

**Day in the Life of the Hudson River 10/20/15 Data
(Salt Front ~ RM 80)**

RIVER MILE 30.4 – Nyack Beach Hook Mountain State Park

Peter Park, Nyack College, 6 students, 7 adults

Nancy Arias & Jillian Decker, Rockland Community College, 4 students, 6 adults

41°07'10.85"N 73°54'45.40"W



Location: Nyack South Beach, Upper Nyack, Rockland County NY

Area: Park/Boat launch, near Hook Mountain Sandy Beach by the large sitting stairs,

Surrounding Land Use: 40% forested, 10% industrial/commercial, 40% beach – used for recreation & picnics

Sampling Site: Beach – sandy and rocky at edges, muddy offshore, covered with vegetation beyond the beach, stone wall, riprap shore, collected wood debris.

Piping coming into river south of sampling site

Water depth:

River Bottom –sandy inshore (<3 ft depth) muddy offshore (>3 ft. depth), some scattered large rocks (<2 ft. length inshore)

Plants: None growing in area but water celery came up in the seine net



<i>ITEM</i>	<i>Time</i>	<i>Reading 1</i>	<i>Reading 2</i>	<i>Comments</i>
<i>Physical</i>				
Air Temperature	10:28 AM	18.3°C	65°F	
	10:36 AM	18.9-19.4°C	66-67°F	
	10:56 AM	18.3°C	65°F	
Wind Speed				N
Cloud Cover	overcast			
Weather today	No rain			
Weather last 3	Warm and			

Water Temperature	10:28 AM 10:36 AM 10:56 AM	20-20.6°C 18.9-19.4°C 20°C	68-69°F 66-67°F 68°F	
Turbidity – Long site tube	NR			
Chemical				
DO <i>Drop count</i>	11:20 AM	10 ppm		
pH <i>Colormetric kit</i>	NR			
Salinity - refractometer	9:18AM 9:55AM	11 ppt		
Fish Catch 9:30-11:30		Number Caught	Species	Latin Name
Seine 20 ft. 6 Hauls		9	Atlantic Silverside	Menidia menidia
		2	Striped Bass	Morone saxatilis
Fish Diversity 6		18	Northern Pipefish	Synanathus fuscus
Total Catch 36		2	White Perch	Morone americana
		4	Bay Anchovy	Anchog mitchilli
		1	Banded Killifish	Fundulus diaphanus
MACROINVERT		1	Clamworm (Sandworm)	<i>Nereis</i> sp.
DIVERSITY = 5 plus shells		Too numerous to count	Blue Crab	<i>Callinectes sapidus</i>
TOTALS = Too numerous to count	(nearly double sand shrimp)	Too numerous to count but	Shore Shrimp	<i>Palaemonetes</i> spp.
		Too numerous to count	Sand Shrimp	<i>Crangon septemspinosa</i>
		1	Dragonfly nymph	<i>Odenata</i>
			Shells of hard clam	<i>Mercenaria mercenaria</i>
Tides	Time	Change in Time	Change in Height	Rate of change Flood/Ebb
	9:26 - 9:55 AM	29 mins	18 mm ↑	0.62mm/min Flood
	9:55-10:21 AM	27 mins	15 mm ↑	0.56mm/min Flood

	AM			Flood
Currents				
Distance Travelled	Time	Distance from Shore	Current Speed (cm/s)	Flood/Ebb
78.74 cm	30 sec	15 ft.	2.62 cm/s	Flood
457.2 cm	30 sec	20 ft	15.24 cm/s	Flood
147.32 cm	30 sec	40 ft	1.93 cm/s	Flood
106.68 cm	30 sec	55 ft	1.4 cm/s	Flood
71.12 cm	30 sec	90 ft	0.93 cm/s	Flood
Observations	Grey moth ~1 inch antero-posterior length Male monarch butterfly ~2 inch antero-posterior length			

FISH CATCH IMAGES:

Northern Pipefish & Atlantic Silversides



White Perch & Striped Bass



Bay Anchovy & Banded Killifish



Hard Clam Shell & Blue Crab



Sand Shrimp & Shore Shrimp

