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

**(Saltfront ~ RM 83)**

**RIVER MILE 117.5 (a)**

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**42 students, Environmental Science, Ecology Club, 6 adults**

**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% Urban Industrial

**Sampling Site:** waterfront with banks 100% altered to include wooden & concrete bulkheads and large riprap on shoreline, pier, grassy, parking lot

**Plants in area**: 1% water chestnut

**Water -** Calm

**River Bottom** – bottom rocky

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ***Time*** | ***Reading 1*** | ***Reading 2*** | ***Comments*** |
| ***Physical*** |  |  |  |  |
| Air Temperature | 9:04 AM  10:30 AM  12:39 PM | 13.7°C  15°C  18.5°C | °F |  |
| Cloud Cover | All Day | Overcast >75% |  |  |
| Wind – | **Time**  9:48 AM | **Beaufort**  0 | **MPH** None | **Direction**  none |
| Weather today | Brief showers noon - 12:30 PM | |  |  |
| Weather recently | Warm, sunny and very dry | | | |
| Water | calm |  |  |  |
| ***Water Temperature –*** | 9:22 AM  10:39 AM  12:41 PM | 16.6 °C  16.9  17 | 62°F  62°F  63°F |  |
| ***Turbidity –*** | 9:13 AM | 120 cm  130 cm  110 cm |  | ***Secchi – 120 cm avg*** |
| ***You can't see the bottom but short tube is clear – not very turbid*** | 9:13 AM | 40 JTU  0  0 |  | ***Short site tube – 13.3 JTU avg.*** |
| ***Chemical*** | **Time** | **Temp** **C** | **DO ppm** | **% sat.** |
| DO - | 9:22 AM  10:25 AM  12:50 PM | 16.6  16.8  16.9 | 8.0  7.0  4.0 | 40%  45%  45% |
| pH – *Color Match* | 9:16 AM  9:52 AM  10:42 AM  12:02 PM | 8.2  7.96  7.9  8.06 |  |  |
| **Salinity Quantabs** | **Time**  10:08 AM 10:40 AM  12:02 PM  12:15 PM | **Quantab #**  1.6  1.4  1.5  1.4 | **Chloride ppm**  40 ppm  34 ppm  37 ppm  34 ppm | **Total Salinity**  72 ppm  61 ppm  67 ppm  61 ppm |
| **Alkalinity** | 10:50 AM  12:01 PM  12:15 PM | 40 ppm  2 ppm  30 ppm |  |  |
| ***Fish Catch***  Seine net 20 feet X 4 ft., 1.4 inch mesh | ***Time*** | ***Species*** | ***Total Catch for Day*** | ***Largest Catch in any one Seine*** |
| ***DIV - 7***  ***TOTAL - 734*** |  | *Banded Killifish* | *518* | 236 |
|  |  | *Spottail Shiner* | *139* | 78 |
|  |  | *Bluegill Sunfish* | *44* | 44 |
|  |  | *White Perch* | *16* | 16 |
|  |  | *Mummichog* | *12* | 12 |
|  |  | *Bay Anchovy* | *4* | 3 |
|  |  | *Unidentified* | *1* | 1 |
| ***Tides*** | 9:32 AM  10:56 AM  1:00 PM | 80 cm  75 cm  50 cm | Set point  Falling  Falling | *On a dock measuring down to water* |
| ***Currents*** | **Time** | **Cm/30sec** | **Cm/sec** | **Kts - E/F/S** |
|  | 9:00 AM. | 30/30 sec | 1cm/sec | 0.19 kts Ebb |
|  | 10:00 AM | 495/30 sec | 16.5 cm/sec | 0.32 kts Ebb |
|  | 12:40 PM | NR |  | Ebb |
| ***Core Sample*** | ***Length/*** | ***Rare*** | ***Common*** | ***Abundant*** |
|  | - 30.5 cm  - H2S smell  - oil top | Gravel  Pebbles | Sand | Clay  Mud |
| ***Traffic - commercial*** | ***Time*** | ***Name*** | ***Color*** | ***Direction/Loaded or Light*** |
|  | 9:24 AM | USB Seattle | Red | Southbound, light |
|  | 10:15 AM | Noelle Cutler | Black | Southbound, light |
|  | 10:22 AM | No Name | Black | Southbound, light |
| ***Recreational*** | 1:02 PM | Boat | White | Southbound |
|  | 1:03 PM | Boat | White | Northbound |
| ***Other Observations*** | Not overgrown, public park.  Grassy peninsula with rocky shore, 1 pear, boat launch  The area is inlets with docks so perhaps the water is not moving as freely which might affect sampling.  There is a creek from an industrial site flowing into the river  There is rock processing next door as well.  A few seagulls in the area | | | |