

Day in the Life of the Hudson River 10/30/14 Data
(Salt Front not recorded for 10/30 – 10/28 it was 61.1 and 11/1 it was RM 59.9)
RIVER MILE 5

Pier 1 - 59th Street/Riverside Park
N 40.76408 W-74.001893

Kimberly Schwab, Speyer Legacy School Plus 3 adults
50 students - 7th graders sampling and sharing data with 6th graders who are giving
tours to 2nd graders - 8 adults



Seventh grade sampling team

Location: Pier i, New York NY

Area: Restored former railroad pier

Surrounding Land Use: Urban/residential 100%

Sampling Site: Except for seining and taking core samples, all sampling took place on pier i.

Plants in area: no submerged aquatic plants in the water but lots of plants on shore

Water depth: Varied by location on the pier and by tide

River Bottom – sandy/muddy bottom

Plants in area: Varied native and introduced plants in Riverside Park South



Seventh graders sampling with DEC Runners stopping by



Speyer students used a niskin bottle to collect samples from the surface and depth to do a comparison in water chemistry

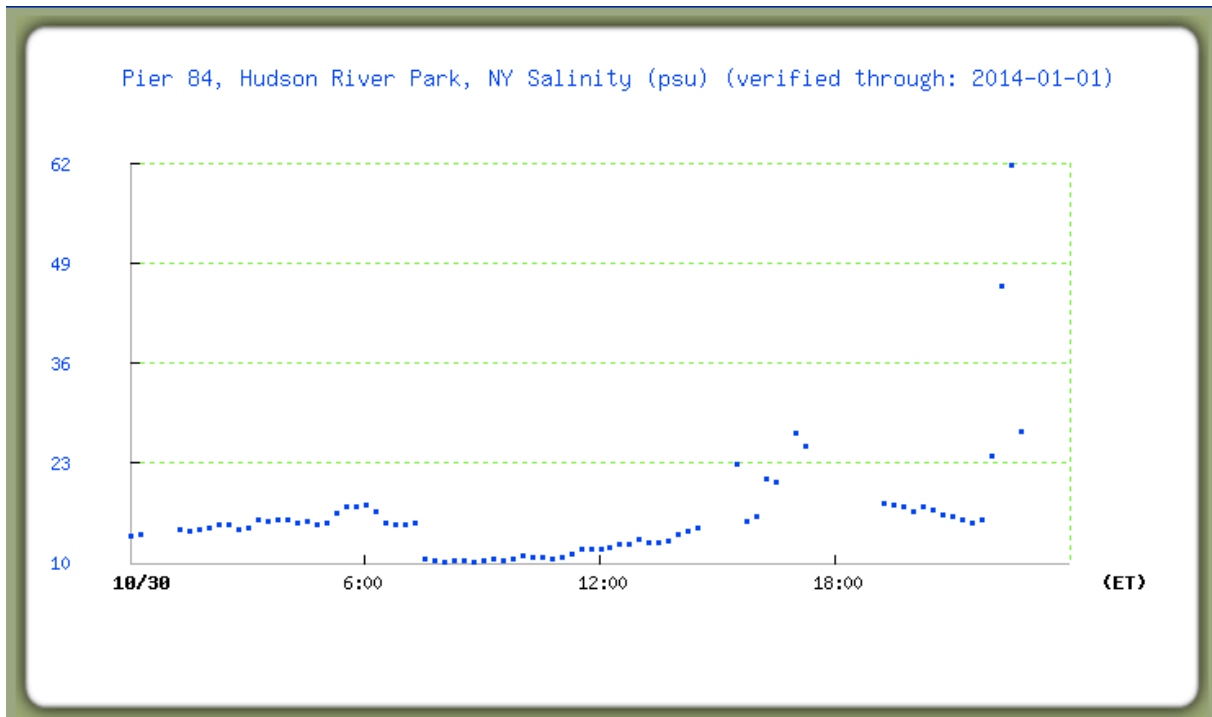
<i>ITEM</i>	<i>Time</i>	<i>Readings</i>		
<i>Physical</i>				
Air Temperature	10:05 AM	10°C	50°F	
Wind Speed	10:05 AM 10:37 AM 10:52 AM 12:22 PM 12:27 PM	Beaufort 3 Beaufort 2 Beaufort 3 Beaufort 3 Beaufort 3		
Cloud Cover	clear			
Weather today	Clear and warm		<i>Water surface</i>	
Weather recently	Cool with rain off and on for last 2 wks			
<i>Water Temperature</i>	Forgot thermometer			
<i>Turbidity Short site tube</i>	Time	Reading	Average	End of Pier
	9:20 AM 10:15 AM 12:48 PM	40 44 48	35.5 cm 25.5 cm 22.8 cm	
<i>Chemical</i>	Time	mg/l	Temp	% Sat

<i>*Water sampled at surface and at depth with niskin bottle reported in two separate sets of readings below. Depth for bottom samples ranged from surface to depth</i>				
	TIME	SURFACE	BOTTOM	
DO - Hach –	9:30 AM 10:10 AM 10:40 AM 12:30 PM 1:10 PM	Not read 6 mg/l 6 mg/L 7 mg/L 6 mg/L	6 mg/L 6 mg/L 6 mg/L 6 mg/L 6 mg/L	
pH kit as above	9:30 AM 10:00 AM 10:30 AM 11:30 AM 12:00 PM 12:30 PM 1:00 PM 1:30 PM 2:00 PM	6.5 8 7.5 7.5 8 8.5 7.5 8 8	6 8.5 8 8 7.5 8 7.5 8 7.5	
Salinity –	SURFACE refractometer (R)	SURFACE Glass Hydrometer (H)	DEPTH refractometer (R)	DEPTH Glass Hydrometer (H)
10:09 AM 10:12AM 11:10AM 12:25 PM 12:35 PM 12:50 PM 12:52 PM 12:53 PM 12:55 PM 1:00 PM 1:24 PM 2:05 PM	13 ppt -R 14 ppt – R n/r n/r n/r 14 ppt n/r n/r n/r n/r 14 ppt 14 ppt 14 ppt	15 ppt H n/r 17 ppt n/r n/r n/r n/r n/r 12 ppt 13 ppt 12 ppt 14 ppt	n/r n/r n/r 15 ppt 22 ppt n/r 17 ppt n/r n/r n/r 17 ppt 14 ppt	17 ppt – H n/r 14 ppt 20 ppt n/r n/r n/r 15 ppt n/r n/r 15 ppt 14 ppt
<i>Fish Catch – minnow traps</i>	<i>Number</i>	<i>Species</i>	<i>Size</i>	<i>Time</i>
<i>MACROS-On pier</i>	9	Snails		10:00 AM
	Many	Comb Jellies		
<i>Crab Traps</i>	1	Blue crab	70 cm	
	1	Blue crab	100 cm	
	1	Blue crab	110 cm	
	2	Blue crab	130 cm	
	1	Blue crab	140 cm	
<i>Total Macro</i>	<i>15 + comb jellies</i>	<i>Diversity 3</i>		

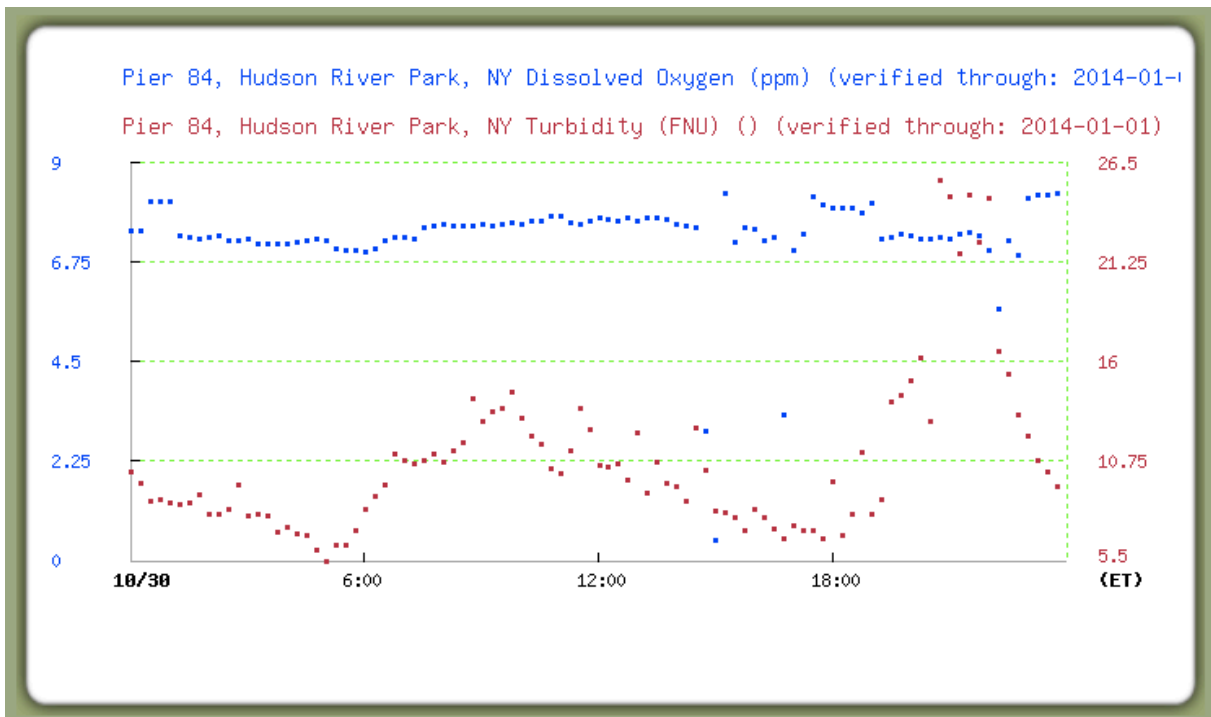
FISH - Seine – only ¼ unfurled -	100	Atlantic Silversides			1:00 PM
Lots of trash washed into net	1	y-o-y striped bass			
Total Fish	101	Diversity 2			
Tides (from pier to water)	Total Depth (Meters)	Distance to water surface		Tide Depth	Flood or Ebb
9:39 AM	13.54	4.52		9.32	ebb
10:05 AM	11:40	4:52		6.88	ebb
10:19 AM	11.53	4.52		7.01	still
10:38 AM	11.51	4.52		6.99	still
11:00AM	11.53	4.52		7.01	still
12:07 PM	10.62	3.61		7.01	Flood
12:45 PM	10.9	3.61		7.29	Flood
Currents	Time	Meter/sec		Cm/sec	Ebb/Flood
9:36 AM	1858	61.93 cm/sec		1.2038	Ebb
10:05 AM	2043	68.1 cm/sec		1.3238	Ebb
10:14 AM	2072	69.07 cm/sec		1.3424	Ebb
10:16 AM	1920	64 cm/sec		1.2441	Flood
10:50 AM	1066	35.53 cm/sec		0.6907	Still
12:00 AM	44	1.23 cm/sec		0.0239	Still
12:15 PM	305	10.17 cm/sec		0.1976	Flood
12:27 PM	610	23.33 cm/sec		0.4535	Flood
12:40 PM	450	15 cm/sec		0.2916	Flood
1:42 PM	915	30.5 cm/sec		0.5929	Flood
Sediment Cores	Length	H2S smell/oil	Rare	Common	Abundant
1:30 PM location 1	4 cm – hard to penetrate	No		Mud, pebbles	Sand, gravel, pebbles
1:30 PM location 2	4 cm – hard to penetrate	No	Glass	Pebbles	Sand
SHIPPING	Time	Name	Color	North/South	Full/Empty
	9:42 Am	Motorboat	Yellow	Southbound	full 2 people
	9:45 AM	Ferry NY Waterway	White	Southbound	Unknown
	9:47 AM	Yacht	White	Southbound	unknown
	9:51 AM	Ferry NY Waterway	White, blue	Southbound	Passengers
	9:55 AM	Ferry NY Waterway	White	Northbound	Passengers
	9:56 AM	Sailboat “Salsa”	Red w. black sail	Northbound	Passenger

	10:01 AM	Ferry NY Waterway	White	Northbound	Passengers
	10:03 AM	Ferry NY Waterway	White, blue	Southbound	Passengers
	10:05 AM	Speedboat	Red, white, black	Northbound	1 passenger
	10:07 AM	Cargo "Hunts Point"	White, black	Northbound	Full
	10:10 AM	Tugboat	Blue	Southbound	
	10:10 AM	Barge pulled by tug above	Brown	Southbound	Lots of garbage/cargo
	10:37 AM	Ferry NY Waterway	White	Northbound	Passengers
	10:40 AM	Speedboat Very fast!	White	Northbound	Passenger
	10:45 AM	Cargo boat	White	Northbound	Full
	12:05 PM	Sailboat	Green	Northbound	Passengers
	12:06 PM	Ferry NY Waterway	White	Southbound	Passengers
	12:20 PM	Ferry NY Waterway	White	Northbound	Passengers
	12:24 PM	Circle Line	White	Southbound	Passengers
	12:31 PM	Ferry NY Waterway	White	Northbound	Passengers
	12:42 PM	NYPD Boat	White, blue	Northbound	Passengers
	1:01 PM	Cruise	White	Southbound	Passengers
	1:20 PM	Cruise	White	Southbound	Passengers
	1:30 PM	Cargo	Black & white	Northbound	Full
	2:04 PM	Tugboat no barge	White	Northbound	

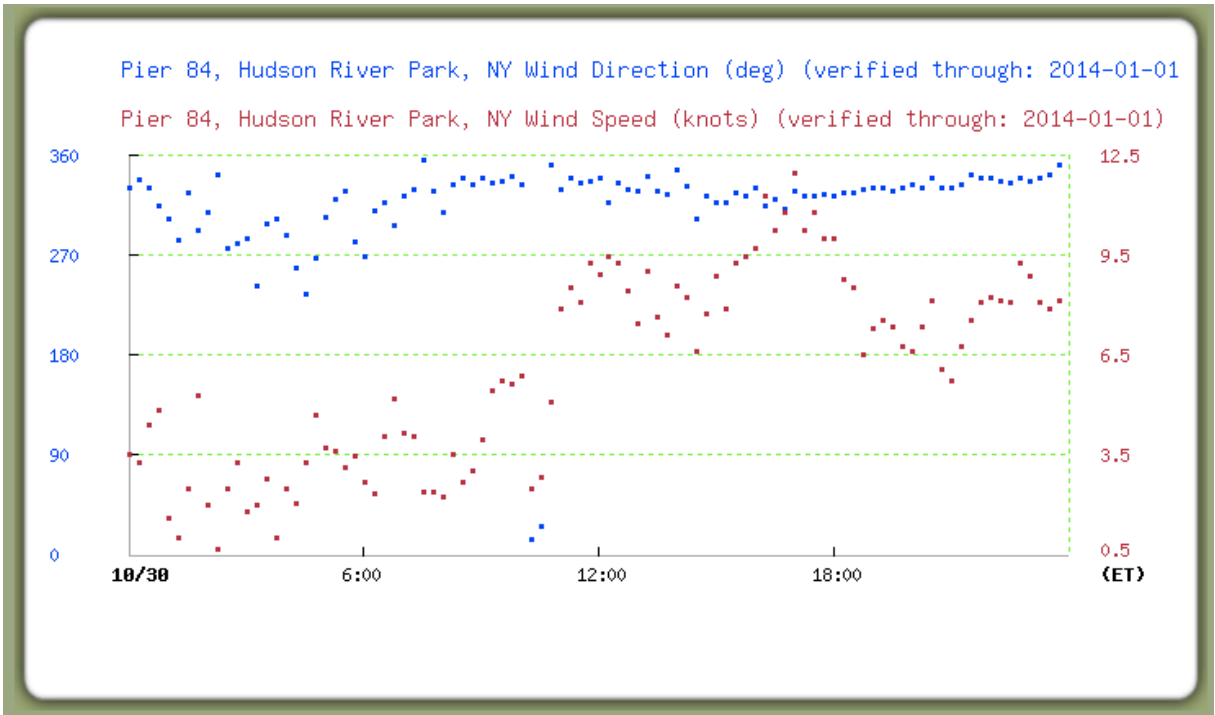
HRECOS SCREEN CAPTURES FROM PIER 84 SITE



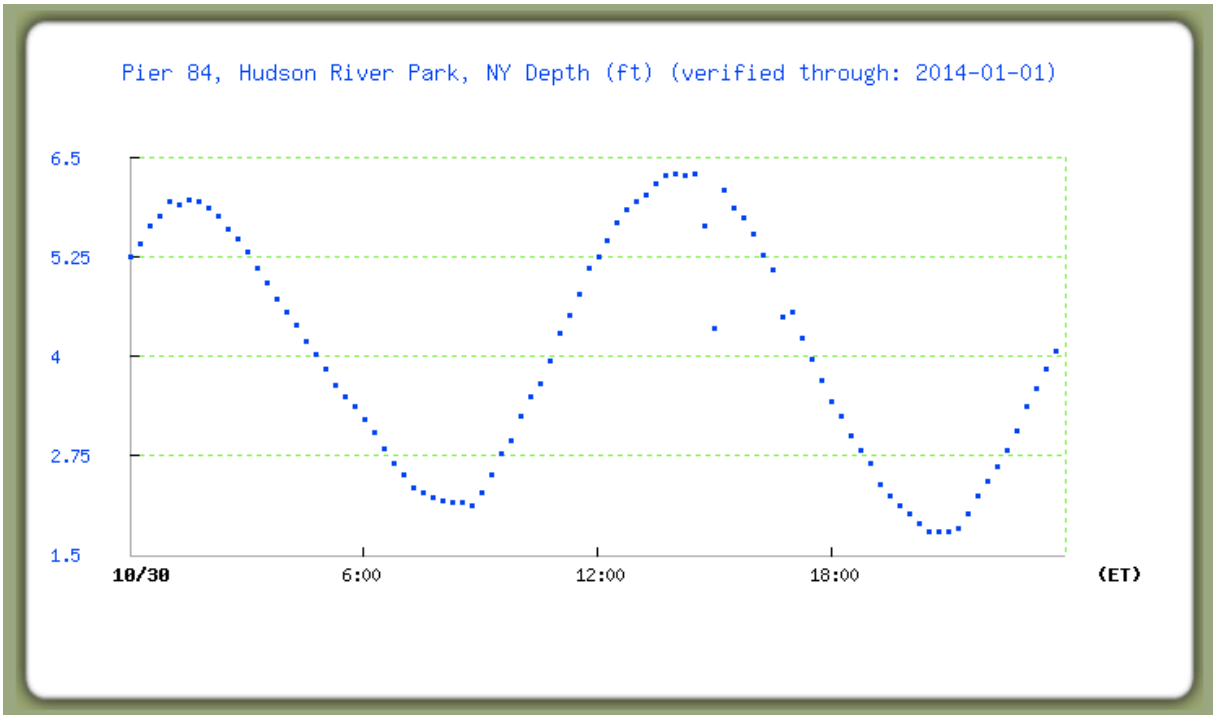
During Sampling time salinity on 10/30/14 ranged between 10 and 17 ppt (psu)



During Sampling time DO ranged from 6.75 to 8 ppm
During Sampling time Turbidity ranged from 0 to 4 NTU



Wind During Sampling Time



Tides During Sampling Time