TARA S TOPPING

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EDUCATION

AUBURN UNIVERSITY AUBURN, ALABAMA
Master of Science, Department of Fisheries and Allied Aquacultures *May 2011*
Major: Fisheries Science
Thesis Title: A comparison of the size and age distribution of red snapper *Lutjanus campechanus* to the age of artificial reefs in the northern Gulf of Mexico.
Coursework included: Fisheries Oceanography, Quantitative Methods in Fisheries, Reef Fish Ecology, Fish Anatomy and Physiology, Animal Community Ecology, Biostatistics, Crustacean and Molluscan Aquaculture, Reservoir Fisheries. GPA: 4.0

UNIVERSITY OF RHODE ISLAND KINGSTON, RHODE ISLAND
Bachelor of Science, Department of Biological Sciences *May 2006*
Major: Marine Biology
Coursework included: Nongame and Endangered Species Management, Principles of Wildlife Management, Deep-sea Biology, Marine Biology, Marine Ecology, Phycology, Vertebrate Biology, Animal Development, Oceanography, Directed Research. GPA: 3.64, *Magna Cum Laude*

PROFESSIONAL EXPERIENCE

TEXAS A&M- CORPUS CHRISTI, HARTE RESEARCH INSTITUTE
06/2014 – present

Research Technician I. Supervisor: Greg Stunz. Coordinator of the "iSnapper" grant-funded research project, serving as the primary point of contact with app developers, tests and troubleshooting the "iSnapper" app and web portal on all devices and platforms, communicates with recreational anglers participating in the program, and performs data quality assurance and quality control by coordinating with TPWD creel surveyors. Field work includes testing "iSnapper" while aboard offshore fishing vessels, training TPW field biologists with "iSnapper", and assisting the Center for Sportfish Science and Conservation with various research projects.

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION, FISHERIES DEPENDENT MONITORING
10/2011 – 4/2014

Other Professional Service Biological Scientist I. Supervisor: Chris Bradshaw. Work duties included collection of fisheries dependent biostatistical data, including both commercial and recreational catches. Commercial sampling occurred at fish houses and

involved proper identification of species landed, measuring select species, sex determination, and extraction of otoliths using non-invasive techniques in order to preserve the value of the fish aesthetically. Recreational sampling was done at boat ramps, fishing piers, and boat docks when anglers were interviewed regarding their fishing day and asked a series of standardized questions. The surveys were submitted to the Gulf States Marine Fisheries Council and used to quantify catch rates, effort, gear, and area fished for the sample area. Sampling also included recreational trips out on charter vessels where species caught were recorded and either tagged if returned to the water, or had a full biological workup (weight, length, sex, otoliths extraction, tissue sample) if the fish was kept by the fishermen. Significant time was spent in the field, with monthly reports submitted to both the field lab and position supervisors, and summaries of the number of recreational interviews conducted were submitted weekly. Occasional assistance was provided to other FWCC groups, including Fisheries Independent Management (field sampling and biological fish work-up) and Education and Outreach (public relations at local festivals and education at fishing clinics).

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
1/2006 – 11/2007

Seasonal Policy Intern. Supervisor: Nicole Calabrese. This job provided me with two field seasons worth of experience with both fishery dependent and independent sampling methods. Fishery independent collections included bottom trawls, large (60 m) and small (23 m) beach seines performed monthly from June to October in Narragansett Bay (18 sites) and five coastal ponds (16 sites), and bridge demolitions. Finfish were collected, identified, and data was entered for population analysis. During the bridge demolitions, scales and opercular bones of various species were taken and used for age analysis. Port sampling included the collection of striped bass (*Morone saxatilis*) and menhaden (*Brevoortia tyrannus*) scales and weakfish (*Cynoscion regalis*) otoliths. American glass eel (*Anguilla rostrata*) survey biologist, duties included daily measuring, weighing and pigmentation assessment of two eel ramps.

In addition, I was a student intern for one semester comparing the distribution and migration of spiny dogfish (*Squalis acanthias*) in the northwestern Atlantic Ocean. This provided me with additional experience with GIS which was used to examine changes in yearly abundance and possible aggregation sites.

NATIONAL MARINE FISHERIES SCIENCE CENTER, NARRAGANSETT, RHODE ISLAND
01/2005 – 12/2005

Biological Sciences Lab Technician, Cooperative Shark Tagging Program. Supervisor: Dr. Nancy Kohler. I distributed shark tagging instructions and equipment to program volunteers, coded returned tag cards for entry into database, data auditing and updating of

several shark tagging databases, and communicated with program volunteers for data verification and clarification. Laboratory duties included processing and staining shark and skate vertebrae.

I also was a student intern for two semesters. The first semester I analyzing the diet of the silky, bignose, and night sharks and compared their prey items using indices of relative importance and percent of diet composition by weight and volume. This was my first experience using programs such as SAS and GIS and writing a final scientific report of my findings for research credit. The other internship involved a data recovery effort for coastal shark species from exploratory NMFS research cruises beginning in the early 1960's. I reconstructed the historic catch, size composition, and biological sampling data of tagged sharks and reformatted the data for time series analysis, used in SEDAR workshop 11 document: Review of exploratory longline surveys and biological sampling of sharks from the Sandy Hook, NJ and Narragansett, RI labs: 1961-1991.

RESEARCH EXPERIENCE

AUBURN UNIVERSITY
6/2008 – 5/2011

Graduate Student Assistantship. Supervisor: Stephen Szedlmayer. Research focused on the ecology of red snapper (e.g. mortality estimates, diet, competition, recruitment) and the importance of artificial reefs to the species in waters off Alabama. My thesis focused on comparing the size and age of red snapper on known age artificial reefs. Conclusions included that older and larger red snapper were found on older artificial reefs, indicating that the reefs are producing greater biomass. Offshore work included collecting red snapper using hook-and-line and fish traps and SCUBA visual surveys using underwater video and digital photographs. Laboratory work involved maintenance of red snapper in a re-circulating saltwater system, dissecting fish (e.g. removal of otoliths and various organs, sex determination), estimating densities of red snapper from photographs and video, statistical analysis, and GIS mapping. The graduate assistantship also enabled me to work on various other projects including reef building and deployment, red snapper recruitment, acoustic telemetry, 24-hr manual tracks of red snapper (over-night trips), and boat handling of 44' vessel.

PROFESSIONAL SKILLS

- PADI open water and SSI NITROX certified
- 275 dives completed ranging from 60 – 110 ft, including low visibility and search and salvage dives
- Over 200 days on the water experience: 150 d offshore, 60 d inshore
- Microsoft software (Excel, Word, PowerPoint, Access)
- ArcView GIS
- Adobe Photoshop

- SAS
- SigmaPlot
- Fishery Analyses and Simulation Tools program (FAST)
- Stella modeling program.

PUBLICATIONS

Syc, T. S., and S. T. Szedlmayer. 2012. A comparison of the size and age of red snapper (*Lutjanus campechanus*) with the age of artificial reefs in the northern Gulf of Mexico. Fish. Bull 110(4):458–469.

GRADUATE ASSISTANTSHIPS, PRESENTATIONS, AND STUDENT AWARDS

ALABAMA FISHERIES ASSOCIATION
Best Student Presentation Award
A comparison of red snapper, *Lutjanus campechanus*, from "old" (2006) to "new" (2009/2010) artificial habitats in the northern Gulf of Mexico.
February 2011

AMERICAN FISHERIES SOCIETY
A comparison of red snapper, *Lutjanus campechanus*, from "old" (2006) to "new" (2009/2010) artificial habitats in the northern Gulf of Mexico.
January 2011

AUBURN UNIVERSITY
June 2008 through May 2011
Graduate Research Assistantship: Part-time salary and tuition