

# Soaking Wet

This section of the Dragonfly Gazette recognizes Project WET Facilitators, Teachers and Schools and provides a place for them to share their ideas and accomplishments.

## AWARD-WINNING FACILITATOR, TEACHER, AND SCHOOL

On Saturday, March 31 at the Georgia Environmental Education Awards Ceremony at the Environmental Education Alliance of Georgia's annual conference, Georgia Project WET presented the Facilitator of the Year award to Sharon Boyer for her leadership in the Fayette County schools. Celia Steigerwald received the WET Teacher of the Year award for making WET and River of Words a regular part of her classroom at Casa Montessori School, and Whitehead Road Elementary School's commitment to environmental education earned it recognition as the Project WET School of the Year.

### GEORGIA PROJECT WET FACILITATOR OF THE YEAR SHARON BOYER - FAYETTE COUNTY BOARD OF EDUCATION



When Peachtree City and the City of Fayetteville instituted a stormwater utility fee last year, the timing was just right for Sharon Boyer to bring Project WET to the Fayette County schools. If the school system established a comprehensive environmental education program that targeted water resources and conservation, it would receive a reduction in the stormwater fee.

Sharon identified the Project WET curriculum and Urban Watershed supplement as the ideal resources to help the school system meet this need. She devised a strategy that invited input from teachers, insured the strongest curriculum connections, trained the most teachers and saved the school system time and money. Sharon created a WIN-WIN situation for water education!

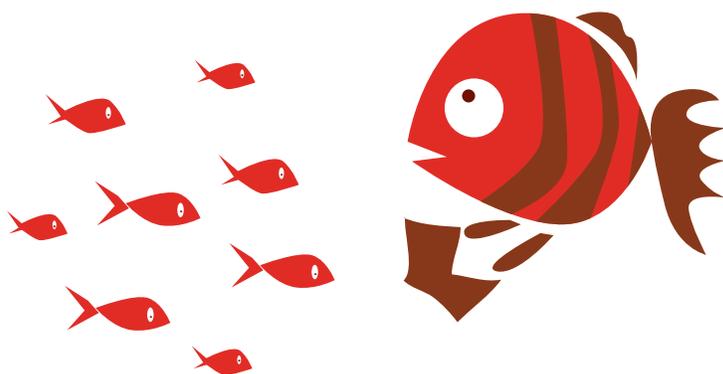
Her first step was to convene a committee of teachers to review the Project WET materials and to determine the grade levels and science standards that would best benefit from training in the curriculum and supplement. The group decided to target 4th grade, 6th grade, 8th grade, High School Biology and High School Environmental Science teachers.

Sharon's second step was to identify lead teachers in each school. Those representatives received training from the state Project WET office and became certified facilitators of Project WET/Urban Watershed.

Her third step may have been the most impressive one of all. On an early release day, Sharon made arrangements for the Fayette facilitators to simultaneously train teachers at their schools. By incorporating the training into a regular workday, Sharon saved the teachers time, and the school system money.

Sharon Boyer created a model that other school systems can use. By taking advantage of local government policies that would have cost the Fayette County school system money and by using her position in the system administration to reach every school, Sharon provided training for almost 100 teachers, who will reach even more students with water education.

For more information on how Sharon made this happen, contact her at the Fayette County School Board: 770-460-3990 Ext. 118.



# Soaking Wet

## GEORGIA PROJECT WET TEACHER OF THE YEAR CELIA STEIGERWALD – CASA MONTESSORI SCHOOL, MARIETTA



**C**elia's colleagues describe her as dedicated, hard working, enthusiastic, and inspirational. For more than 14 years, she has shared these traits and a love of the environment with her 3-to-9-year-old students.

Celia says that Project WET activities like "Macroinvertebrate Mayhem", "Sum of the Parts" and "Incredible Journey," opened up a world of water awareness for her students. When they spotted an oily puddle in the school parking lot for example they were determined to keep the oil from entering a stream. "We need to stop it," they said. Without teachers like Celia, students might not understand the countless ways our daily activities affect water quality.

**Thank you Celia!**

For more information on how Celia incorporates Project WET into her curriculum, contact her at Casa Montessori School at 770-973-2731.



## GEORGIA PROJECT WET SCHOOL OF THE YEAR WHITEHEAD ROAD ELEMENTARY SCHOOL, ATHENS

**S**ure the students and teachers at Whitehead Road Elementary School have nature trails and butterfly gardens on campus to explore, but they also have the Amazon Tributary Aquarium, a learning station that brings a watery world almost 3,000 miles away to life right before their eyes. Surrounding the aquarium are wall plaques with facts about the Amazon River, the function of the Amazon Basin and the amazing diversity of life that depends on them.

The third, fourth, and fifth grade students in the Science Club at Whitehead Road have made water education a priority by leading sessions for other students on watersheds, wetlands, rivers and ocean ecosystem preservation.

In the near future, the school will build a small discovery pond in the courtyard where students can learn more about aquatic insects, plants and water quality. Georgia Project WET will help the teachers at Whitehead Road bring these and many more water topics into the classroom by providing them with a complimentary WET workshop in the 2007-08 school year.



# NEWS, NOTES AND UPCOMING EVENTS



## Tools of the Trade: The Nuts and Bolts of Outdoor Classrooms

### Outdoor Classroom Symposium - October 12 at Fernbank Science Center

[www.eealliance.org](http://www.eealliance.org)

- Participate in how-to hands on sessions and workshops to earn 1 PLU.
- View exhibits by program providers and outdoor classroom experts.
- Gather valuable educator resources and curriculum.
- Don't miss the Project WET Urban Watershed workshop on Saturday.



## Rivers Alive – Fall 2007

[www.riversalive.org](http://www.riversalive.org)

Apply your Project WET knowledge & skills to a fun hands-on activity that has a direct & immediate impact on local waterways and communities. Join Rivers Alive, Georgia's annual waterway cleanup, this fall to remove trash from creeks, rivers, wetlands, lakes and the Atlantic Ocean. There are three ways you and your students and their parents can join in the fun:

- Join an existing cleanup as a cleanup participant.
- Register to start a new cleanup.
- Offer an educational program at an existing cleanup.

## Momma Bass Gets a Makeover

Georgia Project WET's performance characters, Momma Bass and the Mudsliders entertain hundreds of people annually with their water education songs. This year audiences will experience a Momma Bass like they have never seen before. With big dark eyes, tight scaly skin and full lips, this new and improved Momma Bass



is dressed to impress (especially if you're another largemouth bass). She is joined by her exotic 'mudskipper' friends (a.k.a., the Mudsliders).

Mudskippers are lungfish from mangrove swamps with eyes on top of their heads and fins that act as feet. These "fish out of water" are quite comfortable on stage singing back up for Momma Bass.

Momma Bass and the Mudsliders were re-imagined by Lisa Adang, a gifted artist, skilled craftsman, and the youngest daughter of Project WET coordinator, Jo Adang. Lisa, a recent graduate of the Rhode Island School of Design, is interested in pursuing a career in art direction, scenic design, prop-making, or special effects costuming.

Lisa said, "I wanted the children to be able to listen to the messages of the performers as if they were truly hearing from Momma Bass and the Mudsliders...I think it is a fantastic idea to communicate principals of water education



through the creatures themselves - this plays upon the awe children have for nature and encourages them to respect animals and their environments."

**Great work Lisa!**



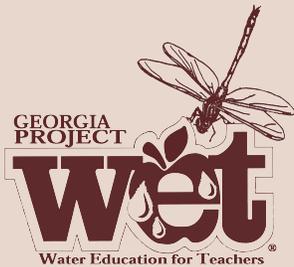
SAVE WATER • SAVE TIME • SAVE MONEY!

[www.ConserveWaterGeorgia.net](http://www.ConserveWaterGeorgia.net)

**Plants need no more than 1 inch of water every 7 to 10 days to stay healthy.**

**Try these 5 to help them thrive!**

- 1. Water only once a week.** When it hasn't rained, a deep soaking every week will provide your plants with plenty of moisture.
- 2. Soak, don't sprinkle.** When you water, aim the nozzle at the base of plants so more water will reach the roots.
- 3. Don't water in the heat of the day.** You will only lose water to evaporation. If you have an automatic system, set it to come on in the early morning hours between 4 a.m. and 10 a.m.
- 4. Turn off sprinkler systems when it rains.** Install an inexpensive rain sensor shut-off switch.
- 5. Mulch!** Using pine straw, bark chips or ground hardwood mulch on the roots of plants and trees helps the soil retain water.



Georgia Department of Natural Resources  
Environmental Protection Division  
Watershed Protection Branch  
4220 International Parkway, Suite 101  
Atlanta, GA 30354

## What's Inside this Issue?

**This issue of the Dragonfly Gazette features a number of resources to help teachers teach about drought.**

**Cover article** - A long dry spell: 4 perspectives on drought in Georgia

**Page 3** - PLT/WET/WILD Facilitator Training, The Effects of Drought on Water Quality, Wildlife and Forest in Georgia

**Page 4** - Make the Georgia Connection, state-specific background information on drought and GPS correlations for Project WET lessons

**Page 6** - Discovering Drought and Conserve Water activity books for students

**Insert** - Lesson Plan, Investigating Drought: Scientific Processes for Determining Drought

For additional resources visit the Dragonfly Gazette section of the Georgia Project WET web site - [GAProjectWET.org](http://GAProjectWET.org).

# A LONG DRY SPELL: continued from page 1

**“How does drought affect your work?”**

**Max Hicks, Director, Augusta Utilities Department**

During a drought, there is increased production at our water treatment plants due to the outdoor water use on lawns and gardens. We also have the potential for low pressure in some parts of our distribution system due to the higher flows to meet outdoor water use demands. We have increased electrical costs due to pumping higher flows in our system. There are additional customer service activities in answering questions about the outdoor water use regulations and in distributing information about outdoor water use. We also have an increase in the 30-day new planting exemption applications and in the site visits to confirm the new planting. We are responsible for enforcing the outdoor water use schedules and this creates more paperwork, telephone calls, and site visits for enforcement.

**NOTE:** A water manager coordinates decisions about water use and allocation through a proactive outreach and planning process with many kinds of water user groups. A water manager might work in state or local government or in private business (The Watercourse. (2002). Discover A Watershed: Watershed Manager. Bozeman, Montana.) (<http://www.iwmi.cgiar.org/about/intro.htm>).

**Wei Zeng, Hydrologist, Georgia Environmental Protection Division**

When a drought takes place, we need to closely monitor data reflecting rainfall (how much water Mother Nature is giving us), streamflow (how much water is flowing in streams), reservoir storage (how much stored water do we have left), and groundwater levels (how much water stored underground do we have left). We then analyze this data to figure out how severe a drought is, and advise decision-makers on what drought measures to implement to save water.

As a drought continues and gets worse, stress on all water users starts to take place, and disputes among different water

users begin to emerge. In order to resolve the disputes, hydrologists are usually brought in to analyze the reasonable use of water by all users. Sometimes we use computer models to make a prediction of what would happen if the current (or a hypothetical) water use pattern is in place when a drought takes place or progresses.

**NOTE:** A hydrologist is a person who applies scientific knowledge and mathematical principles to study water-related problems in society: problems of quantity, quality and availability. Hydrologists may be concerned with finding water supplies for cities or irrigated farms, or controlling river flooding or soil erosion. They may work in environmental protection: preventing or cleaning up pollution or locating sites for safe disposal of hazardous wastes. (<http://ga.water.usgs.gov/edu/hydrology.html>).

**John Bridges, Jr., Farmer, Albany**

A drought costs the farmer money and creates more work. Without rain you have to pump water to the crops. Water costs money as does maintaining the irrigation system. Irrigation systems are constantly in need of maintenance, repair and management. A drought can quickly produce a desolate situation for farmers and the farming community. Most farmers are simply not making a profit this year. An economic slump will eventually spread to the entire farming community, as the farmer cannot afford to buy things. Restaurants, clothing stores and the like will all suffer.

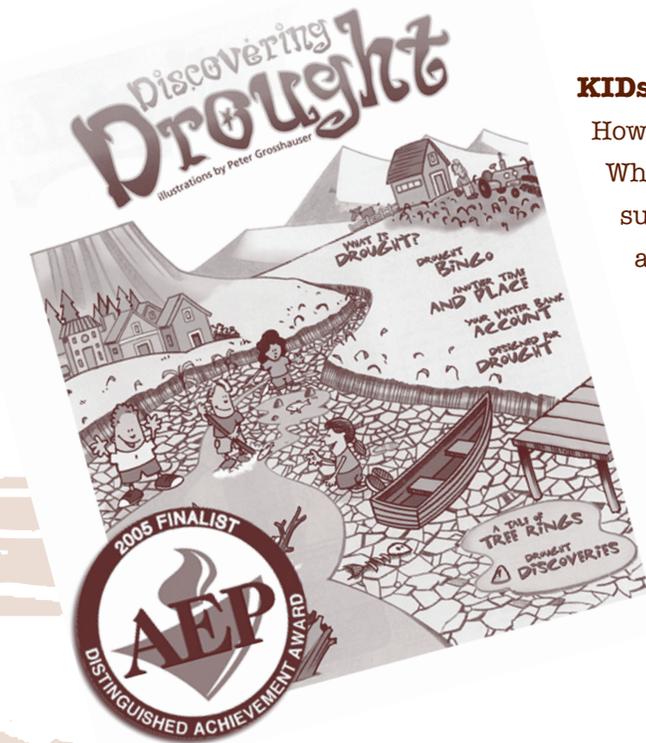
**NOTE:** A farmer is a person who grows field crops, has orchards, vineyards, or market gardens, and does so with the prospect of selling the produce as food. Farmers may, however, provide raw materials for industrial purposes, such as cereals for alcoholic beverages, fruit for juices, hides for leather, and wool or flax for yarns and cloth-making. Farmers may also be involved in rearing livestock for meat, milk, or other substances (<http://en.wikipedia.org/wiki/Farmer>).



# KIDS (Kids in Discovery Series)

These colorful, 16-page activity booklets are written and illustrated for eight through twelve year olds and are designed to complement concepts introduced in the Project WET Curriculum and Activity Guide. Creative and hands-on investigations, demonstrations, science experiments, educational games and stories stimulate understanding of each booklet's topic. These informative, inexpensive, award-winning booklets make excellent handouts to support school curriculums or public education efforts.

To order these materials, visit <http://www.projectwet.org/kids/> or call Monica Kilpatrick at 404-362-6536 to receive an order form by mail or fax. Call Project WET USA at 866-337-5486 for information about quantity discounts starting at 1,000 copies and special branding opportunities for large quantities.



## KIDS - Discovering Drought

How can there be a drought in a rain forest--or in the desert? What exactly is a drought? Learn these answers and more, such as the roles of snowpack and ground water, droughts around the world and throughout history, predicting and planning for drought, plant and animal adaptations, and dendrochronology.

## KIDS - Conserve Water

Kids test their water IQ by matching familiar plants and animals with their water content, then get outdoors to learn "catchment," and think about their own neighborhoods in the "Water Detective."

