**Day in the Life of the Hudson River 10/10/13**

**(Salt Front RM 69.3)**

**RIVER MILE 85**

**Mills Mansion, Staatsburgh, NY, Dutchess County**

**Maribel Pregnall, Arlington High School**

**Sara (Orange County), Christine (SCA), Marshall Pregnall (Vassar College)**

**23 High School 11-12th graders, 4 adults**

**N41.8566°N W73.9299°W (iphone coordinates)**

****

**Location:** Sampling done on beach at Northside of the pumphouse at Mills Mansion

**Area:** pastoral setting, clean no houses except mansion and pumphouse, Forested; grassy; beach

**Surrounding Land Use:** picnics, fishing, sight seeing

**Sampling Site:** *Physical station:* on beach at Northside of the pumphouse at Mills Mansion;

*Fish Station: off beach area, ebb tide, sandy, made our way over riprap rocks with fencing (erosion control), sandy/rocky and then muddy*

*Chemistry: near beach at mansion – at pumphouse/icehouse*

**Shoreline:** sandy and rocky close to shore, further out it gets muddy

**Plants in area:** none in water

**River Bottom** –

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | ***Reading 1*** | ***Reading 2*** | ***Comments*** |
| ***Physical***  |  Time |  |  |  |
| Air Temperature | 10:20 AM11:30 AM11:34 AM | 10.6°C11.111.7 | 51°F5253 |  |
| Wind Speed | 11:18 AM | Beaufort #2 | 0.9m/sec on meter | N/NE |
| Cloud Cover | 11:19 AM | Overcast >75% |  |  |
| Weather today | Cloudy and threat of rain but @ 11:32 AM no rain |
| Weather recently | Mon 10/7 strong winds and heavy precip (~2/3 inch in afternoon, Tues 10/8 ~2/3 in precip in afternoon, Wed. 10/9 partly sunny |
| Water  |  choppy |
| ***Water Temperature 9:36 1 ft. water******11:40 0-6 inch water*** | 9:36 AM11:40 AM | 17.8°C17.4 | 17.1°C17.1 | Avg. 17.5°CAvg. 17.3 |
| ***Turbidity*** | 10:45 AM | 56.4 cm63.9 cm60.2 cm |  | ***Average 60.2 cm*** |
|  | 11:50 AM | 63.6 cm62.6 cm66.8 cm |  | ***Average 64.4 cm*** |
| ***Chemical*** |  |  |  |  |
| DO (drop count) | 10:08 AM10:08 AM | 8.6 mg/L8 mg/L | 17.6 °C17.6 °C | 90% sat85% sat |
|  | 11:54 AM11:54 AM | 8.1 mg/L8.4 | 17.1°C17.1°C | 82.5 % sat85 % sat |
| pH | Time | Hach kit | meter |  |
|  | 9:51 AM11:49 AM11:49 AM | 8.38.28.2 | 8.397.957.91 |  |
| **Salinity** | **Time** | **PPT** | **PPM** | **Conductivity** |
| YSI | 9:36 AM11:44 AM | 0.1 0.1 | 100 ppm100 ppm | 263.8255.6 |
| Refractometer | 9:36 AM11:44 AM | 00 |  |  |
| **Fish – seine ~30 ft. net** |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***FISH TOTALS*** | **Species** | **Number** | **Size** | **Totals** |
| ***9:15-10:30 AM*** | Banded Killifish | 1 | 4 inch | **DIVERSITY** **6 species** |
|  | Spottail Shiner | 7 | 2 inch | **TOTALS** |
|  | Striped Bass | 1 | 3 inch | **27 fish**  |
|  | Bay Anchovy | 1 | 3 inch |  |
|  | Shiner | 16 | 3 inch |  |
|  | YOY Sunfish | 1 | 1 inch |  |
| ***11:30-12:15 PM*** | Shiner | 3 | 3 inch | **DIVERSITY** **3 species** |
|  | Banded Killifish | 2 | 2 inch | **TOTALS** **8 total**  |
|  | Bay Anchovy | 3 | 2 inch |  |
| ***GRAND TOTALS*** | **DIVERSITY**  | **SPECIES #6** | **TOTALS** | **FISH #35**  |
| **Tides** | ***time*** | ***cm*** | **Rate of change** | ***Rising/Falling*** |
|  | 10:09 AM | 54.5 cm |  |  |
|  | 10:37 AM | 47 cm  | 7.5cm/26 min | F |
|  | 11:09 AM | 36.5 cm  | 10.5cm /29 min | F |
|  | 11:36 AM | 29 cm | 7.5 cm/25 min | F |
|  | 12:09 AM | 27 cm | 2 cm/33 min | F |
| ***Currents*** | 11:24 AM | 91cm/30 sec | 3.03 cm/sec | Ebb |
|  | 11:28 AM | 70 cm/30 sec | 2.33 cm/sec | Ebb |
|  | 11:30 AM | 70 cm/30 sec | 2.33 cm/sec | Ebb |
| ***Sediment Core*** | 6 inch core  | H2S smell  | Dark core |
| ***Shipping*** | Saw no commercial boats |  |  |
|  | 11:30 AM | Recreational sailboat | southbound |
| ***Observations*** | At Mills Mansion there are no water chestnuts which makes it unique – other sites in this area have lots of water chestnutLots of Canadian geese and vultures (birds of prey) |