

Day in the Life of the Hudson River 10/20/16 Data
(Salt front ~ RM83)
RIVER MILE 28
Nyack Memorial Park
Kirsten Kleinman, Nyack High School - 2 APES Classes 50 students,
11-12th graders, 6 adults
Latitude 40°05.243'N, Longitude 73°54.988 'W

Location: Nyack Park where Nyack Brook feeds in

Area: Open and grassy, has a parking lot, used for picnics, fishing

Surrounding Land Use: 100% park

Sampling Site: beach, banks altered, riprap on shoreline, bulkhead

Plants in area: no water plants in area

Water depth: varied

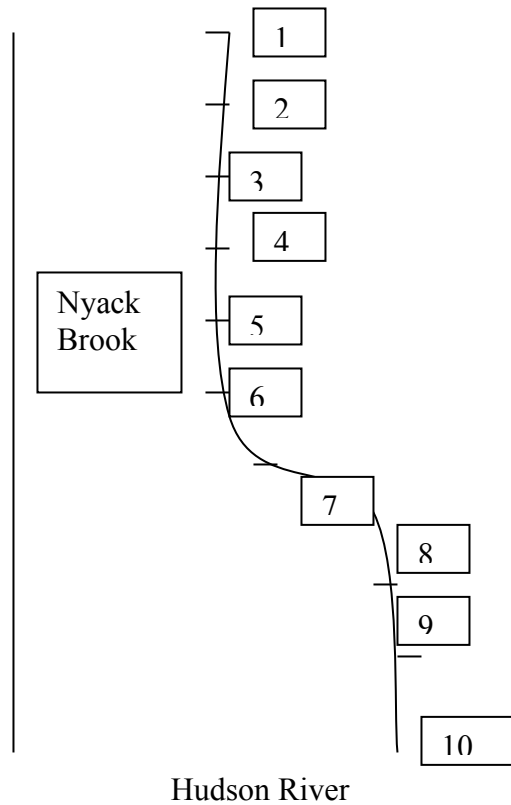
River Bottom – sandy/muddy bottom , water calm

The students do their traditional sampling of a transect that runs from Nyack Brook (Station #1) out towards the Hudson River (Station #10)

<i>ITEM</i>	<i>Time</i>	<i>Reading 1</i>	<i>Reading 2</i>	<i>Comments</i>
<i>Physical</i>				
Air Temperature	10:15 AM 11:05 AM 12:30 PM	23.5 °C 24 26	74°F 76 80	
Cloud Cover	11:10 AM	overcast		
Wind	10:25 AM	Beaufort 1	Anemometer	2.9 mph East
<i>Chemistry</i>	* Complete set of DO, Salinity, Water Temp etc. in tables below for the comparative study.			
Salinity	Low Tide	8.7 ppt	High Tide	9.14 ppt
Nitrates – API test kit	Station 1	5.00 ppm	Station 10	5.00 ppm
Phosphates	Station 1	0.25	Station 10	0.25
<i>Turbidity – secchi</i>	<i>AM Sample</i>	<i>cm</i>	<i>PM Sample</i>	<i>cm</i>
<i>Viewing Platform</i>	9:20 AM	35 cm	12:10 PM	70 cm
<i>Floating Pier</i>	9:20 AM	40 cm	12:10 PM	120 cm
<i>Rip Rap</i>	9:20 AM	30 cm	12:10 PM	90 cm
<i>Fish Catch Seine 12X4</i>	<i>Number Caught</i>	<i>Species</i>	<i>Length of longest</i>	<i>TOTALS</i>
10:20 AM	30	<i>Atlantic Silversides</i>		<i>FISH DIVERSITY</i> 5

	7	<i>Striped Bass</i>		<i>FISH TOTALS 42</i>
	3	<i>Northern Pipefish</i>		
	1	<i>White Perch</i>		
	1	<i>Mummichog</i>		
<i>Macro- invertebrates</i>	50	<i>Comb Jellies</i>		<i>MACRO DIVERSITY 3</i>
	1	<i>Blue Crab</i>		<i>MACRO TOTALS 7</i>
	6	<i>Mud Crab</i>		
<i>Tides</i>	9:40 AM 10:10 AM 10:40 AM 11:20 AM 11:40 AM 12:10 PM	20 cm 36 cm 52 cm 60 cm 80 cm 93 cm		
<i>Currents</i>	11:17 AM	181 cm/30 secs	6.02 cm/sec	0.12 kts FLOOD

Sketch Map of Sampling Site



Time: 9:20 AM **Tide:** Low **Depth:** Surface Sample

<u>Station #</u>	<u>Distance (m)</u>	<u>Depth cm</u>	<u>Salinity (ppt)</u>	<u>Temp (°C)</u>	<u>DO mg/L</u>	<u>pH</u>
1	0	8	0.68	16.8	9	7.5
2	10	31.5	0.63	16.7	10	7.3
3	20	31.5	0.86	16.7	8	7.1
4	30	56	0.92	16.7	7	7.2
5	40	59	1.05	16.8	9	7.1
6	50	18	1.08	16.8	11	7
7	60	50	1.81	17	9	7
8	70	27	1.33	17.3	9	6.8
9	80	8	5.9	18	10	6.8
10	90	20	8.7	18.2	10	6.9

Data Table 2: Time 12:10 PM **Tide** High **Depth** Surface Sample

<u>12</u>	<u>Distance (m)</u>	<u>Depth (cm)</u>	<u>Salinity (ppt)</u>	<u>Temp (°C)</u>	<u>DO (mg/L)</u>	<u>pH</u>
1	0	59	1.22	17.1	12	6.9
2	10	66	1.3	17.1	11	6.8
3	20	94	3.86	17.1	12	6.8
4	30	200	3.77	17.3	10	6.7
5	40	140	6.21	17.6	9	6.6
6	50	110	7.13	17.7	7	6.6
7	60	40	8.27	19.3	11	6.7
8	70	34	7.95	18.9	11	6.7
9	80	30	8.27	18.9	9	6.7
10	90	50	9.14	18.7	9	6.8