



## **For Immediate Release: August 19, 2011**

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### **Massive Algal Bloom Threatens Marine Life off the Jersey Shore. Scientists, Divers, and Fishermen Urged to Monitor for Potential Impacts**

Sandy Hook, NJ—A huge algal bloom, indicated by the green color in the ocean water, was observed on August 17, 2011. The bloom covered much of the New York Bight area which extends from Montauk, NY (the tip of Long Island) to Cape May, NJ. (Photo available at: <http://maracoos.org/bloom>.) This spells potential harm to marine life especially bottom living animals such as lobsters, clams, crabs, and some fish. As the algae dies and decomposes it will decrease the amount of oxygen in the water on which marine life depends. Fisherman, and especially divers can now help to document any potential impact. More science is also needed to monitor the impacts of the bloom.

As the algae in the bloom die, they settle to the seafloor and decay, using critical oxygen that is needed for marine life to survive. Levels below the water quality of standard of 5 mg/L can stress and harm fish and other aquatic organisms. Reductions in dissolved oxygen to 4-5 mg/L have been observed by one of the autonomous underwater vehicles, gliders, which have been deployed by Rutgers University to sample and monitor the Bight.

“A bloom of this magnitude is cause for great concern. When the algae settles to the seafloor, its decay uses up oxygen, which can harm aquatic life and can even lead to fish kills,” said Heather Saffert, Staff Scientist for Clean Ocean Action.

“This could be a perfect storm of events that could lead to a massive fish kill. Some may recall the tragic 1976 Fish Kill that encompassed vast areas of the seafloor. It was not only one of the worst ecological marine disasters recorded, but it was also devastating to the economy. It is too soon to tell the extent and magnitude of impact from this algae bloom; however it is imperative to monitor what is happening now,” said Cindy Zipf, Executive Director of Clean Ocean Action.

The bloom consists of tiny algae called phytoplankton which contain the pigment, chlorophyll-a, which is measured in satellite images. The bloom initially began in mid-July along the middle to southern part of the Jersey Shore. Winds from the southwest blowing northeast became dominant from July 23-30 driving surface waters toward the ocean and causing water to upwell along the NJ coast. Nutrient-rich, cold waters from the ocean bottom rises during upwelling fueling algal growth and blooms.

In addition to the upwelling process, a secondary and separate coastal oceanographic process off the northern part of the Jersey Shore has developed over the last week. This is apparently in response to the extensive rain over the weekend in the New York/New Jersey region that resulted in high volumes of runoff and combined sewer overflows in the metropolitan area that discharge into the Hudson River Estuary which flows into the NY/NJ Bight.

“We are calling on the divers and fishermen that know these waters to look for tell-tale signs of low dissolved oxygen. Fishermen should be looking for fish floating on the surface or in their nets. Divers should look for lobsters, crabs and fish that usually hide in crevices, but are now in the open and lethargic. Also look for fish that are located higher on the wrecks and/or breathing with difficulty. If divers know how to use dissolved oxygen kits, they should take samples,” added Zipf.

“It is clear that more information and monitoring needs to be done. We are asking USEPA to use their helicopter to take samples to monitor the situation as well as asking other academic and government agencies to further investigate the causes and impacts of this potentially detrimental bloom,” concluded Saffert.

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