

CREEK CONNECTIONS LINK

Volume #13 Issue #2



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Newsletter for CREEK CONNECTIONS Based at
Allegheny College in
Meadville, Pennsylvania

The Dead Sea Is...Dying?

By Tara Fortier, Allegheny College Student

The Dead Sea, as described the last newsletter, is located 420 meters below sea level and is the lowest point on the earth's surface. It is famous for its high salinity, which allows those who visit it to float easily on the surface of the water, and keeps anything other than bacteria from living in its waters. It is an incredibly unique and fascinating body of water. Tragically, it is also rapidly shrinking from the earth's surface.

The Dead Sea is fed by the Jordan River, which is used as a major supplier of water for the State of Israel, the Hashemite Kingdom of Jordan and the Palestinian Territories. Up to 90% of the waters' of the Jordan River are diverted for human use each year, resulting in greatly reduced flow of water into the Dead Sea. Though less water is entering the Dead Sea every year, the amount of water lost due to evaporation has not changed. This has resulted in a decline of water level over one meter per year. As the water level falls, the shoreline rapidly recedes, leaving existing resorts and beaches far from the actual shore of the Dead Sea. It has also resulted in the formation of sinkholes, which occur when freshwater fills an area previously filled with the salty waters of the Dead Sea. The freshwater flushes out the salts which help stabilize the sand, resulting in a collapse of the surface.



dan, the water diverted from the Jordan River is not removed from the watershed. Therefore, it eventually returns to the Dead Sea, via the Jordan River or a tributary. In Israel, however, it is taken outside of the watershed and after being used for agriculture or human consumption, the water ends up in the Mediterranean or Red Sea.

If nothing is done, the Dead Sea will never completely disappear. It is fed from below by freshwater springs and eventually the water body will reach an equilibrium at which the rate of water being added via those springs will match the rate at which water is lost through evaporation. However, that will not happen until the surface area of the Dead Sea is incredibly small, as evaporation rate is dependent on surface area. It is believed that the Dead Sea will shrink at least another 200 meters, until it rests at approximately 600 meters below sea level. This will significantly alter the way the Dead Sea can be used, and the ability of people from all over the world to enjoy its unique features. Brilliant minds from all over the world are working to develop ways to stop the loss of the Dead Sea. Now it is your turn, what would you do to stop the loss of the Dead Sea? **Submit your ideas at creek@allegheny.edu by March 7, 2008.** We'll include the submissions in our March newsletter.

The issue has raised key issues in the responsibilities of states who share boundary water resources. In Jor-

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Creek Camp

By Laura Branby, Pittsburgh Field Educator and Creek Camp Director

Last July, high school students from the Pittsburgh area spent a week living in an Allegheny College residence hall and exploring northwestern Pennsylvania creeks as part of Creek Camp 2007. Here's what they might have said about their experience...

Hey!

You missed CREEK CAMP!! I'm packing up now but I don't want to leave. It's been a great experience! We've been snorkeling for mussels, met a cool guy and toured his sustainable farm (including his pets... a big goat, two alpacas, a donkey and chickens), caught fish without hooks (pretty tricky!), tried to steer a canoe without tipping over (only one canoe tipped), walked all over the Allegheny College campus, caught HUGE salamanders in the creek (and smaller ones in the research area in the rain), ate foot-long hotdogs and sooo much more!! Creek Camp is waaay better than I hoped! You should have been here with me... the other kids are really great and the camp counselors were even more excited about the activities than we were. ☺ SIGN UP NEXT YEAR!

P.S. Mom and Dad were about to burst at the closing luncheon! Yes, the food was really good... but it was the research presentation we gave that made them sooo proud of me!

Creek Camp 2007 was constant, hands-on activity! Living on the Allegheny College campus, campers got a taste of college life. Camp counselors, who lived side-by-side with campers and accompanied them throughout the day, were environmental science and biology majors at Allegheny College.

The small size of the camp (12 students each week) allowed the campers to travel around the French Creek watershed – *one of the most biologically diverse in the eastern U.S.*

Experts from state and local agencies met campers at the creek to share their knowledge, equipment, and excitement for environmental science. Campers experienced a wide range of watershed health impacts and indicators... water chemistry, macroinvertebrates, fish, trees, birds, mussels, sustainable farming, and more. A canoe trip along French Creek was one of the high points of camp!



While Creek Camp 2007 is history, Creek Camp 2008 is taking registrations! Visit the website for photos of past Creek Camp activities and to register for Creek Camp 2008.

Creek Camp is an opportunity to *experience environmental science; live on a college campus; interact with college students, professors and environmental professionals; and meet students from other high schools*. Last year we had **Costa Rican high school students** join us for one week of camp! You don't want to miss Creek Camp 2008, so...

**Apply Now! Apply Now! Apply Now!
Apply Now!**

<http://creekconnections.allegheny.edu/creekcamp.html>

ALLEGHENY COLLEGE CREEK CAMP 2008

Environmental Science Residence Camp at Allegheny College
Open to Pittsburgh-area high school students
entering 10th or 11th grade
Session I, July 13-18
Session II, July 20-25



Creek to Creek - News from our watersheds



Franklin Regional Middle School, one of our newest Creek Connections Schools made front page news in the local Murrysville Star on November 7, 2007. You can check out their article with photos at <http://www.yourmurrysville.com/murrysvillestar/article/stream-science-students-test-water-quality-regional-program>. Teachers Jeff Blauhusch and A.J. Danny are off to a great start. They have had excellent help from one of their own alumna. Amy Kerschner, an Allegheny freshman, graduated from Franklin Regional High School last year and we are very pleased to have her on board Creek Connections. We hope this is the beginning of a long line of Franklin Regional students working at Creek Connections!

Mercer Elementary Creek Connections met at Munnell Run Farm on October 20th for a GPS exercise. Creek-ers used GPS units and coordinates to locate six geocaches scattered around the farm. Each cache contained a different colored bead to represent different parts of the ecosystem (blue for water, clear for air, green for plants, brown for soil, black for animals and UV sensitive for sun). As students successfully located the caches they were able to collect beads to make an "Eco-bracelet".



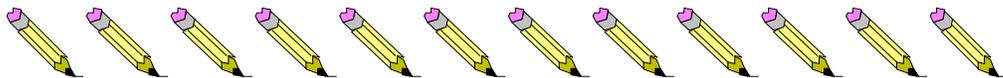
On November 7th we met at the science lab at Mercer Elementary school for an owl pellet exercise. After watching a video about the natural history of barn owls, students dissected owl pellets and constructed skeletons from the bones they found. Our display of skeletons in the school hallway was a hit with students and teachers alike!!



Feature Creature

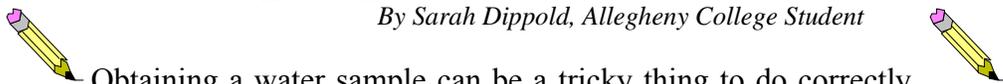
By Kelsey Mitchell, Allegheny College Student

I am a large gray bird, that you may see lurking around your creek. I have a white crown on my head and my neck is usually in an "S" curve. My bill is long and yellow and I have a black stripe above my yellow eye. My very long slender legs make me about 3 feet tall and the feathers on my back are usually shaggy. The colors of my feathers make me hard to see most of the time, but wait until I fly! My wingspan of almost 6 feet is hard to miss and you may see me zooming by at about 20 miles per hour. When it comes to eating, I like to swallow my dinner whole, whether it is a small fish, frogs, or even rodents and small birds! This photo was taken by Creekers canoeing French Creek last summer. Do you know who I am? See last page of newsletter for answer.

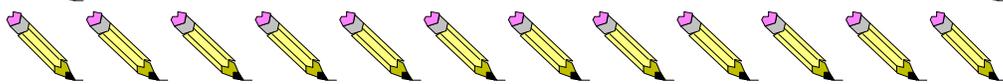


Testing Tip

By Sarah Dippold, Allegheny College Student



Obtaining a water sample can be a tricky thing to do correctly. Here are a few tips on the proper techniques to obtain a representative sample. In a stream it is important to walk out to the middle of the stream. Then, you must prime your sample bottle by rinsing it with the creek water a few times making sure to dump the primer water out behind you and not stir up the water in front of you. Then facing upstream, take your sample by dipping the bottle down into the stream. When doing this try to get water from the average depth, so not the water at the surface nor the water at the bottom of the stream. If you are using a bailer the same rules apply. When lowering your bailer into the stream, do not drop or throw it. Hold onto the rope and lower it into the water. Stay in the center of the stream and do your best to obtain your sample from an average depth.



FEATURE CREATURE ANSWER:

This issue's Feature Creature (pg. 3) is a great blue heron, *Ardea herodias*.

Connect to

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