**A Day in the Life of the Hudson River 10/20/15 Data**

**RIVER MILE 102**

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**Saugerties Light House, Town of Saugerties, Ulster Co.**

**Marie Daniels, Jennifer Reid & Matthew, Woodstock Day School**

**Grades 5th & 7th, 20 students and 8 adults**

**42.04**°**N, 73.92** °**W**

**Location:** Saugerties Light house @ northern bank of peninsula – pier with grassy area

**Area:** Pier of sorts, boating, fishing, swimming beach, picnics, hiking, walking

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

**Sampling Site:** beach, bulkhead altered banks years ago, covered with vegetation, collected wood/debris in area, shoreline riprap at lighthouse, shoreline is sandy, muddy, rocky

**River Bottom:** muddy, sandy, rocky

**Plants in area**: Percent reported varies from 50% to 90% water chestnut, and 50% to 10 % water celery

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | | ***Reading 1*** | ***Reading 2*** | ***Comments*** | |
| ***Physical*** |  | |  |  |  | |
| Air Temperature | 10:33 AM  11:37 AM  11:51 AM | | 13°C  14°C  15°C | 55 F  57 F  60 F |  | |
| Wind Speed | 11:00 AM  11:51 AM | | Beaufort #3  Beaufort #2 |  | N  SW |
| Cloud Cover | 12:00 PM | | Partly cloudy | 51-75% cloud |  | |
| Weather today | No rain | | | | |
| Weather recently | Cool fall like | | | | |
| ***Water Temperature*** | 10:30 AM  11:50 AM  11:55 AM | 10 °C  15°C  15°C | | 2 ft. water  3 ft. water  2 ft. water |  | |
| ***Water Calm or Choppy*** | choppy |  | |  |  | |
| ***Turbidity***  Long site tube | 10:35 AM | 25 cm  20  30 | | Average 25 cm | Not clear but not turbid – on a scale of 1-10 it is about a 4! | |
|  | 11:00 AM | 26 cm  32  35 | | Average 31 cm |  | |
|  | 11:28 AM | 26  34  25 | | Average – 28.3 cm |  | |
|  | 12:01 PM | 26 cm  27  29 | | Average 27 cm |  | |
| ***Chemical*** |  |  | |  |  | |
| DO  (ampules) | 10:30 AM  11:00 AM  12:00 PM | 6 mg/L  8 mg/L  8 mg/L | |  |  | |
| pH – color match kit | 11:30 AM  12:00 PM | 7.4  7.4 | |  |  | |
| Salinity Quantabs |  |  | |  |  | |
| ***Fish – 50 ft. net*** | **Time** | **Species** | | **# caught** | **Length of largest** | |
| ***Seine #1 - Div 3***  ***Totals 4*** | 10:20 | Largemouth Bass | | 1 | 15 cm | |
|  |  | Banded Killi | | 2 | 5 cm | |
|  |  | Bluegill Sunfish | | 1 | 2.5 cm | |
| ***Seine #2 – Div 5***  ***Totals 9*** | 10:54 AM | Common Goldfish | | 2 | 17 cm | |
|  |  | Striped Bass | | 4 | 17 cm | |
|  |  | Pumpkinseed | | 1 | 4 cm | |
|  |  | Shad | | 1 | 11 cm | |
|  |  | Banded Killi | | 1 | **10 cm** | |
| ***Seine #3 – Div 3***  ***Totals 5*** | 11:30 AM | Goldfish | | 2 | 14 cm | |
|  |  | Blueback Herring | | 2 | 7cm | |
|  |  | Tessellated Darter | | 1 | 10 cm | |
| ***Seine #4 – Div 7***  ***Totals 28*** | 11:46 AM | Pumpkinseed | | 1 | 12 cm | |
|  |  | Striped Bass | | 5 | 18 cm | |
|  |  | Shad | | 8 | 8 cm | |
|  |  | Bluegill sun. | | 5 |  | |
|  |  | Tessellated Darter | | 1 |  | |
|  |  | Banded Killifish | | 7 |  | |
|  |  | Golden Shiner | | 1 | 10 cm | |
|  | ***GRAND TOTALS*** | **DIVERSITY**  **- 9** | | **TOTAL CATCH -46** |  | |
| ***Tides*** | **Time** | **Height** | | **Falling/Rising** |  | |
|  | 10:36 AM  11:07 AM | 35cm  93 cm | |  | HT was at 8:32 AM | |
| ***Currents*** | **Time** | **Cm/30 secs** | | **Cm/sec** | **N/S - E/F/S** | |
|  | 11:45 AM  12:00 PM  12:09 PM | 30cm/30 sec  60 cm/30 sec  50cm/30 sec | | 1cm/sec  2 cm/sec  6.6 cm/sec | North/flood  4.6 kts | |
| ***Sediment Core -***  ***Length*** | **Observation** | **Rare** | | **Common** | **Abundant** | |
| ***10:50 AM -*** | 8 inches – oxidized top |  | |  | Mud on bottom | |
| ***11:14 AM*** | 4 inches – 1 inch oxidized top | Gravel,  Living vegetation | | Clay,  mud | sand | |
| ***11:20 AM*** | 5 inches –oxidized top | Clay | | Mud | Sand | |
| ***11:54 AM*** | 3 inches –  H2S smell, 1inch oxidized top | Clay | |  | Sand | |
| ***Shipping***  ***Commercial (C)*** | 10:00 AM  N/R  N/R  12:00 PM  12:00 PM | Red Barge  White  Barge Red/Bk  Black  Large Cargo | | Northbound  Northbound  Southbound  Southbound  Southbound | Loaded  Light  Light  Light  Loaded | |
| ***Recreational (R)*** | 10:00 AM  12:45 PM | White speedbt  Sailboat | | Southbound  Southbound | Light  Light | |
| ***Observations*** | Lots of devil’s heads from water chestnut, and bricks, lumps of coal, bits of shells, overgrown plants and seagulls, hummingbird, squirrels, hawks, dragonflies | | | | | |