



Inspiring people to care about the planet since 1888 | Learn More »

Subscriptions



HOME PHOTOGRAPHY ANIMALS ENVIRONMENT TRAVEL ADVENTURE NATGEOTV KIDS

Daily News | The Magazine | Maps | Video | Science | Education | Games | Music | Blogs | Movies | In the Field | Site Index

# NATIONAL GEOGRAPHIC Daily News

Home Animals Ancient World Energy Environment Cultures Space/Tech Weird News Photos News Video News Blogs

## Gulf Oil Spill a "Dead Zone in the Making"?



A dead Portuguese man-of-war floats on rust-colored oil off the Louisiana coast on Tuesday.

Photograph by Eric Gay, AP

### Share

- Facebook
- Twitter
- Google Buzz
- Digg

Christine Dell'Amore  
in Breton National Wildlife Refuge, Louisiana  
[National Geographic News](#)  
Published May 4, 2010

Other than a few orange tubes encircling a sandbar southwest of Louisiana's Chandeleur Islands, there's no sign anything's amiss.

Dozens of chattering [shorebirds](#)—punctuated by the odd pelican—are relaxing on this shallow strip of land in [Breton National Wildlife Refuge](#), known as one of

### Most Popular News



**Gulf Oil Spill May Reach East Coast**

A powerful Gulf of Mexico current could whip millions of gallons of oil around Florida's tip and up the U.S. East Coast, experts warn.



**Satellite Photos: Oil Spill's Evolution**

See the growth and evolution of the 2010 Gulf of Mexico oil spill, as viewed from space.



**Photos: Gulf Spill From Above**

The spread of oil on the water's surface is a main clue being used to determine the size of the leak from the Gulf of Mexico rig

disaster.

ADVERTISEMENT

### News Blogs

 StumbleUpon

 Send to a Friend

[More »](#)

## News Video



[Epic Sun Eruption Seen by NASA Craft](#)



[Tiny New Sea Species Discovered—First Ever Video](#)



[Bacteria-size Babies Among Ocean's Smallest Life](#)

[See All News Video »](#)

the most important bird breeding grounds in the world. (See [pictures of places that could be America's next national parks](#).)

After heavy rains, experts from a handful of conservation groups traveled by boat Monday to see if oil from the ongoing Gulf of Mexico spill had yet reached the birds at this remote spot. (See a [map of Louisiana's barrier islands](#).)

So far, nothing.

But a heavy band of oil has been spotted at the refuge's back door—"and time is either a friend or an enemy," Larry Schweiger, president of the [National Wildlife Federation](#), said over the avian cacophony.

Even if oil never washes up in the refuge, the region's birds may be silenced if the crude lingers deep in the Gulf of Mexico, experts say.

That's because 5,000 barrels of oil (210,000 gallons, or 794,937 liters) a day are thought to be bleeding from a damaged wellhead at the nearby site of the [Deepwater Horizon rig disaster](#). All that oil is poisoning the less photogenic creatures—plankton, sand crabs, and fish larvae, among others—at the base of the region's food web, Schweiger noted.

If the oil spill can't be contained, the Gulf of Mexico could have another "dead zone in the making," according to Sylvia Earle, a marine biologist and National Geographic [explorer-in-residence](#). (National Geographic News is owned by the National Geographic Society.)

Often caused by algal blooms, dead zones are swaths of ocean devoid of life, save for hardy bacteria. (Related: "[Gulf of Mexico 'Dead Zone' Is Size of New Jersey](#).")

### Oil Spill Making Toxic "Chocolate Mousse"

Oil bubbling up from the Gulf of Mexico wellhead, which sits more than 5,000 feet (about 1,500 meters) below the water's surface, is coming from even deeper inside the Earth.

That means the oil is heavier and thicker than the crude spilled in past, tanker-based disasters, noted [Ron Kendall](#), chair of the Department of Environmental Toxicology at Texas Tech University in Lubbock.

When there's turbulent weather—as the Gulf of Mexico has experienced over the past few days—the dense oil mixes with water to form an emulsion, a sort of goeey, chocolate mousse-like substance, Kendall said.

This concoction presents a greater dilemma than the "physical problems of just sticking to a feather," he said. The emulsion is toxic to birds, baby sea turtles, fish embryos, crabs, and shrimp larvae, not to mention sea grasses and marshlands.

What's more, the catastrophe is hitting the Gulf at its most sensitive time of the year—when sea turtles and commercially important species of fish and shrimp are spawning, he noted. (See [pictures of how the Gulf oil spill is affecting wildlife](#).)

"Impacts to the birds will be the thing that is most visible to the public, but it is not just *their* deaths that we should be concerned about," said [John "Wes" Tunnell](#), associate director of the Harte Research Institute for Gulf of Mexico Studies at Texas A&M University in Corpus Christi.

Infauna, or small organisms such as clams and tubeworms that live in ocean sediments, are vital food sources for shorebirds and other coastal animals.

After the 1979 Ixtoc oil spill in the Gulf of Mexico, the area's infauna were reduced by up to 90 percent, Tunnell said—a potential reason many bird species left the area in the wake of the nine-month-long spill.

However, there may be a bright side: Organisms at the bottom of the food chain reproduce more rapidly than bigger animals, Tunnell pointed out by email. After the Ixtoc spill, infauna returned to pre-spill levels within about a year.

Gulf of Mexico's Deadly Experiment



Real-Life "Avatar" Plays Out  
Groups fight for the survival of indigenous people facing threats from industry in the Amazon.



NASA Balloon Crashes in Australia  
A balloon carrying a gamma ray telescope crashed shortly after launch, sideswiping an SUV and just missing onlookers (*with video*).



The Green Guide Blog  
Get tips for everyday green living from National Geographic.

## FoxNews.com SciTech

- [Chemical Detergents May Make Gulf Oil Disaster Worse, Say Experts](#)
- [Microsoft Kin Phones Great for Messaging, But No iPhone](#)
- [How Nikola Tesla Predicted the Blackberry](#)
- [As Workers Race to Plug Oil Spill, Hurricane Season Looms](#)
- [BP Begins Drilling Relief Well at Gulf Oil Spill](#)


**digg™** [About Digg](#)

Popular stories from National Geographic News

- 191 [Gulf Oil Spill a "Dead Zone in the Making"?](#)
- 300 [Bald Eagles May Have to Eat Toxic Seals](#)
- 285 [Gulf Oil Spill Pictures: Aerial Views Show Leak's Size](#)
- 250 [Crocodile Mummies \[Pics\]](#)
- 476 [Strange Sea Species Found Off Greenland \[PICS\]](#)


Powered by Digg's Users

SPECIAL AD SECTION



**Play Game**

Visit river rescue sites and save the ecosystem!



**Audio Slide Show**

Take a photographic journey through Montana and hear Annie Griffiths Belt's narrative.

## Sponsored Links

[Louisiana Oil Spill](#)  
Have You Been Hurt Economically Due To The Spill? Call 800-BIG-CASE  
[Oil-Rig-Spills.Com](#)

[Gulf Oil Spill Emergency](#)  
Urgent Legal Information About Claims, Insurance, Aid

Some scientists also worry about one of the [joint federal-industry response team's](#) methods for controlling the oil: [dumping chemical dispersants into the Gulf of Mexico](#).

These chemicals merely break up the oil into smaller droplets, making it less likely to spread—but more likely to drift down and choke life on the seafloor.

"We're wiping out critical elements of the base of the food chain of the Gulf," Texas Tech's Kendall said. "This is an ecotoxicological experiment underway in one of the world's most productive and fragile ecosystems."

As oil droplets spread through the water column, the crude can be fatal to plankton, the tiny, open-ocean creatures that many larger animals depend on, according to marine biologist Earle.

Rescue workers can clean and treat oiled birds and other relatively large animals that come ashore. But "how do you deal with deoiling plankton?" Earle said.

In addition to feeding marine species, plankton suck up carbon dioxide, a vital job in a warming world and one that climate engineers are trying to emulate, Earle noted. (See pictures of [seven emergency climate fixes](#).)

"What we do to the ocean, we're doing to our life-support system—we're doing it to ourselves," Earle said.

#### Oil Always Wins

Standing in the warm, calf-deep water of the bird refuge, the National Wildlife Federation's Schweiger pointed out that the marshes of the Gulf Coast replenish the entire ecosystem, for instance by protecting shorelines from eroding.

If exposed to oil, these Louisiana wetlands—which human development has already diminished by 40 percent—may wither away, leaving just the open ocean.

And that means the noisy shorebirds nesting just a few hundred feet behind him would have to find another place to go.

"When oil collides with wildlife," Schweiger said, "oil always wins."

[www.GulfOilSpillLawFirm.com](http://www.GulfOilSpillLawFirm.com)

#### [Oil Spill Attorneys](#)

Experienced Oil Spill Lawyers are ready to assist you.

[www.gulfcoastoilspillover.com](http://www.gulfcoastoilspillover.com)



Ads by Google

## Latest News



Photos: Huge "Domes" for Oil Spill?



Gulf Oil Spill to Create Dead Zone?



Gulf Oil Spill May Reach East Coast



Satellite Photos: Oil Spill's Evolution

## More From National Geographic



Water Pressure



Life in Color: Purple



Photo of the Day: Best of May 2009



Maya Rise and Fall




Lost Tribes of the Green Sahara



Wind Power



Mountain Gorilla

 [National Geographic Home](#) » [News](#) » [Gulf Oil Spill a "Dead Zone in the Making"?](#)

[HOME](#)   [ANIMALS](#)   [ENVIRONMENT](#)   [KIDS](#)   [NEWS](#)   [NATGEOTV](#)   [PHOTOGRAPHY](#)   [SHOP](#)   [TRAVEL](#)

[The Magazine](#) | [Maps](#) | [Video](#) | [Science & Space](#) | [Education](#) | [Games](#) | [Music](#) | [Blogs](#) | [Movies](#) | [In the Field](#) | [Mobile](#) | [Site Index](#)

[Subscriptions](#) | [Buy Prints](#) | [Stock Footage](#) | [Stock Photos](#) | [Travel With Us](#) | [Newsletters](#) | [Jobs](#) | [Global Sites](#)

[About](#) | [Contact](#) | [Donate](#) | [Press Room](#) | [Customer Service](#) | [Advertise With Us](#) | [Terms of Service](#) | [Privacy Policy](#) | [About Our New Design](#)



© 1996-2010 National Geographic Society. All rights reserved.