**Day in the Life of the Hudson River 10/20/16 Data**

**(Salt Front ~ RM 83)**

**RIVER MILE 11.5 – Fort Washington Park**

**Katie White, Marymount School of New York**

**51 students 7th grade, 7 adults, 8 adults**

**Latitude 40°50’46.42444” N - Longitude -73.°56’46.914”W**

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**Location:** Fort Washington Park just South of the George Washington Bridge

**Area:** Site is a sandy beach with rip rap adjacent to a paved jogging trail within a grassy park. Some trees on far side of jogging trail but none next to water. Very little aquatic vegetation.

**Surrounding Land Use**: : 14% forested, 85% grass park land, 1% beach,

**Sampling Site:** Park with a lot of trees, picnic tables, covered with vegetation, lots of riprap shore, collected wood debris. Large outflow pipe directly south of site <100 meters

**Plants in water:** None

**Water depth**: 2-4 ft.

**River Bottom** –mainly sandy and rocks, no mud this year (past years yes)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | ***Reading 1*** | ***Reading 2*** | ***Comments*** |
| ***Physical*** |  |  |  |  |
| Air Temperature | 9:51 AM  10:16 AM  10:59 AM  1:00 PM  1:43 PM | 20°C  21  22  25  25 |  |  |
| ***Wind Speed –*** | ***Time*** | ***Clouds*** | ***Beaufort #*** | ***Wind m/s*** |
|  | 9:53 AM | mostly cloudy | 3 - SW | 8.7 |
|  | 10:14 AM | mostly cloudy | 2 - SW | 6 |
|  | 11:01 AM | mostly cloudy | 3 - SW | 8.3 |
|  | 1:05 PM | mostly cloudy | 2 - SW | 7.1 |
|  | 1:24 PM | mostly cloudy | 1 - SW | 2.9 |
| Cloud Cover | 10:06  10:26  10:55  12:24  12:52 | Partly cloudy Mostly  Mostly  Clear  Clear | 25-50 %  51-75  51-75  <25  <25 |  |
| Weather today | No rain | Consistent weather throughout day | | |
| Weather last 3 days | Weather for past 3 days: Warm (low 80s) and dry (no rain) | | | |
| **Water** | Water mainly calm, some small wavelets | | | |
| ***Water Temperature*** | 9:49 AM  10:23 AM  10:48 AM  12:18 PM  12:51 PM | 11°C  12°C  14°C  18°C  15°C |  |  |
| ***Turbidity -***  *Long site tube* | 9:46 AM  10:22 AM  11:00 AM  12:58 PM  1:30 PM | 57.4 cm  63.22cm  59.2 cm  17.9 cm  13.1 cm |  | Tide was very high in the PM & mixing with sand on the beach  turbidity |
| ***Chemical*** |  |  |  |  |
| DO  *Salifert Kit*  *(each measurement is avg. of 4-5)* | 9:46 AM  10:21 AM  10:55 AM  12:41 PM  1:26 PM | 18.5°C  17.5  20  19.5  20 | 6.8 ppm  5.6  5.8  4.2  5.5 | 70% saturation  60%  60%  43%  60% |
| pH  *color match test kit - (each measurement is avg. of 4-5)* | 9:46 AM  10:21 AM  10:55 AM  12:41 PM  1:26 PM | 7.6  7.4  7.6  7.6  7.7 |  |  |
| *Salinity* |  | *refractometer* | *hydrometer* |  |
|  | 9:36 AM  10:20 AM  10:50 AM  12:50 PM  1:10 PM | 21.6 ppt  20.8  20  21.5  23.8 | **30 ppt**  **26.4**  20.4  22.6  22.8 | ***Average 21.54***  *\**Bolded values are outliers – refractometer is more accurate. |
| ***Fish Catch – 9 ft. 30 ft. pull -***  ***22 seines – 8 with no catch*** | ***Time*** | ***Fish Species*** | ***# caught*** | ***Length cm*** |
| ***Seine #3*** | 9:51 AM | Atlantic Silversides | 9 | 8.5 |
| ***#4*** | 9:55 AM | Atlantic Silversides | 15 | 10.5 |
| ***#6*** | 10:20 AM | Striped Bass | 1 | 9 |
| ***#7*** | 10:30 AM | Atlantic Silversides | 8 | 12.5 |
| ***#10*** | 10:55 AM | Bluefish | 1 | 15.5 |
| ***#21*** | 1:21 PM | Atlantic Silversides | 1 | 10.5 |
| ***#22*** | 1:35 PM | Bay Anchovy | 1 | 6 |
| ***TOTAL DIV - 3*** | **TOTAL CATCH 36** |  |  |  |
| ***Macroinvert*** | ***Number*** | ***Macros*** | ***Number*** | ***Additional Info*** |
| ***Seine #2*** | 9:38AM | Portunid crab | 4 | All Male |
|  |  | Hydroid Medusa | 1 |  |
| ***#4*** | 9:55 AM | Portunid crab | 4 | All Male |
| ***#5*** | 10:14 AM | Portunid crab | 1 | Male |
| ***#10*** | 10:55 AM | Portunid crab | 1 | Male |
| ***11*** | 11:15 AM | Ctenaphore | 2 |  |
| ***#12*** | 11:18 Am | Hydroid Medusa | 1 |  |
|  |  | Portunid crab | 2 | 1 M, 1F |
| ***#14*** | 12:47 PM | Portunid crab | 1 | F |
| ***#18*** | 12:59 PM | Hermit Crab | 1 |  |
| ***#19*** | 1:07 PM | Portunid crab | 1 | M |
| ***#20*** | 1:17 PM | Hermit Crab | 2 |  |
|  |  | Ctenaphore | 2 |  |
|  |  | Hydroid Medusa | 8 |  |
| ***Macro – Div. 4*** | ***Totals 31*** |  |  |  |
| ***Tides*** | 9:45 AM | Rising | 27 cm | --- |
| Data collected | 10:24 AM | Rising | 40 | 0.33 |
| With stick in | 10:45 AM | Rising | 55 | 0.71 |
| the sand | 11:15 AM | Rising | 60 | 0.17 |
|  | 12:52 PM | Rising | 85 | 0.27 |
|  | 1:15 PM | Rising | 83 | -0.09 |
| ***Currents*** | **Cm/Sec** | **Ebb/Flood/Still** | **Note** | |
| ***9:45 AM***  ***10:24 AM***  ***10:45 AM***  ***12:52 PM***  ***1:15 PM*** | 17 cm/s  4.6  6.1  7.7  4 | Ebb  Ebb  Ebb  Ebb  Ebb | We threw orange as far as possible but caught in side current. We expected flood based on tide | |
| ***Shipping – Commercial*** | 10:08AM | Tug | Course of America | N - Light |
|  | 11:06 AM | Cargo | BBC Alabama | N - Light |
| ***Recreational*** | 9:45 AM | Speed boat | n/a | South |
|  | 10:04 AM | Sail boat | L'aeuse aux Fraises | South |
|  | 10:31 AM | Speed Boat | n/a | South then North |
|  | 12:39 PM | Yacht | n/a | North |
|  | 12:39 PM | Sail boat | n/a | South |
|  | 12:39 PM | Sail boat | n/a | South |
|  | 12:54 PM | Sail boat | n/a | South |