

sun-sentinel.com/news/opinion/editorials/fl-rdcol-dodge-oil-spill-research-07120100710,0,2627889.story

South Florida Sun-Sentinel.com

Uncertainty about Gulf oil spill requires research to generate answers

By Richard Dodge

10:26 PM EDT, July 10, 2010

We watch helplessly as the Deep Water Horizon oil nightmare continues. Relief is months away. And though we have yet to see the oil arrive at our South Florida shores, immense damage to the coastal ecosystems in the Northern Gulf has occurred. Birds have died. Fisheries are tainted. Spawning fish, including bluefin tuna, are at risk. Highly productive marshes are coated with oil.

The now infamous Loop Current eddy has prevented the oil from moving to us here. But when — not if — the eddy changes, oil will be carried southeast along the west coast of Florida, around the Keys, and into the Gulf stream and along the east coast of Florida. Our coastline could be ground zero.

We do not know how much, in what form, or when oil will arrive. Our best case scenario is that only a few weathered tar balls will cause minor problems. But much oil is submerged below the surface in an amorphous cloud with largely unknown dimensions, concentrations, and locations.

The worst case scenario is this: Relatively unweathered floating and submerged oil will hit our sensitive coastal ecosystems, potentially devastating our coral reefs, mangroves, and seagrasses and the fish and wildlife that live there.

Florida is home to 84 percent of the nation's coral reefs. These are not just beautiful resources, they have high biological value. In addition, according to a study sponsored by [Broward County](#) and NOAA 10 years ago, the Florida ecosystems directly generate over 71,000 jobs and \$6 billion annually in economic activity from Monroe to Martin County. Can you imagine how much the economic impact has grown?

I've studied oil effects on tropical environments for many years. Coral reefs and oil do not mix. If mangroves roots are coated, trees may die. Oil may become trapped in sediments, left to ooze out and re-foul the environment later. Damaged ecosystems take decades to recover — and the economic benefits of the resources likewise suffer.

Our environmental and emergency management agencies are working tirelessly to address the problem.

advertisement



But the magnitude of this disaster is great. We can only pray that the spill can be stopped, that oil remains out of the loop current, and that storms do not interfere.

Oceanographic scientists comprising the Southeast Coastal Ocean Observing System (SECOORA) saw the submerged oil as an extreme concern. U.S. Rep. Debbie Wasserman-Schultz and Rep. Ron Klein responded. Within 12 hours, they delivered a letter to President Obama from the entire Florida Congressional Delegation calling for immediate action. That work has begun, confirming the existence of subsurface oil and measuring its magnitude. This and other research is a high priority among the many critical measures that must be taken to respond to this disaster.

Truthfully, we are grossly unprepared to deal with the spill and its impact. Our current Ocean Observing system is a patchwork. Sufficient data, research, and modeling are needed to best understand and therefore respond to this and future disasters.

Sadly this event was predictable. Our Florida Congressional Delegation has a long history of recognizing the dangers of drilling.

In a prophetic statement to Congress in Jan., 2008 Senator Nelson fought to stop drilling in Cuban waters that could affect Florida. He said: "If there is an oil spill that is caught up in the Gulf Stream, you can see the potential for destruction of the delicate coral reefs all lining the Florida Keys and then right up the east coast of the State of Florida...".

The price we may pay in wildlife, resources, and economic damages will be enormous. It is well past time that we appreciated the value of our coastal environment and ocean resources, and that we provide the funding to protect them from future disasters.

The current crisis makes it clear that we need more dedicated funding for research on effects and response strategies.

Richard E. Dodge is the dean of Nova Southeastern University's Oceanographic Center and executive director of the National Coral Reef Institute. Learn more at: <http://www.nova.edu/ocean%20and>
<http://www.nova.edu/ocean/ncri>.

Copyright © 2010, [South Florida Sun-Sentinel](#)