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

**(Salt Front RM 69.3)**

**RIVER MILE 58a**

**Plum Point/Kowawese, New Windsor, Orange County, NY**

**Rebecca Foster-Faith, Bishop Dunn MS**

**28, 7th grade students, 6 adults**

**GPS Latitude 41°27’47.67”N Longitude 74°0'42.88"W**

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**Location:** Sandy beach at Kowawese, New Windsor, Orange County, Public Shore,

**Area:** Sandy beachbordered by forested area and parking lot. Used for picnic, fishing, kayaking

**Surrounding Land Use:** Forested 80%, Beach 20%,

**Sampling Site:** sandy beach (cove), rip rap in area of sampling site, debris in the area such as broken concrete, docking

**Plants in area:** 1% of area has plants

**River Bottom** – sandy, weedy, rocky

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | | ***Reading 1*** | ***Reading 2*** | ***Comments*** | |
| ***Physical*** |  | |  |  |  | |
| Air Temperature | 10:30 Am | | 13°C  55°F |  |  | |
| Wind Speed | Beaufort #2 | | 3 mph | NE |  | |
| Cloud Cover | overcast | |  | light drizzle < 1” | | |
| Weather today | Minor drizzle | | | | | |
| Weather recently | Raining Monday, slightly warmer | | | | | |
| ***Water Surface*** | choppy | | | | | |
| ***Water Temperature*** | 9:55 AM | 6 °C  °F | |  | |  |
|  | 10:48 AM | 17 °C | |  | |  |
|  | 10:30 AM Tom Lake | 18.3°C  65°F | |  | |  |
|  | 12:12 PM | 18 °C | |  | |  |
|  | 1:05 PM | 10 °C | |  | |  |
| ***Water Surface*** | Choppy |  | |  | |  |
| ***Turbidity***  *Secchi disk* | 9:53 AM | 20 cm | |  | | Average of 3 18.3 cm |
|  | 10:46 AM | 15 cm | |  | |  |
|  | 12:35 PM | 20 cm | |  | |  |
| ***Chlorophyll*** | 10:00 AM | 0.1 color chart | | 10:55 AM | | 0.1 |
|  | 12:10 PM | 0.2 | | 1:00 PM | | 0.1 |
| ***Chemical*** |  |  | |  | |  |
| DO | TIME | Temp | | DO | | % Sat |
| Averaged data |  | 12.75 °C | | 16.75\* | | \*seems too high |
| pH – litmus paper | 9:36 AM  10:36 AM  12:22 PM  12:47 PM | 6.0  6.0  7.0  7.0 | |  | | Average 6.5 |
| Salinity – Tom Lake reading | 9:30 AM |  | |  | | 2.50 ppt |
| Test strips | 9:42 AM  10:45 AM 12:32 PM |  | | 642 ppm Cl-  all 3 times | | 1160 mg/L TS |
| ***Fish Catch***  30 ft. ‘ with ¼ inch mesh – circle pull | ***Species*** | ***Count*** | | ***Size of largest*** | | ***Totals*** |
| 10:30 AM-11:45 AM | Spottail Shiner | 1 | | 75 mm | | **DIVERSITY - 3** |
| 4 seines | Striped Bass | 1 | | 60 mm (yoy) | | **TOTALS - 5** |
|  | American Shad | 3 | | 110-113 mm (yearling) | |  |
| ***CPUE-*** | Seine 1 | 1 fish | | 30 ft. pull | | 0.003 |
|  | Seine 2 | 0 | | 30 ft. | | 0 |
|  | Seine 3 | 3 | | 30 ft. | | 0.01 |
|  | Seine 4 | 0 | | 30 ft. | | 0 |
|  | Seine 5 | 1 | | 30 ft. | | 0.003 |
| ***Tides*** | **Time** | **Height in cm** | | **Rate of change** | | **Rising/falling** |
|  | 9:38 AM | 15 cm | |  | |  |
|  | 10:55 AM | 10 cm | | Falling | |  |
|  | 11:52 AM | 17.5 cm | | Rising | |  |
|  | 12:15 PM | 27.5 cm | | Rising | |  |
|  | 12:45 PM | 35 cm | | Rising | |  |
|  | 1:06 PM | 45 cm | | Rising | |  |
| ***Currents*** | **Cm/30 sec** | **Cm/sec** | | **Kts** | | **N/S & E/F/S** |
| 9:50 AM | 317.5 | 10.6 | | 0.21 | | N Flood |
| 10:40 AM | 142 | 4.75 | | 0.09 | | N Flood |
| 12:05 PM | 200 | 6.7 | | 0.13 | | N Flood |
| 12:55 PM | 245 | 82 | | 0.16 | | N Flood |
| ***Core – not work*** | TIME | Description | | Common | | Rare |