Fifth update of the 2009 Helicopter Monitoring Program

Floatables:

The New York/New Jersey Harbor Complex was monitored for floatables six times from June 20 - 26. The Harbor was clear of significant floatables on June 22 - 26.

On June 20, light scattered debris was reported throughout Newark Bay, and a small slick was reported in the Lower Harbor.

The floatable debris consisted of large wood, paper and plastics and was reported to Army Corps of Engineers. The Army Corps of Engineers conducted clean-ups as necessary.

Sampling:

Phytoplankton samples were collected along the New Jersey coast, in Raritan Bay, Sandy Hook Bay, Barnegat Bay, Great Bay, Great Egg Harbor and Delaware Bay, on June 24. Samples were given to the New Jersey Department of Environmental Protection (NJDEP), Bureau of Marine Water Monitoring Leeds Point Laboratory for analysis. These samples help fulfill NJDEP's commitments to the National Shellfish Sanitation Program.

The waters of Sandy Hook Bay are experiencing a mild bloom of *Cerataulina pelagica*.

The northern coastal waters from Long Branch to Manasquan are experiencing a mild bloom of *Cerataulina pelagica*.

The potentially toxic species *Dynophysis spp*. associated with diarrhetic shellfish poisoning was detected below bloom or toxic levels in the waters of Sandy Hook Bay.

The NJDEP continues to 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.

See below for complete report.

NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Algal Conditions in New Jersey Estuarine and Coastal Waters
Week of June 22, 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 had sparse algal concentrations with a significant amount of detritus. No toxic species were detected.
The waters of Sandy Hook Bay are experiencing a mild bloom of *Cerataulina pelagica* (3240 cells/ml). The toxic species *Dynophysis spp* was detected but it was below bloom or toxic levels.

New Jersey Coastal Area

The ocean waters from Long Branch to Manasquan are experiencing a mild bloom of *Cerataulina pelagica* (from 1040 to 600 cells/ml). The ocean waters from Island Beach to Cape May are generally clear with sparse algal concentrations. No toxic species were detected in any of the samples collected in the ocean**.**

Barnegat Bay Area

The waters of Barnegat Bay near Island Beach are experiencing a low concentrations of *Nitzchia longissima* (160 cells/ml). The waters from Barnegat Inlet to 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

A normally diverse assemblage of phytoplankton with a large amount of detritus is present in the waters along the Cape Shore near Dias Creek. Sparse algal concentrations

with a significant amount of detritus are present in the waters at the mouth of the bay. No toxic species were detected.

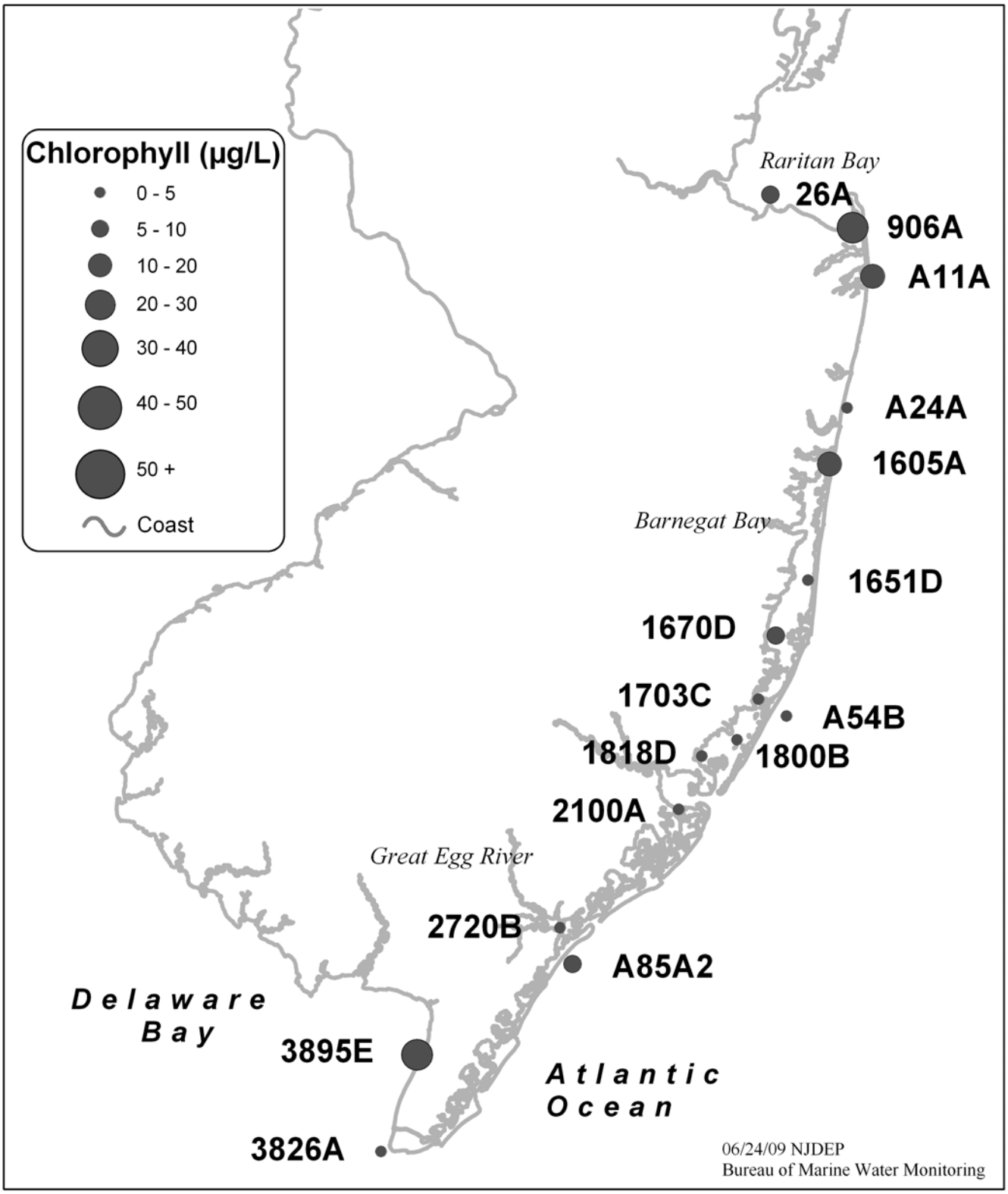
No samples collected in the New Jersey Coastal Waters were found to contain the Paralytic Shellfish Poisoning species *Alexandrium spp.

NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Phytoplankton Data Sheet

Date: 06/24/2009
Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0904	18.9	9.25	Sparse algal concentrations Significant amount of detritus	None present
906A	0910	19.9	22.29	*Cerataulina pelagica* 3240 cells/ml	*Dynopphysis spp.*
A11A	0918	18.4	14.72	*Cerataulina pelagica* 1040 cells/ml	None present
A24A	0930	18.3	2.10	*Cerataulina pelagica* 600 cells/ml	None present
1605A	0935	19.8	14.72	*Nitzchia longissima* 160 cells/ml	No Sample
1651D	0945	19.9	3.78	Sparse algal concentrations	None present
1670D	0953	21.3	6.73	Sparse algal concentrations Significant amount of detritus	None present
1703C	1000	20.5	2.10	Sparse algal concentrations	None present
A54B	1003	18.4	3.36	Sparse algal concentrations	None present
1800B	1009	19.9	0.84	Sparse algal concentrations	None present
1818D	1014	19.6	2.94	Sparse algal concentrations	None present
2100A	1021	19.8	3.36	Sparse algal concentrations	None present
2720B	1111	19.8	0.84	Sparse algal concentrations	None present
A85A2	1115	19.2	5.89	*Leptocylindrus danicus* 210 cells/ml	None present
3826A	1139	19.6	4.20	Sparse algal concentrations Significant amount of detritus	None present
3895E	1149	21.8	26.49	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
Raritan Bay
26A
906A
A11A
A24A
1605A
Barnegat Bay
1651D
1670D
1703C
A54B
1818D
1800B
2100A
Great Egg River
2720B
A85A2
Delaware Bay
3895E
Atlantic Ocean
3826A
06/24/09 NJDEP
Bureau of Marine Water Monitoring