

**Day in the Life of the Hudson River 10/16/18 Data**

**STEAMBOAT DOCK, VERPLANCK**

**RIVER MILE: 41**

*Salt Front: ~RM 24*

**Mahopac High School- Scott Rizzo, Trisha Johnson, Jason Zides**

**25 students 9<sup>th</sup>-11<sup>th</sup> grade, 3 adults**

**Latitude 41.24936 N & Longitude -73.936474 W**



**Location:** Steamboat Dock Park Beach, City of Verplanck, Westchester County, NY

**Area:** located in a small cov between a point and a bulkhead- pier, grassy, parking lot

**Surrounding Land Use:** 30% Urban/Residential; 35% Beach; 35% Parking lot

**Sampling Site:** Beach and parking lot

**Shoreline:** sandy, rocky

**Plants in area:** No plants in water area

**Water:** 2 feet deep

**River Bottom:** Sandy; muddy; rocky

<i><b>ITEM</b></i>	<i><b>Time</b></i>	<i><b>Reading</b></i>	<i><b>Comments</b></i>	
<i><b>Physical</b></i>				
<i>Air Temperature:</i>	10:25 AM	8 ° C	48 ° F	
<i>Wind Speed:</i>	10:27 AM	Beaufort 4	13 MPH NE	
<i>Weather Today:</i>	11:53 AM partly cloudy (26-50%), no rain			
<i>Weather Previous:</i>	Rained Monday			
<i><b>Water Temperature</b></i>	9:39 AM	18.1 ° C	64.58 ° F	
	9:53 AM	18 ° C	64.4 ° F	
	11:15 AM	18 ° C	64.4 ° F	
<i><b>Turbidity - Long sight tube</b></i>				
<i><b>Chemical</b></i>				
<i>Salinity- YSI Pro30 Conductivity Meter – Total Salinity</i>	9:39 AM	0.1 ppt OR 100 ppm		
	9:53 AM	0.1 ppt OR 100 ppm		
	11:15 AM	0.1 ppt OR 100 ppm		
<i>DO –</i>	<i>Time</i>	<i>Temp</i>	<i>ppm DO</i>	<i>% saturation</i>
	9:55 AM	18 ° C	8	90%
	10:15 AM	18 ° C	8	90%
<i>pH- color match test kit</i>	9:53 AM	7.5		
	10:45 AM	8		
	11:15 AM	7.5		
<i>Nitrates-</i>	9:39 AM	1.4 ppm		<i>*readings seem high</i>
	11:15 AM	2.79 ppm		
<i>Alkalinity</i>	9:39 AM	80 ppm		
	9:53 AM	120 ppm		
	11:15 AM	100 ppm		
<i>Phosphates</i>	9:53 AM	0.5 ppm		
	10:10 AM	0.61 ppm		

<b><i>Fish – seine 25 feet</i></b>		<b><i>Number</i></b>	<b><i>Name</i></b>		<b><i>Length of longest</i></b>	
	7:30 AM	1	American Shad		7.62 cm	
		1	Striped Bass		10.16 cm	
	10:15 AM	5	Striped Bass		10.16 cm	
		1	White Perch		20.32 cm	
		1	American Shad		6.35 cm	
		1	Sunfish		1.5 inches	
	11:00 AM	1	Striped Bass		10.16 cm	
		<b>TOTAL: 11</b>	<b>Diversity: 4</b>			
<b><i>Macroinvertebrates- Seine</i></b>		<b><i>Number</i></b>	<b><i>Name</i></b>		<b><i>Length of longest</i></b>	
		20	Asian Shore Crab			
		<b>TOTAL: 20</b>	<b>Diversity: 1</b>			
<b><i>Tides- tide stick</i></b>		<b><i>Time</i></b>	<b><i>Rising, Falling, Still</i></b>	<b><i>Height (cm)</i></b>	<b><i>Rate of Tidal Change (cm/min)</i></b>	
		9:42 AM	Still	52	-	
		10:00 AM	Still	52	0	
		10:13 AM	Rising	55		
		10:26 AM	Rising	58		
		10:49 AM	Rising	63		
		11:01 AM	Rising	65		
		11:11 AM	Rising	66		
<b><i>Currents Flow</i></b>		<b><i>Time</i></b>	<b><i>Cm/second</i></b>	<b><i>Knots</i></b>	<b><i>North/South</i></b>	<b><i>Ebb/Flood/Still</i></b>
		9:50 AM	2.67	0.052		
	*Wind picked up	10:17 AM	6.2	0.121		
		10:30 AM	4.8	0.093		
		10:50 AM	3.6	0.070		
<b><i>Sediment Core</i></b>		<b><i>Water depth</i></b>	<b><i>Length</i></b>	<b><i>Oxid Top</i></b>	<b><i>Grain Size</i></b>	<b><i>Other</i></b>
<b><i>Boats</i></b>	<b><i>Time</i></b>	<b><i>Name</i></b>	<b><i>Color</i></b>		<b><i>North/South</i></b>	<b><i>Loaded/Light</i></b>
Commercial	10:13 AM		Light Gray		North *same	Light
Commercial	10:14 AM	Tugboat	Red/White		North +same	Light
Commercial	11:12 AM		Light Gray		South *same	Light
Commercial	11:15 AM	Tug	Red/White		South +same	Light
Commercial	11:45 AM	Tug/Barge RTCB9	Red		North	Loaded
<b><i>Other Observations</i></b>		Brick and water chestnuts on beach; two different road runoff inputs; 10 mallard ducks; 24 Canadian geese, 1 bald eagle				