| | |
|---|---|
| TITLE: | Tilting of Trinidad |
| AUTHORS: | Naline Ramgarib<br>Davatee Maharaj |
| SUPERVISORS: | Dr. Shrin Haque<br>Dr. Brent Wilson |

---

Our aim of this project was twofold employing similar experimental methods. These are:

1. Sedimentation Studies
2. Cultures for Astrobiology Studies

Due to evidence of raised sand beaches and elevated mangroves and the Mean Sea Level studies, it is believed that Trinidad is tilting along a fault. It is thought that the western side of Trinidad is sinking and the eastern side is rising. This project incorporates the work of not only the sedimentation and tectonic aspects of the tilting, but also the Astrobiology aspects of the two wetlands that lie on either side of Trinidad, i.e. the Caroni Swamp and the Nariva Swamp. Astrobiology seeks to find evidence of life in the form of microorganisms in diverse conditions. This project builds on similar studies done in the past on mud volcanoes and pitch lakes.

Swamps are considered to be an area of deposition of extreme living conditions. Hence the sediments in the form of short cores at these locations are compared. It should be noted that the possible sinking of the Western side causes more sediments to be deposited as compared to the Eastern side of Trinidad. It was noted that in recent times this fault across the island has moved at a rate of 1mm per year. Where there is a greater amount of finer sediments deposits then this serves as an indication that the sea level is raising whereas less sediments indicate that the sea level is decreasing. With reference to the Mean Sea Level (MSL) north west Trinidad was found to be sinking at a rate of 1mm / year and south west Trinidad at a rate of 4mm/year.