

NJDEP Water Monitoring and Standards  
Bureau of Marine Water Monitoring  
Algal Conditions in New Jersey Estuarine and Coastal Waters  
Week of September 3, 2007

TO: Distribution

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

DATE: September 5, 2007

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters  
Week of September 3, 2007

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 and Sandy Hook Bay are experiencing a mild bloom dominated by *Prorocentrum redfeldii*. Highest cell counts reach 600 cells/ml near Sandy Hook Bay. No toxic species were detected

**New Jersey Coastal Area**

The ocean waters from Long Branch to Cape May are generally clear with sparse algal concentrations. No toxic species were detected.

**Barnegat Bay Area**

The waters of Barnegat Bay from Toms River to Island Beach are generally clear with sparse algal concentrations. The waters of Barnegat Bay from Barnegat Inlet to Manahawkin had sparse algal concentrations with a significant amount of detritus. No toxic species detected in any samples from Barnegat Bay.

The waters of Little Egg Harbor had low concentrations of *Skeletonema costatum* (720 cells/ml). No toxic species were detected.

**Great Bay**

The waters of Great Bay were generally clear with sparse algal concentrations. 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 low concentrations of *Prorocentrum redfeldii* (600 cells/ml) with significant amounts of detritus. The waters of the Delaware Bay near Dias Creek had low concentrations of mixed diatoms. 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: 09/04/2007**

**Collector: EPA**

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0840	22.4	13.03	<i>Prorocentrum redfeldii</i> 150 cells/ml	None present
906A	0847	22.6	11.35	<i>Prorocentrum redfeldii</i> 600 cells/ml	None present
A11A	0851	20.3	1.68	Sparse algal concentrations	None present
A24A	0900	20.9	2.52	Sparse algal concentrations	None present
1605A	0905	22.8	2.10	Sparse algal concentrations	None present
1651D	0913	22.6	1.68	Sparse algal concentrations	None present
1670D	0939	23.2	6.31	Sparse algal concentrations Significant amounts of detritus	None present
1703C	0944	23.2	8.41	Sparse algal concentrations Significant amounts of detritus	None present
A54B	0948	21.7	2.52	Sparse algal concentrations	None present
1800B	0953	22.7	2.52	Sparse algal concentrations	None present
1818D	0957	23.0	3.78	<i>Skeletonema costatum</i> 720 cells/ml	None present
2100A	1002	23.4	3.36	Sparse algal concentrations	None present
2720B	1014	24.4	2.10	Sparse algal concentrations	None present
A85A2	1018	23.6	3.78	Sparse algal concentrations	None present
3826A	1041	24.4	3.36	Low concentration of mixed diatoms	None present
3895E	1049	24.5	16.40	<i>Thalassiosira spp.</i> 600 cells/ml 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>**

