**Day in the Life of the Hudson River 10/20/16 Data**

**(Salt Front ~ RM 83)**

**RIVER MILE 60.2**

**Newburgh Yatch Club, Newburgh, Orange County NY**

**Jennifer Reid, GAMS Newburgh Enlarged School District**

**5th graders (97 students and 10 adults)**

**Latitude 41.5, Longitude -74**

**Location:** Newburgh Yatch Club, Newburgh, Orange County NY

**Area:** Pier, dock with bulk heads, rip rap and wood bulkhead

**Surrounding Land Use**: Urban/residential 100%

**Shoreline:** Rocky

**Sampling Site**: beach, covered in vegetation, banks altered, rip rap

**Plants in the** **water:** 80% water chestnut and 20% water celery

**Water depth**: <1 m

**Bottom Surface**: muddy

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *ITEM* | *Time* | *Reading 1* | *Reading*  | *Comments* |
| *Physical*  |   |  |  |  |
| Air Temperature | 9:00 AM12:00 PM2:00 PM | 17°C2019 | 62°F6866 |  |
| Wind Speed | Beaufort | #4 | 4.1 mph | N |
| Cloud Cover | 9:00 AM | Partly cloudy | 26-50% | Noon – mostly cloudy 51-75% |
| Weather today | No rain |
| Weather recently | Hot and dry 80s |
| *Water Surface* | Choppy & calm at different times |  |
| *Water Temperature* | Time | Degrees °C |   |  |
|  | 9:17 AM10:42 AM1:48 PM | 18°C1722 | 64°F6372 |  |
| *Turbidity- long sight tube* | 8:27 AM9:32 AM11:28 AM | 51 cm6948 |  |  |
| *Chemical* | *Time* | *DO* | *Temp* | *% saturation* |
| DO (drop kit) | 9:17 AM11:09 AM1:48 PM | 12 ppm1214 | 18°C1722 | 140%140%140 + % |
| pH – litmus paper | 9:17 AM11:00 am12:00 PM1:48 PM | *7.8**7.2**7.7**7.9* |  | Average 7.65 |
| *Nitrates* | 11:30 AM | 20 ppm X 3 | ?? |  |
| *Salinity –QTs- Time* | *Time* | *Chloride reading* |  | *Total Salinity conversion* |
|  | 9:48 AM HR Quantabs | 759 ppm  |  | 1372 ppm TS |
| *Fish Catch**seine 8X4feet* | *Number Caught* | *Species* | *Length* | ***Fish******DIV 4******TOTAL 10*** |
| 4X6 ft. pull | 4 | \*Northern Kingfish | 5 cm | \*probably mis ID |
|  | 1 | Yellow Perch |  |  |
|  | 3 | Banded Killi |  |  |
|  | 2 | Darter |  |  |
| ***Sediment Core***  | ***Description*** | ***Rare*** | ***Common***  | ***Abundant*** |
|  | H2O smell | ShellsZebra musselMacroinvertsSome water celery | LeavesWood | ClayMud |
| *Tides* | *Time* | *Tide Stick* | *Flood/Ebb Still* | *Rate of change* |
|  | NR |  |  |  |
| *Currents* | *Time* | *Cm/30 secs* | *Cm/sec* | *knots* | *Ebb Flood* |
|  | 9:30 AM 10:00 AM1:00 PM1:30 PM | 1371 cm944 cm160 cm251 cm | 45.7 cm/sec31.5 cm/sec5.33 cm/sec8.37 cm/sec |  |  |
| Commercial Shipping | 2:15 PM2:15 PM | CHARTUBC | Beige Red | Northsouth | loaded |
| Recreational Shipping | 12:00 noon |  |  | South  | light |
| Other Observations | Water chestnut seeds all over the docks |