**Day in the Life of the Hudson River 10/20/15 Data**

**RIVER MILE 118**

**Shelley Forester, Cary Institute of Ecosystem Studies**

**Ms. Jeffrey, Ms. Kneller, Mrs. Fischer, Mr. Pearson, Mr. Kullman, Mr. V., Chatham & Taconic High School, Chatham NY**

**39 students 10th -12th grade, 9 adults**

**Latitude – N 42**°**15’ Latitude – W -73**°**48’**

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**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:** 75% urban/residential, 10 % forested, 15% Industrial/Commercial

**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** – muddy, rocky

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ***Time*** | ***Reading 1*** | ***Reading 2*** | ***Comments*** |
| ***Physical*** |  |  |  |  |
| Air Temperature | |  | | --- | | 9:30 AM.  10:00 AM  10:35 AM  12:23 PM  12:54 PM | | 9°C  8.8  8  13  13 | 49°F  48  47  56  56 |  |
| Cloud Cover | 9:30-1:00 PM  >75% |  |  |  |
| Wind – wind picked up during day | **Time**  9:30 AM.  9:57AM  10:35 AM  12:23 PM  1:00 PM | **Beaufort**  1  1  1  1  1 | **MPH** 2  0.6  2.5  1.3  2.1 | **Direction** |
| Weather today | No Rain |  |  |  |
| Weather recently | Cool Temperatures, below 50°F and snow within last 3 days | | | |
| Water | calm |  |  |  |
| ***Water Temperature –***  ***In 3 meters depth of H2O*** | 9:13 AM  9:27AM  10:01 AM  10:41 AM  12:20 PM  12:49 PM | 13.2°C  14.0  13.1  13.3  13.5  14.5 | 55.76°F  57.20  55.58  55.94  56.3  58.1 |  |
| ***Turbidity –*** | NR | 92.5 cm |  | ***Secchi*** |
|  | NR | 40 JTU |  | ***Short site tube*** |
| ***Chemical*** | **Time** | **Temp** **C** | **DO ppm** | **% sat.** |
| DO - | 10:10 AM  10:41 AM  12:03 PM  12:39 PM  12:50 PM | 13.1  13.3  13.4  14.5  14.7 | 10.1  9.6  11.4  11.4  13.0 | 95%  91  135  110  130 |
| pH – *Color Match* | 9:15 AM  10:00 AM  10:26 AM  12:17 PM  12:43 PM | 7  7  7  7  7 |  |  |
| **Salinity Quantabs** | **Time**  10:46 AM  12:00 PM | **%**  0.006  0.006 | **Chloride ppm**  38  32 | **Total Salinity ppm**  69 ppm  69 ppm |
| ***Fish Catch***  Seine net 20 feet X 4 ft., 1.4 inch mesh | ***Time*** | ***Species*** | ***number*** | ***Size of largest*** |
| ***Diversity 2***  ***Total Catch7*** | 9:25 AM | *Largemouth Bass*  *Shiner* | *1*  *6* | 15 cm bass |
| ***Diversity 5***  ***Total Catch 30*** | 9:55 AM | *Largemouth Bass*  *Shiner*  *Striped Bass*  *Yellow Perch*  *Bluegill Sunfish* | *1*  *26*  *1*  *1*  *1* | 13 cm bass |
| ***Diversity 3***  ***Total Catch 10*** | 10:52 AM | *Largemouth Bass*  *Shiner*  *Banded Killifish* | *1*  *4*  *5* | 19 cm shiner |
| ***Diversity 5***  ***Total Catch 33*** | 12:11 PM | *Largemouth Bass*  *Shiner*  *Blue Gill*  *Banded Killifish*  *Unknown* | *1*  *17*  *1*  *11*  *3* | 11 cm unknown |
| ***Diversity 4***  ***Total Catch 38*** | 12:45 PM | *Largemouth Bass Banded Killifish*  *Spottail Shiner*  *Darter* | *2*  *18*  *17*  *1* | 10 cm shiner |
|  | **For the Day** | ***Total Diversity 8*** | ***Total Catch 118*** |  |
| ***Tides*** | 9:15 AM  9:59 AM  10:36 AM  12:10 PM  12:50 PM | 47 cm  40 cm  25 cm  0 cm  0 cm | Set  Falling  Falling  Still  Still | *Water Height* |
| ***Currents*** | **Time** | **Cm/sec** | **E/F/S** | **Direction** |
|  | 9:30 AM. | 17 | Ebb | (NW) |
|  | 10:03 AM | 6.67 | Ebb | (NW) |
|  | 10:35 AM | 13.3 | Flood | (SE) |
|  | 12:23 PM | 6.7 | Flood | (SE) |
|  | 12:54 PM | 6 | Flood | (SE) |
| ***Core Sample*** | ***Length/*** | ***Grain size*** | ***Plant Material*** |  |
|  | 10 cm  5.5 cm  5.1 cm  8 cm  3.8 cm | Sand/muds/clay  Sand/muds/clay  Sand/muds/clay  Muds & Clay  Muds & Clay | No  No  No  No  NO |  |
| 10:45 AM | No length - Oxidized top | Clay, Mud |  | coal |
| 12:10 PM | 2 inches | Mud | Gravel, Pebbles | Brick, Living Vegetation |
| 12:16 PM | None listed | Clay |  | Mud, gravel, pebbles |
| 12:40 PM | None listed | Clay | Mud | pebbles |
| ***Traffic - commercial*** | ***Time*** | ***Name*** | ***Color*** | ***Direction/Loaded or Light*** |
|  | 10:15 AM | Bouchard | Black & Red | Southbound, loaded |
|  | 11:01 AM | Red Dog | Red & White | Southbound Light |
|  | 11:05 AM | Unknown | WHite | Southbound Light |
| ***Other Items*** | Water chestnut seeds | Large rocks | Crab parts – legs and claws | Seagulls and ducks |