

# SOLUTIONS

Vol. 41, No. 3 / Fall 2010

> **A PERILOUS  
RECOVERY**

As the Gulf struggles  
to its feet, the region  
unites to save an  
ecosystem vital to  
people and nature.  
PAGE 6



# WHERE WE STAND

By EDF President Fred Krupp



T. Charities Erickson

## MESSAGE TO CONGRESS: STOP TALKING, START ACTING

In July, when it seemed oil would never stop spewing into the Gulf of Mexico, I traveled along Louisiana's coast, where EDF has worked for decades on wetlands restoration and fisheries.

At first, the sheer magnitude of the disaster—the 11 men killed on the BP rig, the sheer quantity of oil and dispersants and the toll on marine life—was deeply dispiriting.

But the longer I stayed, the more my mood was lifted by the people around me. Everyone I met—day laborers, fishermen and businesspeople of every political persuasion—held a common vision of a restored and thriving Mississippi River Delta.

Louisianans have connected the dots. They know that wetlands are needed to protect their lives and livelihoods. Yet their state contained 90% of the coastal wetlands that our nation has lost. No wonder, then, that Louisianans are determined to force action on restoring coastal wetlands. In my 25 years at EDF, I have never experienced such unanimity about an environmental project. As Connie Townsend, owner of the Sportsman's Paradise restaurant in Chauvin, LA, told me, "They've got to stop talking about this and start restoring these wetlands."

That determination, I hope, will help make wetlands restoration a key part of Congress's response to the BP disaster. But Washington, DC, unlike Louisiana, doesn't seem to understand the consequences of inaction. That's one reason the Senate spent the summer *not* passing a climate bill that would cap U.S. greenhouse gas emissions (*see story, p. 4*) and start to wean this country off oil.

The Senate's failure to act is a tragic lost opportunity, leaving billions of dollars on the sidelines in the U.S. economy and forgoing a massive private sector stimulus with no deficit spending. American business is only waiting for certainty on carbon rules to launch the new green economy: If Congress acts, Public Service Electric and Gas intends to invest \$2 billion between now and 2014 on solar energy, wind and energy efficiency. Meanwhile, the utility NextEra Energy Resources envisages investing \$3 billion a year, creating 50,000 jobs over the next five years. If we don't empower such companies, we will cede the race for green energy to China.

In the end, the politicians can't wish the problem of global warming away. It's here, it's worse than we imagined, and we can't wait any longer to fight back. Connie Townsend is right. Our leaders have got to stop talking and start acting.

A handwritten signature in black ink that reads "Fred Krupp". The signature is fluid and cursive, with a large, sweeping "F" and "K".



Environmental Defense Fund's mission is to preserve the natural systems on which all life depends. Guided by science, we design and transform markets to bring lasting solutions to the most serious environmental problems.

Our work is made possible by the support of our members.



### ON THE COVER:

How do you recover from catastrophe?

The BP gusher is capped, but its aftereffects will

linger for years. With three decades' experience in Louisiana, EDF is helping lead restoration efforts.

Senior writer Rod Griffin takes readers to the Gulf where EDF is fighting to help fishermen and restore vanishing wetlands. *See page 6.*

Cover photo: White Ibis, Sean Gardner/Reuters

## SOLUTIONS

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## GRIM NEWS ON TWO FRONTS UNLEASHES AN OUTPOURING OF COMMENTS

In emails, on Facebook and on EDF's blogs, thousands of members responded to the BP oil catastrophe in the Gulf and the Senate's failure to act on climate.

### On the blowout in the Gulf...

Now that the gushing oil has been stopped, will we soon forget about the catastrophe and complain when our SUVs are taken away or gas is too high? —Jennifer D.

My parents loved the Gulf and the creatures that inhabited it, especially a one-legged heron they watched over. When turtles moved across the highway, the island's residents would stop traffic, so they would not be harmed. This tragedy leaves me in tears. —Margaret Poepp

Is this catastrophe Mother Earth's way of showing humans that we've gone way too far in pillaging natural resources and she's had enough? This is not just the Gulf's problem. This is the world's problem for decades to come. —Terry Pollock

Heartbreaking. Preventable. Inexcusable. —Ann Bertino



Joe Raedle/Getty

### ... and the debacle in the Senate

Why not force the opposition into a filibuster and make those senators tell the American people why they are undermining national security, giving up an unprecedented opportunity to revitalize the U.S. economy (while handing the leadership on a sustainable clean energy industry over to China) and continuing to support big oil and coal with their terrible environmental record? Where is our courage? —Willy Osborn

The enemy is not BP, the enemy is *us*. We, the people, are addicted to oil and its byproducts because they offer us a convenient lifestyle that Madison Avenue wholeheartedly supports. We keep in business the industries that bring us oil, SUVs and McMansions. Congress is just maintaining the status quo. —Peter Thompson

We must act now. If we cannot do it in this Congress, what chance will there be in the next? —Ron Oesch

> SEE A VIDEO AND TAKE ACTION for clean energy at [edf.org/cleanenergyfuture](http://edf.org/cleanenergyfuture)

> BLOGS: Learn more at [edf.org/blogs](http://edf.org/blogs)



Illustration by Thomas Holzheu

### Heal the Gulf: A child's voice

EDF recently received a poignant story from a fourth grader, who imagines the Gulf oil crisis from the perspective of a seagull named Lucky. The story begins with Lucky wistfully dreaming of her life in the Gulf with her friends before the disaster:

*As I soared through the sky I watched as things passed by. People, boats and animals. Couldn't it be a nice warm summer day? Then I could fly with my friends, we could steal people's food and dive in the nice big ocean. The super clear water, where tons of fish swim... But no. That was the past. That was before the oil spill.*

> FULL STORY: Read it at [edf.org/luckyseagull](http://edf.org/luckyseagull)

## EDF IN THE NEWS

**“No air pollution problem in history has been solved without a mandatory pollution limit. We're open to how you structure that. But at the end of the day, that's our goal.**

—Tony Kreindler, EDF climate media director, commenting in *Politico* on the Senate's attempt to weaken climate legislation



C. Sherburne/Getty



# ON GLOBAL WARMING, THE SENATE TAKES A VACATION



Peter Mason

With the Senate adrift on climate legislation, EDF focuses on defending EPA's authority to regulate pollution. Will California's global warming law survive the oil industry's ballot challenge?

The struggle for a national climate bill goes on. In late July, the Senate leadership reversed course and chose not to push for a vote on a bill that would limit greenhouse gas emissions. Majority Leader Harry Reid (D-NV) said he remained open to moving such a bill after the November elections, but the chances for action are slim.

"The Senate's inability to pass climate legislation is a stunning failure of our national leadership," says EDF president Fred Krupp.

Several factors conspired to kill climate legislation this time around, Krupp says. Foremost among them is the Senate rule that requires 60 votes to defeat a filibuster. That's a high hurdle in this era of toxic partisanship.

As EDF continues to fight for national climate legislation, we will intensify our efforts in states willing to lead, and we will urge EPA to take strong action. EPA has the authority to regulate pollution, and the Obama administration has signaled that it intends to use that authority.

Says EDF vice president for climate Steve Cochran: "In the absence of national legislation, EPA and the states have become critical battlegrounds for the months ahead."

On Capitol Hill, EDF's urgent priority is to block efforts to revoke EPA's authority to reduce greenhouse gas emissions under the Clean Air Act. In June, EDF and allies successfully beat back one such threat, an amendment introduced by Lisa Murkowski (R-AK). The measure would have permanently stripped EPA of its power to regulate emissions. Now, some senators are planning bills that would revoke EPA's authority for two years. While we fight

off this threat, we will work with EPA to develop strong regulations that reduce greenhouse gases and other air pollution.

Between now and November, EDF is also working to defend California's innovative climate law, AB32, which is under attack from a ballot initiative (see page 14). The coal and oil interests that successfully blocked climate action in the Senate now have set their sights on the Golden State's global warming pollution cap, and they're sparing no expense to kill it.

In the coming months, EDF also will promote regional and state efforts to reduce emissions, including the Regional Greenhouse Gas Initiative in the Northeast. And we will redouble our efforts to cut emissions in the private sector, through our partnerships with major companies like Walmart. (EDF accepts no funding from its corporate partners.)

Finally, we will step up our international work. In China, now the world's biggest greenhouse gas emitter, our Beijing office will accelerate initiatives to reduce that country's reliance on fossil fuels. We will also work to link carbon markets in Australia, Japan and the European Union and to stop rainforest loss in the Amazon. Brazil has already agreed to reduce emissions 70%, in part thanks to the efforts of EDF and its Brazilian partners. Eventually, however, we must have an international carbon market that rewards Brazil for not cutting down rainforests. With no market, the country could return to the clear-cutting that made it the world's fourth largest emitter.

Of EDF's ongoing efforts to win national climate legislation, Krupp says, "We're marathoners, not sprinters. We're in this for the long haul, and we intend to prevail—because we have to."

**"The climate crisis is not going away—and we're not going away either. That's the message EDF will continue to deliver to Senate leaders and the White House."**

—Steve Cochran, vice president, climate program



John Rea



## IN THE GULF OF MEXICO, ENSURING A FUTURE FOR SHARKS

**T**ry to imagine a world without sharks. They have existed for more than 400 million years, but that ancient lineage does not guarantee a future. Today, people kill an estimated 73 million sharks a year—most for their fins, worth hundreds of dollars a pound in Asian markets. We are killing sharks far faster than they can breed.

“Many well-known shark species are in danger of extinction,” says Dr. Douglas Rader, EDF’s chief oceans scientist. “In U.S. Atlantic and Gulf of Mexico waters, large shark populations, including tigers and hammerheads, have fallen by as much as 99%.”

In response, EDF is working with the Mote Marine Laboratory of Sarasota, FL, a leader in shark research, to link the United States, Mexico and Cuba in a cooperative program to rebuild shark populations in the Gulf of Mexico. It will be the first such program anywhere in the world.

Sharks play a key role in marine ecosystems. For example, as their populations have fallen on the U.S. Atlantic coast, the rays they prey on have flourished. The rays feed on bay scallops and have ravaged scallop beds, devastating a century-old fishery. Similarly, overfishing for sharks in the Caribbean has led to more grouper. Grouper feed on parrotfish, which hold in check algae that would otherwise overgrow living corals. With parrotfish populations falling, algae is smothering corals. Ecosystems with healthy shark populations are also believed to be more resilient to climate change.

There is no easy answer to this crisis, in part because many sharks are highly migratory, like tuna and swordfish. They’re also a source of food and cash in many poor nations, so fishing bans, where they exist, are often ignored.

“The tri-national approach we’re taking with Mote may be the only way to control shark overfishing in the area,” says Pam Baker, EDF’s senior ocean policy advisor for the Gulf.

Among the remedies being studied are catch shares, an approach EDF has successfully used in the United States and Mexico, where fishermen are assigned a percentage of the total allowable catch for

a species, eliminating overfishing.

The need to take similar action for sharks has grown even more urgent with the BP oil disaster. “Pupping and nursery

### Uniting the U.S., Cuba and Mexico to protect a vanishing species

grounds in the relatively shallow waters of the eastern and southern Gulf are especially at risk,” notes Rader.

The challenges are significant. The United States, Cuba and Mexico each has its own economic and conservation priorities. But EDF has built long-standing, trusted relationships with officials and grassroots organizations in all three countries, and we are confident an agreement can be reached.

Soon, students from the University of Havana will begin compiling a census of Cuba’s shark population. Later this year, we hope to secure formal support for the project from the three governments, followed by a first meeting of a tri-national shark work group.

These are the first steps toward ensuring a future for sharks in the Gulf of Mexico. Our goal is to have the full program up and running by 2014.



**Shark fins for sale: Will sharks go extinct for a bowl of soup?**

Laurent Fleuret/Getty

**▶ VIDEO: EDF’s undersea work in Cuba at [edf.org/cuba](http://edf.org/cuba)**





# AFTER THE SPILL

In the battered Gulf, the work of rebuilding and restoration begins

By Rod Griffin

The BP disaster offered a painful lesson on the importance of the Gulf's wetlands to the nation's economy and its wildlife. Now, with the well capped, the focus shifts to the challenge of restoring these long-abused ecosystems.

When BP's Deepwater Horizon rig sank into the waters of the Gulf of Mexico on April 22, the 40th anniversary of Earth Day, no one foresaw the scale of the tragedy that was to follow. It took another 85 days to contain the gusher, but only after some 200 million gallons of oil had spewed into the Gulf of Mexico. That's 19 times the size of the 1989 Exxon Valdez spill.

Louisiana has borne the brunt of the disaster, and the state's coastal wetlands—which provide one-third of the nation's fish and shellfish harvest and act as buffers against hurricanes—were already in trouble long before the spill. Louisiana loses some 20 to 30 square miles of coastal land each year, roughly an acre every half hour.

The bayous of Lafourche and Terrebonne Parish, near New Orleans, are ground zero. Literally. Their wetlands are receding so fast that navigation maps on fishing boats show land where there is now only water.

BP's spill has only made this

ecological crisis worse, jeopardizing wildlife, the livelihoods of fishermen and the future of coastal communities. The entire economy of southern Louisiana—and much of the Gulf region—has been hit by the disaster, from fishermen to oil rig workers to the tourist industry.

Driving south on Highway 56, past idled shrimp boats and shuttered juke joints, one hears the heartache. "I've owned this restaurant for 37 years," says Connie Townsend, proprietor of Sportsman's Paradise, a local hangout about two hours from New Orleans. "I've rebuilt 13 times after hurricanes," she adds, fighting back tears. "If this spill closes me down, I'll never walk through that door again."

Yet many Gulf residents retain hope. Like the Gulf itself, they are resilient. "After the hurricanes, we've always been able to bounce back," says shrimper Lance Nacio, who operates a 55-foot boat out of Larose, LA. "This will be a challenge, but I believe Mother Nature eventually will repair herself."

## “This disaster didn’t begin with the Deepwater Horizon explosion, and it doesn’t end with the capping of the well.”

—Elgie Holstein, EDF’s disaster response team coordinator

### A 35-year mission in the Gulf

Decades before the BP disaster or Hurricane Katrina, EDF was already in Louisiana, striving to restore the state’s vanishing wetlands. In recent years, we helped close the Mississippi River Gulf Outlet, which had destroyed tens of thousands of acres of wetlands on the east side of New Orleans and channeled Katrina’s storm surge into the heart of the city. Now our efforts have become even more urgent.

“This disaster didn’t begin with the Deepwater Horizon explosion, and it doesn’t end with the capping of the well,” says Elgie Holstein, EDF’s disaster response team coordinator, who testified on Capitol Hill in support of tighter regulations and additional safeguards for high-risk, deepwater drilling.

Our wetlands experts and marine

scientists are working on immediate relief efforts and long-term plans to restore the Gulf Coast. We’re also doggedly pushing policymakers in Washington to pass comprehensive energy and climate legislation that will finally end our nation’s oil addiction (*see story, p. 9*).

EDF president Fred Krupp met with Secretary of the Navy Ray Mabus, the administration’s point person on Gulf recovery efforts, to press for emergency funding to support wetlands restoration—and for beginning the work immediately. The funds would come from civil penalties and damages paid by BP (as much as \$16 billion) and from future fees on oil.

“What’s important is what we do after we put away the rubber boots and the mop-up equipment,” Holstein says. “We must never let this happen again.”

The Mississippi River, once described by Mark Twain as too thick to drink and too thin to plow, is loaded with rich Midwestern soils. Over a period of 7,000 years, the river’s spring floods deposited sediments in what is now southern Louisiana, creating a huge delta sheltering the region around New



Doug Kespauin

**Louisiana fisherman Lance Nacio: “Give us some hope back, and we’ll have a future.”**

Orleans from storms.

The Mississippi Delta is an economic as well as a natural marvel. These are the most productive wetlands in America. They nurture a \$2.5 billion fishing industry and are a vital wintering or resting spot for 70% of America’s migratory waterfowl.

“If you ask why the Gulf of Mexico is so productive from a resource point of view, in terms of fish and wildlife, it’s because of this deltaic system,” says EDF coastal scientist Dr. Angelina Freeman.

But the Delta has been steadily shrinking for nearly a century. Its soils naturally compact and sink over time, eventually giving way to open water unless



## Rx FOR RECOVERY

EDF has worked on the Gulf Coast for more than 35 years. In the wake of the BP disaster, our experts are focusing on immediate relief actions as well as long-term plans to restore coastal Louisiana. Our demands:

- Accelerated restoration of coastal wetlands
- Stricter regulatory oversight for offshore drilling
- Immediate help for affected fishermen and communities
- A scientific task force to monitor the spill’s impacts
- Climate legislation to wean the U.S. off fossil fuels



Eric Gay/AP Photos

**Oiling the Gulf: As long as the nation relies so heavily on oil, there will be increasing pressure to drill in riskier places.**



fresh sediment offsets the subsidence. The Mississippi's spring floods once maintained that balance, but after a devastating flood in 1927, levees were built along the river, funneling the marsh-building sediments to the deep waters of the Gulf.

A second factor causing Delta erosion is the massive footprint of the oil, gas and shipping industries. Engineers have cut thousands of miles of canals through the

marshlands for petroleum exploration, pipelines and ship traffic. These ditches sliced the wetlands into a giant jigsaw puzzle, increasing erosion and allowing lethal doses of salt water to infiltrate brackish and freshwater marshes.

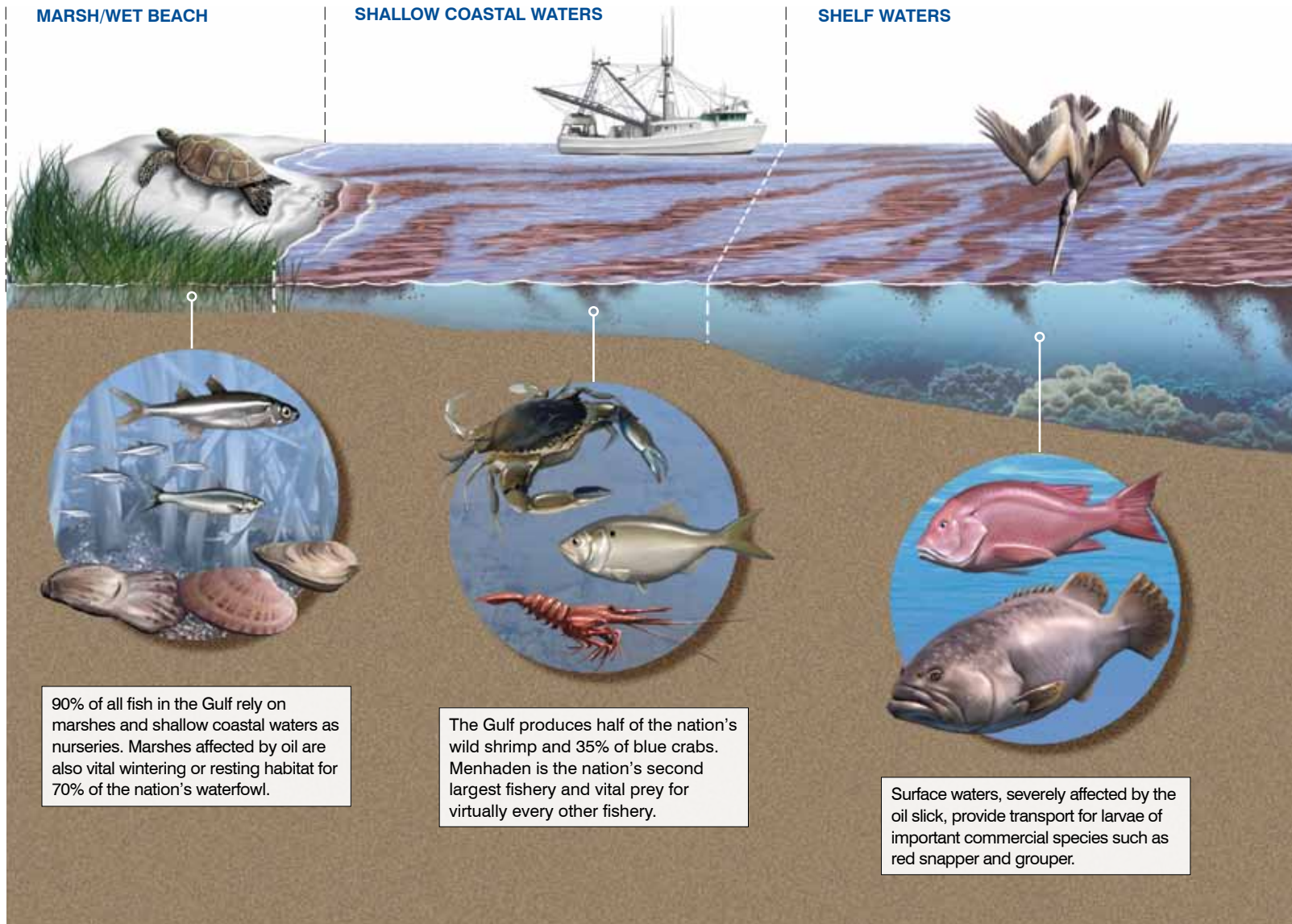
The result? Since the 1930s, Louisiana has lost a third of its coastal wetlands— 2,300 square miles—an area larger than Delaware.

### A way of life imperiled

Lance Nacio's story illustrates what's at stake. For more than a century, his family owned 1,500 acres of freshwater marshland, about 30 miles inland in Lafourche Parish. His grandparents were farmers. They raised cattle, grew crops for food and trapped mink and muskrat for their pelts. "My dad worked in the oil fields," Nacio says, "but we lived off the land."

## BENEATH THE SURFACE An undersea world at risk

A large portion of the oil from the BP gusher may ultimately end up on the seafloor, being eaten by worms, mollusks and crustaceans, and ingested by fishes. The lack of light and oxygen is likely to slow the breakdown of oil, causing toxic chemicals to move through the food chain for years to come. Two critical groups of ocean animals—mid-water fauna and deep sea inhabitants—are especially at risk. This illustration shows the conditions while the gusher was active from April 20 to July 15.



MARSH/WET BEACH

SHALLOW COASTAL WATERS

SHELF WATERS

90% of all fish in the Gulf rely on marshes and shallow coastal waters as nurseries. Marshes affected by oil are also vital wintering or resting habitat for 70% of the nation's waterfowl.

The Gulf produces half of the nation's wild shrimp and 35% of blue crabs. Menhaden is the nation's second largest fishery and vital prey for virtually every other fishery.

Surface waters, severely affected by the oil slick, provide transport for larvae of important commercial species such as red snapper and grouper.

Illustration by John E. Kaufmann



# 3,500 Number of offshore drilling rigs in the Gulf of Mexico

Over the last 20 years, however, Nacio has lost 25% of his land to erosion or subsidence. To adapt, he bought a shrimp boat in 1998 and began selling wild-caught shrimp directly to local retailers and upscale markets like Whole Foods. Then came the oil spill, putting his livelihood in jeopardy.

“If anything good comes out of this,” Nacio says, “Louisiana will finally get some recognition. This should be a wake-up call for the rest of the country to see how important—and how vulnerable—these wetlands are.”

Destruction of the Mississippi Delta is “by far the largest and most tragic loss of ecological resources in the country,” says EDF senior counsel Jim Tripp, who began work to protect Louisiana wetlands in 1973 and is a member of the Louisiana Governor’s Advisory Commission on Coastal Protection, Restoration and Conservation. “It ranks with the oil spill disaster—only it has taken place over 80 years and is still ongoing.”

EDF has called on the Obama administration and Congress to accelerate the design and implementation of ➤

## A VOICE FOR UNBIASED OCEAN SCIENCE

Since the BP blowout, Douglas Rader’s phone has been ringing nonstop. EDF’s chief oceans scientist has been the go-to expert in highlighting the critical undersea impacts of the disaster.

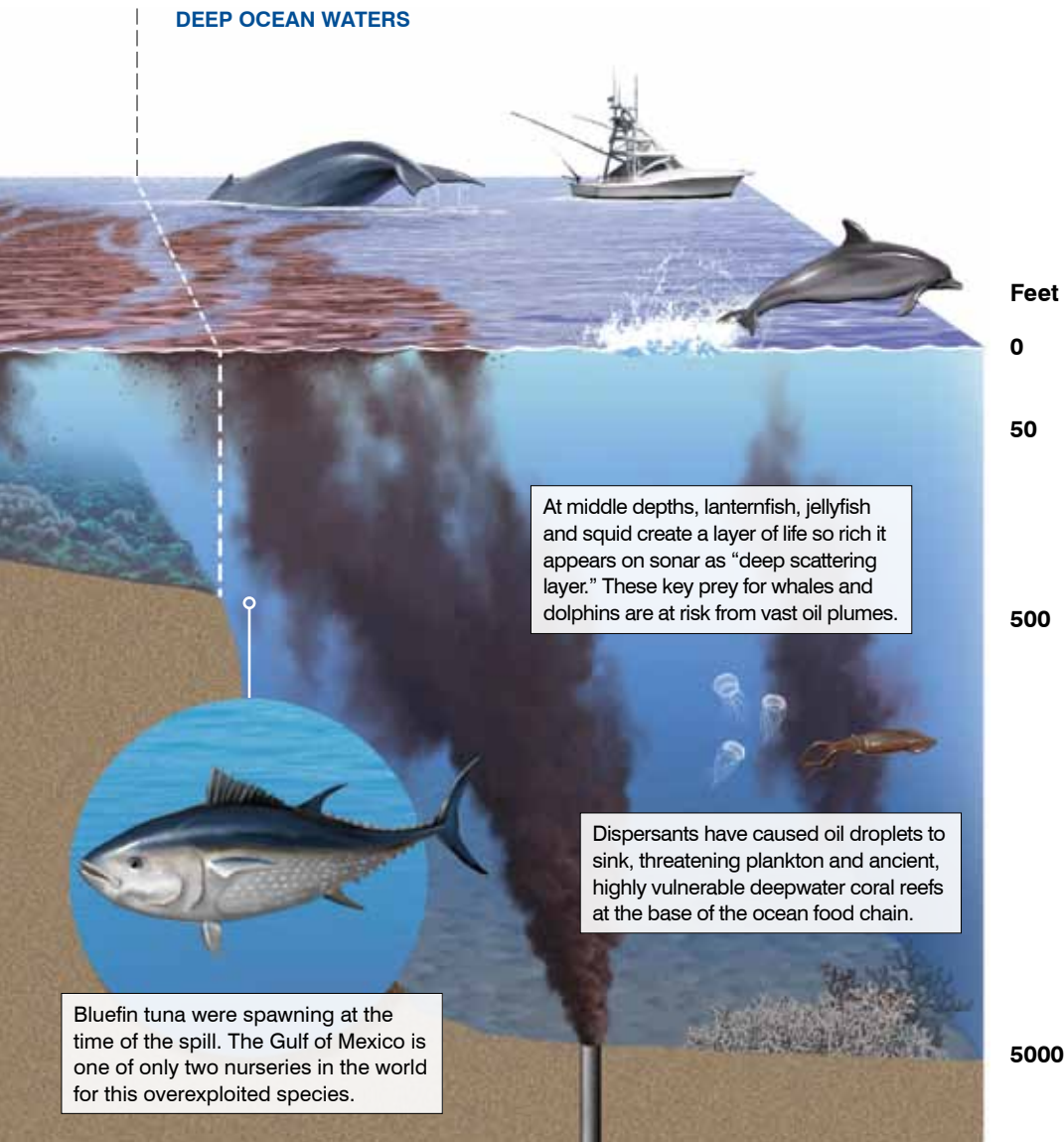
“The biggest damage lies hidden under the surface,” says Rader, a Ph.D. biologist who serves on numerous ocean advisory panels. “In those places, uncounted numbers of animals—from plankton and crustacean larvae all the way up to the giants of the deep—are dying or at risk as oil pollution works through the food web. Their health is critical for the ocean food chains.”

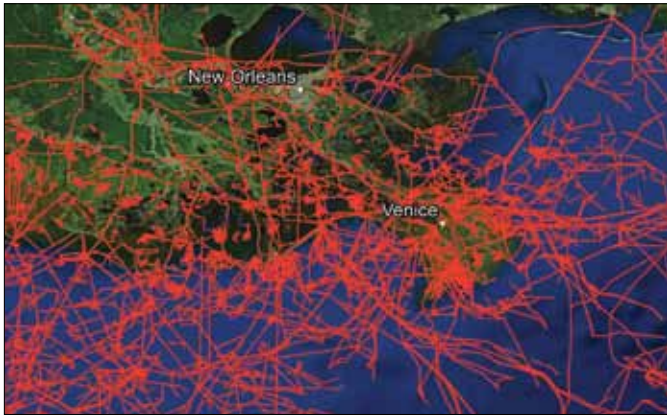


**EDF chief oceans scientist Dr. Douglas Rader: “Unbiased research is necessary to understand this disaster so that we can begin healing the Gulf.”**

Rader is leading a team of EDF scientists pressing for the creation of a high-level independent task force to monitor the BP disaster’s impacts on habitat and wildlife. The sheer volume of oil and dispersants set loose in the Gulf means that toxic effects will be unlike those of any previous spill.

“This is all new to science,” says Rader. One consequence of the 1.7 million gallons of dispersants that were used is that a large portion of the oil may end up on the bottom, threatening deepwater corals at the base of the Gulf food chain.





Matthew Scraftford

Louisiana is home to one-third of the nation's oil and gas infrastructure, which includes some 40,000 miles of pipeline.

a long-term Mississippi Delta restoration plan on the scale of the project to restore the

Florida Everglades. The price—more than \$2 billion a year for decades—won't be cheap. But the cost of inaction is even greater.

"If we fail to reverse the collapse of the Delta, the economic and environmental costs could mount into the trillions," explains Paul Harrison, EDF's senior director of rivers and deltas. "Finding the resources for Delta

restoration will take huge political will, but it must be done."

Congress already has authorized 17 near-term projects (to be completed within five years), with the principal goal of redirecting sediments to the wetlands. EDF helped the House approve \$1.2 billion in July to jump-start immediate restoration projects. Now the onus is on the Senate to follow suit.

The Mississippi Delta may never return to the grandeur of Mark Twain's day, but the region can be made whole again. "For things to really work, the oil companies have to bring things back to where they were—or better," says Nacio. "Give us some hope back, and we'll have a future."

➤ VIDEO: Learn more about Louisiana's vulnerable wetlands at [edf.org/wetlands](http://edf.org/wetlands)

## A LIFELINE FOR GULF FISHERMEN

### Catch shares cushion the blow for commercial snapper fleet

Myrtle Grove Marina, north of Barataria Bay, LA, is a boomtown these days, a staging area for the BP cleanup that employs many local fishermen. But what happens after BP packs its bags and the consequences of untold damage to fish and the seafloor become clear?

"This is my livelihood," says James Bruce, a fourth-generation Cajun fisherman who trawls for shrimp and fishes for snapper. "I don't know what else I'd do."

EDF joined the Gulf Fishermen's

Association in calling on Congress for at least \$100 million to assist affected fishermen. We're also helping develop testing programs to ensure that Gulf seafood is safe, as well as a system to help market it.

At the time of the BP blowout, the once-failing commercial red snapper fishery in the Gulf had rebounded, thanks to a catch share program introduced in 2007. Under the program, which EDF helped design, fishermen are assigned a percentage of an annual allowable catch.

This lets them decide when to fish and prevents overfishing. The result: Less waste, more profit.

"Catch shares work," says Steve Tomeny, who fishes out of Port Fourchon, LA. "We've seen a tremendous recovery in the fishery." Bycatch, the unintentional killing of fish, has been cut by 70%, allowing the population to recover.

Fishermen in areas closed by the spill are trading their shares to others in the Gulf, thereby earning some income. Tomeny, for example, plans to lease his unused shares to a fisherman who works off Florida in an area unaffected by the spill.

Recreational and charter fishermen still operate under old rules that limit their days at sea. Their 54-day season fell in June and July, which obviously didn't help fishermen hemmed in by oil. "Now we're in a crisis," says Ben Fairey, who runs a charter business in Orange Beach, AL. "I'd like for us to have what the commercial fishermen have—a more rational system."

EDF is working with Fairey and others to devise one. "Now more than ever," says EDF senior ocean policy advisor Pam Baker, "we need to reduce waste and make every fish count—for the environment and for fishermen."



John Rae

Going to work: EDF scientists and fishermen are collaborating in the Gulf.





# CHEMICAL NATION

Will Congress protect families from unsafe chemicals?

Synthetic chemicals are found in everything—from clothing and baby bottles to pet food, toys and metal cans. Many are now found in the bodies of every American—and even in people and animals living in the most remote spots on Earth.

What are these chemicals doing to our health? We simply don't know. What's worse, under the current federal law, we can't find out. That's because the law that was supposedly written to protect all Americans from toxic chemicals has been a failure.

The Toxic Substances Control Act (TSCA) is so weak that EPA could not even ban asbestos, a known human carcinogen banned in more than 50 countries. Congress passed TSCA in 1976, when there were roughly 62,000 chemicals in use. Since then,

only 200 have been tested for safety by EPA.

Meanwhile, more than 20,000 additional chemicals have been introduced in the marketplace. For more than 85% of these, no health data have been provided by their manufacturers, because the law doesn't require it.

“Unfortunately, TSCA is a totally ineffective environmental law,” says EDF chemist Dr. Richard Denison, who writes an influential blog on toxic chemicals and testified before Congress in July on the need for a new law. “It's riddled with loopholes and from the start it has failed to deliver the proof of safety it promised. In fact, the law actually penalizes companies that test their chemicals and rewards those that don't.”

EDF has been working to replace

TSCA with a law that would require safety data for all chemicals in commercial use. Our efforts are paying off. Bills proposing a replacement law have been introduced in the House and the Senate. They would:

- Shift the burden of proof from EPA to industry, by requiring that chemical companies prove their products are safe. (Currently, EPA must prove a chemical is harmful before it can impose any controls.)



As part of EDF's effort to build support for a new law, we started a grassroots campaign called “I Am Not a Guinea Pig.” The campaign's website ([notaguineapig.org](http://notaguineapig.org)) carries Denison's blog and includes information on who's at risk from untested and unsafe chemicals, as well as how to join the fight for reform.

EDF also helped found a broad coalition of 250 health and environmental groups called *Safer Chemicals, Healthy Families* ([saferchemicals.org](http://saferchemicals.org)). Among our partners are the Learning Disabilities Association and MomsRising, a network of mothers concerned about the dangers of untested and unsafe chemicals on children.

“EDF's leadership has been terrific,” said Judi Shils, founder and director of Teens Turning Green, another coalition partner. “It's a voice that never stops.”

**▶ TAKE ACTION: Join the fight for reform. Urge your Congress members to support legislation that strengthens toxic chemicals standards at [edf.org/chemicalreform](http://edf.org/chemicalreform)**

- Eliminate the loophole that has allowed older chemicals to remain on the market without being tested.



EDF scientist Dr. Richard Denison is a relentless voice for congressional action on chemical safety.

# GREEN LIVING



photos.com

## WIRELESS WILDERNESS

Plugging your kids into nature

By Jim Motavalli

Recent studies suggest that contact with nature is essential to a person's well-being. "Humans are evolving organisms, and the environment is our habitat," explains scientist Dr. Frances Kuo.

So what does it mean that America's kids now spend an average of seven hours a day using entertainment media? Instead of walking in the woods, they gaze at flat screens, thumb-type on tiny keyboards and talk, text and tweet on a bewildering variety of electronic devices.

A recent British study found that only 24% of kids visit an outdoor green space weekly. The corresponding figure for their parents is 53%. "Kids need to unplug and have multisensory natural experiences," says environmental author Todd Christopher. "Tools are what we make of them."

So how about using our kids' favorite tools to propel them into nature? Here are some ways to use the latest technology to get your couch potatoes out the door:

### Bird bytes

Several smart-phone apps include

recorded bird songs, which help children on nature walks identify what they're hearing. BirdsEye, an iPhone app from the Cornell Lab of Ornithology, has been called "the best invention for birding since binoculars." It uses maps, searchable sounds of North American birds and real-time bird sighting reports to guide the user to rare avian species. Another offering, Audubon Birds, is a \$20 iPhone app that covers 740 species.

### Trees and tracks

The National Wildlife Federation's "Get Outside" website offers an interactive backyard scavenger hunt. Fun cartoons of birds and small animals, distinctively shaped leaves and flowers illustrate natural phenomena that can be found outside by inquisitive children.

### X marks the spot

Geocaching and letterboxing are high-tech games to get kids and families into the environment. Both are internet-based treasure hunts with coordinates and clues created and decoded by amateurs of all ages. Geocaching uses GPS devices to search for

a hidden cache box; letterboxing depends more on cryptic clues and romantic props like customized signature stamps.

### Digital teaching tools

Kids love to take digital photographs, and some websites encourage them to upload their work for others to see. Bee Hunt! is, it promotes both photography and nature.

### The big picture

Spaceweather.com is a site that encourages kids to have fun with astronomy by learning about phenomena such as eclipses, near-earth asteroids and solar eruptions. Like Bee Hunt! it encourages visitors to upload their annotated celestial photographs. An iPhone or iPod Touch app keeps track of satellite flyovers.

The best thing about these nature tech tools is that they're all interactive. Simply watching nature shows on TV "induces patterns of passivity," says Christopher. "It's no substitute for time spent outdoors." Anything that helps get kids outside—even if it has a screen and beeps—should be seen as an ally.

## KIDS AND NATURE ONLINE

### Go to [edf.org/naturetech](http://edf.org/naturetech) to find:

- New research suggesting that access to nature is essential to human health
- Todd Christopher's book *The Green Hour*
- A guide to iPhone apps for birdwatching
- How to get started on geocaching and letterboxing
- How to take part in BeeHunt!

Green Living columnist Jim Motavalli writes for *E/The Environmental Magazine* (for subscription information: 800-967-6572 or [emagazine.com](http://emagazine.com)). Opinions are the author's and not those of Environmental Defense Fund.



# FARMERS TO THE RESCUE

Cutting fertilizer use is good for farmers—and rivers



Lynn Beits/NPCCS

More than 800 farmers in seven states have joined our network to protect waterways.

In “dead zones” along America’s coasts, fish are being killed off in chain reactions that start when excess nitrogen from farm fertilizer and other sources runs down rivers into the sea. The nitrogen fuels algae blooms that suck oxygen from the water and suffocate all other marine life. One dead zone off the Louisiana coast is now the size of New Jersey.

Through the On-Farm Network, which EDF co-founded with the Iowa Soybean Association and others, we are working with more than 800 farmers in seven states to reduce fertilizer use to the amount that is actually needed. This minimizes polluted runoff, benefits rivers and estuaries, protects local drinking water—and saves the farmers the cost of excess fertilizer.

Around Chesapeake Bay, Lake Erie and the upper Mississippi River basin, farmers participating in our network have maintained their crop yields while cutting fertilizer use an average of 20 to 25%.

“The On-Farm Network delivers real benefits for farmers and the environment,” says EDF outreach coordinator Suzy Friedman. “With so many U.S. watersheds suffering from nitrogen runoff, we need programs like this to align environmental goals with farmers’ economic interests.”

**> LEARN MORE:** Read Dominique Browning’s *Personal Nature* column at [edf.org/tacklingnitrogenpollution](http://edf.org/tacklingnitrogenpollution)

## HONORING A QUIET HERO



For Anita Goldner, no creature was too small or insignificant to matter. As a child in Queens, NY, when she found a baby bird that had fallen from its nest, Anita fed it with an eye dropper to keep it alive, her cousin Meryl Cohen recalls. “If Anita saw an ant inside the house, she’d let it crawl on her finger and carry it carefully outside to freedom.”

Anita was no less dedicated to her students at Framingham State College in Massachusetts, where she taught mathematics for 30 years. A whiz who could do complex calculations in her head, she was noted for making the subject less intimidating and even fun for those less gifted.

Anita was a loyal EDF member, who made small annual contributions for 25 years. Her deep concern for the environment was clear in everything she did—whether helping to organize

events for Boston’s first Earth Day, switching off the office lights (once inadvertently leaving a colleague in the dark) or driving a hybrid car.

Still, when she died at age 58 from cancer, Anita’s gift of \$1 million to Environmental Defense Fund came as a complete surprise to all. No one knew she had named EDF as a beneficiary in her will.

“That’s who Anita was,” says Cohen, “very understated and humble, and guided by a strong sense of justice.” All of us at EDF are indebted to her for her generosity.

**Anita Goldner’s extraordinary bequest, which supports EDF’s Northeast oceans work, reflects her belief in the sanctity of all living things.**



Tim Connor

**YOUR GIFT TO THE FUTURE** If you would like to leave an environmental legacy by including EDF in your will or other estate plan, please contact Nick Pitaro toll-free at 1-877-OSPREYS (1-877-677-7397), or by email at [ospreys@edf.org](mailto:ospreys@edf.org). For more information and sample language for your will, visit [edf.org/bequestlanguage](http://edf.org/bequestlanguage)

## Oil companies attempt to sabotage California's bold climate law

The strongest global warming law in the country is California's AB32, and out-of-state oil companies are attempting to overturn it before it takes effect. They have rounded up enough signatures for a ballot initiative, Prop. 23, and are expected to spend more than \$120 million bankrolling it.

Misleadingly labeled the "California Jobs Initiative," the stealth campaign is funded by Texas oil companies Valero and Tesoro. EDF and its allies are gearing up for a tough fight. Governor Arnold Schwarzenegger and EDF president Fred Krupp recently met to discuss the best way to protect the global warming law.

"We're assembling one of the broadest coalitions in California history," says EDF West Coast political director Wade Crowfoot. "The oil companies may have the money, but we have enthusiasm and people power."



**➤ TAKE ACTION: Wherever you live, we need your help to win the battle for AB32. Get started at [stopdirtyenergyprop.com](http://stopdirtyenergyprop.com)**

## New pollution limits could save 36,000 lives a year

In a major victory for clean air, EPA proposed stricter limits on nitrogen oxides and sulfur dioxide pollution from power plants in the eastern United States, in response to a 2008 Court of Appeals ruling. Power plants are the nation's single largest emitter of these pollutants. EDF general counsel Vickie Patton played an important role in the case.

The regulations will reduce power plant pollution that drifts across the borders of 31 eastern states and the District of Columbia. EDF successfully petitioned to keep earlier protections in place while EPA redrafted the rules to comply with the court decision. We also helped guide EPA in setting the tough new standards, which will cut emissions of sulfur dioxide by 71% and nitrogen oxides by 52%. The new regulations will save up to 36,000 lives a year. But first, EDF and its allies must repel an expected court challenge from industry.

## Following international attention, deep sea vents are saved—for now

About a decade ago, scientists discovered rich deposits of precious metals including gold, silver and zinc around hot water vents in the deep sea. These treasures lay tantalizingly out of reach until recently, when advanced technology developed by the oil industry was adapted for deep

sea mining. The Australian mining firm Nautilus was among the first to explore deep sea vents off Papua New Guinea.

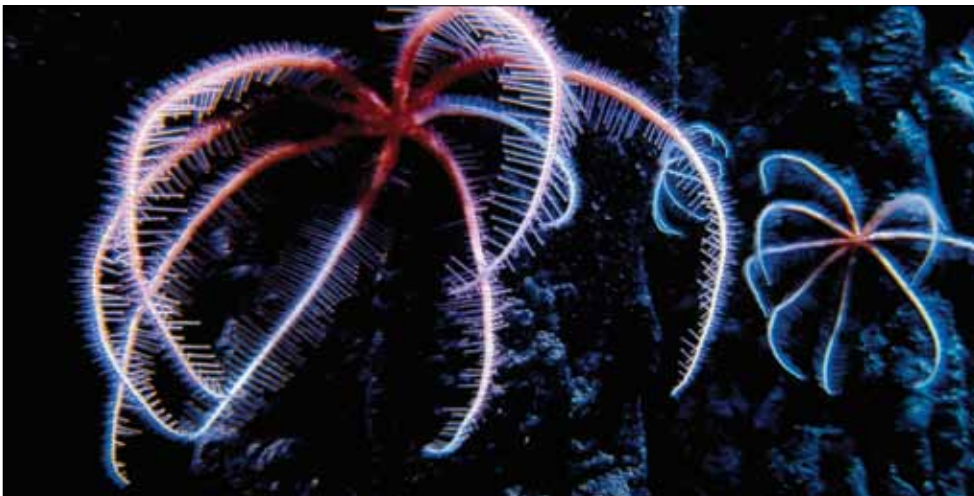
Deep sea vents are oases in a dark, cold ecosystem and harbor huge tube worms, clams with oxygen-carrying hemoglobins and many other strange

creatures found nowhere else on the planet. Mining near the vents poses potentially serious risks, and the mining industry has no experience in dealing with pollution in the deep sea.

EDF marine ecologist Dr. Rod Fujita and Dr. Jochen Halfar, then a post-doctoral student in our scientific think tank, Ocean Innovations, published a paper on the threats of deep sea mining in *Science* magazine.

"We had to sound the alarm," Fujita said. "Many of these valuable ecosystems have no environmental protections." People took notice. The paper received extensive media coverage and international attention. The Turtle Island Network and local Papua New Guinea groups requested our help in conducting a scientific review of Nautilus's environmental studies and plans.

Responding to a variety of pressures, Nautilus announced it is suspending deep sea mining operations off Papua New Guinea.



**Mining for gold and other precious metals could endanger one of the wonders of the world, the deep sea vents of the Pacific Ocean and the organisms that thrive around them.**

Emory Kristof/National Geographic Stock



## EDF'S BUSINESS PLAN: GREENING CORPORATIONS

### Climate Corps: The troops find big energy savings

This summer, Mandy Martin prowled mechanical rooms and counted office light fixtures. That's the glamorous life of a fellow in EDF's Climate Corps, which trains MBA students to find energy savings at American businesses. Started in



Matthew Gimm

**No summer doldrums for Mandy Martin.**

2008, the program has grown to 51 fellows from just seven, and now works with 47 corporations, from Adidas to Verizon.

Mandy, an MBA student at USC's Moore School of Business, interned at Carnival Cruise Lines in Miami, where she found several energy-saving opportunities, such as installing additional occupancy sensors and lowering wattage in overlit areas. Over

the two previous summers, Climate Corps fellows found efficiencies in lighting, computers and heating and cooling systems that could reduce global warming pollution by more than 170,000 tons a year. That's like taking about 19,000 SUVs off the road.

➤ **READ MORE** about Climate Corps fellows at [edf.org/climatecorpsblogs](http://edf.org/climatecorpsblogs)

### Private equity giant cuts waste

In 2008, EDF began working with Kohlberg, Kravis and Roberts (KKR), a leading private equity firm, to improve the environmental performance of the companies it owns. The results for last year exceeded our expectations. The eight participating companies, including US Foodservice, Sealy Corporation, Dollar General and HCA, eliminated 380,000 tons of CO<sub>2</sub> emissions and 1.2 million tons of waste.

Now, KKR is expanding the program. Because private equity firms' investments represent about 10% of the U.S. economy and more than six million employees, the potential for our initiative is substantial.

## Clean energy pioneers



Trees, Water & People

**On a remote South Dakota reservation, Henry Red Cloud and his company are building solar heaters.**

In the business of clean energy, a good idea isn't enough. To succeed in the marketplace, the idea must win over potential customers and investors. To help entrepreneurs spread the word, EDF and local partners have joined to create Clean Energy Pioneers ([cleanenergypioneers.com](http://cleanenergypioneers.com)), which promotes energy innovation throughout the American West. Among those featured are Henry Red Cloud and his Lakota Solar Enterprise, which builds residential solar heaters. Red Cloud started a school on the Pine Ridge Reservation in South Dakota to train tribe members to work in the industry and has created more than 70 jobs so far.

## In New York City, the breathing just got easier

Air pollution from heating oil in New York City will be reduced, thanks to a long EDF effort. In July, the City Council passed legislation that will reduce soot by halving the amount of sulfur in No. 4 oil, one of the dirtiest. We also worked to pass a state law that complements the city bill to cut pollution.

Soot pollution is a major factor in worsening asthma. In recent years, New York City has hospitalized twice as many children with asthma as the national average.

Last year, EDF's groundbreaking report *The Bottom of the Barrel* focused on the dirtiest grades of heating oil, No. 4

and No. 6. We pinpointed 9,500 buildings that burn them and calculated that they cause more pollution than all the city's cars and trucks combined. Our campaign persuaded hundreds of people to call for action from Mayor Michael Bloomberg, who responded swiftly.

EDF continues to press for phasing out No. 6 oil, the dirtiest of all fuels, by 2015. We're also working on new incentives to encourage buildings to use energy more efficiently. "The tools we develop in New York City can be a model for other big urban areas," says EDF regional director Andy Darrell.



Fotosearch.com

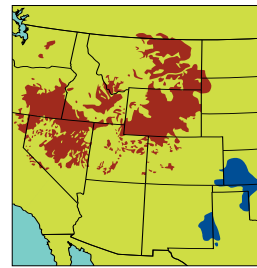
**The Dakota is one of thousands of buildings that burn sludge from the bottom of the barrel.**

# PARTNERS TO SAVE AMERICA'S PRAIRIES



Tim Connor

**F**ences tamed the West, but they have often been the bane of wildlife. EDF is working with ranchers to adjust their fences to help wildlife while keeping livestock in place. Attaching reflective strips to fences can help two rare prairie birds, the low-flying greater sage grouse and lesser prairie-chicken, avoid fatal collisions with barbed wire. And raising fence wires gives pronghorn antelope enough room to squeeze underneath, reopening threatened migration routes. The Obama administration is implementing our suggested fencing changes on federal lands across the western U.S.



The range of the declining greater sage grouse and lesser prairie-chicken covers 16 western states. The two birds rely heavily on the remaining native grasslands and sage brush habitat of this vast, rolling plain.

■ Greater sage grouse  
■ Lesser prairie-chicken



**Greater sage grouse** males court females by performing colorful mating dances in bare spots on the prairie, called "leks." Through altered grazing patterns ranchers can encourage leks.

Donald M. Jones/Minden Pictures



**Fleet and balletic pronghorn antelope** still roam the prairie in significant numbers. After the cheetah, they are the fastest land mammals on the planet.

Yva Momatuk and John Eastcott/Minden Pictures



**Our grassland ecologist Ted Toombs (right)** discusses land use with Phillips County, Montana rancher Kevin Koss.

**Following EDF's advice,** the Bureau of Land Management issued a directive to its field offices to make livestock fences friendlier to wildlife. The directive applies to some 170 million acres.

Tim Connor



Tim Connor