

Eleventh update of the 2013 Helicopter Monitoring Program

Floatables:

The New York/New Jersey Harbor Complex was monitored for floatables ten times from August 10 - 22. Floatable flights were not conducted on August 13 due to poor weather. The Harbor was clear of Floatables on August 10, 14, 15, 16, 17, and 20.

On August 12, a floatable slick, approximately 1200 feet long by 8 feet wide was reported in the Kill Van Kull. A floatable slick, approximately 600 feet long by 20 feet wide was reported in Gravesend Bay. A floatable slick, approximately 1.5 miles long by 6 feet wide was reported in Gravesend Bay.

On August 19, two floatable slicks, each approximately 400 feet long by 5 feet wide were reported in Newark Bay.

On August 21, a floatable slick, approximately 1500 feet long by 5 feet wide was reported in Newark Bay.

On August 22, a floatable slick, approximately ¼ mile long by 5 – 10 feet wide was reported in Newark Bay. A floatable slick ½ mile long by 5 – 10 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 14. 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 August 21. 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 ocean waters off the coast of Long Branch are experiencing low levels of the toxic species *Pseudonitzschia* sp. (200 cells/mL) which is associated with amnesic shellfish poisoning. This is a very localized situation that is only off the coast of Long Branch but will be continued to be monitored by NJDEP with aircraft remote sensing to see the extent of the elevated levels of this species.

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 Aug 19, 2013

TO: Distribution

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

DATE: August 22, 2013

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters
Week of August 19, 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 a low levels of *Prorocentrum redfeldii* with cell counts of 440 and 400 respectively. The toxic species *Dinophysis acuminata* was detected below bloom or toxic levels.

New Jersey Coastal Area

The ocean waters off the coast of Long Branch are experiencing low levels (below bloom concentrations) of the toxic species *Pseudonitzschia sp.* which is associated with amnesic shellfish poisoning. The waters from Toms River to Cape May are generally clear with sparse algal concentrations.

Barnegat Bay Area

The waters of Barnegat Bay from Toms River to Barnegat Inlet are experiencing low levels of *Prorocentrum redfeldii* with a significant amount of detritus. The waters of Manahawkin Bay are generally clear with sparse algal concentrations. The lower portion of the bay is experiencing low levels of mixed diatoms with a significant amount of detritus. No toxic species were detected.

Great Bay

The waters of Great Bay have sparse algal concentrations with significant amounts of detritus. No toxic species were detected.

Great Egg Harbor

The waters of Great Egg Harbor have sparse algal concentrations with significant amounts of detritus. 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: 08/21/13

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0859	20.9	22.71	<i>Prorocentrum redfeldii</i> 440 cells/mL	None present
906A	0907	19.9	15.56	<i>Prorocentrum redfeldii</i> 400 cells/mL	<i>Dinophysis acuminata</i>
A11A	0913	19.3	4.20	<i>Pseudonitzschia sp</i> 200 cells/mL	<i>Pseudonitzschia sp</i> 200 cells/mL
A24A	0926	19.6	3.78	Sparse algal concentrations	None present
1605A	0932	19.3	7.99	<i>Prorocentrum redfeldii</i> 280 cells/mL	None present
1651D	0943	19.6	2.94	Sparse algal concentrations Significant amount of detritus	None present
1670D	1013	21.3	7.99	<i>Prorocentrum redfeldii</i> 160 cells/mL	None present
1703C	1019	21.6	7.15	Sparse algal concentrations Significant amount of detritus	None present
A54B	1026	19.8	2.10	Sparse algal concentrations	None present
1800B	1036	21.1	7.99	Mixed diatoms 1440 cells/mL Significant amount of detritus	None present
1818D	1041	21.6	6.73	Sparse algal concentrations Significant amount of detritus	None present
2100A	1050	21.2	24.18	Sparse algal concentrations Significant amount of detritus	None present
2720B	1105	20.4	5.47	Sparse algal concentrations Significant amount of detritus	None present
A85A2	1109	21.5	5.05	Sparse algal concentrations Significant amount of detritus	None present
3826A	1132	21.1	5.47	Sparse algal concentrations Significant amount of detritus	None present
3895E	1140	21.5	25.23	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.***
- **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>**

