

Newsletter for CREEK CONNECTIONS

Based at  
Allegheny College in  
Meadville, Pennsylvania

## Sailing on the Denis Sullivan with Hermitage Middle School Green Team

Members of the Hermitage Middle School Green Team traveled to Erie in the fall along with a special guest, the Lorax. The students spent the morning touring the Tom Ridge Environmental Center. TREC is a LEED certified Green Building. The students learned about features that make a building "green." The Lorax really enjoyed the view of Lake Erie from the tower. He decided things really aren't so bad up in Lake Erie. After the morning at TREC, the Green Team traveled to the dock at the Bayfront to board the S/V Denis Sullivan. As Wisconsin's flagship and a flagship for the United Nations Environment Program, the USCG certified Sailing School Denis Sullivan, is an educational sailing vessel connecting learners of all ages to the Great Lakes, oceans and our world of water through experiential learning and technology. The S/V Denis Sullivan is the world's only re-creation of a 19<sup>th</sup> century three-masted Great Lakes schooner. The students had the opportunity to help hoist the sails. They participated in stations including knot tying, chemistry and benthic organisms. We had fair skies and the just the right amount of wind for our sail on the lake. David Boughton from Sea Grant arranged the program.



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# Recent Discoveries!

## **Hermitage Middle School Green Team Discover Giant Leaves**

While conducting a survey of the riparian zone along the Pine Hollow Run stream that flows behind the school, students found giant sycamore leaves. One student would find a giant leaf then someone else would find an even bigger one. The leaves were from trees that were planted by Hermitage students and volunteers from the Shenango River Watchers in 2005. The tree planting was part of the stream restoration project funded by a Growing Greener Grant. Students plan to further investigate the science behind the giant leaves.



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## **Algae from the Great Lakes found in West Mifflin's creek.**

When visiting their stream in November, West Mifflin Students were surprised to find algae throughout the creek! They did what any great science students would do and took a sample back to the classroom to observe it under the microscope. They identified the algae in their stream as *Cladophora*.

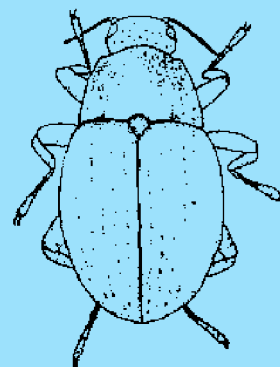
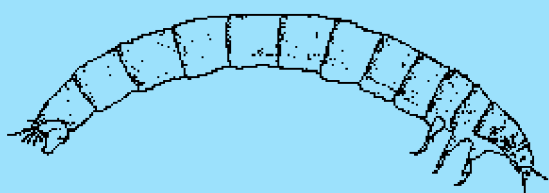
*Cladophora* is a filamentous alga usually found along the coastline of the Great Lakes. In the early 60's there was a *Cladophora* outbreak because of the increase in phosphorous in the Lakes due to more people using fertilizers and other human activities. *Cladophora* population was controlled soon after this but is currently a big problem for Lake Michigan. No one is sure what has happened but one hypothesis is the introduction of zebra mussels to the Lakes. Zebra mussels filter the water and cleared up what was once a very turbid lake. This creates a problem because now light can penetrate much deeper and has encourage the growth of many types of algae, *Cladophora* included.



## Feature Creature

*By Perry Bruno, Allegheny College Alumni*

I am part of the PTI test. I am approximately 3/4 inches long. I have a hard body that is segmented. I have 6 long segmented legs on the upper middle section of my body. On my back end, I have two tiny hooks and short hairs. It may take up to three years for me to mature and leave the water as a pupa. Once I grow up I am a better indicator of the water quality then when I was young and a larva because I am older and have been subjected to the water quality for a longer period of time. I have one pair of antenna as an adult. I live in fast moving water due to the high oxygen supply. I walk very slowly and I don't swim on the surface. If I was a female I would deposit my eggs on plant materials under the water. To find me during sampling you sometimes do a "dance" that is similar to my name.



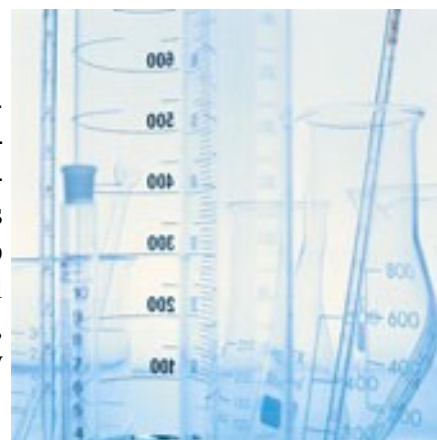
<http://people.virginia.edu/~sos-iwla/Stream-Study/Catalog/SensitiveTaxa.HTML>

## Testing Tip

*By Creek Connections Staff*

### Phosphates in Tap Water

When water enters a treatment plant, a small amount of polyorthophosphate is added to the water. The purpose of this addition is to sequester iron and hard water staining problems. Donald Nold from Meadville Area Water Authority confirmed that the polyorthosphosphate is added to Meadville's drinking water for lead and copper control to help with overall corrosion inhibition. Because tap water contains a small amount of phosphate, glassware should be rinsed with distilled water, not just tap water. If the sample is rinse with only tap water this may skew your results because your creek sample was contaminated.



# Creek Connections Wrapping It Up!

Creek Connections staff will be gift wrapping at the new REI store at Settler's Ridge on Friday, December 18<sup>th</sup> from 2-8pm. We will be promoting and taking donations for the 2010 Creek Camps. Use your GPS to find the store at:

40° 26.390' N

080° 08.963' W

We would love to see you there!

2010 Creek Camp Session I: July 11-16; Session II: July 18-23. Register on-line at:

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

## FEATURE CREATURE ANSWER:

This issue's Feature Creature (pg. 3) is a riffle beetle, Family Elmidae.



Connect with

## CREEK CONNECTIONS

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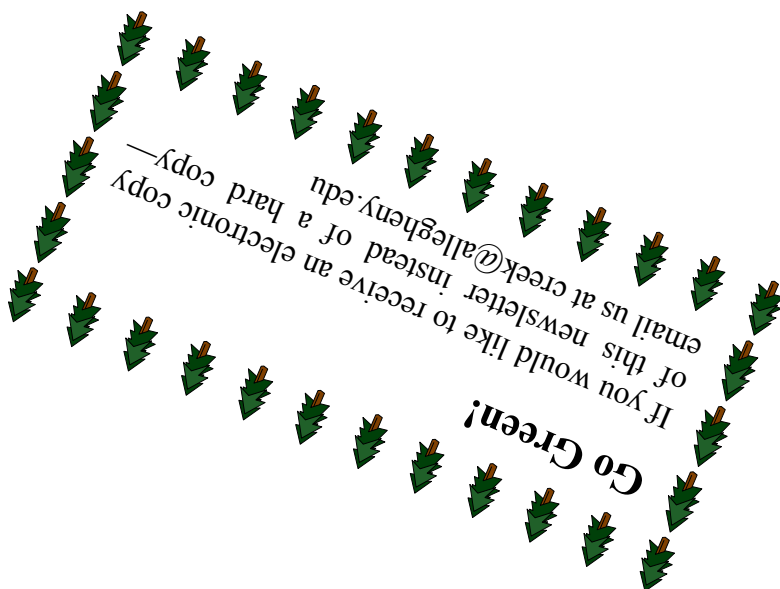
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