**Day in the Life of the Hudson River 10/10/13 Data**

**(Salt Front RM 69.3)**

**RIVER MILE 90**

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

**Meg Meisch, Rondout Valley High School**

**54 students 9th graders, 6 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**: 30% urban/residential; 20% forested; 40% industrial/commercial

**Sampling Site:** Shore is beach, muddy and rocky along the water, banks have been altered with piping noted entering the river, bits of brick and charcoal on beach

**Plants in area:** no

**Water depth**:

**River Bottom** : muddy, rocky

**About the site:** area has bricks and brick pieces, water chestnut seeds, goose droppings.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | | | ***Reading 1*** | ***Reading 2*** | | ***Comments*** |
| ***Physical*** |  | | |  |  | |  |
| Air Temperature | 10:11 AM  11:12 AM  12:27 PM | | | 11°C  12.3  13.4 | 51.8 °F  54.1  56.1 | |  |
| Wind Speed | 10:22 AM  12:30 PM | | | 1.8 m/s  1.1 m/s | North | | |
| Cloud Cover | Mostly cloudy | | |  | | | |
| Weather today | No rain | | | | | | |
| Weather recently | Sunny and warmer | | | | | | |
| ***Water Temperature*** | 9:53 AM | | 16.7°C | | |  |  |
|  | 10:45 AM | | 16°C | | |  |  |
|  | 12:21 PM | | 17 °C | | |  |  |
| ***Water surface*** | choppy | |  | | |  |  |
| ***Turbidity long***  ***Site tube*** | 10:00 AM  10:38 AM  11:56 AM  12:28 PM | | 58.5 cm  59.25 cm  33.5 cm  10.32 cm | | |  |  |
| ***Chlorophyll*** | 10:00AM  10:38 AM  10:56 AM | | 0.3  0.5  0.1 | | |  |  |
| ***Chemical*** |  | |  | | |  |  |
| **DO**  ***Wards D.O.*** | **Time** | | **Temp °C** | | | **DO** | **% saturated** |
|  | 9:53 AM | | 16°C | | | 8 ppm | 82% |
|  | 10:45 AM | | 16°C | | | 6 | 62% |
|  | 11:17 AM | | 15°C | | | 5.5 | 55% |
|  | 12:36 PM | | 17°C | | | 8 ppm | 87% |
| pH – indicator solution | 10:00 AM | | 7.4  7.9  7.9 | | |  | Average 7.7 |
|  | 10:34 AM | | 7.8  7.8  7.4 | | |  | Average 7.6 |
|  | 12:00 PM | | 7.8  7.8  7.8 | | |  | Average 7.8 |
| Salinity - Quantab | 1.2 scale | | 28 ppm Cl- | | | Converts to 51 ppm total salinity |  |
| ***Fish Catch***  *30’seine X 4 ft.* | ***Number Caught-*** | | ***Species -*** | | | ***Largest Size*** | ***Diversity & Totals*** |
|  | 2 | | Pumpkinseed | | | 18 cm | ***Div = 4*** |
|  | 2 | | Bluegill | | | 19 cm | ***Totals = 6*** |
|  | 1 | | Killifish | | | 4 cm |  |
|  | 1 | | American Eel | | | 16 cm |  |
| ***Also collected*** | 6 | | Snails | | | 1-2 cm |  |
| ***Tides*** | 10:00 AM | | 25.4cm | | | start |  |
|  | 10:30 AM | | 12.7 cm | | | falling | 0.42 cm/min |
|  | 11:08 AM | | 22.86 cm | | | Falling (moved stick) |  |
|  | 11:53 AM | | 11.42 cm | | | falling | 0.25 cm/min |
| ***Currents*** | ***Time*** | | ***Cm/30 secs*** | | | ***Cm/sec*** | ***Knots – Ebb Flood*** |
|  | 10:06 AM | | 274.3 cm/30 sec | | | 9.1 cm/sec | 0.18 knots – South/Ebb |
|  | 10:43 AM | | 152.4 | | | 5.1 | 0.10 -S/Ebb |
|  | 11:00 AM | | 88.9 | | | 3.0 | 0.06 -S/Ebb |
|  | 12:07 AM | | 342.9 | | | 11.43 | 0.22 -S/Ebb |
|  | 12:40 AM | | 66.0 | | | 2.2 | 0.04 -S/Ebb |
| ***Recreational Traffic*** | 10:05 AM | | Sailboat – | | | North |  |
|  | 10:46 AM | | Speedboat White | | | North |  |
| ***Core –*** | **Length** | **Rare** | | | **Common** | | **Abundant** |