

**Day in the Life of the Hudson River 10/05/2023**

**Nutten Hook, Green County, NY**

**RIVER MILE: 124.5**

*Salt Front: ~ 52*

**Averill Park High School-Elena Oldendorf & Christie Johnson**

**60 students, 9<sup>th</sup> –10<sup>th</sup> grade, 8 adults**

**Latitude 42.358271°N & Longitude –73.788178°W**



**Location:** Nutten Hook, Green County, NY

**Surrounding Land Use:** 75% Forested, 15% Beach & 10% Train tracks

**Sampling Site:** Beach, Forested, Covered in vegetation, banks altered, Rip Rap, Wood Bulkhead

**Shoreline:** 80% Sandy, 5% Muddy & 15% Rocky

**Water:** Calm, about 12 cm deep

**River Bottom:** Muddy, Sandy & Rocky

**Plants in the water:** No Plants in the water

\*NR = Not read/recorded

<i>ITEM</i>	<i>Time</i>	<i>Reading</i>		<i>Comments</i>
<i>Physical</i>				
<i>Air Temperature</i>	10:16 AM	17.2°C	63°F	
	10:17 AM	17°C	63°F	
	11:04 AM	19°C	66.2°F	
	12:16 PM	19°C	66.2°F	
	12:30 PM	20.6°C	69°F	
<i>Wind Speed:</i>		<i>Anemometer</i>	<i>Beaufort</i>	<i>Direction</i>
	10:20 AM	1 mph	1	South
	10:20 AM	0.2-1.2 mph	1	South
	11:15 AM	1.5 mph	1	South
	12:24 PM	1.5 mph	1	South
	12:24 PM	1 knot		
12:25 PM	1.5 mph	1	South	
<i>Weather today</i>	10:10 AM	26-50% Cloud Cover	No Rain	
		26-50% Cloud Cover		
	10:23 AM	<25% Cloud Cover	No Rain	
		<25% Cloud Cover		
	11:00 AM	26-50% Cloud Cover	No Rain	
	12:16 PM		No Rain	
	12:32 PM		No Rain	
<i>Weather the past 3 days:</i>	Unusually warm temperatures with little cloud cover. No Rain.			

<i>Tides- Tide Stick</i>	<i>Time</i>	<i>Rising, Falling, Unchanged</i>		<i>Height (cm)</i>	
	10:10 AM 10:14 AM 10:18 AM 10:22 AM 10:26 AM 10:32 AM 10:45 AM  11:10 AM 11:15 AM 11:20 AM 11:25 AM  12:16 PM 12:21 PM 12:26 PM 12:31 PM 12:36 PM 12:41 PM	- Falling Falling Falling Unchanged Falling Falling  - Falling Falling Falling  - Falling Falling Falling Falling Falling		20 cm 18 cm 16 cm 14 cm 14 cm 10 cm 8 cm  16 cm 13 cm 12 cm 11 cm  15 cm 11.5 cm 10 cm 8 cm 7 cm 4.5 cm	
<i>Current- NR</i>	<i>Time</i>	<i>Cm/sec</i>	<i>Knots</i>	<i>North/South</i>	<i>Ebb/Flood/Slack</i>
<i>Water Temperature-</i>	10:17 AM 10:20 AM 10:49 AM 11:05 AM 12:20 PM	14°C 20.5°C 24.2°C 24.1°C 25.9°C		57°F 68.9°F 75.6°F 76.4°F 78.6°F	
<i>Turbidity- Long Sight Tube (120 cm)</i>	10:20 AM 10:25 AM 10:50 AM 11:16 AM 11:45 AM 12:40 PM	59.1 cm 59 cm 65 cm 57.8 cm 54 cm 41.2 cm			
<i>Chemical</i>					
<i>Student Salinity- Meter/Probe*</i>	10:31 AM 10:47 AM 11:10 AM 11:19 AM	162 ppm 163 ppm 164 ppm 164 ppm		*Very high compared to Quantab reading and other sites	
<i>1 LR Quantab read by students</i>	12:20 PM	37 ppm Cl-		67 ppm Total Salinity	<i>1.6 QT unit</i>
<i>DO – Meter/Probe</i>	<i>Time</i>	<i>Temp</i>		<i>ppm DO</i>	<i>% saturation</i>
	10:20 AM 10:45 AM 10:45 AM 11:10 AM 11:14 AM 12:20 PM 12:25 PM	24.2°C 24.3°C 24.1°C 24.1°C 25.9°C		9.43 ppm 9.05 ppm 9.03 ppm 8.80 ppm 8.8 ppm 8.68 ppm 8.63 ppm	100% 100% 110% 105% 110% 105% 105%
<i>pH – Meter/Probe</i>	10:26 AM 10:52 AM 11:07 AM 11:10 AM 12:20 PM	6.3 7.34 6.62 7.4 7.05			
<i>Biological</i>					

<i>Fish- Seine</i>	<i>Number</i>	<i>Name</i>			<i>Length of longest</i>	<i>Notes</i>
10:10-1:00 PM	4 28 1 8 1	Blueback Herring Bay Anchovy Spottail Shiner Banded Killifish Striped Bass			10.16 cm	
<b>Fish Totals</b>	<b>TOTAL: 42</b>	<b>Diversity: 5</b>				
<i>Macroinvertebrates</i>	<i>Number</i>	<i>Name</i>			<i>Length of longest</i>	
	2	Crab sp.				
<b>Macroinvertebrate Totals</b>	<b>TOTAL: 2</b>	<b>Diversity: 1</b>				
<i>Sediment Core</i>	<i>Time</i>	<i>Oxid Top</i>	<i>H<sub>2</sub>S Smell</i>	<i>Oil</i>	<i>Grain Size</i>	<i>Other Features</i>
20 cm	12:33 PM	No	No	No	<i>Abundant:</i> Sand <i>Rare:</i> Mud, Gravel, Pebbles	<i>Common:</i> Shells  <i>Rare:</i> Shells
13 cm		No	No	No	<i>Abundant:</i> Sand <i>Rare:</i> Gravel	<i>Rare:</i> Shells, Living vegetation
20.3 cm		No	No	No	<i>Common:</i> Sand, Gravel <i>Rare:</i> Pebbles	<i>Rare:</i> Wood, Shells
25 cm	11:50 AM	No	No	No	<i>Abundant:</i> Sand <i>Rare:</i> Mud, Pebbles	<i>Rare:</i> Leaves, wood, shells
15 cm		No	No	No	<i>Abundant:</i> Sand <i>Common:</i> Gravel <i>Rare:</i> Mud, Pebbles	<i>Rare:</i> Leaves, shells
NR	NR	Yes	Yes	No	<i>Abundant:</i> Sand <i>Common:</i> Mud, Gravel, Pebbles	

<b>Boats</b>					
<b>Commercial/ Recreational</b>	<b>Time</b>	<b>Name/Type</b>	<b>Color</b>	<b>Southbound/ Northbound</b>	<b>Light/ Loaded</b>
Recreational	10:39	Speedboat	White	Northbound	Light
Recreational	10:49	Speedboat	White	Southbound	Light
Recreational	10:58	NR	White & Black	Southbound	Loaded
Recreational	11:15	Sailboat	NR	Southbound	NR
Commercial	11:48	Edwin A. Polino	Black	Southbound	Light
Recreational	12:21	NR	Red & White	Southbound	Light