

Day in the Life of the Hudson River 10/14/21
ENGLEWOOD BOAT BASIN, ENGLEWOOD, NJ
RIVER MILE: 14
Salt Front: ~ RM 49
Palisades Interstate Park- Christina Fehre
Alpine School – Lisa Wolfe and 8 adults
43 students, 6-8th grade science
Latitude 40.880581 N & Longitude – 73.944525 W

Location: Bloomers Beach (North end), Englewood Boat Basin, NJ

Area: Sandy beach, banks altered, pier with riprap sections, wood bulkhead, debris in area. Piping ~30 ft located at sampling site. 2 concrete bulkheads and stone breakwaters on shoreline.

Sampling Site: Beach, parking lot

Surrounding Land Use: 40% Forested; 20% Beach; 20% Industrial/Commercial; 20% Urban/Residential

Shoreline: 90% sand; 10% muddy

Water: Choppy

River Bottom: Muddy

| <i>ITEM</i> | <i>Time</i> | <i>Reading</i> | | <i>Comments</i> | |
|---|---|-----------------------------------|---------------------|--|------------------------|
| Physical | | | | | |
| <i>Air Temperature</i> | 10:12 AM | 71 ° F | 21 ° C | | |
| | 10:54 AM | 74 ° F | 23 ° C | | |
| | 12:15 PM | 76 ° F | 24 ° C | | |
| | 12:46 PM | 80 ° F | 35.5 ° C | | |
| <i>Wind Speed:</i> | 10:00 AM - 1:15 PM | Beaufort: 1-2 | | | |
| <i>Weather today</i> | No rain, party cloudy (26-50%) | | | | |
| <i>Weather the past 3 days:</i> | Clear during the day, some rain at night. | | | | |
| <i>Tides- tide stick</i> | <i>Time</i> | <i>Rising, Falling, Unchanged</i> | | <i>Height (cm)</i> | |
| | 10:23 AM | - | | 8 cm | |
| | 11:02 AM | Rising | | 11 cm | |
| | 12:25 PM | Rising | | 32 cm | |
| | 12:57 PM | Rising | | 40 cm | |
| <i>Current-</i> | <i>Time</i> | <i>Cm/sec</i> | <i>Knots</i> | <i>North/South</i> | <i>Ebb/Flood/Still</i> |
| | 12:10 PM | 38 | 0.74 | North | Flood |
| | 12:35 PM | 58 | 0.11 | North | Flood |
| <i>Water Temperature- collected from bucket</i> | 10:20 AM | 68 ° F | 20 ° C | | |
| | 12:51 PM | 73.4 ° F | 23 ° C | | |
| <i>Turbidity- Long sight tube</i> | 10:25 AM | 9 cm | | Turbidity was collecting in the same area as seining, could contribute to the low visibility | |
| | 10:29 AM | 5 cm | | | |
| | 12:57 PM | 15 cm | | | |
| Chemical | | | | | |
| <i>Salinity- Hydrometer & High Range QUantabs</i> | <i>Time</i> | <i>Hydrometer</i> | <i>HR Quantabs</i> | ppm salinity: | |
| | 10:17 AM | 10 ppt | 9.8 quantab unit | <i>top of chart not use</i> | |
| | 12:26 PM | 7 ppt | 8.0 quantab unit | 3463 –Cl /6256 total | |
| | 1:00 PM | 7 ppt | 7.8 quantab unit | 3114-Cl/ 5966 total | |
| <i>DO –</i> | <i>Time</i> | <i>Temp</i> | <i>ppm DO</i> | <i>% saturation</i> | |
| | 11:16 AM | 28 ° C | 16 *reading is high | 185% | |
| | 12:19 PM | 23.5 ° C | 8 | 93% | |
| | 12:50 PM | 23 ° C | 11 | 126% | |
| <i>pH –</i> | 10:55 AM | 6, 6, 7, Avg: 6.3 | | | |
| | 12:33 PM | 7, 6, 7, Avg: 6.3 | | | |
| | 1:05 PM | 6, 6, 6, Avg: 6 | | | |

| <i>Biological</i> | | | | | |
|---------------------------------|------------------|---------------------|--------------------------|--|-----------------------|
| <i>Fish</i> | <i>Number</i> | <i>Name</i> | <i>Length of longest</i> | <i>Length of smallest</i> | |
| | 6 | Atlantic Silverside | 23 cm | 4 cm | |
| | 18 | Bay Anchovy | 8 cm | 5 cm | |
| | 1 | Mummichog | 10 cm | - | |
| Fish Totals | TOTAL: 25 | Diversity: 3 | | | |
| <i>Macroinvertebrates</i> | <i>Number</i> | <i>Name</i> | <i>Length of longest</i> | <i>Length of smallest</i> | |
| 10 F, 6 M | 17 | Blue Crab | 9 cm | 0.5 cm | |
| | 3 | Shrimp | 4 cm | 2 cm | |
| Macroinvertebrate Totals | TOTAL: 20 | Diversity: 2 | | | |
| <i>Sediment Core</i> | | | | | |
| Length | H2S smell | Oxid Top | Oil | Grain Size | Other Features |
| 10:34 AM 8.5 cm | No | No | Yes | Clay- Rare Mud- Abundant Sand – Common Gravel- Rare | NA |
| <i>Boats</i> | | | | | |
| | Time | Name | Color | North/Southbound | Light/Loaded |
| Commercial | | | | | |
| Recreational | 10:20 AM | Kayak | Yellow | North | Light |
| | 10:23 AM | Boat | Navy | North | Light |
| | 10:55 AM | Sailboat | White/Gray | South | Light |