

Day in the Life of the Hudson River 10/12/17 Data
(Saltfront ~ RM 65)
RIVER MILE 117.5 (a)
Hudson River Waterfront Park, City of Hudson
Shelley Forester, Cary Institute of Ecosystem Studies
Sandra Fischer, Chatham High School, Catham, NY
60 students, Environmental Science, Ecology Club, 8 adults
Latitude – N 42°25' Longitude – W -73°80'



Location: Hudson River Waterfront Park, City of Hudson, Columbia County
Area: 1st dock in the waterfront property used for fishing, marina, picnics, large grassy area, just north of the old quarry site, has a parking lot –
Surrounding Land Use: 50% Industrial/Commercial, 50% Urban Industrial
Sampling Shoreline: waterfront with banks/shoreline is 70% is rocky and 30% muddy.
Sampling Site: 100% altered to include wooden & concrete bulkheads and large riprap on shoreline, pier, grassy, parking lot
Plants in area: 0.5% water chestnut, 0.5% water celery, 1% milfoil
Water - Calm
River Bottom – bottom rocky, muddy

	<i>Time</i>	<i>Reading 1</i>	<i>Reading 2</i>	<i>Comments</i>
<i>Physical</i>				
Air Temperature	9:10 AM 9:50 AM 12:00 PM	12°C 13°C 15°C	°F	
Cloud Cover	8:51 AM	Mostly Cloudy 51-75%		
Wind –	Time AM	Beaufort N/R	m/s - meter 1-4	Direction ENE
Weather today				
Weather recently	Mild, no precipitation			
Water	calm			

Water Temperature –	9:12 AM 12:07 PM 12:15 PM	Surface Surface 2.9 meters depth	19.8, 19.7°C 20.4, 20.4 21, 20.8	19.75 °C avg 20.4 21
Turbidity – <i>120 cm long site tube</i>	9:30 AM to 12:30 PM	93 cm 97 cm 95 cm	< 10 NTU	
<i>We felt the water was not very turbid. You could see 1m down from the dock and kids were surprised by the results from the long tube.</i>				
Chemical	Time	Temp C	DO ppm	% sat.
DO - meter	9:15 AM 10:20 AM 12:08 PM	20 20 21	7.65 7.96 7.87	85% 89% 89%
pH – <i>Aquacheck strips</i>	9:35 AM 10:16 AM 12:06 PM	5, 5, 6 5, 6, 6 6, 5, 6	averages	5.3 5.6 5.6
Salinity Quantabs	Time	Quantab #	Chloride ppm	Total Salinity
	9:15 AM 10:19 AM 12:41 PM	1.4 1.4 1.4	32 ppm 32 ppm 32 ppm	58 ppm 58 ppm 58 ppm
Nitrates - <i>Aquacheck strip</i>	9:48 AM	2 ppm 2 ppm		
Phosphates –				
Fish Catch Seine net 6 feet X 4 ft., 1.4 inch mesh	Time	Species	Total Catch for Day	Length
Fish		<i>Banded Killifish</i>	38	7 cm
		<i>Bluegill Sunfish</i>	37	9 cm
		<i>White Perch</i>	2	4 cm
		<i>Bay Anchovy</i>	2	3 cm
		<i>Shiner</i>	2	7.5 cm
Fish Totals	DIV 5	TOTAL	81	
Macros		Cladocera, Waterfleas	2	
		Volvox algae	2	
		Ostracod - Crustacea	1	
		Amphipod	2	
Macros Totals	DIV 4	TOTALS	7	
Tides	8:52 AM 9:23 AM 9:50 AM 11:55 AM 12:22 PM	185 cm 200 cm 180 cm 178 cm 160 cm	Set point Rising Falling Falling Rising	<i>On a dock measuring down to water</i>

	12:37 PM	149 cm	Rising	
Currents	Time	Cm/30sec	Cm/sec	E/F/S
	8:55 AM.		38.1 cm/sec	Ebb
	9:15 AM		25.4 cm/sec	Flood
	9:26 AM		224 cm/sec	Flood
	11:41 AM		25 cm/sec	Ebb
Core Sample	Length/	Rare	Common	Abundant
Collected in vegetated area	- 20.3 cm (8 inches) - no smell	Leaves Wood Brick Living Vegetation	Clay Mud Sand Gravel Pebbles	
<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>Sketch of your core below with measurements for each section & total</p> </div>				
Traffic - commercial	Time	Name	Color	Direction/Loaded or Light
	10:45 AM	Coral Coast	Blue	Northbound, light
	10:59 AM	RTC107	Black	Southbound, loaded
	11:04 AM	No Name	Black	Northbound, light
	11:45 AM	Coastguard	Orange	south
	12:15 PM	Doubleskin	Black/Yellow	Southbound, loaded
Recreational	11:13 AM	Sailboat	Black	Northbound
	11:40 AM	Speed Boat	White	Southbound
	11:55 AM	Hudson Spirit	Red/White	Southbound, Loaded
Other Observations	<p>Not overgrown, public park. Grassy peninsula with rocky shore, 1 pear, boat launch No bricks, coal, shells etc, manicured park The area is inlets with docks so perhaps the water is not moving as freely which might affect sampling. There is a creek from an industrial site flowing into the river There is rock processing next door as well. Lots of yellow jackets and a few seagulls in the area</p>			