

Day in the Life of the Hudson River 10/22/19 Data
ALPINE BOAT BASIN, ALPINE NJ
RIVER MILE: 19
Salt Front: ~RM 53
Pascack Hills HS - Natalie Macke
20 students 11 & 12th grade, 2 adults
Palisades Interstate Park Commission Ranger staff
Latitude 40.9458 N & Longitude – 73.9183 W

Location: Alpine Boat Basin, Alpine, NJ

Area: North end of the Alpine Boat Basin, adjacent to a sandy beach area. Pier, forested, parking lot, used for picnics, boats, fishing and education programs

Surrounding Land Use: 50% Forested (at the foot of the Palisades) 25% Man-made Sandy Beach; 25% recreationally developed pier and park area.

Sampling Site: Sandy beach, banks altered, riprap, bulkhead, pier, concrete, brick, charcoal

Water: calm

Plants in area: no plants in water area

River Bottom: sandy, muddy some rocks

<i>ITEM</i>	<i>Time</i>	<i>Reading</i>		<i>Comments</i>
Physical -				
<i>Air Temperature:</i>	9:40 AM 10:20 AM	13.8 ° C 13.2 ° C	56.8 ° F 55.7 ° F	
<i>Wind Speed:</i>	10:20 AM	Beaufort 2 Chart 3-6 mph	Anem. 8.0 mph	NE
<i>Water –</i>	Calm			
<i>Weather Today:</i>	Overcast, misty wet			
<i>Weather Previous:</i>	N/R			
<i>Water Temperature</i>	10:08 AM	15.8 ° C 15.9 ° C 15.9 ° C	60.5 ° F 60.5 ° F 60.5 ° F	<i>Average</i> 15.86 ° C 60.5 ° F
	10:21 AM	15.1 ° C 15.6 ° C 15.7 ° C	60.2 ° F 58.2 ° F 60.2 ° F	15.47 ° C 59.53 ° F
<i>Turbidity - turbidimeter (ntu) and cm conversion</i>	10:00 AM	185 ntu 205 ntu 170 ntu	<i>Average</i> 186.67 ntu	<i>Average Converted</i> 7-8 cm
<i>Chemical</i>				
<i>Salinity- Refractometer</i>	10:00 AM	10 ppt 10 ppt 15 ppt	<i>Average 11.67 ppt</i>	

<i>DO – Drop Count Kit</i>		<i>Time</i>	<i>Temp</i>	<i>ppm DO</i>	<i>% saturation</i>
		10:00 AM	15.8 ° C	*2 ppm very low??	19%
<i>pH -pasco Probe</i>		10:10 AM	7.2 7.6 75	<i>Average</i>	7.42
<i>Nitrates – test tabs – (Low resolution kit)</i>		9:55 AM	5 ppm X 3	<i>Average</i>	5.0 ppm
<i>Phosphates – Lamotte kit</i>		10:00 AM	0.4 X3	<i>Average</i>	0.4 ppm
<i>Fish – seine 10:00 AM</i>		<i>Number</i>	<i>Name</i>	<i>Length longest</i>	
		2 1 12	Summer Flounder Menhaden Atlantic Silverside	15 cm 7 cm 4 cm	
		TOTAL: 15	Diversity: 3		
<i>Macroinvertebrates- Seine</i>		<i>Number</i>	<i>Name</i>	<i>Length longest</i>	
		17 8	Blue Crab Grass Shrimp	7 cm 1.5 cm	
		TOTAL: 25	Diversity: 2		
<i>Tides- measuring down from pier</i>		<i>Time</i>	<i>Rising, Falling, Still</i>	<i>Height (cm)</i>	<i>Rate of Change (cm/sec)</i>
		9:50 AM 10:00 AM 10:10 AM 10:20 AM	Falling Falling Falling Falling	7.5 cm 7.9 cm 8.2 cm 8.8 cm	0.04 cm/min 0.03 cm/min 0.06 cm/min
<i>Currents</i>	<i>Cm/30 secs</i>	<i>Cm/second</i>	<i>Knots</i>	<i>North/ South</i>	<i>Ebb/Flood/Still</i>
9:55 AM 10:15 AM	792.48 853.44	26.416 28.448	0.51 0.55	North North	Ebb Ebb
<i>Boats</i>		<i>Name</i>	<i>North/ South</i>	<i>Loaded or Light</i>	
Recreational Recreational		No name No name	South South	Light Light (limited cargo)	