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

**(Above the Troy Dam and the Head of Tide)**

**RIVER MILE 154**

**Peebles Island State Park, Waterford, NY**

**Becky Zimmerman**, **Angela Jones and Raquel Santiago-Parker**

**Pine Hills Elementary School**

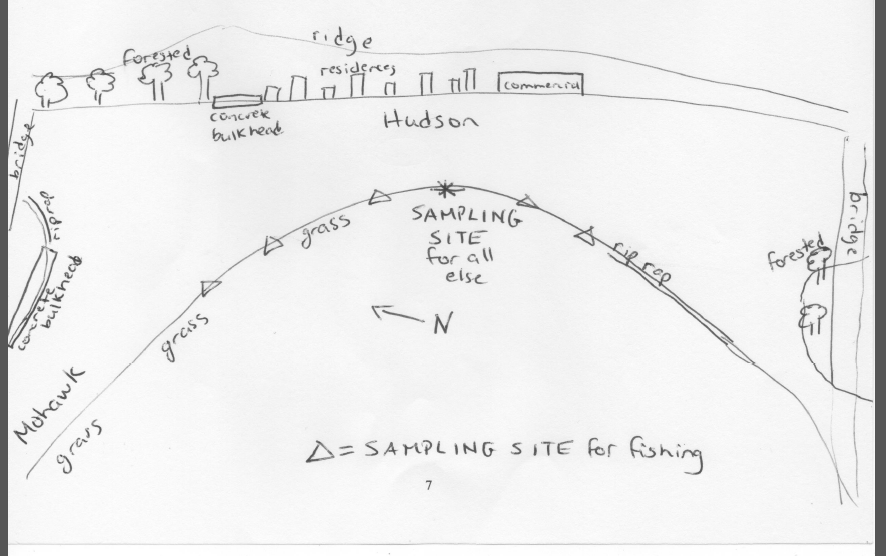
**50 students – 4th grade, 10 adults total**

**42°47.051’N and 73°40.706 W**

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**Peebles Sampling Area**



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**Location:** Pavilion at Pebbles Island Park at the confluence of the Hudson River and the Mohawk River, Waterford, NY

**Area:** park just north of the Troy dam at the pavilion, grassy embankment, rip rap

**Surrounding Land Use:** 75% grassy, 25% riprap

**Sampling Site:** Park area

**Shoreline:** riprap

**Plants in area:** none

**Water depth**: 12 - 36 inches

**River Bottom description**: muddy

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | ***Time*** | | ***Reading 1*** | ***Reading 2*** | ***Comments*** |
| ***Physical*** |  | |  |  |  |
| Air Temperature | 9:40AM  10:40 AM  12:00 PM  12:45 PM | | 50°F  50°F  55°F  63°F | 10°C  10°C  12.8°C  17°C |  |
| Wind Speed | 10:00 AM | | Beaufort #4 | Anenometer kts. | Direction: SE |
| Cloud Cover | Mostly cloudy to start then clear | |  |  |  |
| Weather today | Drizzle at 9:40 and 10:40 AM but then stopped | | | | |
| Weather recently | Cool and fall like | | | | |
| ***Water surface*** | Calm |  | |  |  |
| ***Water Temperature*** | 9:35 AM  10:13 AM  12:07 PM  12:45 PM | 11°C  11  11  11 | | 52°F  52  52  52 |  |
| ***Turbidity –***  ***long site tube***  averages & standard deviation | 9:30 AM  10:15 AM  11:45 AM  12:30 PM | 39.8 cm  93.8 cm  48.5 cm  17.2 cm | | ±12  ±14  ±5  ±2 | Each group had a new sample, not all from same place |
| ***Chemical*** | ***Time*** | ***Water Temp*** | | ***ppm*** | ***saturation*** |
| DO - drop count | Unable to test |  | |  |  |
| pH – indicator solution | 12:40 PM | 7.0  7.2  7.2 | |  | Average 7.1 |
| ***Fish Catch – 10 ft. net*** | ***Number*** | ***Species*** | | ***Size largest*** |  |
| 10ft - 1 cm mesh- 10m pull | 39 | Banded killifish | | seined |  |
| ~ 4 seines | 20 | Spottail shiner | | seined |  |
| 9:40 AM – 1:00 PM | 5 | Darter | | seined |  |
|  | 4 | Sunfish | | seined |  |
|  | ***Totals 68*** | ***Diversity 4*** | |  |  |
| *Trapped by Fisheries group in a trap set the night before* | 1 | Gizzard Shad | | larger |  |
| 1 | Striped Bass | | larger |  |
|  |  | |  |  |
|  |  | |  |  |
| **Macroinvertebrates** |  | Freshwater scud | |  |  |
|  |  | Green Caddisfly | |  |  |
| ***Water Level*** | **Time** | **Height** | | **Change** | **Change Rate** |
| *This is above the head of tide. Water level changes have to do with releases that occur from hydro plant that empties into the river below Cohoes Falls.* | 9:40 AM | 22.9 cm | |  |  |
| 10:40 AM | 27.9 cm | | 5 cm/60 mins | 0.083 cm/min |
| 12:00 PM | 29.2 cm | | 1.3 cm/60 min | 0.013 cm/min |
| 12:45 PM | 25.4 cm | | -3.8 cm/60 min | -0.084 cm/min |
| ***Water Flow Velocity*** | **Time** | **Rate of flow** | | **Direction** |  |
| *This is not a tidal current just flow. At the confluence of two waterways the water direction can change.* | 9:40 AM | 8.1 cm/sec | | North |  |
| 10:40 AM | No movement | | Still |  |
| 12:00 PM | 2.1 cm/sec | | South |  |
| 12:45 PM | 2.4 cm/sec | | South |  |
| ***Boat Traffic*** | 9:40 AM |  | | North | recreational |
|  | 10:40 AM |  | | South | recreational |
| ***Other*** | 1 bald eagle | Seagulls | |  |  |