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

**RIVER MILE 23.5**

**Dobbs Ferry, Waterfront NY**

**Stephen Fleming & Bill Livingston, EF Academy and 160 Students 11th & 12th,**

 **4 adults total**

**(41.009253 -73.880438)**

**Location:** Dobbs Ferry Waterfront Park, Westchester NY

**Area:** Brand new waterfront park

**Surrounding Land Use:** Parkland

**Sampling Site**: 10%beach at low tide,70% rip rap,

**Shoreline:** shore with bulkhead, area covered with vegetation

**Plants in area:** Trees, bushes and grasses

**Water**: Calm

**River Bottom**: sandy/rocky

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***ITEM*** | ***Time*** | ***Reading 1*** | ***Reading 2*** | ***Comments*** |
| ***Physical -*  Air Temperature** |  **Time** | **°F** | **°C** | **Average** |
|  | 10:33 AM |  57 | 14 |   |
|  | 11:15 AM |  59 | 15 |  |
|  | 2:30 PM |  68 | 20 |  |
| **Wind Speed:** | **Time** | **Beaufort** | **Anemometer** | **Direction** |
|  | 9:50 AM |   | 7-12 mph | **N** |
|  | 11:03AM |   | 4-7 mph | **N** |
|  | 2:30 PM |   | 11-16 mph | **N** |
| **Cloud Cover** | **Clear (<25%)** | **Partly Cloudy (26-50%)** | **Mostly Cloudy (51-75%)** | **Overcast (>75%)** |
|  10:30 AM |  | ✓ |  |  |
|  11:15 AM | ✓ |  |  |  |
|  2:00 PM | ✓ |  |  |  |
|  2:30 PM | ✓ |  |  |  |
| **Precipitation** | **Time** | **Rain** | **Describe**  |  |
|  |  None | N |  |  |
| **Weather last 3 days**  | cool  |
| ***Water Temperature*** | **Time** | **ºC** | **ºF** | **Average** |
|  | Avg. 10:45 AM – 3:00 PM | 17 C |  62.6 F |  |
| ***Turbidity – long site tube*** | **Reading 1** | **Reading 2** | **Reading 3** | **Average**  |
| 10:15 AM | 36.7 cm |  |  |  |
| ***Chemical*** | **Time**  | **mg/L** | **Water Temp** | **% Saturation** |
| ***DO (vernier data logger)*** | 14:30 PM | 5.9 mg/L | 17 | 45% |
| **pH** – color match test kit | Avg. 10:45 AM – 3:00 PM | 6.35 |  |  |
| ***Salinity - refractometer*** | Avg. 10:45 AM – 3:00 PM | 10.6 ppt |  |  |
| ***Fish Catch -***  | ***ID*** | ***Number***  | ***Longest***  | ***CPUE*** |
| Seine 1 | Oyster toadfish | 1 | 7 cm | 0.011 |
| Seine 2 | Atlantic silverside | 7 | 6 cm | 0.084  |
| Seine 3 | Bluefish  | 2 | 12 cm | 0.060 |
|  | Atlantic Silverside | 3 | 6 cm | 0.036 |
| Seine 4 | Striped Bass – yoy | 3 |  |  |
|  | Atlantic Silverside | 17 | 9 cm | 0.197 |
| Seine 5 | Atlantic Silverside | 7 | 6cm | 0.084 |
| Seine 6 | Atlantic Silverside | 67 | 6 cm | 0.802 |
|  | Hog Choker | 1 | 6 cm | 0.227 |
|  | Striped Bass | 3 | 15 cm |  |
|  | Atlantic Silverside | 6 | 15 cm |  |
|  | Mummichog | 3 | 5 cm |  |
| Seine 6 | Hog choker | 7 |   | 0.000 |
| Seine 7 | Atlantic Silverside | 15 | 11cm | 0.179 |
|  | Striped Bass | 1 | 14.9 | 0.012 |
|  | Hog Choker | 1 | 6cm | 0.012 |
| Seine 8 | Striped Bass | 3 | 15 cm | 0.036 |
|  | Atlantic Silverside | 6 |  | 0.072 |
|  | Mummichog | 3 | 5 cm | 0.036 |
| Seine 9 | Striped Bass | 2 | 8 cm | 0.240 |
|  | Atlantic Silverside | 8 | 8 cm | 0.875 |
| Seine 10 | Striped Bass | 2 | 8.5 cm | 0.024 |
|  | Atlantic Silverside | 7 | 7.5 cm | 0.004 |
| Seine 11 | Blue fish | 2 | 12 cm | 0.012 |
|  | Atlantic Silverside | 3 | 7 cm | 0.015 |
| Seine 12 | Atlantic Silverside | 53 | 7 cm | 0.634 |
| Seine 13 | Atlantic Silverside | 45 | 7 cm | 0.539 |
| Seine 14 | Striped Bass | 3 | 6 | 0.036 |
|  | Atlantic Silverside | 4 | 6 | 0.048 |
| Seine15 | Striped Bass (Baby)  | 3 |  | 0.036 |
|  | Atlantic Silverside | 2 | 6.5 cm | 0.024 |
| Seine 16 | Atlantic Silverside | 67 |  |  |
|  | **DIVERSITY 6** | **TOTALS** | **356** |  |
| **MACRO-INV.** | **Species** | **Count** | **Sex** |  |
| Seine 1 | Crab | 3 | Unknown  |  |
| Seine 2 | Blue Crab | 1 | M |  |
| Seine 5 | Blue Crab | 1 | M |  |
| Seine 6 | Blue Crab | 3 | 2M/1F |  |
|  | Sand Shrimp (Crangon)  | 3 |  |  |
| Seine 7 | Crabs | 7 |  |  |
|  | Sand Shrimp (Crangon) |  |  |  |
| Seine 8 | Mud Crab | 9 | F |  |
|  | Blue Crab | 4 | M |  |
|  | Crab | 2 | F |  |
| Seine 13 | Blue Crab | 3  | F |  |
| Seine 14 | Blue Crab | 1 | M |  |
|  | Shrimp | 2 |  |  |
|  | Blue Crab | 1 |  |  |
| Seine 16 | Crab | 1 |  |  |
|  | Shrimp | 1 |  |  |
|  | **DIVERSITY 4** | **Totals 42** |  |  |
| ***Tides -***  | ***Time*** | ***H20 height*** |  | ***\*Rate of change***  |
| 10:00 AM10:10 AM10:20 AM10:30 AM | 58 cm54 cm50 cm51 cm | 7 cm /30 mins | Falling |
| 10:30 AM 10:40 AM  | 23 cm25 cm  | 2 cm/10 mins | 0.2 cm/minFalling |
| 10:50 AM11:00 AM | 60 cm58 cm | 2 cm/10 mins | 0.2 cm/minFalling |
| 13:47 AM13:59 | 71 cm75 cm | 4 cm/4 min | 1 cm/minFalling |
| 14:2014:25 | 45 cm41 cm | 4 cm/4 min | 1 cm/minFalling |
| ***Currents -*** | **Time** | **E/F/S** | **cm/30 sec** | **Cm/sec** | **Kts** |
|  | 10:30 | E | 1407.5 | 46.92 | 0.91 |
|  | 3:00 PM | F | 287.5 | 9.58 |  |
| ***Boat Traffic – Commercial***  | TIME  | NAME | COLOR | N/S | Loaded or Light |
|  | 2:10 PM | Barge | White /brown | Northbound | Light |
|  | 2:21 PM | Barge | Red/ brown | Southbound | Light |
|  | 2:22:00 PM | Barge | Red /white | Southbound | Light |
|  | 14:45 | Ship | White and black | Southbound | Light |
|  | 9:45 | Boat | white and black | Northbound | light |
|  | 9:46 | Boat | white/black and red | Northbound | loaded |
|  | 9:44 | Cargo ship | white and black | northbound | loaded |
|  | 13:55 | Barge | White, black and red | Northbound | Light |
|  | 14:25 | large boat | black and yellow | northbound | loaded |
|  | 14:10 | New Jersey | black/white | northbound | loaded |
|  | 14:35 | Barge | red/brown | northbond | light |
|  | 14:08 | cargo boat | red/black | northbound | light |
|  | 14:18 | speed boat | white | southbound | light |
|  | 14:26 | cargo boat | red/brown | southbound | loaded |
|  | 2.54 PM | Cargo ship  | Black and red  | northbound | loaded  |
|  | 3.05 PM | Cargo ship  | brown and white  | northbound | light |
|  | 9:15 | Cargo Ship | Orange/Brown | Northbound | loaded |
|  | 9:43 | Cargo Ship | Black/white | Northbound | loaded |
|  | 9:43 | large boat | Black/white | Northbound | light |
|  | 9:50 AM | Cargo Ship | Red | Northbound | loaded |
|  | 10:00 AM | Boat | white | Northbound | loaded |
|  | 10:15 AM | Cargo Ship | Blue | Northbound | Loaded |
|  | 9:42 AM | Cargo Ship | Red | Northbound | loaded |
|  | 9:50 AM | Boat | white | Northbound | loaded |
|  | 10:05 AM | Barge | White and Black | Southbound | loaded |
|  | 10:00 AM | large boat  | black/white  | Northbound  | light  |
|  |  | cargo ship  | orange  | Northbound  | loaded  |
|  |  | boat  | white  | Northbound  | loaded  |
| ***Boat Traffic Recreational***  |  |  |  |  |  |
|  | 2:41 PM | Speedboat | Black and white | Southbound | Light |
|  | 2:21 PM | Speedboat | Black and white | Southbound | Light |
|  | 14:50 | Speed boat | Black, white whit a stripped line | Southbound | Light |
|  | 2.54 PM | sail boat  | white  | northbound  | light |
|  | 2.57 PM | sail boat  | white  | northbound  | light |
|  | 2.58 PM | speedboat  | black and white  | northbound  | light |