

NJDEP Water Monitoring and Standards  
Bureau of Marine Water Monitoring  
Algal Conditions in New Jersey Estuarine and Coastal Waters  
Week of July 14, 2008

TO: Distribution

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

DATE: July 17, 2008

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters  
Week of July 14, 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**

There was a large bloom of *Heterosigma akashiwo* (168,000 cells/ml) in the Raritan Bay near Keyport Harbor on Tuesday but it seems to be dissipating. The waters of Sandy Hook Bay have low concentrations of *Gyrodinium sp* and *Katodinium roundatum*. No toxic species were detected

**New Jersey Coastal Area**

The ocean waters off the coast of Long Branch are experiencing a mild bloom of *Skeletonema costatum* (1960 cells/ml). The ocean waters from Manasquan to Cape May are generally clear with sparse algal concentrations. The potentially toxic species *Psuedonitzschia seriata* associated with amnesic shellfish poisoning was detected off the coast of Long Branch and Ship Bottom but it was 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 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/Capeshore Area**

The waters of Delaware Bay near the mouth of the bay had low concentrations of mixed diatoms with a significant amount of detritus. The waters of Delaware Bay near Dias Creek are experiencing a bloom of *Cylindrotheca closterium* (117,000 cells/ml). 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: 07/16/2008**

**Collector: EPA**

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0843		5.05	Sparse algal concentrations Significant amounts of detritus	None present
906A	0851		12.19	Low concentrations of <i>Gyrodinium sp</i>	<i>Pseudonitzschia seriata</i>
A11A	0855		9.25	Mild bloom of <i>Skeletonema costatum</i> 1960 cells/ml	None present
A24A	0926		2.10	Sparse algal concentrations	None present
1605A	0931		2.10	Sparse algal concentrations	None present
1651D	0940		< 0.42	Sparse algal concentrations	None present
1670D	0945		3.78	<i>Cylindrotheca closterium</i> 200 cells/ml	None present
1703C	0951		3.36	Sparse algal concentrations	None present
A54B	0955		2.52	<i>Prorocentrum redfeldii</i> 320 cells/ml	<i>Pseudonitzschia seriata</i>
1800B	1008		1.68	Sparse algal concentrations	None present
1818D	1012		2.52	Sparse algal concentrations	None present
2100A	1017		2.52	Sparse algal concentrations	None present
2720B	1056		4.20	Sparse algal concentrations	None present
A85A2	1101		2.10	Sparse algal concentrations	None present
3826A	1134		12.19	Low concentration of mixed diatoms Significant amount of detritus	None present
3895E	1140		56.35	Bloom of <i>Cylindrotheca closterium</i> 117,000 cells/ml	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>

