

## Thirteenth update of the 2011 Helicopter Monitoring Program

### **Floatables:**

The New York/New Jersey Harbor Complex was monitored for floatables six times from August 20 - 26. The Harbor was clear of significant floatables on all six days.

An oily sheen was reported to the US Coast Guard on August 25. The sheen was approximately 200 yards long by 100 yards wide of rainbow color located in Newark Bay.

A second oily sheen was reported to the US Coast Guard on August 26. The sheen was approximately 800 yards long by 15 yards wide of rainbow color located in the Arthur Kill.

### **Sampling:**

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 23. 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 of Ship Bottom and Cape May are experiencing a bloom of *Nannochloris* sp (344,000 to 64,000 cells/mL).

The waters of Barnegat Bay near Little Egg Harbor are experiencing a bloom of *Nannochloris* sp (300,000 cells/mL) and *Gyrodinium* sp (1680 cells/mL).

NJDEP 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.

*See pages 2-4 for the complete report by NJDEP.*

NJDEP Water Monitoring and Standards  
Bureau of Marine Water Monitoring  
Algal Conditions in New Jersey Estuarine and Coastal Waters  
Week of August 22, 2011

TO: Distribution

FROM: Bill Heddendorf, Environmental Specialist 2  
Bureau of Marine Water Monitoring

DATE: August 24, 2011

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters  
Week of August 22, 2011

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 are generally clear with sparse algal concentrations. The waters of Sandy Hook Bay are experiencing a bloom of a diverse assemblage of phytoplankton. No toxic species were detected.

**New Jersey Coastal Area**

The ocean waters from Long Branch to Manasquan are experiencing low levels of a diverse assemblage of phytoplankton. The ocean waters from Ship Bottom to Cape May are experiencing a bloom of *Nannochloris sp* (344,000 to 64,000 cells/mL). No toxic species were detected in the ocean waters off the coast of New Jersey.

**Barnegat Bay Area**

The waters of Barnegat Bay from Toms River to Manahawkin are experiencing sparse algal concentrations with a significant amount of detritus. The waters of Barnegat Bay near Little Egg Harbor are experiencing a bloom of *Nannochloris sp* (300,000 cells/mL) and *Gyrodinium sp* (1680 cells/mL). No toxic species were detected in all of Barnegat Bay.

**Great Bay**

The waters of Great Bay are experiencing a mild bloom of mixed diatoms (1680 cells/mL) with a significant amount of detritus. No toxic species were detected.

**Great Egg Harbor**

The waters of Great Egg are experiencing sparse algal concentrations with a significant amount 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 and at the mouth of Delaware Bay. 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: 08/23/2011

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0838	21.1	6.31	Sparse algal concentrations	None present
906A	0845	21.7	26.07	Diverse assemblage of phytoplankton	None present
A11A	0850	19.8	7.15	Diverse assemblage of phytoplankton	None present
A24A	0900	20.5	13.03	Diverse assemblage of phytoplankton	None present
1605A	0905	20.6	18.08	Sparse algal concentrations Significant amount of detritus	None present
1651D	0915	20.8	10.93	Sparse algal concentrations Significant amount of detritus	None present
1670D	0945	20.0	10.51	Sparse algal concentrations Significant amount of detritus	None present
1703C	0938	22.1	10.09	Sparse algal concentrations Significant amount of detritus	None present
A54B	0935	21.4	6.31	<i>Nannochloris sp</i> 344,000 cells/mL	None present
1800B	1015	20.2	19.34	<i>Nannochloris sp</i> 300,000 cells/mL Significant amount of detritus	None present
1818D	1020	21.2	3.78	<i>Gyrodinium sp</i> 1,680 cells/mL	None present
2100A	1025	21.4	14.30	Mixed diatoms 1,680 cells/mL Significant amount of detritus	None present
2720B	1038	21.3	6.73	Sparse algal concentrations Significant amount of detritus	None present
A85A2	1042	18.2	10.09	<i>Nannochloris sp</i> 64,000 cells/mL Significant amount of detritus	None present
3826A	1105		11.77	Diverse assemblage of phytoplankton Significant amount of detritus	None present
3895E	1055	21.9	19.76	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>

