

NJDEP Water Monitoring and Standards  
Bureau of Marine Water Monitoring  
Algal Conditions in New Jersey Estuarine and Coastal Waters  
Week of June 9, 2008

TO: Distribution

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

DATE: June 12, 2008

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters  
Week of June 9, 2008

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 mild bloom dominated by *Heterocapsa triquetra* and *Scrippsiella trachoides* (2160 cells/ml). The waters of Sandy Hook Bay had low concentrations of a vast assemblage of phytoplankton with *Chaetoceros sp.* (200 cells/ml) being most abundant. No toxic species were detected

**New Jersey Coastal Area**

The ocean waters from Manasquan to Cape May are generally clear with sparse algal concentrations. No toxic species were detected. The ocean waters off the coast of Long Branch had low concentrations of *Chaetoceros sp.* (240 cells/ml). The potentially toxic species *Pseudonitzschia seriata* was detected below bloom or toxic levels.

**Barnegat Bay Area**

The waters of Barnegat Bay and 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 have low concentrations of *Nitzschia longissima* (280 cells/ml) and a significant amount of detritus. No toxic species were detected.

**Great Egg Harbor**

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

**Delaware Bay/Capeshore Area**

The waters of the Delaware Bay near the mouth of the bay had a mild bloom of mixed diatoms (1640 cells/ml). The waters of the Delaware Bay near Dias Creek had sparse algal concentrations with significant amounts of detritus. 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: 06/12/2008**

**Collector: EPA**

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0758		27.33	<i>Heterocapsa triquetra</i> and <i>Scrippsiella trachoida</i> (total 2160 cells/ml)	None present
906A	0846		5.89	<i>Chaetoceros sp.</i> 200 cells/ml	None present
A11A	0855		6.31	<i>Chaetoceros sp.</i> 240 cells/ml	<i>Pseudonitzschia seriata</i>
A24A	0906		2.10	Sparse algal concentrations	None present
1605A	0953		3.78	Sparse algal concentrations	None present
1651D	1004		1.68	Sparse algal concentrations	None present
1670D	1011		3.36	Sparse algal concentrations	None present
1703C	1015		5.89	Sparse algal concentrations	None present
A54B	1019		1.26	Sparse algal concentrations	None present
1800B	1025		2.10	Sparse algal concentrations	None present
1818D	1030		3.36	Sparse algal concentrations	None present
2100A	1035		5.05	<i>Nitzschia longissima</i> (280 cells/ml) Significant amount of detritus	None present
2720B	1051		5.47	Sparse algal concentrations	None present
A85A2	1059		2.52	Sparse algal concentrations	None present
3826A	1156		15.98	Mild bloom of mixed diatoms Total diatom count 1640 cells/ml	None present
3895E	1111		57.60	Sparse algal concentrations Significant amounts 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>

