The Baltic Sea Project

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International Conference – **Vision and Tradition**

Meri-Pori 16th International BSP School Camp

Švietimo ir mokslo ministerija

The Baltic Sea Project

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Cover: Event: 15th international Meri Pori conference of BSP schools
Photo: Simo Korpela

The BSP objectives are to:

- increase the awareness of the students of the environmental problems in the Baltic Sea area and give them an understanding of the scientific, social and cultural aspects of the interdependence between man and nature,
- develop the students' ability to conduct research on changes in the environment,
- encourage students to participate in developing a sustainable future.

The BSP works with the following means:

- building networks of schools, teachers and educational institutions in the Baltic drainage area,
- creating and developing educational approaches and joint programmes for environmental and international eduaction,
- organising joint activities and events, publishing the BSP Newsletter and issuing other relevant information.

The basic characteristics of the BSP schools:

- active participation in looking for solutions to the environmental problems in the Baltic Sea area,
- networking,
- pilot function in promoting environmental education in the spirit of the Rio Declaration, Agenda 21 & Baltic 21 and Agenda 21 for the Baltic region.

The educational approachfor the BSP is to:

- achieve balance between a holistic view and individual subject studies,
- change the role of the student from passive recipient to active constructor,
- change the role of the teacher from supervisor to guide in a learning process,
- use networks to provide participants with opportunities to learn and pass along new ideas,
- use international co-operation as an inherent element of school work.

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Dear Colleagues,

This is the first newsletter of 2009, and at the same time the last newsletter of the Baltic Sea Project coordinated by Lithuania. Latvia, who will become general coordinator of the project, will be responsible for future publications.

The first half of the year passed very quickly and I am very happy that there has been a lot of activity in BSP and we have a lot of news to share with you.

Page 5 provides information about the Lithuanian Center of Young Naturalists. The author of the article is Ona Sigutė Versockienė, the Director of the Center. This article provides introductory information about our Center before the visit of delegations from all the countries to Lithuania during the closing conference in September.

Information about national and international events held in the first half of the year is provided in the section EVENTS. The first of these events was the international conference "Vision and Tradition", which took place in Sweden, at Nacka gymnasium. This conference was an unforgettable experience for the Lithuania delegation. Read more on page 7.

The next article provides information about the conference organized in Lithuania. Even though the conference this year was only a national conference we had guests from Denmark – Soren Levring, national coordinator, and Per Werge, editor of BSP teacher guide no. 8.

On page 10 teacher Andrzej Kropidlowski shares his impressions about the 16th international Meri Pori conference of BSP schools, held in Finland on 24–29 May.

On page 12 you can find more information about the event held in Lithuania, at Lapės basic school, to honour the Millennium of Lithuania.

In the section BSP PROGRAMMES, you will find interesting information about phenological observations, a programme course in the BSP project and an invitation from Vytautas Eidėjus, coordinator of phenological observations, encouraging schools to be even more active in participation; this does not require any special preparation after all!

Page 15 provides interesting information about the total amounts of nitrogen (Ntot) and phosphorus (Ptot) in the different parts of the Baltic Sea. This time Anja Hokajärvi presents the Chemical Water Analysis project as part of the BSP Environmental Measurements Program.

The EXPERIENCE section has news about the participation of a delegation from Vilnius Žemyna gymnasium (Lithuania) in the international conference ASPnet High School Students held in Osaka (Japan). Page 18.

The next article invites you to travel with author Justina Paukaitė! The trip was organized for the representatives of the most active BSP schools in Lithuania. Read more on page 20.

On page 23 you will find out more about the annual event Our planet needs you celebrated by Salakas basic school on 5 May.

In VARIA section you can find Sweden students' article about laws and agreements of cods. More information on page 25. Also in this section read reports on interesting experiences of three Polish students. Michał Prażanowski writes about research on fungus in the industrial area (27). Ewa Urbańczyk's article on weeds on page 28 and on page 29 you will find suburban forest secrets.

On page 30 you can read about our youngest readers and the activity of the Bunny Group of Kėdainiai Crèche Vyturėlis. The article is called Nature is Our Home.

Page 31 Latvian student Ance-Liene Šatrovska shares information about the forest of Kalna Mūrnieki farm in Vecpiebalga in the past and present.. You must read this!

If you want to learn more about the ecological education of children in the Šilutė primary school, please open page 34.

Contacts of BSP national and general coordinators are provided on page 37. Among coordinators you will see a new face for the Pine Needle project. This is Hanna Numminen from Meri-Pori Environmental Upper Secondary School. She has been working on this project recently and is responsible for its further development. Hanna, welcome to BSP.

I would like to thank all the authors for the articles, as well as all the teachers and national and programme coordinators for their collaboration and good-natured assistance in the preparation not only of this publication, but all publications published previously by Lithuania. I am also thankful to the Lithuanian Center of Young Naturalists for good-will input over the past 3 years and finally I am most grateful to the Ministry of Education and Science of the Republic of Lithuania for financing of these publications.

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Lithuanian center of young naturalists – green gates to the world of nature

The Lithuanian Center of Young Naturalists, situated in one of the most picturesque localities of Vilnius – Pavilniai Regional Park, has been functioning for more than half a century. It's one of the country's leading institutions of non-formal education, the priority of which is child education in the field of natural science.

The Center is open to everyone and has a wide educational base: there is a park, zoology and plant collections, a garden, beekeeping museum and ecological laboratory in the 20 ha area. Schoolchildren see and learn the relationship between man and nature. Children and young people are encouraged to see the correlation of natural sciences and ethics, social studies and politics. Schoolchildren learn about the impact of their actions on the environment and to make decisions in time. Teachers encourage children to believe that working together makes them responsible citizens attitude, nurtures a person's responsibility for their surroundings and promotes a feeling of harmony with nature when dealing with global problems

Schoolchildren are provided with opportunities to expand on the knowledge they receive at school and to develop competencies in research activity, active environmental protection and organizational activity. The goal of the Center is to improve the abilities of children and young people with the aim of providing them with ways for self expression and character development.

The Center publishes data on research and the more important observations of schoolchildren, including nature-related art and literary works, are published in publications, periodicals, and on the Center's website. Teaching materials for teachers and children are also published.

There are on-going extra-curricular programs for Young Biochemists, Young Ornithologist, Young Herbalists, Young Ecologists, Ecological Environment Order, Decorative Gardening, Natural Science Management, Cynologists, Entomologists, etc. In addition there are Camps, exhibitions, conferences, seminars and international projects for children, young people and teachers.

There are more than 60 various events in the Center annually. More than 50 thousand children and young people take part in those events.

Developing the different educational programs is done in collaboration with many national and leading foreign educational institutions working in the areas of environmental protection, natural science and education, as well as non-governmental organizations. Common projects are prepared and implemented. The activities are facilitated

by qualified specialists and young people. Among the advantages of the community of the Center are traditions and continuity; many ex-schoolchildren return to work together and offer new ideas and suggestions.

Initially the Baltic Sea Project involved schools located on the Baltic Sea coast, but later the area of the Project expanded. The Lithuanian Center of Young Naturalists joined the Baltic Sea Project in 1991. Seminars, conferences, courses, excursions were organized for schoolchildren and teachers of the Lithuanian Baltic Project.

Since 2000, the supervision of the Project has been assigned to the Lithuanian Center of Young Naturalists by the Ministry of Education and Science of the Republic of Lithuania. The Center is responsible for bringing together schools taking part in the Project, coordinating their activity and developing the Project.

In September 2006, Lithuania took over the general coordination of the Project from Poland.

Lithuania has been very responsible in completing it's duties towards the Baltic Sea Project, which is to unite the schools of nine countries of the Baltic Sea region (Finland, Sweden, Denmark, Germany, Poland, Lithuania, Latvia, Estonia and Russia) into one network. The solution of environmental protection issues, cultural collaboration between nations and countries, and the consequences of today's decisions go beyond the boundaries of nations and generations.

The Lithuanian Center of Young Naturalists wishes all the national coordinators of the Project, teachers and schoolchildren success in their work, and hopes that their achievements both nationally and internationally will provide them with an active position in today's changing world.

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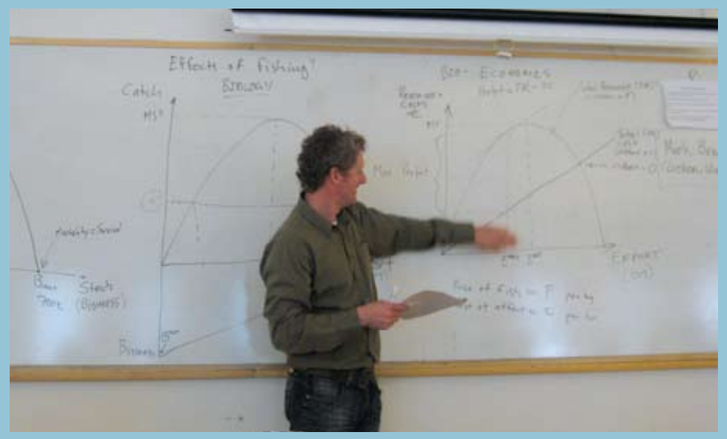
Photos: Ana Lavrinovič

International Conference– Vision and Tradition

Our school, Žemyna Gymnasium in Vilnius, continues to participate in the activities of the Baltic Sea Project (BSP) and has had an opportunity to represent both the school and the country at Vision and Tradition, the international the Baltic Sea conference held in Sweden (the town of Nacka). This was a hugely informative, productive, and interesting conference. The conference was attended by representatives of the Baltic Sea region: Finland, Russia, Latvia, Estonia, Poland, and Lithuania. Pupils from Greece also joined. Every day we listened to and participated in two lectures prepared by pupils from Nacka Gymnasium. Presentations were made on topics such as "The impact of excessive fishing on the ecosystem of the Baltic Sea", "Pollution of water bodies", "Cod fishing in the Baltic Sea and its consequences", and "Traces of the people and cities of the Baltic Sea in the ecosystem". We applied the knowl-



edge acquired during each presentation at workshops, tests or games; heated discussions about the relevant topics and issues took place; and we shared our personal experience and that of our country, which ensured that the information we gained could be efficiently applied in the future. During our free time, we had a perfect opportunity to relax by listening to concerts given by music groups of Nacka Gymnasium; to visit art, history, fashion, transport, technology, or coin museums; to see the city "from another perspective", i.e., by going on a boat and enjoying panoramic views of the sea shore and the Old Town in the evening; and to individually explore the cultural life of the city and observe daily life and people.

Once you participate at a conference, you do not want to stop at that point. The opportunity to share knowledge and experience with pupils from other countries, to gain a lot of important and interesting information about the urgent issues of today and even practise applying the knowledge, and to enjoy the culture of another country is invaluable, not to mention the possibility of gaining friends from many countries. We think that such activities and similar activities are very important for future generations and the future world. After all, we have to start everything from ourselves.

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Photos: Ringailė Sinkevičiūtė and Aurelija Sturlis

National Lithuanian Conference—
Environmental Development

On 27 February this year, Žemyna Gymnasium in Vilnius hosted a conference called Environmental Development. Our gymnasium has organised this conference since 2001 together with the Centre of Young Naturalists of Lithuania and the national coordinator (currently—Miglė Simanavičienė) of the Baltic Sea Project (BSP). Pupils from various towns in Lithuania—Kaunas, Vilnius, Kaišiadorys, Alytus, and Klaipėda—attended the conference. There were two guests from Denmark, Soren Levring and Per Werge.

The aims of the conference were to present environmental research and encourage pupils' interest in the environment that surrounds us. The conference was opened by Dr. Audronė Galvonienė, who gave a lecture on climate change. The participants of the conference prepared some comprehensive and interesting presentations: pupils from Mastaičiai Basic School made a presentation about the Digriai Waste Dump; the representatives of the Klaipėda Centre for Pupils' Self-Expression spoke about biotic nature of the Baltic Sea; pupils from Algridas Brazauskas Secondary School in Kaišiadorys presented their research on air pollution in the town and suburbs of Kaišiadorys; pupils from our gymnasium presented research about changes in levels of sulphur oxides in the city of Vilnius; and pupils from Vilkyškiai Secondary School spoke about the ecosystem of Bitė Creek.

We expect that this conference will also take place next year and will be attended by even more pupils from all over Lithuania and other countries.

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Meri-Pori 16th International BSP School Camp 24–29 May 2009

Two teachers and four students from Zespól Szkół no. 2 in Kolobrzeg, Poland went to Finland at the end of May 2009 to take part in the 16th International BSP School Camp.

The invitation to the camp made us happy and excited. The plane to Helsinki was delayed so we felt nervous and guilty being aware that the teams from Austria, Lithuania and Estonia had to wait long hours for us. Fortunately, on arrival we were comforted by Veikko Vouhijoki's calm face and nice smile. The travel from Helsinki to Pori gave us the first image of Finland's most characteristic feature—we were entering the land of fields and forests—the wild and beautiful landscape that resembles some places in Poland.

The camp was located on the sea shore at the tip of a small peninsula near the village of Reposari—a remote place although you could see some industrial giants such as a coal power plant, a harbour, a shipyard and a wind farm. And this is how it goes in Finland, hi-tech civilization interspersed with unspoiled nature.

What's more we got the impression that the Finns use their technology to support the natural environment. They protect it by all possible means. The awareness of people is the most important. The tranquillity of swamps, marshlands, forests and lakes must have a big influence on the people of Finland. And they seem to absorb it as much as possible. We could see lots of Finns Nordic walking, running in parks, bird watching, and camping. And they seem to have learnt a lot from nature. They are never in a hurry but always on time. They are calm and easy going. They don't talk much but always know what is going on. They are reserved and specific, but also very friendly, helpful and caring.

Simo Korpela, the camp leader, is slightly different—lively, quick and open to people. He talks a lot in terms of Finnish standards and loudly and clearly enough for us to understand all those complicated things we were doing, especially when it comes to his butterfly collection. We still remember him crawling or lying on the ground taking

pictures of another unique creature—a blue or yellow butterfly.

We were flabbergasted seeing an area of burned and removed trees that we had to clear of weeds to make room and proper conditions for a tiny species of blue butterfly. It was a nice experience with the sound of bomb blasts in the background. Luckily we had been informed that it was a military training ground.

We had a busy time at the camp. Visits to institutions which have a big influence on the environment, lectures concerning the subject, working parties at which we measured water and air quality in the region, and observed and counted different species of birds gave us the feeling of satisfaction and creativity. We could also find out how important the environment is both for the Finnish authorities and ordinary people. How serious they are in that field! We also saw the Kemira/Sachtleben laboratories where samples of air and water collected by BSP students at different sites in Europe are sent to and examined. The organization of the camp gave us an idea of how the country is organized. It looks as if everything is meant for the convenience of people—regardless of their material status, age, or physical or mental state.

The camp was a great opportunity to have fun and make friends. There was plenty of time to play games and relax since it doesn't get dark before 1 a.m.in that area. As a result, we were slow and a bit sleepy the next morning.

The idea of the BSP camp school is very important for the future of the Baltic region. We all hope that the teachers and most of all the students who took part in the camp have picked up the message. Then they will spread it in their countries for the good of us all.

Thank you Veikko, Simo, and the whole team from Meri-Pori Environmental Upper Secondary School for that great instructive adventure, your hospitality, and everything you do to protect the environment.

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Photos: author

First Planted Tree Festival

Dedicated to the Millennium of the First Mention of Lithuania's Name

On 15 April, at Lapės Basic School the traditional First Planted Tree Festival was dedicated to the millennium of the first mention of Lithuania's name. The festival was attended by members of the Young Forest Friends Clubs from Kaunas Forest Enterprise and Dubrava Experimental and Training Forest Enterprise, who are pupils of the following schools in Kaunas and Kaunas District: Kulautuva, Ežerėlis, Piliuona, and Vincas Kudirka Secondary Schools; Kačerginė and Lapės Basic Schools; Pranas Mašiotas Primary School; and Lapės Kindergarten.

The festival was opened by the girls' ensemble of Lapės Basic School (conducted by Sonata Fomkina) singing about spring, violets, and swallows.

The participants were greeted by Vaida Trofimišinienė, director of Lapės Basic School. Juozas Jarmalavičius, the director of Kaunas Forest Enterprise, taught the participants how to plant a tree. The festival was also attended by Vaidas Laukys, chief specialist of Kaunas District Agency of the Kaunas Regional Environmental Department under the Ministry of the Environment; Gediminas Kazlovas, deputy director of Dubrava Experimental and Training Forest Enterprise; hunters of the Iltis Club (chairman—Mironas Rudžionis), and Rimantas Stankus, governor of Lapės Local Area.

The guests then planted a tree in the school yard. Some Kaunas and Kaunas District schools also each planted a tree. The trees were donated by Kaunas Forest Enterprise and Dubrava Experimental and Training Forest Enterprise.

A group of over 200 pupils, teachers, employees of forestry enterprises, and hunters went to Lapės Forest and was subdivided into two groups. One group of pupils collected rubbish, which is plentiful in this forest (and is upsetting to us), and the other group planted fir trees.

After work, everyone had sausages provided by the hunters of Iltis Club and cooked over the fire.

Everyone was awarded a certificate that would remind them of the tree planted for themselves and the country.

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Photos: R. Navickas

Phenological Studies

In spring, summer, autumn, and winter certain natural phenomena reoccur. They repeat regularly, and we therefore have the change of the seasons: plants produce leaves, blossom, and bear fruit; birds come back, build nests, produce offspring, and leave (if they are migratory birds); plant pests appear and the leaves of trees turn yellow and eventually fall off.

Depending on the weather, the calendar dates of seasonal phenomena differ. The peculiarities of seasonal changes also depend on geographical location with respect to the level above the sea, distance from the sea or the ocean, and the beginning of cyclones and anticyclones.

Such periodically repeating phenomena that show the change of seasons are called phenological phenomena, and the science that studies the seasonal life cycle of nature is called phenology. The term phenology was first proposed by the Belgium botanist Charles Morren in 1853. The word phenology comes from the Greek words phaino (to show or appear) and logos (to study). However, the founding father of modern phenological recording is Robert Marsham (1708–1797). He is best known to phenology recorders for his "Indications of Spring"—the phenology notes he started to keep in 1736.

Phenology as a science is said to be a bridge between biology and meteorology. Phenology allows the climate of a certain area to be studied more rapidly since the development cycles of plants can reveal changes better than any instruments.

The resources of phenology take us back to the beginnings of the culture of humankind. When humans started memorising natural phenomena, they became recorders of phenology. From ancient times, we inherited many good pieces of advice and instructions that reflect the wisdom of farmers, hunters, fishermen, and cattle breeders. Folk sayings about seasonal changes in nature that have been passed from generation to generation have always served in practice. We can trace many traditional proverbs and sayings related to phenological phenomena and forecasting of the weather in each culture, e.g.:

"If the oak is out before the ash, 'Twill be a summer of wet and splash;

If the ash is out before the oak, 'Twill be a summer of fire and smoke."

"April showers bring May flowers"

"A year of snow, a year of plenty"

***

Did you know that:

when daffodils begin to bloom, it is time to plant peas;

when the blossoms of the apple tree begin to fall, it is time to plant corn seeds;

when dandelions are blooming, it is time to plant beets and carrots.

***

Phenological studies as a common Baltic Sea Project (BSP) programme started in 1994.

The aim of the studies is to observe when spring appears in different countries around the Baltic Sea.

Observations started with a little group of pupils from Finland, Sweden and Estonia in 1992. Now it has grown to become a common programme of the BSP. Until 2006, the program co-ordinator was Ms Barbra Maitin from Germany, and since 2007, the program has been coordinated by Lithuania.

Phenological studies are a very useful outdoor activity. The studies do not require special equipment, it is easy to work alone and with a group and motivate students to observe the environment throughout the entire spring season. The participants have to observe the date they first see the following: the black bird, the coltsfoot, the skylark, the white wagtail, the blue anemone, the white anemone, the brimstone butterfly, the cuckoo, the white stork, and others.

Spring 2008 came particularly early. The first song of the skylark (Alauda arvensis) was recorded on 17 January in the south of Poland and on 15 January a sallow (Salix caprea) was in blossom. The starling (Sturnus vulgaris) came to Germany on 11 February. It is interesting to compare these data with the ones of spring 2009 in the Baltic Sea countries. This year, spring came a month later than last year. Nearly all phenological phenomena were 1 month late across the majority of the countries. It is interesting to note that the mean winter temperature recorded in the Baltic Sea countries this year was lower than the annul mean winter temperature.

I am inviting all schools to join in recording phenological spring observations and devote more time studying the wonderful nature of the Baltic Sea region.

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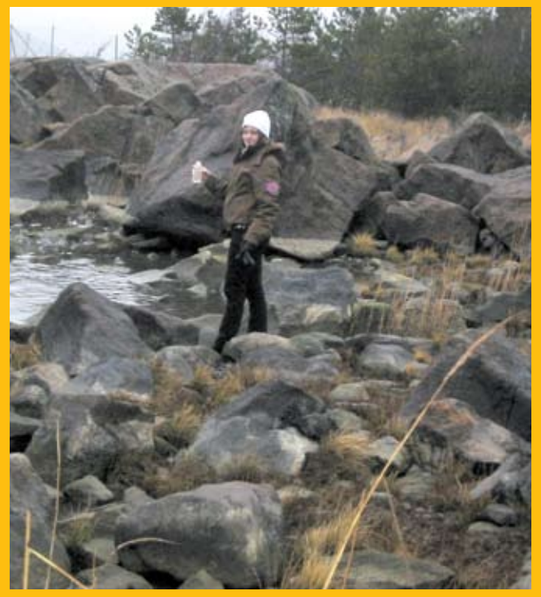
Chemical water analysis:
total nitrogen (Ntot) and total phosphorus (Ptot) in the different parts of the Baltic Sea

Photos: author



This research is nowadays part of the BSP Environmental Measurements Program and the aim of this study is to gather information about nutrient concentrations (total nitrogen Ntot and total phosphorus Ptot) from different parts of the Baltic Sea. We now have the last 5 years' results from the participants of 5–6 BSP countries. We have got sample pairs from the sea, lakes and rivers: one sample from shore and the other from the open water area. The teachers asked fishermen or harbour pilots to help them to get the samples from the open sea.

The schools get instructions and bottles by mail in October, and the sampling time is at the beginning of November. The schools send the samples to Meri-Pori Upper Secondary and they are measured by the Finnish Institute of Marine Research. The schools receive a report of the results in order to make their own conclusions.

Student participation in the research is essential. We hope that the students can do their own share in the international BSP project by taking samples from shore, drawing maps, packing and mailing samples, etc. It is very important to teach students the background of scientific research: the methods and schedule, how to take the samples carefully, and how to mark items without mistakes. Students can also get knowledge from earlier reports. When they take the samples and get the results afterwards, it will be easy to discuss the importance of pure water—how we can save our environment for future generations!

Everyone can have an influence by taking small steps forward

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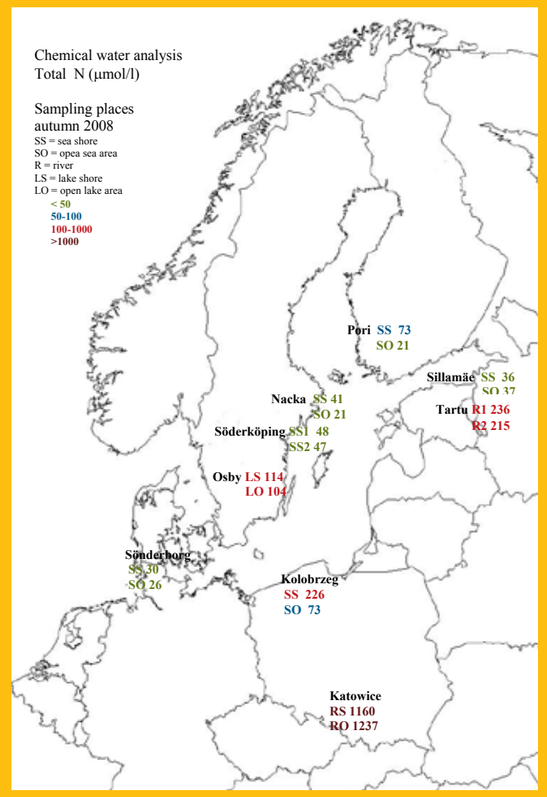

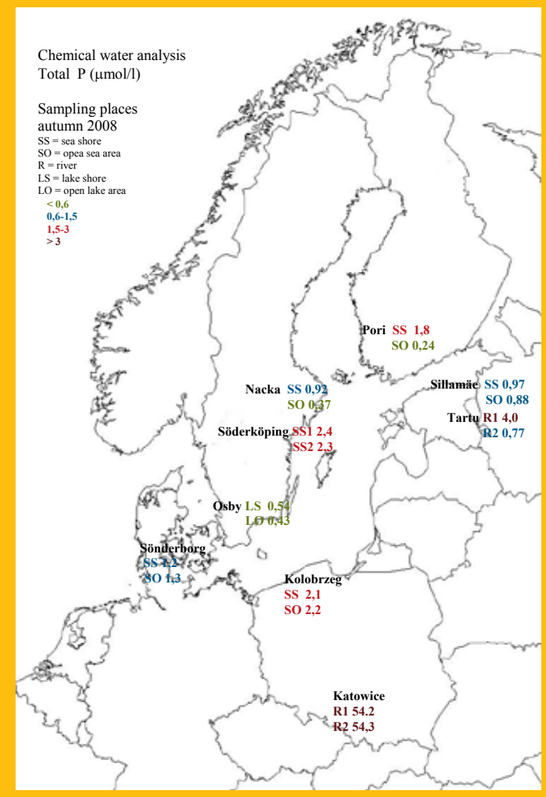

The samples 2008–09:

Total Nitrogen N and Total Phosphorus P

The samples	Date	Description	Location Lat., long. degrees	TN µmol/l	TP µmol/l
Sönderborg Denmark	24.11. 2008	Sönderborg coastal sea water SS		29.5	1.16
Sönderborg Denmark	24.11. 2008	Sönderborg open sea (bay off shore) SO		26.3	1.3
Tartu Estonia	28.11.2008	Emajogi river in the city centre R1		235.7	3.98
Tartu Estonia	28.11.2008	Emajogi river upstream from Tartu R2		215.2	0.77
Sillamäe Estonia	28.11. 2008	coastal sea water SS	59 29′ 54″ N 27 44′ 19″ E	36.3	0.97
Sillamäe Estonia	28.11. 2009	sea water open sea SO	59 25′ 34″ N 27 44′ 23 ″E	36.7	0.88
Pori Finland	19.11.2008	Kallo, coastal sea water SS	61 35′ 24″ N 21 27′ 42″ E	72.6	1.84
Pori Finland	28.11.2008	open sea SO	61 35,084 N 21 19,533 E	20.5	0.24
Katowice Poland	22.1.2009	Rawa, a tributary of the Brynica River RS		1159.5	54.15
Katowice Poland	22.1. 2009	Rawa, a tributary of the Brynica River RO		1236.5	54.33
Kolobrzeg Poland	26.11.2008	port SS	54 11′ N 15 33′ E	225.7	2.08
Kolobrzeg Poland	26.11.2008	open sea SO	54 24′ N 15 17′ E	73.3	2.2
Nacka Sweden	9.11.2008	coastal sea water SS	59 20′ N 18 13′ E	41.3	0.92
Nacka Sweden	9.11.2008	sea water open sea SO	59 27′ N 18 56′ E	21.4	0.37
Osby Skåne Sweden	7.11.2008	small lake in Skåne (through this lake the Helge River passes to the Baltic Sea) LS		114.3	0.54
Osby Skåne Sweden	7.11.2008	small lake in Skåne (through this lake the Helge River passes to the Baltic Sea) LO		104.3	0.43
Söderköping Sweden	16.11.2008	Slätbaken, a narrow bay of the Baltic Sea SS1		48.2	2.35
Söderköping Sweden	16.112008	Slätbaken, a narrow bay of the Baltic Sea SS2		46.7	2.25

Photos: authors

A Trip to Japan

After the 2007 international conference at our school, Žemyna Gymnasium in Vilnius, we received a personal invitation to participate in the ASPnet High School Students' International Conference in Osaka, Japan on 12–18 November, 2008. Together with pupils from other countries and within the framework of the conference, this trip gave us a perfect opportunity to get involved in the solution of global problems. Apart from Lithuanian pupils, the conference was attended by pupils from South Korea, China, Thailand, Philippines, Sweden, and Japan. At the conference, representatives of each country presented their countries, culture, traditions, and everyday life, By providing important information and sharing their personal experience, they presented projects on such topics as "The environment in our region", "Dreaming about ecological life", "Stop global warming", "Poverty in the world", "Sulphur dioxide air pollution", "Education eliminates poverty", and "Approaching an ideal society".

We were of course pleased to get acquainted with pupils from other countries and their lifestyle and, undoubtedly, to get to know the remarkable country of Japan. It was very interesting to learn more about this country and the everyday environment of the pupils; to observe lessons and extracurricular activities; to visit sites of incredible beauty such as the temples in the cities of Kyoto and Nara, the Great Buddha, and the unforgettable Osaka Castle with vistas opening onto the city from it; to feel how people live by visiting their homes and getting acquainted with the pupils' families, life, culture, traditions, and food that was so unusual to us; and just to compare everything that we can see today in Lithuania with what it looks like and how it works on the other side of the world, the country of the rising sun — Japan.

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A Trip – in Retrospect

On December 13–17, together with the head of our school's Nature Club, Laima Sabaliauskienė, and 38 pupils and teachers from other schools in Lithuania participating in the Baltic Sea Project (BSP), I had the opportunity to visit Germany. This trip was a reward for our active participation in ecological campaigns and events.

Our first stop was the city of Leipzig in the eastern part of Germany. It is considered the country's economic centre. When we arrived, we stopped at Leipzig's railway terminal, which is one of the largest terminals in Europe. Then we went on a sightseeing tour around the city, passing the art gallery, the university, Congress Hall, which was originally built as a concert hall, and the quarter of old villas where well-to-do people, who were preoccupied not only with their luxurious homes but also with culture, once used to live. We also passed the house where Friedrich Schiller, one of the most prominent German poets and dramatists, lived and passed away. We also visited the monument commemorating the famous Battle of Leipzig (also known as the Battle of the Nations). This is the largest memorial in Europe.

We saw the Supreme Court of Germany, where the trial about setting the Reichstag on fire took place. We also had a walk in the city. First of all, we saw a monument to Johan Sebastian Bach built next to the monastery where the outstanding composer was brought up. We also popped into the Coffee Museum and the Christmas fair. We were lucky to visit Germany at the time when major German cities host Christmas fairs that last until Christmas. Visiting a fair means not only buying something, but also enjoying marvellous Christmas decorations, which were really something to look at. At the end of the day, we visited Schloss Moritzburg (a castle) and in then drove around Dresden at night. Schloss Moritzburg was built in a very picturesque location, with a large lake and the forest where Augustus II the Strong used to hunt nearby.

The following day we set off for sightseeing in Dresden, the cultural capital of Germany. There are more than 30 museums and art galleries in this city. We saw the magnificent church, Frauenkirche, built in the 18th century. The church is enjoyed by many for its grandeur. Next to the church, there is another popular site—Brühl's Terrace, which draws many tourists each year due to the picturesque vistas opening onto the Elbe River and the Augustusbrücke Bridge. Brühl's Terrace is also called the Balcony of Europe. We also paid a visit to Zwinger Palace. Now it is an art gallery housing collections such as porcelain (the Far East and Meissen collections), scientific instruments, and a gallery of weapons and armour. Unfortunately we could not visit the galleries, but we had an opportunity to look at this grand building.

We then proceeded on a boat trip on the Elbe River. We saw the picturesque banks of the river and castles and palaces located on the banks. In the evening, we went to one of the biggest water attraction parks recently opened in Germany (with sand and palm trees creating the impression of a real beach!). The building also hosts a botanical garden with around 2,000 different plants. We were looking forward to having a good time at the attraction park, but we were a bit disappointed since there were only four slides and two swimming pools (with only one of them open).

On our last day in Germany, we visited a small but charming town located on the basaltic cliffs of a former extinct volcano and the castle of the town, where a mistress of Augustus the Strong was imprisoned for 20 years. The castle featured the rooms of the period, various torture tools, and a well that was a prison. We had an interesting stop at Königstein Fortress, which is known for its impressive fortification system. From the castle, magnificent views open onto Saxon Switzerland, the mountainous area of Germany. There are also 16th century army barracks, a Catholic chapel, and an armoury in the castle. We were very impressed by Saxon Switzerland and the town of Bastei. We enjoyed cliffs of various shapes and Deep Mountain passes that we subconsciously wanted to call the Devil's fingers.

We had extremely memorable impressions of the trip!

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“Our Planet Needs You!”–

Environment Day at Salakas Basic School

On 15 December 1972, the United Nations General Assembly declared June 5 World Environment Day, dedicated to promoting environmental protection all over the world. This day was chosen because on 5 June 1972, the first UN Environmental Conference was held in Stockholm to discuss environmental issues and later the UN environmental programme was developed.

Like every year, on June 5, the Environment Day was celebrated at Salakas Basic School. This year’s slogan was “Our Planet Needs You!”

The day started unlike any other day. I woke up hoping it would not rain (otherwise our plans would be ruined). And indeed, early in the morning there were signs that it had rained at night, but despite the rain clouds that were peacefully floating by in the sky, there was no rain.

At school we signed for safety instruction, had breakfast, and went to the stadium where we had … morning exercises! It is a rather unusual thing at school, but nobody was protesting; everyone was jogging round the stadium and then doing exercises. This health lesson was very joyful. After the lesson, we set off on a hiking tour.

The leader of the tour was Vytautas Eidėjus, the BSP Phenological Studies programme coordinator. At first, he introduced the route, which was approximately 6 kilometres. To some of us this sounded scary. We were frightened by the leader’s remark that we would most probably have to cross marshes, but this did not make anyone drop out.

Until our first stop, we walked along the nice, young forest chatting to each other, and then running until we came to the edge of the forest. Our first stop was Napoleon’s Stone. On the side of the stone facing northeast, there is a chiselled circle showing a 0.2x0.2 metre bowl, a smaller circle with a straight line reminiscent of a spoon, and a 0.3x0.2 metre line with a bent line running across showing a fork. The surviving legend tells that Napoleon stopped at this place to have dinner and to commemorate this event these signs were made on the stone. In reality the story is, however, different. Napoleon was never in Salakas and certainly never had his dinner by this stone. The guess is that the stone features an archaic emblem, a sign that a 12th–13th century ruler of these lands used to mark his land with.

Near the stone, there are barrows called kurgans by the locals. These are old graves of Baltic tribes where in the 9th century horses were buried alive. During our tour, we enjoyed the flora of the pine forest and were looking for the phenological signs of summer. We were fascinated by the lupines and found out several new things about them, including that they were introduced here to stop fires, whereas the pines, on the contrary, are just “looking for” a fire. We visited the site of a forest fire that had occurred quite recently. The sight was terrifying, and even the birds were not singing there. Tall pines with black trunks and brown bark were sighing as if asking us to be good and attentive.

We were introduced a glass lizard (the Anguidae legless lizard), which at first sight seems like a snake, but in fact is totally innocuous.

As we were walking along the path, we came to an alter hill (called Priests' Hill by the local people). An alter hill was considered a sacred hill (usually it was a natural mound) and was related to the pre-Christian religion and mythology of the Baltic tribes. This was the most frequent type of sacred site and a place for rites, prayer and sacrifices to the gods of nature. After climbing up the sacred hill, we had fun thinking about what the pagans felt like when burning a sacred fire here.

After our return to school, we ate and continued the celebration of the day. Vytautas taught us some lively, healthy, and interesting after-lunch exercises in the rhythm of a dance. The group of sixth, seventh, eighth, and ninth graders who went on a hiking tour were joined by a couple of tenth graders and two primary school teachers. We all were divided into four groups and designed a spaceship to carry people from the polluted Earth to Planet X. Then we created a new, unspoilt picture and life on Planet X. The lesson of this game was that before it is too late we should create a wonderful life here on the Earth, so that we will not need to fly anywhere!

It was nice that all of those who went on the tour never complained, and I believe we learned a lot of new, interesting, and revealing things.

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Photo: John Fox Images

Laws and Agreements

Cod has always been important to the people around the Baltic Sea. But now cod stocks are decreasing. We must give the cod stocks time to reproduce to avoid the extinction of the cod. This can be done by reducing the fishing quotas and introduce fishing stops. In the long term, this would benefit both the fish and the fishermen. But this will give the fishermen problems in the short term. The countries around the Baltic Sea are now making international agreements to save the cod and the fishing to try solving these problems.

In order to support both fishing communities and consumers, the European Union has a common fisheries policy (CFP) that the members have to comply with. At the beginning of 2003, a comprehensive overhaul of this policy took effect with the purpose of ensuring that EU fisheries are environmentally and economically sustainable. The essential parts of the policy are conserving fish stocks, protecting the marine environment, promoting international cooperation, and matching the fleet size to supply and provide consumers with quality fish at affordable prices.

Since all countries in the EU have free access to common fishing waters apart from the national water near the coasts, agreements between the countries are very important. To prevent over-fishing there is a licence system which regulates the number of fishermen. The catches are restricted by the total allowable catch (TAC). This regulates the amount of fish that can be safely caught by the EU fishermen the following year.

The decisions about TAC are taken by the International Baltic Sea Fishery Commission (IBSFC). Their decisions are based upon reports that the International Council for the Exploration of the Sea (ICES) put together from all the member countries. Each country has institutes which conduct national research, and the results are analysed by the ICES Advisory Committee on Fishery Management, which is composed of scientists from each member country. When IBSFC decides about the TAC, they also consider the fishermen's economic situation.

The TACs are divided into national quotas between the member states. The national quotas are based upon the catches of the preceding five years. The quotas also depend on national waters and the size of the fleet.

The first international quotas in the Baltic Sea were introduced in 1989. Each country was given a limit for the amount of cod that they were allowed to catch. The quotas are regulated every year and since 1999 the quotas have sharply decreased.

One of the consequences of overfishing is that the cods are not allowed to grow big enough to reproduce. In order to ensure that the young fish can grow and reproduce, the minimum cod sizes to be caught has the size been set to 38 centimetres. A number of technical rules have been adopted to limit the capture of small fish. To avoid small fishes being caught, the minimum mesh size for cod is 110 milimetres. Some fishing gear may be banned and instead it may be compulsory to use more selective techniques which limit the capture of other species make it easier for small fish to escape.

Between March 1 and April 31, it is forbidden to fish cod in the western area and in the eastern area from May 1 to September 15. Fishermen are however allowed to land cod that are caught by mistake while they are fishing other species. But they must report the catch and it is deducted from the national quotas. In the Bornholm Deep, Gdansk Deep and Gotland Deep it is prohibited to fish cod at any time of the year.

The structural policy is to ensure that there is a modern and competitive fleet and a good balance between vessels and fish. The vessels in the EU vary greatly in fishing capacity and potential catching power. Four times a year each member country has to send a list of their vessels to the EU. Funding is available for discarding excess fishing capacity. Each member state has a multi-annual guidance programme with which the fleet restructuring is planned. This will help the fishing and aquaculture organisations in the member states adapt to the new restrictions and help them manage the meagre resources more efficiently and market their catch more effectively.

The authorities in each member country are responsible for ensuring that the agreements are followed in the waters under their jurisdiction and that their vessels comply with the regulations wherever they are operating. Since Russia is not a part of the EU, they do not have any obligations to report their vessels or catches.

The member countries have inspectors who are supervising landing, marketing and transportation of fish products. They also ensure that community funding is used for restricting excess fleet capacity and reducing fishing effort are not used to build new vessels. The vessels must report their catches before landing if the catch exceeds 300 kilograms. Catches over 750 kilograms can only be landed in special harbours. Larger vessels are controlled through satellite tracking systems. The movements of the vessels will be compared with the information contained in the log books.

A total stop to cod fishing in the Baltic Sea was a big question for discussions in the European Union in 2001 and 2002. The discussion started when the researchers realised that the situation for the cod in the Baltic Sea was disastrous. It was necessary to do something drastic to save the cod in the Baltic Sea. The first step in the recovery plan for the cod was to introduce a total stop to cod fishing when the cod were spawning. The second step was to increase the selectivity of fishing equipment to minimise the catch of young cod. These two measures were taken in October 2001. In spite of these new rules, the situation for the cod was still volatile. The total amount of cod in the Baltic Sea was way below the minimum recommended amount of cod. Instead of 240,000 tonnes, there were less than 100,000 tonnes. The new rules were not enough, so in 2002 the ICES made the decision that a total stop to cod fishing in the whole Baltic Sea was necessary. The decision was not accepted by the fishermen in the different countries around the Baltic Sea. One of the big issues for the countries was the cost for the compensation they would have to pay to the fishermen during the stop. Besides the costs, the stop would most likely have led to a bigger amount of unlawful fishing and illegal selling of cod. Most of the countries around the Baltic Sea chose not to bother with the proposal to totally stop the fishing of cod. There were still a few countries that wanted a total stop. One of these countries was Sweden. Most organisations and researchers and the government agreed to bring a stop to the fishing. One of the reasons why Sweden so willingly wanted to introduce the stop was because a total stop of cod fishing was one of the Green Party's demands in order to support the Social Democrats attempt to form a government. The fishermen on the other hand did not like the proposal. They believed that a cod-fishing stop in Sweden would not help the cod much. Because unlawful fishing would most likely increase, other fishermen and other countries would be given the Swedish cod quotas, and the costs for the compensation to fishermen would exceed the amount of saved cod. After a successful lobbying campaign, the fishermen won and the proposal to totally stop cod fishing was withdrawn.

Since enforcement is expensive, the member states can get financial help for equipment and trained staff. Community inspectors are making sure that the enforcement is accomplished efficiently, fairly and equally across the European Union. Rumours and suspicious regarding others not complying with the rules are common. There are still great variations among national enforcement services and penalty rates. An EU fisheries control agency that will improve enforcement and make it more even across the European Union is therefore being set up.

Fishermen and scientists have come to agreement about several measures for sustainable fishing. But the problems still remain. The scientists are thinking about the long-term prospects to save the cod and they therefore want to introduce a total fishing ban. But that would be an economic problem for the fishermen; many of them would lose their jobs or receive less income. The negotiations have led to agreements about putting a stop to fishing during parts of the year and reduced quotas. Finding a solution that both parties involved in this conflict will be pleased with is difficult. If the fishermen get what they want, a ban on fishing will become reality, and this would be the best way to save the cod in the long term. If the fishermen can fish as much as they want, the cod will be exterminated.

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Fungi in an industrial region!

I am a student in a biology class, and that is why I am interested in everything connected with biological science. I therefore decided to do a biological project concerning the diversity of fungi in an area in a forest near Panewniki.

The area of the forest that I chose for research was about 70 square hectares. This forest is situated nearby large metropolitan areas and in a zone that was seriously polluted by industrial centres in the past. It is a protected forest.

The aim of this research was to record the species of fungi in this area and recognise the predominant trophic group. In the research that I conducted from May to September 2008, I found thirty-seven species of macrofungi. Among these fungi, one species is on endangered list of Upper Silesian macrofungi and three species are on the endangered list of macrofungi in Poland.

All species of fungi that I found were documented with photographs only because I tried to make the least harmful impact on the forest ecosystem.

The most frequent trophic groups are mycorrhiza fungi (65%), then saprophyte fungi (27%), and in the end ectophyte fungi.

The species of fungi which were recorded by me and which deserve special attention are the following:

1- ***Calocera viscosa*, *Artomyces pyxidatus***: which have beautiful unusual shape and are the real forests decorations

2- ***Suillus flavidus Boletus satanas*, *Inonotus obliquus***: which are on the list of endangered macrofungi in Poland. (***Boletus satanas*** is listed as being in danger of extinction and ***Suillus flavidus*** and ***Inonotus obliquus*** are listed as rare)

3- ***Boletus edulis***: which is on the endangered list of Upper Silesian macrofungi and is listed as rare.

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Weeds
and my passion

I have been interested in botany for many years. My passion connected with plants started at the moment of moving into my new house. Then my list of chores extended and I had to add taking care of our garden. I realised how interesting ornamental plants, their cultivation, and fighting with pests and weeds may be. Then I also started observing the seasons by watching changes in my garden instead of changes in my wardrobe. My small battle with weeds goes on endlessly. I use herbicides to remove unwanted plants. Just behind my fence there is a meadow and the seeds of weeds fly every day with the wind and land in my garden.

When my biology teacher asked me to participate in the Biology Olympiad, I agreed instantly. As the topic of my work I chose weeds and their occurrence. I decided to take advantage of the fact that my grandparents lived in a village and had some fields. Over the summer holidays, I picked samples of weeds from fields of barley, wheat, oats, rye, corn, potatoes and asparagus. I used an identification key to determine the correct species. I would like to present my conclusions here.

The biggest diversity and biggest number of weeds were found in fields of grain plants. The lowest diversity appeared in fields of root crops. Many species were found in every field, but some of them were found only in certain areas.

Among the species, annual plants predominated. But there was one exception. There were mainly perennial plants in the corn field. Considering origin, I found that most plants were apophytes (local species), but there were also some xenophytes (that have appeared recently)—***Galinsoga parviflora*** (other names: guasca, gallant soldier)—and archaeophytes (coming from different areas, introduced a long time ago)—***Elytrigia repens*** (couch grass).

I also talked to local farmers. They told me that biodiversity nowadays was lower because of different methods of farming. The most radical and common reason is the use of herbicides. Because of this method some weeds like ***Papaver rhoeas*** (red poppy), ***Centaurea cyanus*** (cornflower, basket flower), and ***Anagallis arvensis*** (scarlet pimpernel, red pimpernel) have become endangered species.

I can hardly wait for the next summer holidays. I hope I will manage to visit my grandparents and compare my observations. I think it is a great way of spending free time and I encourage everyone to observe nature.

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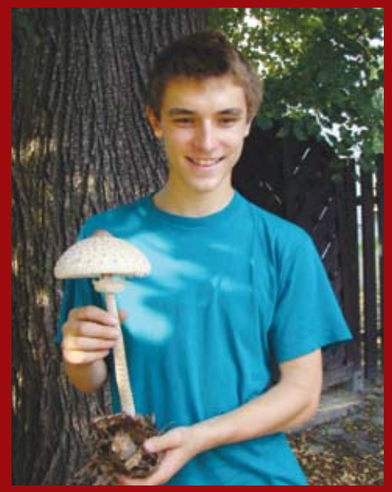

Photos: authors

What is hiding in a **suburban forest?**

I have been interested in biology since I was a child. I enjoy strolling through the nearby forest and observing nature. This was one of the reasons I decided to take part in the Biology Olympiad, for which one of the tasks was to do research work. The topic I chose was "Diversity of fungus in Murckowskie Forest". The aim of this research was recognizing and recording all species of fungus in this area. Since Murckowskie Forest is within the city of Katowice, is susceptible to constant human pressure. This kind of research could contribute to determining the level of habitat transformation.

The area of my research amounted to 144 hectares. I found there a few dozen different species of macrofungi. I managed to recognize fifty-one of them with the help of books and websites. Each type of fungi was photographed, characterized precisely (including fruit body appearance, taste, and smell), and neighbouring trees and the number of fruit bodies were noted. I also collected specimens for all of them. I picked only one fruit body of each of the species in order not to destroy fungi unnecessarily. In most cases, I obtained some spores and observed them by means of a microscope. I also described the forest floor and pH level of the soil. I did my research from May to September 2007.

During this research, I found fungi that probably not everyone would expect to find in a forest in the middle of the Silesian Agglomeration. Among others I found Calocera viscosa, which looks like long, yellow threads, and Ramaria flaccida which has a little bushy shape. The beautiful purple Russula azurea is also worth mentioning, as well as fungi that are on the endangered species list of Upper Silesian macrofungi (saprotrophs), which means organisms decomposing dead organic debris—the biggest group of fungi. Mycorrhiza fungi (the name refers to a specific connection with roots) were also quite abundant.

Everybody can conduct similar observations. You only need good books, a camera, a bit of patience, and persistence. But remember, fungi play a very important role in ecosystems, so destroying and excessive picking can lead to disappearance of some species. Therefore, maybe sometimes a better solution will be a "bloodless hunt" with a camera in your hand. So, see you in the forest.

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Nature is Our Home

On the Nevėžis River in the town of Kėdainiai, there is a crèche called Vyturėlis (Eng. Skylark). Every day children hurry to this crèche. I am happy too when early in the morning, on my way to work, I see the rising sun and hear the singing birds. I enjoy every minute of my life. When I come to this wonderful world of children, we communicate. I am interested in what they have noticed on their way to their "second home", what birds they have heard. I have been participating in the Baltic Sea Project since the beginning of the project. Children love to observe nature. They see the first coltsfoot and tell where they saw it. And when they come from their family gardens, they bring more news—where they saw a wagtail, a cabbage butterfly, a moth, a stork, etc.

We develop a love for nature at our crèche. A child's relationship with nature makes him/her more sensitive. It is in the natural environment that we develop skills of polite behaviour, and we teach not only to take from nature, but to give to nature. Parents actively participate in the life of our crèche; they help create beautiful surroundings and support our initiatives.

Celebrations organised at our crèche are dedicated to the work we have done. It has become a tradition to celebrate Uncle Harvest's Festival (Lith. Dėdės Derliaus šventė). This year it was a part of the project "The pumpkin's birthday". In spring we usually celebrate the world Earth Day, the placing of bird houses, and the return of the storks. We also participated in the project called "You are a part of my heart to me, dear Lithuania", devoted to the millennium of the first mention of Lithuania's name.

Nature is our home and we are inhabitants of the Earth. We therefore observe the following rules with our children: if you cannot help, at least do not make damage; love each living creature; and be a guardian of nature.

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The forest of Kalna Mūrnieki farm in Vecpiebalga in the past and nowadays

Varial am a representative of the Kamars family from Kalna Mūrnieki in Vecpiebalga. Kalna Mūrnieki is a farm with a ten-generation-old history. The owners of the farm had a special attitude toward trees. They loved both trees in the yard and in the woods. They thought about the woods as a sanctuary, not as a fast way of filling one's purse. Not everybody can find information in their home archive about a tree: "The oak tree that is in front of the room was grown in the gardening establishment of Kārļi Estate. It was bought and taken and planted where it is in 1868. It cost 70 kopeks. In 1888 the perimeter of the tree was 14 cm at the breast height."

The aim of my work was to investigate the development of the forest of Kalna Mūrnieki and to understand its role in the system of management of this farm in the past and nowadays.

During the work, a survey of the literature about the forests of Latvia and Kalna Mūrnieki was conducted. Historical documents of the archive of the farm were studied and analysed. I went on hiking tours in the woods and interviewed the owner of the forest.

I understood that the management of the private forest depends on the honesty of its owner, but there is an impact of the economic situation in the country and the timber cutting of the surrounding forests, too.

Changes in the area of the woods and structure of the species of trees on Kalna Mūrnieki show the main trends in the country.

Land of Kalna Mūrnieki	In 1878		At the beginning of 1939		After 14 October 1939		In 1992	In 1996
	Purvieta (one-third of a hectare)	ha	*Purvieta* (one-third of a hectare	ha	*Purvieta* (one-third of a hectare	ha	ha	ha
Total area	81.29	30.23	81.29	30.23	83.84	31.16	35.1	35.1
Area of woods	27.20	10.19	20.43	7.6	19	7.07	13.1	14.4
Wooded areas %	33.71		25.14		22.58		37.32	41.31

VARIA

The main species of trees in our woods are spruce, birch and asp.

The people of this farm have really loved oaks. They were planted in the yard and along the border of the farm. Even in the woods we can find an oak-growth, in which I have counted 10 oaks. The forester thinks that these oaks were planted almost a hundred years ago. Wood has always had a meaningful role in the lives of the people of Kalna Mūrnieki.

Till the beginning of the 20th century, making spinning wheels was one of the most important branches of farming after flax and butter selling. Materials for making spinning wheels were taken from the farm's own woods.

Timber from the woods of this farm was used for renovation and repairs of the house and other buildings. Tools and furniture were made from timber, too. Wooden plumbing to the dwelling house and cattle shed was constructed. In the 30s, wetland reclamation work was done and wooden drain pipes were used.

Nowadays, the renovation of buildings is also done using timber from the woods of the farm. The biggest project was the renovation of the threshing barn, which began in 1993. There is wood-burning stove heating in the house and the firewood comes from the farm's woods.

The special attitude toward nature here continues nowadays. The situation in the woods is kept true to nature. It is really important because our farm is located in the area of protected landscapes of Vecpiebalga.

The trees in our woods are old. The age of the trees is a reason for one clear cutting in 2001. When the timber was taken out of the clearing, the renovation of the wood was started. My family, two adults and two children planted 1000 spruce seedlings. They were bought at the tree nursery garden in Strenči. At the end of planting, there was shortage of these seedlings and at the edge of the clearing small spruce plants taken from nearby woods were planted. Small spruce trees grow well. Every year the young forest plantation was tended, because the small spruce trees could not be in the shade. The raspberry bushes and other bushes were cut. I often went to this place. At the beginning, there was a beautiful wild strawberry plantation. Raspberries were not allowed to grow. Later I went to look at the growth of my planted trees.

During hiking tours and interviews, I understood that wood does good that we can measure using money, timber and firewood. But at Kalna Mūrnieki wood mostly gives resources that we do not call timber resources. Primarily it is the beauty of the landscape and diversity of nature and a place for relaxing and walking when someone would like "to leave secular life". Walks in the woods together with a wise companion are exciting adventures (for example finding a chimney [a breathing hole] of a beaver dam).

Berries, mushrooms, herbal teas, and birch juice gathered in own woods give great pleasure and support to the family budget.

Nature in the forest shows different and interesting situations that tell about the life of trees and the other inhabitants in it. Animals are an integral and fascinating part of the woods. But they can cause damages, too: beavers flood a young forest stand and elks decrease the value of timber. Trees broken by wind and wind- throw are a test of the stamina of the woods.

In literature we can read that the amount of cultivated woods is decreasing. So their significance is increasing. The owners of Kalna Mūrnieki are planning to try to save the diversity of nature and beauty of the forest and all the landscape around the farm.

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Ecological Education at Primary School

Man has coexisted with nature since ancient times. Yet in his attempts to make his life easier, he has recklessly been damaging nature. Only after several hundred years did man realise that the devastation of nature interfered with his own life. This gave rise to the field of science called ecology, which in a broad sense is the study of the protection of nature.

World Science is a discipline that starts from the most immediate environment of the child: his family, school, self perception, and understanding of the relationship between nature and oneself. Children are curious. They learn about the world through communication, observation, study, and experimenting. To a certain extent, children communicate with nature all the time. Green forests and meadows, bright flowers, butterflies, insects, birds, wild animals, floating clouds, large lumps of snowflakes, brooks, and puddles after the summer rain—all are interesting to children, make them happy, and provide them food for thought, topics for conversation, and an understanding of the feeling of beauty. Each of us has more or less experienced the impact of one's native place and knows that it brings joyful memories that last till the end of our lives.

I not only teach my pupils to enjoy the forests that make our land beautiful, but also encourage them to contribute in cleaning our environment. The pupils know that the municipal government takes care of making our environment cleaner, collecting waste from our homes and workplaces, looking after flower beds and green zones, and treating wastewater. We further discuss the issue of why the amount of waste today is increasing. I suggest studying which waste deteriorates more rapidly and which more slowly. The pupils know that badly managed waste dumps are dangerous to our health because the acidic rotting waste emits gas and pollutes the atmosphere. Poisonous substances may be washed into the soil by the rain. We also talk about how we can reduce the amount of waste and why it is high time to sort our waste into glass, plastic, metal, and paper waste. At school we organised a campaign entitled Polluting Nature—Damaging Yourself. All week pupils collected waste from the schoolyard, the bank of the River y a near the bridge, and their yards at home. They sorted the waste, calculated its amount, and made records. Some waste was used for making toys that were exhibited in the school's hall. Pupils also prepared school flower beds, planted 16 rose bushes they received from the local government, and summarised everything at a school conference.

We also study the causes for imbalance in nature, because it has been observed that any unconsidered human behaviour may cause a large amount of damage to nature (e.g., human interference may change the ecosystem). I emphasize that we must never even disturb an ant hill because ants are forest sanitation workers and clean the forest. I recommend that pupils should make posters encouraging the protection of forests. It is difficult to understand the processes taking place in the forests only by studying books and to gain skills and develop values without being in nature. Therefore, during ecology classes I try to take pupils to the forest as often as possible, to study the life of the forest, communicate with nature directly, make assessments, and discover the world on their own.

Every year we visit the Pagryniai Oak Tree (a natural monument in Šilutė District) to draw strength, since in ancient times Lithuanians worshiped oak trees. It is extremely interesting to walk along the paths, try to memorise the names of plants by their leaves or blossoms, learn how to identify one's location by the position of the sun or the moss growing on the northern side of tree trunks, collect some natural material, make various handcrafts, observe changes of nature during different seasons, and arrange an Autumn Exhibition. I instil in my pupils the view point that if man sought benefit only for himself, forests would rapidly disappear. Man, on the contrary, must renew the forest by planting and taking care of it.

I introduce my pupils to World Animal Day and its history. For each child his pet is most important. Therefore, this year we have been drawing our pets, describing them and those who do not have one could dream of what pet they would like to have. We arranged a pet exhibition at school. A list of questions and answers was placed next to each pet which revealed more information about the pet. Visitors of the exhibition could vote for the pet they liked most using cones. The exhibition was very popular and the pet that got the largest amount of votes was recognised the most popular pet. Looking after a pet trains responsibility and teaches diligence. We understand that looking after a pet is not easy and a lot of thinking must be involved prior to purchasing one.

Pupils' understanding is developed about the soil and minerals as natural treasures that must be protected and about the necessity to save energy. They are reminded that in cold weather care must be taken that heat would not be lost via gaps in the building and doors and that any gaps must be filled in or covered. Pupils know that firewood is not a renewable source of energy. They are also told that electrical power must be saved and that it is useful to switch off any electrical appliance that is not in use. When pupils return to school after their Christmas holidays, they do not forget the birds and wild animals. During the holidays, they make bird feeders together with their parents and grandparents. We have placed a few feeders on the external sills of the school windows and given some to other institutions in town after asking aunts and uncles working there

to feed the birds. We also participated in a campaign called The Bird Feeder.

In winter, together with parents we went to the nearby forest and took some treats of carrots, potatoes, cabbage, and grain to wild animals. We studied traces of wild animals in the snow and tried to guess the animal that made them, where a fox or a hare must have been heading. We observed the trees covered in snow and listened to the silence in the forest.

Besides food, water, air, a warm home, and clothing, it is important for man to be loved and to communicate, learn, create, admire, and enjoy. In early spring, our nature corner comes to life; it fills with various boxes and jars that we use for planting, studying, and experimenting. Some vegetables appear in the jar-gardens. Theses are spring onions, beans, and radishes. We take twigs and put them into water (I explain that we must not cut twigs, but collect those that were broken by the wind or removed during pruning). We observe as they come into bud and blossom. On our calendar, we record the dates when we place the twigs into the water and when the first leaves or blossoms appear. We compare the plants we have taken indoors with those growing outdoors.

We look forward to the return of the birds. We listen and see who will be the first to hear the first bird, and we are happy to notice the first heralds of spring coming back home after their long trips. We learn to know each bird by its song. We perform phenological observations of nature.

Each year we celebrate Earth Day. On that day we put bird houses up. We try to engage parents into this work. We also decorate chestnut trees in our school yard. These trees can be admired from early spring—starting from the buds, then the beautiful candle-like blossoms, and finally the falling chestnuts. Hence the name of our Ecology Club—the Chestnut (Lith. Kaštonėlis).

We discuss the damage done in spring by humans who burn the old grass (many insects and other animals die in the fires; sometimes the fire gets out of control and becomes the cause of forest fires and even may burn down houses).

I encourage pupils to think about man's activity in their own environment: oil spillages that occur due to negligence or catastrophes that are fatal to water birds and fish and cause water to become ever more polluted. Making sure that seas, rivers, and lakes are clean is therefore a necessity so that plants and animals will not die and man can use them for recreational purposes. We conclude that all people of the world should take care of nature together. Humans, being a part of nature, are responsible for the preservation of nature.

There are many topics we discuss while in nature. This allows pupils to get better acquainted with the surrounding nature, look at nature with other eyes, and learn the secrets of nature; pupils learn how to study and solve problems.

Experience has revealed that pupils most like the tasks they can prepare independently and those that demonstrate their inventiveness and creativity. In the future, I will encourage children to be inquisitive, trust themselves and the world, admire the beauty of nature, feel responsibility for nature, show initiative, give suggestions, observe, study, and experiment.

Children will live in the world that we teach them to love.

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BSP meetings and conferences in 2009

7-9 August	"Climate change" international conference in Sonderborg	Hosted by Denmark E-mail: soren.levring@sonderborg.dk
14-16 September	International event "Sustainable fishery No. 6"	Hosted by Denmark E-mail: soren.levring@sonderborg.dk
17-19 September	International BSP conference "Urban ecology in Baltic Sea Region"	Hosted by Lithuania E-mail: m.simanaviciene@gamtininkai.lt
5-7 November	BSP National, general, and programme coordinators meeting in Latvia	Hosted by Latvia E-mail: velga.kakse@isec.gov.lv

The UNESCO Associated Schools Project

Contributions:

Would you like to contribute to our Newsletter? You are very welcome!

We are looking forward to receiving and publishing your contributions, such as:

- accounts of your work
- art works for the covers (size: 42x24 cm)
- letters to the editor, in which you are welcome to express your opinion on various environmental issues and articles published in the Newsletter
- newspaper and magazine clips presenting environmental issues in your country (the original article must be included)
- activity pictures presenting you and your students performing the BSP activities.

There are, however, a few rules which you **HAVE TO** observe if you want your article to be published in the BSP Newsletter. There are:

1. Keep your articles short, precise and interesting.
2. All contribution are to be emailed for new general BSP coordinator.
All details about it will be published on BSP website: www.bspinfo.lt.
3. No article is to exceed two A4 pages (text plus pictures).
4. All articles are to be composed as **WORD** documents.
5. Please **DO NOT** include any photos, pictures, illiustrations or any other scanned materials direcly **IN** the Word document; they are to be enclosed as **SEPARATE** attachments.
6. All photos and illiustrations are to be saved in **JPEG** format (more than 1 Mb size).

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