

The cure for the Gulf oil spill is as bad as the sickness

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Last May I was one of the first scientists to dive down to see the carnage from the Deepwater Horizon leak. Last week I returned to find that, one year after the BP blowout, the Gulf of Mexico remains polluted with oil.

In Barataria Bay, Louisiana, the marshes are black and the soil smells of petroleum. This area, once teeming with life, is dead. Clams, mussels, oysters, everything in the mud is dead. Few birds remain. Oil is everywhere.

At first glance, the beautiful beach at Grand Isle State Park looks back to normal — but dig 6in down in the sand and black sticky oil bubbles up. This beach is restricted for people because it is toxic but the bottlenose dolphins didn't read the signs. In the lagoon, females were feeding with their calves in the oil. Hundreds have died since the explosion.

On Grand Isle, I interviewed Gulf residents and fishermen who had been hired as response workers by BP. They told me of severe vomiting episodes, breathing problems, headaches, memory loss, even internal bleeding. Fishermen, given only gloves for protection, described their heavy exposure to oil and dispersants on the water. Blood tests now reveal high concentrations not only of the solvents found in the oil but from the dispersants used to break up the slick.

We are a long way from understanding the effects of the 1.8 million gallons of the dispersants used, Corexit 9527 and 9500. A long-term study is needed urgently.

Corexit was expected to disperse the oil and sink it below the surface. But applying such huge amounts has made the oil more persistent and toxic, and it remains in the seafloor sediments where it will not degrade for years. And oil is still washing onshore into the marshes and on to the beaches.

Three months after the leak, researchers were finding dispersant compounds on the sea floor. A month after the spill, I saw dead fish and jellyfish amid clouds of oil and dispersant. On my latest trip, I dissected a predatory fish from Barataria Bay; it had a grotesquely swollen yellow liver.

At present, there are no real answers as to the long-term effects of the oil-dispersant mixture on wildlife. But we know that dispersants increase the toxicity of oil. They contain solvents that penetrate lipid (fat) membranes and allow oil to enter the cells of the body more readily. Every tissue, every organ, can be damaged. Dispersants and oil make a deadly combination.

For the sake of both the creatures and the people of the Gulf we must discover exactly what they were exposed to and how it will affect their health. The Gulf's disaster is not over.

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