

Day in the Life of the Hudson River 10/4/12 Data
RIVER MILE 58
Plum Point, New Windsor, Orange County, NY
Jennifer Merriam, Orange County Community College
undergraduate– 13 students, 1 adult
GPS Latitude 41°27'47.67"N Longitude 74°0'42.88"W



Location: Northern Sandy beach at Plum Point, New Windsor, Orange County, Public Shore, Picnic Area

Area: Sandy beach bordered by forested area and parking lot. Used for picnic, fishing, kayaking

Surrounding Land Use: Forested 10%, beach 90%,

Sampling Site: sandy beach (cove), rip rap in area of sampling site, debris in the area such as broken concrete, docking

Plants in area: no submerged aquatic vegetation

Other trees in area – mostly wooded – oak, tulip, poplar and maple.

Water depth: 70 cm - shallow (students can wade out in chest waders about 10 meters)

River Bottom – consolidated bottom, cobble-gravel, sandy

<i>ITEM</i>	<i>Time</i>	<i>Reading 1</i>	<i>Reading 2</i>	<i>Comments</i>
<i>Physical</i>				
Air Temperature	8:10 AM	19.5°C 67.1°F	9:40 AM	21.5°C 70.7°F
Wind Speed	Beaufort 0	MPH 0		
Cloud Cover	overcast	Light drizzle 10:10 AM		
Weather today	No rain from 0800-1010, absolutely still (no wind, water like glass, overcast, foggy)			
Weather recently	Raining			
<i>Water Surface</i>	calm			

Water Temperature	9:40 AM	21.5 °C 21.0 21.5		21.3°C 70.34°F
Water Calm	yes			
Turbidity <i>Short sight tube</i>	9:55 AM	14.13 NTU 15.31 12.45		13.96 NTU avg.
Chlorophyll	2:00PM	0.3 color chart		
Chemical				
DO (drop kit)	TIME	Temp	DO	% Sat
DO – drop count test kits	9:45 AM	21 °C	8	90
pH - meter	9:55 AM	6.5 7.0 7.0		6.8 average
Salinity – test strips	TIME	ppt	Cl-	Total Salinity
	2:05 PM		96 mg/L	173 mg/L
Nitrates	10:05 AM	4.4 ppm 4.44 ppm 4.4 ppm		4.44 ppm
Phosphates	10:07 AM	0 ppm		
Fish Catch 12 ‘ X 3 ‘ with ¼ inch mesh	Species	Count	Size of largest	Totals
96 foot pull	American Eel	2	14	
	Bay Anchovy	3		
	Spottail Shiner	4		
	Banded Killifish	1		
	Striped Bass	10		
	Smallmouth Bass	2		
	Tessellated Darter	1		
	Blue Crab	4		
CPUE		23 total catch	96ft=105m_ computed	0.22 fish/meters
Tides	Time	Height in cm	Rate of change	Rising/falling
	8:10 -8:55 AM	4.5 cm	Falling	0.1 cm/min
	9:40-10:10 AM	9.5 cm	Rising	0.32 cm/min
Currents	9:40 AM	1.7 cm/sec	North	ebb