



Sparkling Science >

Science linking with School School linking with Science

Research Project

30.11.2008 – 30.11.2010

Alien Invaders – Renaturation of River Banks and Neophytes. A neglected Problem

Alien plants and their role in reconstructions
of river banks

LEADING INSTITUTION

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SCHOOL INVOLVED

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Basic Information about Sparkling Science

Sparkling Science is a research program of the Federal Ministry of Science and Research (BMWF) which started in 2007 and adopts an unconventional way in the promotion of young scientists that is unique in Europe.

The specific characteristic of the program: so far 168* projects (94 of them have already been completed) scientists work side by side with young people in current scientific research projects: Sparkling Science supports big research projects and supported from 2007 until 2010 also smaller school research projects.

In the 114 big research projects (42 have already been completed) the young colleagues take an active part and work independently on parts of the research projects. As junior colleagues they introduce important suggestions into the research approach. They collaborate in the conception and conducting of investigations, conduct polls, collect data, interpret these together with the researchers and present the results at schools, universities and even at scientific conferences.

In a second initiative within the Sparkling Science program the BMWF awarded grants to smaller projects that were submitted and conducted not by the involved research institutions, but by the schools, who designed and lead the projects themselves. In these projects, too, schoolchildren worked closely together with researchers, supporting state-of-the-art research activities and contributing to the results.

Both sides of the program is/were open to a broad thematic spectrum. Research is carried out on all sorts of different topics: from mechatronics and molecular biology to migration research, from acoustics and biometrics to literature research.

* Status quo: January 2012



One Example out of 168

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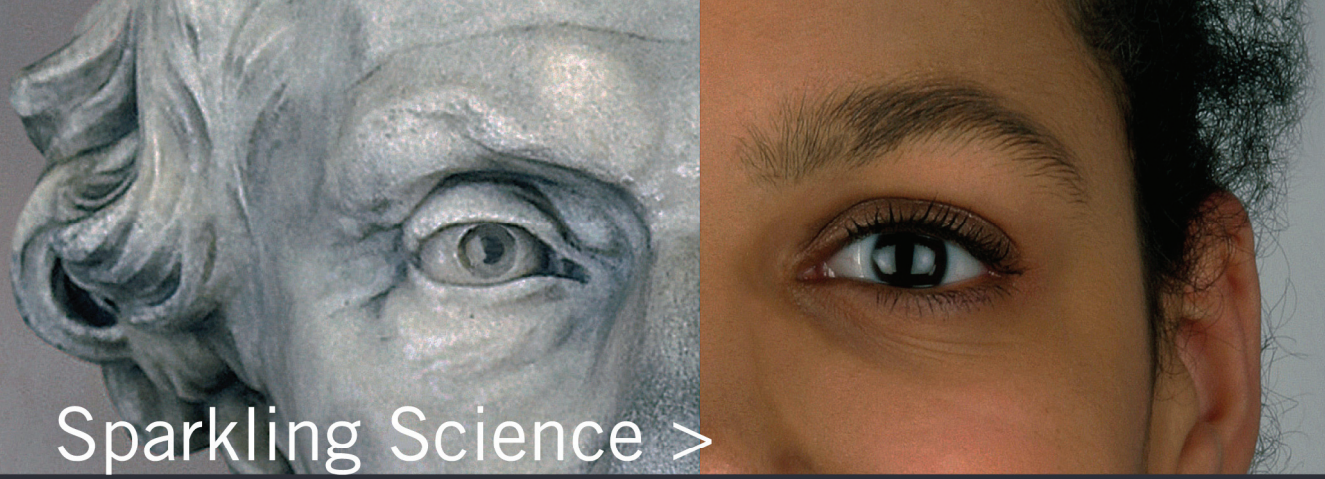
Floral and climate change are currently discussed widely not only in research but also in public. Alien plants are regularly mentioned in the news and linked to “horror-scenarios” due to their ability to cause phototoxic affections, allergies or asthma. Changes in the native flora and fauna are often mentioned in connection with climate change although a massive change in the flora has been happening continuously since the beginning of the new age.

Especially in areas strongly influenced by humans, alien plants sometimes dominate the flora and vegetation. River banks are affected in particular because of their natural dynamics of frequent disturbances. Native plants are often displaced by alien species because of their ability to make their way. This is accompanied with all the negative side effects concerning the dynamic stability of these particular habitats.

In course of this project, scientists and pupils want to find out whether it is generally possible to do reconstruction activities which could be called successful from a botanist point of view. The central questions are:

- Is it actually possible to establish an autochthonous flora through a natural succession process?
- When and why is it possible for alien plants to dominate a particular habitat?
- How sustainable do alien plants settle in particular habitat?





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