

Teaching Material on Biodiversity Conservation (TMBC)

Titel: Shadow in the night

Author: Heye Otzen

Quality Assessment: Carsten Hobohm (UF)

Level: primary school

Type of material: Story, questions to children and active participation

Aim: to develop an emotional relationship to the animal, to process an idea of animal protection with respect to the bats, support subject-specific, knowledge acquisition, communication and evaluation skills (The teacher reads out the story to the schoolchildren)

Shadows in the night

It is 6 pm in the evening as dusk sets in and Silke and Carsten go for a stroll to their favourite playground.

Suddenly a shadow flutters across Silke's head and nearly hits her. Frightened and looking for shelter, she jumps behind Carsten.

Silke shivers and shouts, "Carsten, what was that? It wasn't a normal bird, was it?"

Carsten is shaking with laughter and says, "Silke! There is no need to be scared! That was just a bat. Bats are the only mammals which are able to fly. Their wings are shaped like our hands, apart from the skin they have developed between their fingers, which helps them to fly. Without wings their body would look like an ordinary mouse."

Silke doesn't know that Carsten is an expert on bats. His interest in bats started with a film about vampires, undead people who suck other people's blood and have the ability to change their shape from human-like to bat-like. Just like Silke, he thought bats were dangerous animals. But since then he has read many books about these little night creatures. He knows that Germany is the habitat of about 20 different species of bats. He even knows that in South America some bats behave like real vampires. They bite animals to suck their blood.

As if he was prepared for this incident with Silke he pulls a little photograph from his pocket and shows it to her.

"Here, take a look at this photograph", he says. "I ripped it out of my favourite book. It is called "A million cries unheard - The secret language of bats".



n.a. (2002): Big eared townsend bat (*Corynorhinus townsendii*) (<http://commons.wikimedia.org/wiki/File:Big-eared-townsend-fledermaus.jpg>; 26.01.2014)

Silke looks at the photograph and sees a little furry creature with widespread, leathery wings and, to her surprise, extremely big ears.

"They look really scary with their big ears and their tiny sharp teeth! They look like dangerous animals."

Carsten realises that Silke is absolutely clueless about bats. He takes the opportunity to impress her with his knowledge and starts to explain.

"Don't worry Silke. Bats are absolutely harmless. Catching little flying insects is all they use their little teeth for.

"Are you sure?" Silke asks doubtfully. "It's almost dark. I can't see any insects flying around here. So how could they?"

Carsten does not often have anybody to talk to about his favourite animals. He enjoys sharing his knowledge.

"You know, since the sunlight is almost gone at this time of the day, bats can't use their eyes to see their prey and orientate themselves. That's why they have developed other methods which allow them to fly and hunt safely in the dark. They produce very loud sounds. But we are not able to hear them because the sounds they make are so shrill. The echoes of these

sounds are reflected by trees, houses and animals. Their huge ears give bats the ability to trace the echoes and so to recognise the things that cause them.

Silke is still not convinced. “Carsten, that sounds really spooky! Why should I believe you?” For the second time that day Carsten is well prepared for the situation and to relieve Silke’s doubts about his story. He pulls out his mobile phone on which he has saved a copy of an audio recording.

The teacher may use an audio recording in order to give an impression of the ultrasonic sounds of bats. In this audio the ultrasonic sounds have been made audible for humans

*n.a. (2005): Ultrasonic calls (ca. 40kHz) of a bat while hunting
(http://de.wikipedia.org/wiki/Datei:Ultrasonic_bat_calls.ogg; 26.01.2014)*

Silke is really impressed. “Carsten, you were absolutely right. Bats are such fascinating animals.”

But then Silke notices a sad look on Carsten’s face. “Carsten, what is wrong with you?” she asks.

“You are right Silke”, he replies. “Bats really are my favourite animals. But they have become so rare.”

“Why?”

“It is because the insects they eat have become rare and so have the plants on which the insects thrive.”

Silke is astonished by Carsten’s story. She asks him to tell her more about the disappearance of the bats, the insects and the plants.

He tells her that farmers poison many weeds, flowers and insects. They do this in order to have higher crop yields. But their behaviour affects other beings, like the bats which suffer from a lack of insects to eat.

“Even worse, we also destroy their homes by cutting down hollow old trees and by sealing the roofs of our houses. But these are the only places where bats can survive the winter and raise their offspring,” he said.

As Silke listens carefully her face takes on a serious expression.

“Carsten, we need to help the bats survive! How do we get started on this?”

Assignment of tasks

How can Silke and Carsten help the bats to survive?

- 1. Generate ideas to help the bats survive and collect them on the blackboard*
- 2. Explain the ideas and discuss the different ideas within the class in order to repeat the newly learned knowledge.*
- 3. Encourage the children to take action. Plan a trip to a nearby forest or a conservation area. Let the children prepare nesting boxes for bats and organise their monitoring.*