**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 AM10:52 AM | 20°C20°C | 68°F68°F |  |
| Wind Speed | 10:02AM10:54AM12:15 PM | 1.2 mph2.2 mph11.5 mph | SouthSouth | 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 AM10:30 AM11:55 AM | 18°C1818 | 65°F6565 |  |
| ***Chlorophyll*** | 9:30 AM10:30 AM11:55 AM | 0.40.41.5 |  |  |
| ***Turbidity*** | TIME | Cove | River |  |
| ***Brown! Very low visibilty*** | 9:30 AM10:30 AM11:55 AM | 38.5 cm39.134.45 cm | 38.1 cm47.8 cm55.5 cm |  |
| ***Chemical*** |  |  |  |  |
| DO (drop count) | 9:30 AM10:30 AM11:55 AM | 8 mg/L8 mg/L8 mg/L | 18°C17-1818 | 85%85%85% |
| pH –  | ***Time*** | ***Color*** ***match*** | ***Vernier probe calibrated*** |  |
|  | 9:30 AM10:41AM11:55 AM12:15 PM | 8.08.08.08.0 | 8.08.68.098.1 cove | 7.35 by dock  |
| **Salinity** | **Time** | **Chloride** | **Total Salinity** |  |
| Quantabs | 10:40 AM10:00 AM12:30 PM | 31 ppm31 ppm31 ppm  | 56 ppm56 ppm56 ppm |  |
| Conductivity with vernier probe- ***Read as uS/cm*** | 9:40 AM10:43 AM12:14 PM12:15 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 AM9:28 AM9:57 AM10:16 AM10:24 AM10:40 AM11:07 AM12:00 PM | 49 cm44 cm42 cm40.5 cm36.5 cm34.5 cm31 cm26 cm | Ebbing all morning | 05 cm2 cm1.5 cm4 cm2 cm2.5 cm5 cm |
| ***Currents*** | ***Times*** | ***Cm/30 sec*** | ***Cm/sec*** | ***Kts – N/S*** |
| \*windy | 9:49 AM9:52 AM\*9:55 AM10:40 AM10:45 AM10:50 AM\*12:10 PM | 220/30290/30100/3087/3053/3049/3010/30 | 7.3 cm/sec9.7 cm/sec | 0.14 South0.19 SouthStill SouthSouthSouthStill |
| ***Core***  | ***Length Desc*** | ***Rare***  | ***Common*** | ***Other Items*** |
|  | 23 cm | SandGravelPebbles | ClayMudWood | ShellsMusselsZebra mussel (shell) MacrosBrick |
| ***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 |