

NJDEP Water Monitoring and Standards  
Bureau of Marine Water Monitoring  
Algal Conditions in New Jersey Estuarine and Coastal Waters  
Week of July 22, 2013

TO: Distribution

FROM: Bill Heddendorf, Environmental Specialist 3  
Bureau of Marine Water Monitoring

DATE: July 25, 2013

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters  
Week of July 22, 2013

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 bloom of *Eutreptia lanowii* (3160 cells/mL). The waters of Sandy Hook Bay are experiencing low levels of mixed diatoms. 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 Barnegat Inlet are generally clear with sparse algal concentrations. The waters of Manahawkin Bay are experiencing low levels of *Amphiprora sp* (520 cells/mL). The lower portion of the bay is experiencing low levels of mixed diatoms dominated by a tiny *Nitzschia sp*. No toxic species 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 experiencing low levels of *Leptocylindrus minimum* (880 cells/mL). No toxic species were detected.

**Delaware Bay/Capeshore Area**

A normally diverse assemblage of phytoplankton with a large amount of detritus is present in the waters along the Cape Shore near Dias Creek. The waters at the mouth of the bay were generally clear with sparse algal conditions. 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.***

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Phytoplankton Data Sheet**

Date: 07/24/13

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0909	22.7	37.00	<i>Eutreptia Ianowii</i> 3160 cells/mL	None present
906A	0913	23.1	17.66	Mixed diatoms Significant amount of detritus	None present
A11A	0918	21.7	1.68	Sparse algal concentrations	None present
A24A	0931	21.1	1.68	Sparse algal concentrations	None present
1605A	0935	21.1	1.26	Sparse algal concentrations	None present
1651D	0943	20.3	1.68	Sparse algal concentrations	None present
1670D	1014	20.4	1.68	Sparse algal concentrations	None present
1703C	1025	24.7	7.15	<i>Amphiprora sp</i> 520 cells/mL	None present
A54B	1031	19.1	2.52	Sparse algal concentrations	None present
1800B	1039	24.1	9.25	Mixed diatoms 1520 cells/mL Significant amount of detritus	None present
1818D	1044	23.5	7.15	<i>Nitzschia sp</i> 124,000 cells/mL	None present
2100A	1052	21.5	6.31	Sparse algal concentrations Significant amount of detritus	None present
2720B	1104	19.5	5.05	<i>Leptocylindrus minimum</i> 880 cells/mL	None present
A85A2	1108	19.2	2.10	Sparse algal concentrations	None present
3826A	1131	17.7	2.94	Sparse algal concentrations	None present
3895E	1140	25.7	62.23	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>

**Chlorophyll (µg/L)**

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

