

MIMES REPORT

Winter 2003

South Carolina Minorities in Marine and Environmental Sciences Summer Intern Program

Summary of Summer 2003 Activities



2003 Students (front row, left to right): Ana Estrella, Arena Richardson, (back row, left to right): Sydnee Battles, Megan Singleton, Rear Admiral Evelyn Fields, Ileana La Torres, Shanna Chambliss, Deon Flowers.

(all photos by G. Steele and J. Davis, SCDNR)

MIMES Program

Our summer training program, which began in 1996, is designed to give undergraduates a “hands-on” 12-week experience in the fields of marine and environmental sciences. The program gives students the opportunity to conduct independent research projects under the guidance of marine scientists. The scientists serve as mentors to the students, explaining all facets of current research and the importance of conducting high quality research. They also introduce the students to other research being conducted at the Marine Resources Center in Charleston, SC.

In May, staff of the Marine Resources Center, including the Marine Resources Division (MRD), the University of Charleston and NOAA, welcomed seven students to the summer program. After a day of orientation activities, including tours of all research facilities at the Center and an evening “welcome” social, the interns began their independent summer research projects.

Two of the students are seniors at the University of Puerto Rico. Ana I. Estrella Riollano studied the nesting behavior of Diamondback terrapins (*Malaclemys terrapin*) in Grice Cove under the guidance of Dr. David Owens, University of Charleston, South Carolina. Ms. Riollano evaluated the importance of Grice Cove Beach as a nesting site and studied the nesting seasons of the terrapin, which is the only turtle in North America that inhabits brackish water. The other student, Ileana Bagnamanay La Torres, studied under Mr. Bill Roumillat and Ms. Myra Brouwer of SCDNR MRD. Ms. Torres conducted a fecundity study of sheepshead (*Archosargus probatocephalus*) in Charleston Harbor to determine the size and age at first maturity and to investigate the relationship between batch fecundity and the size, age, weight of the female fish.

Arena N. Richardson, a senior at South Carolina State University, (SCSU) an intern last year, returned to continue her studies with Dr. Alan Lewitus who served as her mentor in 2002. Her studies focused on the role of trace elements, inorganic and organic nutrients in controlling the growth of the harmful alga *Heterosigma akashiwo*.

Shanna S. Chambliss, a junior at Elizabeth City State University, also worked with the harmful algal species *H. akashiwo* under the guidance of Drs. Susan Wilde and Patrick Brown and the Harmful Algal Bloom team. Ms. Chambliss examined the spatial distribution of the species in a brackish pond and studied the relationship between salinity and the growth of the algae.

Sydnee Battles, a senior at South Carolina State University, studied under Dr. Amy Ball and Ms. Marion Beal at NOAA Hollings Marine Laboratory. She examined the effects of over-fishing on the genetic diversity of red porgy (*Pagrus pagrus*).

Deon H. Flowers, a senior at the College of Charleston, assessed the efficacy of several materials in attracting the juvenile spat of the Eastern Oyster (*Crassostrea virginica*). Mr. Flowers worked under the guidance of Mr. Andy Jennings, Mr. Bill Anderson, and Mr. Christopher Hardin of the MRD Shellfish Management Section.

Megan C. Singleton, a senior at Spelman College in Atlanta, Georgia, studied under Dr. Paul L. Pennington of NOAA National Ocean Service’s CCEHBR Laboratory. Ms. Singleton examined the effects of the mosquito control agent, Scourge®, on growth and survivorship of grass shrimp (*Palaemonetes pugio*) and the changes that occur in water quality after the introduction of Scourge®.

Classroom Training and Peer Interactions

Workshops on statistics, scientific writing, and preparing computer graphic presentations were held during June. The workshops are designed to prepare the students for their work ahead. Research staff at the Marine Resources Division (Mr. Bill Roumillat, Mr. David Wyanski, and Ms. Karen Swanson) taught these classroom sessions.

Visiting Scientists - Outstanding Minority Role Models

Two scientists spoke to the students in July. Rear Admiral Evelyn Fields, Commander of NOAA Corps from Silver Spring, MD, visited the students and gave advice on strategies for successful professional careers. Ms Taconya Piper, a 1999 MIMES intern, shared her experiences as a past intern and encouraged students to attend graduate school. (See featured article below for more information on Ms. Piper).

Perseverance, Determination and Hard Work- They really pay off!



Taconya Piper, a 1999 MIMES summer intern, is moving by leaps and bounds in the field of Fisheries Science. After completing her summer internship at the South Carolina Marine Resources Division (SCMRD) on the fecundity of spotted seatrout with in-shore fisheries scientists, Taconya graduated from the University of Maryland Eastern Shore (UMES) in December 1999, with a BS in Environmental Science. In 2000, she enrolled in the Marine Estuarine

Environmental Sciences Program (with a specialization in Fisheries Science) at UMES to begin graduate work on a Master's degree. Her graduate research examined the reproductive physiology of American shad, *Alosa sapidissima*, in the Delaware and Hudson Rivers. While working on her degree, she was a graduate teaching assistant for a year and a half, and was then accepted into the Student Career Experience Program (SCEP) with NOAA. Taconya was also an EPA Graduate Research Fellow, which supported her with a stipend, tuition and research funds. Ms. Piper successfully defended her thesis and received her Master of Science Degree in May 2003.

In February 2003 while completing her degree requirements, Taconya began a Dean John A. Knauss Marine Policy Fellowship sponsored by the National Sea Grant Program where she spent a year in Washington DC with NOAA's Office of Ocean Exploration (<http://www.oceanexplorer.noaa.gov>) learning environmental policy and management. Shortly after her arrival in Washington, Taconya participated in a three-week research cruise to the Puerto Rico Trench to map the seafloor. When we asked Taconya about her experience, she said, "We got some great images and I learned a lot. The experience was just awesome." During a September 2003 NOAA research cruise in the Gulf of Mexico, Taconya worked with scientists aboard the NOAA Ship *Ronald H. Brown* gathering background information, daily logs and supplemental essays on topics that centered on the expedition. Work from this investigation was featured in the Nov/Dec 2003 issue of *Underwater Magazine* where daily diary entries (Deep Sea Diary) of the expedition were co-authored by Ms. Piper.

Ms. Piper completed her fellowship at NOAA in January 2004 and plans to travel to Costa Rica to participate in a four-

week intensive Spanish instruction. "I am so excited about going to another country and learning about the culture and seeing all of the wonderful sites of Costa Rica," Piper said. Taconya will be enrolling at Auburn University in Alabama in Fall 2004 to pursue a PhD in Fisheries Science and Management.

Taconya gives the MIMES program high praises. When asked to speak to the 2003 MIMES interns, Piper accepted without reservation. "I can't say thank you enough for the opportunities and experiences that the program provided for me." We wish Taconya the best of luck while pursuing her PhD and look forward to her continued success.

Student Updates

Arena Richardson (2002 and 2003) was inducted into the Golden Key International Honour Society. This honor, which is by invitation only, is offered to students who are in the top 15% of their class. Ms. Richardson was also selected to receive the United States Achievement Academy Collegiate All-American Scholar Award.

Shanna Chambliss (2003) will present work from her summer research on the harmful alga species, *Heterosigma akashiwo*, at the Southeastern Estuarine Research Society (SEERS) conference in April 2004.

Cecelia Lewis (2001) and Priscilla McCutcheon (2002) participated in the 2003 Student Oral Presentation Program. Both of them spoke about the value of summer internships and gave a round of applause to the MIMES program.

Tiffany Lee Griggs, a 2000 summer intern, received her Master of Science degree with a major in Aquaculture, Fisheries, and Wildlife Biology from the Graduate School of Clemson University in South Carolina in December 2003. Her thesis was entitled "Diel Movement of Hatchery-Reared and Wild Shortnose Sturgeon in the Savannah River, South Carolina-Georgia".



Cecelia



Priscilla



Tiffany

Please continue to let us know what you are doing and where you are. All alumni updates are published in our newsletter. We would appreciate telephone numbers, home and e-mail addresses. Thanks!

Tell a Friend!!

Please encourage minority undergraduates interested in science or policy/research management to check out our web site and apply to the MIMES Program.

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Program's web page: www.dnr.state.sc.us/marine/minority

