

Day in the Life of the Hudson River 10/22/19
LOUIS ENGEL PARK, OSSINING
RIVER MILE: 32.5
Salt Front: ~ RM 53
Ossining High School- Artie Carlucci and Bridget Bauman
17 students 11-12th grade, 2 adults
Latitude 41.15483 N & Longitude – 73.86959 W

Location: Louis Engel Park, Ossining, Westchester County, NY

Area: Beachfront area with a ferry pier, paved sidewalk, riprap, grass by metro north station

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

Sampling Site: bulkhead lines the shoreline with pier, beach area, shoreline riprap, debris in area such as broken concrete/docking, piping entering the river north of sampling site, brick pieces, used for picnics and boating.

Shoreline: 50% rock, 50% sandy

River Bottom: sandy, rocky

Plants in water: none

Water: Calm, 2-3 ft

| <i>ITEM</i> | <i>Time</i> | <i>Reading</i> | | <i>Comments</i> |
|--------------------------------------|--|---|----------------------|--------------------------------------|
| Physical | | | | |
| <i>Air Temperature</i> | 9:42 AM 10:42 AM | 51 ° F 55 ° F | 10.6 ° C 12.8 ° C | |
| <i>Wind Speed:</i> | | Beaufort 1 | 2 knot, 1 mph | Northeast |
| <i>Weather today</i> | Overcast (100%); started drizzling at 11:45 am | | | |
| <i>Weather the past 3 days:</i> | Sunday- heavy rain/ Monday- cold/windy | | | |
| <i>Tides-</i> | <i>Time</i> | <i>Rising, Falling, Unchanged</i> | <i>Height (in)</i> | <i>Rate of Tidal Change (cm/min)</i> |
| | 9:30 AM 10:30 AM 11:30 AM 12:30 PM | Falling Falling Falling Falling | | |
| <i>Current-</i> | <i>Time</i> | <i>cm/second</i> | <i>North/South</i> | <i>Ebb/Flood/Still</i> |
| | NR | | | |
| <i>Water Temperature</i> | 9:45 AM 11:12 AM | 63 ° F 60.8 ° F | 17 ° C 16 ° C | |
| <i>Turbidity- long sight tube</i> | 11:30 | 24 cm | | |
| Chemical | | | | |
| <i>Salinity- Hydrometer</i> | <i>Time</i> | <i>Total Sal. ppm</i> | | |
| | 10:30 AM | 4,000 ppm, 5,000 ppm, 6,000 ppm | | Avg: 5,000 ppm |
| <i>DO –</i> | <i>Time</i> | <i>Temp</i> | <i>ppm DO</i> | <i>% saturation</i> |
| | 10:00 AM | 17 ° C 16 ° C | 4 ppm 3 ppm | 41% 30% |
| <i>pH – indicator solution</i> | 10:20 AM | 6.5, 7, 7, | | Avg: 6.9 |
| <i>Chlorophyll</i> | 11:13 AM | Sample color most closely matches to: white | | *Read as low to no chlorophyll |
| <i>Nitrates- *estuary wide kit</i> | 10:15 AM | 5 ppm, 0 ppm, 5 ppm | Avg: 3.3 ppm | *estuary wide kit is low resolution |
| <i>Phosphates- *estuary wide kit</i> | 10:32 AM | 2 ppm, 2 ppm, 0 ppm | Avg: 1.3 ppm | *estuary wide kit is low resolution |
| Biological | | | | |

| | | | | |
|----------------------------------|--------------------------|----------------------------|---------------------------------|------------------------------|
| <i>Fish</i> | <i>Number</i> | <i>Name</i> | <i>Length of longest</i> | |
| Seine: 30 feet long | 8 | Atlantic Silversides | | |
| Fish Totals | TOTAL: 8 | Diversity: 1 | | |
| <i>Macroinvertebrates</i> | <i>Number</i> | <i>Name</i> | <i>Length of longest</i> | |
| | 3 | Scuds | | |
| | 4 | Blue Crab | | |
| | 1 | Lady Crab | | |
| Macroinvertebrate Totals | TOTAL: 8 | Diversity: 3 | | |
| <i>Sediment Core</i> | <i>Time</i> | <i>Oxidized Top</i> | <i>Grain Size</i> | <i>Other Features</i> |
| | NA | | | |
| Boats | Time | Name/Color | North/South | Loaded/Light |
| Commercial | | | North | Loaded |
| Commercial | | | North | Loaded |
| Commercial | 9:35 AM | | North | Loaded |
| Observations | Gulls and Canadian geese | | | |