

September 14, 2013

On Saturday, September 14, volunteers with the Bayshore Regional Watershed Council, an all-volunteer environmental group dedicated to restoring Raritan Bay & Sandy Hook Bay, and members of the public participated in a hands-on program using seine nets to discover the diversity of aquatic life that call our local waters home.

The goal was to estimate the seasonal abundance and distribution of fish, crabs, and other estuarine species that use the near shore waters of the bay as feeding and/or nursery areas. In the past, volunteers have found a good assortment of local crabs and fish that people were able to see up close and touch.

Similar to the previous spring seining event last June following Super-storm Sandy, this fall event presented less diversity of fish species compared to previous years. Not encountered in the seine net were characteristic estuarine species including Blackfish, Windowpane Flounders, Scups, Shorthorn Sculpins, or juvenile members of the herring family. These were species of fish that were at least found to some degree during previous fall seine events.

The lack of diversity of fish is perhaps due to the effects from Super-storm Sandy in October 2012, which changed the structure of the benthos in many sites around the bay to make it more undulating. In addition, recent dredging and beach replacement activities during the spring and summer most likely played a factor in disturbing fish distribution.

Nevertheless, a good variety of juvenile of fish were found at most sites along the bay including a young Mullet (either White or Striped), several juvenile Black Drums, Northern Pipefish, Weakfish, and scores of young Northern Kingfish. This bodes well for the future.

Four sites were investigated along the Bayshore: Cliffwood Beach in Aberdeen Township, the eastern end of Conaskonck Point in Union Beach, near the mouth of Pews Creek in Port Monmouth, and near the mouth of Many Mind Creek in Atlantic Highlands. The seining event started at dead low tide and concluded at flood tide.

Bayshore Watershed members used a 50-foot beach seine net to humanely catch and release these unique critters. The captured fish were put into water-filled buckets, where they were observed by the public before being returned to the sea.

Approximately, two seine hauls were completed at each site with about a 20 minute interval between hauls, which allowed for the water to calm down and repopulation of the seine area. All fish were photographed, identified to species and counted. Fish from the first seine were kept alive in buckets to avoid recapture until the second haul was completed, when they were released. Every effort was made to return fish unharmed. Watershed members will also collect water temperature and turbidity information; and document the tidal stage, and note the aquatic vegetation in the area.

The results of seining activities for each site is listed below.

10:00am: Aberdeen Township/Cliffwood Beach

Water Temperature: 70 degrees F.

Weather: Clear, cool, and sunny. Winds north at 5-10mph. Air temperature in the 60s.

Water quality was very turbid

Low Tide

70 Hermit Crabs (one without a shell)

35 Shore Shrimp

15 Bay Anchovies

10 Mud Snails

2 Salps

2 juvenile Black Drums

2 three-inch Weakfish (YOY - young-of-the -year)

2 three-inch male Blue-Claw Crabs

1 four-inch female Blue-claw Crab

1 juvenile Pipefish

12 noon: Union Beach/Conaskonck Point

Water Temperature: 72 degrees F.

Water Quality was less turbid than Cliffwood Beach

Incoming Tide

300 Hermit Crabs

5 Bay Anchovies

1 juvenile Spider Crab

1 Silverside

2:00pm: Middletown Township/Port Monmouth

Water Temperature: 70 degrees F.

Water Quality was turbid

Weather: More cloudy and windy than in the morning. Winds north gusting up to 15 mph.

Incoming Tide

500+ Bay Anchovies

56 Hermit Crab

17 Comb Jellies

6 Beach Hoppers

4 Adult Lady Crabs (1 female & 3 males)

4 juvenile Kingfish

1 juvenile Mullet (white or Striped?)

3:30pm: Atlantic Highlands/Mouth of Many Mind Creek

Water Temperature: 68 degrees F.

Water Quality was turbid

Weather: Partly cloudy and windy . Winds north gusting up to 15 mph.

High Tide

100+ Shore Shrimp

48 Hermit Crabs

13 Silversides

9 Beach Hoppers

9 Comb Jellies

5 juvenile Pipefish

3 juvenile Kingfish

2 Mummichogs

2 YOY species unidentified

1 female Blue-claw Crab