

Quarterly Report: Monitoring Potential Cadmium Levels in Avian Tissues Associated with the Savannah Harbor Expansion Project – January - March 2017 (2nd Quarter)

O.E. Rhodes^a, S.B. Wilde^b, John C. Seaman^a & A.L. Bryan^a. ^aUniversity of Georgia-Savannah River Ecology Laboratory (SREL), Aiken, SC, ^bUniversity of Georgia-Warnell School of Forestry, Athens, GA.

In the second quarter of 2017, we collected the late season samples as part of the winter period of the third year of avian cadmium sampling (as a reminder, our sampling year spans portions of two calendar years). This sampling was impacted by construction activities on the DMCA, which precluded us from sampling within DMCA 14A and portions of other DMCA. Late winter avian sampling occurred during the following periods: 23-25 February and 20 March 2017.

In response to a methodology change, our mist netting efforts during February were focused on sampling both sparrow species (Table 1). The number of sentinel species had been reduced after discussions in late summer between USACE and UGA-SREL allowed us to concentrate on collecting higher numbers of a lower number of species, more similar to the target sample numbers listed in the original project scope of work (described in 3rd Quarter 2016 report, listed under 4th Quarter 2016). While relatively successful with the sparrows, extremely warm weather during the late winter period influenced water bird numbers and their behavior and habitat use. We were not successful in collecting water birds in either late winter sampling period as bird numbers were down and they appeared to be feeding at off-site locations.

Table 1. Cumulative Sentinel Birds Captured and Sampled (blood) on the Savannah Dredge Material Containment Areas (DMCA) in Winter Sampling Period (3rd Sampling Year).

Species	N
Savannah Sparrow	16
Song Sparrow	9
Northern Shoveler	4*
American Avocet	5*
Blue-winged Teal	0 **

- Lethal take

** Did not have scientific collecting permit for early winter season.

We will return in May/June to initiate our summer avian collections. Data from all 3rd year avian and prey base samples have been analyzed for cadmium and other metals and are being summarized in the annual project report, which will be submitted in May.