**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 AM  10:10 AM  10:20 AM  10:30 AM | | 58 cm  54 cm  50 cm  51 cm | 7 cm /30 mins | Falling |
| 10:30 AM  10:40 AM | | 23 cm  25 cm | 2 cm/10 mins | 0.2 cm/min  Falling |
| 10:50 AM  11:00 AM | | 60 cm  58 cm | 2 cm/10 mins | 0.2 cm/min  Falling |
| 13:47 AM  13:59 | | 71 cm  75 cm | 4 cm/4 min | 1 cm/min  Falling |
| 14:20  14:25 | | 45 cm  41 cm | 4 cm/4 min | 1 cm/min  Falling |
| ***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 |