

**Day in the Life of the Hudson River 10/22/19**  
**FORT WASHINGTON PARK, MANHATTAN**  
**RIVER MILE: 11.5**

*Salt Front: ~RM 53*

Katie Krueger- **Marymount School of New York**  
**50 students 7th grade, 8 adults**

**Latitude 40.84574 N & Longitude – 73.94629**

**Location:** Fort Washington Park (South of George Washington Bridge), Manhattan, NY

**Area:** Sandy beach with riprap adjacent to a paved jogging trail within a grassy park. Some trees on far side of jogging trail, but not next to the water. Very little aquatic vegetation.

**Surrounding Land Use:** 70% Urban/Residential; 25% Forested; 5% Beach

**Sampling Site:** Park with many trees, picnic tables, covered with vegetation, riprap shore, Large outflow pipe directly south of site <100 meters

**Shoreline:** Sandy beach, riprap

**Water:** 2-4 ft

**Plants in area:** 0

**River Bottom:** Sandy with rocks

<i>ITEM</i>	<i>Time</i>	<i>Reading</i>			<i>Comments</i>
<i>Physical</i>					
<i>Air Temperature:</i>	9:43 AM	17 °C	62.6 °F		
	10:15 AM	22 °C	71.6 °F		
	10:43 AM	14 °C	57.2 °F		
	11:20 AM	14 °C	56.3 °F		
<i>Wind Speed:</i>	9:43 AM	Beaufort: 2	1.39 m/s		
	10:15 AM	1	2.3 m/s		
	10:43 AM	1	1 m/s		
	11:20 AM	1.5	1.39 m/s		
<i>Weather Today:</i>	Overcast with light drizzle				
<i>Weather Previous:</i>	Saturday: sunny all day; Sunday: rained in afternoon; Mon: cloudy in am, sunny in pm				
<i>Tides-</i>	<i>Time</i>	<i>Rising, Falling, Still</i>	<i>Height (cm)</i>	<i>Rate of Tidal Change (cm/min)</i>	
	9:32 AM	NA	25.5	NA	
	9:55 AM	Rising	25.6	0.004	
	10:00 AM	Rising	26.5	0.22	
	10:20 AM	Rising	28	0.075	
	10:30 AM	Rising	31.5	0.35	
	10:50 AM	NA	-	NA	
	11:00 AM	Rising	43.5	0.4	
	11:20 AM	Rising	50	0.325	
11:45 AM	Rising	62	0.48		
	<i>Time</i>	<i>Cm/second</i>	<i>Knots</i>	<i>North/South</i>	<i>Ebb/Flood/Still</i>

<b>Currents Flow</b>	9:32 AM	2.65	0.051	South	Ebb
	10:00 AM	3.125	0.0607	South	Ebb
	10:30 AM	4.39	0.085	South	Ebb
	11:00 AM	1.77	0.0344	North	Flood
<b>Water Temperature</b>	9:28 AM	15 °C	59 °F		
	10:02 AM	15 °C	59 °F		
	11:07 AM	17 °C	61.7 °F		
<b>Turbidity- long sight tube</b>	9:30 AM	65.67	cm		
	10:00 AM	85.3	cm		
	10:30 AM	75	cm		
	11:00 AM	76.47	cm		
<b>Chemical</b>					
<b>Salinity- Hydrometer</b>	9:30 AM	ppm Cl-	13670 ppm TS		
	10:00 AM	ppm Cl-	13300 ppm TS		
	10:30 AM	ppm Cl-	15620 ppm TS		
	11:00 AM	ppm Cl-	14000 ppm TS		
<b>Refractometer</b>	9:30 AM	ppm Cl-	15000 ppm TS		
	10:00 AM	ppm Cl-	14160 ppm TS		
	10:30 AM	ppm Cl-	18330 ppm TS		
	11:00 AM	ppm Cl-	4000 ppm TS	Doesn't match hydrometer - expect 14000	
<b>Dissolved Oxygen –</b>	<i>Time</i>	<i>Temp</i>	<i>ppm DO</i>	<i>% saturation</i>	
	9:40 AM	15 °C	6.5 ppm	63%	
	10:10 AM	15 °C	5 ppm	50%	
	10:47 AM	15 °C	5.5 ppm	55%	
	11:07 AM	15 °C	4.6 ppm	45%	
<b>pH - indicator solution</b>	9:50 AM	7.55			
	10:00 AM	7.8			
	10:51 AM	7			
	11:29 AM	7.4			
<b>Biological</b>					
<b>Fish – Seine</b>	<b>Number</b>	<b>Name</b>	<b>Length of longest</b>		
	17	Atlantic Silverside	3 cm	Seine 1 9:40	
	24	Atlantic Silverside	4 cm	Seine 3 10:00	
	2	Atlantic Silverside	4 cm	Seine 5 10:16	
	8	Atlantic Silverside	3 cm	Seine 6 10:22	
	2	Atlantic Silverside	5 cm	Seine 7 10:30	
	4	Atlantic Silverside	9 cm	Seine 8 10:45	
	1	Summer Flounder	3 cm	Seine 8 11:01	
	4	Atlantic Silverside	8 cm	Seine 9 11:14	
	<b>TOTAL: 62</b>	<b>DIVERSITY: 2</b>	<b>Total AS = 61</b>	<b>Total SF = 1</b>	
<b>Fish – Seine</b>	<b>Number</b>	<b>Name</b>	<b>Length of longest</b>		
	2	Blue Crab	3.5	Seine 1 9:40	

<i>Macroinvertebrates- Seine</i>	1	Blue Crab	8	Seine 2 9:50	
	3	Blue Crab	2	Seine 2 9:50	
	1	Blue Crab	1.4	Seine 3 10:00	
	1	Moon Jelly	1	Seine 3 10:00	
	1	Comb Jelly	12	Seine 3 10:00	
	1	Green Crab	3.5	Seine 4 10:04	
	1	Moon Jelly		Seine 4 10:05	
	1	Shore shrimp	1.7	Seine 4 10:06	
	1	Green Crab	4.2	Seine 5 10:16	
	2	Blue Crab	1.2	Seine 5 10:17	
	1	Moon Jelly	1	Seine 5 10:18	
	1	Moon Jelly	1.2	Seine 6 10:22	
	3	Green Crab	1.1	Seine 6 10:23	
	1	Shore Shrimp		Seine 6 10:24	
	2	Moon Jelly		Seine 7 10:30	
	1	Comb Jelly	4	Seine 7 10:31	
	1	Green Crab	3.7	Seine 7 10:32	
	1	Shore Shrimp		Seine 8 10:45	
	6	Green Crab	2.1	Seine 8 10:46	
	1	Blue Crab		Seine 8 10:47	
	1	Moon Jelly		Seine 8 10:48	
	2	Moon Jelly		Seine 9 11:14	
	<b>TOTAL: 36</b>	<b>DIVERSITY:</b>	<b>5</b>	<i>Total - BC=10; GC=12; MJ=9; CJ=2; SS=3</i>	
<b><i>Boats</i></b>	<b><i>Time</i></b>	<b><i>Name</i></b>	<b><i>Color</i></b>	<b><i>North/South</i></b>	<b><i>Loaded/Light</i></b>
Recreational	9:39 AM	Sailboat		South	Light
Commercial	9:40 AM	Cargo		South	Loaded
Recreational	10:01 AM	Sailboat		South	Light
Recreational	10:01 AM	2 motor boats		South	Light
Recreational	10:07 AM	Motor Boat		South	Light
Recreational	10:18 AM	motor Boat		South	Light
Commercial	10:19 AM	Tug Boat		South	Loaded
Recreational	10:32 AM	Jetski		North	Light
Commercial	10:34 AM	Tug Boat		South	Loaded
Commercial	11:15 AM	Ferry		North	Loaded
<b><i>Other Observations</i></b>					