

**Day in the Life of the Hudson River 10/14/21
RANDALL'S & WARD'S ISLAND, MANHATTAN
RIVER MILE: Harlem River 1**

Salt Front: ~ RM 49

Dwight School- Emma Ryan and 4 teachers
60 students, 7th grade

Randall's Island- Chris Girgenti and staff

Latitude 40.786015 N & Longitude – 73.934763 W



Location: Randall's Island Park, Harlem River, Manhattan, NY

Area: Randall's Island Park, Harlem River Waterfront (North of 103rd St. bridge/Ward's Island Bridge), sandy adjacent to shore, increasingly muddy with depth; sporadic rocks

Surrounding Land Use: 50% Urban/Residential, 40% Parkland, 10% Beach

Sampling Site: Grassy, beach, banks altered, wood bulkhead, concrete bulkhead, riprap, pipe entering water

Shoreline: 90% Sandy; 10% Rocky

Water: calm

River Bottom: 60% Rocky, 40% Sandy

Plants in water: no plants in water area

<i>ITEM</i>	<i>Time</i>	<i>Reading</i>		<i>Comments</i>	
<i>Physical</i>					
<i>Air Temperature</i>	9:48 AM	19 ° C		66.2 ° F	
	10:31 AM	21 ° C		69.8 ° F	
	11:39 AM	20 ° C		68 ° F	
	12:12 PM	23 ° C		73.4 ° F	
<i>Wind Speed:</i>	10:36 AM	10 mph			
	12:03 PM	6.2 mph			
	12:12 PM	6.4 mph			
<i>Weather today</i>	9:49 AM-	31% cloud cover		No Rain	
	10:29 AM	34% cloudy cover		No Rain	
	12:30 PM	25% cloud cover		No Rain	
<i>Weather the past 3 days:</i>	Partly cloudy without rain the previous 3 days				
<i>Tides-</i>	<i>Time</i>	<i>Rising, Falling, Unchanged</i>		<i>Height (cm)</i>	
	NA				
<i>Current-</i>	<i>Time</i>	<i>Cm/sec</i>	<i>Knots</i>	<i>North/South</i>	<i>Ebb/Flood/Still</i>
	10:48 AM	4	0.078	N/R	N/R
	11:53 AM	12.7	0.247		
	12:30 PM	36.6	0.713		
<i>Water Temperature-</i>	9:55 AM	19.5 ° C			
	10:33 AM	19.8 ° C			
	11:41 AM	20.3 ° C			
	12:18 PM	20.0 ° C			
<i>Turbidity- Long sight tube</i>	10:05 AM	26 cm			
	10:37 AM	31.3 cm			

	12:19 PM	43.6 cm			
Chemical					
Salinity- Hydrometer	10:00 AM 10:38 AM 11:46 AM 12:22 PM	21.5 ppt 22.0 ppt 22.0 ppt 20.7 ppt			
DO –	<i>Time</i>	<i>Temp</i>	<i>ppm DO</i>	<i>% saturation</i>	
*DO, pH, Nitrates and Phosphates are all taken with a very low resolution wide range kit and not reflective of conditions in the water	10:57 AM	~20 ° C	2 ppm	20%	
	12:05 PM	~20 ° C	2 ppm	20%	
	12:43 PM	~20 ° C	2 ppm	20%	
*pH –	10:08 AM 10:48 AM 12:03 PM 12:27 PM	6 6 6.5 6			
*Nitrates-	10:24 AM 11:00 AM 12:06 PM 12:37 PM	5 ppm 5 ppm 5 ppm 20 ppm			
*Phosphates-	10:22 AM 12:05 PM 12:37 PM	2 ppm 2 ppm 2 ppm			
Biological					
Fish	Number	Name	Length of longest	Length of smallest	
	90 1 1 3	Atlantic Silversides Striped Bass Blue Fish Porgy			
Fish Totals	TOTAL: 95	Diversity: 4			
Macroinvertebrates	Number	Name	Length of longest	Length of smallest	
	12 6 3	Moon jellies Comb jellies Blue Crab			
Macroinvertebrate Totals	TOTAL: 21	Diversity: 3			
Sediment Core					
Length	H2S smell	Oxid Top	Oil	Grain Size	Other Features
(Group 1) NA	No	Yes	Yes	Abundant: Mud, sand, gravel, pebble Rare: clay	Rare: shell oysters, freshwater mussels
(Group 2) NA	Yes	No	Yes	Abundant: mud, sand, pebbles Common: gravel Rare: clay	Rare: leaves, wood, oyster shells, brick, slag
(Group 3) 30 cm	Yes	Yes	No	Abundant: sand, gravel Common: clay, mud, pebbles	NA
(Group 4) 30 cm	Yes	-	No	Abundant: Sand	Rare:

				Common: clay, mud, gravel, pebbles Rare: mud	macroinvertebrates, brick
<i>Boats</i>					
	Time	Name	Color	North/Southbound	Light/Loaded
Commercial		Cruise ship NYPD Boat			
Residential		Motorboat			