The Watershed Ecology Center’s mission is to collect, analyze, and disseminate sound scientific information on the ecology of the region. Special emphasis is placed on watershed conservation, education, water quality and the study of organisms living in the area encompassed by a watershed. The center serves as a repository for regional ecological information, providing education and research assistance to individuals, communities, local schools and governmental organizations. The WEC is also dedicated to providing research opportunities for the facility and students at the University of South Carolina Upstate and other regional institutions. The Watershed Ecology Center is located in the Horace C. Smith Science Building on the campus of the University of South Carolina Upstate.
During the summer, air conditioning can offer much-needed relief from the heat, but be sensitive to overuse. Try turning up the thermostat a few degrees on your AC and turning on a fan. It is a great way for you to save money while making the planet a cooler place at the same time.

Water: A Unique and Amazing Substance

Water is that precious liquid that we sometimes take for granted noting that our very existence depends upon it. Our planet Earth is unique in our solar system being the only one in which the surface is almost 75% covered with liquid water giving us the nickname, the “Blue Planet.” The water on earth is also unique by the fact that it can exist in all three phases; liquid, solid, and gas. The evaporation of water during the water cycle and then condensation releases the tremendous latent heat energy which drives all weather phenomena. But just what is water? Water molecules form when hydrogen covalently bonds with oxygen into “Mickey Mouse” shaped molecules having very unique and special properties. For example, most substances decrease in volume when cooled. Conversely, water will contract when cooled down to four degrees Celsius, but then begins to expand until it freezes solid at zero degrees Celsius. This factor distinguishes water as one of the few substances whose solid state is less dense than its liquid form; evidenced by how ice floats in water. Water constitutes over 60% of the human body and many chemical reactions in the body occur in water solutions. You could not survive more than a week without water. The many uses we have for water such as washing clothes, bathing, cooking, etc., are enabled by the fact that water is an almost universal solvent. If gold is our most precious solid then water must certainly be our most precious liquid.

Tips for Going Green

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Beth’s Corner

I ended my last update by saying that we couldn’t wait for June to get here. Well, it’s here! Our Discovery Camps have come and gone – and they were a big success! When I began registering campers in early March, the camps were a distant idea that has now come to fruition. I think Nita and I scurried around more than Pumpkin and Spice (the gerbils) as we got everything ready.

On June 4, the K-2 campers arrived at the Watershed Ecology Center for a week of Discovering Critters. They spent fun-filled days learning about reptiles, amphibians, mammals, invertebrates, and aquatic critters through interactions with real animals, games, books, crafts, and habitat hikes.

Out in the Dr. Lawrence E. Roël Pavilion or in a lab, the Discover Science campers, grades 6 - 8, checked out a different branch of science each day. Some of the highlights included dissecting an owl pellet and a cow’s eyeball, counting pollen, checking out insects, and making things explode!

For the second week of camp, our 3rd - 5th graders learned some survival techniques that don’t involve an “on button,” including orienteering, fire building, knot tying, shelter construction, first aid and acquisition of drinking water. Even with all the rain the second week, there wasn’t a dull moment in our Discovery Camps!

We are enthused that we were able to offer four ½ scholarships to the Spartanburg Housing Authority this year. All four recipients attended the Discover Science Camp. Thank you to our anonymous donor!
Hot Dry Days of Summer

There are many things we can do to conserve water. If you must water the lawn, do it responsibly. When summer temperatures heat up, water your lawn in the mornings to reduce water loss from evaporation. You can also set your sprinklers to a lower pressure. Why? Higher pressure creates a fine mist that evaporates faster or gets blown away, thus wasting water.

One great way to water your lawn is to use a rain barrel to collect extra rain water. Using rain water to water the lawn and plants is more eco-friendly than watering the lawn with water from the tap. Tap water has been processed and refined to make it drinkable. The grass does not need the fluoride or chlorine found in municipal water. If you are interested in rain barrels, give the center a call for more information.

Also, you can adjust your lawn mower to a higher setting. Longer grass shades the root systems and holds moisture in soil better than shorter grass. Consider composting kitchen scraps, lawn clippings and garden waste to retain more water, reduce erosion and even decrease weed growth.

What’s that Sound?

The Watershed Ecology Center is excited to announce the addition of an insect, the Madagascar hissing cockroach, one of many fascinating animal species to come from Madagascar, an island off the coast of Africa. They are a big help to WEC with educational programs on information such as insects, plants, scavengers, and food chains. The students find the Madagascar hissing cockroach to be an interesting insect because of its appearance, behavior, and mode of communication.

It is a large, shiny brown, and oval-shaped, wingless cockroach, with a single pair of antennae, that lives on the forest floor in rotten logs. It feeds on fallen fruit and plant material. It has an unusual ability to produce sound. Madagascar hissing cockroaches exhale air through their breathing holes. This audible use of the respiratory system is far more common in vertebrates.

Males sport large horns, which give them an unusual and impressive appearance. Males use their horns in aggressive encounters reminiscent of battles between horned or antlered mammals. Rivals ram one another with their horns (or abdomens) and during the fight often unleash the amazing hisses that give the animal its name. Winning roaches hiss more than losers. Also unusual, the females are ovoviparous, that is, they give birth to live young.

Did you know?

A small colony of hissing cockroaches can eat a large carrot in a single day.

Does Your Community Have Turtles?

The Watershed Ecology Center is continuing to mark storm drains in Spartanburg County communities, neighborhoods, and subdivisions. We have marked a total of 600 storm drains, with the eye-catching turtle seal, hoping to stop pollution from entering our local water bodies. If your storm drains have not been turtled, please give us a call.
The Watershed Ecology Center would like to thank our donors, the City and County of Spartanburg, and the following water districts: Spartanburg Water, Blue Ridge Rural Water, SJWD, Woodruff-Roebuck, and Liberty-Chesnee-Fingerville. Your donations and support have made it possible for us to present our educational programs to 12,513 students in Spartanburg County School Districts 1 - 7, public and private, plus the Blue Ridge community schools. Since the Watershed Ecology Center is privately funded, each year it is a big challenge to find enough money to keep the center open and running. We realize a lot of people take our clean drinking water for granted. Many go to the faucet and get a glass of clean fresh water several times a day and never give a thought to the importance of water. Some have become so accustomed to having it, they rarely think about what life would be like without it. As with many things, it’s a matter of education. The more people know, the more they will begin making better choices when it comes to their water usage, and water conservation. We would appreciate any donations to help the center’s educational programs and remind everyone how important the water is!