

NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Algal Conditions in New Jersey Estuarine and Coastal Waters
Week of July 7, 2008

TO: Distribution

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

DATE: July 10, 2008

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters
Week of July 7, 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 have low concentrations of mixed dinoflagellates. The waters of Sandy Hook Bay are experiencing a bloom of *Cylindrotheca closterium* (96,000 cells/ml). No toxic species were detected

New Jersey Coastal Area

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

The ocean waters off the coast of Ship Bottom are generally clear with sparse algal concentrations. The potentially toxic species *Psuedonitzschia seriata* and *Dinophysis acuta* associated with amnesic and diarrhetic shellfish poisoning respectively were 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 *Leptocylindrus minimus*. No toxic species were detected.

Great Egg Harbor

No samples were collected due to weather restrictions.

Delaware Bay/Capeshore Area

No samples were collected due to weather restrictions

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
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Phytoplankton Data Sheet**

Date: 07/09/2008

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0932	23.6	6.73	Low concentration of mixed dinoflagellates	None present
906A	0945	24.9	13.88	Bloom of <i>Cylindrotheca closterium</i> 96,000 cells/ml	None present
A11A	0950	19.1	< 0.42	Sparse algal concentrations	None present
A24A	0959	16.6	2.52	Low concentration of a mixed assemblage of phytoplankton	None present
1605A	1010	15.8	1.26	Sparse algal concentrations	None present
1651D	1020	25.1	< 0.42	Sparse algal concentrations	None present
1670D	1024	26.1	0.84	Sparse algal concentrations	None present
1703C	1032	25.2	Lab Accident	Sparse algal concentrations	None present
A54B	1043	16.5	0.42	Sparse algal concentrations	<i>Psuedonitzschia seriata</i> <i>Dinophysis acuta</i>
1800B	1050	23.3	1.68	Sparse algal concentrations	None present
1818D	1056	24.2	< 0.42	Sparse algal concentrations	None present
2100A	1059	24.4	1.26	Low concentration of <i>Leptocylindrus minimus</i>	None present
2720B					No Sample
A85A2					No Sample
3826A					No Sample
3895E					No Sample

- 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>

Chlorophyll ($\mu\text{g/L}$)

- 0 - 5
- 5 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 +
- ~ Coast

