

Translating the science

Experiences at the University of Washington

November 2004





Making links (using SBRP research)

- Between students and SBRP scientists
- Between SBRP research and students
- Between environmental education and environmental health education

Online Chat Sessions

- Interactive, real-time chat sessions between:
 - 6th grade students at Harbour Pointe Middle School, Mukilteo, WA
 - SBRP scientists: Drs. Newman and Strand
- Connected hybrid poplar trees to a classroom unit on vascular plants.



Online Chat Sessions (cont'd)



Cleaning Toxic Waste With Trees:
Using Hybrid Poplars to Clean Industrial Chemicals From Water and Soil

*Dr. Lee Newman,
Research Scientist*

When you spill milk on the floor, it's not hard to clean up. But when you spill liquid chemicals on the ground, cleaning is not so easy. Chemicals soak into the soil and eventually get into the water in the ground. Scientists have to use other chemicals to clean the dangerous chemicals out of the soil. Now, researchers like Dr. Lee Newman and Dr. Stuart Strand are using plants to suck poisons out of the ground.

Phytoremediation (from "phyto" for plant and "remediation" to correct a fault, pronounced fi-toh-re-mee-dee-a-shun) is the process of cleaning the environment using plants. Dr. Newman and Dr. Strand are growing poplar trees to see how well they remove chemicals from contaminated soil. Poplars work well because they grow very quickly, up to fifteen feet per year. Because they grow so fast, they



- 60 students engaged in discussions relating to
 - waste management
 - Superfund issues
 - remediation of sites
 - how they became a researcher
 - what they do now



Fixing the Dirt with Plants exhibit

- Our theme at the annual Seattle International Children's Fair.
- Set up a scenario: where should the vegetable garden be placed?
 - Based on some data, one area had TCE and clean-up was necessary.
 - Described phytoremediation in general, focusing specifically on UW research.



Fixing the Dirt with Plants (cont'd)

- Students also learned that it is important to check if the soil is healthy for plants.

- Students tested soil samples for

- Nitrogen
- Phosphorus
- Potassium
- soil pH



- 15 graduate students and staff supported the exhibit and reached over 500 visitors.



Attracting environmental educators

- Used phytoremediation as a way to engage traditional environmental educators in environmental health education.
- Reached 150 educators during the annual Environmental Educators Association of Washington meeting.



Challenges...

- Research is often very specific and a little difficult to explain.
- But it is worth it.
 - Activities are based on local research
 - Able to turn to the researchers for help
 - Can direct public questions to the scientist



UW SBRP Outreach Core

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