

Flooding the Grand Canyon: On Purpose?

By Sarah Dippold, Allegheny College Student

The red waters in the Grand Canyon have seen a large increase in flow this week, why you ask? Scientists have induced a manmade flood out of the Glen Canyon dam pushing the river to 3 to 4 times its normal flow. We spend so much time trying to prevent floods why now do we want to create one? The answer is in the ecosystem of the river. Lack of flooding due to placement of dams upstream has caused loss of sediment and sand bars that are so vital in the ecosystem of the river. This sediment helped create different environments within the stream and provide cover for prey fish like the humpback chub. The chub historically relied on the cloudiness and color of the water to hide from predatory trout in the stream, but in recent years with lack of cover, their population has started to dwindle. Many other species have also undergone drastic reductions in population size. Also, some invasive species have been able to take hold because of the slower moving water. This flooding technique has been tried before but both times with minimal success. The first flood ran for too long and ended up wiping out the sediment deposits that it had created.



The second had too little sediment available and didn't build the sandbars as needed, but scientists are confident that this time it will work. The river will be flooded for three days and the amount of sediment has been increased three times since the last attempt. Although the amount of water flooding the river does not even match that of a small spring flood, it should be plenty to fix at least some of the ecosystem of the Grand Canyon.

Source information from Flooding the Grand Canyon: Wiping the slate dirty, Mar 6th 2008, From *The Economist* print edition

Picture Source from <http://www.cnn.com/2008/US/03/05/grand.canyon.flood.ap/index.html?img=Y&ieref=mpstoryemail>

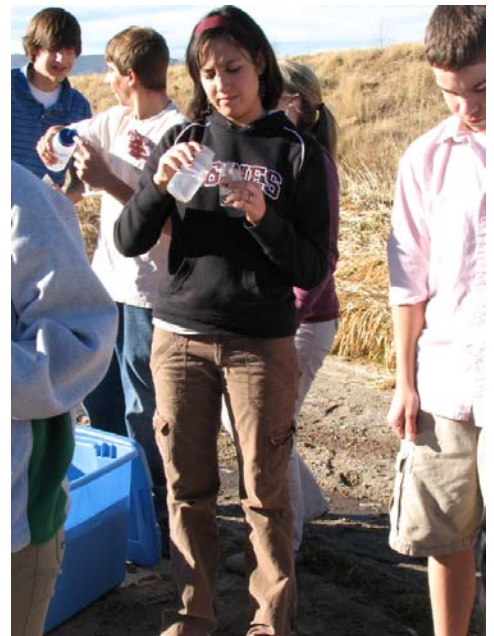


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Creek to Creek - Cross Country

From Colorado

One of our newest additions to Creek Connections, St. Mary's High School in Colorado, have been getting out into the field to do their water chemistry tests. Applied Chemistry students been sampling the Templeton Gap waterway about once a month. Recently Colorado Springs Utilities came into to speak to the students, they found that they do very similar testing!



To Mercer

Mercer Elementary Creek Connections (MECC) members presented a skit to the student body during Honors Assembly at the Mercer Elementary on January 18 to introduce their new service project - a juice pouch recycling program. The members will be collecting juice pouches at school during lunch and sending them in for recycling into useful items like purses, wallets, lunch bags, and even dog collars and leashes. In addition, for each juice pouch sent in for recycling 1 penny will be donated to Munnell Run Farm, the conservation district farm where MECC meets for outdoor programs, water testing, and macroinvertebrate sampling. After one day MECC has collected 30 juice pouches and are well on their way to their goal of 500 juice pouches recycled by the end of the school year.



Foam Phenomenon

By Sarah Dippold, Allegheny College Student

Foam can be found on many lakes and streams, but what is it really? Many think that it is a sign of pollution, which can be true, but only in a handful of cases. Most foam that is found is caused by the mixing of water and air by some sort of turbulence, like riffles. Surface tension is reduced by the break down of organic compounds in the water by the decomposition of dead plants and animals, which creates bubbles. One way that you can tell if foam is pollution or natural is by the odor. If it has a perfume or flowery smell then it is probably caused by a nearby pollution source. Natural foam smells earthy or fishy and is anywhere from white to yellow to brown in color. Natural foam also breaks apart easily when disturbed, which may not be the case with pollution.



Feature Creature

By Kelsey Mitchell, Allegheny College Student



I am a salamander that is brownish gray I have bright red gills. Since I only venture from my home at night you might not have seen me before. Yummy crayfish, worms and fish are a big part of my diet. My name comes from the squeaky bark I sometimes can make. Fisherman used to mistaken me for being poisonous because I am extremely slimy. I'm usually around a foot long, which means I'm among the largest of salamanders! I'm also different in that I guard my eggs until they are hatched. Do you know who I am? See the last page of the newsletter for the answer.



Recycling Word Search



V B U G A U W N D T B P Y R A
 T N E M N O R I V N E O B E E
 J C P N D D C L E P C I B P R
 E C U D E R L O L S O A X A O
 T W H F C I A A M D U Y N P S
 S K A K F S S O E P D E U S O
 A J N D C T D G B Y O C R W L
 W P N J I I R V Y D W S S E P
 J A X C P A P E R O R S T N U
 L E M A D I W P M Q A A C Q G
 U K R A R E C Y C L E K C S U
 H O B N U L E A G R R T Q E R
 Q L J X X X F T L I T U M A X
 E C K U B J U I J W H D J W S
 A T A O Q M F V M E O U A P O

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AEROSOL
 BIODEGRADABLE
 CANS
 CARDBOARD
 COMPOST
 PAPER
 RECYCLE
 REUSE

COMPOST
 ENVIRONMENT
 GLASS
 LANDFILL
 NEWSPAPER
 PLASTIC
 REDUCE
 WASTE



FEATURE CREATURE ANSWER:
 This issue's Feature Creature (pg. 3) is a Mudpuppy, *Necturus maculosus*.



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