



Sparkling Science >

Science linking with School
School linking with Science

Final Report, December 31st 2010

**Climate Change: the Impact on
Birds' Behavior and Reproduction**

LEADING INSTITUTION

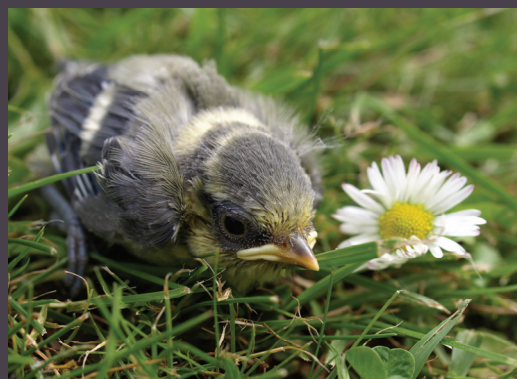
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Austrian Federal Ministry of
Science and Research

A Birds-Study in the Viennese Forest: Pupils investigated the Influence of Climatic Factors on Birds' Behavior and Reproduction

The project was an all year round investigation with a peak during April and May. There were several main duties of the pupils during the project.

To build and to set up nest boxes was done by pupils of different levels together with their teachers and the scientists of the Konrad Lorenz Institute.

Drawing a map of the study area and setting up the climate station were basic steps to be done in the beginning of the project. It was done by pupils together with their teachers and scientists.

Recording vegetation development and estimating the insect abundance during the spring seasons 2009 and 2010 were one of the most important things beside the work with the birds.

Attending and assisting during bird trapping, measuring birds, and estimating reproductive parameters were the most important part of the project.

Finally, pupils of specific classes collected the data and analyzed them.

Commentaries of Pupils

- Holding blue tit babies in the hand is really exciting.
- Nestling blue tits are incredibly tiny and cute.
- I liked building the nest boxes.
- The best thing was painting the nest boxes.
- The best of all is that now I am a real expert in blue tit biology.
- Working together with the scientists is very interesting.
- I can talk to the scientists in English.
- Every morning, I first visited the video monitor to see how the blue tit babies do in their box, particularly during the bad weather. That was thrilling.



- A woodpecker tried to eat our blue tit babies but he could not enter the entrance hole.
- Hitting the insects off the trees into an umbrella was very funny.
- Visiting our nest box every morning with my friend and seeing what was new was very interesting.

Commentaries of Parents

- When you arrive at the school at about 7.30 in the morning the whole forest is full of kids observing birds – that looks funny.
- Now I have to bring my son even earlier to school than before – is this really necessary?
- My son is now bothering me to install a nest box in our garden.
- My daughter wants to know, which bird species may breed in our garden.
- The idea to produce live picture from a nest box to a video monitor in the school is very nice – sometimes I am there to watch them myself.

Project Highlights

The project was awarded with the *Sparkling Science Award* on October 26th 2010, by the Minister of Science, Beatrix Karl. The project was further nominated to the mile stone prize of Lower Austria.

The project resulted in one “Fachbereichsarbeit” and two diploma theses.


Furthermore, one manuscript was submitted to an international peer reviewed journal.

We already had some presentations at conferences: Vienna, Salzburg, Almeria (Spain), Adelaide (Australia).

Our project received quite some media attention (ORF, Kurier, Standard, Economy, NÖN...).

Our first results show that blue tits are very sensible to short term changes in weather conditions. In fact, we found several behavioral mechanisms, how they try to reduce the effect of bad weather. It is not only the birds but also their main prey, namely butterfly caterpillars, which suffer from bad weather conditions. Our future investigations will show whether long term climate changes will effect blue tit reproduction and behavior.





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