

Quarterly Management Summary – February 2015

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

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The fourth quarterly samples with a tide-assisted seine method in the Savannah River Estuary were collected during February 3-7, 2015. All sampling sites were visited one day before the sampling period to ensure that the length of the polyvinyl chloride posts were appropriate for the projected water levels during this sampling period. At the time of arrival to each of the sites, water quality conditions (i.e., temperature, dissolved oxygen, and salinity) were measured with a YSI multimeter. On each sampling occasion, the 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 3.0–5.0 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 were identified, measured, and released. All other fishes, shrimp, and crabs were euthanized in alcohol per the University'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 February, specimen collection totals were as follows: fishes - 434 individuals from 10 species; crabs - 2 individuals from 1 species; shrimp – 442 individuals from 1 species. Data analysis and report preparation are underway and are expected to be completed by the timetable outlined in the original proposal.