

Several trainee positions and “Student assistenten”:

Biological filtration of treated waste water with Daphnia

A cooperation of Waterentwith

Vrije Universiteit Amsterdam, Technische Universiteit Delft, Universiteit van Amsterdam, University of Girona, NIOZ-Texel

Water Cycle Company Waternet, Wetterskip Fryslân and Consorci de la Costa Brava

Witteveen + Bos



The development of the so-called "Kwekelbaarsjes process" a special food-chain oriented constructed wetland to grow usable biomass combined with water quality enhancement has resulted in the first full scale application on the STP Grou: [link](#).

The filtration capacity of the Daphnia in the Daphnia ponds, in which Daphnia nearly exclusively feeds activated sludge particles and loose bacteria became the subject of a PhD study.

For this PhD study three exact the same experiments on mesocosms have been constructed:

[1. STP Horstermeer, near Amsterdam \(The Netherlands\)](#)

[2. STP Grou in Friesland \(The Netherlands\)](#)

[3. STP Empuriabrava, north of Girona \(Spain\)](#)

The research is continued in 2009. In this research project also the Universiteit van Amsterdam (Daphnia food studies), the Technische Universiteit Delft and Waternet, Amsterdam are involved. NIOZ on Texel on will participate with their newly developed method to use chitobiase activity as a measure for Daphnia activity. Research partners in Spain are Concorsi de la Costa Brava and the Girona University. A number of experiments will focus on monitoring the mesocosms and the Daphnia ponds in the new Aqualân in Grou with Wetterskip Fryslân.

Internships

in the Netherlands

Amsterdam, Leeuwarden

and in Spain: Girona

PLUS:

Two or more places for “student assistant” during several months in 2009!! Payment according to regulations of the Free University, Amsterdam

Students wanted in 2009/2010:

- to run practical experiments on STP Horstermeer, STP Grou and STP Empuriabrava
- to carry out research on Daphnia and algae (biology of Daphnia, feeding behaviour; harvesting techniques, how to assess population dynamics with chitobiase activity), feeding behaviour of snails, etc.;
- study the fate of particles during technical and biological filtration
- update the project internet site www.waterharmonica.nl

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The Daphnia ponds in the new Aqualân in Grou



STP Horstermeer, The Netherlands
Rather high loaded activated sludge process

Ongoing research project Technical filtration



STP Grou, The Netherlands
Very low loaded activated sludge (oxidation ditch)

Full-scale Daphnia ponds



STP Empuriabrava, Costa Brava, Spain
Very low loaded activated sludge (oxidation ditch)

Full-scale Daphnia ponds