

Day in the Life of the Hudson River 10/13/22

Tivoli Bay South, Redhook, NY

RIVER MILE: 98

Salt Front: ~ RM76

Bard College– Andrew Patterson

Red Hook High School - Deborah Beam

25 students & 6 adults

Latitude 42.01743°N & Longitude – 73.91723°W

Location: Tivoli Bay South, Redhook, Dutchess County, NY

Area: Mouth of the Saw Kill, adjacent to Hudsonia Field Station

Sampling Site: Marshy, Pipe entering the water

Surrounding Land Uses: 10% Urban/Residential, 90% Forested

Shoreline: Muddy, Rocky

River Bottom: Rocky, Muddy

Water: Calm; 15 cm

Plants in the Water: 25% duckweed

*NR = Not read/recorded

<i>ITEM</i>	<i>Time</i>	<i>Reading</i>		<i>Comments</i>
Physical				
<i>Air Temperature-</i>	NR	NR	NR	
<i>Wind Speed:</i>	1:45 PM	<i>Anemometer</i> 16 mph	<i>Beaufort</i> 3	<i>Direction</i> S/SW
<i>Weather today</i>	10:00 AM	>75% cloud cover	Start & Stop	
<i>Weather the past 3 days:</i>	NR			
<i>Tides- NR</i>	<i>Time</i>	<i>Rising, Falling, Unchanged</i>	<i>Water Height (cm)</i>	
<i>Current- NR</i>	<i>Time</i>	<i>Cm/sec</i>	<i>Knots</i>	<i>North/South</i> <i>Ebb/Flood/Still</i>
<i>Water Temperature-</i>	10:00 AM	12.9°C	55.2°F	
<i>Turbidity- Long Sight Tube (120 cm)</i>	10:00 AM	68 cm	Average of 83, 95 and 36 cm	
Chemical				
<i>Salinity-</i>	NR	246 ppm*		
<i>Standardized Salinity – LR Quantabs</i>	11:00 AM	175 ppm		*must be some other contribution other than HR salinity
<i>DO – Meter/probe</i>	<i>Time</i> 10:00 AM	<i>Temp</i> 12.9°C X 3 readings	<i>ppm DO</i> NR	<i>% saturation</i> 97.1%, average 96.5 97.2%, 95.3 %
<i>pH – Meter</i>	10:00 AM	8.85		
<i>Nitrates- NR</i>				
<i>Phosphates- NR</i>				
<i>Alkalinity- NR</i>				
Biological- Did not fish				
<i>Fish –</i>	<i>Number</i>	<i>Name</i>	<i>Length of longest</i>	<i>Length of smallest</i>
Fish Totals	TOTAL:	Diversity:		
<i>Macroinvertebrates</i>	<i>Number</i>	<i>Name</i>	<i>Length of longest</i>	<i>Length of smallest</i>

Macroinvertebrate Totals	TOTAL:	Diversity:			
<i>Sediment Core – NR</i>					
Length	H2S smell	Oxid Top	Oil	Grain Size	Other Features
<i>Boats- NR</i>					
	Time	Name	Color	North/Southbound	Light/Loaded
Commercial					
Recreational					