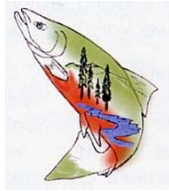


Friends of the Van Duzen River Healthy Streams Project

By Sal Steinberg, Friends of the Van Duzen



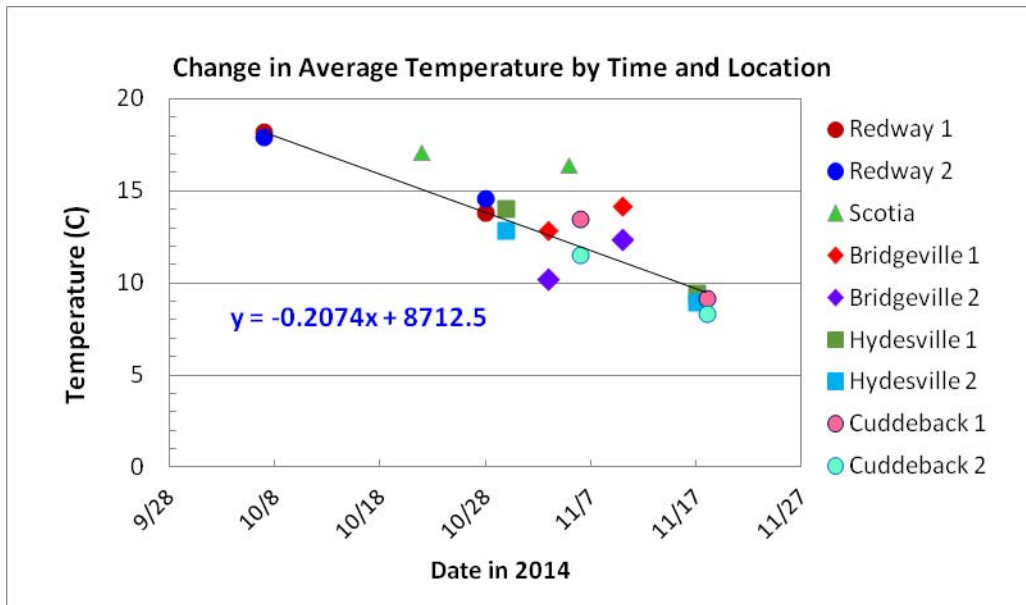
Following in the footsteps of the federal Kids in the Woods grant, Friends of the Van Duzen River recently completed the Healthy Streams project in collaboration with the Trees Foundation. This grant was funded for \$5000 by the McLean Foundation and matching funds were obtained from local schools for a total of \$12,500. Sal Steinberg and Paul Trichilo wrote and implemented the Healthy Streams design working with five elementary schools at various locations throughout the Eel River Watershed studying water quality and environmental issues. Participating elementary schools included Redway, Scotia, Hydesville, Cuddeback, and Bridgeville.



Redway Elementary School students study turbidity, temperature, ph, and macro invertebrates with Sal Steinberg and Paul Trichilo at Redway Beach.

Support from the McLean Foundation funded four sessions for each school with two lessons in the classroom and two field trips to the study sites. Students tested the water in the Eel River at Redway Beach and at the Scotia Park, as well as the Van Duzen Main Stem and Grizzly Creek at Grizzly Creek State Park. Water quality was studied by monitoring for turbidity, temperature, ph, and dissolved oxygen. Working with Dr. Trichilo, students sampled for macro invertebrates, some of which were preserved for later viewing in the classroom. Most of the equipment used for analysis was obtained with a \$12,200 grant from the Water Quality Control Board. Not only did students look through scopes at the monitoring sites, but also had a chance to observe macro invertebrates projected on a big screen in their classroom using a unique computer-microscope interface.

Students learned about the scientific method by observing nature, collecting data, and reviewing analyses of the data. Dr. Trichilo developed graphs comparing data from all five schools, and students analyzed these results in the classroom setting.



Changes in average temperature at Healthy Streams study sites

With the help of Trees Foundation printing capabilities and within the framework of the Friends of the Van Duzen, Dr. Trichilo produced a large map of the study areas with pictures of students and graphs of the data collected. Maps were presented to each school and prominently displayed.

Supplementary Healthy Streams funding provided by the elementary schools allowed for the inclusion of additional activities and projects for the students. Sharing our Health Streams data as a model, Sal worked with the fifth graders at Hydesville Elementary developing science fair projects. At Cuddeback Elementary, Paul conducted macro invertebrate workshops with students and trained teachers. At Scotia Elementary, Paul conducted in-depth science classes with a small group of gifted and talented sixth and seventh grade students. These classes were particularly interesting due to the high level of receptivity of this study group.

Another exciting teaching component was a three class curriculum developed at Hydesville Elementary School entitled "Becoming Better Planetary Citizens." These lessons explored the concept of local and national citizenship to include our participation and responsibility for planet Earth. Learning to become better stewards of our local rivers and the planet has always been a key element of our environmental programs. Extending some of these lessons to our other schools, students from third grade through eighth grade discussed global problems and viewed slide show presentations related to population, global climate change, and pollution.

At the younger end of the age spectrum, supplemental funding from schools provided the opportunity for field trips to the Sequoia Park Zoo to view the Watershed Heroes Exhibits. Grade K at Hydesville School, and grades K-2 from Cuddeback and Bridgeville schools all learned about the interaction among species in the Van Duzen River Watershed.



Hydesville Elementary School students in the tube at otter feeding time

As a result of this project, students gained better knowledge and understanding of the scientific elements necessary for monitoring water quality in our local rivers and streams. The concept of a healthy stream became a valuable part of the environmental science curriculum at five schools in the Eel and Van Duzen River Watersheds.