**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 | 10:47AM  1:02 PM | | 12.8°C  18.3°C | 55 °F  65°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°C  13  12 | | | 55°F  55  54 | Average  13C/55F |
|  | 10:51 AM | 13°C  12  12 | | | 56°F  53  53 | 12C/54F |
|  | 12:32 PM | 13 °C  15  13 | | | 55°F  59  55 | 14C/54F |
|  | 1:09 PM | 13 °C  15  16 | | | 55°F  59  60 | 15C/58F |
| ***Water surface*** | calm |  | | |  |  |
| ***Turbidity long***  ***Site tube*** | NR | 33 cm  30 cm  13.3 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 | 6  6  6 | | |  | Average 6 |
| Salinity - Quantab | 11:00-1:19 PM | Quantab units  1.2  1.2  1.2 | | | 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 smell  Oil  Oxidized Top | | | Clay  Mud  Sand  Gravel | Pebbles  Brick  Coal |
| ***Shipping***  ***Commercial*** | 9:43 AM  12:23 PM | Barge – RTC 502  Bouchard | | | Not moving all day  Black/Red/White | Loaded  Loaded - S |
| ***Recreational*** | 12:42 PM  1:35 PM4 | Sailboat  Speedboat | | | White/Black  Blue/Black/White | Light – N  Light - N |