

## Sixth update of the 2013 Helicopter Monitoring Program

### Floatables:

The New York/New Jersey Harbor Complex was monitored for floatables ten times from June 29 - July 12. Floatable flights were not conducted on June 29 and July 1 due to poor weather. The Harbor was clear of significant floatables on July 2 - 6 and 8 - 11.

On July 12, a floatable slick, approximately 500 yards long by 3 yards wide was reported in the Upper Harbor.

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

### New Jersey 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 July 10. 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:

Water samples collected on July 10, 2013 from Manahawkin Bay to Little Egg Harbor contained the naturally occurring species *Dinophysis acuminata* in bloom concentrations (360-480 cells/mL). Lesser concentrations were detected in the waters of Great Bay, Great Egg Harbor, and in the ocean in Wildwood and Cape May. *Dinophysis accuminata* can be concentrated by filter feeders such as shellfish and cause diarrhetic shellfish poisoning.

Follow up sampling took place by NJDEP on July 11, 2013 with samples being taken for both water and shellfish tissue.

Three water samples collected showed no presence of live *Dinophysis accuminata* cells, but signs of degraded cells, which suggest that the bloom is declining.

Three tissue samples were analyzed on July 12, 2013 for total okadaic acid and dinophysistoxins, by the FDA laboratory in College Park, MD. All of the results were below the FDA guidance criteria of 16 ug/100g sample. Two of the samples were non-detect, and one was 0.46 ug/100g. No further action is necessary at this time.

Water sampling will be conducted in the same waters on Monday 7/15 to check for the presence of *Dinophysis accumiata*

**This data can also be found online**

at <http://www.nj.gov/dep/bmw/phytoplankton.htm>

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 next page 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 July 8, 2013

TO: Distribution

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

DATE: July 11, 2013

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters  
Week of July 8, 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 Bay are experiencing a bloom of mixed diatoms dominated by *Skeletonema costatum* (5920 cells/mL). The waters of Sandy Hook Bay are experiencing a bloom of mixed diatoms (1000 cells/mL). No toxic species were detected.

**New Jersey Coastal Area**

The ocean waters off Long Branch were experiencing low levels of mixed diatoms (1320 cells/mL). The ocean waters from Manasquan to Ship Bottom are generally clear with sparse algal concentrations. Low levels of the toxic species *Dinophysis acuminata* (40 cells/mL) were detected off the coast of Wildwood.

**Barnegat Bay Area**

The waters of Barnegat Bay from Toms River to Barnegat Inlet are generally clear with sparse algal concentrations.

**The toxic species *Dinophysis acuminata* was detected in from Manahawkin Bay to Little Egg Harbor in bloom concentrations (360-480cells/mL).**

**Great Bay**

The waters of Great Bay are experiencing low levels of the toxic species *Dinophysis acuminata* (40 cells/mL).

**Great Egg Harbor**

The waters of Great Egg Harbor are experiencing low levels of the toxic species *Dinophysis acuta* (10 cells/mL).

**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. The toxic species *Dinophysis acuta* was detected in the waters at the mouth of the bay

**\*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:** 07/10/13

**Collector:** EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0834	21.3	28.17	<i>Skeletonema costatum</i> 5920 cells/mL	None present
906A	0842	23.1	11.35	Mixed diatoms 1000 cells/mL	None present
A11A	0847	17.8	5.47	Mixed diatoms 1000 cells/mL	None present
A24A	0900	16.7	2.52	Sparse algal concentrations	None present
1605A	0905	16.4	2.94	Sparse algal concentrations	None present
1651D	0923	24.8	13.46	Sparse algal concentrations Significant amount of detritus	None present
1670D	0933	22.2	4.20	Sparse algal concentrations	None present
1703C	0940	13.2	6.31	<i>Dinophysis acuminata</i> 360 cells/mL	<i>Dinophysis acuminata</i> 360 cells/mL
A54B	1023	23.1	4.63	Sparse algal concentrations Significant amount of detritus	None present
1800B	1032	21.4	2.94	Sparse algal concentrations	<i>Dinophysis acuminata</i>
1818D	1036	12.8	7.99	<i>Dinophysis acuminata</i> 480 cells/mL	<i>Dinophysis acuminata</i>
2100A	1046	18.3	4.63	<i>Dinophysis acuminata</i> 40 cells/mL	<i>Dinophysis acuminata</i>
2720B	1055	13.8	3.78	<i>Dinophysis acuta</i> 10 cells/mL	<i>Dinophysis acuta</i>
A85A2	1100	14.6	5.89	<i>Dinophysis acuminata</i> 40 cells/mL	<i>Dinophysis acuminata</i>
3826A	1124	16.8	5.47	Sparse algal concentrations	<i>Dinophysis acuta</i>
3895E	1130	24.2	44.99	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>**

