

Internship at the Wildlife Resources Commission

All supplies and equipment are supplied by the Wildlife Resources Commission. All work-related travel expenses are paid by the Wildlife Resources Commission. All interns are paid overtime in accordance with the Fair Labor Standards act and agency policy. Please note that housing is the responsibility of the intern.

Project Name

Fisheries Research and Survey Assistance

This internship would provide the successful applicant with an opportunity to assist fisheries biologists with research focused on an understanding of fish community dynamics in NC's coastal rivers. Flathead catfish are an exotic fish species introduced into our river systems, and their role in structuring the native fish communities is poorly understood. This project has an intensive field sampling component that would allow the intern to develop electrofishing expertise through the sampling of fishes in four major coastal river systems, the Cape Fear, Waccamaw, Lumber and Black. Field sampling involves collection and identification of catfish and sport fish (sunfish, largemouth bass), processing samples for length and weight, and removing structures for ageing purposes. Some lab work would be involved, and would include preparing and ageing growth structures, and entering data into field and office computers. Because this internship will be located at the John E. Pechmann Fishing Education Center, the intern will also have opportunity to assist the center staff with angler education programs.

Objective:

To evaluate population characteristics of catfish and sport fish species to determine if there are differences between areas where hand crank electrofishing is allowed and where it is currently illegal. Growth and mortality rates, relative abundance, stock indices, condition, and species diversity will be quantified and compared in four southeastern NC river systems: Waccamaw, Cape Fear, Lumber and Black. Data collected during this project will be used to determine the impacts (if any) that hand crank electrofishing has on structuring the catfish and centrarchid communities in these systems. The project fits under Objectives 2 and 4 under Goal 3 (Conserve and enhance the abundance and diversity of fish and wildlife resources of NC) as listed in the Strategic Plan.

Project Location

County:

Location: 7489 Raeford Road, Fayetteville, NC 28304Cumberland, Bladen, Columbus, Pender, Sampson counties

Location Description: John E. Pechmann Fishing Education Center - WRC;Field location such as a depot

Academic Majors:

Majors: Fisheries Science, Wildlife Science, Biology, Biological Sciences, Zoology, Ecology, Marine Science, Environmental Science, Natural Resources Conservation
Coursework: Fisheries Techniques, Fisheries Science, Fisheries Management, Biology, Ecology,

Knowledge, Skills and Abilities Required:

General understanding of ecological principles pertaining to fisheries and aquatic communities is preferred. Field work requires the ability to lift fish that may weigh in excess of 40 pounds. Experience working with spreadsheets and data processing software would be beneficial.

Tasks and Duties:

The intern will work under the supervision of a District Fishery Biologist to collect field samples using electrofishing techniques. Job duties include, but are not limited to, netting fish from an electrofishing boat, processing and recording individual fish information (length and weight), removing structures for ageing purposes (otoliths, scales and spines), preparing and ageing fish structures, and entering data on a field or office computer. Opportunities also exist to assist

fisheries educators with fish for fun events at the J.E. Pechmann Fishing Education Center.

Travel Required:

Daily drives with staff from Fayetteville to field sampling locations. Overnight travel will be infrequent, but may be requested to allow cost savings and work efficiency.

Work Schedule:

Weekdays (M-F); Occasional evening or nighttime hours

Final Product:

Data collected will be used to characterize the relationships between catfish and sunfish communities in the four coastal river systems where hand crank electrofishing is allowed. Discussions with catfish anglers in the southeastern coast continue to center around the impacts that flathead catfish may have on resident sport fish communities; current knowledge of this relationship is poor. The field sampling conducted to support this formalized research project is intensive, and will occur during June and July. Staff throughout the Coastal Region will participate. Expected benefits will include the ability to use sound science to make management recommendations that will improve recreational angling in this area, and will allow fisheries biologists to communicate and partner more effectively with anglers.

Knowledge Gained:

The intern will develop proficiency in boat electrofishing techniques that include low frequency and high frequency sampling. Fish identification will be learned as samples are processed. Opportunities to remove age structures (scales, otoliths and spines), and to process and age these structures will be provided. As schedules allow, the intern may be asked to assist with angler fishing programs at the J.E. Pechmann Fishing Education Center, which would build communication skills and an understanding of basic fishing techniques. The intern will have opportunities to communicate directly with fisheries professionals on a daily basis.