**Day in the Life of the Hudson River 10/16/14**

**(Salt Front RM 65.9)**

**RIVER MILE 84.5**

**Mills-Norrie Point Environmental Center, Staatsburgh, NY, Dutchess County**

**Jim Herrington, Norrie Point Environmental Center**

**Maribel Pregnall, Arlington High School**

**21 High School 10-12th graders, 5 adults**

**41.840248° N - 73° 930992°W**

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**Location:** Sampling done Norrie Cove and the SW corner of Norrie Point Env. Center Patio. East side of Hudson far from the main channel in a protected cove

**Area:** Substantial paved areas nearby, large environmental center building adjacent to the water. Shallow cove, facing south onto the HR, bordered by RR embankment, parking lot & the environmental center.

**Surrounding Land Use:** 85% Forested; 15% Parking, road and building

**Sampling Site:** Banks altered, Rip Rap - cove is muddy with some riprap and west side is rocky

**Shoreline:** beach area, shore with bulkhead, shoreline rip rap,banks altered for EEC building, riprap along RR tracks, collected wood and debris in shallow cove, piping entering river area

**Plants in area:** all had died back- lots of detritus on shore – 100% water chestnut detritus

**River Bottom** –muddy and rocky on west side

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | ***Reading 1*** | | | ***Reading 2*** | ***Comments*** |
| ***Physical*** | Time |  | | |  |  |
| Air Temperature | 10:02 AM  10:52 AM | 20°C  20°C | | | 68°F  68°F |  |
| Wind Speed | 10:02AM  10:54AM  12:15 PM | 1.2 mph  2.2 mph  11.5 mph | | | South  South | Beaufort #1 |
| Cloud Cover | Overcast >75% |  | | |  |  |
| Weather today | Cloudy and light rain | | | | | |
| Weather recently | Very warm and humid - unseasonable | | | | | |
| Water calm | Started calm then wind picked up and choppy | | | | | |
| ***Water Temperature – cloudy*** | 9:30 AM  10:30 AM  11:55 AM | | 18°C  18  18 | 65°F  65  65 | |  |
| ***Chlorophyll*** | 9:30 AM  10:30 AM  11:55 AM | | 0.4  0.4  1.5 |  | |  |
| ***Turbidity*** | TIME | | Cove | River | |  |
| ***Brown! Very low visibilty*** | 9:30 AM  10:30 AM  11:55 AM | | 38.5 cm  39.1  34.45 cm | 38.1 cm  47.8 cm  55.5 cm | |  |
| ***Chemical*** |  | |  |  | |  |
| DO  (drop count) | 9:30 AM  10:30 AM  11:55 AM | | 8 mg/L  8 mg/L  8 mg/L | 18°C  17-18  18 | | 85%  85%  85% |
| pH – | ***Time*** | | ***Color***  ***match*** | ***Vernier probe calibrated*** | |  |
|  | 9:30 AM  10:41AM  11:55 AM  12:15 PM | | 8.0  8.0  8.0  8.0 | 8.0  8.6  8.09  8.1 cove | | 7.35 by dock |
| **Salinity** | **Time** | | **Chloride** | **Total Salinity** | |  |
| Quantabs | 10:40 AM  10:00 AM  12:30 PM | | 31 ppm  31 ppm  31 ppm | 56 ppm  56 ppm  56 ppm | |  |
| Conductivity with vernier probe-  ***Read as uS/cm*** | 9:40 AM  10:43 AM  12:14 PM  12:15 PM | | ***233.3uS***  ***205 uS***  ***200.5 uS***  ***216 uS*** | ***(cove)***  ***(in front of platform dock)*** | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***Fish Catch*** | **9:30 AM** | **10:30 AM** | **12:30 PM** | **Species Totals** | |
| ***Striped Bass*** | **1** | **1** |  | **2** | |
| ***Banded Killifish*** |  |  | **3** | **3** | |
| ***Blueback & Alewife*** | **50** |  |  | **50** | |
| ***Pumpkinseed*** |  | **1** |  | **1** | |
| ***Bluegill Sunfish*** |  |  | **1** | **1** | |
| ***Log Perch*** |  | **2** | **1** | **3** | |
| ***Golden Shiner*** | **2** | **1** | **1** | **4** | |
| ***Tesselated Darter*** |  |  | **2** | **2** | |
| ***White Perch*** |  | **1** |  | **1** | |
| ***River Herring*** |  | **5** | **50** | **55** | |
| ***Shad*** | **2** | **1** | **5** | **8** | |
| ***Spottail Shiner*** |  | **3** | **50** | **53** | |
| ***Smallmouth Bass*** |  | **1** |  | **1** | |
| ***Northern Pike*** |  |  | **1** | **1** | |
| ***Blue Crab*** |  |  | **1 (Male) (4~)** | **1** | |
| **Diversity & Totals** | ***Div – 4***  ***Totals - 55*** | ***Div – 9,***  ***Totals-16*** | ***Div – 9 + crab***  ***Totals – 114 + crab*** | | ***Div 15 +crab***  ***Totals - 185 + crab*** |
| **3 seines – 6 mins. pulled 30-35 ft. across & 25 yrds.** |  |  |  | |  |
| **Tides** | ***time*** | ***cm*** | ***Rising/Falling*** | | ***Cm difference*** |
|  | 8:45 AM  9:28 AM  9:57 AM  10:16 AM  10:24 AM  10:40 AM  11:07 AM  12:00 PM | 49 cm  44 cm  42 cm  40.5 cm  36.5 cm  34.5 cm  31 cm  26 cm | Ebbing all morning | | 0  5 cm  2 cm  1.5 cm  4 cm  2 cm  2.5 cm  5 cm |
| ***Currents*** | ***Times*** | ***Cm/30 sec*** | ***Cm/sec*** | | ***Kts – N/S*** |
| \*windy | 9:49 AM  9:52 AM  \*9:55 AM  10:40 AM  10:45 AM  10:50 AM  \*12:10 PM | 220/30  290/30  100/30  87/30  53/30  49/30  10/30 | 7.3 cm/sec  9.7 cm/sec | | 0.14 South  0.19 South  Still  South  South  South  Still |
| ***Core*** | ***Length Desc*** | ***Rare*** | ***Common*** | | ***Other Items*** |
|  | 23 cm | Sand  Gravel  Pebbles | Clay  Mud  Wood | | Shells  Mussels  Zebra mussel (shell)  Macros  Brick |
| ***Shipping*** | **Type** | **Name** | **North/South** | | **Loaded /Light** |
| 10:34 AM | Wooden older looking yacht | ~40 ft. cruiser | North | |  |
| 11:00 AM | DEC Boat |  | sampling off Esopus Island and then headed North | |  |
| 11:47 AM | US Coastguard cutter | Penobscot Bay | Southbound | |  |
| ***Other*** | Lots of devil’s heads, lots of water chestnut debris, cormorants | | | | |