

What's Living in Raritan-Sandy Hook Bays?

Ever wondered what's swimming in Raritan Bay or Sandy Hook Bay? It's amazing what you can discover just by pulling a long net through the water.

On Sunday, September 28, 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 a seine net to discover the diversity of aquatic life in local waters.

This was the fourth annual late summer seining survey conducted by watershed members. 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.

Watershed members were citizen scientists. Volunteers sampled four sites along the bay (west to east), and made two to three hauls at each site with a 50-foot seine net on a mostly outgoing tide. All fishes, crabs, and other aquatic creatures caught in the net were identified, measured, and cataloged; and returned to the water.

Similar to the seining survey event last June, the fall event presented a good diversity of fish species. High on the aquatic food chain was found a good abundance of juvenile Bluefish or snappers, juvenile Kingfish, juvenile Blackfish, and juvenile Winter Flounder, and a number of young-of-the-year (YOY) fish, which were given birth to this summer, illustrating the importance of the estuary as a vital nursery for popular game fish.

Near the bottom of the food chain watershed members also found a good diversity of life, which bigger fish depend on for food and subsistence. There were large schools of Atlantic Silversides, Bay Anchovies, Hermit Crabs, Shore Shrimp, Killifish, and Mud Snails.

These findings bode well for future biodiversity of the estuary if water quality continues to improve, open space and parklands expand around the watershed region, and the protection and restoration of wetlands increases all-around New York Harbor in both New York and New Jersey.

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

Weather: Partly Sunny and warm, with high temperatures in the mid 80s. Winds light from the southwest.

10:00am: Aberdeen Township/Cliffwood Beach

Water Temperature: 71 degrees F.

Turbidity: Clear up to five feet

Salinity: 23 ppt

High Tide

100+ Salps
100+ Hermit Crabs
50+ Atlantic Silversides
50+ Shore Shrimp
5+ Mud Snails
3 Amphipods
1 juvenile Bluefish
1 juvenile Winter Flounder
1 juvenile Blue-claw Crab

12 noon: Union Beach/Conaskonck Point

Water Temperature: 70 degrees F.
Turbidity: Up to 3-feet, slightly more cloudy than Cliffwood Beach
Salinity: 22 ppt
Outgoing Tide

100+ Atlantic Silversides
50+ Hermit Crabs (including one without a shell)
25+ Bay Anchovies
25+ juvenile Bluefish
10+ juvenile Kingfish (the largest fish was 8.5 inches long)
5+ Mud Snails
5+ Shore Shrimp
3 juvenile Winter Flounder
1 Mole Crab

2:00pm: Middletown Township/Port Monmouth

Water Temperature: 78 degrees F.
Turbidity: 3.5 feet
Salinity: 23 ppt
Outgoing tide

500+ Salps
100+ juvenile Bluefish
100+ Bay Anchovies
25+ Atlantic Silversides
5+ Hermit Crabs
3 Amphipods
1 Mole Crab
1 YOY silverside

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

Water Temperature: 78 degrees F.
Turbidity: 3.5 feet
Salinity: 23 ppt
Low Tide

100+ Salps
100+ Striped Killifish
50+ Atlantic Silversides
50+ Mud Snails
50+ Hermit Crabs
30+ juvenile Bluefish
25+ Shore Shrimp
25 juvenile Bluefish
8 Northern Pipefish
5+ Amphipods
5 YOY silversides
2 juvenile Blackfish
1 juvenile male Blue-claw Crab
1 juvenile Mullet (white or Striped?)
1 YOY Blackfish
1 juvenile Winter Flounder

For more information, pictures and year-round sightings of wildlife in or near Sandy Hook Bay and Lower New York Bay, please check out my blog entitled, Nature on the Edge of New York City at <http://www.natureontheedge NYC.com>