

**A Day in the Life of the Hudson River 10/20/15 Data  
RIVER MILE 61W**

**Newburgh Rowing Club, Newburgh, Orange County  
Suparna Bhalla and Mount St. Mary's Students and faculty 51 total  
San Miguel Academy Middle School, 39 students 6<sup>th</sup> and 7<sup>th</sup> graders**



**Location:** Newburgh Rowing Club in Newburgh

**Area:** Pier and parking lot

**Surrounding Land Use:** 100% Industrial/commercial

**Shoreline:** 50% sandy and 50% rocky comprising 30% beach, 40% riprap and 30% wood bulkhead

**Water sampling area:** 100% sandy bottom

**Plants in water area:** none

**Water:** Choppy

<i>ITEM</i>	<i>Time</i>	<i>Reading 1</i>	<i>Reading 2</i>	<i>Comments</i>
<i>Physical</i>				
Air Temperature	1:00PM 2:00 PM 3:00 PM	19°C 22 23	Average 21.7°C	
Wind Speed				
Cloud Cover	Clear	<25%		
Weather today	No rain			
Weather recently	Cold frost at night			
<i>Water Temperature-Direct sun @ shoreline</i>	1:00 PM 2:00 PM 3:00 PM	17.3°C 17.1 17.5	Average 17.2°C	
<i>Water calm</i>	yes			
<i>Turbidity - Short site tube</i>	1-3PM	22 JTU		
<i>Conductivity</i>	1-3PM	0.74 ug/L		
<i>Chemical</i>				

DO meter	1-3:00 PM	10.11 ppm	17°C	108%
pH – meter	1-3PM	6.2		
Salinity - meter	1-3:00 PM	296 ppm	average	
Nitrate - meter	1-3PM	0 ppm		
Phosphate - meter	1-3PM	0.6 ppm		
<b><i>Fish Catch- 1-3 PM</i></b>	<b><i>Number – 45</i></b>	<b><i>Species – Spottail shiner</i></b>	<b><i>Length Lgst 5 cm</i></b>	<b><i>Diversity/Total Catch</i></b>
<i>5 hauls – DEC (large net)</i>	10	Tessellated Darter	2	<b>Diversity 9</b>
<i>4 hauls MSMC small net</i>	1	Carp	15	<b>Total Fish Catch 85</b>
<i>Results mixed</i>	3	Shad	9	
	6	Striped Bass	6	
	14	River Herring	9	
	4	White Perch	17	
	1	Hog Choker	2	
	1	Atlantic Silverside	NR	
<b><i>INVERTBRATES</i></b>	17	Blue Crab	NR	<b>Total Diversity 1 Total Count 1</b>
<b><i>Tides</i></b>				
<b><i>Currents</i></b>	1:00 - 3:00PM	4.76 cm/s	average	

## Biotic Index score

- Total biotic 'value'/N
- Each taxa (group of organisms) assigned a 'biotic index' value
  - BI multiplied by count of taxa
  - Caddisflies (n=2) \* BI (2)
  - Dobsonflies & other beetles (n=12)\* BI (4)
  - Beetle larvae (n=14) \* BI (5)
  - Decapods (crabs) (n=2) \* BI (6)
  - Scuds (Amphipods; n=51) \* BI (7)
  - Aquatic worms (n=3) \* BI (9)
- =518/84=6.17
- 'moderately impacted': range: 5.15-7 BI score
- Total samples collected: 10