

Showcase *ABC heritage* and Workshop on the Development of the northernmost part of the Green Belt of Fennoscandia

14TH-15TH OCTOBER 2014, SVANVIK NORWAY

PROGRAM – ABSTRACTS - CONCLUSIONS



Organisers:

Office of the Finnmark County Governor, Vadsø Norway
 Bioforsk Svanhovd, Svanvik Norway
 Metsähallitus Natural Heritage Services, Inari Finland
 State Nature Reserve Pasvik – Pasvik zapovednik, Rajakoski Russia

Conference administrative team:

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ABCgheritage

www.metsa.fi/abcgheritage

Seminar language: English (English-Russian translation will be arranged)

The seminar is funded by:

Kolarctic ENPI CBC programme – ABCgheritage (K0368),
 National funding and partner funding
 Norwegian Environmental Agency

Cover page photos (from top left):

Grense Jakobselv and Oscar II chapel – Juha Paso, Metsähallitus
 Pasvik zapovednik and Russian musicians – Marina Trusova, Pasvik zapovednik
 Offering ridge – Juha Paso, Metsähallitus
 Khibiny Mountains – Geological Institute KSC RAS
 Snow shoeing – Metsähallitus
 Old grown forest in Pasvik – Ben Arne Sotkajärvi
 Pasvik River – Rolf Kollstrøm, National Park Board of Øvre Pasvik
 Young ornithologists – Marina Trusova, Pasvik zapovednik
 Happy fishermen – Pasvik zapovednik
 Brattli Conglomerate – Laura Lauri, Geological Survey of Finland



Dear colleagues,

The ABCGheritage –project, a Finnish-Russian-Norwegian project that aims on increasing knowledge and sustainable utilization of nature protection areas and creating new networks under the Green Belt of Fennoscandia (GBF). At the seminar and the workshops main results from the project will be highlighted and the aim is to further build and brain storm on new and future ideas for development and cooperation.

Since the early 1990s, efforts have been taken to set up the Green Belt of Fennoscandia (GBF) – a strip of land along the Russian-Finnish-Norwegian national borders, which constitutes the northern part of the European Green Belt. Finland, Russia and Norway are fortunate guardians of the vast area of wilderness and natural beauty between them. Pearls along the belt are the numerous nature protected areas, many of them forming cross-border pairs.

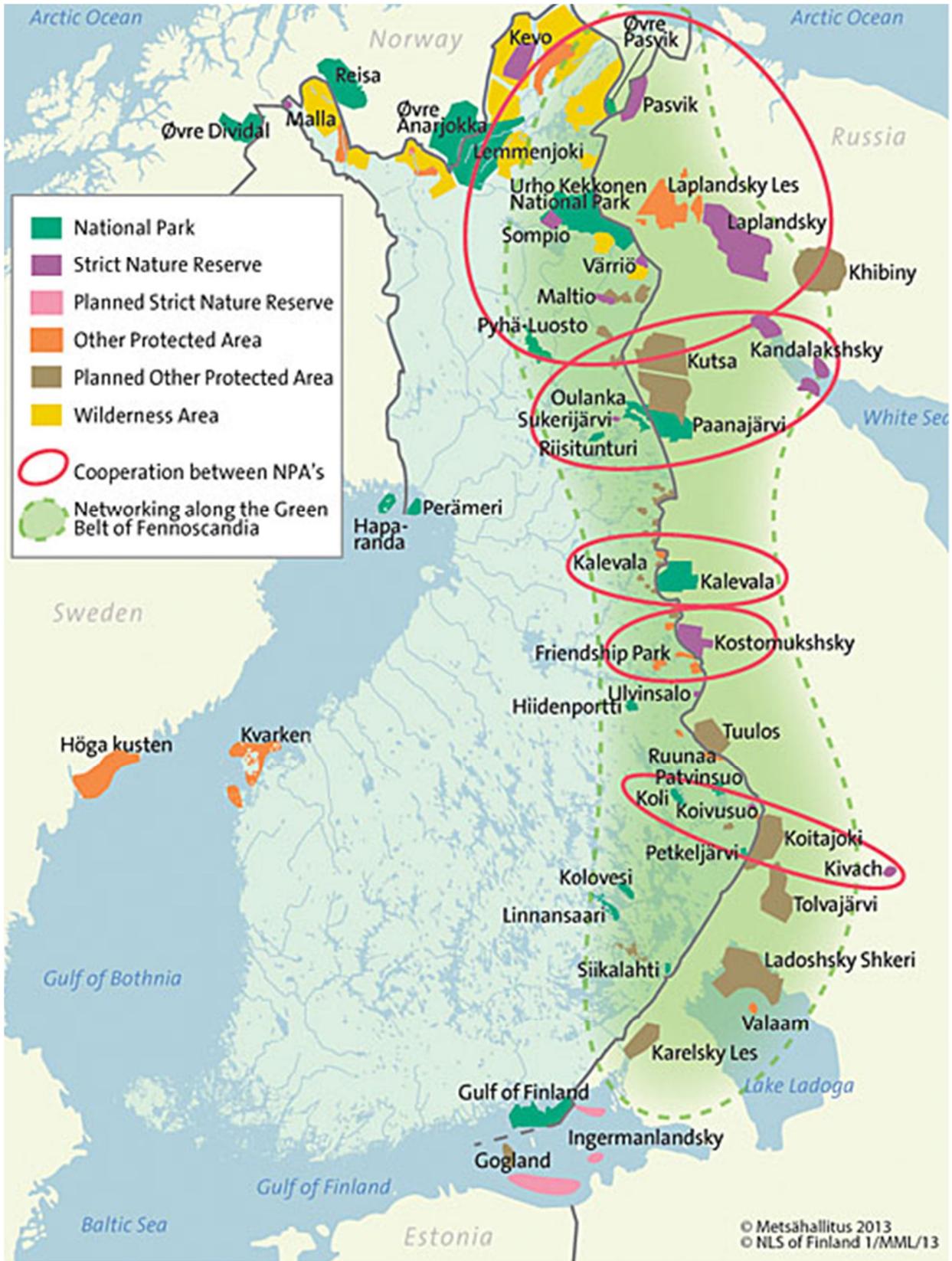
Various results of GBF studies have been published in a great number of scientific papers and discussed on numerous conferences. An important event in this context was the signing of the Memorandum of Understanding (MoU) 17.2.2010 by the Barents Environmental Ministers in Tromsø, Norway. At present there are a number of national and international regional level projects along the Fennoscandian Green Belt, focusing on cross-border cooperation for peoples and natures well-being.

Seminar structure and topics:

Joint session with 4 key note speakers, afterwards 3 parallel thematic working groups with 1-2 invited external key note speakers in each and 1-2 presentations of project results.

- ❖ Nature based tourism and geo-tourism along the GBF (socio-economy of the GBF)
- ❖ Cultural, natural and geological heritage of the GBF
- ❖ Environmental education, nature interpretation and dissemination in the area of GBF

Expected results from the work groups/ workshops are: key message or recommendations from each working group for development of GBF to be included in the 10 year development plan for regional and northernmost GBF.



Programme

Monday 13th October

Evening - Arrival at Bioforsk Svanhovd
Light supper and "ice breaker" event

Tuesday 14th October

Breakfast

- 8:15 Seminar opening and welcome – Bente Christiansen, Office of the Finnmark County Governor - *confirmed*
- 8:30-9:15 Bird tourism in the arctic part of the Barents Region – Bjørn Frantzen, Bioforsk – *confirmed*
- 9:15-9:45 History and values of the Green Belt Fennoscandia – Tapio Lindholm, Finnish Environment Institute – *confirmed*
- 9:45-10:30 Linking Tourism and Conservation – Peter Prokosch - *confirmed*

Coffee break and "leg stretch"

- 11:00-11:30 Outdoor Education, a way of learning – Anders Johansson, Friluftsen – *confirmed*
- 11:30-12:15 Natural and cultural heritage along the "Horseshoe" of GBF topic – Rein Midteng, Asplanviak – *confirmed*
- 12:15-12:30 ABCGheritage – presentation of the project main results – Riina Tervo, Metsähallitus – *confirmed*
- 12:30-13:15 Lunch (on the project expense)
- 13:15-14:00 Presentation of Bioforsk Svanhovd and brown bear research – Snorre Hagen and Julia Schregel, Bioforsk – *confirmed*
- 14:00-17:00 Parallel sessions - Work in the three working groups –

Coffee break and "leg stretch" at c. 15

- c. 17-19 Free time – visit the Øvre Pasvik National Park Centre
- 18:00 Movie premiere – Pasvik-Inari trilateral park film
- c. 19 "Gala" Dinner (on the projects expense)

Wednesday 15th October

Breakfast

- 8:15-9:30 Work in the three working groups commences – finalising of the key messages/ recommendations from each working group
- 9:30-10:45 Seminar commences – with presentation of the results from every working group. Summing up and final remarks
- 11-12:30 Visit the nature trails built in Svanvik – Lars Ola Nilsson – *confirmed*
- 12:30 Lunch and departure

Tuesday 14th October, 14-17 - Parallel sessions - Work in the three working groups

Working group 1 - Nature based tourism and geo-tourism along the GBF (socio-economy of the GBF)

1. Presentation of ABCGheritage project results implemented on the Kola Peninsula – Yuri Voytekhovsky, Geological Institute of the Kola Science Centre, Russia – *confirmed*
2. Identifying Health and Well-being Benefits Perceived by Visitors in Finnish Protected areas – Pertti Itkonen, Metsähallitus – *confirmed*
3. Nature tourism infrastructure and exhibitions – presentation of project results – Victoria Frolova, Lapland State Natural Biosphere Reserve – *confirmed*

Discussion and fulfilling work group target note (report and key message from each group)

Working group 2 – Cultural, natural and geological heritage of the GBF

1. LiDAR study in the Pasvik valley, presentation of project results – Jan Ingolf Kleppe, Finnmark County Authority – *confirmed*
2. Study on cultural marks in three in Pasvik valley – Rein Midteng, Asplanviak – *confirmed*
3. Geodiversity in Urho Kekkonen and Lemmenjoki National Parks in northern Finland – Peter Johansson, Geological Survey of Finland - *confirmed*
4. Presentation of project results on cultural heritage – Marina Trusova, Pasvik State Nature Reserve – *confirmed*
5. Russian, Norwegian, Finnish cross border area as a prospective object for World Cultural Heritage site – Sergey Riabov, Moscow Heritage Institution - *confirmed*

Discussion and fulfilling work group target note (report and key message from each group)

Working group 3 - Environmental education, nature interpretation and dissemination

1. Nature interpretation – Phenology of the North calotte (PNC) – Paul Aspöhl, Bioforsk – *confirmed*
2. Outdoor Education, a way of learning – Anders Johansson, Friluftsen – *confirmed*
3. Present project results on environmental education and dissemination – Eerika Tapio, Centre for Economic Development, Transport and the Environment of Finland (ELY-Centre) – *confirmed*
4. Evaluation of the project results – reaching the target groups etc. – Eerika Tapio, ELY-Centre – *confirmed*
5. Adventure learning in a marine environment, creating empathy and interest by means of outreach programs (making science accessible for the common man) and action based education – Christoph Hupe, Kongsfjord Int. Scuba School AS – *confirmed*

Discussion and fulfilling work group target note (report and key message from each group)

Welcome talk from Bente Christiansen, Office of the Finnmark County Governor

Good morning - Managers, researchers, tourist entrepreneurs, neighbours, friends. Welcome to Finnmark, welcome to Pasvik and welcome to Svanhovd

There are so many stories to tell about this area

1-2. People have lived in Pasvik-Inari area for more than 5000 years. Here they found an area rich in natural resources. They had the river, the forest, the fish and the game. They lived here. They used the whole area and have never heard about borders, SO₂, heavy metals and POPs. In 1810 a border treaty decided the point "Treriksrøysa" where all three countries Finland, Russia and Norway meet

3. The Border Convention of 1826 determined the border between Russia and Norway

4. Around 1900, a young and keen ornithologist Hans Schaaning and his friend Johan Koren arrived Pasvik and he gave a description of the abundant birdlife which made this area famous

5-6. In 1930's a nickel plant started up in Nickel, at that time Finland, later on Soviet Union and now Russia. The emissions from this smelter have been and still are of great concern for the people in this area. Finnmark and Norway signed in 1980 an agreement on the border rivers. We have yearly meetings and from 1993 Russia has attend the meetings as an observer. A common multiuse plan for the Pasvik river Basin was elaborated already in 1996.

7-8. In Finnmark our first cooperation with Murmansk was based on the concern of the impact from the emissions on environment and people living here. This cooperation started in 1986, and this was followed up with the idea to create a common Nature Reserve at Fjærvann in Pasvik. Pasvik Zapovednik was established in 1992 and Pasvik Nature Reserve in 1993. And then we had our common protected area.

9-10. At the same time, more than 25 years ago managers of environment in Murmansk, Lapland and Finnmark started a co-operation on protection of the nature. This co-operation has now been going on with yearly meetings, a lot of projects, common monitoring and the establishment of Pasvik-Inari Trilateral Park. The results from this cooperation are our input to the cooperation of Green Belt of Fennoscandia

11. There is high activity in the area. My office participates in 4 different Kolarctic ENPI projects for the time being; The Kolarctic Atlantic salmon, TEC - trilateral environmental cooperation, Health-and food security in the border area and the project we will hear more about today - The Arctic, Biological, Cultural and Geological heritage project

Many stories have already been told and today we will listen to new stories and ideas to projects creating new stories from this area will be the outcome of our seminar

I wish you a good seminar!

Bird tourism development in the Northern part of the Green Belt of Fennoscandia

Bjørn Frantzen

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Bird tourism is today the biggest niche within nature based tourism in the West and passed fishing and hunting in volume some years ago. Why are birds so popular? Where you find people you also find birds. Many of the bird species are easy to observe and the development of relatively cheap digital photo cameras and binoculars give the observer the possibility to get very "close" to the birds. The tourism business has developed a range of niche products covering the world.

48 million birders in USA in 2006 spent 12 billion USD on trip related expenditures and 23 billion USD on equipment. Staffan Widstrand states that "Wildlife watching" globally grow exponentially. A nations nature and wildlife resources are the main reason why the tourist visited your country. Unique wildlife experiences are made possible for many and wildlife get a higher money value alive then dead.

In the Varanger area tourism businesses the last 5 years have more and more focus on nature based tourism. Norwegian and Finnish tourists are the most common visitors. The hard core ornithologists arrive from most countries of the world. Varanger is on the "Top 100 best bird places of the world" list. Finnish tour companies have been clever in using this status to organize bird trip from Ivalo to Varanger. Local tourism companies are now more active and are developing high quality products for birders. One unique such product is a floating photo hide in Båtsfjord for taking pictures of arctic ducks. King Eider, Stellers Eider, Common Eider and Long-tailed Ducks are wanted photo objects during February-May.

There is a need of capacity building among staff in tourism businesses and education of local bird guides.

History and values of the Green Belt Fennoscandia

Tapio Lindholm

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The idea of Green Belt of Fennoscandia developed gradually in Finnish – Russian (Soviet Union) nature conservation cooperation. The Finnish - Russian working group was the forum to develop GBF ideas. An important part of the Finnish Russian co-operation for nature protection is the concept of the Green Belt of Fennoscandia. The green belt is formed by current and planned protected areas on both sides of the border. The green belt stands up as a good example of cross border co-operation even by global standards.

The baseline of the idea was to create and develop the network of protected areas (with focus on PAs in the border area) with detailed management plans meeting the demands of sustainable development (interests of nature conservation, society and economy combined). The GBF idea evolved and its specific plans were implemented through scientific programmes and projects funded by Russian, European and Finnish foundations and organizations, such as Russian Foundation for Basic Research, Russian Academy of Science Basic Research Programme, TACIS (feasibility studies for NP Paanajärvi, Kalevala, Ladoga Skerries, landscape reserves Tuulos and Tolvajärvi), project “GAP analysis in Northwest Russia in Republic of Karelia”, Bpan project, and others.

On Finnish side in National Strategy and Action Plan for Conservation and Sustainable Use of Biodiversity in Finland 2006-2016. Conservation of valuable natural areas will be promoted and the establishment of a chain of internationally twinned parks along the Finnish-Russian border will be supported, thereby providing an opportunity to harmonize the ecologically sustainable management and use of these protected areas. Memorandum of Understanding between Russia, Finland and Norway on cooperation on the development of the Green Belt of Fennoscandia. signed on 17 February 2010 in connection to the Ninth Meeting of Environment Ministers of the Barents Euro-Arctic Council will facilitate ecologically, economically, socially and culturally sustainable transboundary cooperation along the Finnish-Russian, Finnish-Norwegian and Russian-Norwegian parts of the GBF political will to cooperate in the light of the aim to halt the loss of biodiversity.

Finnish national Green Belt working group established in 2014. Ministry of the Environment nominated the National working group of Green Belt of Fennoscandia in the 5th of February 2014. The working period the group will be from the 6th of February to the 31th of December of 2020. The task of working group is to develop cooperation in Green Belt of Fennoscandia according the MOU signed by Finland, Russia and Norway. In developing the concept of GBF it will have the GBF had two kinds of boundaries: physical and functional. Where the physical boundaries are based on protected area network and the functional boundaries are based on activities.

GBF has also become a part of the initiative of European green belt. That increases GBF value in European perspective.

Linking Tourism & Conservation

Peter Prokosch

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Linking Tourism & Conservation (LT&C) has been established in April 2014 as a Norwegian registered NGO. The organization is set up in the frame and in support of the "Aichi 2020 target 11 of the UN Convention on Biological Diversity, CBD (achieving a globally complete, representative and well-managed network of protected areas, 17% on land and 10% in the marine environment). LT&C realizes that tourism is at least potentially the strongest and most important force to reach this target and therefore has the mission: *Linking Tourism and Conservation (LT&C) is an innovative and effective shared network. It is designed to develop tools and incentives for replication of best practices and examples of sustainable tourism that supports the establishment and management of national parks and other types of protected areas. LT&C works with individuals, businesses, and governments to strengthen the benefits of both sustainable tourism and area protection and management.*

The Green Belt "pearls" of protected areas are an important concept both in context of achieving a global network of protected areas as well as of gaining experience and political stability and trust across boundaries. The concept should be an example, which other regions could look at and learn from. The cross-border-cooperation should in particular lead to several good cases, where tourism is financially or by ways of education or political action supporting the establishment, development and management of protected areas. These so called "LT&C Examples" should be visible on a global map and may inspire replication and positive development also South of the Fennoscandia part along the Green Belt.

The upcoming IUCN World Parks Congress in Sidney (November 12-19, 2014) would provide an opportunity to present the present stage of the development and plans for the future of the northernmost part of the Green Belt of Fennoscandia. And the next Conference of the Parties (COP 11) of the Convention of Migratory Species (CMS) in Quito (November 4-9, 2014) could put the trilateral cooperation between Finland, Norway and Russia also in the context of the "Destination Flyways – Migratory Birds and Tourism" project of CMS and UNWTO, which aims to develop sustainable tourism at destinations along the world's major migratory bird routes.

The international Waddensea of The Netherlands, Germany and Denmark is another example of a trilateral protected area cooperation, which the Pasvik-Inari Trilateral Park could look at. The Wadden Sea is identified already as an important "Destination Flyway", has with its different national parks the status of a UNESCO World Heritage Site and is serving as an LT&C case.

Outdoor Education – a way of learning

Anders Johansson

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Outdoor Education is a place based approach to learning and education. This means that the qualities where you are, the place, are used to increase the possibilities to learn, with all senses present.

Historically this way of learning is probably as old as human but we have made the choice to move the settings for education indoors and made knowledge more theoretical. The know-how of a plumber or a carpenter is not valued the same way as a PhD even if they both are top rated in their discipline. We have made a difference between the practical and the theoretical knowledge. This might be right or wrong in a long term but it gives a field in between where Outdoor Education can work as a tool to combine the two.

To create the space for learning it comes to leadership. Sometimes you have the feeling that learning and training skills in the outdoor container is a bunch of games and exercises but it is more than that. As in all educational settings you have to know the How, the Why and the When but the fourth one is the Where. Working in a classroom or similar you do not consider of the Where, the place is pre-set. When working outdoors you might work in the same spot in the landscape but with different perspectives or different subjects and use different qualities to improve the Learning.

The method uses the knowledge that already is in the group as a knowledge base to build on and works through an involving leadership model. The core is a process thinking that helps to focus on the subject, do what you intend to and then reflect on what you have done. The reflection part is the critical one concerning to learning aspects. In the reflection the group itself makes the learning visible. You as a leader or pedagogue have the opportunity to point out what you have done or using proper questions guiding the group to find out by themselves.

Using active reflection as a part of the program gives you more than just the Doing – it will give you a deep Learning from what have been done in the lesson/program. Using many senses and working practical as well as theoretical creates learning that lasts. Outdoor Education is a way to combine theory and practice into skills and knowledge.

The Horseshoe of Fennoscandia -A corridor for the long term survival of old-growth forest dependent species in Norway, Finland, Russia and Sweden

Rein Midteng

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The Horseshoe of Fennoscandia is a more or less continuous mega-corridor of old-growth forests from southern Finland/southeast Karelia to southern Norway/Sweden. It consists of four subparts which are connected as a whole. In addition, it exists so called transboundary zones, which are corridors with mostly continuously old-growth forests that stretch out from the Horseshoe. The Horseshoe consists of both protected and unprotected old-growth forests. It is of major importance to protect old-growth forests for the implementation of the Aichi 17 % goals. It is of major importance for the preservation of old-growth forest species in Norway, Sweden, Finland and western Russian Karelia/Murmansk. The outstanding natural beauty such intact old-growth forests offer are of severe importance for the tourism industry. For example are many of the National parks in Fennoscandia located in the Horseshoe. Its four subparts are:

- * The Green belt of Fennoscandia
- * The forests of Finnish and Norwegian Lapland
- * The Mountain Taiga forests of Sweden
- * Lowland forests south of the mountain forests of Sweden/Norway

Key regions and examples of areas in need of protection are:

- * Old-growth forest in Pasvik (Norway) outside existing protected areas, especially areas linking Øvre Pasvik and Store Sametti nature-reserve. Location: Part of the Green Belt of Fennoscandia.
- * Jonn-Njugojaiv (proposed Nature Reserve), Murmansk. Location: Part of the Green Belt of Fennoscandia.
- * Eight big unprotected state-owned old-growth forests in lower Forest Lapland, Raakevuoma, Pokka-Pulju, Peurakaira, Painopää, Jooseppitunturi, Turjalaiset-Ahmatunturi, Isoselkä-Saihonmurusta and Moukavaara Location: Part of the forests of Finnish and Norwegian Lapland.
- * Proposed enlargement of Øvre Anarjohka national park. Part of the forests of Finnish and Norwegian Lapland.
- * Enlargement of Paanajärvi National Park. Location: Part of the Green Belt of Fennoscandia.

The environmental authorities at national and regional level in the respective countries should initiate cooperation with focus on documentation and protection of the Horseshoe and its biological values. A full scale inventory of the remaining old-growth forests in the Horseshoe should have first priority together with protection of known valuable areas.

A report about the Horseshoe of Fennoscandia can be downloaded from <http://prosjekt.fylkesmannen.no/Pasvik-Inari/News/ABCGheritage-show-case/>, or it can be mailed to you by contacting the author - rein.midteng@asplanviak.no

New knowledge about distribution and value of the old-growth forests in Pasvik - results from four years of mapping

Rein Midteng

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In the period 2010-2014, the author has been mapping valuable old-growth forests in the Pasvik valley outside existing protected areas on behalf of Fylkesmannen i Finnmark/and the National park board (inside the landscape protection area since some forestry here are allowed) and with supplementary donations from private organizations). Pretty large parts of the valley are covered, but also large parts haven't been covered due to lack in financial resources. Most of the mapping is done as a part of a national program of mapping of localities of special importance for biodiversity (naturtypekartlegging) and follows a standard method where the hot-spot localities are places in the three value-categories (A-national, B-regional, C-local). International value areas not part of the method, although such areas are found, also in Pasvik. 2-5% of the area in a municipality is normally placed in the categories.

In Pasvik >20% of the area are placed in the categories and the majority in category A. +45 new localities are documented with 3279 founding's of red-listed species (mostly fungi), and are found as polygons with descriptions at naturbase.no.

The conclusions are:

*Pasvik has by far the largest virgin-old-growth forests in Norway, both in total hectare/km² and the largest continuous area.

*Pasvik has the largest single continuous old-growth forest area in Norway with >20 000 ha/200 km² (The national park 12 000 ha/120 km²). This area is bordering a smaller mountain/mountain birch area in the north, separating this 200 km² forest massive from another big old growth forest massive. This is the Sametti-area which is approximately 13 000/130 km² big where the Sametti reserve is 7300 ha).

*Including the mountain/mountain birch area dividing the two forest massive, makes it the largest old-growth forest area in Norway, while the two areas isolated both are among the 3 biggest old-growth forests in Norway (Trillemarka with its 20 000 ha are the other one).

*There are other big and small valuable old growth forest in other parts in the valley, with a concentration to the south and west.

*Pasvik is one of three areas in Norway defined as part of «The world's intact forests landscapes (www.intactforests.org) and by far the largest.

*Pasviks contribution and importance to the Green belt of Fennoscandia are bigger and more important than previous known, and goes far outside of existing protected areas.

*Pasvik has on a landscape-level a high amount of old-growth forests (20-30%) making it is possible to sustain the biodiversity in a long-term perspective.

*It is the most important area in Norway for pine-dependant red listed old-growth species.

*A relative large number of valuable oldgrowth forest areas are still not mapped.

ABC heritage – presentation of the project main results

Riina Tervo

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Our Arctic Biological, Cultural and Geological heritage –project is an example of networking three different countries, managers of nature protection areas and organisations making research. There are altogether 10 partners in the project. The project is funded by EU's Kolarctic ENPI neighbourhood programme, national funding and partners' own contribution, the total budgeted being 1, 82 Mill. Euros. The main objectives of the project are increased knowledge and sustainable utilization of nature protection and recreational areas, and new networks developed under Green Belt of Fennoscandia.

Several speakers in the following workshops will present in detail the new products and infrastructure produced for educational and nature-based tourism-use as well as results gained in surveying geological and cultural heritage sites. There will be presentation about evaluation of project's success too: survey among teachers, pupils and tourism entrepreneurs were made in the beginning of the project to find out what kind of materials and networking they would like to have. According to that we have built our actions. The second survey will show, what kind of educational and economic effects we can see among our target groups and how we succeeded in networking.

The results of the three different workshops during these days will provide us with concrete steps for 10-year-development plan of Green Belt of Fennoscandia. You help us to formulate the actions and activities, which are to be made for developing the Green Belt of Fennoscandia by the managers of nature protection areas and their co-operatives.

We wanted to reach especially pupils and their teachers at elementary schools. Now, five months before closing of the project, we can say that the teachers and pupils are connected trilaterally under the theme of phenology, and the schools have received new materials for their use. We have faced difficulties in involving the tourism entrepreneurs – obviously human resources and time are limiting factors in small businesses.

One of the main results of the project has been the process itself: how we have actualized the cooperation between managers of nature protection areas and researchers on a geographically large area. During these three years we have strengthened the organisations' memory for future tasks together. And the individuals, who have done all the work, have learnt a lot from international cooperation and from our common natural and cultural heritage. Hopefully we are able to use this wisdom for well-being of nature and people now and in the future.

On the results of the “ABCG Heritage” project - Geology

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The “Arctic Biological, Cultural and Geological Heritage (ABCG Heritage)” social oriented project was the first one carried out by the Geological Institute of the Kola Scientific Centre (Apatity, Murmansk reg.) outside the fundamental geological programs financed by the Russian Academy of Sciences. It was successfully fulfilled in co-operation with the colleagues from the Metsähallitus and the Geological Survey of Finland (Northern Office, Rovaniemi) in the frameworks of the “Kolarctic ENPI CBC” program funded by the European Union.

The main ideas of the project were to highlight the outstanding biological, cultural and geological heritage of northern regions, and to include the Kola Peninsula, Russia into the Fennoscandian touristic network. “The Geotouristic Outdoor Map of the Khibiny Tundra 1:50000” and “Barents Tour for Geotourists” booklets are the main results of the project. The two were written by the researchers of the Geological Survey of Finland and the Geological Institute of the KSC RAS. In addition to geological information followed by numerous picturesque illustrations, they include the helpful information on local tourism services.

The geological information included in the booklets was revised in 2012-2014. The 16 one-day geological routes in the Khibiny Tundra and 8 geological localities along the circular Barents Tour were specially revisited and investigated. The fundamental scientific background and safety of each object are guaranteed. The Barents Tour may be started from any stop. The whole excursion takes a week to go through.

The two booklets will be spread among the school and university libraries, state and business information centers, etc. We hope that they will be popular among the schoolchildren, students, local people and nature tourism businessmen. They will intensify the long-term development of the tourism business in Murmansk region and Barents region, in general. “The Geotouristic Outdoor Map of the Khibiny Tundra 1:50000” and “Barents Tour for Geotourists” booklets are also available in electronic format on the websites of Metsähallitus, the Geological Survey of Finland and the Geological Institute of the KSC RAS.

The Kola Peninsula is known to be one of the richest mineral regions on the globe. The various geological, biological, historical and ethnographical evidences allow us to consider it as the distinguished touristic region. The Lovozero Tundra and West Keyvy Hills look like the most outstanding and urgent territories to continue the “Arctic Biological, Cultural and Geological Heritage” project in the future. The results of the project and the geotouristic problems as a whole will be reported by the authors for the local peoples in Apatity and Kirovsk and published in the “Tietta” scientific popular journal of the Geological Institute of the KSC RAS.

Identifying Health and Well-being Benefits Perceived by Visitors in Finnish Protected areas

Hannu Kaikkonen et al 2014. Pertti Itkonen

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This is the first Finnish study on the impact of visiting national parks and other state-owned protected areas on the social, psychological and physical well-being benefits perceived by visitors. The report discusses the health and well-being benefits perceived by the visitors to four Finnish nature conservation areas, assesses the usability and reliability of the metrics, and analyses the development needs of the methodology.

The research material was collected in the summer of 2013 at the Kevo Strict nature Reserve and Kurjenrahka, Patvinsuo and Repovesi National Parks as a two-phase survey using two separate questionnaires. The first phase of the survey was implemented using an on-site questionnaire, provided in connection with the parks' visitor survey. In the second phase, the same respondents completed an extensive web questionnaire on the health and well-being benefits of nature via the internet. In addition to health benefits, the web questionnaire was used to study the visitors' relationship with the place of visit (protected area), exercise habits, physical characteristics, relationship with nature, and impacts of the visit on children under 15 years of age.

Park visits were found to improve the mood and enhance the psychological well-being in particular. They were also perceived to help recovery from stress. The benefits on psychological well-being also lasted the longest, especially in the study areas where visitors stayed over-night or longer. More women than men felt that both their psychological and physical well-being had increased in connection with the visit. Psychological well-being increased more for visitors who stayed overnight in the park and who were content with their lives in general, whereas physical well-being increased more for those who were of normal weight, exercised the recommended amount per day, covered longer distances in the terrain and stayed overnight during their visit to the park. Based on the results, nature-based activities are also a good, goal-oriented way to maintain fitness. Compared to individual visitors, the probability of positive effects on social well-being was more than double for people who came to visit the park in groups of two or more. According to the adults' evaluations, children enjoyed being in nature and spending time together, felt the joy of being on the move, learned new skills and gained positive experiences of self-expression, using their imagination and developing their creativity.

This study validates the results of previous studies, which have not focused on protected areas, suggesting that natural environments activate people and help them recover from stress.

Using an on-site questionnaire provided in connection with a visitor survey is a useful metric for the assessment of the health and well-being benefits perceived by visitors.

Nature tourism infrastructure and exhibitions – ABCGheritage project results

Viktorija Frolova

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The results of WG2 in ABCGheritage project Kolarctic ENPI CBC.
WG2 - nature tourism infrastructure and exhibitions.

During the ABCGheritage project were planned and realized next activities by WG2:

- two nature trails were equipped - one in Lapland state nature biosphere reserve, second in Svanhovd (beginning of works I have seen on that trail but so far I know they changed the plans after and got other finance for other trail/ Probably Lars Ola will clear it for us).
So I will tell detailed about the trail in Lapland reserve

- travelling exhibition Green Belt of Fennoscandia has been circulating successfully in the North of three countries since the summer 2014 (photos from places)

- the film is ready and we can see it in Svanhovd

- the design and thematic plan of nature exhibition is ready for a new visitor center in Lapland reserve

LiDAR study in the Pasvik valley/ presentation of project results

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The LiDAR study undertaken in the Pasvik valley has resulted (thus far) in some 630 anomalies – primarily hunting pits. Finnmark County Authority (FCA) has, on the basis of the raw LiDAR point clouds produced digital terrain models (DEMs) with resolutions ranging from 1x1 meter to 12, 5x12, 5 centimetres. High resolution DEMs were possible due to the point density per square meter achieved throughout the very large study area. Using various methods of analysis we have focused primarily on hunting pits initially. This is due to the high visibility of the hunting pits in the dataset being a very good test of methods of analysis. Initial search for house grounds shows similar promise, but will need some refining. We have also got some results from Grensefoss – where field control studies revealed that the hunting pit system found on screen had been reused as part of the defence structures in relation to a German logging camp in WWII. Some hunting pits were still identifiable, and in addition to the pits house grounds were identified in the field that will be useful in further studies of the valley.

Study on Sami cultural marks in trees in the Norwegian part of the Pasvik valley

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In 2010-2014, the author has with variation in intensity, mapped cultural marks in trees/cultural modified trees (CMT) in the Norwegian part of Pasvik. This on behalf of the Sami parliament, the National park board and own initiative. Approximately 200 trees are found. They are photographed, and important characters at each tree are documented. Dating of the CMTs are not done, but the age of when the mark in the tree was done, range from approximately 135->1000 years ago. In Pasvik there are documented pine-trees >800 years and a pine can stand >500 years after its death or lye on the ground for several hundred years before its returns to the soil. A cultural modified tree is a way to scarificar a tree (mostly pine) for a human purpose, without killing the tree. The CMTs had different purposes: Food, tools, religious reasons, bark for storing of reindeer sinew threads ("senetråd), compass trees, bumerker "this area belongs to me", messages-trees, compass-trees, border-trees and path-trees. Pine-trees where holy for the Sami, while Norwegian and Finns cut the trees down for food-use, the Sami left 3 inches on both side, making the tree survive and recover. CMTs are known from the Nordic countries within traditional Sami territory, probably from Russia and a few places in USA (Arizona). In Norway, they are protected by law (Sami cultural act) including a 5 m radius round the tree. Due to lack of written history, pressure from Norwegian forest authorities and perhaps also since Norwegian and Finns used inner-bark only in starvation times, this tradition are/where totally forgotten among the Sami themselves and the Sami cultural institutions. Harvesting inner bark as a food source is the most common CMT and are a several thousand old tradition that died out in Norway around 1870-1900 but survived to around 1930 in Inari, Finland. Inner-bark of pine has a high level of C-vitamins, fibers and carbohydrates, making them an essential food source for everyday life. It helped avoiding cancer (fiber), scurvy ("skjørbuk") (C-vitamins) and gave necessary carbohydrates to a very protein/fat dominated diet. It was even a trade-good in the trade with coastal living Sami. June is called the bark taking month in northern Sami language. Bark from pine was also used as a cage ("skrin") for storing threads of sinew due to the antiseptic bark avoiding that the sinew getting dry and useless. Threads of reindeer were essential for making clothes. Tools, sometimes was taken from standing pine-trees, but with uncertain purpose, perhaps for sledges, axes etc. Tool marks are not known from Sweden, but in Norway it is rarely found in Anarjohka and Pasvik. Rare, one can find signs and writings in trees, both old and newer. There exist pre-Christian religious signs (sun/eye-marks) in trees, holy-trees (sacrifice trees), bear-trees and tooth-ake trees. CMTs in Pasvik can be found "all over" where old pine forests still exists with concentrations in areas with low intensive fire history and often close to rivers and creeks. Protecting a biological valuable forest (old-growth forest) against logging means also protecting the cultural modified trees and the environment the CMT was a part of in the Sami daily life.

Geodiversity in Urho Kekkonen and Lemmenjoki National Parks in northern Finland

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Geodiversity can be defined as a natural range of geological rocks, minerals, geomorphological landforms, sediments and soils in an area together with natural processes, such as erosion, weathering and landslips, which form and alter them. It includes their assemblages, relationships, properties and systems (Gray 2004). Geodiversity is an important term for future geoh heritage management strategies. It helps us to understand how the Earth has changed over time and how life evolved. It is modelled on the term biodiversity that today dominates the work of nature conservation. Geosite is a locality or area showing geological features of intrinsic interest (Eirikstad 2013). Geodiversity plays a major role in defining the landscapes. In the Urho Kekkonen and Lemmenjoki National Parks natural processes have produced wide range of landforms and soil types. Their geodiversity needs more exact mapping, inventory and site selection of the geosites. The classification of the geosites is explained in the next paragraph.

- I Bedrock (rocks, cliffs, faults, and minerals)
- II Weathering products (tors, talus, boulder fields)
- III Moraines and glacial landforms (end moraines, drumlins, hummocky moraines)
- IV Glaciofluvial landforms (eskers, deltas, valley trains, gorges, meltwater channels)
- V Fluvial landforms (banks, terraces and sandbars)
- VI Aeolian landforms (dunes, deflation areas)
- VII Peat deposits (aapa mires, raised bogs and palsa mires)
- VIII Water (springs and seepage zones)

Geodiversity and geosites are often of great recreational and tourism value. Imposing geosites in the natural Arctic landscape provide a good base for nature tourism. They inspire people to enjoy and learn more about nature.

References:

Eirikstad, L. 2013. Geoh heritage and geodiversity management—the questions for tomorrow. *Proceedings of the Geologists' Association* 124, 4, 713-719.

Gray, M. 2004. *Geodiversity: Valuing and Conserving Abiotic Nature*. Chichester, U.K.: John Wiley & Sons. 508 p.

Presentation of ABCG Heritage project results on Culture Heritage

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Meeting with descendants of former inhabitants of the Varlam Island took place in Pasvik Reserve in August, 14th 2012. Rolf and Gunnar Kollstrøm from Norway, Ansa Paltta and Leif Rantala from Finland attended this meeting. It was very important for our further cooperation. Photo, taken from Norway to Vaarlam Island in 1941 and some other pictures graciously granted by Ansa Paltta from her family archive. The Varlam Island nature and culture mapping has been done in the project together with the archeological section of Finnmark County Authority (Finnmark fylkeskommune). The photos and maps give us the picture of the Island in the beginning of XX and XXI Centuries comparatively in the new informational stand on Varlam Island which will be ready in November 2014.

The game depicting nature and culture heritage of Trilateral Park Pasvik-Inari (puzzle) was also produced within the framework of the project in cooperation with Finnmark Governor Office.

An expert from Bioforsk Svanhovd made a visual evaluation of the ornithological tower and Schaanning's house. According to his evaluation the objects are in good condition but some actions should be taken to protect them this year.

It is a very important to give more knowledge about nature and culture heritage to the general public. A festival of children projects on an open air museum at Varlam Island was carried out together with local teachers. The best project was presented at the regional research competition for students in Murmansk and later it was awarded a diploma at the National competition in Moscow. The following logos were used while presenting the projects in Murmansk and in Moscow: EU and ENPI CBC Kolarctic.

Preservation of Russian, Norwegian and Finnish border heritage in the Arctic, theoretical and practical seminar was carried out at Russian cultural and natural heritage institute named after Likhachov, Moscow on March 20-22, 2013. Forty persons attended the seminar. The Russian party made a supposition that the trilateral cross border area in the Arctic could lay a claim to UNESCO heritage status. The seminar was a good starting point for long- term cooperation on the nature and culture heritage conservation in our cross border area.

The book 'Hans Schaanning – First Ornithologist of Pasvik' is published in Russian and in English. We consider it is one of the main outcome of work aimed at interpretation of nature and culture heritage in the project. This book is dedicated to the ornithologist Hans Schaanning, the pioneer of bird study in the border area, who put the foundation for trilateral cooperation for the environment protection on the border between Russia, Norway, and Finland. Both the Reserve specialists and invited experts took part in preparation of the book. Hans Schaanning's descendants did not object to the publication. His great grandson Rolf E. Sch. Kollstrøm agreed to participate personally, and prepared a small reminiscence story about his famous relative providing several photos from the family archive. Our Norwegian colleagues and friends from the Finnmark Governor Office, Vardø Museum, Bioforsk Svanhovd Environment research center assisted in addressing many issues. This book is good result of Trilateral International cooperation. This cooperation must go on in the framework of ABCG Heritage project and also with new future projects.

Russian, Norwegian, Finnish cross border area as a prospective object for World Cultural Heritage site

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It is necessary to carry out research in Russian-Norwegian-Finnish border area which is a part of Green Belt of Fennoscandia and to see whether it meets UNESCO demands for world heritage objects in order to succeed in awarding Green Belt of Fennoscandia status of World Cultural Heritage Site. The notion "border area" includes not only the border-line itself but also boundaries which were adjacent to it in the past and nowadays. The border area is a broad and complex notion; it includes such a notion as culture of the border area which in its turn includes a complex of ethnic traditions, customs of demarcating of residential areas and business activities, as well as a code of conduct in the border area. Culture of the border area includes material attributes, ideas, customs, procedures and rules associated with exploration of the border area, its protection and safeguarding of the border as well as numerous diplomatic sources (including mapping), literary and art works. The given above is enormous material heritage which is subject to research and every kind of conservation.

The area meets some UNESCO criteria for cultural and natural heritage objects:

- it is a masterpiece of human and natural creative work
- it vividly demonstrates cooperation between people which result in changes in their attitude to the border and the border area
- it has unique and outstanding examples of landscape development and filling it with symbols proving the existence of culture in the border area
- it has vivid examples of settlements and forms of traditional land use
- it is associated with the events, traditions, ideas, beliefs, works of art and literature which are of universal value and deal with life in the border area
- it comprises outstanding natural phenomena or areas which are inimitable in their beauty and of esthetic value and they have 'protected status'.

Nature interpretation and Phenology of the North Calotte

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The art of nature interpretation demand the interpreter to have knowledge of a several themes in order to reveal the telling of the phenomena and the nature as a whole. One of the main objectives is to make the subject person able to understand the need of conservation by getting them to reach understanding and subsequently appreciation for the natures values in itself and hence protection of this into the future. Nature interpretation is not guiding or dissemination of information, it is meant to build values in the subject persons. The interpretation is supposed to give feelings for understanding of the nature's value in the persons, so positive provocation is one of the tools that can be used.

Phenology of the North Calotte is a school project that started in 2001 addressing schools in Finnmark County and the Murmansk Oblast. The PNC project is one part of the Norwegian – Russian Environmental working program and financed by the Norwegian Ministry of Climate and environment with co-financing from the County Governor of Finnmark. During the ABCGheritage project, work has been made to include schools from Finnish Lapland. Phenology is an old technique to observe the variations and changes in nature from year to year. The observation of the day of the year phenophases occurs (reoccurrences through years), i.e. the budburst of birch, the fully open leaves, the flowering, the yellowing of the leaves. The phenology then can give indication on the climate and other thematic when working with long time-series. When pupils work with these observations, which they selves have found, they get better understanding for the changes that occur in the nature around them. The pupils carry out registration in their neighborhood in established sites or march-routes at a set of common species and phenophases.

The phenology project is focused on pupils in 7- 10 grade, though it can be also used in lower grade. One important issue is that the project fits with the schools master plans both in Finland, Norway and Russia, so the project aims to be an activity that can be used in the ordinary schools education. The phenology observation can be applied in mathematics, physics, geography, social, linguistic (English) and handcraft, as well as biological lecturing and schoolwork. Since it is based on a common registration of phenophases on the internet, the pupils and schools has to use computer technologies to fill in their registration and collect the observations from other schools participating in the project. Altogether, there are about 24 schools participating in the project with about 4000 pupils annually. The project offer annually one two days seminar for the teachers and a week international gathering for elected pupils from the schools to work more into various subjects related to phenology and climate. The main aim of the project is to strengthen the knowledge of the climate influence on nature and community. One very important outcome is then the cultural understanding that develops due to the cooperation, both from the data on internet and the meeting points for the teachers and pupils.

Present project results on environmental education and dissemination

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In ABCGheritage -project (2012-2014) nature education aspects have been in mind throughout the whole project and especially focused in the work of working group three.

Nature education aims to enabling people to support sustainable development in their own regions and that way also globally. It increases local and regional knowledge and sustainable use of nature. When awareness of nature in a holistic way increases it can generate human actions for improving the environment.

In ABCGheritage our base line was to first figure out which kind of nature and environmental information is needed by the end users; teachers, pupils, tourism firms and entrepreneurs in Finland, Norway and Russia. The main objective of the survey was to map the existing stage of knowledge and utilization of biological, cultural and geological heritage in education. To serve better the requirements of our target groups we designed material based on their wishes.

In Norway, Russia and Finland we share the same nature and culture and also same needs for nature education were found via the survey. Both teachers and pupils want to learn-by-doing and as much as possible outside the classroom. There were more differences in the needed topics.

WG3 designed two materials which are usable in every country everywhere outside the classroom. If the group can just step outside to school yard or go to nearby parks, small stand of trees or even to some protection area they can enjoy nature and learn from it in it. Materials, the outdoor game and the guide to explore nature, give knowledge of the Barents region natural and cultural heritage.

One of our tasks was to generate network for nature education people. Instead of developing totally new network we decided it is sustainable and perhaps more efficient to find network which could be developed during the short project time. Norwegian and Russian schools have had networking almost a decade in phenology school network. Our task was to implement the Finnish schools to this neighborhood network. During the project we got schools from six municipalities in Lapland to join the network. In autumn 2014 first Finnish schools took part to schools gathering in Norway. Hopefully this is start for continuous co-operation with Finnish, Norwegian and Russian schools.

Nature protection and environmental awakening won't happen without changes in mindsets and human actions. There is a need for societal changes in nature issues. Environmental education is important tool for launching such a societal change.

Evaluation of the project results – reaching the target groups etc.

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In the ABCGheritage –project two surveys for the target groups will be conducted in northern Finland, Norway and Russia. The purposes of the survey are: to map the existing stage of knowledge and utilization of biological, cultural and geological heritage in education, to contribute to the development of the overall project by providing information on end-users to the project participants, to study the interest and possibilities for networking activities in the region and to provide a base for later evaluation of the project impact on the target group (school teachers and pupils).

Both teachers' and pupils and nature related entrepreneurs surveys focus on the following topics: current use of educational materials and need for additional materials, current use of the resources outside the school (national parks, museums, exhibitions etc.), current needs, problems and challenges related to outdoor and nature/culture related education and interest in courses and networking activities and English language skills.

The first online-surveys were conducted in Finland, Norway and Russia in September 2012 – February 2013. From 18 schools 37 teachers responded. From 16 schools 202 pupils responded to the questionnaire. The second survey will be conducted in the end of the year 2014. To the firm survey we got 20 answers.

Pupils in all three countries indicated that they are definitely most curious about animals and hunting. Trekking and hiking are relatively interesting for Norwegian and Russian pupils. However, the teachers express relatively urgent need for educational materials on other subjects: indigenous people in Finland, protected areas and geology in Norway, and climate change and Ice age in Russia.

There is interest in courses and networking in all three countries. But the language barrier can be an issue in international contacts.

Recommendation: educational materials should be to the largest possible degree available online, use of technical means will increase utilization of the project results, information on local and regional nature and culture is most required and learning-by-doing is the most required teaching methods.

Projects has produced lot of new and different material and done networking activities. Despite the tries we haven't got success among tourist entrepreneurs. The project haven't manage to get enough interaction with nature related entrepreneurs and locals. The 3 month prolongation could still be a change to change this. In future entrepreneurs should be involved for example having them as project partners.

Next generation adventure learning – a change of “scenery”

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Climate change is insidious; many natural processes in the Arctic are exponential and as such not easily understood by lay people.

We are the world's northernmost diving school, located in Kongsfjord at a latitude of 70° 43'. Kongsfjord is surrounded by shallow water coral reefs and small islands, which are breeding grounds for various seabirds. These reefs are formed by rhodolith (*Lythothamnion* sp.) and their phenotype and expansion appear to be unique. Their porous three-dimensional structure creates a diverse habitat, with many endemic and rare species [Steller et al., 2003]. The small *Lophelia* reef that we discovered at 70° 55' is the northernmost yet known. Much of Kongsfjorden's marine environment is not easily accessible. Threats to it remain obscure.

We set out to make this environment accessible through a range of marine adventure learning programmes:

Arctic snorkelling - Thanks to the great clarity of the water, students experience directly kelp forests, coral reefs and diving seabirds.

Beach clean-up - The winter storms bring many strange objects, natural and man-made, some of them extremely dangerous for sea creatures. Students learn about these objects and recover them.

Outreach Program. A seminar series on marine ecosystems in the Arctic forms the theoretical framework. In addition we hold “hands-on” presentations on Hurtigruten about the marine life in the Arctic Ocean.

Our Arctic Diver Programme is aimed at certified sports divers and enables divers develop a greater appreciation of the arctic marine environment.

As a result, our students have developed a greater awareness of the Arctic marine environment as well as an emotional relationship with aspects of it they previously even did not know about. For the near future we are planning to reach a broader customer base with these programmes.

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Annex 2 Working group targets and key messages

Work group targets and key messages for Green Belt Fennoscandia Development plan, workshops 14.-15.10.2014

Discussion and fulfilling work group target note, i.e. short report and *key messages* (list of recommendations) from each group

Sessions: Tuesday 14.10, time 14-17 and Wednesday 15.10, time: 8:15-9:30 (results presented, 9:30-10:45)

Work group - _____

Presentation(s) of agreed topics – see the program

- A. Every group chooses an "reporter" that will keep record and also shortly report on the group's results in the joint session**
- B. Be prepared to answer the following questions when summoning up you work: try to formulate the answers as a key message(s) from your group**
 1. Are there new areas of co-operation your group feels important during the next 10 years. Why it is important? (choose you working group)
 - In nature based tourism/ geo-tourism
 - In cultural and natural heritage
 - In environmental education, nature interpretation and dissemination
 - In other items, for ex. communication, methods, projects etc.
 2. How to proceed in cooperation in the first stage? What are the first steps in practice? List please...
 3. Which kind of actions should we include to the (possible) next project? What kind of things should we consider in more detail OR to more take into account?

Motto by Nelson Mandela: At the beginning everything seems impossible.

Key messages for Green Belt Fennoscandia Development plan from the work group on *Nature based tourism and geo-tourism along the GBF (socio-economy of the GBF) 14.–15.10.2014*

Following presentations were given on the work shop:

1. Presentation of ABCGheritage –project results implemented on the Kola Peninsula – Yuri Voytekhovskiy, Geological Institute of the Kola Science Centre, Russia
2. Bird tourism in the arctic part of the Barents Region – Bjørn Frantzen, Bioforsk
3. Identifying health and well-being perceived by visitors in Finnish protected areas – Pertti Itkonen, Metsähallitus
4. Nature tourism infrastructure and exhibitions – presentation on project results – Viktoria Frolova, Lapland State Natural Biosphere Reserve

Discussion after the presentations

Kola Peninsula and its mineralogical diversity is very special worldwide: more than 25 % of known minerals are found in Kola. Kola should be included into Barents' touristic network. At the moment discussion going on for establishing area as national park – mineralogical company is against it. The borders of the planned NPA are changing, which slows down the procedure. Note that Geo-park status would not give/ be an official nature protection status, but it would speak for the geo-values. Is there chance to influence the mineralogical company that they would take their share in geo-tourism and improve their attitude towards nature protection? Small, cheaply made leaflets of the Khibiny area would increase the knowledge of the public and strengthen their experience. Planned Golden Geopark is one sight in Barents Tour for Geotourist –booklet – here is chance combined marketing!

Lapland State Nature Reserve plans to build a new visitor centre, plan for the permanent exhibition was made during the project. Now money for constructing the building is looked for and put together. Good example from Jasmund National Park (GER): visitor pay entrance fee to get to the visitor centre and to see cliffs – the special site of the park. Visitors pay for their own education/guiding and NGOs and rich persons have been sponsoring the visitor centre.

New areas of co-operation for the next 10 years, why it is important and which kind of actions should be included into a (possible) next project?

- To broaden the area geographically to 1. Lovozero massive rich in Sámi culture, mineralogy and natural heritage; 2. Kandalaksha (RUS) and Bothnian Bay (FIN, SWE) would bring the marine environment in; 3. Salla area (FIN) we have only touched by now (old-growth forests)
- Marketing
- Networking with tour operators and tourism businesses

How to proceed in cooperation in the first stage? What are the first steps in practice?

➤ Marketing

- Highlight the existing attractions and possibilities: bird tourism, geology and botany, (mountain) biking; managers of NPAs can do the basic work
- Bring forward the Green Belt of Fennoscandia –concept: transboundary border area, remoteness and exclusiveness, criteria for Green Belt tourism would be needed (brand, logo...)
- Show the effect of NPAs as tourism destinations on local economy; figures from Lapland do exist: NPA and tourism destination located next to each other benefit both
- Finding suitable bloggers and using the social media

➤ Making contacts to tourism businesses

- Professional, reliable tour operators and through them active entrepreneurs specialized in certain themes; Note: Linking Tourism and Conservation's existing network!
- Cruises and their operators, often high quality guiding provided during the cruise like cruises to see Beluga whales and Solovetsky
- Note: tour operators do have their offices in Moscow and in St. Petersburg

➤ Networking

- Partnerships with entrepreneurs or buying consultation from them
- Internal network of NPAs and their partners is important; coordinators from each organization needed

Which actions into next project?

- Existing ANNET –concept note about networking nature and visitor centre in three countries, doing trilateral environmental education and investing on permanent exhibitions of these visitor centres is a good base to be developed further

Key messages for Green Belt Fennoscandia Development plan from the work group on *Cultural, natural and geological heritage* 14.-15.10.2014

Following presentations was given on the work shop:

1. LiDAR study in the Pasvik valley, presentation of project results – Jan Ingolf Kleppe, Finnmark County Authority
2. Study on cultural marks in threes in Pasvik valley – Rein Midteng, Asplanviak
3. Geodiversity in Urho Kekkonen and Lemmenjoki National Parks in northern Finland – Peter Johansson, Geological Survey of Finland
4. Presentation of project results on cultural heritage – Marina Trusova, Pasvik State Nature Reserve
5. Russian, Norwegian, Finnish cross border area as a prospective object for World Cultural Heritage site – Sergey Riabov and Pavel Judin, Moscow Heritage Institution

New areas of co-operation for the next 10 years, why it is important and which kind of actions should be included into a (possible) next project?

- **Northern regions of the Green Belt of Fennoscandia/ Europe offer a unique continuation** in which tracks of cultural (human) history can be found in the nature.
- **Old-growth forests with its biological values are therefore interesting also from a cultural history point of view.** To preserve biological value is thus important also in order to preserve cultural history remnants. Nature values is the basic platform, find out important areas for nature protection. Out from nature values you then can build on with cultural and history values.
- **More mapping of values is important.** Biology, geology and cultural history go hand in hand. A total mapping of the Green Belt should be done to get a holistic picture of important for conservation purposes and to reduce the risk of losing important values.
- **Categorizing geo-sites and geo-diversity.** The same work that has been done e.g. in Pyhä-Luosto in order to select the most important information (sites), should be done in neighboring areas in Finland, Russia and Norway, e.g. in the Pasvik-Inari region.
- **'Investment costs'** for protection of nature and culture values are relative low in the north and investments give much value for money.
- **Corridor thinking is important** in order to facilitate migration and recruiting possibilities for organisms of all kinds. The ideas of the Fennoscandian Horseshoe should for instance be followed up and investigated further.
- **More areas need to be protected** for their high nature and cultural values.
- **Ramsar nomination of important wetland areas** for birdlife is an important step. The entire area from Lake Inari in Finland (including parts of the Vätsäri area) along the Pasvik river to the Barents Sea coastal region could be included.
- **Natura 2000 – and Emerald Network** – are important for conservation purposes, but only protected areas can be included in these certification systems.

- **Suggestion to nominate the northern arctic part of the Fennoscandian Green Belt as a World heritage site** - A combined natural and cultural heritage site.
- **In the future work to develop the Green Belt of Fennoscandia** concept **subgroups** on specified thematic topics should start up. Subgroups on basic studies on various themes, on broad dissemination etc.
- **Dissemination and information** is important in order to give people deep impressions and understanding. Geological understanding is e.g. important in time scaling. How can we read the book of nature so that the visitors understand? - How do we do that? Is a World heritage, or the way towards that a way?
- **Virtual excursions and web information** is important and should be arranged
- **Cooperation with the Sami parliament** is important and necessary.
- **Border guard services** could be involved in the protection of protected areas and heritage sites.
- **Continuation of the trilateral work initiated in the ABCG heritage project** (after its finalization in March 2015) is important in order to highlight the values in the nature in the Norwegian-Finnish-Russian border region on biodiversity, cultural history and geology for educational and touristic purposes. A suggestion for future work was submitted to the coming ENPI program from Metsähallitus, Pasvik Zapovednik, Bioforsk and others with an aim to build a Network of nature information centers. The proposal was supported.

Key messages for Green Belt Fennoscandia Development plan from the work group on *Environmental education, nature interpretation and dissemination* 14.-15.10.2014

Following presentations was given on the work shop:

5. Nature interpretation, Phenology of the North calotte (PNC) – Paul Aspholm, Bioforsk
6. Adventure learning in a marine environment, creating empathy and interest by means of outreach programs and action based education – Christoph Hupe, Kongsfjord Int. Scuba School AS
7. Project results on environmental education and dissemination – Eerika Tapio, ELY- Centre
8. Evaluation of the project results – reaching the target groups – Eerika Tapio, ELY- Centre
9. Outdoor Education, a way of learning – Anders Johansson, Friluftsn

New areas of co-operation for the next 10 years, why it is important and which kind of actions should be included into a (possible) next project?

- Extending the idea of GBF also to the marine environment and to reach the Aichi goals marine areas should also be protected. "The Arctic blue belt" and Pomor history and Barents dimension
- Learning in the outdoors and in nature deepens understanding and empathy, uses more senses and reaches most participants. It's fun, hands on – Learning by doing. Health issues – provide the outdoors as classroom
- Technologies – story telling, rainbow telling (people learn differently - using all senses in teaching), QR and AR (augmented reality), social media and blogs, combine the old way with the new way – nature and technology
- Communication platform – IT and technologies – using process learning
- Information as a tool for; nature protection, visitors, tourism, companies, local residents, schools and businesses
- Branding and marketing issues – destination marketing
- Sustainability – build inn and transfer process tools - to sustain life after project funding ends
- Project along the GBF – what is uniting us and what are our specialties/ exclusiveness? Connectivity, reputation and knowledge
- Accessibility and the attractions – information digestion

How to proceed in cooperation in the first stage? What are the first steps in practice?

- Perspective – process and energy – bottom up way
- Regional and local dimension, seek equal partnership with stakeholders, i.e. Small scale tourism companies, innovation and small scale
- Start up and local innovations to be supported in new projects – pilot studies and infrastructure – education and income - sustainability
- Authorities to give the frame work in which local companies can operate, innovate and function
- Identity building and protectiveness, to talk good initiatives "forward" (Nor: *frem snakking*)



ABCG heritage
2012–2014