

NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Algal Conditions in New Jersey Estuarine and Coastal Waters
Week of August 3, 2009

TO: Distribution

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

DATE: August 6, 2009

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters
Week of August 3, 2009

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 low concentration of mixed diatoms. No toxic species were detected.

The waters of Sandy Hook Bay were experiencing a mild bloom of mixed diatoms (4880 cells/mL). No toxic species were detected.

New Jersey Coastal Area

The ocean waters from Long Branch to Manasquan are experiencing low concentrations of mixed dinoflagellates. Cell counts ranged from 2720 to 1480 cells/mL. The organism *Gyrodinium cf aureolum*, which is associated with mild skin irritation in bathers, was detected off the coast of Long Branch. The ocean waters from Ship Bottom 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 Barnegat Inlet are experiencing a bloom of *Nannochloris oculata*. The waters from Manahawkin Bay are generally clear with sparse algal concentrations. The waters of Little Egg Harbor are experiencing low concentrations of a diverse assemblage of phytoplankton. No toxic species detected were detected.

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 along the Cape Shore near Dias Creek and at the mouth of the bay are experiencing low concentrations of a diverse assemblage of phytoplankton with a significant amount 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
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Phytoplankton Data Sheet**

Date: 08/05/2009

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	1125	25.6	5.89	Mixed diatoms	None present
906A	1133	24.6	27.75	Mixed diatoms Total diatom count (4880 cells/mL)	None present
A11A	1137	23.0	6.31	<i>Gyrodinium sp.</i> (2720 cells/mL)	None present
A24A	1148	22.9	4.20	Mixed dinoflagellates	None present
1605A	1153	26.2	15.14	<i>Nannochloris oculata</i>	None present
1651D	1220	27.0	15.56	<i>Nannochloris oculata</i>	None present
1670D	1225	26.2	15.56	<i>Nannochloris oculata</i>	None present
1703C	1232	27.3	3.36	Sparse algal concentrations	None present
A54B	1235	22.8	2.10	Sparse algal concentrations	None present
1800B	1240	26.2	7.57	Mixed diatoms	None present
1818D	1244	26.3	6.73	Mixed diatoms	None present
2100A	1250	25.9	2.94	Sparse algal concentrations	None present
2720B	1305	26.4	5.05	Sparse algal concentrations Significant amount of detritus	None present
A85A2	1308	21.5	2.52	Sparse algal concentrations	None present
3826A	1333	24.4	16.40	Diverse assemblage of phytoplankton Significant amount of detritus	None present
3895E	1341	26.8	41.58	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>**

