**Day in the Life of the Hudson River 10/16/14 Data 9AM-2PM**

**(Salt Front RM 65.9)**

**RIVER MILE 98**

**Bard College Site, South Tivoli Bay (in/around the Bard Field Station between the mouth of the Sawkill Creek and Blithewood Manor)**

**Debbie Beam, Red Hook High School 11th/12th grade IB Biology**

**Tom O’Dowd, Bard College – Environmental and Urban Studies (EUS) students**

**45 students and 2 adults**

**
Above:** RHHS and Bard students prep to sample fish & Macro-invertebrates (prep at Field Station; seine and sample at the mouth of the Sawkill Creek)
**Below:** A little song/dance to get us started in the morning (in front of Blithwood Mansion)

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Photos on this page by Tom O’Dowd.

**Observing Surroundings**

1. Photos of student artwork and students observing their surroundings.
(photos by Bard student Anna Linden)



1. Forested
2. Boating, Picnics, Fishing, Jogging
3. 10% residential, 90% forested
4. Muddy and Rocky and Covered in Vegetation.
5. Bottom muddy and rocky.
6. Water Calm
7. 50% Water Chestnuts (dying--it’s 90% during the summer). Some “Devil’s Heads”.

**Environment:**

**Air temperature** – 64.4 degrees F 🡪 71.5 degrees F (~10AM 🡪 ~1PM)

 18 degrees C 🡪 22 degrees C

**Wind Speed**

The wind was consistently still throughout the day, with the very rare gust. One such gust recorded at ~12:30pm measured at 1.2 fpm (feet per minute).

**Cloud Cover**

~75% all day (but still beautiful!)

**Chemical Description**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Time** | **Dissolved Oxygen** | **Water Temp** | **D.O. Saturation** | **pH** |
| 10:05 | 9ppm | 20° C | 100% | 7.9 |
| 10:40 | 8ppm | 20 °C | 85% | 7.9 |
| 11:10 | 8ppm | 20 °C | 85% | 8 |
| 12:03 | 9ppm | 20 °C | 95% | 8 |
| 12:40 | 9ppm | 20 °C | 95% | 8 |

Note: Sun blocked by trees/clouds in morning; just by clouds in the afternoon.

**Physical Description**

**Salinity:**

Quantabs Units: 1.6

NaCl: .007

Cl-: 43 ppm

Total Salinity 78 ppm

**Temperature:**

Water temperature – 68 °F - 20°C

**Water elevation:**

*Note: High rain the night before lead to higher water levels than expected.*

~10am: 18 inches Ebb

~11am: 15 inches Ebb

~12 noon: 12 inches Ebb

~12:40pm: 8 inches Ebb

~1p: 5.5 inches Ebb

**Fish and Macro-invertebrates**

Catch of the day:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Blue Gill Sunfish** | **Pumpkinseed Sunfish** | **Atlantic Silverside** | **Black Crappie** | **Spottail Shiner** | **Tessellated Darter** | **Banded Killifish** | **Stickleback** | **Northern Kingfish** | **Blueback Herring** | **Small Mouth Bass** | **Large Mouth Bass** | **White Catfish** |
| **10 AM** | **5** | **5** | **1** | **2** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **1030 AM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **11 AM** | **0** | **0** | **0** | **0** | **1** | **1** | **2** | **1** | **1** | **1** | **0** | **0** | **0** |
| **12 PM** | **0** | **1** | **0** | **1** | **0** | **0** | **0** | **1** | **0** | **0** | **2** | **1** | **1** |
| **1230 PM** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **7** | **0** | **0** | **4** | **0** | **1** |
| **Total** | **5** | **6** | **1** | **2** | **1** | **1** | **2** | **9** | **1** | **1** | **6** | **1** | **2** |
|  | **Blue Gill Sunfish** | **Pumpkinseed Sunfish** | **Atlantic Silverside** | **Black Crappie** | **Spottail Shiner** | **Tessellated Darter** | **Banded Killifish** | **Stickleback** | **Northern Kingfish** | **Blueback Herring** | **Small Mouth Bass** | **Large Mouth Bass** | **White Catfish** |

**Macro-invertebrates:** 1 dobsonfly larva (a “hellgrammite”)



Photos by DITL Runner Lisa DiMarzo (thanks Lisa!)

**Turbidity**

Long Sight Reading: 45 cm
Observations: the water is relatively calm and relatively easy to see through, though muck is easily stirred up, clouding the water.



**Sediment Log**

H2S Smell -- Yes
Oil -- No
Oxidized Top -- Yes

Clay -- Absent
Mud -- Common
Sand -- Common
Gravel -- Rare
Pebbles -- Rare

Leaves -- Rare
Wood -- Rare

Shells/Oysters -- Absent
Freshwater Mussel -- Absent
Zebra Mussels -- Absent
Macro-invertebrates -- Absent

Brick -- Absent
Coal -- Absent
Slag -- Absent

Living Vegetation -- Absent

Length of Core -- 10cm

Blog from the MUCK CITY Station:

**Other Observations**: Birds seen: Bald Eagle, Belted Kingfisher, Great Blue Heron, Tufted Titmouse, Downy Woodpecker, White-breasted Nuthatch, American Crow, Blue Jay

**Shipping:** 9:20 AM. Container ship. Blue with red beneath. Northbound. Light.
**Other Transit:** 9:25 AM. Amtrak. Silver. Northbound.

12:00 PM. Amtrak. Silver. Southbound.

**Funny Quotes/Observations**

“Muck City!!!”

Nick = Brent

“Don’t let the groups mix—the river’s an estuary, not the groups!”

Bardian Marina got “fully immersed” in the South Tivoli Bay (oops!)
“Can I get a Beam buck for this?!”

Photos on this page by DITL Runner Lisa DiMarzo (thanks Lisa!)