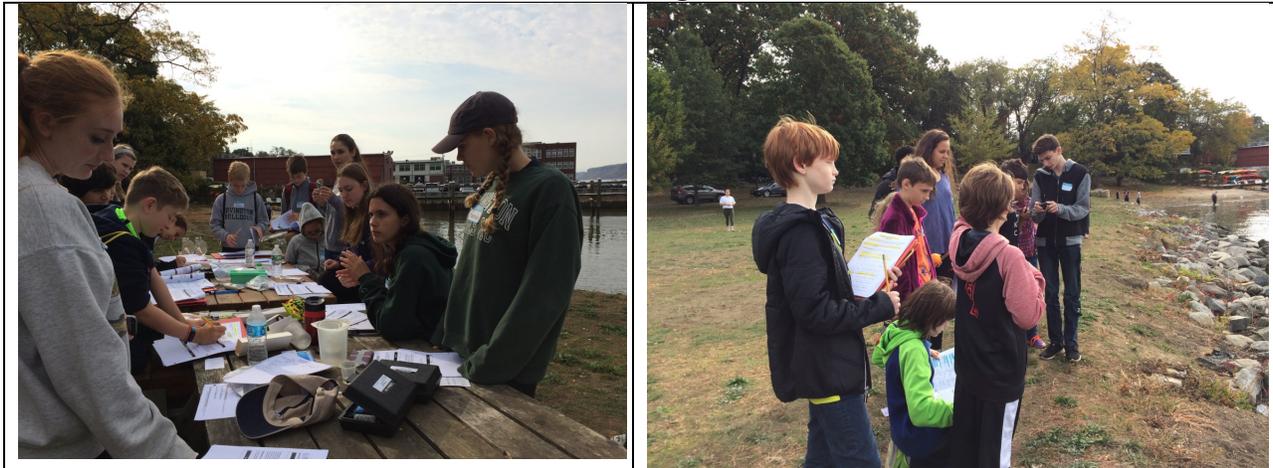


**Day in the Life of the Hudson River 10/20/16 Data  
(Salt Front ~ RM83)  
RIVER MILE 25E**

**Matthiessen Park, Irvington, NY  
Joanna Morabito, Irvington High School  
Amy Panitz and Karen Bodnar- Irvington Middle School  
200 students, 6<sup>th</sup> and 8<sup>th</sup> Grade  
Joanna Morabito- Irvington High School AP Environmental Science and Marine Science  
45 students, 11/12<sup>th</sup> graders  
Latitude 41° 2' 30" N Longitude 73° 52' 32" W**



**Sampling Site:** Matthiessen Park, Irvington NY

**Surrounding Land Use:** Pier, forested, grassy, parking lot used for recreation: boating, jogging, fishing, picnics, playground

**Area:** 60% recreation, 15% commercial/industrial, 5% urban/residential, 15% trees, 5% beach

**Shoreline:** Beach, banks altered, riprap, wood bulkhead, pipe entering the water, area covered in vegetation; sandy, muddy

**Plants:** 80% grass, 15 % trees (not forest), 5% flowers & bushes

**Water Depth:** varied; depth increased as the day progressed

**River Bottom:** muddy, sandy, rock

<b>Weather Conditions</b>	<b>Reading 1 and Time When Taken 9:00 AM</b>	<b>Reading 2 and Time When Taken 10:00 AM</b>	<b>Reading 3 and Time When Taken 11:00 AM</b>	<b>Reading 4 and Time When Taken 12:00 PM</b>
Air Temperature	16.24 C 61 F	18 C 64 F	19 C 66 F	21 C 69 F
Wind Speed	8 mph	10 mph	11 mph	11 mph
Cloud Cover	75 %	93%	70%	65%
Current Weather	Windy, brisk	Windy, brisk	Warmer, more sun	Warmer, more sun

Describe the recent weather over the past TWO days:

80 F- cooler in morning, much hotter in afternoon, sunny

<b>WATER CHEMISTRY</b>	<b>Reading 1 Time: 9:10 AM</b>	<b>Reading 2 Time: 11:05 AM</b>	<b>Reading 3 Time: 11:38 AM</b>	<b>Reading 4 Time: 12:20 PM</b>
Water Surface Temperature	17.5 C 63.5 F	22 C 71.6 F	22 C 71.6 F	21 C 69.8 F
Turbidity (Used Turbidity Tubes)	18.8 cm	24 cm	25.6 cm	19.2 cm
DO (tablet color match kit)	1 ppm	1 ppm	2.5 ppm	2 ppm
pH (tablet color match kit)	6.5	6.5	6.5	6
Salinity Meter	12 ppt	9 ppt	10 ppt	12 ppt

## **HIGH SCHOOL WATER CHEMISTRY TESTS**

**CHEMets Kits used for DO, Nitrate and Phosphate readings**

	<b>Reading 1 Time: 9:40 AM</b>	<b>Reading 2 Time: 10:48 AM</b>	<b>Reading 3 Time: 11:10 AM</b>	<b>Reading 4 Time: 11:42 AM</b>
DO	6 ppm	8 ppm	9 ppm	7 ppm
Nitrate	0 ppm	0 ppm	0 ppm	0 ppm
Phosphate	.5 ppm	.6 ppm	.5 ppm	.4 ppm
pH paper	8.5	8.1	8.4	8.1



Fishing		Species Caught		Number of each Species Caught	
<b>Fish Catch 1</b> <b>Time: 9:20 AM</b> <b>FISH DIVERSITY 2</b> <b>TOTALS 5</b>		<b>Atlantic Silverside</b> <b>Hogchoker</b> <hr/> <b>Crab</b>		<b>4</b> <b>1</b> <hr/> <b>2</b>	
<b>Fish Catch 2</b> <b>Time: 9:35 AM</b> <b>FISH DIVERSITY 2</b> <b>TOTALS 6</b>		<b>Striped Bass</b> <b>Atlantic Silverside</b> <hr/> <b>Crab</b>		<b>1</b> <b>5</b> <hr/> <b>1</b>	
<b>Fish Catch 3</b> <b>Time: 9:55 AM</b> <b>FISH DIVERSITY 3</b> <b>TOTALS 7</b>		<b>Striped Bass</b> <b>Atlantic Silverside</b> <b>Hogchoker</b>		<b>2</b> <b>3</b> <b>1</b>	
<b>Fish Catch 4</b> <b>Time: 10:10 AM</b> <b>FISH DIVERSITY 1</b> <b>TOTALS 2</b>		<b>Atlantic Silverside</b>		<b>2</b>	
<b>FISH DIVERSITY - 3</b> <b>TOTAL FISH</b> <b>CAUGHT -18</b>		<b>MACRO DIVERSITY 1</b> <b>TOTAL MACRO CAUGHT -</b> <b>3</b>			
<b>Currents</b>	Time of Reading	Length from Start to Finish line (cm)	Amount of time from Start to Finish	Rate (length/time)	Direction of Current
Reading 1	10:30 AM	1000 cm	2 min 30 sec	6.67 cm/sec	flood
Reading 2	10:45 AM	1000 cm	3 min 5 sec	5.41cm/sec	flood

Reading 3	11:47 AM	1000 cm	2 min 35 sec	6.45 cm/sec	flood
Reading 4	11:58 AM	1000 cm	2 min 49 sec	5.92 cm/sec	flood
<b>Tides</b> <i>Rising Tide</i>	<b>Reading 1 and Time</b> 9:25 AM	<b>Reading 2 and Time</b> 10:00 AM	<b>Reading 3 and Time</b> 10:27 AM	<b>Reading 4 and Time</b> 11:30 AM	
Right Side Stick	30 cm	38 cm	68 cm	93 cm	
Left Side Stick	22 cm	47 cm	63 cm	88 cm	

Sediment Core	Time core was taken	Rare components	Common components	Abundant components
Core 1	9:23 AM	glass	shells	Rock, sand
Core 2	10:27 AM		Rocks	Leaves, sand
Core 3	11:03 AM		Rocks, shells	Sand, rocks
Core 4	11:39 AM		Gravel	Rocks, sand

<b>River Traffic</b>	12:00 Noon	Sailboat	anchored	
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