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

**(Salt Front RM 69.3)**

**RIVER MILE 61.1 E**

**Beacon Waterfront Train Station Park, City of Beacon, Dutchess County**

**Nancy Rypkema and total of 16 adults/teachers - Valley Central Middle School,**

**7th & 8th graders (76 students )**

**Latitude 41°30’ 22” N - Longitude 73°59’ 07” W**

**Location:** Waterfront Park, Beacon, Dutchess County NY

**Area:** Park area near the Beacon train station - grassy lawns, forested around edges, parking lot to the side. Children’s play area

**Surrounding Land Use:** Industrial/Commercial 30%, Urban/residential 10%; Forested 30%; shoreline/beach 10% Other (Parkland) 20%

**Shoreline:** There is a bridge, transit station (train) and trees, concrete debris, dock

**Sampling Site:** beach, covered in vegetation, banks altered, rip rap

**Plants in area of sampling:** oak trees 10%; willow trees 10%; Grass 60%; maple trees 20%

**Water depth:** 0.5 m

**Bottom Surface:** muddy, rocky bottom

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | ***Reading 1*** | ***Reading*** | | ***Comments*** | |
| ***Physical*** |  |  |  | |  | |
| Air Temperature | 10:04AM  10:58 AM | 11.2°C  13°C | 52.4°F  54.1°F | |  | |
| Wind Speed | 11:00 AM | Beaufort #1 | 5.1 kts  3 mph | | NE | |
| Cloud Cover | Overcast |  |  | |  | |
| Weather today | Overcast - Sprinkled after 11:00 AM. | | | | | |
| Weather recently | Monday tornado warning, Wed. sunny and cool | | | | | |
| ***Water Surface*** | Choppy | |  | | | |
| ***Water Temperature*** | **Time** | **Degrees °C** | |  | |  | |
|  | 9:40 AM | 18.6°C  16.2 | | 65.3°F  62.8 | | 17.4°C  64.1°F | |
|  | 10:06 AM | 17.7°C  17.5 | | 63.2°F  63.4 | | 17.4°C  63.3°F | |
|  | 10:28 AM | 16.9°C  16.6 | | 62.2°F  62.0 | | 16.8°C  62.1°F | |
|  | 11:32 AM | 15.6°C  15.4 | | 60.3°F  60.4 | | 15.5°C  60.4°F | |
| ***Turbidity*** | ***Time*** | ***Turbidity Tube*** | |  | | ***Average*** | |
|  | 11:40 AM | 69.6 cm  66 cm  61.5 cm | |  | | 65.7 cm | |
| ***Chlorophyll*** | 10:10 AM  10:25 AM  11:15 AM  11:25 AM  12:10 PM | 0.0  0.0  0.0  0.0  0.0 | |  | |  | |
| ***Chemical*** | ***Time*** | ***DO*** | | ***Temp*** | | ***% saturation*** | |
| DO  (drop kit) | 11:16 AM  11:45 AM  12:06 PM | 7 ppm  8  7 | | 16°C  16°C  16°C | | 70%  80%  70% | |
| pH – ***test strips*** | 10:20 AM  10:30 AM  11:08 AM  11:30 AM | 7.0  7.0  7.0  7.0 | | ***Using probe*** | | 7.5  7.9  7.85  7.84 | |
| ***Nitrates*** | 10:00 AM | 0 ppm | |  | |  | |
| ***Salinity –QTs- Time*** | ***Quantab reading*** | ***Quantab Average*** | | ***Chloride reading*** | | ***Total Salinity conversion*** | |
| 10:20 AM  10:34 AM  11:08AM  11:30 AM | 7 & 7.2  7.9 & 7.6  7.6 & 7.8  7.2 & 7.5 | 7.1  7.8  7.7  7.4 | | 581 ppm Cl-  680 ppm Cl-  671 ppm Cl-  626 ppm Cl- | | 1050 ppm T.S.  1228 ppm T.S.  1212 ppm T.S.  1131 ppm T.S. | |
| ***Fish Catch***  *seine 9X4feet* | ***Number Caught*** | ***Species*** | | ***Length*** | | ***MACROs*** | |
|  | 1 | Eel | | 10.2 cm | | **Div = 6**  **Total Catch =81** | |
|  | 1 | White Perch | | 10 cm | |  | |
|  | 1 | Butter Fish | | 22.86 cm | |  | |
|  | 2 | Killifish | | 10 cm | |  | |
|  | 25 | Shiner | | 10 cm | |  | |
|  | 1 | Hog Choker | | 7.5 cm | |  | |
|  | 1 | Summer Flounder | |  | |  | |
|  | 4 | Bay Anchovy | | 9 cm | |  | |
| **Total Catch** | **36** | **Diversity** | | **8** | |  | |
| **4 Macro** | 3 | Crab | |  | |  | |
| **2 Macro Diversity** | 1 | Dragonfly | |  | |  | |
| ***Tides*** | ***Time*** | ***Tide Stick*** | | ***Flood/Ebb Still*** | | ***Rate of change*** | |
|  | 9:40 AM | 19 cm | | Start | |  | |
|  | 10:06AM | 9 cm | | Ebb(Falling) | | 10 cm/26 mins | |
|  | 10:32 AM | 10 cm | | ~still | |  | |
|  | 11:00AM | 7 cm | | Ebb | | 2 cm/54 mins | |
|  | 11:45 AM | 22 cm | | Flood(Rising) | |  | |
| ***Currents*** | ***Time*** | ***Cm/60 secs*** | | ***Cm/sec*** | | ***knots*** | |
|  | Data not included as it didn’t make sense | | | | | | |
| ***Shipping*** | Saw the Clearwater sailing both North & South | | | | | | |