**Day in the Life of the Hudson River 10/20/16 Data**

**(Saltfront ~ RM 83)**

**RIVER MILE 117 (b)**

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**4 students, AP Environmental Science, 1 adult**

**Latitude – N 42**°**25’ Latitude – W -73**°**80’**

**Location:** Hudson River Waterfront Park, City of Hudson, Columbia County

**Area:** 1st dock in thewaterfront propertyused for fishing, marina, picnics, large grassy area, just north of the old quarry site, has a parking lot

**Surrounding Land Use:** 50% Industrial/Commercial, 50% grassy park

**Sampling Site:** waterfront with banks altered to include wooden & concrete bulkheads and large riprap on shoreline,

**Plants in area**: Moss covering approximately 20% of shoreline

**Water -** Calm

**River Bottom** – bottom rocky

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ***Time*** | ***Reading 1*** | ***Reading 2*** | ***Comments*** |
| ***Physical*** |  |  |  |  |
| Air Temperature | 9:55 AM | 18.8°C | 66°F |  |
| Cloud Cover | 9:52 AM | Partly cloudy |  |  |
| Wind – | **Time**  9:48 AM | **Beaufort**  1 | **MPH** 0.5 m/s | **Direction**  NE |
| Weather today | No Rain |  |  |  |
| Weather recently | Warm and dry | | | |
| Water | calm |  |  |  |
| ***Water Temperature –*** | 9:22 AM  9:24 AM  9:35 AM | 16.6  16.8  16.8 | 62°F  62°F  62°F |  |
| ***Turbidity –*** | 9:13 AM | 130 cm  130 cm  100 cm |  | ***Secchi – 120 cm avg*** |
|  | 9:13 AM | 40 JTU  40  40 |  | ***Short site tube – 40 JTU avg.*** |
| ***Chemical*** | **Time** | **Temp** **C** | **DO ppm** | **% sat.** |
| DO - | 9:22 AM  9:24 AM  9:35 AM | 16.6  16.8  16.8 | 8.0  7.0  10.0 | 40%  35  100 |
| pH – *Color Match* | 10:38 AM | 6, 5, 6 |  | Avg. 5.75 |
| **Salinity Quantabs** | **Time**  10:41 AM | **%** | **Chloride ppm**  46 ppm | **Total Salinity ppm**  83 ppm |
| **Alkalinity** | 10:51 am  10:42 am  10:48 am | 40,40,40 ppm  20 ppm  15, 15, 15 ppm |  | Average 26 ppm |
| ***Fish Catch***  Seine net 20 feet X 4 ft., 1.4 inch mesh | ***Time*** | ***Species*** | ***number*** | ***Size of largest*** |
| ***Diversity 4***  ***Total Catch181*** | 12:50 PM | *Banded Killifish* | *147* | 10 cm |
|  |  | *Spottail Shiner* | *23* | 11 cm |
|  |  | *Bluegill Sunfish* | *10* | 25.4 cm |
|  |  | *White Perch* | *1* | 20.3 cm |
| ***Tides*** | 10:05 AM | 80 cm | NR |  |
| ***Currents*** | **Time** | **Cm/30sec** | **Cm/sec** | **Kts - E/F/S** |
|  | 10:00 AM. | 495/30 | 16.5cm/sec | 0.32 kts Ebb |
| ***Core Sample*** | ***Length/*** | ***Rare*** | ***Common*** | ***Abundant*** |
|  | 10 cm  oil top | Clay  Sand  Living Vegetation | Gravel  Pebbles | Mud |
| ***Traffic - commercial*** | ***Time*** | ***Name*** | ***Color*** | ***Direction/Loaded or Light*** |
|  | 10:17 AM | Noelle Cutler | Black & Teal | Southbound, light |