

EAWAG at the Hannover Trade Fair 2001

EAWAG participated in a booth shared by the ETH Domain and by the initiative "Technology Made in Switzerland" at the Hannover Trade Show, which took place April 23–28, 2001. The goal of EAWAG's presence was to introduce EAWAG to a broad international public and contribute to information and technology transfer.

EAWAG had the opportunity to demonstrate its activities in research, teaching and consulting in a very interesting and stimulating environment. The project by Michele Steiner on "Copper in the Environment – New Filters Prevent Its Release" formed the central theme. Copper has excellent properties as a building material and is used as a roofing

material, as the outer layer on facades, and in water pipes. Via rain water and sewage treatment sludge, copper is transported into the soil and surface waters where it exhibits toxic effects on a broad range of organisms. In order to prevent the spread of copper in the environment, EAWAG is recommending a novel iron-hydroxide-limestone sand filter as a means of immobilizing it.

Thanks to EAWAG's presence at the Hannover Trade Show, the public learned about the problems related to copper and about the new filtration system. The trade show also fostered interesting new contacts; applications of the new filtration system in related areas were also discussed.



New Face for Aquatic Sciences

The journal *Aquatic Sciences* has a long standing tradition. In 1920, the journal was launched under the name of the *Journal of Hydrology* by the Hydrobiological Commission of the Swiss Society for the Study of the Natural Sciences. Since its beginning, EAWAG has contributed the majority of the journal's editors.



In 2002, *Aquatic Sciences* will appear with a new focus, format and editorial board. The changes were prompted by a desire to give the journal

stronger international recognition. According to its new subtitle, "Research Across Boundaries", emphasis will be shifted to the publication of interdisciplinary research dealing with aquatic systems and the influence of human activity on those systems. Research on the sustainable management of natural waters will be of particular interest.

Aquatic Sciences – Research Across Boundaries will not only publish original research papers, but also review articles. In addition, some issues will be dedicated to topical themes. You are invited to submit your manuscripts or suggestions for special issues for publication in *Aquatic Sciences*. For more information:

http://www.eawag.ch/publications/aquatic_sciences/

CEAC-Workshop: Detection of Chemical Pollutants

Last year's summer workshop by the Center for Excellence in Analytical Chemistry (CEAC) of the ETH Zurich took place on July 12–13 at the EAWAG/EMPA Akademie. The general topic was "Analytical methods of separation and detection in the new millennium". Specialists from the fields of analytical chemistry in the environment, in food and in drugs presented overviews of recent developments and current applications of various chemical and biological methods. Directly coupled methods, methods that combine separation and detection in one step such as GC/MS, were of particular

interest. Most methods discussed focus on the detection of chemical pollutants which are currently of extreme importance. The discussions included persistent organic pollutants, hormonally active substances, the doping drug erythropoietin (EPO), a well known peptide hormone, as well as genetically manipulated organisms and prions causing BSE.

The workshop was organized jointly by Walter Giger and Hans-Peter Kohler of EAWAG and by Peter Schmid of EMPA. More information about the workshop may be found at www.ceac.ethz.ch

PKD – C'est quoi?

"Proliferative kidney disease", a kidney disease in fish, may be partially responsible for decreasing fisheries yields and generally deteriorating fitness of fish in Swiss streams. Possible connections between the disease and observations of fish health are being investigated as part of the project "Fish Net".

In July of last year, the project "Fish Net" invited an international group of experts to a workshop at EAWAG's facility in Kastanienbaum. During two days of talks and discussions, the current knowledge base was compiled and gaps in our understanding were identified. We now know that the intermediate host of the parasite causing PKD, a moss animal (bryozoan), prefers warm, slow-moving streams. This piece of information, together with information about

conditions found in Switzerland, was crucial in the development of a set of recommendations for mitigation which will shortly be passed on to the authorities in charge of fisheries in an effort to halt the spread of PKD.



“Festival of Science“

The “Festival of Science”, sponsored jointly by the University of Zurich and ETH-Zurich, took place in the large hall of Zurich’s main train station on May 4–12, 2001. The festival was part of a larger event, organized by the foundation “Science et Cité” and held at 10 different locations throughout Switzerland, with the goal of promoting dialogue between scientists and the public.

EAWAG presented two projects: “Solar Disinfection of Water” (SODIS) and the “NoMix Toilet”. Both the unusual toilet, which allows the separate collection of urine, and the astonishingly simple SODIS technology for

the disinfection of drinking water, attracted a great number of visitors. The public ap-



peared to be very interested in the opportunity to have direct conversations with the researchers and to learn about EAWAG’s activities in general. There was also considerable interest in the pilot project “Round Table”, in which EAWAG scientists and citizens meet in regular discussions.

With approximately 100,000 visitors spending an average of 30 minutes each at the festival, and intensive national media coverage, the first “Festival of Science” in Zurich was a great success.

For more information:

www.eawag.ch/events/science_et_cite/

Switzerland and EAWAG set international Standard for Certification of Ecoelectricity

On June 27, 2001, approximately 40 experts from Europe, USA, Canada and Japan met in Zurich to discuss the future of environmentally responsible hydroelectric power generation. The main topic of the “Second International Conference on Hydropower as Green Electricity” was the development of a credible and internationally equitable procedure for the certification of “ecoelectricity”. The delegates reached consensus that simple certification procedures, as they are currently used in various European countries, will not be adequate in the long term. Since these procedures simply set limits for how

much power can be produced or how long a plant may be in operation, they largely ignore local and regional impacts on stream ecosystems.

The ecolabel “naturemade star”, developed in Switzerland, proved to be a useful starting point for a designation that is both scientifically credible and applicable to the real world. The basis for the certification process under “naturemade star” is the “green hydro” process that was developed at EAWAG. The process has been proven to be practicable in the case of several Swiss hydroelectric power plants, as demonstrated by a representative of EWZ, the Electricity Power Plant of the City of Zurich. According to the representative of the “World Commission on Dams”, the Swiss approach is suitable to become an “international guideline for the certification of power

greenhydro ●●

Standard for environmentally compatible hydropower, EAWAG Switzerland

plants producing ecoelectricity”. All delegates agreed that the parties present at the assembly should continue to work together closely and that the development of an internationally accepted and equitable concept for the certification of “green” energy should be their top priority.

For more information, see Bratrich C., Truffer B. (2001): Ökostrom-Zertifizierung für Wasserkraftanlagen – Konzepte, Verfahren, Kriterien. EAWAG Ökostrom Publikationen 6, 1–113.

www.hydropower.ch, www.naturemade.org



Second Meeting of Barges in Gersau

On July 7 and 8, the second barge meeting took place near Gersau on Lake Lucerne.



André Steffen and Daniel Steiner from the limnological research station in Kastanienbaum represented EAWAG with a variety of presentations on the topic of “Life Under Water”. The two technicians guided the guests through the exhibit and answered many questions with great enthusiasm. A short movie and several posters represented EAWAG and described its activities. In a PowerPoint presentation, the audience was taken into the world of phyto- and zooplankton. The highlight, however, was the microscopy room where young and old alike could use stereomicroscopes to examine water samples that had been freshly taken

from the lake just minutes before. In fact, it was difficult to get a place at one of the microscopes. In all, over 3000 guests were drawn to the second barge meeting.

New Editor



Martina Bauchrowitz is editor of the EAWAG news since March 2001.

Please feel free to submit questions or suggestions any time via e-mail to

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