**Habitat use and site fidelity of juvenile black sea bass (*Centropristis striata*) in the Maryland Coastal Bays using mark-recapture**

Presenting author: Rebecca Peters

University of Maryland Eastern Shore, Department of Natural Sciences, Princess Anne, MD

Coauthor: Paulinus Chigbu

rjpeters@umes.edu

Estuaries serve as nursery grounds for many commercially and recreationally harvested species along the Atlantic Coast. Studies targeting use of specific habitats within estuaries are needed to accurately identify essential fish habitat. Juvenile *C. striata* are known to prefer structured habitats, but few studies have been conducted to show the specific habitat in estuaries *C. striata* prefer. In 2015 a mark-recapture study was conducted to identify these habitats in the Maryland Coastal Bays (MCBs). Juvenile eel traps were set at sites with different structured habitats (rock jetty, bridge piling, wood pilings, marsh edge, and seagrass beds), and 665 fish captured from April to December were tagged with external tags and released. Sixty (60) fish were recaptured, with two fish being recaptured twice; days between recapture ranged from 3 to 45 days. Recapture rates were highest at three sites with artificial structure: rock jetty (16.7%) and bridge pilings (13.2% and 13.1%), however, growth rates did not significantly differ between habitat type. This suggests rock jetties and bridge pilings are important habitats for juvenile *C. striata* in the MCBs. The results from this study will allow future management to target conservation efforts more effectively to protect these essential habitats within the MCBs.