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

**RIVER MILE 52.5**

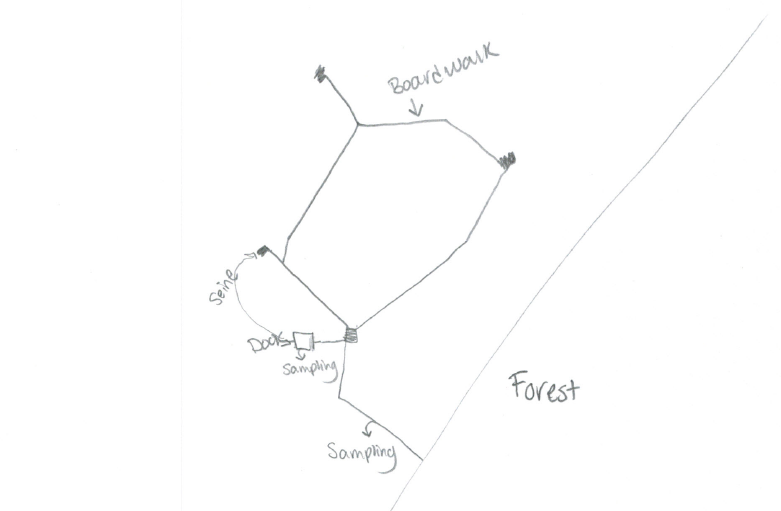
**Constitution Marsh Audubon Center & Sanctuary, Cold Spring, Putnam**

**Rebecca Schultz, Constitution Marsh Audubon Center & Sanctuary**

**Kerry DiMeo, San Miguel Academy, Newburgh**

**11 fifth graders & 6 adults**

**Latitude N 41°402766 - Longitude W -73°939834**

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**Location:** Boardwalk at Constitution Marsh, Cold Spring, Putnam County

**Area:** located in a emergent marsh, range of herbaceous plants

**Surrounding Land Use:** 100% Tidal Marsh

**Sampling Site:** In the midst of plant material off a boardwalk. Covered with vegetation

**Shoreline:** Sandy, muddy, rocky

**Plants in area:** Narrow leaf cattail 60%, Arrow Arum 10%, Arrowhead 5%, Wild rice 10%, Pickerelweed 5% water hemp, swamp rose mallow >5%, Jewelweed >5%

**Percent of site covered with vegetation:** 40%

**Tidal Shallows:** Water Milfoinl

**Water depth**: 6 inches to a few feet

**River Bottom** – muddy, weedy

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | | | ***Reading 1*** | | | ***Reading 2*** | ***Comments*** | |
| ***Physical*** |  | | |  | | |  |  | |
| Air Temperature | 1:00 PM  1:27 PM | | | 60 oF  69 oF | | | 15.56 oC  20.56 oC |  | |
| Wind Speed | 1:30 AM | | | Beaufort 1 | | |  |  | |
| Cloud Cover | 1:00 PM | | | Clear 26-51% partly cloudy | | |  |  | |
| Weather today | No rain, warmed up during sampling | | | | | | | | |
| Weather recently | Very cold weekend | | | | | | | | |
| ***Water Surface*** | Calm | |  | | | |  | |  |
| ***Water***  ***Temperature*** | 1:45 PM | | 58 oF | | | | 14.44oC | |  |
| ***Turbidity –*** | 1:13 PM | | >30.5 cm  \*secchi | | | | *\*Hit bottom so could not do accurately* | |  |
| ***Chemical*** |  | |  | | | |  | |  |
| DO  (drop kits) | NR | |  | | | |  | |  |
| pH  Indicator solution | 1:24 PM | | 6  6 | | | | Average 6 | |  |
| Salinity -  refractometer | 1:30 PM | | 4 ppt  4.0 | | | | Average 4.0 ppt | |  |
| ***Fish Catch- 12:05 AM*** | ***Number Caught*** | | ***Species*** | | | | ***Size of largest*** | | ***Seine*** |
| 60 ft net X 4ft– 50 ft. pull | 1 | | Brown Bullhead | | | | 7 cm | | ***Seine #1***  ***11:00 AM*** |
|  | 2 | | Pumpkinseed | | | | 12.5 cm | | ***Diversity 4*** |
|  | 3 | | Banded Killifish | | | | 7.8 cm | | ***Totals 32*** |
|  | 26 | | Spottail Shiner | | | | 10.2 cm | |  |
|  | 1 | | Atlantic Silverside | | | | 8.1 cm | | ***Seine #2 11:25 AM*** |
|  | 14 | | Spottail Shiner | | | | 10.5 cm | | ***Diversity 5*** |
|  | 1 | | Brown Bullhead | | | | 8.7 cm | | ***Totals 19*** |
|  | 1 | | Striped Bass | | | | 7 cm | |  |
|  | 2 | | Banded Killifish | | | | 8.9 cm | |  |
| ***Total Catch 51*** |  | | ***Total Diversity - 6*** | | | |  | | ***2 Seines*** |
| ***Seine #1*** | ***11:00 AM*** | | ***Catch 32*** | | | | ***55 ft. pull*** | | ***CPUE 0.032*** |
| ***Seine #2*** | ***11:25 AM*** | | ***Catch 19*** | | | | ***55 ft. pull*** | | ***CPUE 0.019*** |
| **Macro** | ***1*** | | ***Crangon Shrimp*** | | | |  | |  |
| ***Tides*** | 12:58 PM | | Rising | | | | 20 cm | | Set point |
|  | | 1:20 PM | Rising | | | | 31 cm | | 0.5 cm/min |
| 1:31 PM | Rising | | | | 33 cm | | Set Point |
| 1:42 PM | Rising | | | | 39 cm | | 0.54 cm/min |
| ***Current \**** | | **Time** | **Cm/30 sec** | | **Cm/sec** | **Kts** | **North/**  **South** | | **Ebb/Flood** |
| ***Note the wind was definitely ‘speeding things up’*** | | 1:07 PM | 76 | | 2.53 | 0.05 | North | | Flood |
| 1:20 PM | 45 | | 1.50 | 0.03 | North | | Flood |
| 1:33 PM | 35 | | 1.17 | 0.02 | North | | Flood |
| **Birds** | | Crows, wood ducks, dragonfly and other waterfowl | | | | | | | |