

Day in the Life of the Hudson River 10/16/18 Data
PEOPLES WATERFRONT PARK, NEWBURGH, RIVER MILE: 60.5

Salt Front: ~RM 24

Excelsior Academy (Newburgh Free Academy)- Joyce D'Imperio
50 students 9th grade, 4 adults

Scenic Hudson- Kate Phipps, Kristin Welch
Latitude 41.512177 N & Longitude – 74.018326 W

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: NR

Water depth: 2-4 ft.

Bottom Surface: muddy & rocky

<i>ITEM</i>	<i>Time</i>	<i>Reading</i>		<i>Comments</i>
Physical				
<i>Air Temperature:</i>	9:30 AM	11 ° C	51.8 ° F	
	10:15 AM	11 ° C	51.8 ° F	
	12:05 PM	14 ° C	57.2 ° F	
	12:55 PM	15 ° C	59 ° F	
<i>Wind Speed: mph</i>	9:30 AM	6 mph	NW	
	10:15 AM	7 mph	N	
	12:05 PM	10 mph	W	
	12:55 PM	10 mph	W	
<i>Weather Today:</i>	NR			
<i>Weather Previous:</i>	NR			
Water Temperature	9:45 AM	13.5 ° C	56.3 ° F	
	10:52 AM	12.5 ° C	54.5 ° F	
	12:00 PM	15 ° C	59 ° F	
	12:45 PM	14 ° C	57.2 ° F	
Turbidity - Long sight tube recorded as NTUs & then converted	9:45 AM	25 NTUs	29 cm	
	10:50 AM	25 NTUs	29 cm	
	12:30 PM	30 NTUs	26 cm	
	1:00 PM	19 NTUs	36 cm	
Chemical				
<i>Salinity- Low Range Quantabs</i>	9:45 AM	<28 ppm Cl-	<i>Below Detection</i>	
	10:50 AM	<28 ppm Cl-	<i>Below Detection</i>	
	12:30 PM	<28 ppm Cl-	<i>Below Detection</i>	
	1:00 PM	32 ppm Cl-		
<i>DO –</i>	<i>Time</i>	<i>Temp</i>	<i>ppm DO</i>	<i>% saturation</i>
	9:30 AM	15 ° C	7	68
	10:30 AM	14.5 ° C	6	58
	12:30 PM	15 ° C	8	78
	1:00 PM	17 ° C	5	50
<i>pH -</i>	9:30 AM	7.4		
	10:30 AM	7.2		
	12:30 PM	7.2		
	1:00 PM	7.1		
Fish – seine	Number	Name	Length of longest	
	28	Spottail Shiner	11.5 cm	
	12	YOY Herring	11 cm	
	6	Tessellated Darter	NR	

	TOTAL: 46	Diversity: 3		
<i>Macroinvertebrates- Seine</i>	<i>Number</i>	<i>Name</i>	<i>Length of longest</i>	
	1	Mud Crab	2.5	
	TOTAL: 1	Diversity: 1		
<i>Tides- dock to water</i>	<i>Time</i>	<i>Rising, Falling, Still</i>	<i>Height (cm)</i>	<i>Rate of Tidal Change (cm/min)</i>
	9:30 AM		78	N/A
	10:00 AM	Ebb	82	0.133
	10:15 AM	Ebb	88	0.4
	11:00 AM	Ebb	89	0.022
	12:05 PM	Flood	81	0.22
	12:35 PM	Flood	79	0.667
	12:55 PM	Flood	77	0.1
<i>Currents Flow</i>	<i>Cm/second</i>	<i>Knots</i>	<i>North/South</i>	<i>Ebb/Flood/Still</i>
9:30 AM	6	0.117		
10:00 AM	2.6	0.051		
10:15 AM	9	0.175		
11:00 AM	15	0.292		
12:05 PM	9.8	0.190		
12:35 PM	2.2	0.043		
12:55 PM	10.5	0.204		