



# Notes From the Field

*Chesapeake Bay Governor's School for Marine and Environmental Science*

Newsletter for Students, Parents and Friends of CBGS

**2011/2012**

**CBGS Happenings:**

- A New Field Trip for Juniors
- New Teachers at CBGS, Meet Mr. Mutisya
- Warsaw Senior wins \$10K scholarship!
- Lightning Research Zaps Warsaw
- Fall Community Service highlights

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*Patty Griffin,  
Director*

## A New Field Trip Added to the Fall Lineup

This year Juniors at all three CBGS campuses got to try out a new weekend field trip- fresh and saltwater marsh kayaking on both the western and eastern shores of the Chesapeake Bay. Teachers call it the "Kiptopeke" trip, after the Virginia State Park on the Eastern Shore that houses the students and teachers in modern, cottage style dorms. On this trip students get to experience a freshwater marsh in Walkerton, King and Queen County on the Mattaponi River. There are extensive beds of emergent and submerged aquatic plants and vast beds of the invasive species, *Hydrilla*. The saltwater marsh portion of the trip involved some fun kayaking in the extensive marshes of the lower Eastern Shore, which was made more challenging by difficult weather conditions this field season. The last day of the trip included a fascinating land and water tour of Cherrystone AquaFarms, a multi-million dollar clam aquaculture facility on the Eastern Shore.

One fun new feature of this trip is that students get to be involved in choosing and preparing the meals in the dorms. Locke Tucker and Levi Lott of the Glens campus cooked up a mean batch of French toast for breakfast for their group, and Mrs. Griffin enjoyed a feast of chicken nuggets and macaroni and cheese whipped up by the Junior chefs of the Bowling Green Campus.

Many thanks to Dr. McGrath for organizing this new trip and all of the students, who had less than ideal weather, but still made it a success!



Above: Glens Juniors Simone LaGuardia and Lee Siegle paddling the Mattaponi.

**Meet the new Physics Teacher- Mr. Mutisya**

Mr. Mutisya has traveled the farthest to join us- originally from Machakos, Kenya; he earned his B.S. and M.S. degrees in Physics from Virginia Commonwealth University. His Master's thesis research looked at using gold nanoparticles to treat cancer patients. He engineered the gold nanoparticles so that they would adhere to the surface of cancer cells; then radiation treatment heated the gold-coated cells which became very hot and were destroyed. He recently published another paper in the journal, **Applied Physics**, "Enhancement of electric field and Raman scattering by Ag coated Ni nanotips", ask him for a copy!

Mr. Mutisya's other passion is long distance running. He received an athletic scholarship to attend VCU, where he ran for 3 years and was the 2009 CAA Runner of the Month for two months. Just this September, he ran with his team in the Ragnar Relay, which was a 198 mile race from Cumberland, MD to Alexandria, VA. He ran three legs of the race totaling 18 miles, and he averaged about 5'50" a mile. His team won first place!

When asked why he chose to come to CBGS, Mr. Mutisya said that he was looking for a new challenge and to give something back to the community that invested in him, "I want to meet new people and affect students in an environment that is conducive to learning". We are so glad that he has joined the CBGS family!

**New Faces at CBGS**

In addition to the new sophomore class at CBGS, we also have several new teachers joining us this year:

<u>Bowling Green</u>	<u>Warsaw</u>	<u>Glenns</u>
Ms. Lauren Thompson	Ms. Julia Jones	Mr. Phillip Sanderson
Dr. Mark King	Mr. Daniel Maxey	Mr. Steven Mutisya (both W&G)

**Senior Spotlight- Karsten Coates**

Congratulations Karsten! He is a winner of the 2011 Nordstrom Scholarship that will award him \$10,000 spread over four years for college. This award is offered in each of 28 states where Nordstrom operates stores and over 1500 students applied this year. Karsten had to work through a very rigorous application process that included an interview with a 10 member selection committee. Karsten is a senior at the Warsaw campus and is the third of three siblings to attend Chesapeake Bay Governor's School.



*Factoid- You cannot win a scholarship that you don't apply for!*



### Lightning Strikes at CBGS Warsaw

In the midst of all of the renovation and moving at Warsaw campus, something new is lurking on the roof... Chesapeake Bay Governor's School was chosen by researchers at the University of Colorado-Denver to host an electromagnetic receiver for part of a collaborative lightning study with the University of Florida. Researchers at UCD are studying very low frequency and extremely low frequency electromagnetic waves and are trying to create theoretical models of their behavior. Lightning produces electromagnetic energy in almost all wavelengths and generates waves at the very low and extremely low frequencies that they are trying to observe. The array on the roof at RCC- Warsaw minimizes the interference of other signals found in more urban settings and will join data being collected from New York and South Carolina. This study will have great significance in the study of broadband and low frequency defense communications.

Dr. Mark Golkowski of UCD contacted Director Patty Griffin explaining, "Once we knew that we needed a location in eastern Virginia, I looked through the area schools and towns, and was happy to find CBGS with its focus on science and math. So it was my first choice. We very much like to work with schools such as yours, since part of our goal is scientific and educational outreach", he included that he was very impressed by the emphasis on environmental science at CBGS. The sampling array and computer were set up in late September by two UCD electrical engineering students, Ryan Jacobs and Jason Carpenter, who then visited with students in Warsaw Marine and Environmental Science classes.



### The CBGS Education Foundation

supports our students and our mission by providing funds were the regular budget falls short. If you would like to find out more about our efforts or make a donation, please contact Patty Griffin or Sara Beam ([www.cbgs.k12.va.us](http://www.cbgs.k12.va.us)) to see how you can help.

#### Current Wish List:

- Physics Probeware
- Math and Statistics
- Software
- Kayaks, Tents, Lifejackets



### Upcoming CBGS Events:

- December- Dance! TBA*
- March- VCU Student Science Symposium, Blue Crab Bowl*
- April- USA Science and Engineering Festival in Washington, D.C.*
- May- Kings Dominion/NASA Science and Math Day*

## Chesapeake Bay Governor's School for Marine and Environmental Science

### Community Service

Every student at CBGS is encouraged to participate in community service during their time at governor's school. Lately there have been many students out serving their communities by educating about the environment and their school.



CBGS Students Meet Congressman Rob Whitman at Riverfest. Pictured from left are: Tahir Ahmad (BG), Jamey Turner (W), Jenny Latane(W), Leira Carreon (BG), Duncan Mollner (BG), Congressman Whitman, kneeling Jeremiah Brown (W).

**Dragon Run Day**- Students from Glens and Bowling Green joined Dr. Lund and educated the public about the importance of the unique Dragon Run ecosystem and also demystified the world of reptiles by allowing hands-on visits with the CBGS snake collection.

**Friends of the Rappahannock "Riverfest"**- Students from Warsaw, Bowling Green and Glens got together with Mrs. Beam to teach Riverfest guests the importance of oysters in the Rappahannock River. Students enjoyed a visit from Congressman Rob Whitman who talked with them about some current legislation he is working on concerning the Chesapeake Bay.

**Urbanna Oyster Festival Marine Science Day**- Seniors from Glens helped teach water quality to approximately 230 elementary and middle school students! Then on Friday and Saturday, students from all three campuses joined Mrs. Smith, Dr. McGrath, Mrs. Pettyjohn and Mr. & Mrs. Beam - educating on the waterfront, and selling rain barrels on Community Row. Many oysters were eaten and good time was had by all!

**International Coastal Cleanup**- Every year CBGS students help this effort by picking up trash on our field trips, great job!