

Assessing Prevalence and Composition of Ingested Plastic Contaminants by Georgia's Estuarine Organisms

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ABSTRACT

This project aims to quantify the amount of plastics found in the gut contents of shellfish, fish and shrimp species important to local Georgia fisheries and to determine types of plastic pollution ingested by Georgia estuarine organisms. Furthermore, educating stakeholders, the public, educators and their students about the issue of plastic pollution using MAREX's ongoing programs and developing resources to be taken back and used in Georgia classrooms is a long-term goal.

In order to achieve these goals, microplastics within the gut contents from organisms collected by ongoing MAREX trawls, as well as water samples, will be separated using density techniques. Further isolation and identification will be done using both visual and FTIR spectroscopic techniques.

Microplastics have been recognized as a ubiquitous, possibly significant, yet poorly constrained pollutant in the marine environment. We seek to conduct the first study of microplastics in Georgia waters. The results of this study will provide vital information on the level and composition of ingested microplastic contaminants in Georgia estuarine waters and organisms.