

found in unenriched marshes in the region). Although, at first glance, this account sounds similar to the expansions of *T. dominicensis* that have occurred in the Everglades and freshwater marshes throughout the Caribbean, there are some very important differences. Perhaps most importantly, the wetlands in PVNP are not as oligotrophic and P limited. In fact, soil N:P ratios in PVNP wetlands imply N limitation. These wetlands are also seasonal and receive large surface water inputs (in contrast to the precipitation-dominated inputs of the Everglades). The soils in these wetlands are mineral (many are vertisols) not organic and decomposition during the dry season is probably very rapid. I conducted a fertilization experiment this year to assess the extent of nutrient limitation. I am also comparing plant community composition, cattail stand structure, and both soil and foliage N:P ratios along a potential eutrophication gradient in La Bocana in order to assess the impact of the nutrient-rich agricultural runoff. The

process of analyzing data and samples is still ongoing; thus, the results of this study are not yet ready for formal communication. The broad objective of this investigation is to quantify the changes in both diversity and ecosystem functions that are caused by the nutrient-rich and non-seasonal permanent surface water inputs into these wetlands.

In closing, I would like to encourage wetland scientists and students to consider visiting or conducting research in the PVNP wetlands. The Organization for Tropical Studies has a field station adjacent to Palo Verde Marsh (the Palo Verde Biological Station) and is eager for additional research in these interesting and unique wetlands.

—Michael Osland
Duke University Wetland Center

Reference

¹Jiménez, J. A. 2001. pp. 90-95 in *La Cuenca del Río Tempisque: Perspectivas para un Manejo Integrado* (eds. J.A. Jiménez and E. González). San Jose, Costa Rica: Organización para Estudios Tropicales.

DragonflyTV Visits North Carolina Wetlands



DUWC doctoral candidate Ariana Sutton-Grier (far left) writes about her recent experiences during filming for PBS TV children's science programming. Joining Ariana in a tour of wetlands in Eastern North Carolina were her fellow television "stars" (left to right) Sarah, Valencia, and Sophia.

My adventure in television began with a phone call out of the blue from *DragonflyTV* producer Gloria Bremer at the end of September. *DragonflyTV*, a program in the PBS Kids television lineup aimed at the 9 to 12 year old audience, shows that science is exciting and something everyone can do.

It turned out that Gloria's phone call was not quite as random as I thought. During summer 2006 I had worked with the North Carolina Museum of Life and Science helping to teach their tour guides about the museum's on-site wetland exhibit and leading field trip sessions in Duke Forest with middle school students in the museum's wetlands camps. The museum staff had recommended me to Gloria and the *DragonflyTV* staff as a source for wetland information.

At first Gloria just wanted my advice about wetlands around the Raleigh-Durham area as well as what kinds of questions kids could ask about wetlands on a TV segment. But as we talked, we realized it would be fun to do a segment on the diversity of North Carolina wetlands. This would involve a trip down east to the coast to see cypress swamps, salt marshes, and pocosins.

Before I knew it, I was signed up to go on a weekend-long excursion with three middle school girls, two moms, two TV producers (including Gloria), a sound guy, and a cameraman!

We all had the chance to meet each other at a local restaurant the Thursday before we were to leave. I was immediately impressed by Sarah, Sophia, and Valencia (nicknamed "V"), the three middle school girls who were going to be the "stars" of the show. They were articulate and exuberant, and they already knew a lot about science. I also really liked the producers, parents, and crew. I headed into the weekend knowing we were going to have a great time.

We gathered in Durham very early on Saturday morning, October 14, 2006. It was a gorgeous day, sunny and cold. We first drove south to Rhodes Pond in Cumberland County, where an outdoor guide met us with four canoes. We headed out on the water and toured the cypress swamp there for about four hours. Sarah and "Soph" had some trouble steering their canoe and ended up taking a bunch

of detours, which caused them to have fits of laughter. Along the way we saw a couple of rare orchids and a beaver dam, and we had a wonderful time. On the way back we sang camp songs with our voices echoing through the swamp.

We grabbed a late lunch and then stopped to do some filming of us packing up the van as if getting ready to start our trip. I learned that in TV production there is a lot of stopping and starting and doing things out of order so the final narrative can run smoothly.

We drove to the coast and arrived late Saturday evening at Morehead City. All the men, tired from the day's work, went off to bed, but all the women went out for dinner at a seafood restaurant. We chatted all through the meal and had such a good time!

Sunday morning we were up early and ready to go. We headed to Bear Island, part of the Hammocks Beach State Park, to see a salt marsh. A very helpful park ranger took us out on a boat to the island.

We put on our waders and hopped off the boat, only to get absolutely, completely stuck in the mud within moments. First Sarah got a little stuck. Next, Soph got so stuck she fell over and got all muddy. Then she fell again and nearly took V with her. Trying to help them, I got stuck too. Gloria had to come rescue all of us. We were all in fits of giggles! Despite the fun, the crew reminded us that our microphones would stop working if they got too muddy (ah, the details of television), so the ranger got us back on the boat and took us to a less muddy area.

We saw the kinds of crabs and little fish that live in the marshes, and we tasted the saltiness of the glasswort plants that grow there. The girls found everything exciting in the way only young people can.



In the afternoon we headed to the Croatan National Forest to see a pocosin. A forester took us to a tall pocosin, where we looked at the peat soils and dense vegetation. The mosquitoes ate us alive, and we tried to avoid the fire ants. We also hoped we would not run into any of the rattlesnakes that live in that habitat. We left the forest, and our excursion ended with an evening drive back to Durham.

Monday morning we met on the Duke campus. I showed the girls around the Duke Forest restoration project at the Wetland Center's SWAMP (Stream and Wetland Assessment Management Park) site, and I talked about my research there. We took a few soil samples and water samples and then took them back to the Wetland Center lab so the girls and the TV crew could see how we analyze field samples.

That's where my TV filming experience came to an end. It was such fun! I loved talking to Sarah, Soph, and V, knowing that what we were saying would be heard by thousands of kids. I loved getting to share my knowledge about wetlands and my excitement about the diversity and uniqueness of wetland ecosystems. It was an exhausting weekend, but every moment was worth it and so much fun! I would do it again in a heartbeat.

This fall, in September 2007, the day before our *DragonflyTV* show premiered in North Carolina, there was a wonderful red carpet-like event at the North Carolina Museum of Life and Science in which Sarah, Soph, V, and I were the stars. We got to talk about our experience filming the show, and the audience—which was full of little kids—asked all sorts of questions, including which wetland was our favorite, which wetland animals we liked best, and what was the funniest moment during filming. The museum's premiere event was so delightful and gratifying; it gave me just a little taste of celebrity. And our producer, Gloria, did mention to me that I was very good on camera and she could see me hosting my own kids' science show. Who knows? Maybe if academic life doesn't end up suiting me, I'll think about a life in TV!

Ariana Sutton-Grier
Duke University Wetland Center

The North Carolina wetlands segment of *DragonflyTV* is currently airing on PBS affiliates nationwide.

MORE INFORMATION ONLINE!

DragonflyTV
<http://pbskids.org/dragonflytv>

The Museum of Life and Science, Durham, NC
<http://www.ncmls.org/>

DUWC SWAMP site
<http://www.env.duke.edu/wetland/swamp1.htm>

V flashes a smile as the *DragonflyTV* group pauses near a beaver dam at Rhodes Pond, a cypress swamp in Cumberland County, NC. Sarah is bending over in her canoe to gather up supplies while the TV cameraman stands in the background ready to begin filming.

Photo by Ariana Sutton-Grier