

Day in the Life of the Hudson River 10/13/22

Hoboken Cove, NJ

RIVER MILE: 0.6

Salt Front: ~ RM 76



Resilience Adventures and Union City High School (11th grade)– Noelle Thurlow

14 students & 7 adults

Latitude 40.7484°N & Longitude – 74.0240°W



Location: Hoboken Cove, NJ

Area: The sandy section of the beach of Hoboken Cove

Surrounding Land Use: 90% Urban/Residential; 5% Forested; 5% Beach

Sampling Site: Pier, beach, wood bulkhead, RipRap (large rocks)

Shoreline: 30% Sandy; 70% Rocky

Water: Choppy

River Bottom: Muddy

Plants in area: 5% Sea Lettuce; 5% Sour Weeds

*NR = Not read/recorded

<i>ITEM</i>	<i>Time</i>	<i>Reading</i>		<i>Comments</i>
<i>Physical</i>				
<i>Air Temperature-</i>	9:45 AM 10:00 AM 11:00 AM	19°C 19.5°C 20°C	66°F 67°F 68°F	
<i>Wind Speed:</i>	11:00 AM	<i>Anemometer</i> 12 knots	<i>Beaufort</i> 4	<i>Direction</i> S/SE
<i>Weather today</i>	9:45 AM	>75% cloud cover	Light intermittent drizzle	

Weather the past 3 days:	Warm and sunny then became overcast on Wednesday				
Tides-	Time	Rising, Falling, Unchanged		Water Height (cm)	
	9:00 AM- 10:00 AM 11:00 AM	Rising Slack		NR	
Current-	Time	Cm/sec	Knots	North/South	Ebb/Flood/Still
	8:00 AM 9:00 AM 10:00 AM 11:00 AM	NR	NR	NR	Flood Flood Flood Flood/Still
Water Temperature-	9:54 AM 10:33 AM 10:38 AM	19°C 19°C 19°C		65°F 65°F 65°F	
Turbidity- Secchi Disk (cm)	9:53 AM 10:34 AM	46 cm 74 cm			
Chemical					
Salinity-Hydrometer	10:00 AM 10:01 AM 10:02 AM 10:50 AM	18 ppt 20 ppt 18 ppt 19 ppt			
Standardized Salinity – Refractometer	10:00 AM	18,000 ppm			
DO – Chemets Kit	Time	Temp	ppm DO	% saturation	
	10:08 AM 10:11 AM 10:14 AM 10:52 AM	19°C 19°C 19°C 19°C	9 ppm 7 ppm 7 ppm 7 ppm	95% 75% 75% 75%	
pH – Color Match Kit	10:24 AM 10:26 AM 10:28 AM	7 7 7			
Nitrates-	10:44 AM	5 ppm			
Phosphates-	10:41 AM	1 ppm			
Alkalinity- NR					
Biological-					
Fish – Seine Net, Crab Trap and Fish Trap, Hand Nets, Oyster Habitat Unit	Number	Name	Length of longest	Length of smallest	
9:30-11:30 AM	1 3	*Oyster Toadfish Atlantic Silverside	25 cm 7.62 cm	*caught in seine 5.08 cm	
Fish Totals	TOTAL:4	Diversity: 2			
Macroinvertebrates	Number	Name	Length of longest	Length of smallest	
	100 90 200	Sea Squirt Eastern Mud Snail Barnacles, Northern Rock	3 cm 2 cm 1 cm	0.5 cm 1.5 cm 0.5 cm	
	3 3 1 1 8	Isopods Amphipod Blue Crab (M) Harris Mud Crab Lacy Bryozoan	0.5 cm 0.5 cm 20 cm 1 cm 5 cm	0.1 cm 0.1 cm - - 2 cm	

Macroinvertebrate Totals	TOTAL: 406	Diversity:8			
<i>Sediment Core -</i>					
Length	H2S smell	Oxid Top	Oil	Grain Size	Other Features
26 cm	No	No	No	Abundant: sand Common: mud Rare: clay, gravel	Common: shells, macroinvertebrates Rare: leaves, wood, living vegetation, brick
<i>Boats-</i>					
	Time	Name	Color	North/Southbound	Light/Loaded
Commercial	9:46 AM 9:47 AM 9:54 AM	Queen Ann Frank Sinatra NYC Police Boat	Green Yellow/ White NR	Southbound Northbound Northbound	Loaded Loaded NR
Recreational-N/A					