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Georgia Southern Researchers Release Water Tracing Dye Into Altamaha River Outflow

May 12, 2014

With funding provided by the Georgia Department of Natural Resources and logistical support from Gray's Reef National Marine Sanctuary, researchers from Georgia Southern University released 50 gallons of fluorescent red dye (rhodamine WT) into the Altamaha River outflow during the week of May 12-16, 2014. The plume of dye that results will be monitored visually and with instrumentation as it flows from the release point (just south of Wolf Island) along the Georgia coast and offshore. Tracking the path of the dye will provide estimates of the extent to which the Altamaha River delivers dissolved substances, both contaminants and nutrients, north and south along the Georgia coast and to hard-bottom reefs, such as Gray's Reef National Marine Sanctuary, occurring up to 20 miles offshore.



The research team will monitor the dye spread by eye for the first 8-9 hours after release and then will rely on instruments, called fluorometers that will wake up and scan for the presence of rhodamine wt in the water every minute of the day for two weeks. These fluorometers will be positioned at 4 artificial reefs managed by Georgia DNR (reefs A, SFC, J-Y, and CAT), as well as Gray's Reef to create an arc of detection points. These fluorometers will be marked with yellow crab pot buoys

and will be clearly labeled so if sighted, please do not damage or remove them.

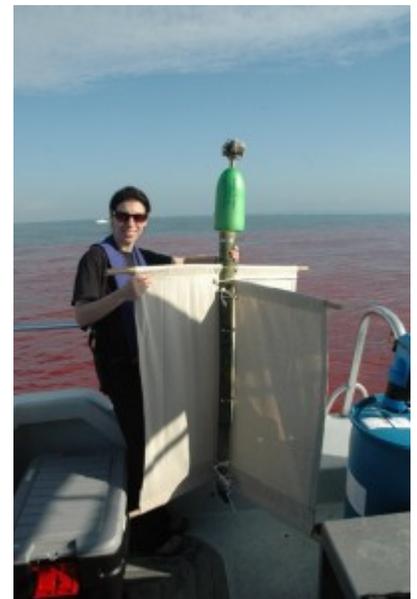
In addition to releasing the dye, the investigators will deploy up to 4 satellite-enabled drifters that will provide information on how larger materials, such as dead stalks of marsh grass, may disperse after being exported from the Altamaha River estuary. These drifters will be constructed from basic materials found in local hardware stores such as bamboo poles, drop cloths, hose clamps, and nylon cord. Data obtained from the drifter paths will be made available to local school teachers for use in the classroom. As with the buoys, these drifters will be clearly labeled so please do not remove them if spotted offshore. Alternatively, please contact the investigators if a drifter is found to have come ashore.

Rhodamine WT is highly visible because of its ability to fluoresce light. During this study waters with a red tint may appear at various points along the southeast Georgia coast as well as in marinas, bays, and estuaries. If the dye is sighted in any of these locations, there is no reason for concern because rhodamine WT is non-toxic to humans and aquatic organisms, such as fish and shellfish, and will not cause damage to watercraft. If you have additional questions about this project contact Dr. [Daniel Gleason](#) at 912-478-5957 or Dr. [Risa Cohen](#) at 912-478-1228.

The drifter tracks can be seen [here](#).



Dr. Daniel Gleason



Dr. Risa Cohen

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