**Snapshot Day 10/20/16Data**

**(Salt Front ~RM 83)**

**RIVER MILE 51.5**

**Garrison Landing Park**

**Cathy Bakker,** **Hudson Highlands Land Trust**

**Karen Nelson, Kevin Keegan, Lisa M, Nicole, Chris Caliendo, Garrison Union Free School**

**7th & 8th graders 22 students, 5 adults**

**41 22 57 N – 73 36 93 W**

**Location:** Garrison Landing Park, Garrison, Putnam County, NY

**Area:** Waterfront beach area on front of grassy park primarily used for boating & picnics

**Surrounding Land Use:** Forested 60%,Urban/residential 20%,Industrial/commercial 10%, Forested 5%, Other 10%,

**Sampling Site:** Rocky shoreline,Pier, shore with bulkhead, riprap, grassy, parking lot

**Shoreline:** Sandy, muddy, rocky

**Plants in area:** 50% trees, 10% bushes, 30% grasses and 10% other plants

**Water depth**: 3 – 30 cms

**River Bottom** – muddy/rocky bottom

**Plants in the water** – none in water,

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | ***Reading 1*** |  | ***Comments*** |
| ***Physical*** |  |  |  |  |
| **Air Temperature** | 10:18 AM  11:35 AM  12:50 PM | 68 °F  72  79 | 19 °C  22°C  26°C |  |
| **Wind Speed** | **Beaufort #** | **Knots** | **Mph** | **Direction** |
| 10:18 AM  11:35 AM  12:50 PM | #1  #1  #4 | 1-3  1-3  11-16 |  | North-West |
| Cloud Cover | 10:18 AM  11:35 AM  12:50 PM | Mostly cloudy  Overcast  Mostly Cloudy | 51-75%  75-100%  51-75% |  |
| Weather today | Overcast except at 11:35 AM when there was rain | | | |
| Weather recently | Unusually warm and no rain | | | |
| ***Water Surface*** | Calm, small waves – early in day brownish water | |  |  |
| ***Water Temperature*** | 9:50 AM  10:53 AM  12:58 PM | 18.8°C  16°C  19°C | 61° F  67  68 |  |
| ***Turbidity -*** | 10:38 AM  11:30 AM  12:58 PM | 45 cm  56.7  76.5 |  |  |
| ***Chemical*** |  | | | |
| DO -colormetric analysis | 10:26 AM  10:53 AM  12:30 PM | 3 mg/L  3 mg/L  3 mg/L | 19°C  16  19 | 10 %  28 %  31 % |
| pH – color match test | ***Time*** | ***Reading*** |  | ***Averages*** |
|  | 10:23 AM | < 6.0 |  |  |
| ***Salinity – quantab – 0.04 ppm? Not sure what this means*** | 10:30 AM |  |  |  |
| ***Phosphates – (expect LaMotte kit)*** | 10:38 AM  11:38 AM  12:54 AM | 2 ppm  2ppm  2ppm |  |  |
| ***Nitrates***  ***(expect LaMotte kit)*** | 9:59 AM  11:38 AM  12:59 PM | 0, 1, .5 ppm  0, 1, .5 ppm  0, 1, 4 ppm |  | Avg 2 ppm  Avg 2 ppm  Avg 1.7 ppm |
| ***Tides - Time*** | ***Cm start ht*** | ***Stop Time*** | ***Cm end*** | ***Tide*** |
| 9:48 AM  11:08 AM  12:25 PM | 34 cm  7.62 cm  20.32 cm | 10:22 AM  11:30 AM  1:02 PM | 29 cm  17.78 cm  30.48 cm | Falling  Rising  Rising |
| ***Currents/Time*** | **Cm/30 secs** | **Cm/Sec** | **Knots** | **Ebb/Flood/ Still** |
| 9:48 AM  11:08 AM  12:25 PM |  | 24.5 cm/sec  23.3 cm/sec  28.67 cm/sec | 0.48 kts  4.5 kts  1.53 kts |  |
| ***Seine – 60 ft. X 94.2 ft. pull – ¼ inch mesh*** | **TIME** | **SPECIES** | **CATCH** | **SIZE/CM** |
| **Fish Group #1** | 10:05 AM | White Perch | 8 | 13 cm |
|  |  | Hog choker | 8 | 13 cm |
|  |  | Yellow Perch | 2 | 22 cm |
|  |  | Striped Bass | 8 | 14 cm |
|  |  | Herring | 99 | 7.5 cm |
|  |  | American Eel | 1 | 15 cm |
|  |  | **Diversity 6** | **Totals 126** |  |
| **Macroinvertebrates** |  | Shrimp | 1 |  |
|  |  | Blue Crab | 5 (4 M,1 F) |  |
|  |  | **Diversity 2** | **Totals 126** |  |
| **Fish Group #2** | 11:45 AM | Pumpkinseed | 1 | 14.5 cm |
|  |  | White Perch | 4 | 9.4 cm |
|  |  | Striped Bass | 2 | 10 cm |
|  |  | Herring | 1 | 8.9 cm |
|  |  | Hog Choker | 1 | 8.7 cm |
|  |  | **Diversity 5** | **Totals 9** |  |
| **Fish Group #3** | 1:05 PM | Striped Bass | 2 | 9 cm |
|  |  | **Diversity 1** | **Totals 2** |  |
| ***Traffic – Commerical*** |  |  |  |  |
| 9:53 AM | River Rose |  | Northbound | Light |
| 12:15 PM | West Point Ferry |  | Northbound | Light |
| 12:45 PM | West Point Ferry |  | Northbound | Light |
| ***Recreational*** |  |  |  |  |
| 9:55 AM |  |  | Southbound | Light |
| ***Sediment Core – 11:38 AM*** | ***No length provided*** | **Abundant –**  Sand | **Common**  Mud | **Rare**  Wood  Vegetation  H2S smell |
| ***12:59 PM*** | ***No length provided*** |  | Clay  Mud  H2S Smell |  |