

Where's the Gulf oil? In the food web, study says

November 8 2010, By SETH BORENSTEIN , AP Science Writer

(AP) -- Scientists say they have for the first time tracked how certain nontoxic elements of oil from the BP spill quickly became dinner for plankton, entering the food web in the Gulf of Mexico.

The new study sheds light on two key questions about the aftermath of the 172 million-gallon spill in April: What happened to the oil that once covered the water's surface and will it work its way into the diets of Gulf marine life?

"Everybody is making a huge deal of where did the oil go," said chief study author William "Monty" Graham, a [plankton](#) expert at the Dauphin Island Sea Lab in Alabama. "It just became food."

The study didn't specifically track the toxic components of the oil that has people worried. It focused on the way the basic element carbon moved through the beginnings of the all-important [food web](#). Graham said the "eye-opening" speed of how the oil components moved through the ecosystem may affect the overall health of the Gulf.

Michael Crosby of the Mote Marine Laboratory in Florida didn't take part in the study but said what fascinated him was that the carbon zipped through the food web faster than scientists expected. That in itself isn't alarming, but if the nontoxic part of the oil is moving so rapidly through the food web, Crosby asks: "What has happened to the [toxic compounds](#) of the released oil?"

Graham said it was too hard to study the toxins in tiny plankton, which are plant and [animal life](#), usually microscopic. So he had to go with an indicator that's easier to track: the ratio of different types of carbon in microbes and plankton around and even under the BP [oil slick](#). That important ratio jumped 20 percent, showing oil in the food web.

By late September the carbon ratios in microscopic life had returned to normal, Graham said.

Graham emphasized that the results of his research don't mean the plankton, the fish that feed on it or the people who eat Gulf seafood are at any risk. What he found, he said, is merely a [biomarker](#) that shows the movement of spill-related carbon through the food chain. Much of the plankton he studied was "swimming around and doing great" and in equal or higher numbers than before the spill, he said.

Graham's study, released Monday, is published in Environmental Research Letters. It was mostly funded by the National Science Foundation, with additional money from the state of Alabama and BP's Gulf Research Initiative, which distributed money through the Northern Gulf Institute in Mississippi.

For Graham it's noteworthy how voracious the oil-munching bacteria were: "The microbes came to the rescue." After they snacked on the surface oil, other microscopic sea life ate the microbes and were, in turn, chomped on by zooplankton, tiny animals.

Larry McKinney, director of a Gulf research institute at Texas A&M University in Corpus Christi, said the study confirms what scientists had expected. The big question is will it affect eggs and larvae and next year's production of shrimp, crabs and fish, McKinney said.

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