

# Michael D. Nguyen

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## INTERESTS

**Large Coastal Sharks, Genetics, Fish Morphology, and Life History**

## EDUCATION

**University of New England | MSc Marine Science | Stockton University | B.S. Marine Science Minor: Business Studies**

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## SCIENTIFIC EXPERIENCE

### **University of New England**

Biddeford, ME

*Research Assistant*

*August 2022- Present*

- Estimating Origins of Recreationally Caught Striped Bass (*M. saxatilis*) Using the Chemical Composition of Scales as a Non-Lethal Natural Tag
- Tracking seasonal movements and origin of two anadromous fishes (*A. oxyrinchus*, *M. saxatilis*) in the Saco River system using acoustic telemetry and scale chemistry
- Demonstrating Effectiveness of a Microprocessor-Based Shark Bycatch Reduction Device (BRD) in Longline Fisheries Using an Academic-Industry Partnership using *S. acanthias* as a model species

### **Rutgers Aquaculture Innovation Center**

Cape May, NJ

*Lab Technician*

*May 2022- August 2022*

- Conducted strip spawns of *C. virginica*, *S. solidissima*, *A. irradians*; and reared larvae to settlement size.
- Performed (maintained) cell counts to assess health and productivity of algal cultures used to feed all larvae at facility.

### **Stockton University Coastal Research Center**

Port Republic, NJ

*Beach Profile Surveyor*

*February 2022- May 2022*

- Assisting local municipalities with coastal environmental issues related to erosion and storm damage.
- Swim surveys of over 100 sites along the jersey shore to monitor beach profile.

### **NJDEP Division of Water Quality Monitoring and Standards** Bureau of Marine Water Monitoring, Leeds Point, NJ

*Environmental Research Technician*

*March 2021- December 2021*

- Segmented Flow Analysis (SFA) of seawater samples; preparing reagents fresh (for each test) utilizing stringent lab etiquette, setting up a "run" for a singular testing constituent, QC data after a single run to make sure data is accurate and usable, troubleshoot all fails by dilutions or by re-running reagents with highest probability of cross contamination.
- Ammonia, Total Nitrogen, and Biogenic Silica via SFA
- Total chlorophyll using spectrophotometry.
- Real-time Water Quality Monitoring consists of the assembly from the bottom up of 8 buoys. Each buoy is assembled by hand; every gasket and seal is inspected thoroughly and all screws and bolts are torqued to specific specifications. Each module composed of a modem, a data logger, and power source is then wired to a YSI EXO sonde that is calibrated to strict EPA set standards.
- Fully sealed pressure tested modules are lowered using a forklift into each buoy and fully assembled.
- Via R/V Shinn at 8 locations using the vessels integrated micro crane.
- Keep continuous high quality data for the state.
- Maintenance and Upkeep of the R/V Shinn and of the entire Leeds Pt. station.

### **Large Pelagic Intercept Survey Quantech Inc.**

Cape May, NJ

*Dockside Interviewer*

*July 2020- October 2021*

- Dockside survey of fishing access sites, primarily designed to collect catch data from private and charter boat captains who have just completed fishing trips directed at large pelagic species (Sharks, Billfishes, Tuna).
- Data Includes Total Length, Fork Length and Curved Total Length for tuna species.
- Identifies all fish; Verifies HMS permits and names to account for undocumented HMS catches.

**Monmouth Summer Research**

Monmouth University, West Long Branch, NJ

*Research Technician**May 2019- Present*

- Tagged >300 coastal sharks with M-tags and/or surgically implanted Vemco acoustic tags through land-based fishing.
- Deployed Vemco acoustic receivers to monitor for tagged sharks and sturgeon.
- Deployed PATs to monitor post-release survival from LBSF as well as spatial and temporal coastal movements.
- Secondary Atlantic sturgeon study w/ acoustic tracking and tagging was done via otter trawl as well as gastric lavage to study feeding habits.

**National Oceanic and Atmospheric Administration Apex Predator Program**

Southern ME &amp; NJ

*Shark Tagger and Data Recorder**May 2016- Present*

- 400 sharks documented sized 24cm-320cm+ over the past summers.
- Sandbar, Sand tiger, Dusky, Spinner, and Blacktips.

**Jacques Cousteau National Estuarine Research Reserve**

Rutgers Marine Field Station Tuckerton, NJ

*Volunteer and Research Aid**May 2018- May 2020*

- Ichthyoplankton bridge net sampling. Set nets then sort fish out of each tow and preserve them for identification.
- Record basic water quality and flow meter data from corresponding tow sample.
- Research on thin layer disposition of dredged sediment on marsh recovery to combat sea level rise.

**CIS of Mullica River-Great Bay Estuary with Grants from NJDEP**

Stockton Marine Field Station, Port Republic, NJ

*Field Researcher**September 2016- September 2019*

- Seine with a 100ft haul seine to gather information by going out monthly or biweekly to multiple locations along the gradient of the estuary to assess biodiversity in relation to seasons.
- Winter work with commercial fyke net fisherman.
- Took YSI Water Quality meter data each location to record salinity, pH, turbidity, depth, temperature.
- Identified each species, measure catch, and record length and quantity. Entered data, QC and QA for report for NJDEP.

**Presentations at Professional Meetings**

**Nguyen M.**, Mirabilio S, Brill R., Bushnell P., Golet W., Levine I., and J.A. Mohan. 2023. Demonstrating Effectiveness of a Microprocessor-Based Shark Bycatch Reduction Device (BRD) in Longline Fisheries Using an Academic-Industry Partnership. Southern New England Chapter of the American Fisheries Society, Boston, MA, January 8 – 10.

**Nguyen, M.**, C.J. Vasas, L. M. Kelly, H. Craft, and K.J. Dunton. 2019. Demographics of Sharks Captured in the Recreational Land-Based Surf Fishery in Cape May, NJ. Mid-Atlantic Chapter of the American Fisheries Society, Lewes, DE, November 21 – 22.

Vasas, C.J. , L. M. Kelly, H. Craft, **M. Nguyen**, AJ Rotondella, and K.J. Dunton. 2019. Cooperative efforts to determine the demographics and post-release survival of sharks captured in the recreational land-based surf fishery. 149<sup>th</sup> Annual Meeting of the American Fisheries Society and joint conference with the The Wildlife Society, September 29 – October 3, Reno, Nevada.

Vasas, C.J., A. M. Salamone, G. A. Badlowski, L. M. Kelly, T.A. Ohntrup, **M. Nguyen** A.J. Rotondella, and K.J. Dunton. 2018. Collaborative Efforts to Evaluate the Demographics and Post-Release Movements of Sharks Captured in the Recreational Land-Based Surf Fishery. Symposium Titled: Bringing in the Experts: Collaborative Research Partnerships with Fishing Industry Stakeholders. 148<sup>th</sup> Annual Meeting of the American Fisheries Society Atlantic City, NJ, August 19-23.

**POSITIONS HELD****President of UNE AFS Student Subunit**

2023-Present

**Treasurer of SU AFS Student Subunit**

2018-2019

**President of SU AFS Student Subunit**

2019-2020

**CERTIFICATIONS****NAUI scuba certified 2017****NJ Boating Safety Certificate 2021****Heartsaver First Aid CPR AED 2022**