**NCAFS Meeting Abstract Submission Form**

***(see example on pg. 2 for formatting)***

Click here to enter title/authors/abstract. Abstracts must be 300 words or less.

**Type** (*full/lightning/poster*):

**Student or Professional?**

**Contact**:

**Email**:

**Phone**:

EXAMPLE

**Movement of Acoustic Tagged Largemouth Bass between Lake Mattamuskeet and Surrounding Canals in Relation to Changes in Lake Level**

Kevin J. Dockendorf

North Carolina Wildlife Resources Commission, Inland Fisheries Division, Elizabeth City, NC

Largemouth Bass, *Micropterus salmoides*, are popular sportfish at Lake Mattamuskeet, a large (16,187 ha), shallow (mean depth < 1.0 m), lake surrounded by a system of canals at Mattamuskeet National Wildlife Refuge in Hyde County, North Carolina. Lower lake levels annually occur due to environmental (evaporation in summer) or anthropogenic (pumping for refuge impoundments and draining through water control structures) conditions may reduce available shoreline habitat for Largemouth Bass, whereas connecting canals are relatively deeper due to maintenance dredging and may provide alternative habitat when habitat in lake is reduced. The study objective is to define the temporal and spatial scale of Largemouth Bass movement with acoustic telemetry. Specifically, this study will test the hypothesis that Largemouth Bass movements into deeper, canal habitats are triggered by decreasing water levels in the main lake and dewatering of shoreline habitats. Between March and May 2017, a total of 31 VEMCO VR2W receivers were strategically placed in proximity to the canal connections to the lake. During May–June 2017, a total of 42 Largemouth Bass were collected, anesthetized, surgically implanted with VEMCO V9 acoustic transmitters (or tags), and released at seven locations; five in the lake and two in the canals. Receivers were checked monthly from May 2017 to October 2018 to download available data, service as necessary, and then redeployed. Receiver downloads between 15 May 2017 and 31 October 2018 revealed more than 616,000 detections of at least 29 acoustic-tagged Largemouth Bass at 30 of the acoustic receivers in the array. This survey will continue through February 2019 (extent of transmitter battery life) or until all acoustic-tagged Largemouth Bass are defined as dead. This study will provide valuable information regarding optimal water levels for Largemouth Bass in main lake habitats, while providing insights into environmental characteristics that elicit movement between available habitats.

**Type**: Full Presentation

**Student or a Professional?** Professional

**Contact**: Kevin J. Dockendorf

**Email**: kevin.dockendorf@ncwildlife.org

**Phone**: 252-312-6122