

Portugal, Biodiversity

Källhagens skola, Lohja, Finland



ITTC It's Time to Care



Co-funded by the
Erasmus+ Programme
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OUR TEAM



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Questions for our project about biodiversity

1. How has the climate change affected our daily life?
2. How does the climate change affect the behavior of our winter birds

How did we find the answers to our questions?

- We wrote a list of our most common winter birds including important facts and images
- We did some research on what kind of food birds like to eat during the winter to help them survive when temperature drops
- We looked for safety recommendations for bird feeding, to avoid spreading diseases
- We made some homemade nutritious bird food and built our feeding stations at home
- We met up with Petteri Lehikoinen from the Natural History Museum of Helsinki to find out more about climate change and the behaviour of our winter birds
- We also visited an exhibition at the museum about climate change
- We took pictures of our group doing some typical winter activities



How and why does the climate change have an impact on biodiversity?

Studies have shown that our way of living is pushing away other life on our planet. We are using nature resources to a max, polluting and threatening the nature of our planet. During the last 50 years our population of vertebrate animals has reduced with 60%.

When our planet's biodiversity decreases we are disturbing the balance in the ecosystem. Without a functioning nature our food supplies will collapse and we might be without fresh air to breath or fresh water to drink.



The impact of human activities on the climate of the earth

Human activity is causing the earth's climate to change even faster than ever before. The average temperature is increasing, glaciers are shrinking, and sea levels are rising.

If we fail to mitigate greenhouse gas emissions the temperature in Finland may rise by 5 to 6 degrees Celsius, but this time the change will take place at a disastrous rate- over a period of less than 100 years. Helsinki would have an average temperature comparable to that of Berlin today. The rate of change would be more than 50 times faster than after the latest ice age, causing enormous problems for all organisms and human societies.



What we can do to help our planet?

Nature and the ecosystem can still heal and restore the balance, but we all need to work together and individually make this possible.

WWF, World Wildlife Fund, is trying to solve problems by talking with politicians, governments and companies in more than 100 countries. They are co-operating in projects from nature conservation to climatesmart solutions of energy.

All countries within the EU have recently decided to become carbon neutral countries in 2050.

Private households are responsible for 68% of all carbon footprints in Finland.

This means that we are all responsible of our water and heat consumption or how much garbage and waste we are producing by unhealthy consumption habits.



Ecological packaging materials instead of cardboard and plastic

Eco-friendly packaging is easily recycled and is safer for the environment. Great eco-packages are for example: recycled plastic, leaf plates and mushroom based packages. Ikea has started to use mushroom based materials for packaging which is more environmentally friendly than cardboard packaging. If more companies started using eco packaging, we would cut back on our carbon footprint and help the environment.



Reusable shopping bags

There are many advantages in using reusable shopping bags.

For example: they will last longer and when they get dirty you can wash them. They are stronger in use than plastic bags.

Globally only 2% of all used plastic bags are recycled. A huge amount of plastic ends up as garbage in the sea. This is hazardous for all living creatures. In Finland we have solved this problem with a functioning recycling system for plastic, but also for textiles, glass, metal, bio compost, medicines, electronics and batteries.



Solid soap bars

Different solid washing bars offer a low carbon footprint and they are much more ecological than basic plastic bottles. If you think about it: there is not much point in carrying soap and water mixed shampoos from the store.

The washing bars are also easier to transport and will last longer. They also have less packing material, additives, preservatives and colorants than liquid soaps. There are also different brands of solid detergent for washing clothes and dishes.



Locally produced food

By buying locally produced food we can minimize the use of fossil fuels, air pollution and cut back our greenhouse gas emissions.

Locally produced food is often fresher and tastes better because it is sold within 24h. By buying local food we also support the local farmers and bring money to our community.

There are also many other options to buy “green” food for example here in Finland we have “luomu”, “kotimaista”. Luomu stands for environmentally friendly and locally produced products without pesticides or artificial fertilizers. Luomu farms are animal friendly. Kotimaista stands for products made or grown in Finland.

In Finland we mark products with a certain sign that shows it is produced in Finland.



Temperature in Southern Finland

The global average temperature has risen during the last three decades more than during any other previous decade since 1850.

In Southern Finland this means that the average temperature has changed to become warmer and the climate is more unpredictable all year around.

During this winter we have had very little or no snow at all. We also have more rainy and stormy days than before. Because of higher temperature we get rain instead of snow.

In the future Finland is probably going to have a subtropical or mediterranean climate instead of thermal.

Pros and Cons with warm winter in Southern Finland

From an ecological point of view we don't need to heat up our houses as much as during cold winters, the roads don't need as much sanding, salting or plowing. When the roads are not slippery we can use friction tyres on our cars. That helps to maintain the surface of the road and is good for the air quality.

Snow restoring places are an environmental problem, the salt from the roads runs into the ground with the melting water. The problem with a lot of traffic to and from the snow restoring places is that it produces exhausts. Also plowing cars or tractors can cause risky situations in the traffic if there is poor sight because of bad weather.

This was our non-migrating bird project

We first studied which birds are our most common non-migrating birds and what kind of food they need during the winter.

- The bird food was made of coconut oil, peanuts, oat, sunflower seed and other grains.
- We made some bird food at school and took it home to put it outside our homes.
- We watched which birds came to eat.
- The families who live in the countryside have a better chance to watch birds than those in the city.
- We also noticed that when weather was warm and rainy, the birds did not visit our feeding stations. As soon as the temperature dropped the birds came back with good appetite
- We wanted to learn more facts about how climate change impacts our local non-migrating birds.
- We were guided in an exhibition “Climate Changes in the air” by Petteri Lehikoinen at the Natural History museum in Helsinki



Our bird project & making our own bird food



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Our most common winter birds

We have a lot of new non-migrating birds in Finland.

Water Birds: Mew, Mallard, Goldeneye, Siskin, Wagtail, Sten, Waxwing, Fieldfare.

Non-migrating birds: Magpie, Woodpecker, Blackbird, Bullfinch, Great tit, Blue tit, Jay, grey Sparrow

Feeding the birds during warm winters can spread infectious bird diseases like trichomonas or amebas.

It is important to keep the food stations dry because otherwise the food will become contaminated.

Our winter birds



What did we learn from this project?

- We found out that Eurasian blue tit and great tit are the most common birds we saw.
- We also saw some common bullfinchs, great spotted woodpeckers and Eurasian jays.
- Some birds that we never saw in the southern parts of Finland in the 70's are now really common. Some of these bird breeds are not moving south anymore because the climate is so warm.

- According to Petteri Lehikoinen, from the Museum of Natural History of HELSINKI, the risen temperature affects the birds to move every day 4 meters further north at the same time as the climate zones move 16 meters north every day. This means that the birds are moving slower than the climate. Now we have many bird breeds in Southern Finland during wintertime that used to move to Mediterranean countries some decades ago.

- For some birds, such as our water birds, life becomes easier when they don't need to move south to have ice free waters, for other bird breeds nesting in colder climate this can mean a flight further north than before.
- Some birds start nesting already in November, which can be fatal, if the weather suddenly gets cold and the newborn birds freeze to death. Normally birds start nesting in March or April.
- We found out that our birds move 4 meters north every day, due to climate change.
- The warm climate zone moves 16 meters north every day. This means that the birds are not moving north as fast as the climate.

Pihabongaus=counting birds in your yard

Pihabongaus is an yearly event for schools, children and families.

It is the largest nature-event in Finland.

Participants count and write down the name and amount of birds they have seen during an hour. The lists are sent to Birdlife Finland, the association of birdwatching.

This is a great way to find out how our birds behavior change because of climate change and also spend some time together in the nature and learn new things about our birds.



Migrating birds become smaller

Research scientists at the University of Michigan have been studying and analyzing over 70 thousand migrating birds during 40 years of time. This study shows how the animals adapt to the challenges of climate change.

They found out that between year 1978 and 2016 the birds lower leg bone had shrunk 2,4% and the wing length had grown 1,3 %. The research included a study of several different bird breeds.

When migrating birds shrink in size, they can charge less energy for their travels. On the other hand, smaller birds are lighter and they can cool their bodies more effectively than heavier birds. Longer wings also make flying easier and the birds have better chances to survive. The scientists are not yet quite sure about why the birds become smaller.

Our team at the Natural History Museum of Helsinki



If the warm weather will continue, some of our migrating birds will be back already in february.

Petteri Lehikoinen was guiding us at The Natural History museum of Helsinki



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How the climate warming has affected our outdoor winter sports?

Back in the days the winter sports played a really important role in our lives. Kids could not wait to get out to ski, skate or sledge ride.

We used to have a lot of snow on the ground, but now it is different. During these past years we have had very little or no snow at all.

It almost feels as if we would have only three seasons instead of four. Spring, summer and autumn. If we want to experience snow and ice we have to travel further north. In southern Finland the snow stays just for some days and melts away quickly.

We took some pictures for fun just to show you what our winter weather and winter sports looked like this year in the end of January 2020.



Outdoor locker room moment with the girls



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Ice skating Team Finland showing their skills



Looking for
clues of snow



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Cross-country grass skiing Queen Elvira



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Oh, what fun it is to ride
downhill and fast...
Sledge riding



Fanny The Skiing queen



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Mobile phone ski-jumping by Bea



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Linnea and Elvira playing Sand-Hockey



All hope is not gone, one year ago we had a lot of snow and ice



January 2020



January 2019

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