

**Day in the Life of the Hudson River 10/05/2023**  
**Plum Point, Kowawese, New Windsor, NY**  
**RIVER MILE: 58.1**  
*Salt Front: ~ RM 52*



**Cornwall Middle School-Charisse Pagano**  
**Orange County Water Authority- Sarah Archbald**  
**50 students, 7<sup>th</sup> grade, 8 adults**  
**Latitude 41.46176°N & Longitude -74.01194°W**



**Location:** Plum Point, Kowawese, New Windsor, Orange County, NY  
**Surrounding Land Use:** 50% Beach, 45% Forested, 5% Urban/Residential  
**Sampling Site:** Grassy & Forested, Beach, Wood Bulkhead, Area covered in vegetation, RipRap on shoreline, Parking lot  
**Shoreline:** 20% Sandy, 10% Muddy, 70% Rocky  
**Water:** Choppy  
**River Bottom:** Rocky  
**Plants in the water:** 20% Water Chestnuts, 31% Eel Grass  
 \*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	26.5°C	79°F	
	10:56 AM	26°C	79°F	
	11:35 AM	26.5°C	80°F	
	12:03 PM	25°C	78.5°F	
	1:00 PM	25°C	77°F	
<i>Wind Speed:</i>	9:00 AM	<i>Anemometer</i> 18 mph gust	<i>Beaufort</i>	<i>Direction</i> SE
	10:18 AM	4-9 pmh	3.5	SE
	11:01 AM	5.7 mph	3	S/SE
	11:41 AM	5.4 mph	3	S
	12:07 PM	13.1 mph gust	3	S
	1:05 PM		3	S
<i>Weather today</i>	10:24 AM	26-50% Cloud Cover	No Rain	

	11:52 AM 12:02 PM 1:06 PM	26-50% Cloud Cover 26-50% Cloud Cover Clear			
<b>Weather the past 3 days:</b>	No Rain in the past 3 days, unseasonable warm conditions for October 5th				
<b>Tides-</b>	<b>Time</b>	<b>Rising, Falling, Unchanged</b>	<b>Height (cm)</b>		
	9:25 AM 10:36 AM 11:09 AM 11:38 PM 12:58 PM	- Falling Slack Rising Rising	0 -110 cm -102 cm -35 cm +24 cm	Set point	
<b>Current-</b>	<b>Time</b>	<b>Cm/sec</b>	<b>Knots</b>	<b>North/South</b>	<b>Ebb/Flood/Slack</b>
<b>*Currents were tracked from the shoreline within the small cove formed by the point on the northern Kowawese beach - sheltered from main channel of River.</b>	10:29 AM 11:08 AM 11:50 AM 12:17 PM 12:54 PM	2.4 11.3 9.1 5.8 5.13	0.02 .2 .18 .11 .1	(flood - N)   (flood - N)	Flood Flood Flood
<b>Water Temperature-</b>	10:09 AM 10:40 AM 11:17 AM 11:56 AM 12:36 PM	20°C 20°C 20°C 21°C 20°C		68°F 68°F 68°F 70°F 68°F	
<b>Turbidity- Long Sight Tube (120 cm) (Average of 3 readings per group)</b>	10:22 AM 11:00 AM 11:44 AM 12:18 PM 1:01 PM	13.26 cm 14.9 cm 23.6 cm 21.6 cm 24.5 cm		10:22 AM 80 JTU	
<b>Chemical</b>					
<b>Standardized Salinity- Low Range Quantabs</b>	12:45 PM	44 ppm Cl <sup>-</sup>		79 ppm (Total Salinity -TS)	
<b>Student Salinity- Low Range Quantabs</b>	10:09 AM 10:40 AM 11:17 AM 11:56 AM 12:36 PM	36 ppm Cl <sup>-</sup> NR 40 ppm Cl <sup>-</sup> 36 ppm Cl <sup>-</sup> 34 ppm Cl <sup>-</sup>		65 ppm TS  72 ppm TS 65 ppm TS 61 ppm TS	
<b>DO – Hach Drop Count Kit</b>	<b>Time</b>	<b>Temp</b>		<b>ppm DO</b>	<b>% saturation</b>
	10:09 AM 10:40 AM 11:17 AM 11:56 AM 12:36 PM	20°C 20°C 20°C 21°C 20°C		15 ppm 10 ppm 10 ppm 113 ppm 110 ppm	165% 115% 110% 113% 110%
<b>pH – Color Match Kit</b>	10:09 AM 10:40 AM 11:17 AM 11:56 AM 12:36 PM	7.25 7 7.25 7.25 7.5			
<b>Biological</b>					
<b>Fish- Seine (10 Hauls)</b>	<b>Number</b>	<b>Name</b>	<b>Length of longest</b>	<b>Smallest</b>	
10:00 AM-12:30 PM	1	Largemouth Bass	10 cm		

	7	Striped Bass	32 cm	10 cm		
	1	American Eel	25.4 cm			
	1	Blueback Herring	7.6 cm			
	1	White Perch	10 cm			
	1	Channel Catfish	22.86 cm			
	2	Bay Anchovy	10 cm	5 cm		
<b>Fish Totals</b>	<b>TOTAL: 14</b>	<b>Diversity: 7</b>				
<i>Macroinvertebrates</i>	<i>Number</i>	<i>Name</i>	<i>Length of longest</i>			
<b>Macroinvertebrate Totals</b>	<b>TOTAL: 0</b>	<b>Diversity: 0</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>
10.5 cm		No	No	No	Common: Clay, Mud & Sand Rare: Gravel & Pebbles	Common: Wood
25 cm		Yes (2.5 cm)	No	Yes	Abundant: Clay Common: Mud	

**Boats-NR**

<b>Commercial/ Recreational</b>	<b>Time</b>	<b>Type</b>	<b>Color</b>	<b>Southbound/ Northbound</b>	<b>Light/ Loaded</b>