



# Estonia-Latvia-Russia Cross Border Cooperation Programme Project “Promoting nature education as efficient mean of awareness raising” or “People with Nature”

## Joint Manual



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## **Abbreviations used in the Manual:**

PWN – People with Nature

NEC – Nature education centre

NP – National park

NCA – Nature Conservation Agency

NHMSS – Natural History Museum Support Society

GNPF – Gauja National Park Foundation

Peipsi CTC – Peipsi Centre for Transboundary Cooperation

TEEC – Tartu Environmental Education Centre

LPP – NGO “Lake Peipsi Project, Pskov”

CGC – Pskov Regional Centre for development of gifted children and youth

BNC – Saint-Petersburg charitable public organisation “Biologists for nature conservation”

NGO – Non-governmental organization

## What is "People with Nature" all about?

Nature education has been and still is a very important aspect that promotes sustainable development of society; however it has been suffering from lack of financial capacity and insufficient recognition from society. In order to improve the situation, it is necessary to offer society a nature education strategy that is well-developed and adjusted to modern society. Rapid economic development in recent years has changed and influenced our society. People wish to reach a certain level of welfare, but at the same time they do not take into consideration costs paid by nature for this and have little awareness of green living.

Experience shows that the closest neighbouring countries can cooperate in a most successful way to find the best solutions in the region and jointly put into practice effective tools and methods of nature education. Similar nature features, close mentality, as well as possible further connections after the completion of cooperation activities also speak in favour of cross border cooperation. All three countries – Latvia, Estonia, and Russia have experience in nature education and can provide information of best practices in order to promote eco-awareness of society and sustainability of its actions. Considering this, 2 organizations from Estonia, 4 – from Latvia, and 5— from Russia decided to unite their effort to carry out several activities within a cross-border project with a code name "People with Nature".

The overall objective of the cross border cooperation project "People with Nature" is to carry out common activities, elaborate joint approaches for management of nature education centres, make nature education more available to society, and positively affect awareness of people in order to promote sustainable development of the project region. It is urgently necessary to show values and functions of nature and also possible approaches for further development of mankind that would conserve our resources to next generations.

The main objective of the Project is to unite ideas, capacity, and tools for improvement of nature education situation, resulting not only in better education provision but also in raised awareness of the society on sustainable development and integrated nature conservation in the project region of Estonia, Latvia, and Russia.



Map of organizations involved in the Project "People with Nature"



Location of nature education centres developed and improved in the Project "People with Nature" area

Although Project involves 11 organizations, their activities have been closely related with provision of nature education through various nature education centres. Capacity of 12 different nature education centres has been raised by ensuring more favourable conditions for successful use and development thereof in participatory nature education activities. Modern nature education methods and study materials have been created, as well as specialists have been trained in order to ensure sustainable nature education development and inform public about the necessity of nature conservation.

### **Facts about the project “People with Nature”:**

**Full name:** Promoting nature education as efficient mean of awareness raising

**Duration:** 01.04.2012-30.09.2014

**Budget:** EUR 1,499,977.00

**Funders:** 90 % – Estonia-Latvia-Russia Cross Border Cooperation Programme within ENPI 2007-2013  
10 % – Estonian Environmental Investment Centre, state budget of Latvia, state budget of Russia, private funding through NGOs

### **Main achievements in figures:**

- 11 organisations from 3 countries working together
- over 200 press releases published and over 120,000 people reached
- over 3,500 people directly involved in project activities
- over 59,000 units of materials published
- work conditions improved in 12 nature education centres
- over 20,000 people directly approached through 9 exhibitions

## Cooperation for nature education

*“If you want to be better, be competitive. If you want to be the best, be cooperative.”  
Cooperation is the process of working or acting together. In other words, cooperation is the process where individual actors work together to create more complex, greater-than-the-sum-of-its-parts results.*

*Nature protection and education is both challenging and rewarding process. The sum of what we have is great: our nature, our knowledge, our people. But since we want to create something greater and be the best, we cooperate! And in this process we become better prepared for the challenge and get sweeter rewards.*

*Sille Talvet*

*“People with Nature” Project Coordinator*

Joining 11 organisations and 3 countries into 1 cooperative unit creates a challenging situation, and cooperation is not always an easy task; however on behalf of a common goal, it is possible to cooperate and exchange experience each organisation has accrued in the field of nature education.

Best of all, happiness for successful cooperation, meeting, and exchange of experience could be sensed in three study visits. In one of those visits organised by the Nature Conservation Agency in Latvia, people from project team were invited to take part in a small “brainstorm” on what a successful cooperation means to each of the partners. In sands of the seashore, the word ‘COOPERATION’ has been written in a downward line and each partner had to write one word giving the first letter of this word that characterises successful cooperation. What a coincidence – exactly 11 letters, one for each partner! This small but really heart-warming gathering was also one of the evidences of - successful cooperation – everyone got engaged with enthusiasm and creativity.

Here are the pre-conditions of successful cooperation according to the Project’s team:

**C**REATIVITY  
**O**RGANISED  
**O**PTIMISTIC  
**P**ROFESSIONAL  
**E**NCOURAGING  
**R**EWARD  
**A**WARDNESS  
**T**ALENT  
**I**DEA  
**O**PTIMISM  
**N**ATURE

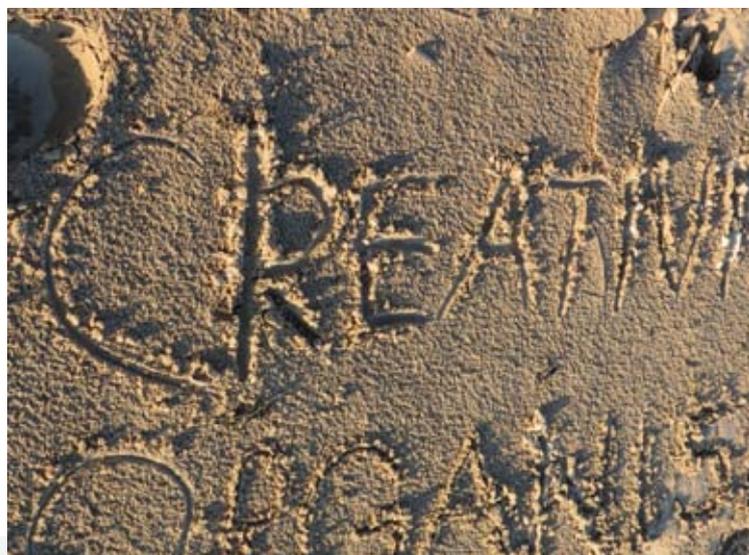


Photo: I. Vanaga

## II Nature education tools and nature education centres

### 1 . Nature education centres in Latvia, Estonia, and Russia

Within the framework of the Project, six nature education centres have been opened in the specially protected natural areas in Latvia. Four of these centres have been established by the Nature Conservation Agency – “Meža māja” in the Ķemeri National Park, “Rāzna” in the Rāzna National Park, “Vecupītes” in the Gauja National Park, and “Ziemeļvidzeme” in the Ziemeļvidzeme Biosphere Reserve.

#### 1.1. Nature Education Centre “Meža māja”, Latvia

Nature Education Centre “Meža māja” (Forest House) is located on the shore of Vēršupīte River surrounded by humid forests. The historical building was first occupied by an entertainment centre and a restaurant, later a children’s health camp was located there. Currently “Meža māja” is managed by the Nature Conservation Agency, and the new Nature Education Centre offers different nature-related educational activities. Offer is available by prior appointment.

##### Nature Education Centre “Meža māja” offers:

- nature school lessons about swamps, forests, coastline, meadows, and water in the Ķemeri National Park;
- an exhibition about nature values in the Ķemeri National Park “See what others can’t see!”;
- lessons and lectures at schools;
- nature-related educational activities and events: Birds’ Day in spring and autumn, as well as the Bats’ Night event in the middle of the summer etc.
- literature and different educational materials about the nature;
- nature and environment-related games.

**Target groups:** pre-school and school children, students, families, local society, etc.

**Address:** “Meža māja”, Ķemeri, Jūrmala

**Contact person:** Ilze Vanaga, phone: +371 26332786; e-mail: [ilze.vanaga@daba.gov.lv](mailto:ilze.vanaga@daba.gov.lv)

**Homepage:** [http://www.daba.gov.lv/public/lat/vides\\_izglitiba/dabas\\_izglitibas\\_centri](http://www.daba.gov.lv/public/lat/vides_izglitiba/dabas_izglitibas_centri)



NEC “Meža māja” in the middle of the Ķemeri National Park.  
Photo: I. Vanaga



Activity room in the NEC “Meža māja”.  
Photo: A. Pendere

## 1.2. Nature Education Centre “Rāzna”, Latvia

Nature Education Centre “Rāzna” is located almost in the heart of the Rāzna National Park – next to lake Rāzna. The centre offers an opportunity to see an exhibition about nature values in the National Park, take part in creative and interactive activities on different subjects for different age groups both indoors and outdoors. Visitors are welcome by prior appointment.

### Nature Education Centre “Rāzna” offers:

- Exhibition “Get to know and feel Rāzna National Park!” (individual visits or accompanied by an employee of the Nature Education Centre);
- Nature research classes;
  - Specially protected nature territory, Rāzna National Park;
  - Animals and insects of Rāzna National Park: in the water, air, forest, meadows, and swamp;
- Environment-related creative workshops;
- Nature research games;
- Theme-based events;
- Trail of senses next to the Nature Education Centre.

**Target groups:** curious school children and families with children, local people, and tourists.

**Address:** Skolas iela 3, Lipuški, Mākoņkalns parish, Rēzekne municipality.

**Contact person:** Regīna Indriķe, phone: +371 29139677; e-mail: [regina.indrike@daba.gov.lv](mailto:regina.indrike@daba.gov.lv)

**Homepage:** [http://www.daba.gov.lv/public/lat/vides\\_izglitiba/dabas\\_izglitibas\\_centri/](http://www.daba.gov.lv/public/lat/vides_izglitiba/dabas_izglitibas_centri/)



*Interactive exhibition in the NEC “Rāzna”.  
Photo: R. Indriķe*



*Trail of senses next to the NEC “Rāzna”.  
Photo: R. Indriķe*

### 1.3. Nature Education Centre “Vecupītes”, Latvia

In the northern part of the Gauja National Park not far from Valmiera, an old forester’s house has been transformed into the Nature Education Centre “Vecupītes” where visitors can participate in different nature education activities by prior appointment.

#### Nature Education Centre “Vecupītes” offers:

- the exhibition “Forest stories in Vecupītes” about nature diversity;
- nature study lessons about local natural wealth;
- workshops and outdoor activities;
- nature and environment-related games;
- literature and different educational materials about the nature;
- worksheets and educational programmes about Latvian trees and animals that have developed here and adapted to local conditions;
- lectures and lessons at schools.

A 2.8 km long nature path begins next to the NEC “Vecupītes” where various ecosystems can be observed. The stands placed along the path help visitors to find out a lot of interesting things about nature values of the Gauja National Park.

**Target groups:** school children and families with children, local people, and tourists.

**Address:** Vecupītes, Kocēni parish, Kocēni municipality

**Contact person:** Baiba Līviņa, phone: +371 29433353; e-mail: [baiba.livina@daba.gov.lv](mailto:baiba.livina@daba.gov.lv)

**Homepage:** [http://www.daba.gov.lv/public/lat/vides\\_izglitiba/dabas\\_izglitibas\\_centri/](http://www.daba.gov.lv/public/lat/vides_izglitiba/dabas_izglitibas_centri/)



NEC “Vecupītes” in the Gauja National Park.  
Photo I. Vanaga



Nature education lesson about animals.  
Photo B. Līviņa

## 1.4. Nature Education Centre "Ziemeļvidzeme", Latvia

In order to better understand the interaction of environment and people's practical actions, we invite people of any age to participate in classes, workshops, and excursions in the Nature Education Centre "Ziemeļvidzeme". Lessons are given indoors and outdoors. Theoretical lectures are enriched by different interesting tasks and nature-related games. Visitors are welcome by prior appointment.

**Nature Education Centre "Ziemeļvidzeme" offers the following nature research lessons:**

- What are specially protected nature territories and why they are needed?
- Baltic Sea
  - Why the sea is salty?
  - Seaweed in the sea and on the shore.
  - What mollusc shells can we find on the beach?
- Animals, their tracks on the shore
  - Shore
  - Getting to know sand dune plants.
  - Plants on the shore and animals in the sea.
  - Shore sand dunes – their location, types, and importance.
- Water
  - Importance and use of water.
  - Animals and plants in Salaca river.
  - Importance of the Gulf of Riga and Salaca river.
- Birds
  - What are migrating birds?
  - Bird watching in winter.
  - Birds' ability to live and feed in different types of environment.
- Trees
  - What is a secular tree?
  - Trees growing in Latvia, their differences
  - What happens in tree trunk, branches, and leaves?
- Air quality on the coast and in the city or study of 5 species of lichen and their endurance of air pollution

**Target groups:** pre-school and school children, students, families, etc.

**Address:** Rīgas iela 16, Salacgrīva

**Contact person:** Inta Soma, phone: +371 26329412; e-mail: [inta.soma@daba.gov.lv](mailto:inta.soma@daba.gov.lv)

**Homepage:** [http://www.daba.gov.lv/public/lat/vides\\_izglitiba/dabas\\_izglitibas\\_centri/](http://www.daba.gov.lv/public/lat/vides_izglitiba/dabas_izglitibas_centri/)



Workshop for adults in the NEC.  
Photo: L. Jermacāne



Nature education activities on the coast of the Baltic Sea.  
Photo: I. Soma

## 1.5. Nature Education Centre – Forest School “Pauguri”, Latvia

Nature Education Centre, Forest School “Pauguri”, is located in the Gauja National Park, Līgatne Nature Trails. The primary purpose of the Nature Education Centre is to acquaint people with flora and fauna of Latvia, as well as to educate them in the field of the nature protection offering to discover, explore, and feel the diverse presence of nature.

### Nature Education Centre, Forest School “Pauguri” offers:

- interactive exhibition “Hide and seek” (about wild animals);
- days of biodiversity: Water Day in spring, Bats’ Day in summer, Fungi Day in autumn, and Nature Day in winter;
- possibility to try stations of senses;
- nature education materials (worksheets, guides to nature exploration and practical experiments).

The educational offer of the Forest School “Pauguri” is based on hands-on experience, skills and information acquisition, learning important things from nature for real life in nature, and learning about and exploring the basic laws of nature.

**Target groups:** school children, families, and adults.

**Address:** Līgatne Nature Trails, Līgatne Parish, Līgatne Municipality

**Contact person:** Gauja National Park Foundation, phone: +371 26433668, e-mail: [gnpfonds@gnpfonds.lv](mailto:gnpfonds@gnpfonds.lv)

**Homepage:** <http://www.gnp.lv/meza-skola-pauguri>



NEC “Pauguri” in Līgatne Nature Trails.  
Photo: Gauja NP Foundation archive



Outdoor activities near the NEC “Pauguri”. Photo: Gauja NP Foundation archive

## 1.6. Nature Education Centre “Jaundome Manor”, Latvia

Nature Education Centre “Jaundome Manor” is located in Dagda municipality, Ezernieki parish, next to the one of the most beautiful lakes in the Latgale region and Rāzna National Park, Ežezers. The Centre offers a variety of interesting subjects to explore nature values related to water – plants, fishes, amphibians, and birds.

### Nature Education Centre “Jaundome Manor” offers:

- an exhibition about water plants and animals;
- nature education lessons and events about life in the water;
- rooms for seminars and conferences;
- practical knowledge in outdoor lessons;
- rent of equipment for water research and bird watching;
- digital programs and interactive visual materials “Ežezers”;
- by prior appointment, degustation of local meal “Gifts from local lakes”;
- excursions accompanied by a guide.

**Target groups:** school children, fishermen, societies, associations, local inhabitants, and foreigners.

**Address:** Jaundome, Ezernieki parish, Dagda Municipality

**Contact person:** Armands Pudniks, phone: +371 25960309, e-mail: [pudniksarmands@inbox.lv](mailto:pudniksarmands@inbox.lv)

**Homepage:** <http://visitdagda.com/index.php/lv/apskates-objekti/muzeji-lv/70-lv/objekti/muzeji-lv/337-jaundomes-muiza-lv>



Workshop for visitors.  
Photo: Archive of Dagda Local Municipality



Interactive visual materials about Ežezers Lake.  
Photo: Archive of Dagda Local Municipality

Within the framework of the Project, equipment and offer of two nature education centres in Estonia have been improved.

### 1.7. Peipsi CTC Nature Education Centre, Estonia

Near Mustvee in Tiheda village, exposition “Lake Peipsi Living Room” is located. The exposition functions as a small nature education centre operating in cooperation of Peipsi Centre for Transboundary Cooperation and Kasepää Local Municipality. In cooperation with Kasepää Local Municipality, the exposition is open for wider public on a regular basis. Environmental education programmes are available to schools by prior appointment, and they are provided by Peipsi Centre for Transboundary Cooperation.

#### Nature Education Centre “Lake Peipsi Living Room” offers:

- the exposition “Lake Peipsi Living Room” about the lake and its surrounding; texts are available in Estonian, English, and Russian
- workshops and outdoor activities, environmental education programmes for different age groups (by prior appointment);
- Peipsi CTC offers over 11 study programmes for pupils. Main topics include Lake Peipsi, its ecosystem and wetland areas. Programmes are implemented in the mire areas and on the shores of Lake Peipsi, incl. the exhibition “Lake Peipsi Living Room”. Peipsi CTC offers indoor activities as well, which can take place in classrooms.

NEC “Lake Peipsi Living Room” is located on the shore of lake Peipsi. Near the NEC, there is a small beach for locals and visitors and next to it there is also a festive ground of Kasepää municipality.

**Target groups:** pre-school and school children, students, families etc.

**Address:** Sõpruse 84, Tiheda village, Kasepää local municipality, Estonia

**Contact person:** Aili Koppel, phone: +372 54 593 383, e-mail: [peipsi@kasepaa.ee](mailto:peipsi@kasepaa.ee)  
Eeva Kirsipuu, phone: +372 5213881, e-mail: [eeva.kirsipuu@ctc.ee](mailto:eeva.kirsipuu@ctc.ee)

**Homepage:** <http://ctc.ee/area-of-lake-peipsi/peipsi-exhibition>



NEC “Lake Peipsi Living Room” in Tiheda village.  
Photo: Peipsi CTC archive



Pupils participating in the programme about Lake Peipsi.  
Photo E. Sepp

## 1.8. Tartu Environmental Education Centre, Estonia

Tartu Environmental Education Centre (TEEC) has developed from a nature school that had been established in 1953, and it is still situated there on Lille street 10, just a 5-minute walk from the city centre. The house for the nature school has been built in 2013, and it meets energy efficiency standard. There is a big park area surrounding the house for different educational and cultural activities. The TEEC is an open and diverse organisation promoting environmental education among children and adults. The Centre from generation to generation facilitates a long-lasting and environmentally friendly way of living.

### Tartu Environmental Education Centre offers:

- 18 different hobby clubs for children from age 7 to 18 including such hobbies as hiking, indoor plants, young nature friends, environmental media, nature guides, nature friendly handyman, zoology, and photography. Hobby clubs are available also in Russian language;
- a possibility to find answers to diverse questions about nature and environment in our public environmental information centre. This involves topics of pollution, hiking, air, water, garbage, energy. There is also a mobile information centre that participates in different big fairs and events;
- trainings for adults are open to all people interested in nature and environmental topics. There are also special training lessons for teachers and office workers. All lessons are based on approved curricula;
- educational programmes for school classes;
- the exhibition "Tartu Nature House Inside Out". The aim of the exhibition is to present building materials, water cycles, and sustainable management solutions for energy and waste;
- public events: movie and nature evenings, lectures, workshops, environmental bus trips and memory quizzes;
- outdoor activity programmes with games, camps, competitions, as well as a bicycle school for students;
- family club and morning activities for preschool children.

**Target groups:** children, young people, adults, elderly, interested ones, teachers, specialists.

**Address:** Lille 10, Tartu, 51010, Estonia

**Contact person:** Kersti Sõgel, phone: +372 55983328, e-mail: [kersti.sogel@teec.ee](mailto:kersti.sogel@teec.ee)

**Homepage:** [www.teec.ee](http://www.teec.ee)



Tartu Nature House.  
Photo: TEEC archive



Field studies for children.  
Photo: TEEC archive

Within the framework of the Project, the offer of three nature education centres in the National Park “Sebezhsy” and a visitor centre in Izborsk has been improved and two mobile nature education centres have been created in Russia.

### 1.9. Mobile Nature Education Centre in National Park “Sebezhsy”, Russia

The main objective of the Mobile Nature Education Centre is environmental education of the local population through the closest approach of programmes to the consumers and programme implementation in any environment. The Mobile Visitor Centre of the National Park “Sebezhsy” consists of a minibus, sound and lighting equipment, a tent, folding furniture, and equipment for demonstration of puppet shows and movies.

#### Mobile Nature Education Centre offers:

- puppet shows about nature and its protection,
- nature education lessons,
- nature education activities in music festivals, gatherings, volunteering work, etc. devoted to international environmental celebrations,
- field exhibitions,
- nature education activities for tourists and visitors of festivities.

All activities are available in educational institutions around the district, in regional cultural centres, in other NECs, and at forests.

Within the Project, a new two-tier screen, some dolls and a sound system had been purchased for puppet shows prepared by the staff of the National park “Sebezhsy” twice a year. Performances usually are about nature conservation, rules of staying at forest, fighting forest fires, and pollution of waters or about how animals and birds live in a severe winter period.

**Target groups:** kindergartens, schools, students, tourists and visitors of the park, visitors of exhibitions and celebrations.

**Address:** 7 Noyabrya Street 22, Sebezhsy, 182250, Russia

**Contact person:** Irina Cvetkova, phone: +7 81140 35364, e-mail: [irvas.60@mail.ru](mailto:irvas.60@mail.ru)

**Homepage:** <http://seb-park.ru/ecopros/ecopros.html>



Staff of the National Park offers puppet shows about nature protection. Photo: NP “Sebezhsy” archiv



The bus serves as a mobile education centre. Photo: NP “Sebezhsy” archive

## 1.10. Nature Education Centre "Amazing World of Sebezhsy Lakes", Russia

Nature Education Centre "Amazing World of Sebezhsy Lakes" is located in the administrative building of the National Park, city Sebezh. The main task – to acquaint visitors and tourists to activities of the park, its natural features and attractions, visiting rules.

**Nature Education Centre "Amazing World of Sebezhsy Lakes" offers:**

- an exhibition with activities reflecting natural and cultural heritage of the National Park;
- children's art;
- souvenirs of the National Park.

**Target groups:** school excursion groups; tourists; visitors of the National Park

**Address:** 7 Noyabrya Street 22, Sebezh, 182250, Russia

**Contact person:** Irina Cvetkova, phone: +7 81140 35364, e-mail: [irvas.60@mail.ru](mailto:irvas.60@mail.ru)

**Homepage:** <http://seb-park.ru/ecopros/ecopros.html>

## 1.11. Nature Education Centre "Wetlands of the National Park "Sebezhsy"", Russia

This Nature Education Centre is located in the centre of the Environmental Education and Tourism Centre "Ozeryavki" in a separate two-storey building. In this NEC, visitors can find a beginning of the nature trail "Big Grebel", which is 3 km long.

The main task is getting acquainted with the natural features of the Park and learning the basic rules of behaviour in nature.

**Nature Education Centre "Wetlands of the National park "Sebezhsy"" offers:**

- an exhibition about nature values in wetlands;
- excursions in the nature trail "Big Grebel"

**Target groups:** school excursion groups; tourists; visitors of the National Park.

**Address:** 7 Noyabrya Street 22, Sebezh, 182250, Russia

**Contact person:** Irina Cvetkova, phone: +7 81140 35364, e-mail: [irvas.60@mail.ru](mailto:irvas.60@mail.ru)

**Homepage:** <http://seb-park.ru/ecopros/ecopros.html>



Exhibition in the NEC "Amazing World of Sebezhsy Lakes".  
Photo: I. Vanaga



Exhibition in the NEC "Wetlands of the National park "Sebezhsy"". Photo: I. Vanaga

## 1.12. Visitor Centre “Protected nature areas of Pskov region”, Russia

The State Committee on Nature Management and Protection of Environment of Pskov Region within the project was responsible for opening the Nature Education Centre where all information about protected areas of Pskov region is presented.

### Visitor Centre “Protected nature areas of Pskov region” offers:

- information about protected nature areas in Pskov region;
- an exhibition about nature values and minerals of Pskov region;
- Biodiversity day events;
- seminars about different nature protection subjects for teachers, etc.

**Target groups:** students, teachers, experts and all people who are interested in protected areas of Pskov region.

**Address:** Merchant Anisimov House, Pechorsk Street 41a, second floor, Izborsk, Russia

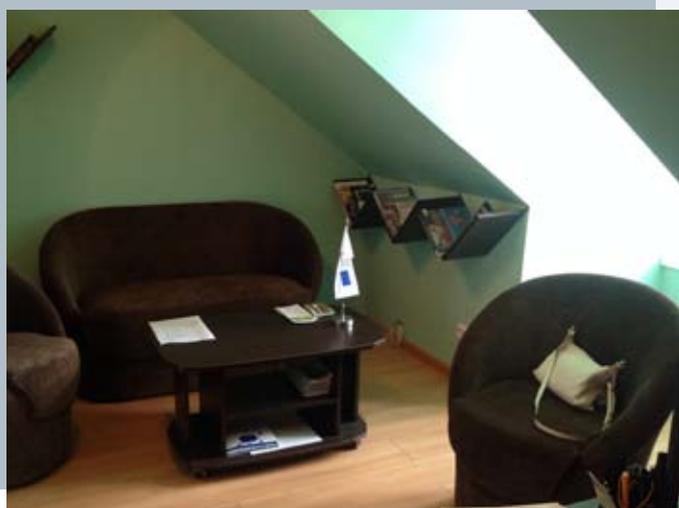
**Homepage:** [www.priroda.pskov.ru](http://www.priroda.pskov.ru)



Visitor Centre in Izborsk. Photo: E. Paist



Library in the Visitor Centre. Photo: I. Vanaga



Lounge for visitors. Photo: E. Paist



Courtyard of the Visitor Centre. Photo: I. Vanaga

## 2. Concept of Nature Education Centres management

**The aim** of the Concept document is to provide guidelines which compromise the best practices and solutions that could serve as a basis for creation, development, and management of nature / environmental education centres to people who are interested in developing such centres.

**Target audience** – organisations, professionals and enthusiasts interested in development and management of nature education centres.

**Content:** The Concept contains information about types of different nature education centres, planning processes (why, who, what, how), resources needed – human, financial, cultural and natural, facilities, etc.

The Concept is a guide through the planning process and all other challenges during introduction of a nature education centre. The theory alternates with practical examples from nature education centres in Latvia, Estonia, and Russia. Full version of the Concept is available on the homepage of the Nature Conservation Agency, [www.daba.gov.lv](http://www.daba.gov.lv), under the “Publications “ section.

## 3. Tools for attracting wider audience

### 3.1. Exhibitions

One of the integral parts of the nature education centres is a permanent exhibition. The exhibition aims at educating the visitors and simultaneously it ensures also the interior design of the Centre itself. A successful exhibition may be the foundation for an increased number of visitors. The exhibition must be well-considered and tasteful, kindling the interest of the visitors, and easy to comprehend. Too scientific approach may have a negative result – it will appear to be too complicated for the visitors.

When starting to plan the exhibition, it is very important to explore the functionality of the room. In the best case, the exhibition room/rooms should be located near the entrance of the NEC. If the rooms of the NEC are overall small (or there is only one room at all), the visitors' attention will be drawn as soon as they enter the centre. If the NEC covers several rooms, it must be ensured that there are clear signs directing visitors to the exhibition room. If the exhibition is hard to find in the room labyrinth, it may scare off the shyest visitors.

Once the room has been chosen, its arrangement and planned functions must be evaluated. There are cases when the room serves only as an exhibition hall, but it may also be arranged as an information centre offering a room for classes, lectures, presentations, and other activities. The best way to place the exhibition objects in the room must be reconsidered based on the planned functions. It must be decided whether the exhibition will be only the visual decoration of the room or it will include also some interactive elements that are related to movements and activities. The various functions should not hinder each other but rather supplement each other. For instance, in one corner of the exhibition hall in "Meža māja", there is a door to the cellar, and this dark passageway is as also one of the exhibition objects – when flashing the light in it with a pocket flashlight, it is possible to see stylised bats.

The lighting of the room plays an essential role – the room must be bright so that it is nice for people to stay there. If necessary, an additional lighting must be foreseen. If the room has windows with a rather unattractive view, this defect can be turned into an effect, namely, the windows can be trimmed with a decorative sellotape lift; thus supplementing the exhibition's offer. The placement of activities also depends on lighting.

An important planning aspect is the movement of visitors in the room. Depending on the layout of the room, the movement may take place both clockwise and anticlockwise direction. It is advisable to place the exhibition materials in a way that captures interest of visitors while they are moving. Also visitors with special needs must be taken into account. NEC "Meža māja" had to give up the initial idea to place a wooden plank-way on the floor encouraging visitors to use plank-ways also in the nature. Such solution would not be very suitable for people in wheelchairs.

The exhibition's concept may be created by both the nature education centre specialists and outsource providers. This aspect depends on both financial and human resources. In the Project "People with Nature", the conception was written by outsource providers based on ideas about the exhibition's content, arrangement, and layout presented by nature education specialists. Close cooperation between the parties is preferable in order to ensure that the result is acceptable and easily creatable, as well as it can be easily used in further work of the nature education centre.

The exhibition’s content should ensure not only an educational but also entertaining function; moreover it must be intended for both adults and children. Information must be easy to comprehend but not too simple. Not only children but also adults like the presence of interactive elements in the exhibition. It may be small detail but it must stick in memory of the visitors.

The artists that implemented previously developed concept ideas were involved in the practical arrangement of the exhibition. Division of responsibilities between the artists and specialists of the nature education centre must be agreed before the actual work starts, thereby avoiding misunderstandings during the process. The best solution would be that the authors of the exhibition’s content also are the ones arranging it.

If it is planned to have a formal opening of the exhibition, one must think over the activities for a bigger audience to be prepared specially for this event. It is essential for the further work of the NEC to ensure an opportunity to receive information in the exhibition room. If it is not a tour guide with explanatory narration, a previously prepared working sheets may be used to help the visitors be competent in the exhibition. If the exhibition includes activities involving the visitors, presence of the tour guide is mandatory. This also helps to ensure order and protect the exhibition objects for a longer period of time.

When creating travelling interactive exhibitions, materials used, weight, packaging, and transporting options should be considered very carefully – materials must be light and convenient for transportation. Special adjustments as for exposing the exhibition are necessary for each space and room, as well as solutions and alternatives for the equipment and materials that are difficult or impossible to transport (microscopes, binoculars, computers, touch-sensitive monitors, etc.) from one place to another must be found.

**Within the Project, twelve exhibitions and expositions have been made – 6 in Latvia, 2 in Estonia, and 4 in Russia. This Paper gives a description of 9 expositions.**

### **3.1.1. “See what others can’t see!” in the NEC “Meža māja”**

**The aim** of the interactive exhibition is to present four main ecosystems of the Ķemeri National Park: coastline, meadows, forests, and swamps.

**Type:** permanent

**Target groups:** pre-school children and school children, students, families, etc.

**Content:** The exhibition room is divided into 4 sections, and considering the wall painting it is possible to establish in which ecosystem the visitor is. Accordingly, a theme exhibition has been created offering various interactive activities in each section. Several interesting facts about each ecosystem are mentioned on the board on the wall, as well as there are books about ecosystem in each section, and these books allow naming the plants and animals displayed on the wall painting.

**Coastline.** In a small sand box, it is possible to remember childhood and play in sand with a shovel searching for hidden coastline treasures. In a specially created and lightened glass-case, it is possible to look at nature objects that are typical to coastline using magnifying glass. When studying the samples of beach sand from different Latvian beaches, the task is to determine where and why sand is the darkest.

**Meadows.** In this section of the exhibition, one can learn about different meadow inhabitants. The skin of grass-snake, blindworm, and frog and fragments of giant hornet hive can be seen. Visitors can try to guess what is seen in the microscope.

**Forest.** On a digital scale, polypores and cones can be weighted and compared. Following one's touch, it must be guessed what is hiding in touchable bags. In lightened glass-cases built in stylised tree stems, one through magnifying glass can see various nature values and photographs that are related to the forest ecosystem.

**Swamp.** In a swamp cabin, which is a glass-case, one can learn about the creation process of a swamp, see a sectional swamp, look on different peat samples in various decomposition stages, and learn what is forming under the swamp (sulphured water). On a magnetic board, the animal encountered in the swamp should be arranged in the right place. One can try to enter the swamp on a special platform observing the differences between safe and unsafe places.

In addition to these sections, also a small "horror room" has been set up – stairs to the cellar are full of stylised bats that can be seen when looking into the dark and flashing the flashlight. A table with a picture of Slampe river flood-land has been placed in the middle of the exhibition. The table is meant for worksheets recommended to be use in pairs or groups.



*Hand-on activities for children...  
Photo: A. Pendere*



*... and adults.  
Photo: I. Vanaga*



*A tree to explore.  
Photo: I. Vanaga*



*A mushroom table game to play.  
Photo: I. Vanaga*

### 3.1.2. “Get to know and feel Rāzna National Park!” in the NEC “Rāzna”

**The aim** of the exhibition is to create an understandable and visually entertaining interactive exhibition about one of the biggest special area of conservation in Latvia – Rāzna National Park. The main task of the exhibition is to show the diversity of the territory, the most typical biotopes, and values in the nature restricted areas.

**Type:** permanent

**Target groups:** pre-school and school children, students, families, etc.

**Content:** The keynote of the exhibition “Get to know and feel the Rāzna National Park” points on the necessity to emphasise certain objects, nature elements and give the visitors an opportunity to learn the current values at the National Park by using different senses-sight, touch, hearing, smell.

The conjunctive element of the exhibition is mascot Hugo that is reflected on boards and participates in nearby activities involving the visitors. In order to get the overall opinion about the Rāzna National Park, a magnetic map-model with sightseeing objects, nature trails, and nature value photographs can be used.

The boards that are placed on the walls and display the main values of the National Park in four theme blocks create the biggest part of the exhibition. For the purposes of board implementation in the room, wall paintings are used, thus visually supplementing the board. In the first block, a general description of Rāzna National Park is given. A rotating circle is being used for this activity. The second block is dedicated to lake Rāzna and fish and birds living in it. The boards are supplemented with an activity table containing soil samples, “Fish book”, a bittern’s nest, and activity “Lure out the voice of bittern!”.

The third block, created from a magnetic board, displays the nature restricted areas of the Rāzna National Park. The fourth part of the exhibition tells about forests of the National Park. The textual part is supplemented by equipment, materials, namely, containers for the magnification of nature objects and magnifying glasses, rotating circle, “Bird book”, and the game “Birds of passages and settlement” for various activities. One activity was a process of creating table drawings with tree silhouettes and animal traces and tasks – one has to find a leave, fruit, or bark sample corresponding to the particular tree silhouette or appropriate traces of action to the animal image and footprints.



A part of the exhibition is devoted to forest values of the National Park “Rāzna”. Photo: R. Indriķe.



School children explore the exhibition’s activities. Photo: R. Indriķe

### 3.1.3. “Forest stories in Vecupītes” in the NEC “Vecupītes”

**The aim** of the exhibition is to acquaint the visitors of the Nature Education Centre with forest as one of the richest and most beautiful ecosystems.

**Type:** permanent

**Target groups:** pre-school and school children, students, families, etc.

**Content:** As rooms in this Nature Education Centre are not spacious, and there is no special room for exposing an exhibition, it has been arranged in three rooms in the form that is rather a theme design thereof. Once entered the hallway the visitors can see various forest animals and their footprints that are drawn on the wall. This serves both as an introductory element creating the atmosphere and beautiful design and as an information source. In the next room, the board is placed on the wall displaying the exhibition’s name and welcome words wishing to enjoy it. The themes seen in the exhibition, descriptions, and the main objects of the current nature trail nearby the Nature Education Centre are summarised in the book that have been created for this exhibition and is placed on a special table.

Several subjects with an aim to show the diversity of forests, typical biotopes, and nature values are presented in the main exhibition room that at the same time is used also as a room for seminars. On the board that is created in the shape of an oak-tree, one can see how diverse and full of rare and protected plants and animals the old and big tree habitat is. In a stand with typical pine forest scenery of the Gauja National Park, it is possible to learn about the most typical mushroom species and discover various Latvian tree seeds. The exhibition provides rich information on the trees growing in Latvia, their characteristics and usage, as well as it is possible to evaluate and identify the wood-pulp in an interactive way (seeing, touching, and smelling).

The main value of the Gauja National Park is Gauja river, therefore the exhibition also contains a stand about this river and values found on its coasts and tributary streams.

In general the exhibition offers lots of both visual and written information, therefore in order to better comprehend and understand the information and interactive elements in the exhibition, it is advisable to see it under the guidance of a tour guide.



*A part of the exhibition about nature values in forests.  
Photo: A. Soms*



*Drawing on the wall – forest animals and their footprints.  
Photo: B. Līviņa*

### 3.1.4. “Hide and seek” in the NEC Forest School “Pauguri”

**The aim** of this exposition is the animal camouflage. It is an interactive exposition that at the same time serves as a decoration of the Nature Education Centre.

This exposition contains easy-to-perceive and visually attractive information that is supplemented by jigsaw puzzles, task sheets, and animal magnets, which can be moved around the situated in the territory.

**Type:** permanent, some parts are mobile.

**Target groups:** pre-school and school children, students, families, tourists, etc.

**Content:** Visitors of the “Hide and seek” exposition will be able to become the students of nature and observe Latvian wild animals in their natural habitat during different seasons through the day and night-time. However, in order to see animals hiding in the night-time, one has to use stylised flashlights and search for these animals in the interactive part of the exposition by him or her own.

While older children and parents learn more about the lifestyle of lynxes, eagle-owls, and owls, as well as the features and the significance of their camouflage tactics, the youngest visitors will have an opportunity to make and colour the masks of lynxes and eagle-owls and put them on so they could farther on hide in a disguising section of the exposition or even in the forest afterwards taking the mask with them home. The exposition will offer additional lynx and eagle-owl jigsaw puzzles.

This exposition can be successfully integrated in other nature education programmes.



Exhibition room of the NEC about the lynx and owl.  
Photo: A. Andrušaitė



Activity place and a part of the exhibition about animal camouflage. Photo: A. Andrušaitė

### 3.1.5. Exhibition hall in the Nature Education Centre “Jaundome Manor”

**The aim** of the exhibition is to acquaint visitors of the Nature Education Centre with nature values of the nearby lake Ežezers.

**Type:** permanent

**Target groups:** school children, fishermen, societies, associations, local inhabitants, and foreigners, people of various age groups and different occupations, families with children that are tempted by water world and are or would want to be friendly with water inhabitants.

**Content:** In the exhibition hall, there are three glass-cases or aquariums with moulages of water inhabitants. The visitors can learn about typical fish, water plants, birds, and other nature values peculiar to Ežezers – a lake nearby the Nature Education Centre.

Children and young people looking at moulages of fish can combine the rest with the learning process when a trained representative is invited to lead the lesson helping school children actively and creatively engage in the cognitive process of nature laws, for example, allowing them to identify the fish and reptiles, as well as to learn more about the wealth of lakes: fish, amphibians, reptiles, and aquatic plants. When visiting the exhibition, societies, scientists, and schools in their turn have an opportunity to hold cognitive events on fauna and flora of water, its protection, development, and tradition of fishing, as well as fishing ethics.



*Aquariums with moulages of water inhabitants.  
Photo: A. Pudniks*



*A part of the exhibition about nature values of water.  
Photo: A. Pudniks*

### **3.1.6. Mobile exposition “Wildlife of the Gulf of Finland Coastline” created by Saint-Petersburg charitable public organisation “Biologists for nature conservation”**

**The aim:** to inform people about nature – unique objects, place of outstanding natural beauty, nature phenomena – using exposition materials. Interesting pictures and short descriptions attract visitors of all ages.

**Type:** mobile

**Target groups:** pre-school and school children, students, families, adults, professionals, etc.

**Content:** The exposition contains 5 posters that can be used separately or all together. The posters can be used at any event – starting from seminars and ending to biodiversity days. They are folded in rollover stands and thus are elements of a mobile nature education centre, and they can be installed in a tent usually accommodating the mobile NEC. The posters reflect the following aspects: wildlife of the Gulf of Finland coastline – dune flora, birds, and some invertebrates. Apart from this a set of posters/banners, a set of 12 plastic boards about typical migratory birds have been developed. There are two ways of using the boards – as an exhibition and as an identification guide for birds, because each picture of a bird indicates a typical feature of the species.

### 3.1.7. Travelling exposition "Wonders of Flowers" created by Natural History Museum Support Society

**The aim** of this activity was to create the theoretical and material basis for creation of the exhibition.

**Type:** travelling exhibition that is planned to be exposed in nature education centres, schools, museums, and libraries in the region of the Project.

**Target groups:** school children (Grade 3 to Grade 7), families with children, all visitors of the museum.

**Content:** In the process of developing the exhibition and for its purpose to be valuable in terms of both content and design, specialists from botany, plant physiology, folklore, ethnography, photography, and art fields have been involved. Each field specialist attracted has created a scientific concept, prepared texts and photographs, developed interactive modules, games, research tasks, and offered possible solutions.

Informative material on the boards and large format photographs have been prepared to put them on the walls and stands. In order for the exhibition to be attractive, the boards were created as flowers. In the exhibition, one can get an insight to the flower botany, physiology, usage of flower theme in Latvian ethnography and folklore.

**The exhibition contains the following theme boards:** The structure of a flower; Single flower and flowering plants, The diversity of pollens, Flower pollination, The day and night movement of flowers, The arrangement of flowers and leaves, Flower scent, Daughter's flower bed, All kinds of wild flowers plucked for the Midsummer Festival and wreathes, The drying and pressing of flowering plants, Interesting facts about flowers, Information on the Project, as well as interactive stands: The development cycle of dandelion, How do the plants get pollinated, Flower colour, How does the flower colour forms, What kind of flower do you smell?

**The interactive elements of the exhibition:** magnetic boards for the composition of flowering plants and their structure, the interactive game "Do you recognise these flowers?", and a dismountable wooden flower model, blocks with flower images for little children, pillows for rest, and interactive stand "Place the flower in the right place".

A great addition to the exhibition was the opportunity to look at pollens under a microscope, to watch the movie "How does the pollination of flowering plants happen?", and to see the presentation booklet "Grasshopper's 'hide and seek' in the flowers ", as well as the opportunity to complete worksheets of various difficulty level.



School children explore activities of the exhibition "Wonders of flowers". Photo: NHMSS archive



A part of the exhibition about flower pollination. Photo: NHMSS archive

### 3.1.8. Exposition “Lake Peipsi Living Room” created by Peipsi Centre for Transboundary Cooperation

**The aim** of the exposition is to acquaint visitors of the exhibition with natural values of lake Peipsi, incl. species of fish, plants, and animals.

**Type:** permanent

**Target groups:** pre-school and school children, students, families, adults, professionals, etc

**Content:** the exposition presents the species of fish living in the lake using 35 different models. Texts about flora, fauna, and the everyday life of locals in the Peipsi region can be read. A 3-dimensional lake model shows all the details of the lake with its surrounding settlements, accommodation places, museums, and sightseeing platforms.

An interactive part of the exhibition contains more than 10 different activities – from a puzzle of lake Peipsi to measuring the length cestode (parasite whose eggs human can get eating a raw fish). If interested, visitors can try on a fisherman’s suite and put themselves in shoes of a fisherman.

Other topics covered include invertebrates, birds, plants, fishing in lake Peipsi (the minimum size of different species, fishing equipment, etc). Due to problems occurring with high-tech exhibits (and taking into the consideration how much time and money would be needed to solve these problems), more traditional solutions were chosen. Therefore a microscope cabinet offers only “technical” exhibits where different objects can be investigated using digital magnifiers (e.g., fish scales, examples of plankton, etc), and small DVD-players where short films about mammals, birds, and amphibians living around the lake can be seen.

The exhibition rooms were decorated with old fishing nets and other decorative, educational elements. Roller blinds to cover the windows and to protect the exhibits from sun have been ordered including the print of lake Peipsi basin map onto two roller blinds. Owing to the Project, a small TV-room has been equipped with a large-scale TV and DVD player, and now visitors can watch a film about lake Peipsi and the region.



A part of the exhibition with models of fish and the interactive part. Photo: E. Kirsipuu-Vadi



The interactive part of the exhibition. Photo: E. Sepp

### 3.1.9. Exposition “Tartu Nature House Inside Out” created by Tartu Environmental Education Centre

**The aim** of the exhibition is to present Tartu Nature House – building materials and their origin, water cycle, and sustainable management solutions for energy and waste. The exhibition also presents a winter garden with exotic plants and surrounding park area with its elements – different beds, trees, a pond, beaver lodge, etc. The exhibition is complemented by several games and activities.

**Type:** permanent

**Target groups:** pre-school and school children, students, families, adults, professionals, etc.

**Content:** The main idea of the exhibition is to acquaint with the new Nature House, which presents modern and sustainable solutions in terms of building materials, energy and water use. The Nature House with its thick walls and proper insulation, absence of thermal bridges, triple glass windows that are filled with argon exposed to sun, low annual energy demand, and ventilation with heat recovery of 95 % efficiency corresponds to criteria of a passive house.

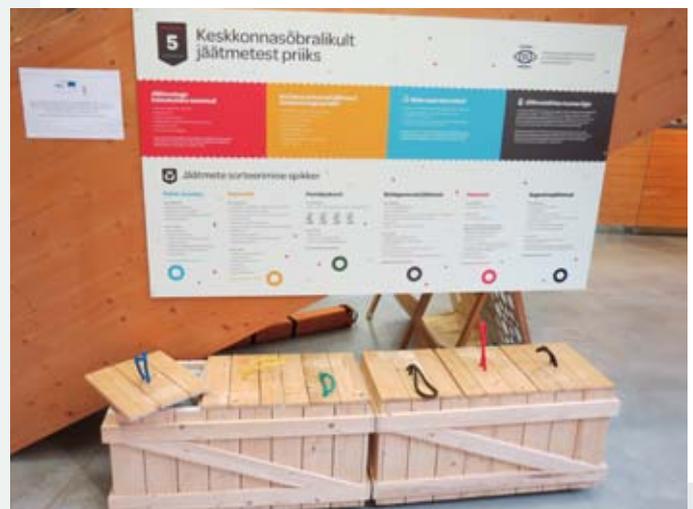
The Nature House has several sustainable solutions related to water and waste, i.e. rainwater from the roof is collected and used to water the park and winter garden, and also in a turtle pool. Waste is sorted on-site to ensure its most sustainable management.

The exhibition is partly presented on 10 big stands with multiple layers. There are different stands describing the origin of building materials in nature and their path to the Nature House, energy flows from different sources and their use in the Nature House, water cycle in Tartu, paths of different waste and recycling examples, composting of organic waste, life of a beaver, and life in a small park pond.

The complementing elements include several hand-outs about the exhibition, park, and winter garden, and also about building materials and exotic plants of the greenhouse. There is also a big wall map of the world where the visitors can actively study the origin of winter garden plants, a wall game with do-it-yourself water net, and puzzles with nests of park inhabitants and waste-recycled product pairs.



An exhibition stand about building materials and their origin in nature. Photo: M. Mägi



How to sort waste. Photo: M. Mägi

## 3.2. Virtual Museum of Lake Peipsi

**The aim:** to provide all information about the region of lake Peipsi in one place. The Virtual Museum is a unique replicable product to promote cultural, historical, and natural potential of the region of lake Peipsi. It mainly provides information on the region of lake Peipsi in the territory of the Russian Federation.

**Target groups:** pre-school and school children, students, adults, professionals, tourists, etc.

**Format:** In order to reach the maximum audience, the Virtual Museum of Lake Peipsi released an Internet version (<http://pskovlake.ru>) and a DVD in 1,000 copies in Russian and English.

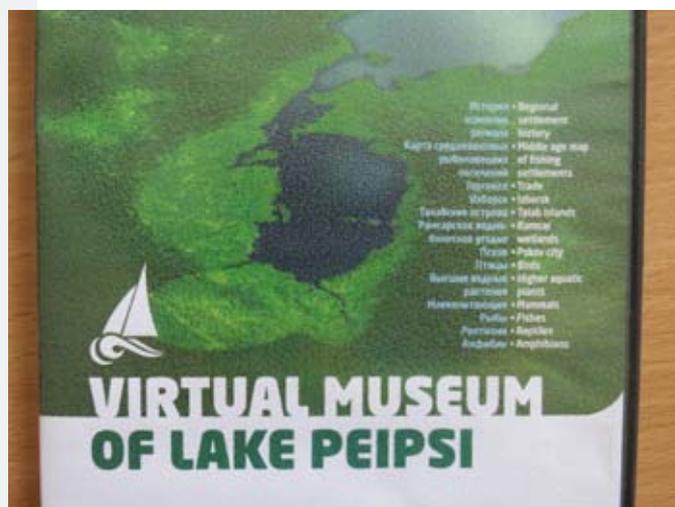
**Content:** The Virtual Museum is a compilation of information about the biggest trans-boundary lake in Russia and Europe, a region which is a unique monument of culture and nature – lake Peipsi. Information includes three main directions: History, Protected areas, and Biodiversity. The main sections of the Virtual Museum are the following:

- “Regional settlement history” provides information about the settlement and development of the territory from ancient times to the present;
- “Trade” presents the trade ties, development stages, shipbuilding and piracy in the region of Lake Peipsi;
- “Map of fishing settlements” is a map showing all the lakes mentioned in cadastres and other sources of fishing settlements;
- “Izborsk” – brief information about one of the oldest cities in Russia, as well as a monument of nature, Izborsko-Malskaya Valley;
- “Ramsar wetlands” presents one of the 35 Russian Ramsar sites, “Peipsi Lowland Lakeside”;
- “Talab islands” provides information on the natural and historical value of the group of islands in the southern part of lake Peipsi;
- “Pskov” gives an opportunity to take a virtual walk through the city of Pskov using 3D photo panoramas;
- “Mammals”, “Birds”, “Fishes”, “Amphibians”, “Reptiles”, “Higher Aquatic Plants” provide systematic information on biodiversity in the territory of lake Peipsi.

In development process, materials collected within the UNDP/GEF project “Development and Implementation of Chudskoye / Peipsi Basin Management Programme” in 2005-2006 from Pskov State Pedagogical Institute (now – Pskov State University) and NGO “Pskov Archaeological Centre” had been partially used.



Lake Peipsi.  
Photo: LPP archive



DVD version of the Virtual Museum of Lake Peipsi.  
Photo: I. Vanaga

### 3.3. Biodiversity Days

In order to encourage people to act in an environmentally friendly manner and educate them on the nature values, in several places, especially, in the areas of conservation and in nature education centres, the Biodiversity Days that are dedicated to a specific ecosystem, habitat, or species are organised. The essence of these events is to inform the society on nature values or ecosystems, their significance as for preserving biodiversity in an interesting and interactive way. If the event is dedicated to a particular ecosystem, participants therein gain an insight in the basic laws of the ecosystem’s existence, its content– plants and animals, management issues, etc.

**The planning of “Biodiversity Days”:** It is recommended to divide the planning of the event in several stages. For wide-scale events it is important to duly determine the date in order to coordinate this information with all the parties involved – specialists and other collaboration partners. Often at the end of the previous year, the regional tourism information centres ask about the events planned in the next year and include this information in various tourist guidebooks, brochures, etc.

In the initial planning period, if necessary, also financial assets are considered in order to understand how much money will be needed and what purposes will be set for the use of money.

The next planning period is approximately one month before the date of the event, when certain activities and content of the event are being planned. The employees involved divide the areas of responsibilities and duties for both event organisation and run of the event.

**Target audience:** One of the most important event planning tasks is to determine the target audience since planning of particular activities can only take place based on the target audience of the event. It is essential to understand whether the event is organised for certain target audience, for example, school children, environment study groups of schools, readers of the local library, etc., or society. Depending on these two factors, it is possible to plan the day, because events for school children or other coterie most likely will take place on a working day, while public events should be organised on the holidays so that people would have a greater possibility to take part in such events. Very often events are visited by families with children; therefore it is vital to think about the activities suitable for both adults and children. Also activities for children need to be various and appropriate for different age groups.

**Planning of activities:** The activities suitable for adults will be the ones that are based on acquiring new knowledge, for example, they can include lectures on certain topics or excursions in nature with a specialist who acquaint with nature values found in a particular ecosystem. However, adults are glad to participate also in the activities for children – different creative workshops where one can express one’s creativity drawing, colouring, making different things from paper or materials found in nature, etc. Usually older children prefer activities that involve logical thinking and spirit of adventure, for example, activity trails – there are several checkpoints located in nature and children must find them and do certain tasks. Little children can also participate in such activities together with their elder siblings or parents. The participants like different competitions where small prizes, for example, stickers reflecting the relevant topic can be won.

When the event is dedicated to a specific topic, it is advisable to involve a specialist that reads lectures, guides excursions, or does other activities related to the topic and ensures professional performance, as well as may answer questions asked by participants.

In addition to the nature theme, also activities related to traditions and cultural history of the country may be included in the event. For example, on the “Meadow Day” that took place in the Ķemeri National Park and was planned before the Midsummer celebration, the local folk band taught Midsummer songs and games to the participants of the event. It provided a chance to learn how to make a Midsummer wreath from the plants gathered at meadows.

**Informing on the event:** During the planning process, it is important to pay attention to communication. When the event is planned for public, it is essential to consider activities that serve as a mean to inform the public about the event. By understanding the target audience of the event, it is possible to think about communication ways and channels. Often the following means are used – press releases, information publishing on the webpage of the relevant authority, entry making in social media with a link to the webpage, poster placement, e-mail sending to the regular participants of the events. In case the target audience of the event is a particular group of people, a poster or special invitation may be prepared or sent via e-mail, or printed out and delivered in person. If there have been previous agreement on details of the event with the person in charge from the participant side, it is a nice gesture to approve that people are truly welcomed to visit this event.

**The process of “Biodiversity Days”:** Nuances during those events are subjected to the venue of event – whether it takes place only outdoors or indoors, or maybe both outdoors and indoors. Taking into account the changing weather conditions of Latvia, it is better to plan some of the activities indoors, if possible. Mainly it refers to creative workshops where different easy damageable materials are used, if suddenly it starts to rain or high winds arose. However, if the event is planned only outdoors, it is better to plan the workshop, which uses durable materials. Best of all, in case of changing weather, plan the workshop in a mobile cabin or a tent. If activities take place simultaneously in several venues or rooms, informative signs telling participants where and what activities are taking place should be prepared.

Participants of the event should be asked to register in the list of participants designed especially for the purposes of the event. After the event it will help to find out the exact number of participants, place they come from or represent, as well as what was the information source that told them about the event. By including a column for personal details in the form of an e-mail, it is possible to create a list of regular participants for sending them information directly without using assistance of media or other communication channels.

It is important that each employee involved in a particular event clearly understands the activity plan and that there is a responsible person for each of the activities. One person should be responsible for the whole event so that, if necessary, it is possible to react on an unexpected turn of the event or, for example, invite participants to be more engaging in the activities. If the concept of the event allows, it is recommended to open the event by a welcome speech where the aims, planned activities, and other managerial aspects are addressed. Also photographer task could be entrusted to someone from the participants since photographs later may be useful for the report of the event, as well as for publishing purposes and attraction of a broader audience.

**Evaluation:** After each event, it would be important to make evaluation and conclusions about success and shortcomings and things that should be done differently in the future. This evaluation may be included in the report of the event where information on the aims, process of the event, and conclusions are included.

**In the framework of the Project, the following events have been organised:** “Fungi Days”, “Meadow Days”, observation of Salmoninae spawning, “Plant Day”, events dedicated to exploring coastline, and “Biodiversity Days” that are devoted to plants and night flies, Flower ball, March of parks, Green patrol activities, Water days, World Wetlands Day, etc.



Meadow Day in the Ķemeri National Park. Photo: I. Vanaga



Fungi day in the Rāzna National Park. Photo: R. Indriķe



Plant Day in the Gauja National Park. Photo: B. Līviņa



Biodiversity Day event dedicated to exploring coastline. Photo: I. Soma



Flower ball in the National Park "Sebezhsky. Photo: NP "Sebezhsky" archive



Biodiversity Day. Photo: State Committee's on Natural Resources Use and Environment Protection archive



World Migratory Bird Day. Photo: NGO "Biologists for Nature Conservation" archive



"Exploring nature of city parks" event. Photo: NGO "Biologists for Nature Conservation" archive



Water Day in the Gauja National Park. Photo: A. Andrušaitė



Bat Night in the Gauja National Park. Photo: A. Andrušaitė



Meeting of Green Patrol. Photo: NP "Sebezhsy" archive



Экологический туристический слет

Biodiversity Day in the National Park „Sebezhsy”. Photo: NP "Sebezhsy" archive

### 3.4. International schoolchildren's competition of creative works

**The aim** of the contest was development of international cooperation among school children of Estonia, Latvia, and Russia in the sphere of ecological education and studying environment for the purpose of conserving biodiversity and increasing ecological sustainability of specially protected nature territories.

**The objectives of the contest were:**

- to create favourable conditions for developing international ecology and pedagogy cooperation in the sphere of ecology education of school children;
- to increase the level of awareness of project participants and population in general about significance of specially protected nature territories with an aim to preserve ecological sustainability and biodiversity;
- to develop informative and presentation materials about specially protected nature territories of countries participating in the project (leaflets, booklets, photographic materials);
- to contribute to creation of a cooperation network of state / municipal and non-governmental organisations in Estonia, Latvia, and Russia.

**Contest participants** were school children aged 14 to 17 year living in the territory of the participating countries.

**Contest categories:** photography, booklets, and posters.

**Contest period:** July 23, 2012 to– March 1, 2014

**Results of the contest:** 68 photographs, booklets, and posters have been exposed in the exhibition hall of the Pskov Kremlin.

Ten authors of the best pieces of work from each country were invited to participate in the international nature education camp in Estonia taking place in the summer of 2014.



Poster "Our environment is in our hands".  
Author: Maria Lacheva, Russia



Exposition of creative pieces of work in the exhibition hall of the Pskov Kremlin. Photo: I. Vanaga

### 3.5. Nature trails and information stands

The nature trail near a nature education centre is a very good value added to activities that are offered by the centre, and it gives an opportunity to acquire not only theoretical, but also practical knowledge on nature values. The interpretation of the nature values often are based on involvement of human senses – feeling of smell, sound, taste, touch, movement, balance, heat. Personal experience of participants allows better memorising the newly gained knowledge. The regularities seen in the nature are easier to comprehend, understand, and perceive using sense, not only narration, pictures, or some other electronic ways.

For many people in today's sedentary and electronic age, a walk, namely walking (physical movement) in the fresh air itself is something new and unusual. There is a reason why, in today's world, it is so popular to visit specially protected nature territories in relation to physical activities for the purpose of reducing every day stress and enhance the health.

**Planning and creation of nature trails:** Nature trails are created in places with interesting landscape offering different sightseeing objects. The easiest way not requiring big financial investment is to create a route along the current trail or forest road marking the route in nature with colours on trees or other types of signs. Sightseeing objects do not always need to be excellent nature monuments such as cliffs, big trees, or other. A sightseeing object may be an anthill, some interesting drought-resistant plants, or a chalk cave – objects that are crucial to natural ecosystems but significance and necessity thereof are not always understood by the visitors.

It is recommended to visit nature trails together with a nature specialist or tour guide who draw attention to the most interesting objects of the trail, tell about processes in nature and about their role in conservation of biodiversity.

**Information stands:** Information stands in nature trails are very essential – they put emphasis on the values of a certain trail and show the visitors the main points of attention, and the most interesting things in each object. When creating the content of a stand, it is important to reflect more visual information rather than long texts. The newest study data show that people on average spend 20 seconds by a stand meaning that they do not read long texts.

Well-thought location of the information stands in the nature trail may facilitate the work with visitors. A tour guide may use the stands as places for short breaks in order to tell the group about the nature values that can be found, seen, or sensed in any other way at the exact place. If the nature trail is visited by school children, the stands can be useful as an organised stopping place where it is possible to discuss the current spot, as well as give further tasks to be solved whilst in the trail.

Amid the stands, visitors can enjoy the nature but guides may invite the visitors to pay attention to a particular topic. Big interruptions may not take place since they can result in loss of attention of the visitors and distract them from the topic. However, too much information may distract the visitors' attention from the nature to the variety of texts that also is not a good thing. Information put on the stands should supplement the surroundings – they cannot be separated from that. For example, if a stand contains information on a certain plant or animal, its growing or living area must be nearby. If a stand contains information on the beaver or wild boar – their traces must be seen in surroundings. The stand points on things that we cannot or do not want to see in everyday life; therefore it supplements the nature and gives a broader view on the object.

**The Nature Conservation Agency** has established **a nature trail near the Nature Education Centre “Vecupītes”**. The trail is 2.8 km long and very suitable for both school children and adults who are interested in nature exploration. Information stands along the trail inform visitors about nature values that can be seen during the walk. Time spent in the trail varies from one hour till one and a half depending on interest of a visitor. If the group is interested in nature, the tour guide tells more, whereas if the group wants to move faster and end the hike, the narration is shorter. In order to keep the attention of school children during the whole trail, active tasks may be given ensuring an opportunity both to run freely and solve some tasks related to nature.



*Nature trail near river Gauja.  
Photo: B. Liviņa*



*Outdoor lesson in the Nature trail.  
Photo: B. Liviņa*

### **3.6. Technical project for a new nature trail in the National Park “Sebezhsky”**

Administration of the National Park “Sebezhsky” pays much attention to ecotourism and development of such type of activity. Young Moscow architects have proposed a new draft of environmental route called “Bridges of time”.

The trail begins near the village Zhuki and has a length of 3 km. The concept of the draft route based on providing visitors the fullest information about the area in a contemporary dynamic format. This is achieved through a complex flow of information, including several interconnected layers, both physical and virtual, and so-called augmented reality. Base layer is natural and environmental. This is a unique and untouched landscape of old-growth forest with difficult terrain and a lake. There is also a very interesting historical object, Zhukovsky mound.

Architectural layer has been directly superimposed on the landscape. This is a system of sightseeing points or so called bridges of time marking the route for the groups. The arrangement of objects divides the route into five equal segments. Each of the bridges has a unique architectural structure exposing the surrounding area from the most interesting angles.

For provision of information about history of the park, there is an additional route to the virtual layer created. This dynamic system of three-dimensional models of historical objects is available in a special adding to electronic tablets. Climbing up the bridge, sightseers can open a special application and see the augmented reality image overlaid to the existing three-dimensional image of the landscape layout corresponding to

a particular historical period. For example, when looking through the screen of the tablet to a place before the first bridge, there will be an animation superimposed that represents formation of the territory during the melting of glaciers. At the same time the outline is aligned with the existing landscape. Content of the virtual layer can be supplemented and modified. Each visitor will be able to interact independently with the augmented reality. Besides, the project of the new trail includes exemplary text excursions, rout paths, and models of advertising leaflets in an electronic form.

### 3.7. Trails and stations of senses

In the framework of Project “People with nature”, two objects – trail of senses and stations of senses – have been created inviting to discover the nature based on human senses. The trail of senses is located near the NEC “Rāzna”, but stations of senses are near the NEC “Pauguri” in the territory of Nature trail Līgatne.

#### 3.7.1. Trail of senses near the NEC “Rāzna”

The trail is small, located in approximately 20 square meter large area. It allows getting acquainted with nature in a playful way going into the nature barefoot and thus sensing nature material with your own feet. One can feel the touch of moss, cones, trees, peat, stone, and sands. The trail may be walked both with open and closed eyes. For safety purposes, there is also a rope along the trail so that whilst walking with eyes closed it is possible to hold on.

The trail of senses may be used as an additional activity offered by the Nature Education Centre. If a bigger group has arrived at the centre and it is not possible for all to look at the exposition together, a half of the group may be diverted to the trail.

In future, it is possible to develop, supplement, and improve the trail of senses by both changing the materials used for filling the segments and supplementing the field with activities that involve other sense organs. Unfortunately the trail of senses is seasonal and it cannot be used all year round. There are no time restrictions for visiting the trail – someone may take only one round, others – several, but those living nearby may attend the trail every day.

When establishing similar trails, it is important to take into account that during the development process land digging work is done and therefore it might be necessary to receive an approval, as well as draw a technical project and sketch of the trail.



*Information stand about the trail of senses.  
Photo: R. Indriķe*



*Trail of senses near the NEC “Rāzna”.  
Photo: R. Indriķe*

### 3.7.2. Stations of senses near the NEC Forest School “Pauguri”

Stations of senses have been created with an aim to bring people closer to nature, give an opportunity to learn about nature through senses when being in contact with different natural materials and seeing the nature diversity. Senses are primary source of our knowledge about the world, and they develop along with a practical action of a human.

When planning the location of the stations of senses, it is important that visitors can hide from direct sun, as well as that the area is wide and secured enough. Do not forget also about places of minimum wind and natural visual background.

A large part of the materials used in creation of the stations of senses is environment- friendly and as natural as possible. Convenient and functional technical solutions are used for touch boxes that are made of plywood with inclining and opening covers and secured on wooden poles dug into the ground.

Five interactive stations of senses have been created near the current nature trail. On each of the stations, people can use one of the five senses – touch, hearing, taste, smell, and sight.

Each station contains A3-type informative stands with corresponding information. On the information stands, there are stylised pictograms that are recognised in similar places in other countries and can be understood by foreigners used as a symbol for each of the senses.

**Touch station:** It is a round trail with a rope handrail along the inner circumference and several nature materials placed on the ground and serving as elements that can be sensed by feet. In the inner circumference of the trail along the cord handrail, there are touch boxes filled with different nature objects placed for sensing by hands. Front boxes have holes that are covered by a cloth in order to easily place the palm therein. The second touch box with compartments is nearby. In this box both natural and artificial materials can be sensed. All touch boxes are made from plywood with inclining and opening covers and secured on wooden poles dug into the ground.

**Hearing station:** Under a small roof, there is a stand with stylised bells made of wood, metal, plastic, and clay and having tongues for sound emission.

**Smell station:** A stand with 12 well-fixed elastic plastic containers is located under a small roof. Press gently and a flow of air and smell will come out of a narrow part of the container giving a chance to smell what is in the containers.

**Sight station:** Several stylised binoculars are focused on objects in the forest – lichen, bracket fungus, bird table, a mark left by a thunderbolt, and a bird silhouette in a tree.

**Taste station:** It covers the rest of the area with a table and benches where everyone is invited to feel the nature’s touch by the use of taste – enjoy the snacks brought along and after the meal take with you the empty packages and not leave them in the nature.

#### Why are stations of senses important whilst learning about the nature in nature?

The creation of stations of senses is based on each person’s perception, senses, and interest to explore and get to know the nature. Environment offers us a broad information spectrum that can be seen, heard, and touched. Interaction is an important precondition. It is very important that the participants not only hear about the nature and environmental issues, but also get involved in the exploring process. That makes learning more meaningful, especially for children. The stations of senses created in natural environment are focused on using one’s own senses, therefore participants acquire personal experience. Natural environment with its intensity of sounds, movement, colour, and form, namely birds singing and colouring of leaves in the autumn, make people to wish to involve in deeper discoveries about the nature diversity.

Unfortunately also periodical vandalism has been observed when stations of senses have been damaged. Such interactive installations should be regularly checked and boxes need to be supplemented by touch materials because occasionally visitors take out or throw out the things placed in the boxes.



*Touch station.  
Photo: A. Andrušaitė*



*Sight station.  
Photo: A. Andrušaitė*



*Smell station.  
Photo: A. Andrušaitė*



*Hearing station.  
Photo: A. Andrušaitė*

## 4. Tools for nature education specialists

### 4.1. Mobile boxes for environmental studies

**Natural History Museum Support Society** within the Project "People with Nature" have created mobile boxes that are study equipment referred to specific botany and zoology topics for study days at schools.

Five mobile boxes on the following topics have been created: "Birds", "Bugs", "Flowering Plants", "Lichen", and "Mushrooms". Each mobile box is supplemented with a developed study programme: Owl's Hunting Story, The Life of Ants, Wonders of Flowers, Lichen, and Diversity of the Mushroom World.

**The target audience** of mobile boxes is school children from Grade 3 to 6, approximately 20 to 25 children in a class, and the length of a lesson is one academic lesson (40 min), so that the lesson timetable at school would not be distorted.

#### Each mobile box contains:

1. Interactive, artistic, and natural materials for learning a particular topic;
2. Worksheets or books with exercises for individual learning and repetition of a given topic;
3. An interesting story (also visually seen on coloured laminated A3pages) about a certain topic that can be easily comprehended and used in various ways;
4. Material for group research on a particular topic for practical work of school children during the lessons;
5. Equipment that allows carrying out a research;
6. Different game elements that allow comprehending a particular topic, interactive models, touchable and with other senses learnable elements.

**Peipsi Centre for Transboundary Cooperation** has made one mobile box, "Lake Peipsi in your Rucksack".

**The target audience** of the mobile box is school children. The programme supplementing the mobile box has been prepared for 2 different age groups: Grade 5 to 6 and Grade 7 to 8, approximately 20 to 25 children in a class. To carry out the programme, 2 academic lessons (40 min) are needed.

**An Lake Peipsi mobile set consists** of different items according to the topics.



Mobile box "Mushrooms".  
Photo: NHMSS archive



Mobile box "Lake Peipsi in your Rucksack".  
Photo: I. Vanaga

## 4.2. Study visits

The study visits within the Projects are organised with the aim to exchange the experience among the project partners of the certain field. In other words, it is an opportunity to see others and prove oneself. In case of the Project “People with Nature”, that was the nature education field and three study trips to each participating country of the Project took place.

Planning process of the study trips begins with selection of an appropriate date, further on the route has been planned and possible sightseeing objects have been selected. The route is mostly determined by available accommodation and catering services near the venue. Almost in all cases organisers want to show as many good examples as possible; however it is important to plan the programme so that participants of the trip would not be tired of too many impressions. Probably it is better to see less but with higher quality and without hurry rather than seeing a lot of objects when running from one place to other and thus not finding out all about the offer of the particular object, nature education centre, or cultural and historical objects.

It is important to duly inform participants of a trip about the plan thereof providing information on the route and time schedule, possible expenses, and other organisational matters. It is preferable to put the planned route on the map so that the participants have a better image of the area to be visited. It is important to include also free time in the time schedule when participants on their own can visit some local shops for souvenir purchasing or spend time for their own personal needs such as peaceful rest at the hotel room, sightseeing in the town, etc.

Each of the study trips of the Project “People with Nature” lasted for six days and on the first day the regular meeting of the Project work group took place presenting the Project activities and their implementation process.

### 4.2.1. Study visit in Estonia

The first study trip was organised to Estonia in the autumn of 2012. The purpose of the study trip was to visit diverse nature education centres with a different budget in the Project area.

The study trip started from Tartu where Maris Kivistik, the head of Environmental Education Department of Environmental Board gave an overview about the network and operation principles of environmental education centres in Estonia. Educators of Tartu Environmental Education Centre presented the centre, teaching equipment, and study programmes with practical tasks from the Baltic Sea programme.

The study trip left from Tartu to Emajõe-Suusoo Nature Reserve where we visited a nature centre in a remote mire area. The nature centre is operated by Centre for State Forest Management. Afterwards we headed to the shore of lake Peipsi where project partner, Peipsi Centre for Transboundary Cooperation, administers Lake Peipsi Living Room with exhibition and study programmes developed within the Project “People with Nature”.

The second day started in RMK Kauksi nature centre, and continued with a visit to Kohtla Mining Park which is a museum dedicated to oil shale mining. After a walk in the reopened mining gear and lunch in nature we drove to Saka Manor located in the coast of Gulf of Finland. Nowadays the manor used as a border guard station in Soviet times is privately owned. The Saka Manor presents a good example of private initiative whit stairs and hiking trail that have been created for seeing the Baltic klint and coast of Gulf of Finland.

Then participants of the study trip had to drive to Lahemaa National Park. Two days in Sagadi Manor were full of various actions. The team of the Project visited an impressive manorial complex – Forest Museum that is located in a former granary and carriage house introducing forest as one of the Estonia's greatest treasures, and RMK Sagadi Nature School. Then the visit of the Oandu Nature Centre which presents growing and use of forest and timber and cultural heritage was on the agenda. The participants also had a hike in a forest nature trail. The last destination in Lahemaa was the National Park's Visitor Centre in Palmse which is administered by the Environmental Board.

On the way back to Tartu the visit of a small primary school located in Roosna-Alliku Manor, which is known for its diverse environmental education activities, projects, and outdoor classrooms, was organized. In the afternoon participants of the study trip had an overview of the study programmes and Nature Centre and nice hike in a bog in Endla nature protection area's Visitor Centre operated by the Environmental Board. The last day took the team of the Project to newly opened Ice Age Centre in the middle of Vooremaa (land of drumlins).

Every evening participants of the trip had productive discussions, creative activities, and exchange of experience.



*Project team during the study trip in Estonia.  
Photo: TEEC archive*



*Testing the Baltic Sea study program.  
Photo: TEEC archive*



*Geology lessons in Saka hiking trail.  
Photo: TEEC archive*



*Testing the Baltic Sea study programme.  
Photo: A. Pendere*

## 4.2.2. Study visit in Latvia

The second study trip took place in Latvia in the summer of 2013 when the Nature Conservation Agency together with project partners in Latvia welcomed guests from Estonia and Russia and together started the study trip to Latvian nature education centres.

More than 20 nature education specialists from Latvia, Estonia, and Russia took part in this study trip and in five days they got to know various nature and culture education centres in Latvia. The trip was a good opportunity to show the good deeds done within the Project and visit the Nature Conservation Agency's newly created nature education centres: "Rāzna" in Lipuški, Rāzna National Park, "Vecupītes" near Valmiera in the Gauja National Park, "Ziemeļvidzeme" in Salacgrīva, Ziemeļvidzeme Biosphere Reserve, as well as "Jaundome Manor" in Dagda district created by Dagda local government that is also one of the Project partners. In order to get a broader view about the nature education field in Latvia, other nature educators were also visited, namely, specialists of both nature and culture history fields. The most striking impressions occurred after a wonderful presentation on the pottery craft by Evalds Vasilevskis, hospitality of Latgale inhabitants at Andrupene farmstead, and visitation of the Bread Museum in Aglona. Also the visitation of Kalsnava Arboretum turned out magnificent – participants adored beautiful peony garden that were blooming at its fullest. In each nature education centre, new experience was acquired, good examples were seen in the work with children and adult audiences, and new ideas for supplementing the work of every nature education specialist were found. In total 19 objects were visited in Latgale and Vidzeme.



Getting to know nature education games at the NEC "Rāzna".  
Photo: I. Vanaga



Projects team at the Daugavpils Fortress.  
Photo: I. Vanaga



Excursion in meadows of the Gauja National Park.  
Photo: I. Vanaga



Nature education activities in the NEC "Ziemeļvidzeme"  
Photo: L. Jermacāne

### 4.2.3. Study visit in Russia

The third study trip took place in the autumn of 2013 to Russia, Pskov region. The main objective was to learn potential of environmental education and nature areas of the Pskov region.

More than 20 experts from Latvia, Estonia, and Russia became familiar with the system of environmental education and got acquainted with the Pskov region, interactive teaching methods, as well as visited the following 20 objects of attraction: visitor centres, hiking nature trails, and natural areas of the National Park "Sebezhsy" and State Reserve "Polistovsky", estates and museum reserves in Pushkinskie Gory and Stary Izborsk. In addition, participants of the study tour visited a number of sites of ecological and rural tourism: ecopark "Zoograd" in the village of Pushkinskie Gory, as well as "Honey little farm" and "Helga's Farm" in the Pechory district.

The most interesting part of the visit, according to participants, was learning the activities of the National Park "Sebezhsy" and State Reserve "Polistovsky".



Boat trip in the National Park "Sebezhsy".  
Photo: I. Vanaga



Projects team in the National Park "Sebezhsy".  
Photo: I. Vanaga



Excursion in the Nature Reserve "Polistovsky".  
Photo: I. Vanaga



European Cooperation day's celebration in Pskov.  
Photo: I. Vanaga

## 4.3. Camps

Three international nature education youth camps have been organised within the Project. The first camp took place in the National Park “Sebezhsy” in Russia, while the second one was held in Latvia near Gauja river, but last camp took place in Estonia, Rogosi Manor.

Every camp has its own philosophy and values. A camp is an opportunity for participants to improve their current skills, acquirements, and knowledge, as well as to acquire new ones. The main aim of the camps organised within the Project was to awake interest among the young generation from Estonia, Latvia, and Russia in nature topics, show how exciting and diverse the nature can be, thus creating individuals who love nature and take responsibility about environment.

### **The working principles of educational nature camps:**

- To organise useful and well-determined spending of time with a focus on learning more about the nature and environment issues, at the same time popularising the diversity of Latvian nature and acquainting participants with the special areas of conservation;
- To give an opportunity to young people to discover and develop skills and acquirements, strengthen knowledge that are useful in general and professional life; to raise awareness about the nature values and interaction among humans and environment and nature-friendly lifestyle.

The organisation of a camp is essentially facilitated when the complex for the camp corresponds to all requirements of the fire safety measures and other requirements determined for the camp organisation and when its employees are experienced in hosting a camp. It is positive that the territory is equipped with a stationary open-air stage, several campfire places, and sport and leisure equipment available for rent. The aforementioned aspects facilitate the organisation of camps.

**Content of a camp and development of daily schedule:** When planning the content of a camp, it is important to consider organisational aspects of its content. This means that every day has to have a detailed schedule. Back-up options should be well-determined for each day, event, and activity of the camp considering both suitable time and place, and staff, and equipment, and the rest of the elements that creates the environment.

One of the most successful solutions in the camp is to involve participants in the preparation of an activity, thus giving an extra motivation to participate in the event prepared by them. This approach has been proved as a good aspect in creation and implementation of culture evenings.

When creating the detailed content plan during the camp preparation period, it is important to choose an optimal amount of inventory, equipment, and it's adjustment to a particular venue of the camp, as well as to take into account the age peculiarities of the participants.

The main working language of international camps is English, yet all participants had an opportunity to use and practice Estonian, Latvian, and Russian.

In order to get an opportunity to participate in the camp financed by the Project, the interested ones participate in the competition reasoning their motivation.

### **4.3.1. International nature education camp “Sebezhsyoye Poozerye” in Russia**

The first camp has been organised by the Project's partner, State Funded Educational Institution of Additional Education “Pskov Regional Centre of Development of Gifted Children and Youth”. The camp took place in the National Park “Sebezhsy”, specially protected nature territory of Pskov Oblast. The camp gathered 30 school children from Estonia, Latvia, and Russia.

**The aim** of the camp was to develop international cooperation among school children of Russia, Latvia, and Estonia in the sphere of ecological education and studying the environment in order to preserve its diversity and increase ecological sustainability of specially protected nature territories.

**The programme** of the camp included scientific research in 4 directions: hydrochemistry, botany, zoology, soil science, as well as social and sports events. For implementation of the scientific research, programmes of scientific fields have been developed. The schedule of lessons included field research and cameral treatment of the materials received. The international competition of school children’s creative works “People with Nature” has been introduced in the camp.

The camp was held as interaction of three international groups of children, 10 people in each group. There was a curator in each group. The accompanying teachers took an active part in organisation and implementation of all the events. Engagement of teachers made the communication much easier as many children from Latvia and Estonia didn’t speak Russian, while Russian children are not good at English.

At the end of the camp, a conference was held where participants made reports about the work done. The results of the work were in a form of collective scientific report presentations: “Identifying valuable and protection-deserving higher vascular plants in the natural boundary Skredy of National Park “Sebezhsy”; “Fauna of terrestrial vertebrate species of National Park “Sebezhsy”; “Hydro-chemical analysis of water in certain water bodies in National Park “Sebezhsy”; “Getting to know the soil mantle of the area under research and the degree of human impact on the soil”. The school children presented well-developed informative materials about the National Park “Sebezhsy”.

The most interesting events of the camp were the following: “Rope course”; Ecological fair (introduction of specially protected nature territories of Latvia, Estonia, Russia); discussion “International school ecology community – our contribution to increasing ecological sustainability and preserving biodiversity of specially protected nature territories”; guided tour through the ecological path Grebel of the National Park “Sebezhsy”; Ethnic festival (demonstration of national traditions of Latvia, Estonia, and Russia), and of course sports events and song evenings by the fire.



*Presentation about specially protected nature territories of Latvia, Estonia, Russia. Photo: CGC archive*



*Workshop for participants. Photo: CGC archive*

### 4.3.2. International nature education camp in Latvia

In the summer of 2013, Gauja National Park Foundation organised an international youth nature education camp for children aged 14 to 17 gathering 32 participants – 10 from Latvia, 10 from Estonia, and 12 from Russia together with their accompanying teachers.

**The aim** of the Project camp was to expand international cooperation among the young generation of Latvia, Estonia, Russia, and the partners of the Project, learn about diversity of Latvian nature, raise awareness about the nature values, as well as to acquaint with special areas of conservation.

**Programme:** Closed type, twenty four-hour camp taking place in a leisure complex suitable for youth along the coasts of Gauja river. The territory of the chosen leisure complex is practically without relief, as well it is easy to oversee it, which is a substantial aspect when coordinating the process of event and organising the activities of the camp, etc.

During the camp, participants went on cognitive nature hiking trips, researched the flora and fauna of the lake and swamp, learned about Devonian period witnesses such as sandstones at the coast of Gauja river, researched valleys, as well as went on an excursion to the Protected Landscape Area “Ādaži” in order to learn about a heather stand and the measures of their management in the military territory.

During the camp, the young people did a deeper study on “People with Nature” and in the result, interesting posters have been created displaying how they perceive the interaction among swamp, wood, meadow, and other biotopes and humans. Many participants of the international camp showed genuine delight about the opportunity to swim at sea because they have arrived from inland regions, as well as about an opportunity to see the nature restricted area with a sightseeing platform nearby “The White Dune”. Positive emotions were created also by a night trace that is an integral part of every camp and includes different active exercises.

Culture evenings should be mentioned as a very successful activity since participants of the camp demonstrate national traditions previously prepared in an attractive manner. Other participants of the camp got also involved in the culture evenings.

In the evaluation questionnaire about the camp, the youth admitted that the great benefit is many new friends and an opportunity to learn about nature in different places and way rather than in the relevant place of residence, as well as to learn more and participate in the culture evenings of all participating countries.



Participants of the camp in Latvia.  
Photo: GNPF archive



Creation of a poster.  
Photo: GNPF archive

### 4.3.3. International nature education camp in Estonia

The third camp was organised by the Project partners, Tartu Environmental Education Centre and Peipsi Centre for Transboundary Cooperation. The camp took place in the historical Rogosi Manor in Ruusmäe village in the southern part of Estonia gathering 29 school children from Estonia, Latvia, and Russia.

**The aim** of the camp was for participants from the neighbouring countries to discover Estonian nature, better understand the connection between man and nature, learn about the culture of neighbours and get to know each other.

**The programme:** The camp began with adventurous teambuilding exercises ensuring courage, skills, and motivation to communicate and cooperate. At this stage, international teams that work together until the end of the camp are formed.

Despite gloomy weather, the participants actively took part in all the activities speaking English as the main communication language.

**Many different workshops took place:** the role of international cooperation in studying bird migration, the intriguing world of snails and mussels, observing the biota of local bodies of water, acquiring fieldwork methodology, exploring lake Peipsi, testing our handicraft skills at native birch bark woodworking and plant motif decoration. Old plates and napkins became beautiful souvenirs in the recycling workshop.

All participants introduced the creation process and ideas behind their successful competition submissions. Everyone compiled an introductory poster about themselves and through presenting them to other participants gained an insight and learned about their companions.

Hiking Day allowed participating in a terrain game, discovering local farm life and hiking the nature trail. The tallest peak in Estonia was also conquered. Physical exercises strengthened our health and willpower to learn about and compete in orienteering. This was one of the favourite activities of the entire camp.

Participants from every country demonstrated fragments of their cultural heritage. All of them, both young and old, danced along with local musicians and folk dancers at the closing party. New friendship was formed and experience in presentation and self-expression, communication and cooperation was gained.



Participants of the camp in Estonia.  
Photo: K. Sogel



Preparations for the workshop about research of water animals.  
Photo: I. Vanaga

## 4.4. Trainings/seminars

One of the ways to acquire knowledge is to participate in training; therefore nature education centres offer not only lessons but also training. They may differ according to type thereof, for example:

- **Educational training** – usually this training is in the form of a lecture and is intended for training employees, solving inner problems of organizers, or acquiring new experience. The following technical equipment is necessary for the training: a whiteboard with writing materials, projector, video player, etc. Participants know each other very well so the atmosphere is informal;
- **Training with a guest lecturer** – implemented with participation of certain field specialists. A special room arrangement may be necessary including separate tables for work groups and free space in the room for various situational games according to working methods of the guest lecturer. Also technical equipment may be necessary for such training;
- **Thematic training** – the training about different topical issues, for example, conservation of biodiversity, ecosystem of the sea.

When planning the training, it must be taken into account that the working room must be separated from the catering room. Also a coffee break or lunch must be planned. The rooms must be well-ventilated.

**The Nature Conservation Agency** within the Project “People with Nature” has organised trainings both for the employees of the Nature Conservation Agency and partners – teachers, employees of museums, libraries, tourism information centres, representatives of municipalities, etc.

The very first training took place soon after the Project was launched. The Nature Conservation Agency was visited by the Director of Saxon Switzerland National Park Information Centre, Sabine Stab, who led the **training for the employees of the Agency on the management of visitors and nature education centres, public monitoring, and volunteer involvement**. The Director of Saxon Switzerland National Park Information Centre offered broad insight into various business models that may be used in the action management of special areas of conservation, as well as answered many questions asked by the Nature Conservation Agency’s employees, for example, how to attract volunteers in order to ensure uninterrupted and quality operational activity of the centres, as well as how to develop cooperation network with municipalities, educational establishments, local residents, people with special needs, and various non-governmental organisations.

**Training for teachers** took place in the Nature Education Centre “Meža māja” gathering 22 teachers from schools of Tukums and Jūrmala. The aim of the training was to present the nature education offer at the new education centre. At the beginning of the training, teachers found out about what have been done within the Project “People with Nature”, watched the new movie about the Ķemeri National Park, saw the exhibition, completed the worksheets, played an environmental game, and at the end of the training they had a lesson about swamp visiting the large raised bog of Ķemeri.

**Training “Presentation and public speaking skills”** in the Nature Education Centre “Vecupītes” took place along with the opening of the new centre and was dedicated to improvement of public speaking presentation skills and lead by lecturer Vineta Grigāne-Drande. The training was visited by the representatives of local municipalities, local tourism service providers, region teachers, and the employees of the Nature Conservation Agency. Majority of the visitors every day speak before the public and addresses various audiences. This was an opportunity both to refresh knowledge about public speaking and come to new conclusions on how to improve one’s own presentation. After acquiring theoretical knowledge in the form of lectures, the participants of the training carried out also a practical task – they presented the significance of a subject in the nature research. The practical task was an opportunity to put in practice newly acquired knowledge on public speaking and presentation making.

**Training "Improvement of nature education centre capacity and professional skills of employees"** took place in the Nature Education Centre "Ziemeļvidzeme". The training was visited by 25 employees from the Nature Conservation Agency and Salacgrīva Tourism Information Centre that in their everyday activities in different Latvian regions are working to educate and inform the society on the nature conservation issues. The main aim of the training was to improve knowledge on the work of an environment inspector regarding implementation of nature education, encourage involvement of these employees in the work of newly created nature education centres. The first training was dedicated to the lessons on how to lead and work with different target audiences and age groups, while the second training spoke about creation of contextual offer of nature education centres and the resources necessary thereof.



Teachers explore nature education activities in an exhibition in the NEC "Meža māja". Photo: I. Vanaga



Training "Presentation and public speaking skills". Photo: I. Vanaga



Training for NCA's employees in Salacgrīva. Photo: I. Vanaga



Lecture about work with different age groups. Photo: I. Vanaga

**Natural History Museum Support Society** organised a **seminar** for nature education specialists (mostly nature guides) about **“Interactive learning methods”** taking place in Jaunkalsnava. Different lecturers, experts, and nature education specialists offered presentations and practical workshops for showing the best interactive learning methods for nature education. This seminar gathered 35 participants, and afterwards they admitted: “The seminar gave new ideas and inspiration to teach about nature in more creative way, and to test new approaches in our daily job.”

As one of the Project’s specific objectives is to develop NECs by strengthening their capacity, elaborating the best practice, securing recognition and accessibility, it is important to get acquainted with the best practice that European professionals are ready to share. Therefore the **seminar on “Management and improvement of NECs”** was held, organised by NHMSS. This seminar was visited by 20 environmental educators, nature guides, and enthusiasts. Moderator and lecturer of this seminar was Sabine Staab from Germany, Saxony Switzerland National Park, and she shared her own and Saxony Switzerland National Park’s experience in developing exhibitions, management of visitor, as well as she led discussions thereon.

**Seminar “Programmes for kids in nature”** about making exciting programmes in nature for pre-school and school children has been created including practical education tasks. Participants of the seminar got new ideas, approaches, and understanding about creating programmes for children and information about the Project “People with nature” such activities implemented by NHMSS as presentation of module “Soil” and a mobile box about owls.



Participants of the seminar learn about interactive learning methods. Photo: NHMSS



Discussions about development of exhibitions together with expert Sabine Staab. Photo: NHMSS archive



Seminar about creating programmes for children. Photo: NHMSS archive



Seminar about interactive learning methods. Photo: NHMSS archive

**Peipsi Centre for Transboundary Cooperation** organised two different trainings for NEC specialists, mainly for teams of Peipsi Centre for Transboundary Cooperation and Tartu Environmental Education Centre.

**Training "Leadership of small groups and the adventure (outdoor) education"** in Mooste, Estonia gathered 15 participants. The target of the training was to improve and expand the array of teaching methods used in study days, camps, etc. Theory about group's dynamics has been presented and analysed, many games have been carried out, and useful suggestions have been received. Trainer Margus-Tarmo Pihlakas inspired and encouraged participants to test new methods and as a result, positive feedback about the training has been received from participants.

**First aid course** for environmental education specialists in Tartu gathered 16 participants. For those working with children and adults, it is crucial to know how to handle critical situations when first aid is necessary. Many practical tips have been found out from the trainer Andrus Lehtmets and different experience has been shared, and after the training, all participants felt much more confident to face the potential threats.



*Seminar about leadership of small groups.  
Photo: E. Kirsipuu- Vadi*



*Practical tasks of first aid.  
Photo: E. Kirsipuu- Vadi*

**Saint-Petersburg charitable public organisation "Biologists for nature conservation"** organised 5 training seminars.

**Learning local wildlife with school students – a 2-day training** for teaching staff from 12 educational organisations (schools and after-school youth clubs, one person from each structure except one with 2 participants). This training was not only a local launching event presenting the project activities, but also training on approaches to develop wetland educational centres. More than 10 different learning packages were presented and tested in cooperation with participants and a year plan was discussed. Later on the participants used these materials for their own events. This activity was prepared in collaboration with Wetlands International and supported by Netherlands Embassy in Russia. The training took place in "Friendship" suburban camp in Karelian Isthmus, suburban area of St. Petersburg.

**Nature journey to the northern coast of the Gulf of Finland** was organised for teachers and university students and shaped as a bus trip with numerous stops on its way from St. Petersburg to Primorsk town. The route was partly covered by public suburban transport (or the same trip is possible when group books a bus for the whole day), and the idea was to help active teachers to plan out-of-classroom activities for the next spring. Such long-distance tours give an opportunity to explore large geological structures in 1 day. This time we explored the glacial landscape elements: ancient (from Last glaciation) marine terraces, moraines, lakes, and marine archipelago area.

**Seminar “Making a wildlife garden in a school backyard”** for 30 school teams on creating areas of wild flowers and other plants in the school backyard, which can be later used as a “natural tool” for teaching biology and environmental science took place. The main target group of the mini-project was school students. As of the last year, Russian National Curriculum includes student projects as an element of teaching process at numerous school subjects. At the same time, it is very difficult even for teachers to plan this activity, and thus our idea is to use scheduled training to support the introduction of new learning technologies in partner schools. The training was held in Learning Centre of Sestroretsk district of St. Petersburg.

**Training for managers of protected areas about creation of new nature education visitor centres.** The main aim of the training was to provide a general support to the protected areas planning to develop their own nature visitor/education centre. Most of the participants are managers from strict nature protected areas and national parks of North-Western Russia. Our task for this seminar was to show personal and European experience in planning the basics of a nature education centre defining the target groups, nature objects involved, and cost-effective infrastructure, which should be renovated or newly built/developed. The second component of the training included interactive presentation of different kind of activities that could be organised in nature education centres for different groups of people. The training was organised in Olonets, South Karelia.

**Training “Routes of the spring 2014”** for teachers and staff of nature education centres had traditional structure. The main idea of the training was to show some modern tools and educational techniques, which can positively affect the educational process. Teachers were divided into groups, and each of them had a digital microscope, Ipad, loupes, a set of containers, and binoculars for bird watching. Ipads have been used as key identification guides for birds (it also allowed hearing bird songs), also significant amount of time was dedicated to show opportunities of using different equipment available for nature watching. For this the set of equipment purchased for needs of our mobile NEC within the Project has been used. The training was organised in Olonets, South Karelia.



Teachers on a coastline of the Gulf of Finland near Primorsk town.  
Photo: “Biologists for nature conservation” archive



Seminar for teachers in St. Petersburg.  
Photo: “Biologists for nature conservation” archive

## 4.5. Study programmes

The nature education programmes or lessons promote both improvement of knowledge and development of the skills for searching alternative solutions for problems, as well as change attitude and manners, and motivate to be responsible for the environment and action in an environmentally friendly manner.

The study programmes in nature education centres are created in such a way that the visitors learn about the nature. The programmes offer necessary knowledge and raise awareness about ecological and social processes.

The study programmes may be used both indoors and outdoors, thus developing participant's skills to use newly acquired knowledge, solve problems, and make reasoned decisions, as well as ensure direct, immediate experience with surrounding world and oneself creating sense of affiliation to one's own lifestyle. This facilitates observation of attitude of participants as for the world and helps them to focus on environmentally friendly values giving an opportunity for them to engage in practical environmental protection and making them to define their attitude towards the environment.

The content of the study programmes is created so that participants not only passively listen to information but also may actively participate in the research work since active participation and discussions allow the participants to acquire the skills of learning, problem solving, thus developing positive thinking. The study programmes are adjusted to seasonal changes in the nature, and their content involves both discussions and games, and researches.

**The creating and planning of study programmes:** The structure and content of a study programme is created corresponding to the target audience.

### The introduction of a study programme or lesson

Introducing the subject, revealing the main steps of the lesson to teachers and participants



### Principle part of lesson

Information about the subject, various working forms and methods, so that the lesson is exciting not exhausting. The characteristics of age group must be taken into account – for younger participants, shorter and more concise, often changing working forms should be used, while for older participants, working forms and methods should be combined and time intervals may be longer.



### Conclusion of lesson

Brief summary of the lesson, conclusion circle, expressing gratitude

During development process of the study programmes, it must be taken into account that equally important is both learnable content and information and the study process itself, namely development of skills and creation of attitude. It is important to choose both the theme and topic of the lesson. For example, if the theme is “Birds” then various topics or stories may be chosen such as “Birds at the seashore and the sea”, “Birds of passage”, “Birds at bird-table”, “Resident birds in Latvia”, “The ability of birds to live and feed in various environments”. Once the topic is chosen, it is easier to select the necessary information in order to create the content of the study programme. The topic points out the most important aspects in the theme. Any other details, namely facts, definitions, comparisons may be included in the main points of the programme.

In order for the lesson to be colourful, interesting, and meaningful, various working forms should be used – individual work, work in pairs, team work, as well as different working methods – narration, research, games, classification, comparison, discussions, etc. However it would be important to remember that the participants may not remember a lot from what they have heard, seen, and experienced, but peculiarity of human’s perception is to simultaneously remember not more than seven things. The content and main ideas should be explained so that listeners may follow them without any special effort.

A good introduction rises interest about the lesson and makes participants interested in and wanting to hear what is being said in the lesson. The introduction familiarises with the topic and tells how the lesson will be organised.

The basic part should reach only one aim – to outline the necessary information for understanding the topic including facts, comparisons, and illustrative materials. It must be interactive, exciting, content appropriated, personal, and informative. Information should be easy to comprehend, meaningful, and useful for the participants. There should be passages between actions, however not too complicated.

The conclusion should be a great ending so that people would clearly see the connection between information and the topic. The main aim of the conclusion is to strengthen the discussion topic. In order to acquire greater understanding about the benefits of the lesson, it is advisable to end the lesson with a conclusion circle – teacher asks the questions and everyone answers, thus it is easier to understand what things from the heard, seen, and researched in the lesson have been kept in mind.

When developing the study programme, the activity times also must be planned in order to establish how much time is needed for carrying out the lesson. Also the necessary technical equipment and materials, their quantity must be planned previously.

#### **The Nature Conservation Agency has developed 13 new study programmes:**

1. What are special areas of conservation and why they are necessary?
2. Air quality (lichen)
3. Seashore
4. Birds
5. Animals and their traces at the seashore
6. Baltic Sea
7. Flowering plants
8. The inhabitants of Rāzna National Park
9. Nature values in forests of Rāzna National Park
10. What do plants need to feel good?
11. What do we not notice in the seashore and dune forest in our daily life?
12. The traces of animals
13. Let’s study the forest!

Brief description of programmes provided by Nature Education Centres are available on the homepage of the Nature Conservation Agency, [www.daba.gov.lv](http://www.daba.gov.lv), under the section `Nature education centres`.

**Natural History Museum Support Society** supplemented the activity room "About Earth, Sun and Us" at the Natural History Museum of Latvia with **three new study programmes and modules:**

- Mole Kvēps and his neighbours
- What is happening in air?
- What is happening on land (How do mountains form?)

The target audience of the activity room is primary school children, families with children at age of pre-school and younger schoolchildren. Various theme lessons are being organised and taught here offering the first knowledge about the nature to the youngest visitors of the museum, as well as helping the school children to understand regularities in the nature. During the lessons, participants engage in an active and creative study process. They perform experiments by modelling different situations, playing games, solving exercises. Children can better acquire, understand, and memorise also seemingly complicated and hardly realisable issues that are discussed in the environmental study programme.

**Mole Kvēps and his neighbours:** The aim of the lesson is to demonstrate how various are the living organisms in the world of underground, what kind of adjustments are necessary in order to exist in this environment, and what are the mutual relations of various animals.

A cross-section of underground (a box) has been created, and it can be opened giving an opportunity to see how the mole labyrinth looks like. Before opening the soil box, children are addressed and encouraged to think about what they see in the scenery – what kind of animal has left its traces? Then the box is opened – we enter the underground and our journey (together with Mole Kvēps) may start! The narration tells about everything that can be seen in the underground model: the soil itself, the main character Mole Kvēps, striped field mouse, different bugs – mole-cricket, maybug, crane fly, click beetle, etc.

At the second part of the lesson, children carry out practical tasks in groups exploring different nature elements (bugs, caterpillars, earthworms, various soil samples). They choose the right animals and place them in the corresponding biotope (to place animal and plant pictures on magnetic surface according to their biotope pictures). They complete worksheets. This part of the lesson can be transported as it is compact and mobile.

**What is happening in air:** The aim of the lesson is to demonstrate and explain what is atmosphere, what constitutes it and what are the main processes in the atmosphere.

At the first part participants are told about atmosphere. Content of atmosphere, various density levels, altitudes are demonstrated, as well as numerous phenomena occurring in the atmosphere such as aurora borealis, rainbow, types of clouds, rainfalls, global and local winds are demonstrated on a big magnetic picture (tablet fastened on the wall) of the atmosphere structure. Together with kids we discuss different nature objects – plants' and animals' flying skills and strategies. Certainly air is full of different technical devices such as airplanes and various other aircraft. During the lesson, children are divided into groups and carry out exercises and small experiments.

**What is happening on land:** The aim of the lesson is to demonstrate and explain the global geodynamic processes happening on the land.

Firstly, children are told about mountains and plains (green and brown colour on the map), as well as with ocean relief – also there mountain ranges and dips (bright blue and dark blue colour) are. Together with an activity leader children discuss how the Earth's surface has formed. Afterwards children assemble a big jigsaw puzzle, which is a model of tectonic lithosphere plates made from wood. The model demonstrates lithosphere plates and their diverse borders where the plates come closer and where they withdraw. Then participants discuss how this is happening and what consequences of these processes are. In order to better understand those global geodynamic processes, an experiment that shows what laws of physics are working here, for example, compression, friction, traction, has been carried out. At the end of the lesson, children assemble the highest mountains (correspondingly cut-out plywood figures) on the map of tectonic plates and by the use of wooden letters assemble the titles of these objects.

When being active and cooperative, children increase their knowledge, improve their understanding, and learn to notice and recognise nature processes and regularities. Actions with various objects – maps, schemes, models – give them an opportunity to assess and compare, as well as to memorise the material acquired during the learning process more effectively.



Module about mole and his neighbors.  
Photo: NHMSS archive



Module "Lithosphere".  
Photo: NHMSS archive

**Peipsi Centre for Transboundary Cooperation has developed three new study programmes:**

- Lake Peipsi in your Rucksack (Grade 5 to 6 and 7 to 8) to be carried out using the mobile box of lake Peipsi;
- Lake Peipsi as a living environment – programme for using the new lake Peipsi hands-on exhibits (Grade 5 to 9);
- The Great Lake Peipsi – for kindergarten children.

Worksheets for all study programmes were compiled, additional word puzzles and quizzes to the main worksheets were created.

All study programmes in Estonian, Russian, and English are available in Peipsi CTC homepage (*see Annex 1*).



Programme "Lake Peipsi in your rucksack".  
Photo: E. Kirsupuu - Vadi



Pupils making a map of lake Peipsi within the programme.  
Photo: E. Kirsupuu - Vadi

**Saint-Petersburg charitable public organisation “Biologists for Nature Conservation” has developed three programmes:**

**Exploring peat bogs:** This set includes a PDF/.ibooks electronic book and printable worksheets aimed at making notes and/or identifying typical species of plants and animals, which can be found by “amateur researchers” – school teams and ordinary people. Additionally (to the first steps) a presentation showing problems addressed and methods involved for learning wildlife has been elaborated. The e-book includes suggestions to school teachers on how to plan the trip, where to go, and what to do there.

**Exploring pine forest:** This programme includes 2 types of materials, also PREZI online presentation (<http://prezi.com/1rmtcwqmkkav/a-walk-in-pinewood/>). It can be accessed from tablet computers as each mobile platform (iOS and Android, and Windows phone) currently have a viewer for PREZI. Furthermore less serious and funnier materials have been created. Within the project, owing to these platforms, pine forests can be studied both when visiting the nature trail in suburban area of St. Petersburg and when visiting such places of seminars as the “Friendship” camp.

**Exploring spring flowers:** This is a set of printable worksheets that can be used in nature excursions to parks of St. Petersburg in spring.

#### 4.6. Study days

Study days are organised in order to approbate, improve, and test the nature education programmes and lessons. Testing of programmes and lessons allows completely understand and evaluate the material prepared and make some improvements in the preparation process.

**The aim of study days:** to define the level of programme and lesson developed and suitability thereof to a certain age group, as well as propose tasks and plan activities with maximum precision.

**Target groups:** chosen so that the school children of both the primary school and elementary school and secondary, as well as adults may participate in the outdoor classes and lessons. In special cases they can also be children of preschool.

It is important to choose the right number of people in each group of the lesson. The maximum number of participants is 20 for children and teenagers. The number of participants may differ depending on the topic and working methods chosen. It is significant to remember that the participants of a group may have different knowledge and perception skills.

**Specialists:** Experts of the corresponding field participate in the study days helping to create the content of the lessons, plan activities and tasks according to the age group for which the certain lesson is being elaborated. There can be situations when experts in different regions may suggest different programmes for the lessons. Before starting cooperation with a specialist, the tasks should be discussed to find out whether the lesson is fully developed or the specialist just evaluates and supplements the already made programme at his/her own discretion, or maybe the specialist participates in the testing stage of a certain lesson and helps with his/her field-specific knowledge. Also the level of complexity of the lesson or programme developed by a specialist has to be evaluated since too specific information might scare the potential target audience and make the lesson hard to understand.

**Planning of a study day:** Firstly, it is important to understand where the study day will be hosted – outdoors or indoors, as the venue determines activities that should be included in the process of the study day. If lessons take place both outdoors and indoors, various activities can be combined.

The acquisition with the audience takes place at the beginning of the lesson; afterwards a brief introduction on the procedure of the lesson and theoretical information are presented but after that activities outdoors and the end of the lesson (resume, evaluation, and suggestions) take place. If the lesson take place indoors, theoretical information is taught in a form of a visual presentation.

Time for methodical material, worksheet testing should be scheduled. It is vital to remember that the participants of a group may have different knowledge and perception skills.

It is important that interactive teaching methods are used – that is the precondition of democratic education and a certain challenge for both students and teachers. This includes improvisation and the learning process becomes not only interesting, but also stimulates the participants to choose a creative approach, research and analyse information acquired, understand, compare it with their own personal experience, and use it in practice.

**The process of Study days:** several information presentation and learning methods may be used. The activities may be linked with studying a certain field and understanding, analysing observations, and drawing conclusions. The work is done both individually and in small teams. The team-work is more effective. It reduces the input of a teacher and increases the feedback of school children; everyone can show one's abilities, develop communication skills, and help to understand the problems and solutions of the team-work.

At the end, each participant of the study day expresses an opinion on the process of the day, skills and experience acquired, evaluates worksheets, and gives suggestions to improve the lesson. In the analysis of a lesson or outdoor activity it is recommended to look at the three main aspects – content, methodology, and results.

**The usage of environmental games:** In order to make the lesson more interactive it is advisable to use environmental games that correspond to the content and age group of a certain lesson, as well as their intellectual level should be evaluated.

**Worksheets:** When developing a lesson, also the worksheets that often allow more successfully exploration of a certain topic should be made. However, the necessity of worksheets must be carefully considered, because this is not a requirement in all cases. Often school children associate worksheets with those at school and there is some resistance thereto.

**Nature Conservation Agency** organised 31 study days for testing of the study programmes about specially protected areas: water birds, amphibians, bats, mushrooms, forest animals, nature values of the sea shore, water and air quality, adaption of plants to the swamp, humid forest and sea shore, etc.



*Study day in the NEC "Meža māja".  
Photo: I. Vanaga*



*Study day about nature values of the sea shore.  
Photo: I. Soma*

**Natural History Museum Support Society** organized 15 study days within the Project at regional schools in Latvia in order to test the study programmes. The Society also created mobile boxes such as Owl's Hunting Story, The Life of Ants, Wonders of Flowers, Lichen, and Diversity of the Mushroom World.

Within each study day every teacher provided 3 to 5 lessons, each 40 min (an academic lesson) long. During the break the schoolchildren changed. The lessons are planned for one class (15 to 25 school children) due to suitability thereto of equipment and content. The lessons were not of high quality in cases when schools chose to combine two classes, and sometimes even children from different age groups joined a group.

One of the teacher's tasks at school was to approbate the programme. And in the first lessons, each person involved in the process of the programme development understood and evaluated the best way of conducting the lessons, kinds of methods that can be used so that children can easily understand and comprehend the message. For instance, initially it was planned that the visual portrays of each programme's story (A3 format laminated printed materials) will be fixed to a rope with clothes pegs, however quite often it could not be done due to the fact that there were no place for the cord to be fixed. Solution: the teacher involves school children in storytelling and holds the printed material, and thus they together are creating a story.

Approbation confirmed that lesson plans, visual aids and activity materials created have been chosen correctly and are easy to apply. Children were especially excited about the materials that could be felt and other interactive models where animals, mushrooms, and lichen were displayed very precisely and realistically.

However the programmes of mobile boxes have been created for a certain target audience, namely the school children from Grade 3 to 6. School children from several forms (Grade 1 to 3, Grade 6 to 8), especially, in small country schools with a small number of children per form simultaneously participated in the study days. This for the teacher required good target audience adaption skills, and it must be noted that the content of programmes for older class school children did not seem as interesting as it was for younger ones, also shyness during the interactive exercises could be observed. That is certain as the programmes have been developed for school children of Grade 3 to 6.



*Study day "Mole and his neighbours".  
Photo: NHMSS archive*



*Study day "The Life of Ants".  
Photo: NHMSS archive*

**Peipsi Centre for Transboundary Cooperation** has organised 9 study days in the region of lake Peipsi. In October 2012, four study days took place near lake Peipsi where the previously prepared programme “Lake Peipsi travel journal” with some new additions has been used. Newly developed study programmes have been implemented in 2013 and 2014. Goals of the study days included application of theoretical knowledge acquired at school using practical activities, developing teamwork and public speaking skills, and helping the participants to understand the connection between man and nature, incl. the significance of sustainable living. Various fish species and adjustments of fish for life in water have been observed in lake Peipsi, geographical data and significance and biota of the lake have been studied, as well as fishing, incl. fishing gear have been examined in the exhibition “Lake Peipsi Living Room”. The bank of lake Peipsi and some of the inflows have been observed, e.g. in Mustvee and Kallaste.



*Study day about Lake Peipsi and fish.  
Photo: E. Sepp*



*Studying the region of Lake Peipsi.  
Photo: E. Kirsipuu-Vadi*

**Tartu Environmental Education Centre** organised its first study days in the autumn of 2012 when two schools from Tartu participated in study days to learn about landscapes formed by ice gap and the present-day landscapes of Vooremaa (land of drumlins). The study days started with an excursion in Vooremaa where the view from a tower gave an excellent overview of the great drumlins and lake basins. Landscapes of basins and drumlins formed by ice were seen in Kassinurme hiking trail. The area is also related to legendary Estonian hero Kalevipoeg, glacial boulders, an ancient grove and a castle providing cultural and historical aspect to the study program as well. The students had their lunch in the café of Luua Forestry School and continued the day with a visit to the Ice Age Centre where they had to fill in worksheets. We got positive feedback both from the students and their teachers.

In the spring of 2013, two outdoor study days for the students from Tartu Catholic Educational Centre have been organised. The study days were carried out in Tartu on the shore of the River Emajõgi. The students had to measure river flow velocity, wind direction and velocity, and other weather parameters. They learned to use field guides of river plants developed within the Project “People with Nature” and studied river animals. The students had an opportunity to use different equipment for outdoor nature studies, and they gained new knowledge and experience from nature. Teachers found this kind of outdoor study days very useful and would like to participate therein more often.



Students from Tartu Waldorf School in Vooremaa, in the autumn of 2012. Photo: TEEC archive



Students from Tartu Catholic Educational Centre are using field guide of river plants to determine their findings. Photo: TEEC archive



Students from Tartu Catholic Educational Centre learn about animals of River Emajõgi. Photo: TEEC archive



How to measure the power of the wind. Photo: TEEC archive

#### 4.7. Short movies and slideshows

The offer of the Nature Education Centre is definitely enriched by publicly available video or photo material on the specially protected nature area where the centre is located. Such materials are often shown to public the Visitor Centre in order to educate visitors on the specially protected areas, nature values, and place they have arrived to. The photo or video materials are very useful also for supplementing the content of the nature education lessons and they serve as an excellent present to partners or in other cases when the Nature Education Centre is promoted.

**Creation of short movies:** The creation process of a short movie about a nature is not simple. It is desirable that a client (the head of the Nature Education Centre, employee of the particular project, etc.) is well acquainted with the particular specially protected area, that he/she knows the key nature values orientate oneself in the tourism industry, and know the history of territory. Only knowledgeable client may request a particular result from movie makers. The final result depends on professional skills of the movie makers but even a perfect director or producer may not know what message the client wants to send to the visitors by this movie. Therefore it is essential to be actively involved in the movie making process from its very beginning.

When the movie makers are established in the result of a specific procedure, it is important to constantly keep in touch with them so that movie making would not be chaotic and premature or quite the opposite – so that it would not be delayed too long. It is preferable to organise regular meetings or at least maintain communication via e-mail whilst planning particular aims to be reached in a specific time frame.

It is desirable to involve several people from both the authors and the administration staff in the creative process of the movie script development because each has its own vision but a single and unifying solution must be found. The script must be proofread several times, especially examining the facts in order to avoid unnecessary mistakes. In terms of content, it is not recommended to saturate the movie with scientific information since a regular viewer does not comprehend that.

**Creation of slideshows:** When creating a slideshow, it is essential to clearly know the aim of creation thereof and the message to the audience as a slideshow is not just a compilation of beautiful pictures to entertain the audience. Such materials may be very useful for educational purposes at nature education centres; therefore a script of the slideshow should be prepared prior the selection of photographs.

Search and selection of photographs is not an easy process. It can be simpler when there is a possibility to cooperate with a well-known nature photographer. However that is not so easy, because good and quality nature photographs are demanded and their services might be expensive. When making a slideshow of the Gauja National Park, various photographers offering broad photo material were involved. Still selection of the photographs from the huge amount thereof was not easy since the slideshow cannot be made based only on quality, diversity, or expressiveness of the photographs. There are excellent photographs that do not correspond to the subject and aim of the slideshow and vice versa – there is a lack of photographs for a particular need. Especially this refers to the photographs of particular species. It should be mentioned that, should there be no archive collected with the photographs previously provided by colleagues, purchase of necessary photographs would be extremely expensive and exceed the budget of the project. This must be taken into account in other projects as well when preparing such materials.

Caption (texts) under (or above) the photographs should be considered in a timely manner and preferably together with making the script making, although all the major work is done after photographs have been selected and arranged in the right order. Texts must be adjusted to the photographs and information must approve and supplement the image seen on the photograph, rather than express other non-suitable information. The text must not be too long since an individual spends 5 to 7 seconds looking at one picture and reading the text, whilst the photography is still seen. It is recommended to give the text for proofreading to a third person (someone not related to the project) in order to evaluate its clarity and comprehension by a non-specialist.

Within the Project, **a short movie about the Ķemeri National Park and photography slideshows about the Gauja National Park and Ziemeļvidzeme Biosphere Reserve have been produced by Nature Conservation Agency.** The movie about Ķemeri National Park displays the main nature values, most popular sightseeing objects, nature trails, as well as the newly created Nature Education Centre and activities it offers – events, environmental games, exhibitions, etc.

The most interesting, popular, and beautiful nature, geological, cultural and historical tourism objects, landscapes, rivers, lakes, animals, plants, and other biotopes, as well as the human presence at the special area of conservation may be seen in the slideshow about the Gauja National Park.

Photographs about coastline's flora, fauna, and geological formations are shown in the slideshow about Ziemeļvidzeme Biosphere Reserve, as well as nature, geological, cultural and historical objects, and different biotopes of the Ziemeļvidzeme Biosphere Reserve are reflected there.

The target audience for both movies and slideshows is visitors of the Nature Education Centres who have no specific knowledge in biology and other nature sciences, therefore the explanatory descriptions are easy to comprehend, as well as the total length of these materials do not exceed 10 to 15 minutes since a longer movie or slideshow can bore the audience.

**A short 2-minutes promo film about the exposition “Lake Peipsi Living Room”** has been made in order to attract more visitors and give an insight about what can be seen there. The film is available to everyone on internet – in Estonian: <http://youtu.be/jdOmukKfNEg>, in English: <http://youtu.be/oL8GDIqbC3g>, and in Russian: <http://youtu.be/XrRo9ESbhQY>

Initially (in 2010) it was planned to make a slideshow about lake Peipsi and fish/fishing consisting of texts and photos. In 2012 a **movie about Lake Peipsi and Peipsi region** was launched by Peipsi Kalanduspiirkonna Arendajate Kogu. The film precisely and comprehensively described the topic that initially was planned to be covered by a slideshow. Thus the film is also much more interactive and suitable for different target groups. Within the Project, it was planned to create a shorter version (about 10 minutes long) instead of a slideshow. The short version of the movie was required and information contained therein should be more compact and well-targeted (the original film contains much irrelevant information as well) for purposes of an educational movie. The movie is used in study days and is available in Estonian and English.

#### 4.8. Printed materials

The Nature Conservation Agency within the Project have prepared leaflets about four nature education centres and offers thereof, as well as five different posters about nature values.

The leaflets promote the offer and possibilities provided by the nature education centres. Still it should be ensured that a reader has an opportunity to complete some educational exercises or use the other side of the printed material as a poster with valuable information on the nature values nearby the particular nature education centre. The leaflets have been made in the A3 format, and when folded, they are of A5 format. The part of exercises can be separated from the booklet and used as a worksheet. Each of the leaflets contains information about other nature education centres established by the Nature Conservation Agency within the Project as well.

The exercises in the **leaflet about the Nature Education Centre “Meža māja”** are suitable for younger school children – words related to wetlands must be found, simple crossword-puzzle on the nature values must be completed (the right answers are given in the same booklet), also riddles about the nature must be solved, and missing words in a poem can be filled in. In the form of drawings, well-known plant and animal species are displayed, and everyone can mark which of the species one has seen in the nature.

**The leaflet about the Nature Education Centre “Vecupītes”** is supplemented with a poster about wild boars – kings of the “mud bath”. In the form of drawings and short descriptions. the habits of wild boars and their traces in the nature have been displayed. The leaflet may be used also as a cartographic material as it includes also the scheme of “Vecupītes” nature trail with the main sightseeing objects and stopping points.

**The leaflet about the Nature Education Centre “Ziemeļvidzeme”** features exercises that are related to the nature values of seashore – one must guess specific plant and animal species encountered at the seashore after reading a description, as well as to find fish names in a word puzzle created in the form of the fish. Little children usually like different colouring exercises, therefore in this booklet all drawings in the exercises are black-and-white so that children could colour them.

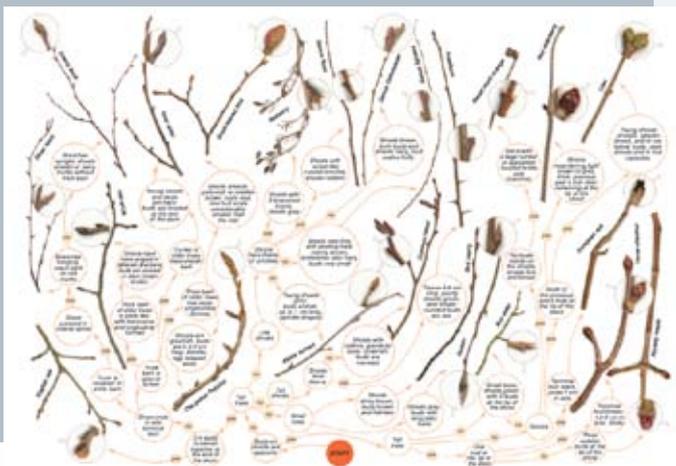
One side of the leaflet of the Nature Education Centre “Rāzna” contains information about offers and possibilities found in the Centre, but the other side features an informative poster about the nature values at the slope and gully forests.

The posters about different nature values have been created in the A0 and A1 format with beautiful visual design in the form of both drawings and photography that are supplemented with a brief explanatory description. The posters at nature education centres will be used as a visual supplement to the environment studies, distributed to the partners, as well as provided as prizes in various events recognising participation in the environment study activities. The topics of posters: Lake World, Multishaped Gauja, Plant adjustment to the environment, The Lichen species encountered in Latvia, Black stork in Latvia.

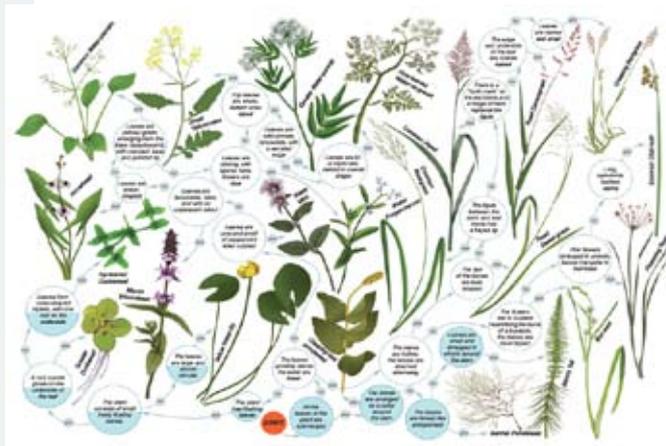
Both the booklets and posters are available also electronically on the homepage of the Nature Conservation Agency under the section “Publications/Printed materials” (see Annex 1, Links to project materials and results).

Tartu Environmental Education Centre has published three different field guides with the same title “Notice Nature!”. Since introducing city nature is especially important for TEEC, subjects of Tartu nature are chosen. Many educators and teachers to understand their needs have been interviewed. Then tree different topics were chosen: “Selection of river Emajõgi plants”, “Selection of trees and shrubs in Tartu”, and “Selection of Tartu butterflies”. Field guides are based on a principle where different facts are presented and student can reach the desired object by selecting “yes” or “no” answers. All guides include illustrations or photos of the objects. The field guides present also additional information about species and specific terms. The field guides are available in Estonian, Russian, and English, and they can be downloaded on the TEEC’s homepage. The field guides are being translated into Latvian as well and will be adapted in the study programmes at the nature education centres in Latvia.

See links to the Project materials and outputs in the Annex 1.



Field guide about Trees and shrubs.  
Photo: TEEC archive



Field guide about river plants.  
Photo: TEEC archive

Peipsi Centre for Transboundary Cooperation has issued a publication about lake Peipsi and freshwater fish containing a division about lake Peipsi and the material to determine the fish species. The lake Peipsi is a home of hundreds of millions of fish. One species from the class Cyclostomata and 36 species of fish have been registered in lake Peipsi.

The material is available in Estonian, Russian, and English and can be downloaded on the Peipsi CTC’s homepage (see Annex 1, Links to project materials and results).

**The State Committee on Natural Resources Use and Environment Protection** has issued a Red Book of Pskov region, which is an official document on the condition of plant, mushroom, and animal species found in the territory of the region deserving special protection. The Red Book gives reference to 387 seaweed, moss, higher plant, mushroom, lichen, insect, fish, amphibian, reptile, bird, and mammal species. Information on each species is given in a separate entry providing data that describe the species' spread and protection condition, category, main identification features, as well as biological and spread peculiarities thereof, restrictive factors, current and recommended protection measures. The book can be used by biologists, ecologists, users of natural resources, teachers, students, pupils, and wide circle of interested ones.

**The administration of the National Park "Sebezhsy"** has issued a brochure for tourists with rules that must be taken into account whilst visiting the National Park "Sebezhsy", as well as on the nature values of the National Park and recreation opportunities. In the publication, also educational information on what the things that may and may not be done in nature has been included, for example, do not take home animal babies, do not destroy bird nests, do not throw garbage in the nature, etc. To make the publication more interesting for children, information on a relevant action in the nature has been presented in the form of poems and drawings.

**The NGO "Lake Peipsi Project, Pskov"** within the Project has prepared:

**Field guide "Birds of Pskov region"**: Made in 1,000 units in Russian and English for students and any bird-watching enthusiast.

There are over 250 bird species in the Pskov region. The intricacy of pinpointing the exact number of species lies in the need of permanent monitoring, and there is an entire category of birds that have received no verified encounter reports in recent years. The guide covers 218 species of the most widespread birds relating to 18 orders and 49 families, with short species descriptions, schematics of their physique, name of body parts and plumage patches. All entries are illustrated and complemented with short abstracts on character habitats.

**Photo album "Nature values of Pskov region"**: The main goal is to attract attention of Russian and foreign tourists to natural values of the Pskov region through creation of a photo album. The photo album comprises a text and visual information about five most significant natural areas: Nature Reserve "Polistovsky", National Park "Sebezhsy", Museum Reserve "Izborsk", Museum Reserve "Mikhailovskoe", and Zoological Reserve "Remdovsky". The album is available in 1,000 copies in Russian and English.

**Brochure "Eco-trails of Pskov region"**: The main goal is to show possibilities of eco-tourism in the Pskov region. The brochure features information about the main nature trails in Nature Reserve "Polistovsky", National Park "Sebezhsy", Museum Reserve "Izborsk", and Zoological Reserve "Remdovsky". The Brochure is available in 1,000 copies in Russian and English.

**Board game "Journey of smelt Boole in Pskov Lake"** prepared for preschool and primary school children on the basis of regional material to promote the nature of native land and nurturing respect for the natural environment. The game tells the story of the smallest commercial fish of the salmon family inhabiting the Pskov lake, its life cycle, and danger. Game has been made in 1,050 copies in three languages: Russian, Latvian, and Estonian. The board game has been created by representatives of Ecological and Biological Centre of Pskov city, Pskov branch GosNIORKh, and NGO "Lake Peipsi Project, Pskov".

## 5. Partner details:

|  |   |  |
|--|---|--|
|  <p><b>Nature Conservation Agency</b></p> <p>Baznīcas iela 7, Sigulda<br/>LV-2150, Latvia<br/>Phone: +371 67509545<br/><a href="mailto:daba@daba.gov.lv">daba@daba.gov.lv</a><br/><a href="http://www.daba.gov.lv">www.daba.gov.lv</a></p>                        |  <p><b>Tartu Environmental Education Centre</b></p> <p>Lille Street 10, 51010,<br/>Tartu, Estonia<br/>Phone: +372 736 1693<br/><a href="mailto:teec@teec.ee">teec@teec.ee</a><br/><a href="http://www.teec.ee">www.teec.ee</a></p>   |  <p><b>Pskov regional centre for development of gifted children and youth</b></p> <p>Y. Fabrisiusa Street 24,<br/>Pskov, 180004, Russia<br/>Phone: +7 8112 661980<br/><a href="mailto:geniuscentr@mail.ru">geniuscentr@mail.ru</a><br/><a href="http://genius.pskovedu.ru">http://genius.pskovedu.ru</a></p>            |
|  <p><b>Support Society of Natural History Museum</b></p> <p>K. Barona iela 4, Riga<br/>LV-1050, Latvia<br/>Phone: +371 67356023<br/><a href="mailto:ldm@ldm.gov.lv">ldm@ldm.gov.lv</a><br/><a href="http://www.dabasmuzejs.gov.lv">www.dabasmuzejs.gov.lv</a></p> |  <p><b>Peipsi Centre for Trans-boundary Cooperation</b></p> <p>Puiestee Street 71a,<br/>51009, Tartu, Estonia<br/>Phone: +372 6990365<br/><a href="mailto:tartu@ctc.ee">tartu@ctc.ee</a><br/><a href="http://www.ctc.ee">www.ctc.ee</a></p>  |  <p><b>State Committee on Natural Resources Use and Environment Protection</b></p> <p>Nekrasova Street 23, Pskov,<br/>180000, Russia<br/>Phone: +7 8112 686520<br/><a href="mailto:lic-k1@obladmin.pskov.ru">lic-k1@obladmin.pskov.ru</a><br/><a href="http://www.priroda.pskov.ru">www.priroda.pskov.ru</a></p>        |
|  <p><b>Gauja National Park Foundation</b></p> <p>Baznīcas iela 3, Sigulda<br/>LV-2150, Latvia<br/>Phone: +371 67800393<br/><a href="mailto:gnpfonds@gnpfonds.lv">gnpfonds@gnpfonds.lv</a><br/><a href="http://www.celodaba.lv">www.celodaba.lv</a></p>          |  <p><b>Pskov regional public organisation "Lake Peipsi Project, Pskov"</b></p> <p>Sovetskaya Street 15 a,<br/>Pskov, 180000, Russia<br/>Phone: +7 8112 720688<br/><a href="mailto:peipsi_project@yahoo.com">peipsi_project@yahoo.com</a><br/><a href="http://cbc-center.org">http://cbc-center.org</a></p> |  <p><b>Saint-Petersburg charitable public organisation "Biologists for nature conservation"</b></p> <p>Universitetskaya emb., 7-9-11,<br/>St. Petersburg, 199034, Russia<br/>Phone: +7 812 328 9620<br/><a href="mailto:bfn@bfn.org.ru">bfn@bfn.org.ru</a><br/><a href="http://www.bfn.org.ru">www.bfn.org.ru</a></p> |
|  <p><b>Dagda local municipality</b></p> <p>Alejas iela 4, Dagda, Dagda region,<br/>LV-5674, Latvia<br/>Phone: + 371 656 81437<br/><a href="mailto:dome@dagda.lv">dome@dagda.lv</a><br/><a href="http://dagda.lv">http://dagda.lv</a></p>                        |  <p><b>Federal State Institution "The Sebez National Park"</b></p> <p>7 Noyabrya Street 22, Sebez,<br/>182250, Russia<br/>Phone: +7 81140 21422<br/><a href="mailto:seb_park@mail.ru">seb_park@mail.ru</a></p>   |  |

## Annex 1

### Links to the Project materials and outputs

#### Nature Conservation Agency

**Nature education centres and their offer:** [http://www.daba.gov.lv/public/lat/vides\\_izglitiba/dabas\\_izglitibas\\_centri/](http://www.daba.gov.lv/public/lat/vides_izglitiba/dabas_izglitibas_centri/)

**Leaflets about four nature education centres and their offer :**

NEC "Meža māja": [http://www.daba.gov.lv/upload/File/Publikacijas/BUK\\_DIC\\_Meza\\_maja.pdf](http://www.daba.gov.lv/upload/File/Publikacijas/BUK_DIC_Meza_maja.pdf)

NEC "Rāzna": [http://www.daba.gov.lv/upload/File/Publikacijas/BUK\\_DIC\\_Razna.pdf](http://www.daba.gov.lv/upload/File/Publikacijas/BUK_DIC_Razna.pdf)

NEC "Vecupītes": [http://www.daba.gov.lv/upload/File/Publikacijas/BUK\\_DIC\\_Vecupites.pdf](http://www.daba.gov.lv/upload/File/Publikacijas/BUK_DIC_Vecupites.pdf)

NEC "Ziemeļvidzeme": [http://www.daba.gov.lv/upload/File/Publikacijas/BUK\\_DIC\\_Ziemeļvidzeme.pdf](http://www.daba.gov.lv/upload/File/Publikacijas/BUK_DIC_Ziemeļvidzeme.pdf)

**Posters about nature values:**

Black stork in Latvia: [http://www.daba.gov.lv/upload/File/Publikacijas/PLA\\_MStarkis.pdf](http://www.daba.gov.lv/upload/File/Publikacijas/PLA_MStarkis.pdf)

Lichens in Latvia: [http://www.daba.gov.lv/upload/File/Publikacijas/PLA\\_KerpjuVeidi.pdf](http://www.daba.gov.lv/upload/File/Publikacijas/PLA_KerpjuVeidi.pdf)

River Gauja: [http://www.daba.gov.lv/upload/File/Publikacijas/PLA\\_Gauja.pdf](http://www.daba.gov.lv/upload/File/Publikacijas/PLA_Gauja.pdf)

Ecosystem of a lake: [http://www.daba.gov.lv/upload/File/Publikacijas/PLA\\_EzeraPasaule.pdf](http://www.daba.gov.lv/upload/File/Publikacijas/PLA_EzeraPasaule.pdf)

How plants adjust to different conditions of environment: [http://www.daba.gov.lv/upload/File/Publikacijas/PLA\\_AuguPielagosanasVidei.pdf](http://www.daba.gov.lv/upload/File/Publikacijas/PLA_AuguPielagosanasVidei.pdf)

Latvia's national nature symbols: [http://www.daba.gov.lv/upload/File/Plakats\\_Dabas%20simboli.pdf](http://www.daba.gov.lv/upload/File/Plakats_Dabas%20simboli.pdf)

**Field guides:**

Field guide about river plants: [http://www.daba.gov.lv/upload/File/Upes%20augi\\_noteic%C4%93js.pdf](http://www.daba.gov.lv/upload/File/Upes%20augi_noteic%C4%93js.pdf)

Field guide about trees and scrubs:

[http://www.daba.gov.lv/upload/File/Koki%20un%20kr%C5%ABmi\\_noteic%C4%93js.pdf](http://www.daba.gov.lv/upload/File/Koki%20un%20kr%C5%ABmi_noteic%C4%93js.pdf)

Field guide about butterflies: [http://www.daba.gov.lv/upload/File/Tauri%C5%86i\\_noteic%C4%93js.pdf](http://www.daba.gov.lv/upload/File/Tauri%C5%86i_noteic%C4%93js.pdf)

#### Nature History Museum Support Society

**Methodical materials:**

Life of forest ant Rude: [http://www.videsgidi.lv/faili/Meza\\_skudra\\_Rude.pdf](http://www.videsgidi.lv/faili/Meza_skudra_Rude.pdf)

Hunting story of Forest Owl Menarda: [http://www.videsgidi.lv/faili/Meza\\_puces\\_Menardas\\_medibu\\_stasts.pdf](http://www.videsgidi.lv/faili/Meza_puces_Menardas_medibu_stasts.pdf)

Journey of booklouse Cilda: [http://www.videsgidi.lv/faili/Kerpjuts\\_Cildas\\_celojums.pdf](http://www.videsgidi.lv/faili/Kerpjuts_Cildas_celojums.pdf)

Grasshopper's hide and seek in flowers: [http://www.videsgidi.lv/faili/Sienazisu\\_ziedu\\_paslepes.pdf](http://www.videsgidi.lv/faili/Sienazisu_ziedu_paslepes.pdf)

#### Gauja National Park Foundation

Booklet about the Nature Education Centre - Forest School "Pauguri":

[http://www.gnp.lv/sites/default/files/Pauguri\\_informacija.pdf](http://www.gnp.lv/sites/default/files/Pauguri_informacija.pdf)

### **Dagda municipality**

Nature Education Centre “Jaundome Manor” and it’s offer: <http://visitdagda.com/index.php/lv/apskates-objekti/muzeji-lv/70-lv/objekti/muzeji-lv/337-jaundomes-muiza-lv>

### **Peipsi Centre of Transboundary Cooperation**

Offer of the Nature Education Centre’s “Lake Peipsi Living Room”: <http://ctc.ee/area-of-lake-peipsi/peipsi-exhibition>

Film about “Lake Peipsi Living Room” in Estonian: <http://youtu.be/jdOmukKfNEg>, English: <http://youtu.be/oL8GDIqbC3g>, and Russian: <http://youtu.be/XrRo9ESbhQY>

### **Tartu Environmental Education Centre**

Field guides: [http://www.teec.ee/ET/oppematerjalid\\_programmid/oppematerjalid/voorkeelsed\\_oppe-materjalid/](http://www.teec.ee/ET/oppematerjalid_programmid/oppematerjalid/voorkeelsed_oppe-materjalid/)

### **NGO “Lake Peipsi Project, Pskov”**

Field Guide “Birds of Pskov region”:

<http://cbc-center.org/wp-content/uploads/2014/08/Birds-of-Pskov-region.pdf>

### **State Committee on Natural Resources Use and Environment Protection**

Brochure about nature protection territories in Pskov region: [http://www.priroda.pskov.ru/sites/default/files/broshyura\\_itog.pdf](http://www.priroda.pskov.ru/sites/default/files/broshyura_itog.pdf)

## Annex 2

### Links to places of study trips

#### ***In Estonia:***

Tartu Environmental Education Centre (<http://www.teec.ee/EN/>)

Emajõe-Suusoo Nature Reserve (<http://www.rmk.ee/subject-headings/for-hikers/other-protected-areas/emajoe-suursoo-nature-reserve>). The Nature Centre is operated by the Centre for State Forest Management (RMK – <http://www.rmk.ee/en>)

Lake Peipsi Living Room – Peipsi Centre for Transboundary Cooperation (<http://ctc.ee/en>)

Kohtla Mining Park (<http://kaevanduspark.ee/eng/>)

Saka Manor (<http://www.saka.ee/index.php?page=479>)

Lahemaa National Park (<http://www.keskkonnaamet.ee/lahe-eng>)

Sagadi Manor (<http://www.sagadi.ee/nature-school>)

Ice Age Centre (<http://www.jaaaeg.ee/index.php>)

#### ***In Latvia:***

Andrupene traditional farmstead (<http://visitdagda.com/index.php/en/apskates-objekti-en/muzeji-en/68-en/objekti-en/muzeji-en/455-andrupenes-lauku-seta>)

Nature Education and Culture Centre “Kēpa” (“Paw”) (<http://visitdagda.com/index.php/en/apskates-objekti-en/muzeji-en/68-en/objekti-en/muzeji-en/457-kepovas-izstazu-zale>)

Nature Education Centre “Jaundome Manor” (<http://visitdagda.com/index.php/en/apskates-objekti-en/muzeji-en/68-en/objekti-en/muzeji-en/458-jaundomes-muiza-lv>)

Daugavpils fortress (<http://www.visitdaugavpils.lv/en/tourism/daugavpils-fortress>),

Latgale ZOO (<http://www.visitdaugavpils.lv/en/tourism/latgale-zoo>)

Information Centre “Gulbji” in the old valley of Dviete river (<http://www.dvietespaliene.lv/en/>)

Kalsnava Arboretum (<http://www.madona.lv/turisms/ui/?s=1271329230&fu=show&id=5&ln=en>)

Training Centre “Pakalnieši” ([http://www.mkpc.llkc.lv/index.php?option=com\\_content&view=article&id=108&Itemid=68&lang=EN](http://www.mkpc.llkc.lv/index.php?option=com_content&view=article&id=108&Itemid=68&lang=EN))

Rock Zvārtes iezis on the bank of Amata river (<http://www.gnp.lv/en/zvartes-rock>)

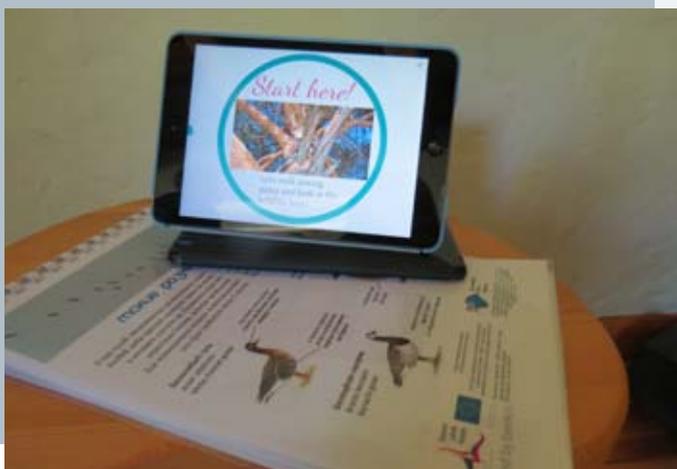
#### ***In Russia:***

National Park “Sebezhsky” (<http://seb-park.ru/index.html>)

State Reserve “Polistovsky” (<http://en.polistovsky.ru/>)

## Annex 3

Some examples of equipment purchased within the Project “People with Nature” for different nature education activities



*IPad for nature education study programmes*



*Tent for outdoor lessons/activities*



*Glass vessels for water patterns and a model of fish skeleton*



*Glass pots for natural materials*



*Telescope on a stand for bird watching*



*Binoculars for bird watching*



*Magnifying glass*



*Digital microscope*

Estonia – Latvia – Russia Cross Border Cooperation Programme within the European Neighbourhood and Partnership Instrument 2007-2013 financially supports joint cross border development activities for the improvement of the region’s competitiveness by utilising its potential and beneficial location on the cross-roads between the EU and Russian Federation. The Programme website is [www.estlatrus.eu](http://www.estlatrus.eu)



**The Joint Manual of the Project** has been produced within the project “Promoting nature education as efficient mean of awareness raising” or “People with nature”. The project is being implemented in the territory of Latvia, Estonia and Russian Federation, and its main objective is to raise the awareness of the society on sustainable development and integrated nature conservation in the project implementation area as well as raise capacity of nature conservation institutions to the project in the field of nature education.

**Partner responsible for activity:**

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E-mail: [daba@daba.gov.lv](mailto:daba@daba.gov.lv)  
Homepage: [www.daba.gov.lv](http://www.daba.gov.lv)

The Joint Manual was produced by the Project team in 2014.