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

**(Salt front ~ RM83)**

**RIVER MILE 94**

**Robert Post Park, Kingston, Ulster County**

**Meg Meisch, Rondout Valley High School**

**65 students 9th -12th graders, 6 adult helpers**

**GPS Latitude 42°01 N Longitude 73°94 W**

**Location:** Robert Post Memorial Park, Town of Ulster, Ulster County, NY

**Area:** Park space with fishing dock and boat launch

**Surrounding Land Use**: 30% urban/residential; 10% forested; 10% Beach, 50% parkland

**Sampling Site:** riprap on shoreline and broken concrete pieces on the shore

**Water depth**:

**River bottom** : rocky

**Plants in area -** none

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | | ***Reading 1*** | ***Reading 2*** | | ***Comments*** | |
| ***Physical*** |  | |  |  | |  | |
| Air Temperature | 10:47 AM  1:18 PM | | 16°C  20 °C | 62°F  68°F | |  | |
| Wind Speed | Most of day no wind | | Beaufort 1 | anemometer – 4 mph | | NE | | |
| Cloud Cover | 51-76% | | Mostly cloudy | | | | |
| Weather today | No precip – became cloudier during the day | | | | | | |
| Weather recently | 80 degrees and unusually warm, dry | | | | | | |
| ***Water Temperature*** | ***Time*** | ***°C*** | | | ***°F*** | **AVERAGE**  **C F** | |
|  | 9:36 AM  11:03 AM  1:00 PM | 15, 15, 16°C  16,16,17 °C  62.7,64.4,64.4°C | | | 59, 59, 60.8°F  60.8,60.8,62.6°F  62.7,64.4,64.4°F | 15.3  16.3  17.7 | 59.6 61.4 63.8 |
| ***Water surface*** | calm |  | | |  |  | |
| ***Turbidity long***  ***Site tube*** | 11:02 AM | 20 cm  49 cm  40cm | | |  | 36.3 cm Avg | |
| ***Chemical*** |  |  | | |  |  | |
| **DO**  ***Hach Kit*** | **Time** | **Temp °C** | | | **DO** | **% saturated** | |
|  | 12:30 PM | 18°C | | | 9 ppm | 95% | |
| pH – Litmus Paper | 10:20 AM | 5  5  5 | | |  | Average 5 | |
| Salinity - Quantab | 11:05 AM | Quantab LR | | | 32 ppm Cl-  32 ppm Cl-  32 ppm Cl- | Converts to 58 ppm total salinity | |
| ***Fish Catch***  *35’seine X 4 ft.* | ***Number Caught-*** | ***Species -*** | | | ***Largest Size*** | ***Diversity & Totals*** | |
| ***11 seines - 9:40-1:30 PM*** | 19 | mummichog | | |  | ***DIV - 11*** | |
|  | 14 | Spottail Shiner | | |  | ***TOTALS = 162*** | |
|  | 2 | Golden Shiner | | |  |  | |
|  | 7 | White Perch | | |  |  | |
|  | 102 | Banded Killifish | | |  |  | |
|  | 1 | Catfish | | |  |  | |
|  | 10 | Pumpkinseed sunfish | | |  |  | |
|  | 3 | Blueback herring | | |  |  | |
|  | 2 | Darter | | |  |  | |
|  | 1 | Bluegill Sunfish | | |  |  | |
|  | 1 | Black Crappie | | |  |  | |
| ***Macroinvert*** | 2 | Blue Crab | | |  | ***DIV- 2*** | |
|  | 100+ | Zebra Mussels | | |  | ***TOTALS - 102*** | |
| ***Tides*** | 9:46AM | 17.5 cm | | | start |  | |
|  | 10:34 AM | 12 cm | | | Falling | 0.11 cm/min | |
|  | 10:55 AM | 9 cm | | | Falling | 0.14 cm/min | |
|  | 11:20 AM | 6.5 cm | | | Falling | 0.10 cm/min | |
|  | 12:19 PM | 9 cm | | | Rising | 0.04 cm/min | |
|  | 12:39 AM | 15 cm | | | Rising | 0.3 cm/min | |
|  | 12:55 PM | 20 cm | | | Rising | 0.3 cm/min | |
|  | 1:06 PM | 24 cm | | | Rising | 0.4 cm/min | |
|  | 1:22 PM | 29 cm | | | Rising | 0.31 cm/min | |
| ***Currents – Time*** | ***Cm/30 secs*** | ***Cm/sec*** | | | ***Knots*** | ***N/S – E/F*** | |
| 9:50 AM | 383 | 12.77 | | | 0.25 | S - E | |
| 10:44 AM | 68 | 2.26 | | | 0.04 | S - E | |
| 12:07 PM | 220 | 7.33 | | | 0.14 | N – F | |
| 12:43 PM | 184 | 6.13 | | | 0.12 | N – F | |
| 1:17 PM | 364 | 12.2 | | | 0.24 | N – F | |
| ***Sediment Core*** | ***Length*** | ***Rare*** | | | ***Common*** | ***Abundant*** | |
|  | 20 cm core - | Sand | | | Clay  Gravel | Mud  Brick | |