Sharks in the Bayou: How Fast Is Salt Water Entering our Freshwater Bayou Ecosystem?

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Louisiana's lavish bayous need to be protected and ensured for the safety of not only the ecosystem, but the public's own lives as well. Therefore, in my project, I have decided to test the intensity of salt water intrusion from the Gulf of Mexico on my backyard bayous: Dulac and Dularge. To begin, I would label six-teen sample jars by their location name and number, date, and whether it is a surface sample ("U" for "upper") or it is a deeper water sample ("L" for "Lower"). I decided to test the surface water and deeper water because I wanted to test to see if the currents or rain affect the amount of salt contained in the water sample. I first would go down Dulac, stopping at five locations, then I would go up Dularge, stopping at three. Location five being the closest to the shore, and location one and eight being the farthest. I used a basic salinity tester to collect the amount of salt from each sample. I continued this process for about six weeks, repeating every weekend. Over time I was able to collect ninety-six sample jars to process my data over. In my results, I found that salt was rising over time, being the most prominent in location five as it is the closest to the shore, and location one and eight being the farthest, would collect the least amount of salt, but it would still show a rising trend. To extend on my project, I collected information from each day I went that included, air temperature, tides, rainfall/ week, and the max wind. I also researched master plans that the Terrebonne Parish area has to help with issues like salt water intrusion.

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