



Summer of the Dolphins

So what did you do on your summer vacation? Go to the beach...the mountains...swim...hike...take lots of pictures...save the world. Save the world?! That's what I did this summer. Well maybe not the whole world, but I helped to save a small part of the planet's natural inhabitants. How you ask? I participated in an [Earthwatch Institute](#) expedition to Abaco Island to help researchers gather data on endangered dolphin and whale species. Through a grant from NCSTA and the Earthwatch Institute, I was able to spend 10 days working with researchers from the [Bahamas Marine Mammal Survey](#) gather data on Atlantic Bottlenose Dolphins and Sperm Whales. In my brief 10 days I learned how to plot and execute transect grids, listen for sperm whale signals on a hydrophone, locate whales from surface "blows", locate and photograph dolphin pods and identify individual dolphins and whales from dorsal fin and tail markings.



But how did I save the world? Well, the data collected during these expeditions is used to help understand the movement and behavior of the animals and to identify any significant anthropogenic factors that are affecting the animals. Recently this data was used to put a moratorium on low-level sonar testing in the Caribbean Sea. The BMMS data was used to show that after the sonar testing numerous Beaked Whales and several dolphins beached themselves after sustaining severe intercranial damage. By understanding the feeding, migrating and breeding patterns of the animals, the researchers were able to track the areas that were affected by the testing and make recommendations to the Bahamian government for the safety and conservation of the animal's habitats. So what does all this mean for my students? What are they going to get out of my trip

to paradise? A lot of cool pictures for sure, but more importantly a concrete example of how our laboratory experiences, research and analysis CAN help us to save the world, one animal or habitat at a time.

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A Study Grant got me to Ocracoke for a week. Where do you want to go?

I thought this was supposed to be a workshop about Coastal Ecology... But it was so much more. We also learned about the politics, history, linguistics, and economics of Ocracoke.

- Did you know that 60-some% of the Hyde County tax base comes from 10% of the counties residents/landowners, who live on Ocracoke?
- Why is there a British Cemetery there? Because a British ship was torpedoed by the Germans and some of the soldiers bodies washed up on the beach. A few were identified, because they had met an Ocracoker over on the mainland one day.
- Black beard had about 14 wives! What a glutton for punishment!
- Even a novice can still find spider, hermit, blue, and fiddler crabs and a flounder here and there.
- The dunes on Ocracoke are man-made! And some of the grasses grown there are from the helicopter-seeding project many years ago.
- The island has very little fresh groundwater left, from over pumping to supply an ever-increasing population. They use brackish groundwater now and a very high-tech reverse-osmosis treatment process to remove the salt.
- Don't even get me started on the sewage disposal problems! Very tricky when the water table is soooo close to the surface.
- The "natives" have the most wonderful and interesting dialect/brogue.
- How about being able to tell time by the sound of the ferry.
- Not needing air conditioning if you have enough windows and a good breeze. However, you really



appreciate your car's AC when you have to drive to the inner part of the island.

- Everything tastes so much better when you're eating in a screen room overlooking the ocean.
- Your creativity blooms (I created the Ocracokacrapapaccino – 2 scoops of Rocky Road ice cream in a mug and add the leftover cold coffee from that morning, stir, savor, slurp, and you'll find that Black beard has left you a treasure in the bottom of the cup)
- Preparing/organizing food for 20 people could be a terrible burden/stress. How about doing it twice during the week, with a team, and having the other teams do it the other days?



It's not always about all the little details and facts that you learn (although I learned so much), but sometimes it's about the experience itself.

The NC Museum of Natural Science, staff members Tullie Johnson and Charlie Baker, and all the wonderful extras they had assist, made this one of the most memorable science teacher workshops I've ever been to. And I thought that their Elk Reintroduction workshop was great. I would encourage everyone to try one of the Museums Teacher Treks or Educator of Excellence workshops. You will not be disappointed. Visit the Museum at <http://www.naturalsciences.org/index.html> Here are just a few of the wonderful teaching tools we left the workshop with:

A notebook full of lessons, background information, references, etc.
Nature Guides (Eastern Birds, Nature Guide to the Carolina Coast, Threatened and Endangered Species in Forests of NC, Seashells of NC, A Guide to Dune Plants Common to NC)

NC Shell Collection

Learning from Experience and Ocracoke Island Summer Video's
Posters / Field Journals / Bug Box / Magnifier / Watercolor Pencils

And how, pray tell, did I get to go on this wonderful Coastal adventure? The NCSTA!

I applied for an NCSTA Study Grant and was lucky enough to be awarded it. This Grant will pay for half of the costs of going to a workshop. If you haven't applied yet, do it today! Thank you NCSTA.

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NCSTA Study Grant

All members of NCSTA who are taking study classes, attending conferences, or participating in workshops are eligible for one study grant. NCSTA will pay up to one half of your expenses, not to exceed the amount approved by the NCSTA board each year if your application is selected by the Study Grants Committee. Graduate courses for the purpose of obtaining a degree are not acceptable. To apply, complete the application below and forward it to the NCSTA Study Grant Committee. Grant applications are considered and awarded four times a year. To receive approval of the grant request it must be submitted before your scheduled study. If approved, a nontransfereble check will be made only to the grant winner(s) upon receipt of items listed in the agreement. NCSTA will pay only 1/2 of the expenses at varying amounts. If awarded this grant you must agree to present at the annual conference and write about the study for *The Journal* or *The Science Reflector*. To apply complete the application form, a summary of your proposal including information concerning the individuals involved and anticipated benefits to classroom instruction. The **deadlines for submitting your request are March 15, June 15, September 15 and December 15.** For more information and an application contact the Study Grant Committee

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