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

**RIVER MILE 90**

**George Freer Memorial Park, Port Ewen, Ulster County**

**Meg Meisch, Rondout Valley High School**

**60 students 9th -12th graders, 7 adult helpers**

**GPS Latitude 41°907 N Longitude 73°978 W**

**Location:** George Freer Memorial Park, Town of Ulster, Ulster, NY

**Area:** Park space with grassy area, used for picnics, fishing and boating

**Surrounding Land Use**: 28% urban/residential; 2% forested; 70% Beach

**Sampling Site:** Shore is beach, wooded area, muddy and rocky along the water, banks have been altered with piping noted entering the river, bits of brick and charcoal on beach. 2 drainage pipes ~2 ft. in diameter

**Water depth**: 1 meter

**River bottom** : sandy & muddy

**About the sit**e – Water Milfoil in each seine run 1-2 sq ft/run

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | ***Reading 1*** | ***Reading 2*** | ***Comments*** |
| ***Physical***  |   |  |  |  |
| Air Temperature | 10:47AM1:02 PM | 12.8°C18.3°C | 55 °F65°F |  |
| Wind Speed | Most of day no wind | Beaufort 0-1 | 11:00 AM anemometer - 1.7 kts or 2 mph | S |
| Cloud Cover | 51-76%  |  |
| Weather today | Became mostly sunny @ 11AM, then cloudy again for rest of day |
| Weather recently | Windy 10/18 with few snow flurries, very cold 10/19/15 |
| ***Water Temperature*** | 10:09 AM | 13°C1312 | 55°F5554 | Average13C/55F |
|  | 10:51 AM | 13°C1212 | 56°F5353 | 12C/54F |
|  | 12:32 PM | 13 °C1513 | 55°F5955 | 14C/54F |
|  | 1:09 PM | 13 °C1516 | 55°F5960 | 15C/58F |
| ***Water surface*** | calm |  |  |  |
| ***Turbidity long******Site tube*** | NR | 33 cm30 cm13.3 cm |  | 25 cm Avg |
| ***Chemical*** |  |  |  |  |
| **DO** ***Hach Kit*** | **Time** | **Temp °C** | **DO**  | **% saturated** |
|  | 10:27PM | 15°C | 8 ppm  | 80%  |
| pH – Litmus Paper | 12:34 PM | 666 |  | Average 6 |
| Salinity - Quantab | 11:00-1:19 PM | Quantab units1.21.21.2 | 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*** |
| ***10:30-1:00 PM******10 pulls***  | 17 | American Shad | 8 cm | ***Diversity - 8*** |
|  | 2 | Spottail shiner | 8.5 cm | ***Totals = 27*** |
|  | 2 | Tessellated Darter | 5 cm |  |
|  | 2 | Striped Bass | 9.5 cm |  |
|  | 1 | Yellow Perch | 16.5 cm |  |
|  | 1 | White Perch  | 12 cm |  |
|  | 1 | Smallmouth bass | 10 cm |  |
|  | 1 | Blueback herring | 11 cm |  |
| ***Macroinvert*** |  | Zebra Mussels |  | ***Diversity 1*** |
| ***Tides*** | 9:55 AM | 61 cm | start |  |
|  | 10:47 AM | 43.5 cm | falling | 0.34cm/min |
|  | 12:24 PM | 14 cm | Falling  | 0.30 cm/min |
|  | 1:02 PM | 0 cm | Falling | 0.36 cm/min |
|  |  |  |  | **AVG rate 0.33 cm/min** |
| ***Currents – data collected too close to shoreline to reflect the main channel*** | ***Time*** | ***Cm/30 secs*** | ***Cm/sec*** | ***Knots – Ebb Flood*** |
| 10:17 AM | 3 cm/30 sec | 0.1 cm/sec | N - Flood |
| 11:05 AM | 0 cm | 0  | Still |
| ***Sediment Core***  | ***Length*** | ***Description*** | ***Common*** | ***Rare*** |
| ***12:05 PM*** |  15 cm core -  | H2S smellOil Oxidized Top | ClayMudSandGravel | PebblesBrickCoal |
| ***Shipping******Commercial*** | 9:43 AM12:23 PM | Barge – RTC 502Bouchard | Not moving all dayBlack/Red/White | LoadedLoaded - S |
| ***Recreational***  | 12:42 PM 1:35 PM4 | Sailboat Speedboat | White/BlackBlue/Black/White | Light – NLight - N |