**Snapshot Day 10/20/15 Data**

**RIVER MILE 51.5**

**Garrison Landing Park**

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

**Kevin Keegan, Garrison Union Free School**

**7th graders 30 students, 5 adults**

**41 22 57 N – 73 36 93 W**

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**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:** Beach 10%,Urban/residential 40%,Forested 50%

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

**Shoreline:** Sandy, muddy, rocky

**Plants in area:** no plants in the water but evidence of water chesnut

**Water depth**: 39.5 inches

**River Bottom** – muddy/rocky bottom

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| ***ITEM*** | ***Time*** | ***Reading 1*** |  | ***Comments*** |
| ***Physical*** |  |  |  |  |
| **Air Temperature** | 10:11 AM  11:08 AM  11:57 AM | 48 °F  63  57 | 9°C  17  14 |  |
| **Wind Speed** | **Beaufort #** | **Knots** | **Mph** | **Direction** |
| 11:14 AM | Force #1.5 |  |  | S,S,NE |
| Cloud Cover | 10:15 AM  12:00 PM | 0-25% cover |  |  |
| Weather today | No rain | | | |
| Weather recently | Windy and cold | | | |
| ***Water Surface*** | Calm & choppy at times | |  |  |
| ***Water Temperature*** | 9:20 AM  10:30  11:35 | 17.5°C  16  20 | 1-2 ft water |  |
| ***Turbidity – short site tube*** | 12:04 PM | 88 JTU  130 JTU  200 JTU |  |  |
| ***Chemical*** |  | | | |
| DO -colormetric analysis | 9:36 AM  10:46  11:49 | 7 mg/L  8  10 | 17.5°C  16  20 | 72.5 %  80%  107% |
| pH – color match test | ***Time*** | ***Reading*** |  | ***Averages*** |
|  | 9:25 AM  9:29 AM  10:30 AM  11:32 AM | 6  7  6.5, 7.5  7, 7.5 |  |  |
| ***Salinity - quantab*** | 9:49 AM  10:39 AM  11:52 AM | 780 ppm Cl  675  675 | 1409 ppm  1219  1219 | **Total Salinity** |
| ***Tides*** | ***Time*** | ***Inches*** |  |  |
|  | 9:29 AM  9:45  10:00  10:15  10:52  11:14  11:35 | 42 “  43  44  46  6 below original  1.3 below  5.75 below | Flood  Flood  Flood  Flood  Ebb  Ebb  Ebb |  |
| ***Currents/Time*** | **Cm/30 secs** | **Cm/Sec** | **Knots** | **Ebb/Flood/ Still** |
| 10:10 AM  10:58 AM  11:55 AM  12:15 PM | 165/30  210 cm  120/30 | 5.5 cm/sec  7 cm/sec  4 cm |  | Ebb  Flood  Still |
| ***Seine – 60 ft. X 94.2 ft. pull – ¼ inch mesh*** | **SPECIES** | **9:30 SEINE** | **10:40 SEINE** | **11:06 SEINE** |
|  | Hog Choker | 4 | 4 | 0 |
|  | White Perch | 5 | 8 | 0 |
|  | Alewife | 36 | 0 | 0 |
|  | American Shad | 4 | 0 | 0 |
|  | Smallmouth Bass | 1 | 0 | 0 |
|  | Atlantic Silverside | 16 | 1 | 5 |
|  | Striped Bass | 3 | 2 | 1 |
|  | Pumpkinseed | 1 | 2 | 0 |
|  | Spottail Shiner | 1 | 5 | 0 |
|  | Channel Catfish | 2 | 0 | 0 |
|  | American Eel | 2 | **0** | 0 |
|  | Yellow Perch | 11 | **0** | 0 |
|  | Tessellated Dater | 1 | **0** | 0 |
| **Fish TOTALS 115** | **DIV 13** | **87** | **22** | **6** |
| Macroinvertebrates | Blue Crab | 0 | 5 | 0 |
| **Macro totals** |  | **Diversity 1** | **Totals 5** |  |
| ***Traffic – Commerical*** |  |  |  |  |
| ***Sediment Core –*** | ***Length/ Description*** | **Abundant –** | **Common** | **Rare** |
| ***Core 1*** | 3 inches  H2S smell  Oil | Clay | Mud | Sand |
| ***Core 2*** | 12 inches  H2S smell | Clay | Mud | Sand |