

*** Day in the Life of the Hudson River 10/22/19 Data**
HENRY HUDSON RIVERFRONT PARK, RIVER MILE: 117
Hudson, Columbia County, NY

Salt Front: ~RM 53

Chatham High School- Sandra Fischer

35 students 11th -12th grade Environmental Science, AP Biology & Ecology Club , 6 adults

Taconic Hills High School – Jenny Jeffrey – 5 HS students, 1 Instructor

Latitude 42.2538 N & Longitude - 73.8003 W



Location: Henry Hudson Riverfront Park, City of Hudson, Columbia County, NY

Area: 1st dock in the waterfront property used for fishing, marina, picnics, large grassy area with parking lot, just north of the old quarry site

Surrounding Land Use: 60% Urban/Industrial; 40% Urban Park/Boat Launch

Sampling Site: Waterfront with banks 100% altered to include wooden & concrete bulkheads and large riprap on shoreline; pier, grassy, parking

Shoreline: 30% Muddy; 70% Rocky; Riprap

Water: Calm in the AM, slightly choppy in the PM

Plants in area: Little water chestnut and some water celery < 1% of area – 10% water celery, < 1% water chestnut;

River Bottom description: Rocky

Water Depth: 6-9 ft.

<i>ITEM</i>	<i>Time</i>	<i>Reading</i>		<i>Comments</i>
Physical				
<i>Air Temperature:</i>	10:21 AM 12:45 PM	13.4 °C 15 °C	56.1°F 59 °F	
<i>Wind Speed:</i>	<i>Time</i>	<i>Beaufort Force</i>	<i>Beaufort Conversion</i>	<i>Anemometer</i>
	10:24 AM 12:37 PM	0 Beaufort Force 3 Beaufort Force	0 mph Beaufort 8-12 mph	0 3.4 mph
<i>Weather Today:</i>	Overcast (100%) but no rain			
<i>Weather Previous:</i>				
Water Temperature	Time	Surface	Bottom	Depth
	9:38 AM 9:50 AM 10:44 AM 12:34 PM	11.1 °C 12.3 °C 11.3 °C 11.9 °C	12.6 °C 12.5 °C 12.6 °C 12.8 °C	2.9 m 3.1 m 2.1 m 3.0 m
Turbidity - 9:08 AM	<i>Secchi Disk</i> 0.375 m 0.385 m	<i>Average Secchi</i> 0.38 m or 38 cm	<i>Long sight tube</i> 25 cm 31 cm	<i>Avg. Long tube</i> 27 cm

		0.38 m		25 cm	
Chemical					
<i>Salinity- LR Quantabs</i>		10:45 AM	1.4 average 1.3 1.4 1.2	29 ppm Cl ⁻	52 ppm total sal.
<i>DO –</i>		<i>Time</i>	<i>Temp</i>	<i>ppm DO</i>	<i>% saturation</i>
		10:55 AM	12.2 °C	9.8	90.33%
		9:50 AM	12.5 °C	10.3	94.09%
<i>pH – PASCO pH probe</i>		10:40 AM	6.37 6.02 6.7	Average 6.29	
<i>Nitrates</i>		12:54 PM	0		
<i>Phosphates</i>		12:54 PM	10,15,10 *these are all extremely high!		11.67 mg/L*??
<i>Alkalinity</i>		12:54 PM	40, 80, 40 mg/L		53 mg/L
<i>Fish – net 24 ft. X 2 min. pull x 7 pulls</i>		<i>Number</i>	<i>Name</i>	<i>Length of longest</i>	
		12	Spottail Shiner	10 cm	
		13	Striped Bass	11 cm	
		1	Banded Killifish	3.5 cm	
		1	Bluegill	8 cm	
Fish Totals		TOTAL: 27	Diversity: 4		
<i>Tides- Tide stick</i>		<i>Time</i>	<i>Rising, Falling, Still</i>	<i>Height (cm)</i>	<i>Rate of Tidal Change (cm/min)</i>
*Between 11:08 and 12:58 must have been set at a different location		10:05 AM	<i>Rising</i>	39	-
		10:10 AM	<i>Rising</i>	40	0.2
		10:15 AM	<i>Rising</i>	43	0.6
		10:27 AM	<i>Rising</i>	46	0.25
		10:48 AM	<i>Rising</i>	90	2.09
		10:58 AM	<i>Rising</i>	103	1.3
		11:08 AM	<i>Rising</i>	105	0.2
		12:58 PM	<i>Rising</i>	52	5.3 *
		1:04 PM	<i>Unchanged</i>	52	0
<i>Current- *measured in a cove</i>		<i>cm/second</i>	<i>Rising, Falling, Unchanged</i>	<i>Height (cm)</i>	<i>Rate of Change (cm/min)</i>
<i>Currents Flow</i>		<i>Cm/30second</i>	<i>Cm/sec</i>	<i>Knots</i>	<i>North/Sout & Ebb/Flood/Still</i>
10:00 AM		548.64	18.3	0.36	North – Flood
10: 55 AM		0	0	0	0 – Still
12:33 PM		54	1.8	0.04	South - Ebb
<i>Sediment Core</i>		<i>Dscription</i>	<i>Description</i>	<i>Common</i>	<i>Abundant</i>
12 inch water depth		No - H2S Smell No – Oxid. Top Yes – Oil look	2-6 inches (5-15 cm)	Sand Gravel Pebbles	Clay Mud
<i>Boats</i>	<i>Time</i>	<i>Name</i>	<i>Color</i>	<i>North or South</i>	<i>Loaded or Light</i>
Commercial	10:00 AM	RTC 82		North	Loaded
Commercial	11:02 AM	Double Skin		South	Light
Commercial	12:16 PM	Independence		North	Loaded/heavy
Recreational	9:00 AM	Grand Caribe		South	N/A
<i>Other Observations</i>		Saw a Kingfisher and possibly a peregrine!			