

Day in the Life of the Hudson River 10/05/2023

Alpine Boat Basin, Alpine, NJ

RIVER MILE: 19

Salt Front: ~ 52

Pascack Hills High School-Natalie Macke

29 students, 11th-12th grade, 2 adults

Latitude 40.94793°N & Longitude -73.91847°W

Location: North end of the Alpine Boat Basin, adjacent to a sandy beach area.

Surrounding Land Use: 75% Forested, 10% Man made Sandy Beach, 15% recreationally developed pier and park area

Sampling Site: Sandy beach, banks altered, rip rap, bulkhead, pier, concrete

Shoreline: NR

Water: NR

River Bottom: NR

Plants in the water: NR

*NR = Not read/recorded

<i>ITEM</i>	<i>Time</i>	<i>Reading</i>		<i>Comments</i>	
Physical					
<i>Air Temperature</i>	9:48 AM	21.5°C	70.7°F		
	10:31 AM	22°C	71.6°F		
	10:33 AM	21°C	69.8°F		
	10:34 AM	24°C	75.2°F		
<i>Wind Speed:</i>	10:31 AM	<i>Anemometer</i> 1 m/s	<i>Beaufort</i>	<i>Direction</i> Southwest	
<i>Weather today</i>	9:33 AM	<25% Cloud Cover	No Rain		
<i>Weather the past 3 days:</i>	Clear, warmer temperatures				
<i>Tides- NR</i>	<i>Time</i>	<i>Rising, Falling, Unchanged</i>		<i>Height (cm)</i>	
<i>Current-</i>	<i>Time</i>	<i>Cm/sec</i>	<i>Knots</i>	<i>North/South</i>	<i>Ebb/Flood/Slack</i>
	9:25 AM	30.65	0.6		Ebb
	9:30 AM	23.83	0.46		Ebb
	9:44 AM	25.64	0.4989		Ebb
<i>Water Temperature-</i>	10:26 AM	24.5°C 23.2°C	76.1°F 73.8°F		
<i>Turbidity- Long Sight Tube (120 cm)</i>	9:24 AM	31.73 cm			
Chemical					
<i>Standardized Salinity- High Range Quantabs 7.6 QT unit</i>	9:39 AM	5,588 ppm total salinity	5.6 ppt TS	3093 ppm Cl-	
<i>Student Salinity- Refractometer</i>	9:28 AM	5,000 ppm	5 ppt		
	10:08 AM	6,300 ppm	6.3 ppt		
	10:15 AM	4,667 ppm	4.667 ppt		
<i>DO – Meter/Probe</i>	<i>Time</i>	<i>Temp</i>	<i>ppm DO</i>	<i>% saturation</i>	
	9:26 AM	20.9°C	7.86	87.4%	
	9:33 AM	20.9°C	7.83	90.1%	
	9:38 AM	20.9°C	8.35	91%	
	10:14 AM	22.8°C	8.70	97.5%	
<i>pH – Meter</i>	10:33 AM	6.83* pretty low reading for this area			
<i>Nitrates- Hach Test Kit Tablets</i>	9:37 AM	6.3 ppm * pretty high reading			
<i>Phosphates- Lamotte Test Kit</i>	9:50 AM	5.3 ppm * pretty high reading			

<i>Fish-Seine</i>	<i>Number</i>	<i>Name</i>	<i>Length of longest</i>	<i>Notes</i>		
9:00 AM-10:00 AM	1	Summer Flounder	4 cm			
	4	White Perch	20 cm			
	4	Hogchoker	4 cm			
	15	Atlantic Silverside	5 cm			
	1	Striped Bass	4 cm			
	1	American Eel	8 cm			
Fish Totals	TOTAL: 26	Diversity: 6				
<i>Macroinvertebrates</i>	<i>Number</i>	<i>Name</i>	<i>Length of longest</i>			
	3	Blue Crab				
Macroinvertebrate Totals	TOTAL: 3	Diversity: 1				
<i>Sediment Core</i>	<i>Time</i>	<i>Oxid Top</i>	<i>H₂S Smell</i>	<i>Oil</i>	<i>Grain Size</i>	<i>Other Features</i>
9 cm	9:39 AM	No	No	No	Abundant: Sand Rare: Mud	

Boats					
Commercial/ Recreational	Time	Type	Color	Southbound/ Northbound	Light/ Loaded
Commercial	9:47		Black	Southbound	Loaded
Commercial	9:47		Orange	Northbound	Loaded