150
14/05/10	Latvijas Vestnesis	Pazinojums	0	Invitation to Aizkrauke Mire and Forests Management plan informative meeting (i)	1'150
19/05/10	Latvijas Vestnesis	Pazinojums	0	Invitation to Aizkrauke Mire and Forests Management plan informative meeting (i)	1'150
01/07/10	Chemjaur Zeitung	Lettische Biologen bei Hochmoor-renaturierung	1	Latvians visiting LIFE project "Rosenheimer Stammbeckenmoore" in Germany (i)	No information
07/08/10	Staburags	Plano paaugstinat purvu udenslimeni (Indulis Burka)	1	After discussions with the plant and habitat expert Uvis Susko journalist Indulis Burka writes an article about the project in the newspaper "Staburags" - about nature management plan and planned actions in Aizkraukle Mire and Forests and in Aklais Mire (v)	6'500
26/10/10	Staburags	Purva ir dabas vertibas (Indulis Burka)	1	After first Steering Group meeting for Aklais Mire Nature Management Plan I.Burka writes about nature values found in the site during experts' expeditions and planned management actions in the mire (v)	6'500

4\* - number of photos

\*\* (i) – short paper or news

(v) – medium long paper

(g) – long paper

## TV, Radio

Date	Radio/TV channel	Broadcast	Summary	Length
29/06/10	LR1	"Zinamais nezinamaja"	Live interview with project manager Mara Pakalne and invertebrate expert working for Nature Management plans Voldemars Spungis about nature values in bogs in Latvia, comparing with bogs in other counties. Project is presented to the public.	10'

## Internet portals and news agencies

Date	Internet portal or news agency	Title	Summary	Photos
01/05/10	www.ldf.lv	Aklais purvs	Summary about Nature management plan for Aklais Mire	0
01/05/10	www.ldf.lv	Rožu purvs	Summary about Nature management plan for Rožu Mire	0
01/05/10	www.ldf.lv	Melna ezera purvs	Summary about Nature management plan for Melnais Lake Mire	0
01/05/10	www.ldf.lv	Aizkraukles purvs un meži	Summary about Nature management plan for Aizkraukle Mire and Forests	0
01/05/10	www.elmmedia.lv	Purva noslepumi	Summary about project and the film what will be made during it.	4
20/05/10	www.ldf.lv	Uzsakts darbs pie cetriem dabas aizsardzības plāniem purvu teritorijās	Information about four Nature Management plans what will be carried out by Latvian Fund for Nature and informative meetings for them.	1
30/07/10	www.staburags.lv	Plano paaugstināt purvu udenslimeni (Indulis Burka)	After discussions with the plant and habitat expert Uvis Susko journalist Indulis Burka writes an article about the project in the newspaper "Staburags" - about nature	1

			management plan and planned actions in Aizkraukle Mire and Forests and in Aklais Mire	
18/08/10	www.elmmedia.lv	Purva ekspedīcija (Davis)	After an expedition with bog experts Elm Media who is preparing film for the project writes an article about people living next to the mires and experts studying bog nature values.	3
15/09/10	www.ldf.lv	Pabeigta teritoriju izpēti cetros dabas liegumos (Valda Baronina)	Summary about animal, plant and habitat inventarization on the project sites.	3
15/09/10	www.ldf.lv	Dabas lieguma "Rožu purvs" dabas aizsardzības plāna izstrādes I uzraudzības grupas sanāksme (G.Freimane)	Invitation to attend First Steering Group Meeting for Rožu Mire Nature Reserve Nature Management Plan.	1
02/10/10	www.ldf.lv	Dabas liegumos notiks pirmas uzraudzības grupas sanāksmes	Invitation to attend First Steering Group Meeting for Aizkraukle Mire and Forests, Melnais Lake Mire and Aklais Mire Nature Management Plan.	1
18/10/10	www.staburags.lv	Purva paslēptas dabas vērtības	After first Steering Group meeting for Aklais Mire Nature Management Plan I.Burka writes about nature values found in the site during experts' expeditions and planned management actions in the mire.	2

## 5.10 Detailed information about Study tours and seminar

From June 6-18, 2010 the team of the EC LIFE project "Restoration of Raised Bog Habitats in the Especially Protected Nature Areas of Latvia" visited the peatlands in Germany (Lower Saxony and Bavaria) where the restoration of raised bogs was carried out in the frame of the EC financed LIFE projects. Several decades ago raised bogs were more widespread in Germany. Due to the increase of industrial peat extraction, most of the bogs were damaged or destroyed.

In the Institute Botany and Landscape Ecology Institute (Institut für Botanik und Landschaftsökologie) Greifswald University (Ernst-Moritz-Arndt-Universität Greifswald), in the laboratory of Botanical Garden different *Sphagnum* species and several other mire plants, like *Drosera rotundifolia* are grown to observe the possible cultivation in the field. Small pieces of *Sphagnum* are planted on the floating mattresses.

Specific conditions are maintained in the laboratory: artificial lighting is activated when necessary, species are moistened by rain water, and suitable temperature is maintained. *Sphagnum* species are grown also outside the laboratory - in the pilot areas that were previously cut for peat but presently are flooded peat fields.

Growth conditions in the field there are very different – *Sphagnum* species are affected by nitrate pollution, environmental conditions are not as constant as in the laboratory. The studies in the laboratory and in the field are carried out by Anja Prager and Franziska Gahlert supervised by Prof. Hans Joosten from the Greifswald University. The researchers have found out that the *Sphagnum* green mass can be used in gardening as effectively as peat and think that in the future it will be possible to grow *Sphagnum* moss on floating mattresses in the harvested peatlands. These studies are financed by peat cutting industry.

In Lower Saxony, in Wiefelstede, Stapeler Moor the project team under the guidance of Heinrich Belting and local experts were taken to the peat fields where the bog restoration was started nearly a decade ago. The German colleagues have raised water level in milled fields by flooding one part after another.

To see the how the bog restoration is going on, a nature trail and bird watching tower was built. This milled area is surrounded by natural raised bog vegetation which is included in a protected nature area. This territory can serve as seed "bank" from which the plants can occupy the harvested bogs. The project team also visited Leegmoor in Aurich and Moorerlebnispfad Esterwegen near Osterbrook.

The next day Friedhelm Niemeyer guided the project team through Diepholzer Moorschnucke bog near Rehden. In order to maintain an open peatland area and to prevent from *Molinia* grass, grazing by sheep was introduced.

Suzanne Belting in Großen Torfmoores near Lübbecke has leaded the bog restoration during LIFE project "Regeneration des Großen Torfmoores". She guided to the restored areas of the raised bog along the boardwalk to tell about the bog restoration carried out in the LIFE project.

To get to know the Bavarian peatlands the project team went along with the LIFE project "Rosenheimer Stammbeckenmoore" leaded by Ralf Strohwasser and tractor operator who have built the dams in the project site to restore the bog hydrology and habitats. To show the

bog values near the Bad Feilnbach in Sterntaler Filze a board walk was built there. With the help of young volunteers from all over Europe, a footbridge, entertainment area for children was built, as well as the trail and the bird watching site was adapted for people with special needs. Together with Ralf Strohwasser the project team visited also Kollerfilze near to Nicklheim.

Daniel Kufner works on the project "Biotopverbund" aimed at reconciling the two sanctuaries near Eggstätt with "eco-tunnel" so plants and animals from one site to other can move. One of the sites was visited by the project team. Burghamer Filz Nature Reserve is a glacial lake system with various mire habitats near the lakes and the lower areas. Peat extraction has never been carried out there. Although it is a nature reserve, there is a dense road network that is used for recreation. The glacial lakes are used for swimming.

From the Latvian LIFE project in the study tour participated: the project manager Mara Pakalne, field manager Gunars Balodis, project assistant Aivars Slisans and public awareness coordinator Daiga Brakmane.

During the Study tour to Germany there were many meetings with the managers of LIFE and representatives of LIFE projects as well people from local authorities who introduced with their experience and methods of raised bog restoration:

- The project team got to know how the damaged by peat cutting raised bogs can be restored with the help of LIFE Programme.
- There were interesting examples in building nature trails, bird hides and bird watching towers for disabled persons.
- The project staff got to know how about the various methods of peat extraction in the peat has been cut bogs have been were extracted by hand – showing the history and tools.

### **Study tour to the LIFE project sites in Wales**

From September 1<sup>st</sup> to 7<sup>th</sup>, 2010 the LIFE project team "Restoration of Raised Bog Habitats in the Especially Protected Nature Areas of Latvia" were on study tour in Wales to get to know the experience of EC LIFE project "Anglesey and Llyn Fens - Restoring Alkaline and Calcareous Fens within the Corsydd Mon a Llyn (Anglesey & Llyn Fens) Special Areas of Conservation in Wales" and "Restoring Active Blanket Bog in the Berwyn and Migneint Special Areas of Conservation in Wales".

Dr. Joan Daniels from "Natural England" introduced the project team with Fenn's, Whixall & Bettisfield Mosses and management actions carried out there. This is one of the three largest bogs in the British Isles. The bog has been partially damaged by peat extraction or has overgrown with Sitka spruce. Peat extraction was stopped about 20 years ago and at present the dams are built on the ditches to raise the water level in the bog. Sitka Spruce was planted in the mire and therefore has to be removed. Also a nature trail was set up in the site.

Mr. Les Colley who works for Countryside Council for Wales guided the LIFE project team to the sites of the EC LIFE project "Anglesey and Llyn Fens - Restoring Alkaline and Calcareous Fens within the Corsydd Mon a Llyn (Anglesey & Llyn Fens) Special Areas of Conservation in Wales" and introduced with the restoration work carried out in Anglesey and Llyn fens. The management in the site is carried out with ponies that graze on *Molinia* grass,

the grass is also mown or burned. To restore the hydrological regime in the site, dams and sluices were built, impact from other territories was reduced by buying the land surrounding the fens.

The EC LIFE project manager Mike Morris and his team working for the LIFE project “Restoring Active Blanket Bog in the Berwyn and Migneint Special Areas of Conservation in Wales” showed the project sites around Lake Vyrnwy and blanket bogs where bog restoration has been carried out since 2007. The area near Penan was also visited where excavator was currently building dams on the drainage ditches. Sitca Spruce plantation was there before. In total, the Welsh blanket bog LIFE project has built about 10'000 dams. Blanket bogs are being grazed by sheep, cows and ponies, as well as the area is mown to provide traditional mire management. To show blanket bogs to students and other interested parties the project team has guided the excursions to the blanket bogs to several hundred persons by car.

In the study tour trip all the project team participated: Project manager Mara Pakalne, project assistant Aivars Slisans, field manager Gunars Balodis and Public awareness coordinator Daiga Brakmane.

From September 7<sup>th</sup> to 9<sup>th</sup>, 2010 the Project manager Mara Pakalne and assistant Aivars Slišāns participated in Aberystwyth and Corsa Fochno seminar which was dedicated to the Welsh raised bog protection and management. Workshop was organized by the specialists from Countryside Council for Wales. It included both presentation and field visits to raised bog where with the discussions on wetland management and hydrological observation methodology were continued.

### **Field Symposium of the International Mire Conservation Group in Slovakia and Poland**

From July 5-17 in Slovakia and Poland the field Symposium and the conference of the International Mire Conservation Group ([www.imcg.com](http://www.imcg.com)) was held where the project manager Mara Pakalne participated. There were over 40 participants from 18 countries, including European countries - Ireland, France, Switzerland, Germany, Poland, The Netherlands, Estonia, Latvia, Ireland, France, Switzerland, Germany, Poland, The Netherlands, Estonia and Latvia as well as Canada, South Africa, New Zealand and Malaysia.

The field symposium included visits to more than 20 mires in Slovakia and Poland that comprise spring mires, transitional mires and bogs, as well as wet meadows. Field discussions were devoted to mire conservation and management problems. The sites include rare and protected plant and animal species. Special attention was paid to fens and spring mires - the habitat that is protected both in European countries and in Latvia.

The Mociar Nature Reserve is located in Slovakia. It comprises peculiar spring mires and is located at the foothills of Tatra Mountains. The area of the Nature reserve is only 6.75 ha but many rare mire species and habitats are recorded, like *Schoenus ferrugineus*, *Blysmus compressus*, *Carex davalliana*, *C. hostiana*, *Dactylorhiza incarnata*, *Gymnadenia densiflora*, *Tofieldia calyculata*, *Trichophorum pumilum*, *Cladium mariscus*, *Triglochin maritima*, *Primula farinosa*, *Pinguicula vulgaris*, *Drepanocladus cossonii*, *Bryum pseudotriquetrum* and *Campylium stellatum*.



Tufa formation was observed near springs. Although the site includes especially protected mire habitats in Europe, in this site the hydrological regime has been changed due to human activities as well as the site has been polluted.

In Slovakia especially protected mire habitats and wet grasslands occur in the Belianski meadows, where *Pedicularis sceptrum-carolinum* and *Swertia perennis* occur. The Pos Nature Reserve is located at the foothills of Tatra Mountains and includes fen and transitional mire vegetation with *Eriophorum angustifolium*, *Comarum palustre*, *Carex limosa*, *Menyanthes trifoliata* and *Sphagnum* species, like *Sphagnum subsecundum*, *S. centrale* and *S. platyphyllum*.

In Poland a great number of mires have been influenced by human activities, but still mires in a natural status occur in the Rospuda River valley. Fens and transition mires with rare plant species, *Liparis loeselii*, *Saxifraga hirculus*, *Hamatocaulis vernicosus* are known there. The mires in Rospuda River valley were endangered by the government decision to build a highway that would cross the valley. In this case, the whole mire ecosystem would be destroyed. Thanks to the active response of the community and the interference of the European Commission that insisted on the need of the Environment Impact Assessment for the site, building of the highway was stopped. It allowed maintain this unique mire ecosystem with fen and transition mire habitats.