

The YOUNG MAN and the Sea

Faculty Focus
By Mary Ellen Collins



Davenport is an avid deepwater and cave diver, which influences his desire to keep learning and exploring.



Anatomy students dissecting a fetal pig, one of many dissections done in class.



Marine Biology divides into teams and do a weekly timed competition to see who can collect the most species.

With the waters of the Bahamas serving as a classroom for a young Scott Davenport, he knew early on he wanted to be a marine biologist. “My dad was a horticultural science research professor at the University of Florida, and one of his interests was Oceanography. When I was a kid, I spent my summers in the Bahamas with my dad on the family sailboat and he would teach me about the marine environment.”

When it was time to consider college, however, Davenport allowed himself to be temporarily swayed by people in the marine biology field, who told him there were few jobs and not much money in his chosen field.

“My stepmother was a nurse, and I really liked the hours she worked – three days with 12-hour shifts, and then four days off,” he says. “So I started taking nursing classes at Miami Dade College, but I really wasn’t into it. One of my classes shared a lab with a Biology class, and I would just sit there and stare at the fish tanks.” In retrospect, he laughs and shares the lesson learned from that experience: “Do what you have a passion for, and it works out in the end.”

He transferred to Marine Biology at Texas A&M University, with the intention of becoming a fisheries researcher. The marine science-related programs were located at the Galveston campus, where small classes enabled students to get to know their professors well.

“After I graduated my mentor, Dr. André Landry, asked if I would work as a research assistant and as a teaching assistant for his Ichthyology classes. He and his classes were a huge influence on me. I learned a ton about fishes and teaching from that man.” Davenport said yes, and spent about two years working for Dr. Landry, while also pursuing his love of SCUBA diving by teaching recreational diving and co-teaching the scientific diving courses at the university. When the university’s diving safety officer position became available, he was offered that job, but wanted to explore another option. He remembered how much he had loved learning about marine science from his dad in the Bahamas, and began to consider the possibility of passing that experience along.

He took a summer job at Odyssey Expeditions, based in Tarpon Springs, running a summer camp in the British Virgin Islands for teens and colleges students. The camp included marine biology, sailing and SCUBA diving.

“I really enjoyed it – we lived on 50’ catamarans and cruised the islands. The juniors and seniors were the most fun for me. The younger ones still missed mommy once in a while; and the college students just wanted to lie around and sunbathe. The juniors and seniors were very high energy, always wanted to play pranks and were up for anything.”

He went to work for Odyssey Expeditions full-time as a program director, recruiting students, developing new projects and lessons, maintaining diving equipment during the year, and being on-site in the islands during the summer camp. At the end of that stint, when he asked himself, “Research or teaching?” the classroom won out. He came to Admiral Farragut, where he’s in his fourth year in the Science Department teaching Anatomy and Physiology, Marine Biology and AP Biology.

Nurturing his passion for the taxonomy, behavior and habitats of fishes, and an up-close-and-personal

THE YOUNG MAN AND THE SEA [CONTINUED]

approach to teaching, Davenport says Farragut's location offers the ideal opportunity for marine science education.

"Our own waterfront access to many habitats to sample, like muddy bottom, where we don't catch much; a natural shoreline with a sandy bottom, where we catch some species; and an area that has a sea grass bed, where we catch the most species. We can also take the boat out and do samplings near the Intercoastal. It's a great way to expose the students to different habitats."

Class with Davenport often sounds more like a fun adventure than a run-of-the-mill day at school. "I try to be as hands-on as possible," he says. "In the Marine Biology class, we do collections every week – anywhere within a fifteen-minute drive of Farragut, like the Treasure Island beachfront, Gulfport or War



Aquaponics fertilizes these plants with fish waste products.

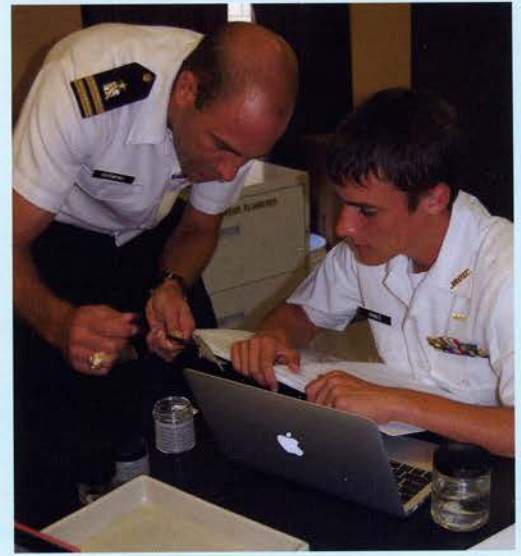
Veterans' Memorial Park. It's a timed competition, and the goal is to collect as many different species as they can. Hopefully, that's when the students start to figure out what habitat they need to be targeting, and what sampling techniques they need to use. Then we come back to the lab to identify the species."

This year Davenport's students will delve into the field of aquaponics research thanks to the \$10,000 Rossignol grant he received. Part of the Rossignol Academic Chair for General Science, these grants provide critical support for science teachers to develop new programs of study.

Aquaponics is the growing of fish and plant materials in a man-made closed environment, allowing the fish waste products to fertilize the plants. Davenport and the students have designed and built the structure – twelve 10-gallon fish tanks, located over a portable beverage cart with a floating Styrofoam raft. The waste from the fish, including mollies and mosquito fish, drain to the cart where the plants will on the floating raft with their roots hanging freely so they can absorb the nutrients from the water. Test kits enable students to measure the level of nitrates (the end product of fish waste) in the water.

"I do things like this with students because I'm interested in it, and it helps with their education. I've always been interested in aquaculture. The amount of fish in the world is drastically dropping, and our population is growing. Aquaculture is a way to

reduce pressure on wild fish stocks. There's a great demand for individuals with an interest in aquaculture and aquaponics, and there's a lot of opportunity for new technology to be developed. Hopefully, some of the students will be interested enough in this to go on and study it and develop something new."



Marine Biology Honors, students collect species at different local waterfronts and identify them back in the classroom.

Great teachers are always on the lookout for ways to improve and broaden educational opportunities for their students, and Davenport hopes to be able to turn his passion for SCUBA diving into an elective course with college level physical education credit. Right now, students can take it as an extracurricular after-school activity offered by a dive shop. "I would do it the way I taught it at Texas A&M, with a lot more class and pool time to spend on skills development. I would do one semester where students would earn certifications in Open Water Scuba and First Aid/CPR. Second semester, students would earn their certifications in Advanced and Rescue Diving. And for the students who took the Marine Biology course, I would add a unit on scientific diving."

In addition, he says he would someday like to see the development of a set curriculum at AFA for students interested in pursuing the Marine Sciences in college. "I feel students who have an interest in Marine Biology should start – in their freshman year – to take a course load heavy in math and sciences, along with oceanography and diving. They

would have more of a plan, with everything they take preparing them for a college degree in the Marine Science.”

Davenport’s enthusiasm for life in and on the water has come full circle from the days he and his dad spent exploring the Bahamas. He is both student and teacher now – still committed to learning, and just as committed to igniting an interest in the students who might follow in his footsteps.



AFA students at Charles Spring on Mr. Davenport’s annual springs of North Florida canoe tour. Students investigate hydrology, water quality, vegetation, and animal life within various springs along the Suwanee River.

ELEMENTARY & MIDDLE SCHOOL love marine life too!



“Ocean in Motion” program gets elementary students throughout Pinellas County active in protecting marine life.



Elementary students often visit Sari Deitche’s middle school marine science classroom because it’s loaded with touchtanks!



Students hop aboard Admiral Farragut Academy’s specialized marine science boat to explore deserted islands, listen to dolphin calls with a hydrophone, and they even observe abandoned vessels.



Coach Nick and middle schoolers examine a Horseshoe Crab they found at AFA’s waterfront on Boca Ciega Bay.