

**Day in the Life of the Hudson River 10/12/17 Data
(Salt Front ~ RM 65)
RIVER MILE 60.5**

People's Waterfront & Boat Launch, Newburgh, Orange County NY

Mary Lynne/Sarah Archibald Orange County Water

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9th graders (50 students and 6 adults)

Latitude 41.5, Longitude -74

Location: Newburgh Yatch Club, Newburgh, Orange County NY

Area: Pier, dock with bulk heads, rip rap and wood bulkhead

Surrounding Land Use: Industrial/Commercial 75%, park Area 25%

Shoreline: Rocky

Sampling Site: Debris in area, shore with bulkhead covered, banks altered, rip rap

Plants in the water: 80% water chestnut and 20% water celery

Water depth: 2-4 ft.

Bottom Surface: muddy & rocky

<i>ITEM</i>	<i>Time</i>	<i>Reading 1</i>	<i>Reading</i>	<i>Comments</i>
<i>Physical</i>				
Air Temperature	9:53 AM 10:39 AM 11:19 AM 12:37 PM	19°C 20 20 23	°F	
Wind Speed	Beaufort 1 Beaufort 2.5 Beaufort 2	#1 #2.5 #2		
Cloud Cover	9:45 AM 10:32 AM 12:44 PM	51-75% 25-50% <25%		
Weather today	No rain			
Weather recently	Hot and dry 80s			
<i>Water Surface</i>	Choppy & calm at different times			
<i>Water Temperature</i>	Time	Degrees °C		
	9:53 AM 10:35 AM 11:05 AM 12:36 PM 13:20 PM	21.5°C 22 21.5 22 22	°F	
<i>Turbidity-long sight tube</i>	9:49 AM 10:34 AM 10:40 AM 11:00 AM 12:25 PM	17.53 cm 21.1 18.26 18.4 26.1		

<i>Chemical</i>	<i>Time</i>	<i>DO</i>	<i>Temp</i>	<i>% saturation</i>
DO (drop kit)	9:53 AM	3 ppm	21.5°C	35%
	10:35 AM	6	22	71%
	11:05 AM	6	21.5	70 %
	12:36 PM	4	22	48%
	13:20 PM	8	22	97%
pH – color match kit	9:53 AM	8.25		
	10:35 AM	7.7		
	11:05 AM	7.8		
	12:36 PM	8.2		
	13:20 PM	7.7		
<i>Nitrates</i>	11:30 AM	20 ppm X 3	??	
<i>Salinity – QTs- Time</i>	<i>Time</i>	<i>Quantab Units</i>	<i>Chloride reading Cl-</i>	<i>Total Salinity conversion</i>
Low Range - <i>At the very high end of the range so not reliable</i>	10:35 AM	??	759 ppm	1372 ppm TS
	12:36 PM	8.0	634 ppm	1145 ppm TS
High Range** <i>use this data</i>	11:05 AM	4.8	965 ppm	1743 ppm TS
	13:20 PM	4.4	821 ppm	1483 ppm TS
<i>Fish Catch seine 8X4feet</i>	<i>Number Caught</i>	<i>Species</i>	<i>Length</i>	<i>Fish DIV 5 TOTAL 27</i>
Seine #1	0			
Seine #2	1	Catfish		
	7	Bay Anchovies		
	1	Shiner		
Seine #3	Same as last seine so not tallied			
Seine #4	1	Bay Anchovy		
Seine #5	1	Catfish		
	10	Bay Anchovy		
	3	Shiners		
Seine #6	1	Bay Anchovy		
Seine #7	1	Banded Killifish		
Seine #8	1	Yellow Perch		
DIV.	5	TOTALS	36	

<i>Sediment Core</i>	<i>Description</i>	<i>Rare</i>	<i>Common</i>	<i>Abundant</i>	
	NR				
<i>Tides</i>	<i>Time</i>	<i>Tide Stick</i>	<i>Flood/Ebb Still</i>	<i>Rate of change</i>	
	9:45 AM 10:25 AM 11:30 AM 12:42 PM 13:27 PM	61 cm 60.96 cm 50.8 cm 60.96 cm 74.93 cm	Still Falling Rising Rising		
<i>Currents</i>	<i>Time</i>	<i>Cm/sec</i>	<i>knots</i>		<i>Ebb Flood</i>
	10:15 AM 10:53 AM 11:08 AM 12:26 PM 13:19 PM	16.91cm/sec 20.4 cm/sec 14.9 cm/sec 24.98 cm/sec 10.49 cm/sec	0.327 0.396 0.29 0.486 0.204		