Snapshot Day 10/14/10
(Salt Front RM 36.0
RIVER MILE 58
Kowawese Unique Area, Plum Point, New Windsor, Orange County, NY
Judy Onufer & Pam Golben Museum of the Hudson Highlands
Dr. Bhalla and Mt. St. Mary's College Students
Bernadette Kleister, Bishop Dunn Memorial School - 7th grade – 35 students
GPS Latitude 41°27'44"N Longitude 74°00'41"W

The waterfront at Kowawese

The female blue crab (5 inch carapace)

Location: Sandy beach at Kowawese, New Windsor, Orange County, Public Shore, Picnic Area
Area: Sandy beach with scattered tidal debris, forested above beach to South, grass and trees and picnic area to North. Rip Rap, broken wood in boat launch area. Parking above beach area. No swimming. People fish and launch boats here.
Surrounding Land Use: Forested 25%, beach 50%, Urban/residential 25%
Sampling Site: sandy beach (cove), rip rap in area of sampling site, Much wood washed up on beach.
Plants in area: < 50%of sampling area – 75% of plants Water celery – sporadic not dense; 25% - other vegetation.
Other trees in area – mostly wooded – oak, tulip, poplar and maple.
Water depth: <1 meter; Ebb tide
River Bottom –Mostly mud/sand with a few larger rocks.

ITEM	***Time***	***Reading 1***	***Reading 2***	***Comments***
Physical				
Air Temperature	10:30 AM	11°C 52°F		
Wind Speed	0 - calm			
Cloud Cover	Partly cloudy		Weather became overcast by 12:30 PM	
Weather today	Sunny 60s			
Weather recently	rained previous day			
Water Surface	calm			

Water Temperature	9:30 AM	59.9 ° F 15.5 °C		
	10:10 AM	60.3° F 15.7°C		
	11:45 AM	64.6° F 18.1°C		
	12:25 PM	65.3° F 18.5°C		
Water Calm	yes			
Turbidity *Short sight tube*	9:30 AM	20 JTU 40 50 40		37.5 JTU avg.
Chlorophyll	9:15 AM	0.1		
Chemical				
DO (drop kit)	TIME	Temp	DO	% Sat
DO trended upward over the study period.	9:30 AM	15.5 °C	7	69
	10:10 AM	15.7	8	80
	11:45 AM	18.1	9	93
	12:25 PM	18.5	9.3	98
pH - meter	9:30 AM	6.8 6.7 7.0 6.0		6.6 average
Salinity - meter	**TIME**	**Conductivity/ mS/cm**	**ppm Cl-**	**ppm Total Salinity**
Fluctuated over the study period although highest salinity was measured at the time of low tide counter to what would be anticipated if salt values were due to tidal action	9:30 AM	250	29 ppm	52 ppm
	10:10 AM	272	38 ppm	69 ppm
	11:45 AM	300	68 ppm	123 ppm
	12:25 PM	272	38 ppm	69 ppm
Fish Catch 35 ‘ X 3 ‘ with ¼ inch mesh	***Time***	***Species***	*#*	***Size of largest (inches)***
	9:30 AM X 2 pulls	White Perch	1	*3*
		Tesselated Darter	1	2.5
		Herring	20	2.5
		Blue Crab - F	1	5

		Blue Crab – M	1	0.5
	10:15 AM X 3 pulls	Eel	1	**4**
		Striped Bass	4	2
		Banded Killifish	1	1
		Spottail Shiner	1	2.5
		White Perch	5	5
		Tesselated Darter	1	2.5
		Herring	14	2
		Blue Crab - F	3	5
		Blue Crab – M	2	0.5
	11:45 AM 1 pull	Striped Bass	2	2
		Spottail Shiner	4	2
		Herring	20	2.5
		Gizzard Shad	1	6
	12:30 PM – 2 pulls	Killifish	1	3
		Spottail Shiner	3	2.5
		Herring	27	2.7
Tides	**Time**	**Height in cm**	**Rate of change**	**Rising/falling**
	8:32 AM	33 cm		
	9:13 AM	25 cm		Falling
	9:35 AM	20 cm		Falling
	10:07 AM	15 cm		Falling
	11:38 AM	11 cm		Falling
Currents	Very little	Water very quiet and still		
Core	5 cm	3 cm top – sandy/pebbly	2 cm lower - clay-like – sulfur odor	
Traffic				
Other	We had an outstanding day! In addition to the experience of collecting research data at Kowawese Unique Area, Mrs. Kleister's 7th grade science class had the added bonus of working with Dr. Bhalla and her students from Mt. St. Mary College. They used Vernier probes to check measurements of pH, conductivity for salinity assessment and temperature. We were also visited by staff members from the DEC who arrived by boat with tagged blue crabs being readied for release.			