**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 PM1:27 PM  | 60 oF69 oF | 15.56 oC20.56 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 |  |  |  |
| pHIndicator solution | 1:24 PM | 66 | Average 6 |  |
| Salinity - refractometer | 1:30 PM | 4 ppt4.0 | 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  |