Day in the Life of the Hudson River 10/16/18 Data FORT WASHINGTON PARK, MANHATTAN RIVER MILE: 11.5

Salt Front: ~RM 24

$\begin{array}{c} Marymount\ School\ of\ New\ York-Jessica\ Genter\ \&\ Katie\ Krueger\\ 55\ students\ 7^{th}\ grade,\ 7\ adults\\ Latitude\ 40.84574\ N\ \&\ Longitude\ -73.94629\ W \end{array}$

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

Area: Site is a sandy beach with riprap adjacent to a paved jogging trail within a grassy park. Some trees on far side of jogging trail, but non next to 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, collected wood debris.

Large outflow pipe directly south of site <100 meters

Plants in area: No plants in the water area

Water: 2-4 feet

River Bottom: Sandy and rocks

ITEM	Time	Reading		Comments
Physical	•	-		•
Air Temperature:	9:43 AM	9 ° C	48.2 ° F	
_	10:22 AM	10 ° C	50 ° F	
	10:47 AM	14.5 ° C	58.1 ° F	
	12:16 PM	16 ° C	60.8 ° F	
	12:45 PM	18 ° C	64.4 ° F	
Wind Speed:	9:47 AM	3-3.9 m/s	Beaufort 2, South	Partly Cloudy
	10:25 AM	2/2-2.9 m/s	Beaufort 1.5, South	Mostly Cloudy
No Rain	10:52 AM	2.3 m/s	Beaufort 1.5, South	Partly Cloudy
	12:21 PM	2.8-4.1 m/s	Beaufort 2, South	Mostly Cloudy
	12:56 PM	2.7 m/s	Beaufort 2, South	Partly Cloudy
Water Temperature-	9:35 AM	16 ° C	60.8 ° F	
	10:06 AM	12 ° C	53.6 ° F	
	10:38 AM	16 ° C	60.8 ° F	
	12:02 PM	15 ° C	59 ° F	
	12:31 PM	17.2 ° C	62.96 ° F	
Turbidity -	9:42 AM	62.3 cm		
	10:20 AM	53.66 cm		
	10:41 Am	51 cm		
	12:07 PM	35.3 cm		
	12:37 PM	47.66 cm		
Chemical		<u>.</u>		
Salinity-	Time	Hydrometer	Refractometer	
	9:42 AM	7300 ppm	5000 ppm	
	10:20 AM	6600 ppm	4000 ppm	
	10:41 AM	8000 ppm	5000 ppm	
	12:07 PM	6000 ppm	5000 ppm	
	12:37 PM	6000 ppm	5000 ppm	
DO –	Time	Тетр	ppm DO	% saturation
	9:52 AM	•	4.5	
	10:06 AM		6	
	10:52 AM		4.5	
	12:18 PM		4.5	
	12:52 PM		4	
pH –	9:55 AM	7.1		
<u>.</u>	10:28 AM	7		
	10:56 AM	7		
	12:24 PM	7.6		
Fish- Seine, 13 Hauls:	Number	Name	Length of longest	
#1 9:50 AM	5	Atlantic Silverside	4.5 cm	Total Atlantic
#2 9:56 AM	13	Atlantic Silverside	6.2 cm	Silversides: 81

		T =		1	
W2 10 10 116		3	Striped Bass	4.4 cm	T 10 . 1
#3 10:19 AM		40	Atlantic Silverside	7 cm	Total Striped
		3	Striped Bass	7.5 cm	Bass: 18
#4 10:45 AM		2	Striped Bass	6.5 cm	
#5 10:56 AM		2	Striped Bass	6.5 cm	
#6 10:58 AM		5	Striped Bass	12 cm	
#7 12:10 PM		6	Atlantic Silverside	6.5 cm	
		1	Striped Bass	6 cm	
#8 12:22 AM		6	Atlantic Silverside	5 cm	
		1	Striped Bass	5 cm	
#9 12:41 PM		1	Atlantic Silverside	6.1 cm	
#10 12:47 PM		3	Atlantic Silverside	5 cm	
#11 12:52 PM		6	Atlantic Silverside	8.5 cm	
		1	Striped Bass	8 cm	
#12 12:55 PM		1	Atlantic Silverside	10.2 cm	
		TOTAL: 99	Diversity: 2		
Macroinverteb	rates Seine.	Number	Name	Length of longest	
13 Hauls:	, , , , , , , , , , , , , , , , , , , ,	3	Blue Crab	All male	Total Blue
#1 9:50 AM		$\begin{bmatrix} 3 \\ 2 \end{bmatrix}$	Unidentified Crab	All female	Crabs: 10
#2 9:56 AM		7	Blue Crabs		Cruos. 10
#3 10:19 AM				5 female, 2 male Female	Total Lady
#J 10.17 MM		1	Green Crab	Female	Crabs: 4
		1	Shrimp	F 1	Cruos. 4
#4 10:45 AM		1	Lady Crab	Female	Total Green
#6 10:58 AM			Lady Crab	Male	Crab: 4
#7 12:10 PM			Green Crab	Female	Crab. 4
#8 12:22 AM		2	Green Crab	Female	Total Chaimn: 1
#9 12:41 PM		1	Lady Crab	Female	Total Shrimp: 1
		1	Lady Crab	Female	
#13 12:57 PM		TOTAL: 19	Diversity: 5		
Tides-	Time	Rising, Falling,	Height (cm)	Rate of Tidal Change	
	1 inic		Height (Cm)		
	Time	Still	Tieighi (cm)	(cm/min)	
		Still	<u> </u>	(cm/min)	
	9:35 AM	Still -	45	(cm/min)	
	9:35 AM 10:07 AM	Still - Rising	45 50	(cm/min) - 0.156	
	9:35 AM 10:07 AM 10:35 AM	- Rising Rising	45 50 57	(cm/min) - 0.156 0.25	
	9:35 AM 10:07 AM 10:35 AM 12:02 PM	- Rising Rising Rising	45 50 57 65	(cm/min) - 0.156 0.25 0.296	
	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM	- Rising Rising Rising Rising Rising	45 50 57 65 70	(cm/min) - 0.156 0.25 0.296 0.152	
Current-	9:35 AM 10:07 AM 10:35 AM 12:02 PM	Rising Rising Rising Rising Rising Rising Rising Rising, Falling,	45 50 57 65	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change	
	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM	- Rising Rising Rising Rising Rising	45 50 57 65 70	(cm/min) - 0.156 0.25 0.296 0.152	
Current-	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM	Rising Rising Rising Rising Rising Rising Rising Rising, Falling,	45 50 57 65 70	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change	
Current- *measured in	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM	Rising Rising Rising Rising Rising Rising Rising Rising, Falling,	45 50 57 65 70	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change	
Current- *measured in a cove	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM <i>cm/second</i>	- Rising Rising Rising Rising Rising Rising Rising Rising Rising History Falling, Unchanged	45 50 57 65 70 Height (cm)	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change (cm/min)	
Current- *measured in a cove Currents	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM <i>cm/second</i>	- Rising Rising Rising Rising Rising Rising Rising Rising Rising History Falling, Unchanged	45 50 57 65 70 Height (cm)	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change (cm/min)	
Current- *measured in a cove Currents Flow	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM <i>cm/second</i>	Rising Rising Rising Rising Rising Rising Rising, Falling, Unchanged Knots	45 50 57 65 70 Height (cm)	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change (cm/min) Ebb/Flood/Still	
Current- *measured in a cove Currents Flow 9:35 AM	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM <i>cm/second</i>	Rising Rising Rising Rising Rising Rising Rising, Falling, Unchanged Knots	45 50 57 65 70 Height (cm) North/South	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change (cm/min) Ebb/Flood/Still	
Current- *measured in a cove Currents Flow 9:35 AM 10:07 AM 10:35 AM	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM <i>cm/second</i>	Rising Rising Rising Rising Rising Rising Rising, Falling, Unchanged Knots 0.719 0.622	45 50 57 65 70 Height (cm) North/South South South	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change (cm/min) Ebb/Flood/Still Ebb Ebb	
Current- *measured in a cove Currents Flow 9:35 AM 10:07 AM 10:35 AM 12:02 PM	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM <i>cm/second</i> 37 32 18 13	Rising Rising Rising Rising Rising Rising Rising, Falling, Unchanged Knots 0.719 0.622 0.350 0.253	45 50 57 65 70 Height (cm) North/South South South South North	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change (cm/min) Ebb/Flood/Still Ebb Ebb Ebb Flood	
Current- *measured in a cove Currents Flow 9:35 AM 10:07 AM 10:35 AM	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM <i>cm/second</i> 37 32 18	Rising Rising Rising Rising Rising Rising Rising, Falling, Unchanged Knots 0.719 0.622 0.350 0.253 0.758	45 50 57 65 70 Height (cm) North/South South South South	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change (cm/min) Ebb/Flood/Still Ebb Ebb Ebb	Loaded or Light
Current- *measured in a cove Currents Flow 9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM Boats	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM <i>cm/second</i> 37 32 18 13 39 <i>Time</i>	Rising Rising Rising Rising Rising Rising Rising Rising, Falling, Unchanged Knots 0.719 0.622 0.350 0.253 0.758 Type	45 50 57 65 70 Height (cm) North/South South South South North North	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change (cm/min) Ebb/Flood/Still Ebb Ebb Ebb Flood Flood Flood North or South	
Current- *measured in a cove Currents Flow 9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM Boats Commercial	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM <i>cm/second</i> 37 32 18 13 39 <i>Time</i> 9:51 AM	Rising Rising Rising Rising Rising Rising Rising, Falling, Unchanged Knots 0.719 0.622 0.350 0.253 0.758	45 50 57 65 70 Height (cm) North/South South South South North North	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change (cm/min) Ebb/Flood/Still Ebb Ebb Flood Flood Flood North or South South	Light
Current- *measured in a cove Currents Flow 9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM Boats Commercial Recreational	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM <i>cm/second</i> 37 32 18 13 39 <i>Time</i> 9:51 AM 10:20 AM	Rising Rising Rising Rising Rising Rising Rising, Falling, Unchanged Knots 0.719 0.622 0.350 0.253 0.758 Type Tugboat	45 50 57 65 70 Height (cm) North/South South South South North North	cm/min) - 0.156 0.25 0.296 0.152 Rate of Change (cm/min) Ebb/Flood/Still Ebb Ebb Ebb Flood Flood North or South South North	Light Light
Current- *measured in a cove Currents Flow 9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM Boats Commercial Recreational Commercial	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM <i>cm/second</i> 37 32 18 13 39 <i>Time</i> 9:51 AM 10:20 AM 10:46 AM	Rising Rising Rising Rising Rising Rising Rising Rising, Falling, Unchanged Knots 0.719 0.622 0.350 0.253 0.758 Type	45 50 57 65 70 Height (cm) North/South South South South North North	cm/min) - 0.156 0.25 0.296 0.152 Rate of Change (cm/min) Ebb/Flood/Still Ebb Ebb Ebb Flood Flood North or South South North South	Light Light Light
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Current- *measured in a cove Currents Flow 9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM Boats Commercial Recreational Commercial Recreational Recreational	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM <i>cm/second</i> 37 32 18 13 39 <i>Time</i> 9:51 AM 10:20 AM 10:46 AM 10:51 AM 10:59 AM	Rising Rising Rising Rising Rising Rising Rising, Falling, Unchanged Knots 0.719 0.622 0.350 0.253 0.758 Type Tugboat Barge Sailboat	45 50 57 65 70 Height (cm) North/South South South South North North	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change (cm/min) Ebb/Flood/Still Ebb Ebb Ebb Flood Flood Flood North or South South North South North	Light Light Light Light Light Light Light
Current- *measured in a cove Currents Flow 9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM Boats Commercial Recreational Commercial Recreational	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM <i>cm/second</i> 37 32 18 13 39 <i>Time</i> 9:51 AM 10:20 AM 10:46 AM 10:51 AM	Rising Rising Rising Rising Rising Rising Rising, Falling, Unchanged Knots 0.719 0.622 0.350 0.253 0.758 Type Tugboat Barge	45 50 57 65 70 Height (cm) North/South South South South North North	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change (cm/min) Ebb/Flood/Still Ebb Ebb Ebb Flood Flood North or South South North South South	Light Light Light Light Light
Current- *measured in a cove Currents Flow 9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM Boats Commercial Recreational Commercial Recreational Recreational	9:35 AM 10:07 AM 10:35 AM 12:02 PM 12:35 PM <i>cm/second</i> 37 32 18 13 39 <i>Time</i> 9:51 AM 10:20 AM 10:46 AM 10:51 AM 10:59 AM	Rising Rising Rising Rising Rising Rising Rising, Falling, Unchanged Knots 0.719 0.622 0.350 0.253 0.758 Type Tugboat Barge Sailboat	45 50 57 65 70 Height (cm) North/South South South South North North	(cm/min) - 0.156 0.25 0.296 0.152 Rate of Change (cm/min) Ebb/Flood/Still Ebb Ebb Ebb Flood Flood Flood North or South South North South North	Light Light Light Light Light Light Light
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