

Twelfth update of the 2013 Helicopter Monitoring Program

Floatables:

The New York/New Jersey Harbor Complex was monitored for floatables nine times from August 23 – September 4. The floatable flight was not conducted on September 2 due to poor weather. The Harbor was clear of floatables on August 24, 26, 27, 28, 29, 30 and September 4.

On August 23, a floatable slick, approximately 300 feet long by 5 feet wide was reported in Newark Bay. A floatable slick, approximately 200 feet long by 5 feet wide was reported in the Kill Van Kull. A floatable slick, approximately 150 feet long by 5 feet wide was reported in the Upper Harbor. A floatable slick, approximately 1 mile long with varying widths was reported in the Upper Harbor. A floatable slick, approximately one half mile long by 5 - 10 feet wide was reported off Coney Island.

On August 31, a floatable slick, approximately 300 feet long by 5 feet wide was reported in Gravesend Bay.

All floatable debris slick consisted of wood, plastic and paper, were reported to the Army Corps of Engineers, and cleanup was conducted as necessary.

Sampling:

Long Island:

Water quality samples were collected at 26 locations from Rockaway to Shinnecock Inlet, on August 28. Samples were given to the New York State Department of Environmental Conservation (NYSDEC) to conduct bacteriological analyses. These samples help fulfill NYSDEC's commitments to the National Shellfish Sanitation Program.

New Jersey:

Phytoplankton samples were collected along the New Jersey coast, in Raritan Bay, Sandy Hook Bay, Barnegat Bay, Great Bay, Great Egg Harbor and Delaware Bay, on September 4. Samples were given to the New Jersey Department of Environmental Protection (NJDEP), Bureau of Marine Water Monitoring Leeds Point Laboratory for analysis. These samples help fulfill NJDEP's commitments to the National Shellfish Sanitation Program. Results, as reported by NJDEP are as follows:

The waters of Raritan and Sandy Hook Bay are experiencing low levels of *Skeletonema menzeli*. The toxic species *Pseudonitzschia sp* and *Dinophysis acuminata* were detected below bloom or toxic levels.

The Bureau has implemented an aircraft remote sensing program for estimating chlorophyll levels in NJ's coastal waters. This program provides a valuable perspective on algal conditions and trends. To view these maps please visit the website. <http://www.nj.gov/dep/bmw/remotesensing.htm>

See next page for the complete report by NJDEP.

This data can also be found online at <http://www.nj.gov/dep/bmw/phytoplankton.htm>

NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Algal Conditions in New Jersey Estuarine and Coastal Waters
Week of September 2, 2013

TO: Distribution

FROM: Bill Heddendorf, Environmental Specialist 3
Bureau of Marine Water Monitoring

DATE: September 5, 2013

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters
Week of September 2, 2013

Samples were collected by the USEPA helicopter and analyzed at the NJDEP Bureau of Marine Water Monitoring's Leeds Point Laboratory.

Raritan/Sandy Hook Bay Area

The waters of Raritan and Sandy Hook Bay are experiencing low levels of *Skeletonema menzelii* with cell counts of 1,680 and 1,160 respectively. The toxic species *Pseudonitzschia sp* and *Dinophysis acuminata* were detected below bloom or toxic levels.

New Jersey Coastal Area

The ocean waters from Long Branch to Cape May are generally clear with sparse algal concentrations. No toxic species were detected.

Barnegat Bay Area

The waters of Barnegat Bay from Island Beach to Barnegat Inlet are experiencing low levels of *Cylindrotheca closterium* with cell counts ranging from 1240 to 400 cells/mL respectively. The lower portion of the bay has sparse algal conditions with a significant amount of detritus. No toxic species were detected.

Great Bay

The waters of Great Bay are generally clear with sparse algal concentrations. No toxic species were detected.

Great Egg Harbor

The waters of Great Egg Harbor are experiencing low levels of mixed diatoms (total diatom count 1200 cells/mL). No toxic species were detected.

Delaware Bay/Capeshore Area

A normally diverse assemblage of phytoplankton with a large amount of detritus is present in the waters along the Cape Shore near Dias Creek. The waters at the mouth of the bay were generally clear with sparse algal conditions. No toxic species were detected.

No samples collected in the New Jersey Coastal Waters were found to contain the Paralytic Shellfish Poisoning species *Alexandrium spp.

**NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Phytoplankton Data Sheet**

Date: 09/04/13

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0853	18.1	17.24	<i>Skeletonema menzeli</i> 1,680 cells/mL	<i>Dinophysis acuminata</i> <i>Pseudonitzschia sp</i>
906A	0900	20.2	25.23	<i>Skeletonema menzeli</i> 1,160 cells/mL	None present
A11A	0905	18.8	5.05	Sparse algal concentrations	None present
A24A	0917	18.4	2.94	Sparse algal concentrations	None present
1605A	0924	18.1	1.68	Sparse algal concentrations	None present
1651D	0938	20.7	8.41	<i>Cylindrotheca closterium</i> 1240 cells/mL	None present
1670D	1005	20.4	10.93	<i>Cylindrotheca closterium</i> 400 cells/mL	None present
1703C	1012	20.4	4.63	Sparse algal concentrations Significant amount of detritus	None present
A54B	1017	19.1	1.68	Sparse algal concentrations	None present
1800B	1026	21.0	8.83	Sparse algal concentrations Significant amount of detritus	None present
1818D	1029	20.1	8.41	Sparse algal concentrations Significant amount of detritus	None present
2100A	1036	18.7	2.94	Sparse algal concentrations	None present
2720B	1053	20.3	7.15	Sparse algal concentrations Significant amount of detritus	None present
A85A2	1058	17.4	3.78	<i>Leptocylindrus minimium</i> 280 cells/mL	None present
3826A	1123	19.7	6.73	Sparse algal concentrations Significant amount of detritus	None present
3895E	1134	21.9	32.38	Diverse assemblage of phytoplankton Significant amount of detritus	None present

- **Toxic Species = toxic species associated with shellfish safety including; *Prorocentrum lima.*, *Alexandrium spp.*, *Dinophysis spp.*, and *Pseudonitzschia spp.***
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