

Third update of the 2010 Helicopter Monitoring Program

Floatables:

The New York/New Jersey Harbor Complex was monitored for floatables six times from June 12 - 18, 2010. The Harbor was clear of significant floatables on June 15 - 18.

On June 14 a floatable slick, approximately 300 feet long by 75 feet wide, was reported in Newark Bay.

The floatable debris slick was reported to the Army Corps of Engineers, and cleanup was conducted as necessary.

Sampling:

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 June 16. 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 Barnegat Bay from Toms River to Barnegat Inlet are experiencing a non-toxic mild bloom of *Nannochloris oculata*.

The toxic species *Dinophysis acuta* was detected in the ocean off the coast of Long Branch and at the mouth of the Delaware Bay. In both cases it was 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>

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

For more information, please see the complete report by NJDEP beginning on the next page.

NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Algal Conditions in New Jersey Estuarine and Coastal Waters
Week of June 14, 2010

TO: Distribution

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

DATE: June 17, 2010

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters
Week of June 14, 2010

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 Bay were generally clear with sparse algal concentrations. No toxic species were detected. The waters of Sandy Hook Bay are experiencing a bloom of *Nannochloris oculata*. No toxic species were detected.

New Jersey Coastal Area

The ocean waters from Long Branch to Manasquan are experiencing a mild bloom of *Prorocentrum redfieldii* (from 1040 to 400 cells/ml). The ocean waters from Island Beach to Cape May are generally clear with sparse algal concentrations. The toxic species *Dinophysis acuta* was detected off the coast of Long Branch but it was below bloom or toxic levels.

Barnegat Bay Area

The waters of Barnegat Bay from Toms River to Barnegat Inlet are experiencing elevated concentrations of *Nannochloris oculata*. The waters from Manahawkin to Little Egg Harbor are generally clear with sparse algal concentrations. No toxic species detected in any samples from Barnegat Bay.

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 generally clear with sparse algal concentrations. No toxic species were detected.

Delaware Bay/Capesheore 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 concentrations. The toxic species *Dynophysis acuta* was detected at the mouth of the bay but it was below bloom or toxic levels.

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: 06/16/2010

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0838		3.36	Sparse algal concentrations	None present
906A	0847		16.82	<i>Nannochloris oculata</i>	None present
A11A	0853		2.10	<i>Prorocentrum redfeldii</i> 400 cells/ml	<i>Dinophysis acuta</i>
A24A	0903		13.88	<i>Prorocentrum redfeldii</i> 1040 cells/ml	None present
1605A	0909		13.03	<i>Nannochloris oculata</i>	None present
1651D	0920		6.31	<i>Nannochloris oculata</i>	None present
1670D	1000		6.31	<i>Nannochloris oculata</i>	None present
1703C	1007		2.52	Sparse algal concentrations	None present
A54B	1011		1.26	Sparse algal concentrations	None present
1800B	1016		3.36	Sparse algal concentrations	None present
1818D	1020		6.31	Sparse algal concentrations Significant amount of detritus	None present
2100A	1026		4.63	Sparse algal concentrations Significant amount of detritus	None present
2720B	1039		2.94	Sparse algal concentrations	None present
A85A2	1044		3.36	Sparse algal concentrations	None present
3826A	1108		3.78	Sparse algal concentrations	<i>Dinophysis acuta</i>
3895E	1059		21.44	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>

