

Upper Oconee Science and Policy Summit

Abstract Proposal

Title: Backyard knowledge gaps: the state of stream fish monitoring in Athens-Clarke County

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There is a high diversity of fishes in Georgia; 38 species across 7 families have been recorded in Athens-Clarke County alone. Variation in sensitivity of fish species to urbanization, stormwater, barriers to movement, or habitat alteration can affect fish community assemblages in predictable ways, and thus the characteristics of local fish populations and communities may reflect stream status, water quality, or the occurrence of ecological stressors. But how much do we really know about the fish community in our own back yard? For Athens-Clarke County, the RBC has fish community information from 31 sites, with records from the 1940s to present. Though this seems like broad coverage, site visits have been sparsely distributed through time, and there are many streams in the area for which we have very little information. Recent fish sampling of Clarke County streams has revealed some interesting patterns. For example, some of the rarer species in the county have not been seen here in over a decade. Other species, however, are common across sites and through time, such as the Bluehead Chub (*Nocomis leptocephalus*) and a small guild of associated species. Monitoring the identity and dynamics of species across Clarke County streams can provide useful information for water quality and conservation concerns, but only if we look. We propose an increase in both synoptic and quantitative sampling across Athens-Clarke County streams to document the occurrence and dynamics of our local fish assemblage. Using this data in concert with information on water flow, nutrient dynamics, habitat alteration and other stream quality metrics will help us to gain a better understanding of the health and status of the Oconee River Basin.