

Marsh Elevation Monitoring The Nature Conservancy, Long Island NY

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1 Summary

The following is a quick compilation of the trends that have been measured at sites being monitored by TNC across Long Island. Note that data is not complete and still needs to be verified fully. The rate of the overall change in elevation is calculated by finding the average change in each of 9 pins from the start of the monitoring period to the present. More directly, a linear regression is fit to the height of the pins through time. These lines are then averaged across stations for each site.

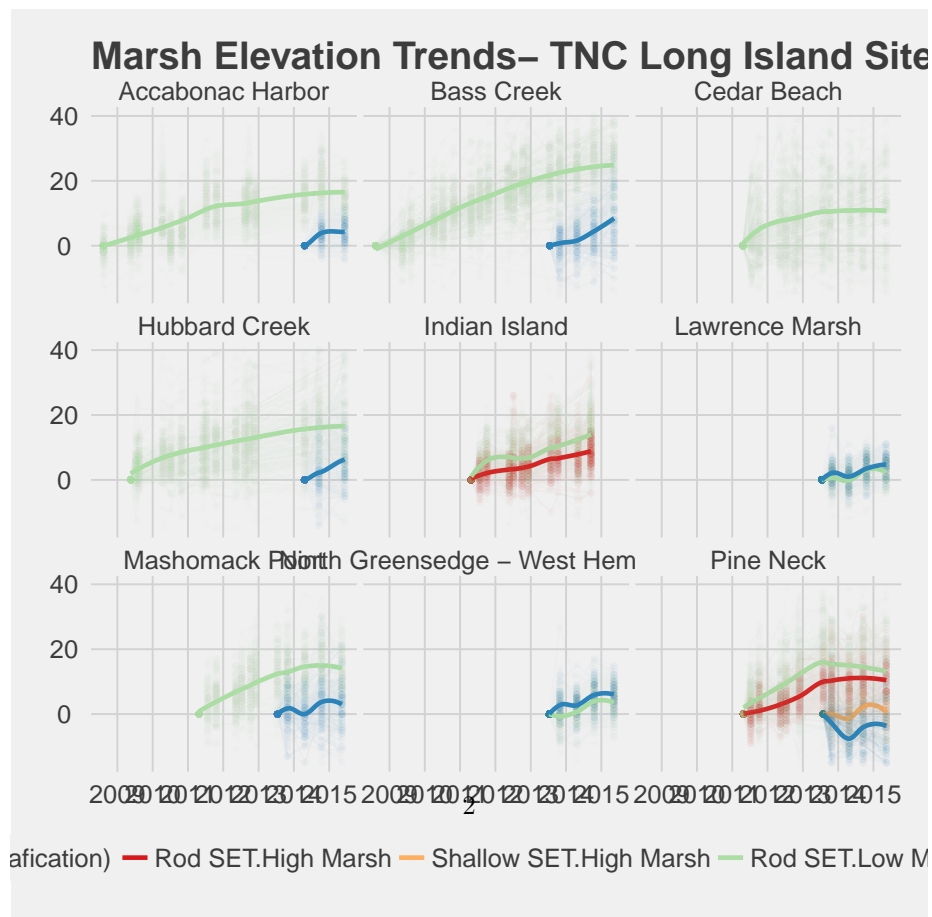
Tables:

2 Visuals

What follows is a quick visual of the changes that have been measured along the marsh surfaces. The rate of the overall change in elevation is calculated by finding the average change in each of 9 pins from the start of the monitoring period to the present. More directly, a linear regression is fit to the height of the pins through time. These lines are then averaged across stations for each site.

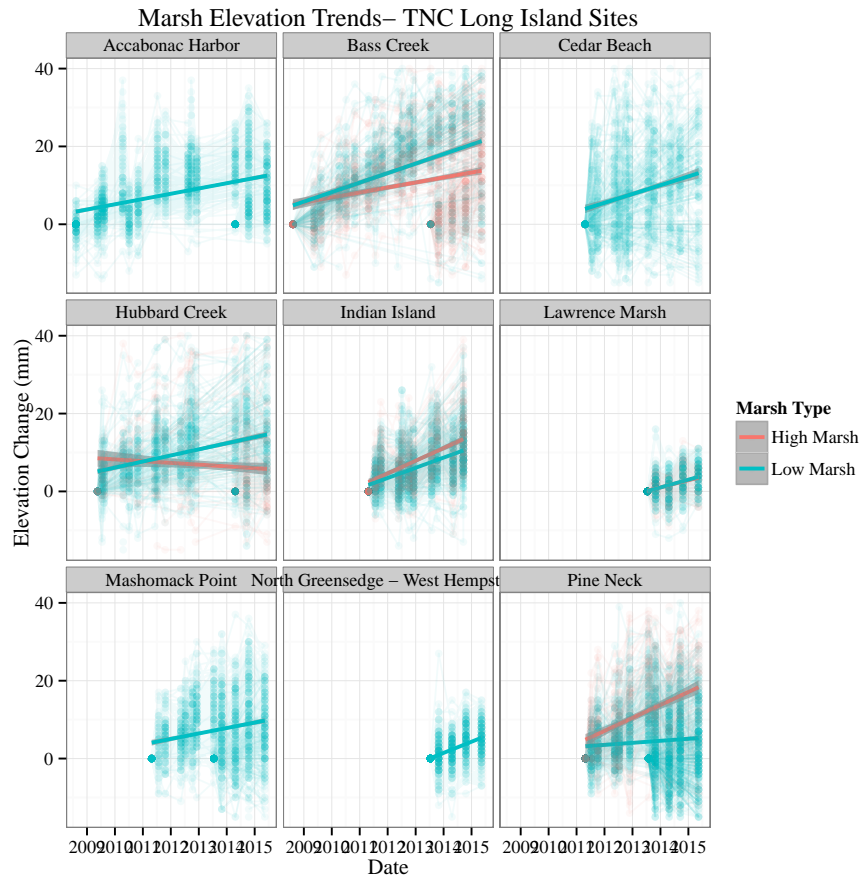
	Site_Name	Stratification	SET_Type	Sample N	Mean_elevation_change
1	Accabonac Harbor	Low Marsh	Rod SET	16	2
2	Accabonac Harbor	Low Marsh	Shallow SET	3	4
3	Bass Creek	Low Marsh	Rod SET	18	3
4	Bass Creek	Low Marsh	Shallow SET	5	2
5	Cedar Beach	Low Marsh	Rod SET	12	2
6	Hubbard Creek	Low Marsh	Rod SET	16	2
7	Hubbard Creek	Low Marsh	Shallow SET	3	0
8	Indian Island	High Marsh	Rod SET	11	2
9	Indian Island	Low Marsh	Rod SET	11	3
10	Lawrence Marsh	Low Marsh	Rod SET	5	3
11	Lawrence Marsh	Low Marsh	Shallow SET	5	2
12	Mashomack Point	Low Marsh	Rod SET	12	4
13	Mashomack Point	Low Marsh	Shallow SET	5	4
14	North Greensedge - West Hempstead	Low Marsh	Rod SET	5	2
15	North Greensedge - West Hempstead	Low Marsh	Shallow SET	5	3
16	Pine Neck	High Marsh	Rod SET	11	3
17	Pine Neck	High Marsh	Shallow SET	5	0
18	Pine Neck	Low Marsh	Rod SET	11	3
19	Pine Neck	Low Marsh	Shallow SET	5	-5

Table 1: SET-MH monitoring sites across Long Island



Plot 1: Surface Accretion trends through time at 7 of 9 study sites.

```
## Error in '$<-.data.frame'('*tmp*', "ID", value = structure(integer(0),
. Label = character(0), class = "factor")): replacement has 0 rows,
data has 17891
```



plot2: Elevation trends summary by marsh type -'NANA' have not been defined in database