

The Extraordinary Adventures of Tola, Pola and Rascal

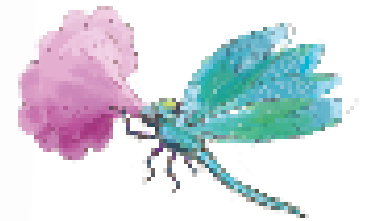
No one is too young to help the environment





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SUSTAINABLE DEVELOPMENT GOALS



Introduction

We present six extraordinary adventures of our brave travellers: Pola, Tola and Rascal.

We encourage you to get involved in projects to protect nature, just like our three friends. These activities may change not only your home or backyard, but also your whole region.

Each of the tales refers to at least one of the seventeen **Sustainable Development Goals**.*

Travel with Tola, Pola and Rascal to Slovakia and find out what difficulties await the biggest European freshwater fish – **the beluga sturgeon**. Thanks to meeting **Lady Butterfly**, you will discover how many insects may die if we don't grow enough flowers and grass on our **meadows**. In the Czech Republic you will learn what roles **trees, bushes and ponds** play in maintaining the proper **humidity of the soil**. There you will also meet Zdenka the bee who will show you which places are inhabited by **solitary bees**. In Poland you will have the opportunity to learn how properly **segregate litter** and how to you can organise your own **eco-patrol**. We hope that Greta Thunberg will inspire you to take part in the worldwide movement against climate change, organised by kids and teenagers.

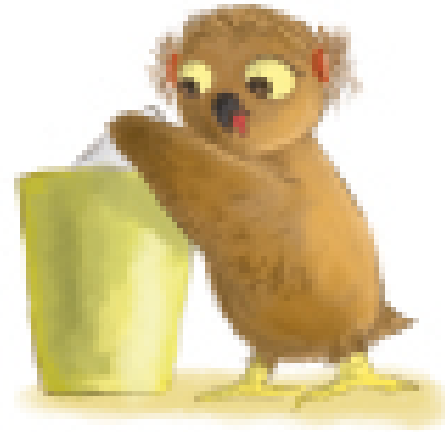
We encourage you to think critically, that is to analyse what you read or hear. Feel free to ask questions and search for answers. We hope that our tales will show you how many different programs you can get involved in to have a positive influence on your environment.

You can ask us too!

You will find us at **tuptuptup.org.pl**, you can visit the website at any time you want. Drop by at **tuptuptup.org.pl** – where you will find many ideas for interesting and explorative games and art activities related to our tales.

All tales have been created as a result of the cooperation between Fundacja TupTupTup (Poland), Lipka (Czech Republic) and DAPHNE (Slovakia), and have been founded by the Visegrad Fund.

Eco-patrol



The summer was slowly coming to an end.

Rascal, Tola and Pola were on a beach, enjoying the last hot days of the year. They had a lot of fun burying their paws in the sand and pretending that they were mermaids. As they dug into the sand, they kept coming across little “treasures”.

‘Oh, look, a bottle cap!’ called Rascal cheerfully. He tossed the bottle cap high in the air and then threw it into Tola’s new “mermaid fin”. A minute later Tola found an old sand shovel. The kitten started to pile the sand on Rascal.

‘You’re not going to escape now. You’ll stay on the beach forever! You’re in a sand jail!’ She laughed.

‘No way!’ Rascal wanted to show his friend that he was strong enough to free himself from the piled sand. He leapt to his feet and turned to Tola to tickle her. She freed her paws from the sand and started to run.

‘You won’t catch me!’ she called.

‘I will, you’ll see!’ warned Rascal.

He laughed cheerfully, running fast after Tola. Indeed, he was getting closer and closer. When she was within a paw’s reach and he was about to catch her, he felt something hard under his paw and... bam! He took a nosedive in the sand.

‘Aaagh, aaagh! What is this?!’ yelled Rascal in an angry voice. ‘It hurts!’

Rascal’s paw had slipped into an empty peanut can. It took the doggy a while to take it off. His paw was scratched but, luckily, it didn’t look bad.

‘Oh man! Why do people leave litter lying all around? This beach is a huge dumpsite! A bottle cap, an old sand shovel... and now this can!’ Rascal was fed up with all the litter on the beach, be it big or small.

Rascal went back to Pola, hobbling. He was about to lie down on the sand to rest, when the owl suddenly grabbed him and Tola by their paws and pulled them down.

‘Get down! A monster!’ she yelled.

The friends landed face-down in the sand which covered them. Although its grains fell into their eyes, they quickly raised their heads to look in the direction from which the monster was coming. Pola was right! It was a real monster! And it was coming closer. Emerging from the sea, it looked like a hybrid of a seal, a bird, and an octopus.

‘Run,’ whispered Tola, but it was already too late for that. The monster was too close.





Finally, when the abomination was only a few steps from the three friends, Pola and Rascal jumped from beneath the sand and started to yell. Rascal shook his paws while Pola waved her wings.

‘Boo!!! Don’t get any closer!!! Leave us alone!!! Aaargh!’ they yelled.

They looked more funny than scary, as their eyes were covered with sand and they barely managed to keep them open.

You won’t believe what happened then! The monster stopped, seeing the shouting friends. But instead of breathing fire or petrifying them with its gaze like a basilisk, it lowered its head and wept.

‘Help me, please... I’m no monster...’

At first, the three friends didn’t hear the creature. But when they realised that the monster wasn’t going to attack them, they stopped yelling and looked at each other, astonished. Only then did they hear what the sea creature was saying.

‘If you are not a monster... then what are you?’ they asked the creature. How should you react to a monster who doesn’t want to harm you?

‘My name’s Clara and I’m a seal. I need your help. That’s why I came to you, to the beach.’ Clara made a few steps towards them and told them her story.

‘Several days ago, when I was hunting for fish, I swam into something very strange. It wrapped around my neck and it won’t come off. I can’t catch fish anymore because they all hear me coming. And I can barely speak, it’s clutched so tightly around my throat. Can you help me?’

When the seal explained what had happened, the three friends realised their mistake. What Pola, Tola and Rascal were scared by wasn’t the frightful beak of a bird. It was a piece of plastic that was wrapped around Clara’s neck. From up



close, it looked like Swiss cheese, but it was a type of plastic holder for cans or bottles.

‘My poor seal!’ meowed Tola. ‘Of course we can help you!’ As she said so, Tola, with the help of Rascal and Pola, freed Clara from the plastic trap.

Although she was grateful for their help, seals don’t like the company of other animals; so Clara hugged the three friends and quickly swam back into the Baltic Sea. She waved to them from the distance.

Pola, Tola, and Rascal were truly concerned about what had happened to Clara.

‘We need to do something,’ said Pola firmly. ‘We can’t let that happen again. We have to do something with all the litter floating in the sea, suffocating other animals and stopping them from moving freely.’

‘You’re right,’ agreed Rascal. ‘If everyone scatters their litter all around instead of separating it, there will be a disaster!’

‘But what can we do?’ The three friends started to wonder.

‘I’ve got an idea!’ said Pola and went back towards their holiday house.

The three friends spent the rest of the day painting, cutting and gluing. Late that night, when everyone else was asleep, they went back to the beach. Wherever they could, they hung up bits of paper and placed strangely shaped





objects along the sand. What had they done? The holiday-makers found it out in the morning.

All the notice boards were covered with posters of the slogans the three friends had come up with the night before. Each one explained what type of rubbish should be thrown into different bins. They also encouraged children to join their new initiative – the Eco-Patrol. Everyone who was eager to help could come to a meeting. But this wasn't all. Bins in 5 different colours were placed on the beach every 100 metres!

The yellow bin had a sticker on it with a painting of a plastic bottle and a metal can. On the white-green bin, there was a glass bottle. On the blue one, Pola had painted a newspaper, which symbolised paper. The brown bin was decorated with a painting of a banana peel, and on the black one the label said “other rubbish”. Everyone who came to the beach was surprised to see the bins and the posters. Still, they seemed happy with the idea.

The meeting of the Eco-Patrol took place at noon. Tola, Pola, and Rascal gave the children orange bandanas and whistles. The task of the Eco-Patrol was to watch over the beach and not let people leave their rubbish on the sand. If anyone from the Eco-Patrol saw someone misbehaving and burying their rubbish in the sand, or throwing it into the wrong bins, they had to whistle as



a warning. They also had to encourage the person to improve their behaviour and explain why separating waste is so important.

What a day! You could hear a whistle at the beach every 5 minutes.

‘Excuse me! I guarantee you that no apple tree will grow from an apple core buried in the sand. Please, throw it into the bin for organic waste,’ a 4-year-old squirrel instructed a bear who wanted to dispose of the remnants of an apple.

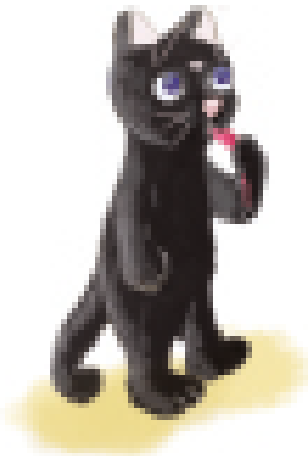
‘Excuse me, miss! The bin is not a magnet, it won’t attract metal bottle caps. Throw them into the yellow bin, please!’ said Rascal, seeing someone picking up their blanket and pretending that they didn’t see bottle caps falling into the sand.

‘Hey, you! This plastic bag is not a fish, it does not belong in the sea!’ called a fawn, seeing two children who had tried to catch fish in a plastic bag and threw it into the water after it ripped.

The Eco-Patrol spent the whole day digging up rubbish that had been left on the beach days before. To begin with, all the adults were astonished by the commotion. The children were so little, but they were still making a lot of noise! They were constantly whistling and whistling, couldn’t they be quiet and tidy everything up themselves? However, at the end of the day, when they saw the beach was clean, everyone applauded and congratulated the Eco-Patrol on their work.

‘Great job!’ said everyone, even the people who had not been eager to clean up and had “accidentally” left straws, tissues, and pips on the beach.

The members of the Eco-Patrol were proud of themselves. The team of volunteers were looking forward to seeing the garbage truck



team's astonishment at how much rubbish they had managed to collect. They waited until the evening. When they saw the flickering lights of the garbage truck, they jumped with excitement. They were convinced that they would be praised for what they had achieved! Imagine their surprise when the dustman, Jarvis, looked into the bin with plastic waste and yelled to his friend, 'mixed waste. Take it Rick!'

Then, he opened the bins with glass and paper and yelled the same thing.

'Mixed waste. Take it Rick!'

'Wait, what?' called Rascal in an angry voice. Why was the man saying it was mixed waste? 'We spent the whole day separating out the litter and now you are putting it all together as mixed waste? It says clearly here, blue – paper, yellow – plastic.'

He wanted to add more, but Mr Jarvis opened the white-green bin and nodded at Rascal to come closer.

'Do you see spectacles and a glass inside?' he asked.

'Yes... but they are made from the same material,' answered Rascal.

'Hah, yeah. But this glass melts at a different temperature, so it can't be thrown into glass bins. Even if we carry it to the recycling plant, we can't make any new bottles out of it. It would be so fragile that it would break instantly. Also, the glass bin is not a place for spectacles or tableware. You can't throw plates, cups, glasses, or cocktail glasses into this bin.'

So saying, Mr Jarvis opened the blue bin with paper in it.

'Here we surely didn't make any mistakes!' squeaked the hedgehog, who'd checked twice to see if anybody had thrown plastic or glass into this bin.



‘Do you see wet and dirty tissues, and greasy paper from the fish place?’ asked the dustman.

‘Yes... but paper should go into the blue bin,’ answered the hedgehog.

‘You’re right, but we can’t mix wet and greasy paper with dry and clean paper. Everything gets dirty then and this makes recycling more difficult. Paper must be clean!’

Seeing the sad expressions on the children’s faces, Jarvis spoke in a more friendly voice.

‘Listen, I’m glad that you wanted to change something and started dividing up the litter. Now, I will help you take it a step further. We will show everyone how to properly sort their waste. Only then can it be recycled. I know it sounds complicated, but you’ll see it’s easier than you think. I’m sure together we will find a way to teach others how to separate waste.’

The members of the Eco-Patrol, together with Jarvis, went back to the holiday house.

Again, they spent the whole night working. Some of them were busily cut out shapes, others painted. Someone brought the bins and then returned them to the beach. Every bin had information about what can and can’t be thrown into it. Also, the friends added notes saying what can be made from certain types of waste in the process of recycling.

The next day, Rascal stopped near one of the bins and smiled widely, seeing a slogan he had coined himself. What funny thing do you think he came up with? Do you think that you will join the Eco-Patrol and place proper eco-bins in your home, your kindergarten, or at the playground?



Did you know ...?

We hope that the adventures of the Eco-Patrol will encourage you to divide waste properly.

Did you know that litter left on the ground can be harmful to animals?

Litter left on beaches, in parks or forests and on the pavement does not magically disappear. It does not decompose like leaves and tree branches that create organic fertilizer. The litter left in the environment will stay there until someone throws it in a bin or until an animal finds it. Unfortunately, encounters with litter are not pleasant for animals. Sarah the Seal got caught in plastic packaging which made it hard to breathe and move. Also, many birds confuse corks, clasps and other tiny objects with food. When they swallow litter, it stays in their stomachs for the rest of their lives. As you can see, plastic caps and corks are not just “unhealthy” food – they can kill animals.

Why is it not enough to throw litter into a bin? Why do we have to segregate waste?

If we throw everything into one bin without properly dividing it into paper, plastic and metal, we will not solve the “dirty” problem. The litter from a small bin will be thrown into a big dumpster and transported to a dumpsite. You will never see this litter again, but people and animals living close to the dumpsite will have to look at it every day, and the litter will stay there for a 100 years. Yes, that’s right... 100 years. Most litter does not decompose like organic waste. One plastic bottle will stay with us for the next 100 years.



10 months



100 years



250 years

If you properly segregate your waste, however it can be used again.

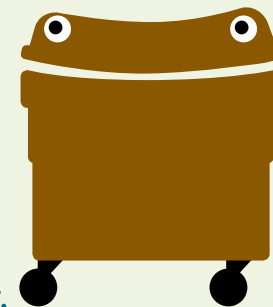
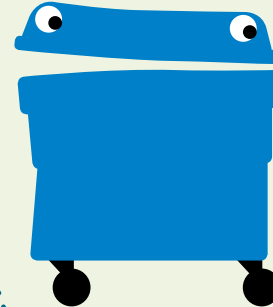
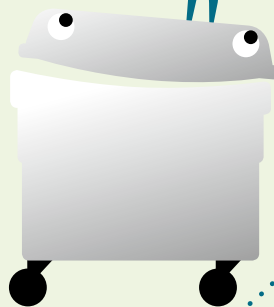
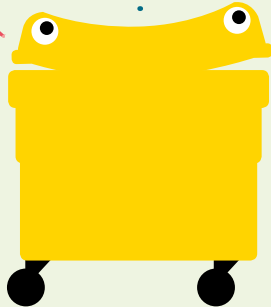
Properly sorted paper, plastic, metal and glass can be recycled – we can give them a new life. For example, a glass bottle or a jar can be melted and moulded into new bottles over and over again. Dry sheets of paper or old newspapers can be recycled into cardboard boxes or toilet paper. Even plastic bottles can be recycled if segregated properly.

Remember that the ideal waste is the one that does not exist. Every recycling idea is priceless. Think of how you can use an empty jar before you throw it into the green bin.

So, how should we segregate waste so that it can be recycled? What should we do to make sure that the dustman collects segregated – not mixed – litter? The answer is simple. We divide waste into 5 categories:

GLASS

- ✓ **What we can throw out:** glass bottles and jars
- ✗ **What we can't throw out:** pottery (plates and cups), sunglasses and windowpanes



BIO (food remnants)

- ✓ **What we can throw out:** apple cores, vegetable and fruit peelings, eggshells
- ✗ **What we can't throw out:** cold meat, meat, bones and fishbones, dog's poo, yolks and whites of eggs



PLASTIC and METAL

- ✓ **What we can throw out:** plastic bottles, yoghurt and washing powder packaging, Tetra Pak food packaging
- ✗ **What we can't throw out:** pharmaceutical packaging, used batteries and used electronic equipment



PAPER

- ✓ **What we can throw out:** sheets of paper, old newspapers and toilet paper rolls
- ✗ **What we can't throw out:** greasy or wet paper, tissues and wet fabric



In search of water!

The morning sunbeams were warming a corn field. It was a large field on the sunny side of the hill and well-settled lines of corn were waving towards the horizon. It belonged to Terka the mouse who lived in her burrow dug into the sand at the bottom of the field.

That morning, sunbeams tickled Terka's fur, so that she woke up, stretched out and immediately looked out curiously. 'Oh, great.' she frowned. 'With no clouds in the sky the sun will shine all day again. I need just a tiny rainfall to water my field or there will be no crops at all. A quick shower or a few raindrops would be enough.'

Even though it was a beautiful day and her friends Tola, Pola, and Rascal were supposed to visit her, Terka was not in a good mood. She did not have anything for breakfast although she still had some sunflower seeds hidden



away from last year. She grabbed her watering can and set off to the brook instead.

‘When did it last rain anyway?’ she asked herself on her way. She couldn’t remember. ‘Probably a long time ago.’ When she reached the brook she saw a bare, thin trickle which almost disappeared under the dried leaves.

“The stream does not look good. There is less and less water in it every day. If it goes on like this I won’t have anything to water my plants with,’ she said, frustrated.

Terka collected the water and returned to her field. She first watered the little corn stalks. The clay hissed, but the corns’ droopy leaves started to straighten up. When Terka went back to the brook, the sun was beating down even more strongly. But just before noon there was so little water left that Terka couldn’t collect it and she had to stop watering.

She did not have time to worry about that, as her friends, Tola, Pola, and Rascal arrived just as she was going back home. Terka waved at them.

‘Hello Terka!’ shouted Tola from a distance.

‘Hello, dear Terka! We have not seen each other for a long time!’ added Rascal.

It was good to see old friends on such a stressful day. A nice snack and a long chat can always cheer up anybody.

The next morning the sunbeams tickled her fur again and Terka peeped out from her burrow planning to prepare breakfast for her friends. But when she went outside her burrow, she could not believe her eyes! Enormous holes had appeared at the edge of her field!

‘Rascal, did you dig the holes in my field?’ asked Terka, surprised, seeing Rascal awake and sitting on the bank of the field.

‘Me? No... I thought you made them.’

Seeing that Rascal was telling the truth, Terka ran immediately to look at the damage. One, two, three, TEN holes as big as volcanic craters!

‘It’s not enough that my corn is going dry, someone wants to ruin it completely! These holes will damage the roots of my corn and it will dry up!’ She was angry; she screamed at a blackbird trying to find something to eat on the earth that was as hard as a rock, ‘Hey, blackbird! Did you see anyone digging holes on my field?’

‘No, I didn’t, I have my own worries!’, barely lifting his head from his unfinished work.

Terka did not hesitate: ‘Nobody is allowed to do this! I will fill up the holes and I will guard my field at night!’

Rascal, Tola and Pola, seeing Terka worried, quickly ran to her and started scraping and scraping until each hole was full again. After a whole day spent in the field, each of the friends slept like a log. Even a falling tree would not have woken them up.

The next morning Terka opened her eyes, looked out and found out that the holes... the holes were back again. There were more of them now, and down the alley there was one so big that no mouse could jump over it.

‘Rascal, Tola, did you hear anything during the night?’ asked Terka angrily.

‘No! I have not heard anything,’ answered Rascal. ‘Did something happen again?’



‘Just check it out for yourself!’ Terka replied. Indeed, the number of holes was even bigger than the day before.

‘Why would somebody do that?’ asked Tola, surprised.

‘It is not a funny joke,’ admitted Pola.

When they got over to Terka, Pola called a true bug which was sucking juice from a big horsetail.

‘Hey, true bug! Have you seen or heard anyone digging holes in Terka’s field? There has to be lots of them, no one could do that on their own!’

The true bug nodded: ‘Maybe I did, maybe I didn’t. In any case, I promised not to say anything, so stop asking!’ And puff, it was gone.

This time it took longer for Terka to jump up and say to herself: ‘They won’t outsmart me, I will show them!’

She started sniffing and searching around the holes and she noticed ruts leading to her neighbour’s garden. Terka never went there because she was a little bit scared. It looked very wild and neglected. Hearing all the noise and insects buzzing and chirping, made her want to come back to her own tidy field.

‘I have an idea!’ exclaimed Rascal. ‘Maybe we can leave these holes here and we could hide behind those bushes and rocks. We will wait for nightfall to see who is digging the holes! What do you think?’

Everybody agreed with Rascal, thinking it was a very good idea. Unfortunately, nothing happened that night; Terka, Rascal, Tola and Pola had to run in circles, jump around and pinch themselves so that they didn’t fall asleep. They were taking a nap when a loud bang woke Tola up.



‘Aaaaa!’ echoed from one of the holes. Tola quickly ran to check what had happened.

‘Aaaaa!’ she screamed back. Something enormous popped up in front of her in the grey morning mist.

Something with one huge foot and big eyes at the end of two tentacles. It was as big as a cat!’

‘Rascal! Pola! Terka! Help, help! A monster! It’s a big monster!’ she cried aloud.

‘Where? Where is the monster?’ asked the monster confused and looking around.

‘Well... where? You are the monster!’ said Tola, terrified.

The large-headed thing with big glasses pulled out a mirror, looked at itself and said calmly: ‘Well... you can say a lot of things about me, but I am no monster! Oh, I forgot... I know why you yelled so loud! You think I’m a giant, but that’s just a trick! Ha ha ha! Look under your feet, here, in the hole!’

Tola and her three friends, who had jumped out from their hiding place, now saw that right below them, a wheeled board with a stand and a big magnifying glass there sat... a snail named Tyk. He had fallen down a hole he had dug the night before.

At first sight it was clear that Tyk was a very busy snail who carried everything he needed for his job with him. On his antennae he had strange glasses. A drill and a saw hung on his shell.



‘So you were really scared of me,’ said the snail, still smiling a little. ‘I’m so sorry that I frightened you. I made this cart with a magnifying glass so that no one would step on me. With equipment like this, I look like a huge and beautiful snail!’ he said as he fixed the bow tie knotted above his boiler suit.

‘So you are the one who’s making the holes in my field?’ shouted angry Terka. ‘You bring shame upon all the snails! You will ruin my whole harvest! Besides, raking is our job, the job of mice and voles!’

‘Yes, it was me and I humbly point out that I know something about raking and digging too, even though I don’t have paws like you,’ respond Tyk proudly, pointing to something beside him. Only then did Terka notice the object laying at Tyk’s side. It looked like a flexible iron hand and was undoubtedly Tyk’s own invention. There were also several carts full of saplings and seedlings.

Terka became even angrier: ‘You want to plant trees here? Don’t you know that the trees’ roots will drink all the water and nothing will be left for my corn?’

‘But Terka! Don’t be upset! I’m trying to help, not hurt your crops!’ called out Tyk. ‘I know that you, like any mouse, love grains and you are very proud of your crops. But look at it another way. Your field is starting to dry up and when it rains no water stays in the field. The water flows downhill on the hard clay and between the rows of corn like it would on a waterslide. None stays in the field. What will the corn drink then? It will become yellow and dry, and you will end up with nothing.’

‘So why do you want to plant those trees? Do you know how much water they consume? They will drink all the remaining water in the soil. And if it rains, they will steal the water from my corn!’ said Terka.

‘No! Exactly the opposite! Trees would keep the water in the soil! I will show you, but first, please help me to get out of this hole.’ Pola, Tola and Rascal pulled Tyk and his cart out of the hole and the snail made some space on it for Terka. Although she was hesitant, she eventually hopped on and they drove together to the nearest tree, not far from Tyk’s garden. There he dug into the soil and asked Terka to join him. ‘Well, it’s a little bit wet, but how is that possible?’ asked confused Terka when she put her paw in the soil.

‘Trees can breathe and hold the water,’ explained Tyk. ‘The roots drink water while it’s raining. They make tunnels deep in the ground and rainwater leaks into them and stays hidden there. Then when it’s dry, the trees’ roots can drink from the soil.’

Tola, Pola, and Rascal had to admit that Tyk was right. They had heard about the positive impact of trees long before they came to visit Terka.

‘But that’s not all that trees can do. I will show you, hop on!’ said Tyk and they set off towards the garden. Once they were inside, Terka jumped off, took a deep breath and looked around curiously. There were lots of bushes and trees with long clusters of climbing plants; pumpkins, potatoes, cucumbers, corn, beetroot, beans, strawberries, herbs and lots of weeds. The garden was abounded with colours and life which gave Terka a little bit of a headache. Right in the middle of the garden stood a wonderful wooden house with a green roof. That was Tyk’s workshop.

‘How is it that I can breathe so easily here and I don’t feel the heat?’ asked Terka curiously.



‘It’s because of these trees and plants. They provide coolness, shade, and something as well...’ Tyk led Terka further into the garden until they saw a little lake.

‘Wow! There is water literally everywhere!’ said Terka.

‘As you know, I’m a snail and we need cool conditions or we will dry out.’

‘So the hole you dug in my field is meant to be...?’

‘Yes, a little lake. While there is water in the little lake, we can use it to water my garden and your field.’

Terka was surprised. Only then did she realise that all Tyk had done (those holes for the trees, even the large hole for a little lake) was on the border of his garden and her field. He did it to save her field from drying out.

As soon as Tyk realised what Terka was thinking about, he blushed. And that is quite something for a snail! As he started to explain, his glasses fell: ‘Well, I thought that I should do something useful not only for my garden but also for your field. You know...’ suddenly fumbling his words and sliding into his shell.

Terka looked around, examining all the plants, especially the roots, and finally came back to Tyk.

‘Come on Tyk, don’t hide from me. If it’s true, you should have told me earlier!’

Tyk hesitantly pushed his head out of his shell. ‘So, can I continue planting?’ he asked.

‘Of course! I will help you. And I am sure that my friends will support me in planting the trees.’



Now Tyk was fully out of his shell with a big smile across his face. Terka was finally listening. Tyk told her about ponds and wetlands, about paths made from the grained bark, and even that she could turn the one large field of corn into little fields of corn, potatoes, beets and other crops. He also recommended that she should plant bushes between those fields or leave a space for strips of grass, since by doing so, Terka could save her field from drought. He had plenty of ideas!

And Tola, Pola, and Rascal? They were all really glad to have a new friend who could help Terka with her worries about the drought...



Did you know ...?

Terka the mouse was very worried about the drought. She couldn't remember the last time it rained.

Do you remember that? When and how did it rain? Lots or a little? Briefly or for a long time?

Terka's corn was drying up. The soil in her field was dry and cracked, and the stream, from which she took water for irrigation, had almost disappeared.

What else can we see when it is dry?

The grass is low, yellow and dry, the plants fade, the trees turn yellow even though it is summer and their leaves fall to the ground. Rivers, streams, ponds and lakes have less water in them, so sometimes you can even see the bottom. The water in the streams is murky, you cannot see if it is flowing or still and sometimes the streams disappear completely, leaving only valleys of dry leaves and branches behind. There are no puddles left.

How do we know that it's dry in the city?

There is less to see than in the countryside, but the lawns are yellowed, the grass is brown and weak, the ground is dry, the trees in the streets and parks are faded or have withered leaves. It is dusty everywhere. And when it's dry, it's hotter.

Do you know it's dry at home?

No, we can get water from the tap at any time. But sometimes the government will issue a hosepipe ban, prohibiting people from using tap water to fill up swimming pools or water their gardens.

Who is affected by drought?

Animals that live in water, like fish, frogs and water bugs. Other animals that eat the aquatic and amphibious ones are also affected, and so are all the other animals because they need to look a lot harder to find water to drink. Plants are affected too, because they dry up. People also suffer from droughts because the fields produce less crops. Even forests can dry up. Tyk wanted to help Terka to fight the drought by planting shrubs and trees in her field.

How would bushes and trees help her?

Tyk told Terka that trees can catch water. But how?

Terka's field was on a downhill slope and she was only growing corn in it. Corn rows have large gaps between them, in which there is soil. When it does not rain for a long time, the soil becomes hard and then when it rains again, the water runs down the hill like a slide and it cannot soak in. If there was a small wooded strip – a few trees, shrubs and grass – it



would act like a wall, stopping the rainwater so that it could soak into the ground. It would be even better for catching water if Terka made stripes of trees or grass between all the rows in the whole field.

When it rains, blades of grass and the leaves of trees and bushes catch water like a net.

Trees can also catch water in the soil. Their roots penetrate the soil so it is looser and fluffier, and then there are tiny holes for the rainwater to flow into.

Does anything else make holes in the soil that are good for catching water?

Yes, earthworms, beetles, moles do too.

Do you know what humus is?

Maybe you know about the compost in the garden, where we put plant leftovers, and apple and potato peelings. Over a few months, earthworms and beetles turn them into black soil. It's called humus. Humus is also made by earthworms and beetles in the woods where there are lots of dead plants like fallen branches, fallen leaves and withered grass. **Humus can catch and hold water perfectly**, so, it would help Terka's crops if there was humus in the soil.

What did Tyk's garden look like? Was there a lot of water in it? And where?

There were plenty of trees and plants. Various crops and plants grew in patches of soil in lots of rows. When the soil is completely covered with plants, the water evaporates less, and some crops can hold more rainwater, some less. Tyk had also a pond in the garden.

And why could Terka breathe in the garden so easily?

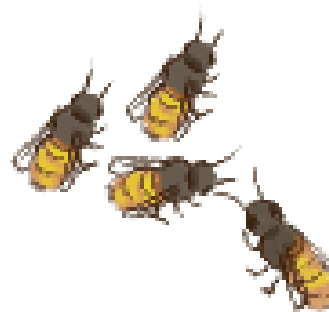
Trees get hot too, so to cool themselves down, they "sweat". Trees drink a lot because they are big and need a lot of water. They are like large tanks full of water. When it's hot, they cool down by evaporating this water through the leaves. We can't see it, but we can feel that it is cool and fresh in the woods or in places with lots of trees and shrubs even when it is very hot. They cool down us and animals as well as themselves. Sometimes, you can see evaporating water coming off forests like a smoke. Trees also give us some pleasant shade.

It is difficult to fight drought and primarily it has to be done by adults. It is fought by foresters in the forest and farmers who grow grain for us in fields or fruits and vegetables in gardens.

But we can do something!

Save water. Try to catch rainwater and use it to water the garden. Plant a tree. Make a green roof. Install drinking fountains for birds and insects.





Buzzing assembly



Once spring had arrived, our three friends – Rascal, Tola and Pola – decided to set off on a trip together. One morning, Rascal was sitting on the grass, looking around anxiously for Tola and Pola. He had been waiting a long while, so he passed the time by juggling a small bottle full of thick green liquid. When Tola and Pola, both out of breath, finally arrived, he greeted them with a grunt.

‘Well, it’s about time!’

‘Oh, what is that?’ asked Tola, pointing at the bottle.

‘I got it from Tyk. We should test it, apparently,’ explained Rascal. Tyk the snail was a friend of our trio whom they had recently got to know. He was a versatile handyman and a passionate inventor.

‘Tyk tried to make ecological fuel for his wooden cart from plant juice. He reckoned that just one drop would be enough for the cart to run the whole



spring and no impurities would be released into the air. But it came out as something else by accident. He said we will see after we drink it.'

Curiosity won over distrust. Tola, Pola, and Rascal closed their eyes and drank from the bottle. Some interesting things started to happen! It was like someone was wringing them and tickling them and then boom, they leaped up into the air. When they looked at each other and looked around, they realised that all the thick pointy branches around them were actually blades of grass and that they were each as big... as a cherry stone!

'Tyk has made a wonderful mistake! It's a shrinking potion!' said Tola, the first to come to her senses.

A 'buzz, buzz,' rumbled suddenly next to them, before something strange landed a little way off. It looked like a furry helicopter. They sat still and hoped to pass unnoticed, but the creature looked right at them, so they were able to inspect it closely. It had long colorful fuzz jutting out from its whole body: black on the head and chest, bright orange on the tummy and bum. It had two pairs of see-through wings, big black eyes and two black horns. After some time, the creature hesitantly came closer to them.

'Good day! Excuse me, I am a little bit shy. I am not used to so much company,' said the creature.

'And who are you exactly?' asked Pola boldly.

'A bee,' answered the offended newcomer.

'But you look different to other bees,' insisted Pola. 'And don't tell us that you are not used to having company. There are thousands of you in the beehive after all.'



‘Oh no,’ laughed the bee. ‘I do not live in a beehive. I belong to a breed of wild, solitary bees and we don’t live in big swarms but build small houses for our own little families. I’m a mason bee, mason bee Zdenka. My children and I survive by eating sweet nectar from flowers. And pollen too. Look at my belly brush.’ Zdenka pointed proudly to her orange stomach. ‘I collect pollen thanks to that. It is a slog I can tell you, the number of flowers I have to visit before I have enough.’

‘But you pollinate a lot of flowers, right?’ asked Pola.

‘That’s right. I like the nectar and pollen from apple blossom the most. And all those trees that I gather pollen from in the spring are full of apples in the autumn.’

Zdenka explained further: ‘I gather pollen for my children to eat as they hatch. I prepare a room for each of them and put a sweet treat, a pollen bun with sweet nectar, in there.’

‘Yummy!’ the three drooled unintentionally.

‘And what does your house and its rooms look like?’ asked Tola.

‘Well,’ mumbled Zdenka. ‘I don’t actually have a house right now because the tree trunk I lived in was chopped down by a carpenter and taken away. Anyway, excuse me, I’ve been so busy chatting with you that I forgot that I was flying to our bee assembly. Every solitary bee has huge concerns about living and food. That is why the assembly was called. We are going to try to solve our problems. Do you want to go with me?’

‘Well, sure!’ they shouted in unison.

‘We were just about to go on a trip,’ added Tola.





‘The assembly is nearby on a big apple tree, but I have to warn you that, as soon as we get there, you should hide and stay hidden,’ said Zdenka. ‘Solitary bees are peaceful and we only sting in exceptional circumstances, but we don’t like it when other people meddle in our business. Besides, a lot of us haven’t eaten for ages; anybody would be mad about that.’

Pola gently took up Tola and Rascal in her claws and they flew with Zdenka.

The big apple tree was churning and buzzing like... a great bee assembly. They sat on a strong branch near a rock and took cover behind a huge leaf. As they started to look around, they saw the widest variety of bees that they had

ever seen in their lives. There were tiny bees and big bees, some of them were rounded, others thin; fuzzy bees, shiny bees, multicoloured bees, bees with long horns, with short horns; whatever kind of bees you can think of were buzzing all around them.

Then Pola noticed that similar looking bees were sitting on branches together.

‘Yes, each branch belongs to a different allied family. It is marked with their sign, something that is specific to them, and it always lies on an apple tree leaf platter on their branch,’ whispered Zdenka to them.

And Zdenka was right: on one leaf platter lay a mound of sand, on another a mound of clay, on another were circles bitten out of leaves and on another branch lay the fuzz from a plant.

‘Some of us build our nests using sand and others with clay. Some of my relatives strew the chambers for their children with circles cut from leaves and others build chambers from flowers’ fuzz.’

The bees presented all their complaints to the chairwoman of the assembly. The chairwoman was a huge, metallic, glossy, violet bee who sat in the hole - littered with soft, mouldering wood - that had been left by a fallen branch, as she carefully listened to the problems of her relatives.

‘That is our chairwoman, the violet carpenter bee,’ pointed out Zdenka, continuing to listen to the proceeding assembly.

‘There’s nothing to eat on the meadows! When the dandelions fade there are no other flowers that we can drink nectar from!’ yelled one fuzzy, ginger bee.

‘That is because the meadows are still chopped! As soon as the flowers blossom out, whoosh! Suddenly the whole meadow is mowed! Then we don’t

have enough time to collect pollen and nectar for our children! And we are hungry too! If only they left at least a tiny piece of meadow for us! My children can't eat anything other than the nectar and pollen of bellflowers,' joined in a little black bee with slim yellow stripes on her bottom.

'And mine from buttercups!' screamed another one.

'We want the ordinary clay field trails back! Now that the tar and concrete and asphalt cycle paths are everywhere, we don't have the space to dig our nests!' complained bees with thick yellow brushes on their feet.

'Well, it's true that our kind is not very picky when it comes to habitation,' joined in some bees that looked just like Zdenka. These were the mason bees. 'Empty snail shells are enough for us, but how often can you find one?'

'Our frie...' began Rascal, who was unable to listen to the complaints anymore. He had almost jumped out of the shelter, keen to do something about the bees' difficult situation. But Tola, fortunately, caught him in time and pulled him back. She quickly plugged his mouth and angrily whispered into his ear, 'don't you dare show yourself to them and if you're thinking about Tyks's snail shell, it's already taken if you didn't notice, Tyk is living in it!'

Rascal bowed his ears with shame and stayed quiet – sometimes he is very hotheaded.

'But we would be grateful for any empty space,' continued the mason bees. 'We like bulrush straws, holes in walls, or corridors and chambers made by bugs in old trees, however, there are not many of those trees right now since they've all been felled. We can even do well with just a slot between beams on a roof.'



‘So move into my doghouse!’ shouted Rascal and he jumped right into the middle of the assembly. This time Tola’s attempts to hold him back were pointless.

The assembly went quiet in a second and thousands of bees glared sinisterly at Rascal as they pointed hundreds of stingers at him.

‘We are here too and we won’t give you away, Rascal!’ screamed Tola and Pola as they jumped in next to him.

The tremendous silence could have been cut with a knife. The trio already felt like the stings were being jabbed into their feathers and fur. And then, out of nowhere, all the bees started to laugh! An owl, a dog and a cat about the size of cherry stones are not something you see every day!

When the chairwoman finished laughing, she rang the gong to call for silence and asked sternly, ‘who are you and what are you doing at our assembly?’

So, the trio told her all about how they wanted to go on a trip, about the shrinking potion made by Tyk the snail and how they had met Zdenka the mason bee.

‘Listen, Rascal, you offered your wooden doghouse for us to live in and that is not a bad idea at all. There would be space for a couple of us,’ hinted the carpenter bee on the branch where the European orchard bees were sitting.

‘Thank you, we will be modest occupants, you can rely on us, we won’t destroy your house, we will live quietly in the slots under the planks and you would never know we were there,’ the bees promised Rascal.

‘Um, but what about the rest of you? What about the food?’ asked the chairwoman desperately.

‘I have an idea,’ said Pola. ‘During my night-time ramblings, I found an old orchard that no one is caring for. There are plenty of old trees and the hollows and passages are ready to be moved into. The grass is not cut very frequently and I think that there is a compacted clay trail nearby,’ she added with a wink to the bees with yellow brushes on their feet. ‘If you want, I can lead you there.’

Pola took Rascal and Tola in her claws again, and the whole bee assembly soared into the air and flew alongside. The bees loved the place immediately. They said thank you and started to work. Some of them set off to inspect the hollows and to find ones suited for building their nests, while the hungriest ones flew straight to the sweet nectar on the flowers.

And our three friends Tola, Pola and Rascal? They went to find Tyk so that he could make them something that would turn them back to their normal size!



Did you know ...?

Children, do you know that besides the „ordinary“ bees that we keep in hives, other bees live freely in the wild?

They are called **solitary bees**, because they do not live in large swarms alongside other bees. Zdenka is a **mason bee**. Even these solitary bees **eat nectar and collect pollen** as food. Pollen is collected by the hairs on their abdomens as the bees “float” between the flowers’ stamen as though in the sea, combing pollen with bumpy movements of their bottoms. Other bees collect pollen on foot brushes, just like ordinary bees.

Bees help plants to reproduce. When they collect pollen, **bees pollinate the plants** so they can make fruit with seeds inside, from which a new plant can grow. Without bees, there would be no apples, pears, apricots, cherries, raspberries, cucumbers, carrots, or lots of other fruits and vegetables. Bees are very important to plants, so they attract the bees to their flowers with sweet nectar. Some solitary bees even go right inside the flowers where the ordinary bees can’t reach.

Solitary bees do not produce honey. Honey serves the ordinary bees as food in the winter, but the solitary bees do not need this because they either die before the winter, or they sleep through it.

The solitary bees prepare **special rooms** for their **larvae**. A ball of pollen glued together with nectar is prepared for each “baby” and put into the special chamber so that the larvae can eat it as soon as they hatch.

Solitary bees have quite funny names – can you guess why they have names like pantaloon bees, mining bees, carpenter bees, leafcutter bees, mason bees or carder bees?

It is because they build their nests in different places. **The leafcutter bee likes nesting in wood.** It fills a wooden hollow with leaves that it cuts into circles. It uses young rose, hornbeam or beech leaves.

Mining bees make **corridors in the sand and compacted clay** that can be up to half a meter deep and are widened into chambers at the end. They put pollen inside them, lay their eggs and



then plug the corridor. When you are in their habitat, you can spot piles of soil that look like tiny mole hills and little holes in the ground.

Mason or mortar bees nest in various **natural cavities** like in the clefts of walls, which is how they got their name since ‘masonry’ means ‘stonework’. They can live in attics, old bricks, dry stems, thatched roofs and the abandoned homes of other insects. Some of them build nests in empty snail shells which they divide into chambers and hide under leaves or needles.

Carder bees make cells for their babies from plant hairs.

A large **violet carpenter bee** likes to nest in rotting apple wood.

The solitary bees have a sting like the ordinary bees do, but they are very peaceful and they use it very rarely. These bees





struggle to survive in the wild because they **cannot find food or a suitable place to build a nest.**

They cannot find any holes in old trees drilled by wood beetles or any bare soil, e.g. on roads and pastures. They are losing their habitats because more and more field roads and bike paths are being covered with asphalt. Solitary bees that nest in wood use the ready-made corridors and crevices left by nature or by other animals rather than making new ones, so you don't have to worry about them making holes in your wooden roof.

It is also hard for them to find food since there are fewer flowers in the countryside and meadows. When the dandelions have finished flowering, many meadows have no other flowers left that offer nectar to bees or butterflies. It would help the bees if meadows were cut less often and if, when they are cut, people cut them in sections and not all at once. Then they would have time to gather food for future larvae and to prepare their chambers.

You can help the solitary bees by making them **an insect hotel**, for example on a balcony. You could also help them if you plant fragrant flowers with pollen and nectar in your garden or on your balcony.



Meadow orchestra

During this year's spring break in May, Tola, Rascal and Pola visited their three bunny friends from Slovakia – Janka, Jolka and Jarmilka. The rabbits' ranch was located in a small, picturesque village. Our friends went there for a special reason: the three bunny sisters had called on them for help, as they had a strange eco-mystery to solve. The mystery had to be kept secret from the bunnies' parents. Whenever Mommy Rabbit came onto the patio where the six friends were sitting, they fell silent, pretending that they were admiring the view of the forest and the green fields.

'Oh, I'm so happy you like it out here!' said Mommy Rabbit with contentment, as she brought them some delicious rhubarb tea. 'A long time ago, this area was wasteland,' she continued, pouring them each a cup. 'The fields were neglected, and the herbs and grass were choked by weeds. No one took



care of this land. There was even a small puddle in the middle of the plot. There were lots of grasshoppers, crickets, mosquitoes, and other varmints...'

'Mom! Please don't talk about insects like that!' interrupted Janka.

'You know that all insects are beneficial,' accompanied Jolka, who was a member of the Eco-Patrol just like her sisters and our three friends.

'Take it easy, girls,' shrugged Mommy Rabbit, continuing her story and ignoring the outrage in her daughters' voices. 'Our neighbours said that tidying up the whole plot would take ages! But my husband is an exceptional rabbit! When we first came across this area, he decided it would be the best place for our family to settle down. He managed to plough the earth and fill in the holes in the ground. He removed the weeds, fertilised the earth, got rid of the mould and killed almost all those disgusting pests!'

'Mom!!!' the three daughters cried, outraged.

'What's the matter? Isn't it nice to sit down on the patio and not be attacked and bitten by insects?' replied Mommy Rabbit steadily. 'We quickly arranged some space for three fields, one for each of our daughters. The patch with radishes belongs to Janka, Jolka takes care of the corn and Jarmilka has the field of cabbages. Look, we used every inch of our plot. There is no wasteland here. After all, every metre is important, isn't it?' she asked, waving to her husband, who was about to finish watering the plants with rainwater.

'Go and have a rest, kids. Tomorrow, our girls will show you the whole ranch. I've heard that you have some special eco-mystery to solve,' laughed Mommy as she went back inside. She wanted to listen to Beethoven, as she was a great fan of classical music.



After their afternoon tea, the six friends went to their rooms, but they did not go straight to bed! They were discussing a very important issue late into the night. Mommy and Daddy had no idea what was going on and were a little worried.

‘Calm down, Jadwiga, we can trust them,’ said Jan, trying to calm his wife down. ‘There are six of them, I’m sure they’ll be fine. Let’s leave them alone, okay? Kids learn a lot from doing things independently.’

The next morning, the six friends woke up early despite their long talk the night before.

‘Mommy, we’re going outside to show Tola, Rascal and Pola our patches. We’ll be back for dinner.’

‘Wonderful!’ said Mommy Rabbit, nodding. ‘Go and have fun!’

The kids ran out of the house and beyond the carrot patches. After a while, they reached the secret place they had been talking about the previous night.

‘Stop,’ one of the sisters whispered firmly. ‘We’re here. Shhh, be quiet! Lower your heads so she can’t see you,’ she said vaguely. The six friends hid behind the radish patch.

When Tola, Pola and Rascal carefully poked their heads out from behind the leaves, they saw a beautiful, colourful butterfly – a peacock butterfly. The peacock butterfly is one of the longest living butterflies. It can survive up to several months in its adult form. This butterfly is very beneficial, as it pollinates flowers while drinking their nectar. But the butterfly our friends saw was behaving very strangely. The beautiful peacock butterfly was talking loudly to



herself and waving around a strange little stick as she flew from one carrot to another.

‘What am I supposed to do? They’re not here... not a single one!’ The butterfly seemed confused as she looked around with tears shining in her eyes. She kept saying the same thing: ‘what am I supposed to do?’

‘Do you see her?’ asked Jola quietly. ‘She’s been like this for two days. Before that, she was behaving normally flying around, tidying up, arranging things and looking for flowers. As you can see, there aren’t lots of them around here, and she is the first butterfly that has ever visited our field. It was quite a day for our Eco-Patrol since there are not many insects here. But now, our Lady Butterfly only cries and repeats that someone is missing.’

‘Did you ask her about it?’ Tola wanted to know.

‘Of course not! She doesn’t know we’re here. We were afraid to scare her away,’ admitted the three sisters.

‘When someone’s in need, we should let them know that we are ready to help them. I’ll ask her!’ said Tola and jumped from behind the patch.

‘Hello, peacock butterfly! I heard you crying and thought that you might need help,’ said Tola softly, standing right in front of the butterfly.

‘Oh! Hi!’ answered the startled butterfly. ‘You... you want to help me?’

‘Yes! In fact, not only me, but the whole Eco-Patrol,’ said Tola enthusiastically, pointing towards her friends, who had no more reason to hide in the radishes.

‘Oh, my sweet kitten!’ cried the butterfly cheering up and hugging Tola’s little nose. ‘Oh, I’m so glad you’re here,’ she said, looking at everyone. ‘Maybe you can help me rescue the grassland orchestra!’



‘Wait, what orchestra? Please tell us what happened, Lady Butterfly,’ asked Tola.

‘Oh, right... yes, yes, I’m...,’ the butterfly fluttered her wings, ‘I’m so anxious! It’s a disaster! Disaster! I can’t find my orchestra... no one came...’

‘What orchestra are you talking about?’ asked Tola, growing more and more curious.

‘What orchestra?! You really don’t know anything?’ asked the startled Lady Butterfly. ‘It’s a tradition, passed down through the generations. At the beginning of May, all the insects from the local fields and meadows gather in one chosen place. We all perform a concert. Imagine the silence of a May evening broken by the beautiful music of Ludwig van Beethoven! We play his Ode to Joy. Everyone in my family was a conductor: my mom, my granny and my great granny came here every year to conduct the grassland orchestra. The concert is organised in a different place every year, but each new generation of insects knows where to go.’

‘What do you mean by generations?’ asked Tola hesitantly.

‘You know, we insects live short lives. I, as a peacock butterfly, can live for as much as a year, but many beetles, crickets, bees and grasshoppers live for only a few weeks or months. So, every year, the children of our insect-musicians who performed the concert in the previous year gather in a chosen field to follow our tradition. Many years ago, my great-great-grandma created a map of all the fields and meadows in this region, so that all the insects could find the chosen field every year. We play on bellflowers, mint leaves and thistles. Grasshoppers and crickets use their wings, the stag beetle blows its horn, the giant peacock

moth – the biggest butterfly of all – plays the harp, and the dung beetle plays the drums. That’s our orchestra,’ explained Lady Butterfly smiling. ‘But no one is here today, and I don’t know what has happened. We have only one week left before the concert.’

‘Maybe they forgot about it? It is so warm, almost hot, maybe they’re busy drinking nectar, or collecting food, and they’ll come here later?’ asked Pola hesitantly.

‘Oh, no! I’m sure it’s not that. Look, I have my sheet music, and the note here says exactly when the insects should come. We have been performing our concert on May 9th, which is Europe day, for years. Today is May 3rd. Everyone should be here, rehearsing!’

‘So maybe you’re in the wrong place?’ suggested Rascal.

‘Me? Definitely not! I have the exact map.’ said Lady Butterfly.

‘You said that you organise the concert on the grassland, but I don’t see any grass around here,’ said the doggy, looking around. ‘There are no red poppies, star-thistles, bellflowers, or sow thistles... there are only patches with carrots, corn and cabbages. These are our friends’ fields.’

Lady Butterfly looked at Rascal and then flew up and up. When she looked around, she sighed miserably. She realised that Rascal was right. The grassland which her great-great-grandma had drawn on the map no longer existed. The old home of different kinds of grass, herbs and flowers, and the shelter for hundreds of animal species had been ploughed and transformed into fields.

‘It’s horrible...’ wept Lady Butterfly. ‘What am I supposed to do now?’



‘Maybe we can create a new grassland here?’ suggested Janka hesitantly. ‘It wouldn’t be quite as natural, nor as big as the previous one, but we can plant herbs, flowers, and grass – all the greenery that insects like. This radish patch belongs to me. Let’s buy seedlings and plant them here. Maybe their smell will attract other insects. After that, we will think what to do next.’

‘I’m not sure whether it’s going to work,’ hesitated Lady Butterfly.

‘Me neither, but we must try!’ cried the little bunny.

As the six friends decided to turn Janka’s field into a grassland, our Eco-Patrol, along with Lady Butterfly, went to the nearest marketplace to buy seedlings. It was hard to find anything other than vegetables and fruit trees, but our friends were patient. After a long search between the stalls, they found a salesman who had herbs, grass, and flowers.

‘Let’s buy a hundred star-thistles,’ suggested Tola to Lady Butterfly. ‘We will have all the flowers in one colour. It will look nice.’ She smiled.

‘A hundred seedlings of the same plant? That won’t work!’ opposed Lady Butterfly. ‘To invite insects to a grassland, you need to have a variety of plants. Different insects like different colours, smells, and tastes. Some like star-thistles, others prefer red poppies, bellflowers, sage, mint flowers, thistles, and so on. If we want to attract lots of different insects, we must plant lots of different flowers and herbs.’

Our friends spent quite some time choosing seedlings. They had great fun, as they hadn’t seen so many different plants for a long time.

They put all the seedlings into a trailer, covered them with canvas, and decided to wait until the evening before planting them. Delicate seedlings



should always be planted early in the morning, or in the evening. This way, the little plants have enough time to adjust to their new environment before the sun comes up. The Eco-Patrol didn't know how the bunnies' parents would react, so they didn't tell them anything about their plan, just in case. As soon as afternoon tea was over, they said they were going for a walk. They worked until the evening, planting over a hundred seedlings between the radishes.

Then they went to bed, tired, but content.

They were so exhausted by digging holes and planting seedlings, that they didn't wake up until lunchtime. They were sitting on the patio eating apple pancakes when they saw Daddy Rabbit coming back from the fields. His trailer was full of radishes. They froze in horror.



‘Daddy, where did you get these radishes from?’ asked Janka.

‘From your field, of course. It was perfect to harvest,’ answered Daddy Rabbit with pride in his voice.

‘You took all of it?’ asked Janka, fearfully.

‘Yes, I did,’ said Daddy, looking at his daughter with surprise. ‘They were planted in even rows, so it didn’t take long to harvest them. What surprised me were the weeds that had grown in between them. Luckily, they didn’t harm the radishes.’

‘Weeds?’ repeated Rascal, startled.

‘Exactly. Luckily, the radishes are fine,’ said Daddy Rabbit and went into the pantry.

When the six friends reached Janka’s field, they were devastated. The view was horrible. Daddy Rabbit had not only dug up the radishes, but almost all of the herbs, bee orchids, bellflowers, violets, carnations, and many other plants.

Lady Butterfly was sitting on the edge of the field. A common blue butterfly was flying around her – his species is very rare. When Lady Butterfly saw the Eco-Patrol, she fluttered up.

‘My dear friends! Everything’s destroyed. I was so happy this morning, but now I feel like crying! Kajtek found me here at dawn. He’s a common blue butterfly and the best cellist among the insects. Even our violinist, Kazik the Cricket, was attracted by the scent of the flowers. I hoped that others would come here as well, but somebody dug up all the plants. There’s nothing left! No grass, no herbs, no flowers. Nothing.’



The six friends were devastated. Pola was the first to break the long silence.

‘Listen, we can’t give up now because of one failure. It didn’t work the first time, but we have to try again.’

‘My corn patch is right there,’ said Jola. ‘Corn needs more time to grow. We can plant herbs and flowers there. We know where to go to get the plants. This time we’ll work faster.’

‘That’s a great idea!’ admitted Kajtek, the common blue butterfly. ‘Let’s get to work, instead of sitting here crying.’

So, although they were still a bit sad, the members of the Eco-Patrol went with Lady Butterfly, Kajtek, and Kazik the Cricket to the marketplace. They quickly bought similar seedlings and planted them in the cornfield that evening. They went to bed tired again, but hoped that this time their plan would work. They decided to wake up early to check whether the plants in the field were alright.

The next day, they wanted to eat their breakfast on the patio, but Mommy Rabbit didn’t allow them to go out.

‘Kids, today we’ll have breakfast inside. Before dawn, Daddy Rabbit went away to the field to spray it with pesticides. You know how harmful it is to breath in those chemicals, so we’d better stay at home for several hours.’

‘Pesticides?!’, Pola cried.

‘My field?!’ Jolka added fearfully.

‘Yes, honey. We need to prevent aphids and other worms from eating our corn.’



‘Oh no!’ cried the friends and ran from the kitchen, leaving startled Mommy Rabbit alone.

‘Daddy! Daddy!!!’ yelled the bunnies.

‘Mr Rabbit! Stop!!!’ cried Tola, Rascal and Pola.

But Daddy was sitting in a closed tractor cab and didn’t hear them. He was slowly spraying pesticides over the field. When the six friends finally reached the corn patch, he had already moved to the neighbouring field.

‘Daddy, no! Stop!’

Seeing his daughters and their friends, Daddy Rabbit turned off the engine and jumped out of the cab.

‘What is it? Has something bad happened to Mommy?’ he asked, frightened.

‘No, not to Mommy, to our friend!’ answered Jola, running on.

Daddy Rabbit followed his daughters to the cornfield.

‘Lady Butterfly! Kajtek! Kazik!’ the bunnies cried.

‘Lady Butterfly! Where are you?!’ cried Rascal.

But there was no sign of their new friends.

When they all reached the end of the field, they saw Lady Butterfly lying on the ground next to the blue bellflowers. She was barely breathing.

‘My dear Lady Butterfly! Don’t die! We’ll help you!’ the six friends called. ‘Is Kajtek somewhere around here?’

‘He flew... away...’ whispered Lady Butterfly, but she didn’t manage to add anything else. Pesticides are very harmful to insects.



‘What’s going on here?’ asked Daddy Rabbit. ‘Does this have anything to do with your secret task?’ he added hesitantly.

‘Oh, Dad... our friend is barely alive. We need to save her!’ called Janka, looking at poor Lady Butterfly.

Pola carefully took the butterfly up in her wings.

‘Pola, you need to fly to Mom immediately,’ said Daddy firmly. ‘We have medicines at home, maybe it’s not too late. Come on, let’s go!’

Mommy Rabbit went to the patio when she saw everyone running through the fields. Seeing the expressions on their faces, she realised that something bad had happened.

‘Mom! Help!’ yelled Jola, pointing at Lady Butterfly.

The Eco-Patrol finally told the bunnies’ parents what they had been doing over the last few days. They told them everything: all about the grassland concert, the insects, the lack of diversity in the fields, their shopping at the marketplace, and the two fields they planted with herbs and flowers. But what was most important just then was Lady Butterfly. Mommy and Daddy looked at each other knowingly. They said nothing, but took good care of the butterfly. They washed her face, gave her some water to drink and fanned her so that she could breathe some fresh air. Mommy Rabbit gave her special drops that neutralized the toxins from the pesticides. They all sat with Lady Butterfly for several hours and when she finally opened her eyes, everyone sighed with relief.

‘The worst is over. You kids stay with Lady Butterfly, we have something important to do,’ said the bunnies’ parents.

The six friends took care of Lady Butterfly late into the night. Finally, being very tired, they fell asleep.

When they woke up in the morning, Lady Butterfly was awake and watching them. She was much stronger. She even fluttered her wings!

‘Oh, it’s wonderful that you feel well again!’ said the kids, relieved. ‘We were so worried about you!’

Then Mommy and Daddy came into the room.

‘Good morning, kids! Come with us, we want to show you something,’ they said mysteriously. The friends tried to guess the surprise by their expressions, but Mommy and Daddy’s faces didn’t give anything away.

‘Seeing your commitment yesterday, we realised how much you care about nature, the environment and your friends. We understood that... well, you’ll see. Come with us.’

When the six friends and Lady Butterfly went outside, they couldn’t believe their eyes! Instead of fields with vegetables, they saw a pretty grassland! Mommy and Daddy had planted so many herbs and flowers that the friends from the Eco-Patrol were stunned and speechless.

‘It’s so beautiful here!’ said Lady Butterfly, the first to speak. ‘This is a dream grassland!’ she cried joyfully.

‘But Daddy, are you sure you don’t mind replacing our carrots, cabbages and corn with grassland?’ asked the bunnies hesitantly. They knew how important the crops were to Daddy Rabbit.

‘I talked to our neighbours yesterday. Everyone had noticed that they were harvesting fewer crops since I turned the old grassland into fields. Less insects



means less pollination. Bees, butterflies and other insects pollinate our crops. Thanks to this grassland, Lady Butterfly, Kajtek, and many other insects will have a place to stay. We can't be so selfish. Every animal has the right to its own home. If turning our fields into a grassland will help them, then that's alright.'

Soon, lots of insects came to the new grassland. After the rain, it was buzzing with life and the plants grew bigger. Butterflies, moths, bees, grasshoppers, and beetles had all gained a new home. Lady Butterfly and her friends performed an exceptional concert. Yes, it truly was an Ode to Joy!

How about you? Maybe you want to organise your Eco-Patrol too? Think about your garden or plot – where can you introduce biodiversity and plant mint, camomile, cornflowers, or red poppies? Talk about it with your parents. If you live in the countryside, maybe you can ask your parents or grandparents to arrange some ground for a grassland? Such places are very important for plants and animals – even more so than you might expect.





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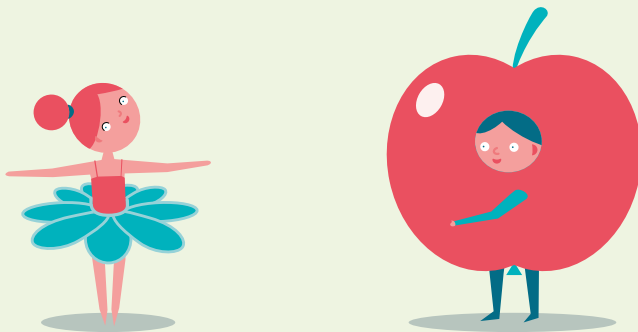
Did you know ...?

Flowers

Kids, do you know how important flowers are?

They are very important for us and for many other animals, such as insects (like Lady Butterfly) or our 3 rabbit friends of the Eco-patrol.

Flowers can turn into vegetables, fruits or seeds (e.g. poppy seeds, sunflower seeds etc.), so in the end flowers provide good and tasty food.



Where can we find different kinds of flowers?

In fields or meadows?

Can you imagine if you were to eat just one kind of food (like Brussels sprouts) all your life?

What is your favourite food? (Discussion.)

Everybody likes to eat something different, right?

Biodiversity

Different insects also like different kinds of flowers. If we have just one kind of flower in the fields, as often used to be the case, then the insects will be confused.

Do you remember how Lady Butterfly was confused?

'Diversity' means 'variety', and it is important for all of us. A place, such as a meadow, that is diverse and full of different forms of life (known as 'biodiversity') will also be healthier.

Chemicals (Pesticides/Herbicides)

*Which do you think smells better?
A natural meadow full of flowers, or
a fertilised meadow full of chemicals?*

People usually use chemicals in their fields to keep weeds and pests from destroying their crops and to add more nutrients to the soil.

But is it safe? It could hurt the insects and animals that live there and can even cause us humans many health problems.

*Do you remember what
happened to Lady Butterfly in the
story when Daddy rabbit used
the chemicals?*

*Do you think that it is good to use
chemicals? Probably, NO.
Instead, we can find different
ways to protect our crops. Do you
remember the story? Or do you
have any other ideas?*

For example, you could plant different types of flowers so that the unwanted insects will choose them rather than the crops.

On the other hand, some insects dislike the scent of certain flowers. A good example is the ornamental plant Tagetes – with its aroma, it protects onions, garlic, carrots and other species. This way, both will stay safe.

Kids, all of us can help flowers and insects, like our Lady Butterfly. Do you have a garden or a small natural meadow near your home? By sowing and maintaining wildflowers, we can create colourful environments and help insects and other animals at the same time.

As a reward for your interest and care, you can enjoy a very tasty and fragrant herbal tea (e.g. achillea, clary, etc.).

Together, we can make as good a team as our Eco-patrol friends. Razem możemy osiągnąć równie dużo, jak nasi przyjaciele.



The life story of the endangered Beluga

Tola, Pola, and Rascal went on a sailing trip down the River Danube. The Danube is one of the longest rivers in Europe, and it flows through 10 countries! It originates in Germany, crosses Austria, Slovakia, and Hungary to finish its course far away in Romania and Ukraine. Rascal had heard about the picturesque national parks located along the river, the enormous poplars growing near its banks and the habitats of the extraordinary birds that live there. So he convinced his two friends, Tola and Pola, to join him on his river trip.

‘This will be the best autumn adventure we could ever imagine!’ said Rascal, smiling widely at the helm.



Tola and Pola loved wild places. Places where you can encounter nature untouched by human hands, which not too many people dare to visit. A sailing trip down the Danube seemed so exciting!

The two girls brought beach chairs to the bow and sat down to sunbathe. It was a perfect time to relax, as the next picturesque place worth seeing was several kilometres ahead. Suddenly, the tranquillity was interrupted by Rascal as he sped up without warning. The boat jumped forward, spilling the lemonade Tola was drinking all over her fur.

‘Aaaargh! Rascal! Are you crazy?! Slow down! Why did you speed up like that? I spilled all my lemonade on my fur!’ yelled Tola in discontent.

‘Why did I speed up? You asked me to, you shouted for me to give it more speed.’

‘What? I didn’t say any such thing! Don’t fool around!’

‘You did, I heard you!’

‘It wasn’t me!’ insisted Tola.

Rascal slowed down the boat, thinking that Tola and Pola were making fun of him.

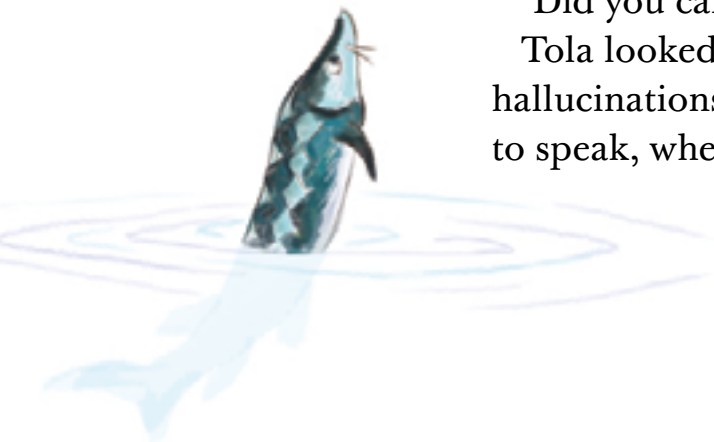
However, after a while, he heard it again: ‘Speed, please! Speed, please!’

‘Tola, is that you?’ he asked.

‘What?’

‘Did you call “speed, please” again?’

Tola looked at the doggy in surprise. Either their friend was having auditory hallucinations, or he was joking. But it wasn’t funny at all. The kitten was about to speak, when she and Pola heard the same voice. But this time it didn’t sound



like “speed, please”, but more like... oh no, was that really “stop, please”?! Was someone calling for help?

‘Rascal! Stop the boat! Turn the engine off! I heard something; I think someone’s calling for help!’ cried Pola.

‘Oh no! Maybe someone is drowning?’ said Tola.

The three friends looked around carefully, but didn’t see anything unusual. Finally, when they were about to give up, they heard a distinct call for help.

‘Stop, please! Can you help me?’

When the three friends leaned over the port side, they saw a really big fish swimming up to the water’s surface.

‘Hi! Did you call for help?’ asked Pola hesitantly.

‘Yes! Oh, I’m so glad you heard me!’ answered the fish. ‘I’m Raluca, Beluga Raluca. I got lost! I’ve been searching for my friends for two days and I can’t find them anywhere...’

‘Oh, my poor fish! Can you remember when you last saw them?’ asked Tola, moved by what the fish had told them.

‘Right in front of the Gabčíkovo Dam.’

‘What were you doing there?’ Tola wanted to know.

‘I come from the Black Sea, which is very far away from here. To get there, I must cross Hungary, Croatia, and Romania. I came here with my friends to spawn; it means to lay eggs. You know, fish eggs are called roe, and from these eggs our children – little belugas – will be born. We’re almost 20 years old and mature enough to have children. My friends and I decided to embark on life-defining adventure – the one we heard of from our grandparents.’

‘So, you swam several thousand kilometres to have children? I mean... to lay eggs and wait until the little belugas hatch?’ asked Rascal hesitantly. ‘Animals usually don’t leave their homes and shelters just before they give birth... and you crossed half of the continent?’

‘Well, fish are different,’ said Raluca. ‘Belugas always swim into rivers to spawn. We live in the Black Sea, but lay our eggs at the bottom of rivers, far from the salty water. Nowadays most belugas only manage to reach Romania, sometimes Croatia, and they lay their eggs there. After that, they go back home. There are several dams on the Danube, and crossing them is virtually impossible. My friends and I wanted to cross all the dams and reach Slovakia, just like our ancestors many, many years ago.’

‘Well... if you saw your friends before you crossed the dam, maybe they’re still there? Did you swim back to check?’ asked Pola sensibly.

‘No... my problem is that I can’t!’ Raluca started to cry. ‘I’m the youngest and the smallest of all my friends. Because of this, I managed to swim into a very thin fishway and get to the other side of the dam. But there were so many stones and other obstacles in this passage, that I’m sure if I went back, I would die.’

‘Oh no... this doesn’t sound good.’ Rascal was visibly worried. The three friends immediately started to think of a plan...

What could they do to help poor Raluca? They couldn’t leave her there alone.

‘I’ve got an idea!’ said Pola. ‘Raluca, maybe you can swim with us, on our boat? We’re heading towards Hungary. We will cross the Gabčíkovo Dam on our way. There are special ship locks, that allow boats to safely cross the dam. What do you think, Raluca?’



‘We’ll pour water into the cabin so you can jump inside!’ added Tola enthusiastically.

‘Into the cabin?’ asked startled Rascal. ‘Wait, you mean our cabin? On this boat?’

‘Of course we mean our boat! Why are you so surprised? Come on, let’s find buckets and pour in some water!’

Tola, seeing that her friends were set on the idea, grabbed a bucket, tied a string to it, and started to pour water from the river into their cabin. They worked fast. They were so consumed by what they were doing, that they didn’t notice a small trawler approaching their boat. There were two bulldogs standing on the deck. They didn’t look friendly at all...

‘Hello. Do you have fire on board? We saw that you keep pouring water in,’ said one of the bulldogs, trying to peek inside the friends’ boat.

‘Fire? No, there’s no fire!’ answered Tola. She was about to tell them that they were preparing the cabin for Beluga Raluca, when Pola appeared on the bow and cried:

‘We’re washing the deck! We made such a mess yesterday! That’s all. What are you doing here?’ she asked, looking at huge hooks tied to the sides of the trawler.

‘We are going to the other side of the Gabčíkovo Dam. Our friends told us that they had seen a shoal of huge belugas somewhere around there. No one has seen them in the area for years. Maybe we’ll be lucky and catch one of them. Their roe is expensive, we could sell it!’

‘But... aren’t belugas an endangered species? Are you sure you can catch them?’ asked Pola cunningly.



The bulldog looked at Pola in surprise. He frowned.

‘And who are you to ask? The police or a tourist? You’d better mind your own business!’ he growled. ‘Let’s go guys!’ he called to his fellows. The trawler passed the friends’ boat and sped towards the Dam.

Several minutes passed before Raluca appeared again, now even more distressed than before. She quivered with fear. ‘Oh no! They’re going to get my friends! We need to warn them!’ she called, frightened.

‘Don’t worry,’ said Rascal. ‘Quick, jump in, the cabin is ready.’

Raluca swam to the back, then sped up and flapping her fins to jump on board. Tola and Pola helped her slide into the cabin. Rascal turned on the engine and they arrived at the Dam in less than an hour.

The Gabčíkovo Dam was truly huge, as it spanned the whole river. Pola flew in for a closer look at the fishway Raluca used to cross the Dam. Indeed, it was too narrow for bigger fish to swim through; the belugas had no chance of getting through it.

Our friends finally reached the ship lock. It took some time for the lock to close, but soon they were on the other side of the Dam, with the remaining ships and boats.

When they left the ship lock, Rascal immediately spotted the trawler cruising in front of them. The bulldogs must have used the same ship lock. There were so many ships around the Dam, that the three friends hadn’t noticed the trawler before. Now they decided to follow it. They were afraid that the bulldogs would hunt the belugas. The friends kept a safe distance and carefully watched the trawler.



After several kilometres, the trawler stopped. Rascal steered the boat into some reeds, to prevent the bulldogs from seeing them. They saw the bulldogs cast huge fishing nets.

‘Oh no! The bulldogs are catching the belugas! We need to do something!’

Pola was standing on the bow, and recording everything on her mobile phone. She ordered Tola to immediately call 112, the emergency number used across Europe. Pola knew that the emergency dispatcher would tell them where to report illegal fishing.

Soon, Tola was talking to the fish guard, calmly giving them the precise location of the poachers. This meant that within a few minutes the fish guard would find them. It was then that Rascal noticed that all of the poachers were leaning over the left side of the boat. Their trawler was swaying in the water, as if it was being pulled over by some strong force. They must have caught a really big fish!

‘Oh no... Raluca, I think they caught one of your friends,’ he said distressed. ‘The boat is barely above the water.’

‘Let me out, quickly!’ said Raluca. ‘I’ll help her. By the time the fish guard arrives, it may be already too late.’

The three friends carried Raluca out of the cabin and released her into the Danube. She immediately swam towards the poachers.

‘Push the trawler to one side!’ Rascal yelled to Raluca. ‘If your friends are big enough, they should scare the fishermen and they might cut off the net!’

Tola, Rascal, and Pola watched what was happening. They were sad that they could do nothing apart from calling for help. Then, they saw something strange



happening. The trawler started to sway so hard, that it looked like a ship in the middle of a strong storm! It was rocking side to side and back and forth. Huge fish started to jump out of the water all around the ship. They were the biggest fish Rascal had ever seen. They looked like dinosaurs! Oh well... okay, maybe not like dinosaurs, but they were surely as big as whales! Huge!

The poachers were really scared. But one of them still didn't want to give up. He took aim with a spear, hoping to catch one of the belugas. The terrified friends held their breaths. But then, a loud voice echoed in the distance.

'Attention! Everyone on the deck! Lower the spear!' a fish guard said through a megaphone. 'You cannot hunt fish here. You are aiming at a beluga, a protected species. I repeat, lower the spear!'

The bulldogs, surprised by the presence of the police, didn't want to be caught red-handed. Before the police reached their trawler, the poachers had quickly cut their nets.

'We were not hunting, sir. It's not our fault that a beluga got caught in our nets. We were only protecting our ship and ourselves,' said one of the bulldogs.

The poachers tried to give an explanation, but the fish guard didn't believe them. They realised what had happened on the trawler and wrote tickets for all the fishermen. Tola, Rascal, and Pola, seeing that everyone was safe, decided to carry on their trip. They continued down the River Danube.

In the evening, when they anchored the ship by the riverbank, Rascal jumped into the water to refresh himself. Suddenly, the water started to bubble. Then a whole shoal of belugas appeared next to their quay, the small pier to which

they had moored. Raluca swam up next to Rascal and carried him to the shore on her back.

‘Oh, Raluca!’ Rascal was happy to see her. ‘It’s good to see you! I see you found your friends! What are you going to do now? Are you staying, or swimming back home to the Black Sea?’

Just then, a huge beluga reared her head above water. She looked like the oldest of the fish and she was surely the biggest – almost as big as the friends’ ship!

‘I think that the smallest of us will go back to the Black Sea. The rest of us will stay somewhere around here – between the dams. Until people build bigger and safer fishways, we have no chance to go back home,’ said the biggest beluga and thanked the three friends for helping Raluca and the rest of the shoal.

‘Oh dear, poor belugas!’ meowed Tola. ‘It’s not fair. As soon as we come back from our holidays, we will find out what to do to help you!’

‘Although we’re young, we can tell the adults about your plight. We can also organise a contest for picturing the rarest fish species in Europe... or for a poster presenting belugas. Children always have some amazing ideas!’ said Rascal enthusiastically.

‘We belugas live for 100 years. We will wait for your initiative. We hope to live long enough to be able to migrate to the whole of Europe again, just like our grandparents did. Goodbye!’

All the belugas waved goodbye with their fins and disappeared into the Danube.



Did you know ...?

Kids, did you know that this Raluca the Beluga, is a real fish still living in the Danube Delta?

Raluca lived in the salty Black Sea, but our three friends, Tola, Rascal and Pola, met her in the River Danube near Bratislava (Slovakia), very far from her home 1,800km away. In the past, 400 years ago, a magnificent natural spectacle took place every autumn in the River Danube. Hundreds of huge fish swam tirelessly upstream! Do you know why?

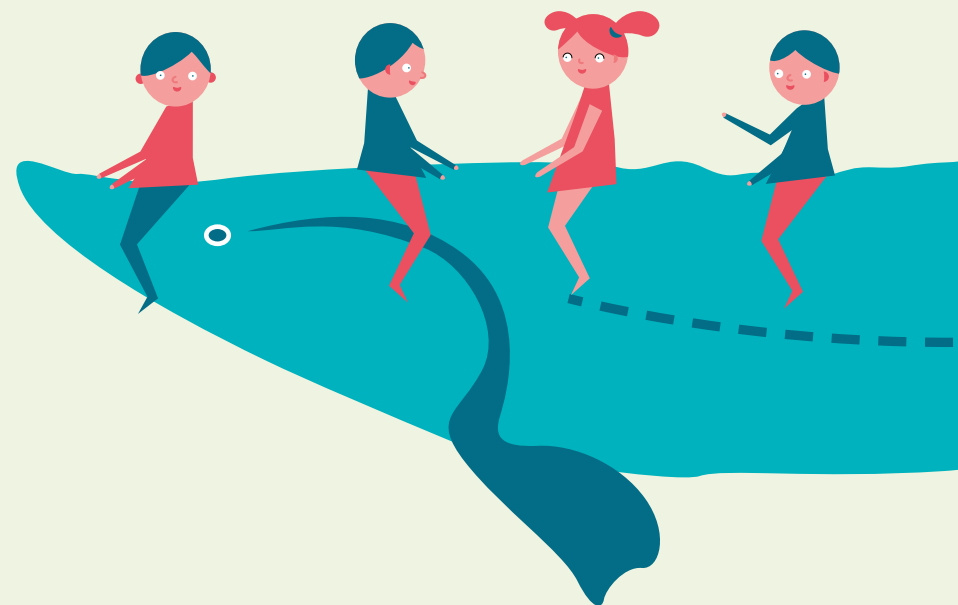
Try to imagine that you are a fish. A really huge fish!

The friends and family of Raluca the Beluga belong to the biggest freshwater fish species in the world. The adult fish are as long as 8 kids like you (8 m), and, once they are 15 years old, they are ready to become a mum or dad and have babies. But this is not possible in their home in the Black Sea, so they must swim far away. This species spawns every 3-4 years, and afterwards they swim 3,600 km home again! Imagine that! They just know the right direction to swim and the right time to leave. This migration used to happen twice a year, in spring and/or autumn. The first time they make the trip, they do not know where they are going and there are many dangers on the way...

Do you remember what kind of dangers?

There is a huge concrete wall across the Danube River – the Gabčíkovo Dam. Raluca was only able to cross it thanks to her very small size. In fact, there are no special channels for fish – called fishways – to swim safely or to cross the dam. The dam complexes consist of weirs, spillways, ship locks and hydropower stations.

Finally, Raluca did it, but there was another danger. Do you remember, kids, what the 2 biggest dangers were for Raluca the Beluga? First, the huge dam across the river and, secondly, poachers. Poachers! The Beluga used to be fished with fences and nets, and the giant fish were herded into shallower waters by banging and screaming noises. Many years ago, they were hunted for their skin and their high-



quality meat, which was eaten even during the period of fasting. Today, the caviar (fish eggs) has a high value – it is one of the world's most expensive foods. Unfortunately, this led to overfishing in the Beluga's natural habitat.

The Belugas will not survive unless poaching pressure is reduced, and both migration routes and habitats are protected and restored.

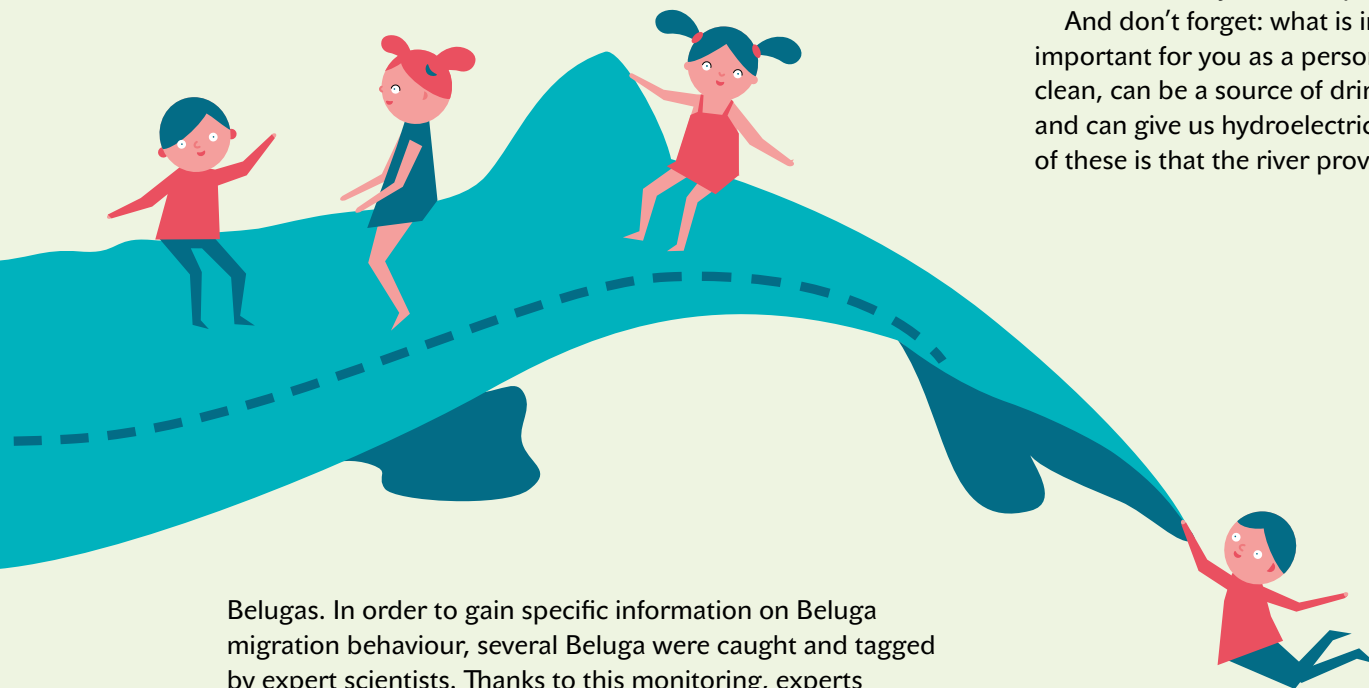
It is not easy, and sometimes not even possible, to demolish the dams, but there are some solutions to help the

But scientists still don't know how the Belugas would return to the sea, though sailing chambers could perhaps be used.

And what can you do, kids?

You can be more interested in aquatic life now that you can see how interesting this species is, especially in its prehistoric lineage! You can also protect rivers and their environment in your home/city/country in many ways.

And don't forget: what is important for a fish is also important for you as a person. Only a healthy river can be clean, can be a source of drinking water, can be full of fish, and can give us hydroelectric power ... and remember, each of these is that the river provides for free!



Belugas. In order to gain specific information on Beluga migration behaviour, several Beluga were caught and tagged by expert scientists. Thanks to this monitoring, experts suggested how to help them to migrate upstream:

- **To make special fishways at different locations,**
- **To modify existing structures (e.g. ship locks),**
- **To prepare other alternative (temporary) solutions, e.g. trap and truck**

Time is up, we need to act



One night Rascal, Tola and Pola were so excited that they could hardly sleep. In two days one of their friends was supposed to give a speech in front of the most important people from across the world. In two days one of the members of the Eco-Patrol was to present the position of kids on the issue of climate change. The COP24 conference was going to be held in Katowice. It was the leading meeting on climate change; not only adults, but also representatives of children and teenagers were invited to participate in discussions of solutions to global warming.

It was a very important event for Tola, Pola and Rascal. They had been members of the Eco-Patrol for a long time. They were keeping in touch with children from all around the world via the Internet. They found out how

burning fossil fuels and cutting trees impacted the lives of their friends in Africa, South America, Australia and Asia.

‘Rascal get a move on! We’re going to be late! Nicodemus, the bear from the Arctic, is talking first. I don’t want to miss his speech,’ said Tola, hurrying Rascal along.

When they got to the conference, almost everyone had gathered in the hall. The meeting was hosted by Pola, who stood at the podium. Children from all around the world were sitting in a huge hall. Tola and Rascal saw a polar bear from the Arctic, a rhino from a savannah, a camel from a desert, a lynx from a forest, and even a few fish in special environmental suits which allowed them to breathe outside water. Tola and Rascal didn’t want to push through the crowd, so they decided to sit next to a young reindeer. They recognized her at once: it was Greta, their friend from Sweden. For several months she had been organising Friday school strikes aimed at making adults realise they needed to act against climate change.

Suddenly, they heard a bell and everyone went silent. Pola stood in front of the crowd.

‘Dear friends!’ said Pola ‘I hereby open today’s meeting and introduce the first speaker, Nicodemus from the Arctic. He will talk about how global warming affects his life and the life of his family. Nicodemus, the floor is yours,’ announced Pola, addressing the polar bear, who walked towards the podium.

‘Good morning,’ Nicodemus looked at the audience. ‘I will get straight to the point. If the temperature on Earth keeps increasing, my friends and I will die.’

‘What? They’ll die?’ asked Tola quietly, leaning towards Rascal. ‘Don’t you think he’s exaggerating?’

Rascal shrugged, as if to tell her he hadn’t expected that global warming was such a serious issue.

‘My home – the Arctic – is beautiful,’ continued Nicodemus. ‘The sun doesn’t shine for half of the year, but I don’t mind. I have a thick layer of fat under my skin and thick fur so I can stay warm. I really like eating seals, and the winter is the perfect time for hunting. Seals can’t breathe under water, so they cut holes in the ice. I wait by these holes and when the seals show up above water, I catch them. Now that the ice sheets in the Arctic are melting, I have less and less space to set traps. And catching a seal in the open sea is a real challenge! I’m really concerned about what my hunts will look like in a few years. People don’t care about the Arctic. No one lives there for more than a few months because of the cold. The Arctic is my home, and the home of my family and friends. Please, we need to do something to stop global warming!’

The second speech was given by a kangaroo from Australia and a camel from Africa.

‘Hello, I’m Kate the Kangaroo and this is Victor the Camel,’ the kangaroo began. ‘We were supposed to give separate speeches, but it turns out that even though we live on different continents – very, very far away from each other – we are facing the same problems; droughts and scorching heat.’

I’m a camel,’ said Victor. ‘My family has been living in the desert for ages. Half of my home country, Egypt, is covered by the sands of the Sahara. We camels, are perfectly adjusted to droughts.’





‘Australia is also a dry continent,’ added Kate. ‘In the middle of it, there’s the Great Victoria Desert. The whole continent looks like an uneven pizza. If we poured the pizza sauce on it, it would cover the whole space except for a few bumpy areas and the edges. Deserts and dry steppes cover most of my country. Only its coasts are green and fertile, and perfect to inhabit.’

‘Kate, our relatives, and I are used to hot weather,’ said Victor. ‘My family used to travel across Africa in camel caravans. My grandfather could cross the whole desert without a sip of water. And the journey could take as much as 20 days,’ explained the Camel.

‘Kangaroos can jump on hot sand,’ added Kate. ‘We don’t mind the scorching heat. But because of the climate change, something bad has been happening. This year the temperature in the desert rose to 50°C! That’s too much! Small streams and ponds dried up and because of the lack of grass and other small plants, animals had nothing to eat. Without any shade to give shelter, without water and food, the animals will not survive. So many kangaroos and cows died this year because of the lack of water and grass...’

The young audience listened to Kate and Victor in complete silence, but when they finished their speech, everyone sighed in dismay. Even Rascal, who usually pretended that he didn’t care about anything, was really concerned.

Many other animals gave their speeches after the Camel and the Kangaroo. They all talked about the lack of water, rivers drying up, droughts and fires. Their stories moved Tola and Rascal. The rise in temperature not only meant worsening living conditions, it also meant that animals might die! What the two friends heard sounded like the approach of the apocalypse!



One of the last speeches was given by Timothy the Tuna, who came to the Conference straight from the ocean.

‘Hello, everyone,’ he greeted the audience. ‘I bet many of you are wondering what a fish is doing at this meeting. After all, the water is only one degree warmer, so this shouldn’t really impact my life. So why am I here?’ he asked.

Tola looked around. Most of the audience didn’t know why a fish from the ocean would come to the Conference. Climate change didn’t seem to bother them.

‘I came here to make you realise that the main things saving us from the climate catastrophe are the seas and oceans. For years they have been absorbing the dangerous gas which you emit on land. This gas is carbon dioxide. If it had stayed in the air, the temperature on Earth would be much higher. Yet most of the aquatic animals and coral reefs still face a real problem. I dare say they’re as severe as here on land. Fish who can migrate to cooler areas can survive. Those who can’t, die. If this continues, we will all slowly die out.’

Everyone in the hall was deeply moved by Timothy’s speech.

If the situation was so serious, then why was nobody acting? If fish and other animals died from either droughts or heatwaves, why wasn’t anyone trying to stop it?

But what could the young activists do to stop climate change and help the Conference’s speakers? Should they ask adults to stop logging trees? Should they organise strikes? What could they do?

Suddenly, the voice of Greta – the young reindeer from Sweden – broke through the noise and babble.

‘I think it’s time we finally said what we all think about climate change! I think it’s time adults saw that we care about our planet and we don’t want to die because of their negligence! We need to demand changes not just ask for them. If we show that we’re united, that we will take action all around the world, and believe in what we say, we will make a difference!’

Pola, the host of the meeting, suggested that all children and teenagers take part in the adults’ debates during the following days and prepare their speeches. There was a chance that the politicians, scientists and entrepreneurs also wanted to change the world for the better.

The next day Rascal, Tola and Pola took part in the meetings of scientists and politicians. Almost all of them agreed that something needs to be done; that people should stop cutting trees and reduce the burning of coal. Our friends were glad to hear that, but... this, unfortunately, was not to last for long.

At the end of the day, Tola, Rascal, Pola and Greta were supposed to attend the evening activist meeting. Right in front of the entrance, Tola realised that she didn’t have her bag.

‘Oh no! I’m so sorry, I need to go back to the conference building. I left my notes in my bag, and I don’t want to lose them,’ she said.

The three friends didn’t want to leave the kitten alone, so they all decided to go back to the building. A friendly doorkeeper waved at them and asked them to hurry up. They quickly slipped inside the hall. They were enthusiastic about the adults’ attitude towards climate change.

While on their way back, they noticed a light in the small room next to the main entrance. A few delegates from different countries were discussing the agreements proposed during the Conference. The four friends didn't mean to eavesdrop, but the door was open, and the delegates spoke quite loudly. By accident, they heard something that both confused and terrified them.

First, they heard somebody speaking with a foreign accent.

'We don't believe in climate change. I think that the companies selling air purifiers are deliberately exaggerating when they say that the situation in the world is so bad. Droughts are nothing new. Reducing the production of crude oil will be devastating for my country! If we didn't sell crude oil, our government would lose billions of dollars. We will not sign any agreement.'

Another person spoke in a similar manner.

'I think climate change is real. But my country's economy is based on coal. We have lots of mines which create jobs for thousands of miners. Air pollution hasn't killed anyone yet and my party would lose the next election if we closed all of the mines. We'll build two windmills and the ecologists won't pick on us. Our country is based on coal and nothing will change that!'

'That's right,' agreed the third delegate. 'The ecologists don't know how much we would need to pay for green energy. Windmills, solar panels and nuclear power cost billions of dollars. No one wants to pay higher bills for electricity and heating. Polluted air and contaminated water in the oceans are better than expensive electricity. I'm sure that the animals would prefer to wear protective masks rather than pay 10 dollars more for bills.'

CONFERENCE
HALL # 5



Greta could not bear to hear anymore; she swung the door open. The delegates looked at the four angry kids in surprise.

‘Have you calculated how much we have to pay for doctors who treat asthma and other respiratory diseases?’ Greta asked angrily. ‘Have you calculated how expensive the contamination of seas, oceans and the death and extinction of thousands of animals and plants is? I bet you don’t have these numbers in your documents, but these are the real costs of climate change! I’m ashamed of you! You think you represent animals from around the world? Well you don’t. The only thing you represent is money!’

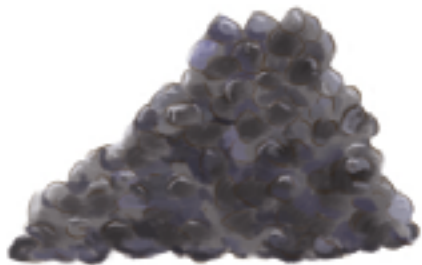
Greta stood boldly in front of the adults. This shy reindeer must have gathered enormous strength to overcome her fear and face such important adults.

Rascal, unsure of how the delegates would react, slammed the door and took his friends’ paws.

‘Let’s go, we shouldn’t be here,’ he said.

You can imagine how devastated our friends were. They cried the whole night. They couldn’t believe that so many important people really thought that way. They couldn’t believe that despite so many reports, meetings with the scientists and horrifying messages from all over the world, these people didn’t want to take any action to stop climate change and save the Earth.

The next day the members of the Eco-Patrol were supposed to choose one representative to present the position of kids on the issue of climate change. The animals debated who they should choose. Should it be the polar bear who was



a member of an endangered species, the tuna from the acidified ocean, or the kangaroo from the desert? After long talks, they decided that the speech should be given by the shyest, yet the bravest animal – Greta.

‘Ladies and gentlemen!’ announced the Lynx. ‘Let me introduce Greta from Sweden, who has been involved in strikes against climate change. Greta is the representative of children.’

‘You’re gonna make it!’ called the Bear.

‘We are keeping our fingers crossed for you!’ added the Camel.

Greta looked at her friends. She – the little, shy Greta from Sweden who had been working for months to encourage everyone to fight for the environment – was supposed to tell the adults how important climate change is for her and how important their actions are.

When Greta went to the podium, everyone applauded. It is not easy to talk about things that will make others sad. It is hard to talk about things that can make others angry. But we should talk about important issues – and we should do it out loud.

‘My name is Greta Thunberg. I am 15 years old. I am from Sweden. Many people say that Sweden is just a small country and it doesn’t matter what we do. But I’ve learned you are never too small to make a difference. And if a few children can get headlines all over the world just by not going to school, then imagine what we could all do together if we really wanted to. But to do that, we must speak clearly, no matter how uncomfortable that may be. You only speak of green eternal economic growth because you are too scared of being unpopular.’



You only talk about moving forward with the same bad ideas that got us into this mess, even when the only sensible thing to do is pull the emergency brake.'

Greta fell silent for a while. She gathered her strength as she was going to say something very difficult. After a second, she continued in a clear, firm voice.

'You are not mature enough to tell it like is. Even that burden you leave to us children. But I don't care about being popular. I care about climate justice and the living planet. Our civilisation is being sacrificed for the opportunity of a very small number of people to continue making enormous amounts of money. Our biosphere is being sacrificed so that rich people in countries like mine can live in luxury. It is the sufferings of the many which pay for the luxuries of the few. We have not come here to beg world leaders to care. You have ignored us in the past and you will ignore us again. We have run out of excuses and we are running out of time. We have come here to let you know that change is coming, whether you like it or not. The real power belongs to the people.'



Did you know ...?

The tale you have just read is a very important one. What you heard from Greta the Reindeer at the end of the story is a real speech by Greta Thunberg.

Greta comes from Sweden; she's only 16 years old and goes to school, just like you. Every day after classes and at the weekends she encourages young people from all around the world to protect our planet. In 2018, Greta came to Poland to take part in a very important climate change conference – COP24 – organised in Katowice. She delivered her speech in front of the representatives of all the attending nations.

Is what the Camel, the Kangaroo, the Tuna and the Bear said about climate change real?

Unfortunately, it is. Climate change is becoming more and more visible. The temperatures are slowly increasing, causing local weather changes. The areas which used to be cold are getting warmer; the places which used to be warm are being devastated by scorching heat. Droughts and hurricanes are more frequent than in the past and the glaciers are melting. If you live in the city, you may not notice climate change. You have running water and lots of food available in shops. Everybody likes when it's warm in the summer and they can swim in a warm sea or lake. But outside the city you will notice huge changes.

What exactly is climate change about? Its consequences are numerous; you can discuss them with your parents or teachers.

– There is less and less water in Europe, as it rarely rains. When it eventually does, it is not a just brief shower but

a downpour (Terka the mouse and Tyk the snail discussed this issue).

– Plants and trees wither and dry out because of the high temperatures and the lack of rain. People and animals have less and less food (the Camel and the Kangaroo discussed this issue).

– The water from melting glaciers causes sea levels to rise. Everybody thinks that a few centimetres are not that much. Unfortunately, they're wrong. Rising sea levels will lead to the disappearance of many islands.

If you and your family ride a bike or take a bus instead of driving a car, you will reduce the amount of exhaust fumes which pollute the air.



If you start saving water now – for example by pouring water into a glass when you wash your teeth, instead of using running water – in a month you will save!

Talk to your friends about the importance of separating litter. Encourage them to do it.



If you encourage your teachers to organise Earth Day, over 100 people will do something good for our planet.



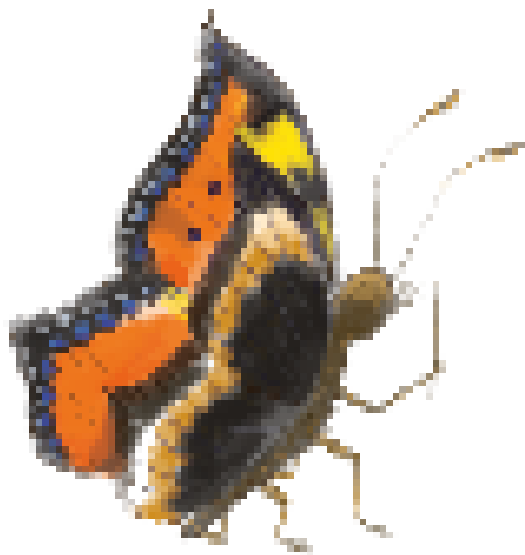
Can anyone be too young to make a difference? Can children stop climate change? We believe so! No one is too young to act, but it is difficult to be the first person who wants to change something.

Everyone can have a positive impact on our planet. You are never too young to change something in your homes, yards and at school. Let's act! Ask your parents and teachers what you all can do to stop climate change. Maybe one day we will write a tale about you, and your actions will become a shining example for other children!



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No one is too young to help the environment

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