

Quarterly Management Summary – November 2014

Identifying and Evaluating the Distribution of Fishes in the Savannah River Estuary

Guillermo Sanchez, GA Cooperative Fish and Wildlife Research Unit, Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA

Cecil A. Jennings, U.S. Geological Survey, GA Cooperative Fish and Wildlife Research Unit, Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA

Sampling to identify and evaluate the distribution of fishes as part of the Savannah Harbor Expansion Project continued on schedule; the third quarterly samples were collected during November 7-11, 2014. Because extremely high tides (i.e., ~ 1 m above August's high tide) were expected during this sampling period, all sampling sites were visited one day before the sampling period and adjustments were made to ensure that the lengths of the polyvinyl chloride (PVC) posts were appropriate for the projected water levels. During the actual faunal sampling period, water quality conditions were measured as soon as the sampling crew arrived at each sampling site. On each occasion, the tidal-assisted seines (0.63-cm mesh, 15.2-m in length x 1.8-m in height) were set parallel to the shoreline at slack high tide in 0.5–2.0 m water depth and allowed to fish for about 3.0–6.0 h. Juvenile and adult fishes, crabs, and shrimp were trapped behind the seine as the tide ebbed and water level dropped 1–2 m. The seine was retrieved by detaching the lead and float lines from the polyvinyl chloride posts and pulling the lead line to shore (usually < 0.5 m). The seine was then stretched out on shore or onboard a boat, and fauna were removed by hand. A few larger specimens of common fishes and crabs were identified, measured, and released. All other fishes, shrimp, and crabs were euthanized in alcohol per the University of Georgia's animal use protocols, preserved in 10% formalin, and returned to the laboratory at the University of Georgia for identification and enumeration. Data were digitalized and stored on Microsoft EXCEL spreadsheets and then checked for mistakes by project personnel. In November, specimen collection totals were as follows: fishes - 295 individuals from 18 species; crabs - 11 individuals from 2 species; shrimp – 1,582 individuals from 3 species.