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

**(Salt Front ~ RM 80)**

**RIVER MILE 30.4 – Nyack Beach Hook Mountain State Park**

**Peter Park, Nyack College, 6 students, 7 adults**

**Nancy Arias & Jillian Decker, Rockland Community College, 4 students, 6 adults**

**41°07’10.85”N 73°54’45.40”W**

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**Location:** Nyack South Beach, Upper Nyack, Rockland County NY

**Area:** Park/Boat launch, near Hook Mountain Sandy Beach by the large sitting stairs, **Surrounding Land Use**: 40% forested, 10% industrial/commercial, 40% beach – used for recreation & picnics

**Sampling Site:** Beach – sandy and rocky at edges, muddy offshore, covered with vegetation beyond the beach, stone wall, riprap shore, collected wood debris.

**Piping coming** into river south of sampling site

**Water depth**:

**River Bottom** –sandy inshore (<3 ft depth) muddy offshore (>3 ft. depth), some scattered large rocks (<2 ft. length inshore)

**Plants:** None growing in area but water celery came up in the seine net

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| ***ITEM*** | ***Time*** | ***Reading 1*** | ***Reading 2*** | ***Comments*** |
| ***Physical*** |  |  |  |  |
| Air Temperature | 10:28 AM  10:36 AM  10:56 AM | 18.3°C  18.9-19.4°C  18.3°C | 65°F  66-67°F  65°F |  |
| Wind Speed |  |  |  | N |
| Cloud Cover | overcast |  |  |  |
| Weather today | No rain |  |  |  |
| Weather last 3 days | Warm and dry |  |  |  |
| ***Water Temperature*** | 10:28 AM  10:36 AM  10:56 AM | 20-20.6°C  18.9-19.4°C  20°C | 68-69°F  66-67°F  68°F |  |
| ***Turbidity –***  ***Long site tube*** | NR |  |  |  |
| ***Chemical*** |  |  |  |  |
| DO  *Drop count* | 11:20 AM | 10 ppm |  |  |
| pH  *Colormetric kit* | NR |  |  |  |
| Salinity - refractometer | 9:18AM  9:55AM | 11 ppt |  |  |
| ***Fish Catch***  ***9:30-11:30*** |  | ***Number Caught*** | ***Species*** | ***Latin Name*** |
| ***Seine 20 ft.***  ***6 Hauls*** |  | 9 | Atlantic Silverside | Menidia menidia |
|  |  | 2 | Striped Bass | Morone saxatilis |
| ***Fish Diversity 6*** |  | 18 | Northern Pipefish | Synanathus fuscus |
| ***Total Catch 36*** |  | 2 | White Perch | Morone americana |
|  |  | 4 | Bay Anchovy | Anchog mitchilli |
|  |  | 1 | Banded Killifish | Fundulus diaphanus |
| ***MACROINVERT*** |  | 1 | Clamworm (Sandworm) | *Nereis* sp. |
| ***DIVERSITY = 5 plus shells*** |  | Too numerous to count | Blue Crab | Callinectes sapidus |
| ***TOTALS = Too numerous to count*** | ( nearly double sand shrimp) | Too numerous to count but | Shore Shrimp | *Palaemonetes* spp. |
|  |  | Too numerous to count | Sand Shrimp | *Crangon septemspinosa* |
|  |  | 1 | Dragonfly nymph | *Odenata* |
|  |  |  | Shells of hard clam | Mercenaria mercenaria |
| ***Tides*** | ***Time*** | ***Change in Time*** | ***Change in Height*** | ***Rate of change Flood/Ebb*** |
|  | 9:26 - 9:55 AM | 29 mins | 18 mm | 0.62mm/min  Flood |
|  | 9:55-10:21 AM | 27 mins | 15 mm | 0.56mm/min Flood |
|  | 10:21-10:45 AM | 24 mins | 15 mm | 0.63mm/min Flood |
| ***Currents*** |  |  |  |  |
| ***Distance Travelled*** | ***Time*** | ***Distance from Shore*** | ***Current Speed (cm/s)*** | ***Flood/Ebb*** |
| 78.74 cm | 30 sec | 15 ft. | 2.62 cm/s | Flood |
| 457.2 cm | 30 sec | 20 ft | 15.24 cm/s | Flood |
| 147.32 cm | 30 sec | 40 ft | 1.93 cm/s | Flood |
| 106.68 cm | 30 sec | 55 ft | 1.4 cm/s | Flood |
| 71.12 cm | 30 sec | 90 ft | 0.93 cm/s | Flood |
| ***Observations*** | Grey moth ~1 inch anterio-posterior length  Male monarch butterfly ~2 inch anterio-posterior length | | | |
| FISH CATCH IMAGES:  Northern Pipefish & Atlantic Silversides  C:\Users\Peter\AppData\Local\Microsoft\Windows\INetCache\Content.Word\IMG_6117.jpgIMG_6116  White Perch & Striped Bass  IMG_6132IMG_6138  Bay Anchovy & Banded Killifish  C:\Users\Peter\AppData\Local\Microsoft\Windows\INetCache\Content.Word\1anchovy_rev.jpgC:\Users\Peter\AppData\Local\Microsoft\Windows\INetCache\Content.Word\1bandkillifsh_rev.jpg  Hard Clam Shell & Blue Crab  C:\Users\Peter\AppData\Local\Microsoft\Windows\INetCache\Content.Word\IMG_6159.jpgC:\Users\Peter\AppData\Local\Microsoft\Windows\INetCache\Content.Word\IMG_6140.jpg  Sand Shrimp & Shore Shrimp  IMG_6142IMG_6146 | | | | |
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