

Classes at the zoo on biodiversity

A lesson at the zoo can help children to understand what biodiversity is and to what they can do to help, research shows. 'Active preparation in class generates understanding and commitment among the pupils.'

TEXT TESSA LOUWERENS

The best bit was observing the animals in the zoo,' says Fiene (13). 'And it was different because I'd been taught about biodiversity and I had a booklet with me that teaches you a new way of looking at animals.' Fiene and her class took part in a three-year study on teaching children about biodiversity, which WUR conducted in collaboration with zoos and schools. 'A lot of children have heard of biodiversity, but research shows that often neither teachers nor pupils really understand what it is,' says Rebekah Tauritz, a researcher in Education and Learning Sciences at WUR. How can you expand children's understanding of biodiversity and what it means, so they realize how important it is to protect biodiversity, and what they can do to help? The study, which ran from 2019 to 2022, involved 695 pupils from the top three classes at 19 primary schools in the area around Ouwehands Zoo in Rhenen. Some followed a course that included a lesson at the zoo, while others only had lessons at school. Otherwise, the curriculum was

almost identical. There were also four control classes that went to the zoo but didn't get any lessons on biodiversity. After the course was over, the pupils were asked to explain in their own words what biodiversity is, why it is important, what is threatening it and what they could do about it. The preliminary results of the study show that it is important that the session at the zoo is part of a course of lessons. A visit to the zoo is not enough by itself. Tauritz: 'It is the active preparation in class that generates understanding and commitment among the pupils.'

THE GIANT PANDA

The essential elements in this were stories, videos and images of eight endangered species including, of course, the giant panda (whose arrival in Rhenen prompted the instigation of the project in the first place.) The pupils came up with several key criteria for deciding whether they wanted to go into action on behalf of a species. Among them were its inclusion on the Red List of endangered species,

their knowledge of the animal's role in the ecosystem, and interesting facts about the animal.

In the event, it was not the giant panda but the axolotl that fascinated the pupils most. This salamander is on the Red List of severely endangered species. It is only found in one lake in Mexico, which has been heavily polluted by humans. The axolotl's superpowers include being able to regenerate its limbs, organs and even its brain. It is not just the pupils who are impressed. Medical science is taking an interest too, because the axolotl is also particularly resistant to cancer.

LEARNING PROCESS

But the animals were not the only focus of Tauritz's research. Another finding was that visitors to the zoo have a part to play in the children's learning process too. 'The pupils asked the visitors whether they thought zoos should contribute to the protection of biodiversity,' says Tauritz. 'They often had to explain what biodiversity meant before the visitor could answer the

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question. That is a terrific form of learning that can sometimes occur spontaneously. In short, zoos provide extensive opportunities for supplementary experiential learning.'

INTO ACTION

After the lessons, the pupils were more eager to take action for biodiversity, even if they didn't always know how to go about it. 'That is precisely why we include how to draw up a simple action plan in the lessons,' says Tauritz. 'A lot of pupils say that thinking about such a plan helped them to see what they could do for biodiversity.' For example, after finding lots of dead bumblebees in their school playground, children from one of the schools made flyers about the effect of pesticides.

The course (Bio-diversi-WHAT?!) was offered to all the members of the Dutch Association of Zoos and to Dutch nature and environmental education centres just before the summer holidays. 'The zoos are free to adapt the course materials to the endangered species that they have themselves,' says Tauritz. 'As long as they stick to the core material in the curriculum.' ■

DONATIONS

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