

Day in the Life of the Hudson River 10/05/2023
Bob Shepard (Highland Landing) Park, Highland, NY

RIVER MILE: 76

Salt Front: ~ RM 52

Oakwood Friends School-Gian Ascione

21 students, 11th grade, 5 adults

Latitude 41.715441°N & Longitude -73.948204°W

Location: Bob Shepard Highland Landing Park, Highland, Ulster County, NY

Surrounding Land Use: 40% Urban/Residential, 20% Commercial/Industrial, 30% Forested, 10% Beach

Sampling Site: Shoreline is riprap, banks altered, concrete bulkhead, wood bulkhead, broken concrete and docking debris, construction debris

Shoreline: Some brick on shoreline

Water: NR

River Bottom: NR

Plants in the water: NR

*NR = Not read/recorded

<i>ITEM</i>	<i>Time</i>	<i>Reading</i>		<i>Comments</i>
<i>Physical</i>				
<i>Air Temperature</i>	10:15 AM	19.3°C	66.7°F	
	10:15 AM	24.6°C	76.3°F	
	11:12 AM	29.9°C	85.8°F	
	11:20 AM	29.9°C	85.8°F	
	12:25 PM	29.9°C	85.8°F	
	12:51 PM	23.3°C	73.9°F	
<i>Wind Speed:</i>		<i>Anemometer</i>	<i>Beaufort</i>	<i>Direction</i>
	10:17 AM	2.2 m/s	1	Southwest
	10:17 AM	1.7 m/s	NR	North
	11:18 AM	4.2 mph	1-2	Southeast
	12:53 PM	2.8 m/s	1	South
<i>Weather today</i>	9:45 AM	>75% Cloud Cover	No Rain	
	9:45 AM	<25% Cloud Cover	No Rain	
	10:00 AM	<25% Cloud Cover	No Rain	
	10:15 AM	26-50% Cloud Cover	No Rain	
	10:50 AM	<25% Cloud Cover	No Rain	
	11:00 AM	26-50% Cloud Cover	No Rain	
	11:12 AM	<25% Cloud Cover	No Rain	
	11:20 AM	<25% Cloud Cover	No Rain	
11:30 AM		No Rain		
<i>Weather the past 3 days:</i>	Clear and warm, unusually warm for October, partly cloudy			
<i>Tides-</i>		<i>Rising, Falling, Unchanged</i>	<i>Height (cm)</i>	
	10:45 AM	-	25 cm	
	11:15 AM	Rising	30 cm	
	11:30 AM	Rising	42 cm	
	1:00 PM	Rising	NR	
<i>Current-</i>		<i>Cm/sec</i>	<i>Knots</i>	<i>North/South</i>
	<i>Time</i>			<i>Ebb/Flood/Slack</i>

	10:50 AM 11:12 AM 11:45 AM 11:55 AM 12:05 PM 1:06 PM	43 71.4	0.8 1.4 1.4 1.3 1.4		- Ebb Ebb Ebb Ebb Flood	
Water Temperature-	10:41 AM 11:00 AM 12:47 PM 12:47 PM 1:15 PM 1:17 PM	14°C 19.1°C 14°C 19.5°C 19.6°C 19.6°C		57.2°F 66.4°F 57.2°F 67.1°F 67.3°F 67.3°F		
Turbidity- Secchi Disk (cm)	10:47 AM 11:24 AM 12:45 PM 12:45 PM 12:50 PM	90 cm 93.3 cm 90 cm 80 cm 90 cm		<i>Long Sight Tube (120 cm)</i>	10:25 AM 11:26 AM 11:26 AM	49 cm 30 cm 27.5 cm

Chemical

Standardized Salinity- Low Range Quantabs	11:00 AM	1.2 quantab units	Below Detection	
Student Salinity- Low Range Quantab <i>*Reading was 1.4 quantab units</i>	10:30 AM 10:35 AM 11:13 AM 1:15 PM	30 ppm Cl ⁻ 30 ppm Cl ⁻ 30 ppm Cl ⁻ 30 ppm Cl ⁻	54 ppm Total Salinity	
DO –	<i>Time</i>	<i>Temp</i>	<i>ppm DO</i>	<i>% saturation</i>
<i>Meter/Probe</i>	11:00 AM	19.1°C	4.2 ppm	42%
<i>Hach Drop Count Kit</i>	10:44 AM 11:00 AM 12:47 PM	19.5°C	6 ppm 4.2 ppm 4.4 ppm	42% 20% 45%
<i>Lamotte Drop Count Kit</i>	10:40 AM		6 ppm	73%
pH – Color Match Kit	10:45 AM 11:10 AM 1:00 PM 1:00 PM 1:00 PM	7.2 7.4 7.3 7.2 7.4		
Nitrates- Tablet Kit	10:54 AM 1:00 PM	0 mg/L 2 mg/L		
Phosphates- Color Comparison	10:54 AM 11:42 AM 1:00 PM	0.2 mg/L 0 mg/L 0.2 mg/L		
Free CO₂-	1:00 PM	13 ppm		

Biological

Fish – Seine	Number	Name	Length of longest	Notes
	3	Blueback Herring	7 cm	
	4	Golden Shiner		
	3	Spottail Shiner	5 cm	
	8	Banded Killifish		
	1	White Perch	12 cm	
	1	Striped Bass	9 cm	
	6	Pumpkinseed		
	7	Bluegill	12 cm	
	d			

	1	Largemouth Bass				
	1	Tessellated Darter				
Fish Totals	TOTAL: 35	Diversity: 10				
Macroinvertebrates	Number	Name			Length of longest	
	10	Zebra Mussel			0.7 cm	
	1	Blue Crab			7 cm	
Macroinvertebrate Totals	TOTAL: 11	Diversity: 2				
Sediment Core	Time	Oxid Top	H₂S Smell	Oil	Grain Size	Other Features
	11:47 AM	No	No	No	Abundant: Clay, Mud Common: Sand, Gravel Rare: Pebbles	
6-12 cm	11:45 AM	No	No	No	Abundant: Clay, Mud Common: Sand, Gravel Rare: Pebbles	
12 cm	9:45 AM	No	No	No	Abundant: Clay, Mud Common: Sand, Gravel	

Boats-NR

Commercial/ Recreational	Time	Name	Color	Southbound/ Northbound	Light/ Loaded