

Day in the Life of the Hudson River 10/22/19

TIVOLI SOUTH BAY

RIVER MILE: 98

Salt Front: ~ RM 53

Red Hook High School- Deborah Beam

39 students 11-12th grade, 2 adults

Bard College- Marco Spodek, Lindsey Drew, 2 students

Latitude 42.01811 N & Longitude – 73.91701 W



Location: Tivoli South Bay, Bard College Fish Station, Annandale on Hudson, Dutchess County, NY

Area: Embayment, between mouth of Saw Kill and Blithewood Manor. Forested, used for boating, picnics, fishing, jogging.

Surrounding Land Use: 90% Forested, 10% Urban/Residential

Sampling Site: Mud flats, muddy and rocky, covered in vegetation, large rocks

Shoreline: 50% Muddy, 50% Rocky

River Bottom: muddy and rocky

Water: 12 cm, calm

Plants in water: no plants in water area

<i>ITEM</i>	<i>Time</i>	<i>Reading</i>		<i>Comments</i>
Physical				
<i>Air Temperature</i>	10:51 AM	56 ° F	13.3 ° C	
	11:10 AM	55 ° F	12.8 ° C	
	12:15 PM	55 ° F	12.8 ° C	
<i>Wind Speed:</i>	11:08 AM	Beaufort 1	North	
<i>Weather today</i>	10AM Over (100%). Rained 0.68 inches			
<i>Weather past 3 days:</i>	Rain cold			
<i>Tides- tide stick</i>	<i>Time</i>	<i>Rising, Falling, Unchanged</i>	<i>Water Height (cm)</i>	<i>Rate of Tidal Change (cm/min)</i>
	NR			
<i>Current-</i>	<i>Time</i>	<i>cm/second, Knots</i>		<i>North/South</i>
	10:30 AM	44.6 cm/s, .87 knots		South
	11:00 AM	48.3 cm/s, .94 knots		South
<i>Water Temperature-</i>	NA			
<i>Turbidity- long sight tube</i>	12:17 PM	114 cm, 60.4 cm, 117.8 cm, Avg: 97.4 cm		
Chemical				
<i>Salinity-</i>	NA			
<i>DO – drop count</i>	<i>Time</i>	<i>Temp</i>	<i>ppm DO</i>	<i>% saturation</i>
	10:36 AM	10.9	11	100
	11:15 AM	11.2	10	90

	12:08 PM 12:28 PM	11.7 12	9 12	83 110
<i>pH – color match kit</i>	10:36 AM 11:15 AM 12:28 PM	7.4, 7.4, 7.5 7.1, 7.1, 7.1 7.0, 7.0, 7.0		
Biological				
Fish	Number	Name	Length of longest	Notes
Kicknet	1	American eel (elver)	25 cm	
Seine	1	Brown bullhead	43 cm	
Seine	6	Goldfish	10 cm	
Seine	11	Banded Killifish	13 cm	
Seine	2	Smallmouth bass	juvenile not measured	
Fish Totals	TOTAL: 21	Diversity: 5		
Macroinvertebrates	Number	Name	Length of longest	
Kicknet	1	Dobsonfly Larva	3 cm	
	2	Riffle Beetle		
	1	Caddisfly Larva		
	1	Snails		
	1	Dragonfly Nymph		
	2	Crayfish		
	1	Sowbug		
Macroinvertebrate Totals	TOTAL: 3	Diversity: 1		
Sediment Core	Time	Oxidized Top	Grain Size	Other Features
2 ft water depth	9:00AM	Yes	Abundant: clay, mud Rare: Sand, gravel, pebbles	Rare: leaves, oyster shells, brick
Boats	Time	Name/Color	North/South	Loaded/Light
Recreational	11:30 AM	Rec. Boat, white	South	Light
Observations	Dead Carp fish, leaves, tree in water, acorns, cormorants, gray squirrel, bald eagle, yellow jackets, water chestnut seeds, eagle flew overhead, heard blue jays			