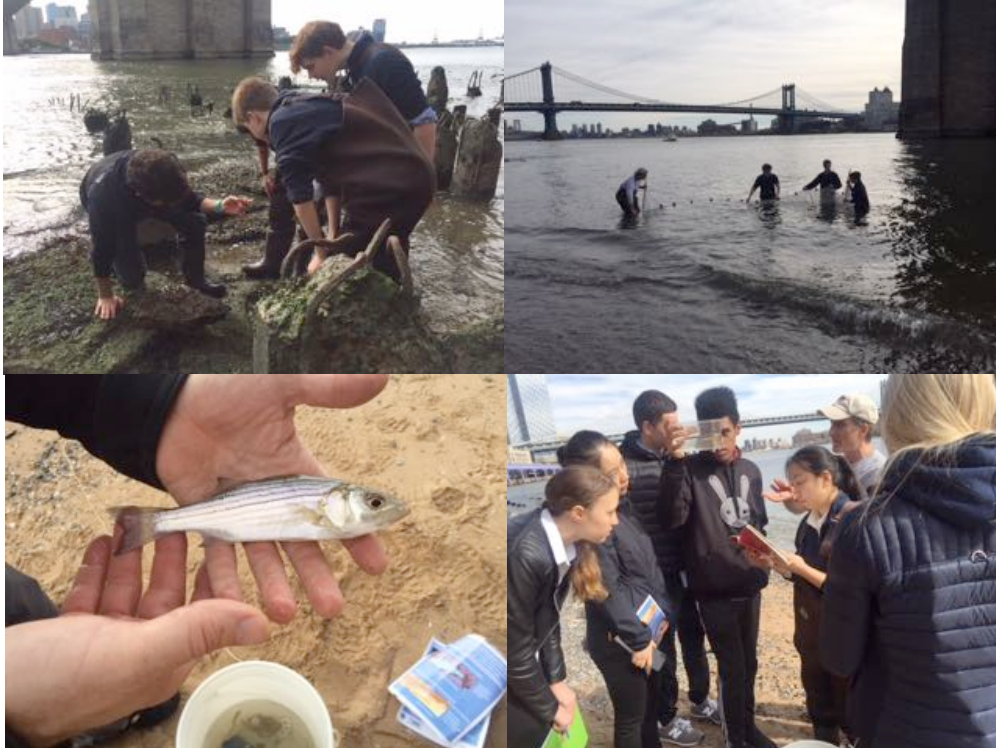


**Day in the Life of the Hudson River 10/16/18 Data  
 BROOLYN BRIDGE PARK (WEST), MANHATTAN  
 RIVER MILE: East River 2.3**

*Salt Front: ~RM 24*

**Leman Manhattan Preparatory School- Bill Livingston  
 60 students 10<sup>th</sup> -12<sup>th</sup> grade, 6 adults  
 BioBoat & BioBus- Mollie and James  
 Latitude 40.7076 N & Longitude – 73.99982 W**



**Location:** Brooklyn Promenade- Brooklyn Bridge, Manhattan, NY

**Area:** Beach under the Brooklyn Bridge- 125 feet north of Dover street, west side of the East river. Pier and path for recreational walking, jogging, bike riding, and fishing. Surrounding land is a sandy beach with water. Water used for fishing and boating; beach is open to the public but no swimming; lots of rocks and sand; near parking lot.

**Surrounding Land Use:** 60% Urban Residential; 30% Industrial/Commercial; 10% Beach

**Sampling Site:** Sandy, beach, covered in vegetation, pier; banks altered; bulkhead with timbers; debris in area such as broken concrete, docking; riprap; pipe entering river (south CSO ~40 meters- not visible).

**Water:** Choppy, 4 feet deep

**River Bottom:** Sandy, rocky (pebbles and stones)

**Plants:** 3% plants covering the water area: Irish moss and Gracela

<i><b>ITEM</b></i>	<i><b>Time</b></i>	<i><b>Reading</b></i>		<i><b>Comments</b></i>
<i><b>Physical</b></i>				
<i>Air Temperature:</i>	10:00 AM	13.1 ° C	55.5 ° F	
	11:00 AM	18.61 ° C	65.5 ° F	
<i>Wind Speed:</i>	10:00 AM	Beaufort: 4	South	
	11:00 AM	Beaufort: 3	East	
	1:00 PM	Beaufort: 2	East	
	2:00 PM	Beaufort: 3	Southwest	
<i>Weather Today:</i>	No Rain; Partly cloudy (26-50%)			
<i>Weather Previous:</i>				
<i><b>Water Temperature</b></i>	10:00 AM	17 ° C	62.6 ° F	
	11:00 AM	16 ° C	60.8 ° F	
	2:00 PM	14.9 ° C	58.82 ° F	
<i><b>Turbidity - Long site tube</b></i>	9:40 AM	Avg: 72.8 cm		
	10:20 AM	Avg: 68 cm		

	1:10 PM 1:50 PM	Avg: 100 cm Avg: 145 cm		
<b>Chemical</b>				
<i>Salinity- hydrometer</i>	9:40 AM 10:20 AM 1:30 PM 2:10 PM	28 ppt 19 ppt 18.5 ppt 17.7 ppt	<i>*Big adjustment between first and second reading; falling salinity with a rising tide is an interesting phenomena that may be due to a the excessive rain this fall.</i>	
<i>DO –</i>	<i>Time</i>	<i>Temp</i>	<i>ppm DO</i>	<i>% saturation</i>
	10:00 AM 1:50 PM 2:20 PM		7 7.2 7	80 70 68
<i>pH - pH strips</i>	9:40 AM 10:20 AM 1:30 PM 2:20 PM	8 7 7 7		
<i>Nitrates – Flinn/Lamotte Color Comparator Kits</i>	9:40 AM 10:20 AM 1:40 PM 2:20 PM	8.8 ppm 4.4 ppm 4.4 ppm 8.8 ppm		<i>* Bill noted teacher had double-checked the results but kits are low resolution. These readings are really high</i>
<i>Phosphates – Flinn/LaMotte Color Comparator Kits</i>	9:40 AM 10:20 AM 1:40 PM 2:20 PM	8.8 ppm 4.4 ppm 4.4 ppm 8.8 ppm		
<b>Fish – Seine</b> <i>Length of seine: 20’ Width of seine: 4’ Length of seine pull: 20’ Number of seines: 6</i>	<b>Number</b>	<b>Name</b>	<b>Length of longest</b>	
	26 9	Striped Bass Atlantic Silverside	18 cm 8.5 cm	
	<b>TOTAL: 35</b>	<b>Diversity: 2</b>		
<b>Macroinvertebrates-</b> <i>hand net in tide pool</i>	<b>Number</b>	<b>Name</b>	<b>Length of longest</b>	2 F, 3 M
	2 5 20+ Encrusting 50% of rocks	Hermit Crab Asian Crab Sand Shrimp Barnacles		
	<b>TOTAL: 27</b>	<b>Diversity: 4</b>		
<b>Tides-</b>	<b>Time</b>	<b>Rising, Falling, Still</b>	<b>Height (cm)</b>	<b>Rate of Tidal Change (cm/min)</b>
	9:40 AM 10:00 AM 10:40 AM 11:00 AM 1:40 PM	Falling Rising Rising Rising		- 0.05 0.0375 0.46 0.1238
<b>Current- *measured in a cove</b>	<b>cm/second</b>	<b>Rising, Falling, Unchanged</b>	<b>Height (cm)</b>	<b>Rate of Change (cm/min)</b>
<b>Currents Flow</b>	<b>Cm/second</b>	<b>Knots</b>	<b>North/South</b>	<b>Ebb/Flood/Still</b>
10:00 AM 10:20 AM 10:40 AM 1:30 PM 1:40 PM	7.2 12.1 3.8 8.6 19.2	0.140 0.235 0.074 0.167 0.373		