



# DISPATCHES

*From the Gulf*

*Science, Community & Recovery in the  
Aftermath of the Deepwater Horizon Oil Spill*

***50 Short Videos***



*“Dispatches from the Gulf”* is a multi-media initiative that investigates the environmental health of the Gulf of Mexico six years after the Deepwater Horizon blowout on April 20, 2010. That’s when the world’s ninth largest body of water became a place where thousands of communities and millions of citizens were put in jeopardy by a single incident – the biggest oil spill in U.S. history. Today, a global team of scientists from a consortia of academic institutions is working together to protect and restore one of our planet’s most valuable natural resources. Their ultimate goal is to learn how to cope with the challenges of future oil spills.

The initiative consists of a one-hour documentary (*narrated by Matt Damon*), a series of short videos, podcasts, and additional educational resources related to oceanographic scientists, researchers, and institutions.

These 50 short videos are available on the [Dispatches from the Gulf YouTube Channel](https://www.youtube.com/c/Dispatchesfromthegulfofmexico) (<https://www.youtube.com/c/Dispatchesfromthegulfofmexico>).

Please keep reading for descriptions and links. On the last page, you will find an *Educators Guide* with suggestions on how to use the videos in a classroom setting.

The shorts are also available, free of charge, on DVD for institutions with broadband/internet streaming restrictions. Send a request to [screenscope@screenscope.com](mailto:screenscope@screenscope.com) or 202-364-0055.

## THEMES

Research addresses five themes:

- **Physical** distribution, dispersion, and dilution of petroleum (oil and gas), its constituents, and associated contaminants (e.g., dispersants) under the action of physical oceanographic processes, air–sea interactions, and tropical storms;
- **Chemical** evolution and biological degradation of the petroleum/dispersant systems and subsequent interaction with coastal, open-ocean, and deep-water ecosystems;
- **Environmental** effects of the petroleum/dispersant system on the sea floor, water column, coastal waters, beach sediments, wetlands, marshes, and organisms; and the science of ecosystem recovery;
- **Technology** developments for improved response, mitigation, detection, characterization, and remediation associated with oil spills and gas releases; and
- **Impact** of oil spills on public health including behavioral, socioeconomic, environmental risk assessment, community capacity and other population health considerations and issues.

## CONSORTIA

- **ACER**: Alabama Center for Ecological Resilience
- **ADDOMEx**: Aggregation and Degradation of Dispersant and Oil by Microbial Exopolymers
- **CARTHE**: Consortium for Advanced Research on Transport of Hydrocarbon in the Environment
- **C-IMAGE**: Center for Integrated Modeling and Analysis of Gulf Ecosystems
- **C-MEDS**: Consortium for the Molecular Engineering of Dispersant Systems
- **CONCORDE**: Consortium for Oil Spill Exposure Pathways in Coastal River-Dominated Ecosystems
- **CRGC**: Consortium for Resilient Gulf Communities
- **CWC**: Coastal Waters Consortium
- **DEEPEND**: Deep-Pelagic Nekton Dynamics of the Gulf of Mexico
- **DEEP-C**: Deepsea to Coast Connectivity in the Eastern Gulf of Mexico
- **DROPPS**: Dispersion Research on Oil: Physics and Plankton Studies
- **ECOGIG**: Ecosystem Impacts of Oil and Gas Inputs to the Gulf
- **GISR**: Gulf of Mexico Integrated Spill Response
- **LADC-GEMM**: Littoral Acoustic Demonstration Center – Gulf Ecological Monitoring and Modeling
- **RECOVER**: Relationship of Effects of Cardiac Outcomes in Fish for Validation of Ecological Risk

Each short video listed below is matched to its corresponding research theme and the consortium it features.



**[Dispatches from the Gulf: Trailer](https://youtu.be/p_yD9ABHWdA)** ([https://youtu.be/p\\_yD9ABHWdA](https://youtu.be/p_yD9ABHWdA))

“Dispatches from the Gulf” is a new Journey to Planet Earth episode showing how scientists confront the challenges of the Deepwater Horizon oil spill. The documentary also investigates the impact of the event on the ecosystems and communities along the Gulf of Mexico.

Six years after Deepwater Horizon – the biggest oil spill in U.S. history – a global team of scientists is working together to understand its environmental impact on humans, wildlife, and the ecosystem with the ultimate goal of learning how to better cope with future oil spills. Narrated by Matt Damon.

Consortia: All; Themes: Physical, Chemical, Environmental, Technology, Impact



**[Why Science?](https://youtu.be/ff0n2sCFVCN0)** (<https://youtu.be/ff0n2sCFVCN0>)

What inspired these people to become scientists? Everyone has a different path.

What led to your interest in science? Share your thoughts at:

- <https://www.facebook.com/gulfdispatches>
- <https://twitter.com/gulfdispatches>

Consortia: All; Themes: General Science



**[Discovery: Amy Wallace](https://youtu.be/ZoClbomSkSs)** (<https://youtu.be/ZoClbomSkSs>)

Amy Wallace is a Ph.D. student at the University of South Florida. Part of her studies includes examining fish allantois, otoliths (ear stones), and eye lenses to see impacts on fish populations after the Deepwater Horizon event.

Consortia: C-IMAGE; Themes: Environmental



**[Innovation: Cheng Li](https://youtu.be/aBLNdweFRVM)** (<https://youtu.be/aBLNdweFRVM>)

Cheng Li is a Ph.D. student at Johns Hopkins University. Part of his studies includes examining the fate of oil in oceanic flows and what wave breaking does to oil droplets with and without dispersants. Cheng designed the wave tank used at Johns Hopkins for DROPPS research.

Consortia: DROPPS; Themes: Physical, Chemical, Technology



**[Watermen of the Gulf](https://youtu.be/P3hWZSm6ar0)** (<https://youtu.be/P3hWZSm6ar0>)

Fisherfolk share their feelings about working and living along the Gulf of Mexico.

Consortia: n/a; Themes: Impact



**[Invasion of the Lionfish](https://youtu.be/8Hnhul7Lv6Y)** (<https://youtu.be/8Hnhul7Lv6Y>)

Will Patterson (Dauphin Island Sea Lab) studies reef fish communities and the dramatic effect the non-native lionfish are having on native fish populations.

Consortia: C-IMAGE; Themes: Environmental

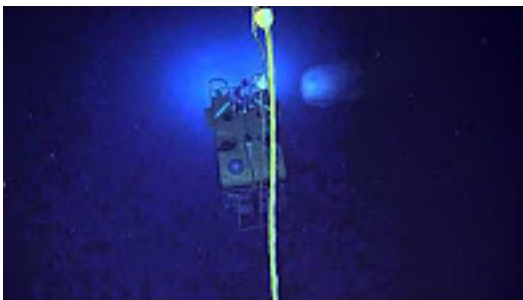




**[Meet Steve Murawski](https://youtu.be/JL2R-Mc69sk)** (<https://youtu.be/JL2R-Mc69sk>)

Steve Murawski (University of South Florida) uses longline fishing to sample fish communities and track their recovery post-Deepwater Horizon event.

Consortia: C-IMAGE; Themes: Environmental

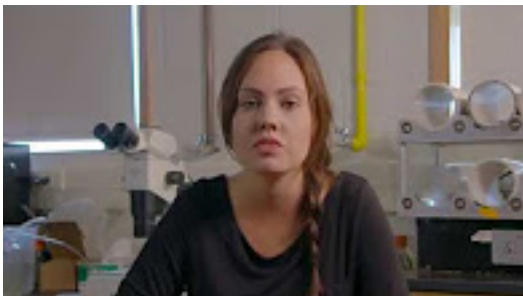


**[Close Encounters with a Sperm Whale](https://youtu.be/Mfu9Pq5B-Is)** (<https://youtu.be/Mfu9Pq5B-Is>)

Professor Scott Socolofsky (Texas A&M University) witnesses an unexpected visitor of the cetacean kind while conducting deep-sea research in the Gulf of Mexico.

*Sperm Whale footage courtesy of Ocean Exploration Trust and GISR Consortium.*

Consortia: C-IMAGE, GISR; Themes: General Science



**[Meet Tracy Harvey: The Next Generation of Oceanographers](https://youtu.be/a41r0weVMuA)** (<https://youtu.be/a41r0weVMuA>)

Graduate student Tracy Harvey provides an overview of her academic work at the University of Texas at Austin Department of Marine Science.

Consortia: DROPPS; Themes: Physical, Chemical, Environmental



**[Meet Brian Roberts: Preparing for the Next Oil Spill](https://youtu.be/8CIBVrHTYY0)** (<https://youtu.be/8CIBVrHTYY0>)

Professor Brian Roberts (LUMCON) conducts experiments that measure the release of greenhouse gases from oiled salt marshes. Dr. Roberts hopes his team's work will help guide responses to future oil spills.

Consortia: CWC; Themes: Physical, Chemical, Environmental



**[World Oceans Day](https://youtu.be/0PyEHhtP63Q)** (<https://youtu.be/0PyEHhtP63Q>)

Professor Samantha "Mandy" Joye (University of Georgia) holds an interactive marine science workshop for elementary school children on "World Oceans Day," June 8, 2015 (<http://www.worldoceansday.org>).

Consortia: ECOGIG; Themes: General Science

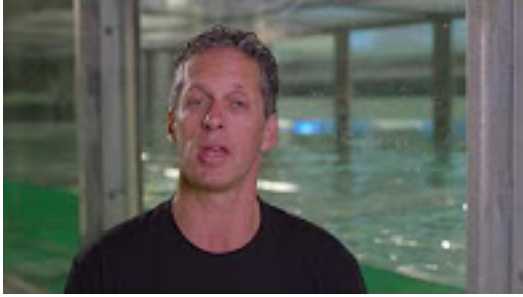


**[Why Do We Need Scientists \(and Science\)?](https://youtu.be/Mkc1Ar816L4)** (<https://youtu.be/Mkc1Ar816L4>)

Scientists discuss the value, roles, and responsibilities of scientists and science in today's society.

Featuring Frank Hernandez, Jr. (University of Southern Mississippi), Joseph Montoya (Georgia Institute of Technology), Ajit Subramaniam (Columbia University), Piers Chapman (Texas A&M University), Steve DiMarco (Texas A&M University), Scott Socolofsky (Texas A&M University), Raffaele Montuoro (Texas A&M University), and Samantha "Mandy" Joye (University of Georgia).

Consortia: CONCORDE, ECOGIG, GISR, C-IMAGE; Themes: General Science



**[Meet Brian Haus: Wind and Waves](https://youtu.be/ZfbCHeqm6dY)** (<https://youtu.be/ZfbCHeqm6dY>)

Professor Brian Haus (University of Miami) focuses on air-sea interactions and how the ocean transports all things (*e.g., oil, organisms, larvae, sand*). Dr. Haus conducts his research at the Air-Sea Interaction Salt Water Tank (ASIST) – a unique facility that creates wind-waves in a controlled environment at the Rosenstiel School of Marine and Atmospheric Science (RSMAS).

Consortia: CARTHE; Themes: Physical, Technology



**[Good Science Comes with Good Failures](https://youtu.be/Yfay3qi-Z8A)** (<https://youtu.be/Yfay3qi-Z8A>)

Scientists acknowledge the importance of failure and how much is to be learned from it. Their message to young scientists is “It is okay to fail.”

Featuring Raffaele Montuoro (Texas A&M University), Piers Chapman (Texas A&M University), and Steve DiMarco (Texas A&M University).

Consortia: GISR; Themes: General Science

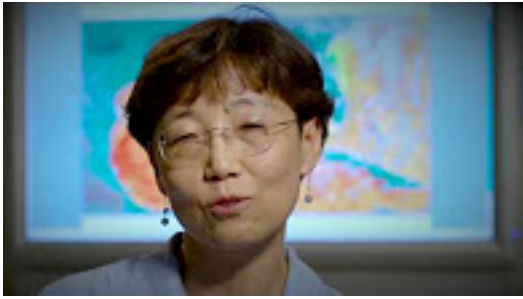


**[Eureka Moments: Inspiration Comes from Unexpected Places](https://youtu.be/j6S6nhc7xag)** (<https://youtu.be/j6S6nhc7xag>)

How do scientists get inspired? What drives them to keep discovering? Where do they find motivation? When do they do their best thinking? Why do they keep pushing the limits of knowledge?

Featuring Martin Grosell (University of Miami), Brian Haus (University of Miami), Tamay Özgökmen (University of Miami), Kristen Thyng (Texas A&M University), and Steve DiMarco (Texas A&M University).

Consortia: CARTHE, RECOVER; Themes: General Science



**[I Was Told to be a Florist... Instead I Became a Scientist](https://youtu.be/FQXZjEpyPOU)** (<https://youtu.be/FQXZjEpyPOU>)

These women overcame discouragement and followed their dreams of having an academic career in science. All have achieved great success and are funded researchers.

Featuring Tammy Frank (Nova Southeastern University), Claire Paris-Limouzy (University of Miami), Shuyi Chen (University of Miami), and Samantha “Mandy” Joye (University of Georgia).

Consortia: CARTHE, DEEPEND, C-IMAGE, ECOGIG; Themes: General Science



**[We Don't Leave Our Dead Behind](https://youtu.be/eG5rn6mISIs)** (<https://youtu.be/eG5rn6mISIs>)

Members of the United Houma Nation and the Pointe-Au-Chien Indian Tribe recount how the Deepwater Horizon Oil Spill destroyed their fishing and shrimping season in 2010 and the huge socio-economic impacts it left on their community.

Consortia: n/a; Themes: Impact



**[Meet Chris Reddy: A Career Spent Studying Oil Spills](https://youtu.be/hkI3L3AfMp0)** (<https://youtu.be/hkI3L3AfMp0>)

Dr. Chris Reddy is a Senior Scientist in the Department of Marine Chemistry & Geochemistry at the Woods Hole Oceanographic Institution (WHOI). He provides an overview of his work.

Consortia: C-IMAGE, DEEP-C; Themes: Physical, Chemical





**[Meet David Hollander: Coring for Mud](https://youtu.be/QE-WHsJ-9uk)** (<https://youtu.be/QE-WHsJ-9uk>)

Professor David Hollander (University of South Florida) conducts experiments that remove sediment cores from the ocean basin and examines them for Macondo oil contamination spewed from the Deepwater Horizon site.

Consortia: C-IMAGE, DEEP-C; Themes: Physical, Chemical



**[Meet David Murphy: The Next Generation of Scientists](https://youtu.be/hhYzLCxhmjU)** (<https://youtu.be/hhYzLCxhmjU>)

Dr. David Murphy is a post-doctoral fellow in Mechanical Engineering at Johns Hopkins University. One of his research projects simulates the process of how dispersants break up oil, change the structure of the oil plume, and affect where the oil travels in ocean currents.

Consortia: DROPPS; Themes: Physical, Chemical, Technology



**[Meet Dean Grubbs: Building Baseline Data for Large Gulf Fish](https://youtu.be/2XX8BwtASUg)** (<https://youtu.be/2XX8BwtASUg>)

Dr. Dean Grubbs (Florida State University) and his team catalog the deep-sea, big fishes of the Gulf of Mexico during an intense 24x7 research cruise.

Consortia: DEEP-C; Themes: Environmental



**[I'm Thinking Nobel Prize...](https://youtu.be/AGQllaFJICM)** (<https://youtu.be/AGQllaFJICM>)

On the verge of what he believes is an amazing, earth-shattering, scientific breakthrough, Professor Steve DiMarco (Texas A&M University) discovers things are not always what they seem.

Consortia: GISR; Themes: Physical, Chemical



**[A Treadmill for Fish](https://youtu.be/5aEzy4wjjjE)** (<https://youtu.be/5aEzy4wjjjE>)

Dr. Martin Grosell (University of Miami) replicates how mahi-mahi swim in the wild in order to determine how environmental disturbances – particularly oil spills – impact their development and life cycles.

Consortia: RECOVER; Themes: Environmental



**[How to Measure Fish Without Killing Them](https://youtu.be/5alFY2oBZlg)** (<https://youtu.be/5alFY2oBZlg>)

Will Patterson and Joe Tarnecki of the Dauphin Island Sea Lab use an ROV (*remotely operated vehicle*) to estimate fish community structures – numbers and species composition – present on Gulf reefs. The ROV has lasers that measure the fish without having to bring them to the surface and potentially killing them.

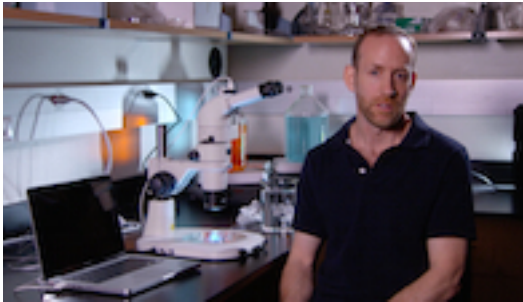
Consortia: C-IMAGE; Themes: Environmental



**[A Lingering Question About Dispersants: A Good or Bad Choice?](https://youtu.be/Ri_G5D_AANo)** ([https://youtu.be/Ri\\_G5D\\_AANo](https://youtu.be/Ri_G5D_AANo))

Did the use of dispersants have a long-term effect on the ecology and environment of the Gulf? Dr. Joseph Katz and his team at Johns Hopkins University are developing new ways to study dispersants. Their goal is create tools to predict and mitigate the adverse affects of future oil spills.

Consortia: DROPPS; Themes: Physical, Chemical, Technology



**[Failing Hearts: What Does Heart Failure in a Fish Look Like?](https://youtu.be/7V7Vy3defY8)** (<https://youtu.be/7V7Vy3defY8>)

Professor Ed Mager (University of Miami) examines larval mahi-mahi to determine oil toxicity in their hearts. The cardiac health of the mahi-mahi determines its form, function, survival ability, and whether the population can fully recover in the Gulf of Mexico post-Deepwater Horizon Oil Spill.

Consortia: RECOVER; Themes: Environmental



**[Meet Jana Herrmann: The Next Generation of Oceanographers](https://youtu.be/_tf3s3tL9hQ)** ([https://youtu.be/\\_tf3s3tL9hQ](https://youtu.be/_tf3s3tL9hQ))

Graduate student Jana Herrmann provides an overview of her academic work at the University of Southern Mississippi's Gulf Coast Research Laboratory.

Consortia: CONCORDE; Themes: Environmental



**[Lessons From The Past: The 1989 Exxon Valdez Oil Spill](https://youtu.be/2lG8d5OPoi0)** (*https://youtu.be/2lG8d5OPoi0*)

Scientists are cognizant of the “latent effect,” which is the delayed impact of disasters – like oil spills – on the environment. The still evolving outcomes of the Valdez Oil Spill – 27 years later – remind them that they must remain diligent, continue to study the Gulf, and to expect the unexpected.

Consortia: CONCORDE, C-IMAGE; Themes: Environmental, Impact



**[Encouraging Women in Science: Meet Samantha Joye](https://youtu.be/Z3184-12fRQ)** (*https://youtu.be/Z3184-12fRQ*)

Professor Samantha “Mandy” Joye (University of Georgia) shares her personal journey through science – from her childhood passion for the ocean – her decision to forgo medical school – earning a Ph.D. from a program with no women faculty – and how she tirelessly instills determination in young women interested in science.

Consortia: ECOGIG; Themes: General Science



**[Meet Sarah Muffelman: The Next Generation of Oceanographers](https://youtu.be/mwuzFRwfgLk)** (*https://youtu.be/mwuzFRwfgLk*)

Graduate student Sarah Muffelman provides an overview of her academic work at the University of Southern Mississippi’s Gulf Coast Research Laboratory.

Consortia: CONCORDE, C-IMAGE; Themes: Environmental





**[This Is Fishery Science](https://youtu.be/Nga_OhpZJHU)** ([https://youtu.be/Nga\\_OhpZJHU](https://youtu.be/Nga_OhpZJHU))

Professor Steve Murawski (University of South Florida) and his team capture Red Snapper and other fish to determine oil contamination levels of the population.

Consortia: C-IMAGE; Themes: Environmental



**[The Star Trek Effect](https://youtu.be/TssCZNj0u5E)** (<https://youtu.be/TssCZNj0u5E>)

During a break from discussing their serious academic endeavors, Dr. Tamay Özgökmen (University of Miami) and Dr. Chris Reddy (Woods Hole Oceanographic Institution) light-heartedly impart how the television series “Star Trek” inspired them to pursue science and how it still guides them today.

Consortia: CARTHE, C-IMAGE, DEEP-C; Themes: General Science



**[Meet Nancy Rabalais: Focusing on Coastal Ecosystems](https://youtu.be/Ia2kbZo2BFA)** (<https://youtu.be/Ia2kbZo2BFA>)

Professor Nancy Rabalais (LUMCON) and her team focus their research on the effects of the Deepwater Horizon Oil Spill on coastal ecosystems – particularly the Louisiana wetlands and marshes.

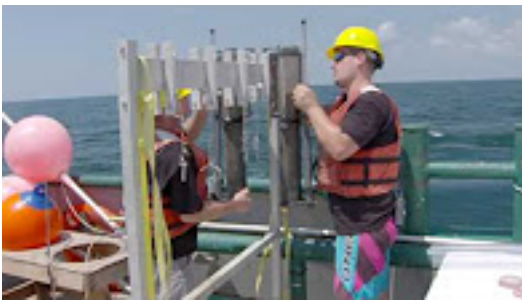
Consortia: CWC; Themes: Physical, Chemical, Environmental



**[Meet Tracie Sempier: Helping the People of the Gulf](https://youtu.be/YXhzz5pf4wo)** (<https://youtu.be/YXhzz5pf4wo>)

Tracie Sempier (Mississippi-Alabama Sea Grant Consortium) is a coastal storms outreach coordinator. She describes how after the Deepwater Horizon Event her work shifted from helping people prepare for and recover from natural disasters – like hurricanes – to helping people recover from man-made, technological disasters – like oil spills.

Consortia: n/a; Themes: Impact



**[Exquisite Mud: A History Book of the Gulf of Mexico](https://youtu.be/iHTcxKdV9H8)** (<https://youtu.be/iHTcxKdV9H8>)

A team of researchers from the University of South Florida uses a multi-corer to obtain deep sediment cores from the Gulf of Mexico. Back in the lab, they analyze the layers of sediment and build a history of the Gulf, with Deepwater Horizon being the latest chapter.

Featuring oceanographers David Hollander, Isabel Romero, and Patrick Schwing.

Consortia: C-IMAGE, DEEP-C; Themes: Physical, Chemical



**[The CSI Effect: Using Forensics to Study Oil Spills](https://youtu.be/BpvBkiwtDgo)** (<https://youtu.be/BpvBkiwtDgo>)

Coupling the “crime scene” forensic idea with the idiom of geology creates the following premise: “the present is the key to the past, but the past provides a window into the future.”

Researchers are using chemical forensics to predict how the Deepwater Horizon Event will transpire over the decades to come.

Featuring David Hollander (University of South Florida), Steve Murawski (University of South Florida), and Chris Reddy (Woods Hole Oceanographic Institution).

Consortia: C-IMAGE, DEEP-C; Themes: Physical, Chemical



**[It Was Just A Scary, Scary Time](https://youtu.be/SNQWFGmaTEM)** (<https://youtu.be/SNQWFGmaTEM>)

Louisiana waterman David Chauvin describes how the shrimping community in the Gulf is used to dealing with and recovering from natural disasters like hurricanes, but the man-made disaster that was Deepwater Horizon has left them unsure of how to move forward. The unknown duration and depth of the oil spill's impact has instilled fear among those who work the waters of the Gulf of Mexico.

Consortia: n/a; Themes: Impact



**[The Mud and Blood Cruise - Part One](https://youtu.be/JPWD6qkyuaU)** (<https://youtu.be/JPWD6qkyuaU>)

The Weatherbird embarks on a two-week research cruise in the Gulf of Mexico. Its mission is to collect and analyze fish and soil samples near the site of the Deepwater Horizon oil spill. Dave Hollander and Steve Murawski from the University of South Florida lead the team of oceanographers. The research is divided into two phases: 1) blood = studying fish communities; 2) mud = coring for sediment samples.

Consortia: C-IMAGE, DEEP-C; Themes: Physical, Chemical



**[The Mud and Blood Cruise - Part Two](https://youtu.be/uOpwaVXh18A)** (<https://youtu.be/uOpwaVXh18A>)

A long-line fishing operation is used to catch a representative sample of the fish community to track the recovery and health of the populations post-Deepwater Horizon.

Consortia: C-IMAGE, DEEP-C; Themes: Physical, Chemical



### **[The Mud and Blood Cruise - Part Three](https://youtu.be/72dFh1EuWW4)** (<https://youtu.be/72dFh1EuWW4>)

The “blood team” studies a dozen different body parts to determine the age and contamination levels of the fish. This includes inner ear stones (otoliths), spleen, liver, heart, brain, bile, and muscle samples. The goal is to differentiate between present-day exposure to oil/dispersants and any long-term accumulation in the tissues.

Consortia: C-IMAGE, DEEP-C; Themes: Physical, Chemical



### **[The Mud and Blood Cruise - Part Four](https://youtu.be/gcU7uIXNYig)** (<https://youtu.be/gcU7uIXNYig>)

The “mud team” launches a device that collects sediment samples from the sea floor using a multi-corer. This investigation was motivated by the discovery that as much as 10% of Deepwater Horizon oil now covers vast areas of the bottom of the Gulf of Mexico. By taking sediment cores in the same locations as the long-line fishing operation, the researchers are able to relate the evolution of contaminants over time in the sediments to the changes that are seen in the fish.

Consortia: C-IMAGE, DEEP-C; Themes: Physical, Chemical



### **[The Mud and Blood Cruise - Part Five](https://youtu.be/Z4U9ZkcGpy0)** (<https://youtu.be/Z4U9ZkcGpy0>)

After the Weatherbird returns to port, the research moves to the lab at the University of South Florida. Chemical techniques are used to study how the oil evolved in the system and its impacts and consequences on the ecosystem.

Consortia: C-IMAGE, DEEP-C; Themes: Physical, Chemical





**[The Mud and Blood Cruise - Part Six](https://youtu.be/EVjTRrf2pXw)** (<https://youtu.be/EVjTRrf2pXw>)

As oil and gas exploration moves further offshore and into deeper environments, deep-sea or subsurface well blowouts will create a new breed of oil spill. Some wells will be more than two miles deep in areas that remain totally unexplored. The scientific community acknowledges that there are many new aquatic species still to be discovered. Furthermore, there is a responsibility to understand and protect those animals who will be highly vulnerable to future oil spills.

Consortia: C-IMAGE, DEEP-C; Themes: Physical, Chemical



**[The Mud and Blood Cruise – The Whole Story](https://youtu.be/0VZPhbhdTsA)** (<https://youtu.be/0VZPhbhdTsA>)

The Weatherbird embarks on a two-week research cruise in the Gulf of Mexico. Its mission is to collect and analyze fish and soil samples near the site of the Deepwater Horizon oil spill. Dave Hollander and Steve Murawski from the University of South Florida lead the team of oceanographers. The research is divided into two phases: 1) blood = studying fish communities; 2) mud = coring for sediment samples.

Join their journey!

Consortia: C-IMAGE, DEEP-C; Themes: Physical, Chemical



**Unexpected Consequences: The Psychological Impact of an Oil Spill** (<https://youtu.be/CqduvsmyQTQ>)

Watermen, oil field workers, and those dependent upon tourism for their livelihood still struggle with anger and anxiety six years after the Deepwater Horizon explosion. For generations, these Gulf residents have rebounded quickly from natural disasters. For the first time in their lives, they were faced with a great unknown: a man-made disaster – the largest oil spill in U.S. history.

The lingering environmental ramifications of the spill have led to depression, substance abuse, divorce, and even suicide within the impacted communities.

Featuring Herb Malone (Gulf Shores & Orange Beach Tourism Board), Wayne Keller (Port Commission – Grand Isle, LA), Tony Kennon (Mayor – Orange Beach, AL), Sandy Nguyen (Coastal Communities Consulting), Thomas Dardar, Jr. (Principal Chief – United Houma Nation), Bette Billiot (United Houma Nation), David Chauvin (Waterman – DuLac, LA), and Steven Picou (University of South Alabama).

Consortia: n/a; Themes: Impact



**What's At Stake** (<https://youtu.be/YMqRYS6f3mY>)

The Gulf of Mexico’s coastal wetlands and marshes are home to thousands of species of plants and animals – and its beaches help support a hundred billion-dollar tourist industry. It’s also a place whose waters provide 40% of the commercial seafood caught in the lower 48 States.

After 87 days of oil spewing into the Gulf, the beaches and salt marshes were hit hard. Hundreds of thousands of marine animals and birds died. Tourists abandoned the beaches. And watermen were unable to work. The oil spill put at stake not only a way of life, but also the future of one of the most biologically fertile regions in the world.

Consortia: n/a; Themes: Impact



**[Where Did the Oil Go?](https://youtu.be/oitc2E0fbKs)** (<https://youtu.be/oitc2E0fbKs>)

To the causal observer, it's hard to believe that the Gulf of Mexico is still under stress six years after the Deepwater Horizon oil spill. The flotilla of boats surrounding the BP blowout site is gone – and oil exploration has resumed in the Gulf. Tourists have returned to pristine beaches. Commercial and recreational fishing boats are again working the waters of the Gulf, and the seafood is safe to eat.

So what happened to more than 200 million gallons of leaked oil? And was the use of dispersants a good choice or a bad choice?

Consortia: DROPPS; Themes: Physical, Chemical, Environmental, Technology, Impact



**[Holy Cow Moments](https://youtu.be/SwMPb0YrwXg)** (<https://youtu.be/SwMPb0YrwXg>)

Before the Deepwater Horizon oil spill, Professor Mandy Joye made numerous dives to the floor of the Gulf of Mexico. Each trip was filled with wonderment and “holy cow” moments as she witnessed an underwater world teeming with amazing life.

Since 2010, she has made 17 dives and the happy “holy cow” moments have been replaced by disheartening ones as she observes the oil killing or crippling sea life.

Consortia: ECOGIG; Themes: Chemical, Environmental



**[It Got Complicated](https://youtu.be/K4AINPOFc0E)** (<https://youtu.be/K4AINPOFc0E>)

Professor Will Patterson and Oceanographer Joe Tarnecki – both with Dauphin Island Sea Lab – use an ROV (*remotely operated vehicle*) to measure the impact of oil and dispersants on reef habitats. They’ve been studying the northern Gulf of Mexico for the last decade, so they have an abundance of data from the pre-spill environment. They revisit the same sites to collect post-oil spill data and discover that the population of the reef fish has dramatically decreased.

Impacts from the oil spill may be the cause, but an unanticipated element adds a layer of complexity to their research. To learn how their research “got complicated,” watch this short video: [Invasion of the Lionfish](http://youtu.be/8Hnhul7Lv6Y) (<http://youtu.be/8Hnhul7Lv6Y>).

Consortia: C-IMAGE; Themes: Environmental



**[Dispatches from the Gulf: Sizzle/Tease Trailer](https://youtu.be/6ouEYErSD9U)** (<https://youtu.be/6ouEYErSD9U>)

It happened on April 20, 2010 – 41 miles off the coast of Louisiana. The Deepwater Horizon oil-drilling rig exploded. Tragically – the blowout killed 11 – and changed the lives of millions living near the Gulf coast – as well as hundreds of scientists who responded to the crisis.

To discover what happened – scientists from around the world turned their attention to the Gulf of Mexico. A whole research community has developed dedicated to finding new and unique methods to understand the oil pollution process.

Consortia: All; Themes: Physical, Chemical, Environmental, Technology, Impact





**[Dispatches from the Gulf: The Story in Sixty Seconds](https://youtu.be/QZlHW286knM)** (<https://youtu.be/QZlHW286knM>)

Six years after the Deepwater Horizon blowout, an international team of researchers is focused on the Gulf of Mexico. These are some of their stories – intimate portraits of research – innovation – discovery. Stories that speak directly to a nation still recovering from the largest oil spill in U.S. history.

Consortia: All; Themes: Physical, Chemical, Environmental, Technology, Impact



**Journey to Planet Earth** (J2PE) is a current documentary series that dramatizes new ways of looking at the delicate relationship between people and the world they inhabit. The series is designed to help viewers understand and cope with the most important environmental issues of the 21st century.

Through an interdisciplinary approach, these programs reach beyond the physical sciences and draw connections to politics, economics, sociology, and history. A common thread runs throughout — the necessity to achieve a balance between the needs of people and the needs of the environment. Though photographed on different continents and focusing on different sets of problems, audiences come to see why all of these stories are connected, providing a dramatic mosaic of how the Earth works as an interrelated system.

*“Dispatches from the Gulf”* is the 14<sup>th</sup> episode in the J2PE series. It was made possible by a generous grant from the Gulf of Mexico Research Initiative (GoMRI).

Additional funding was provided by the Wallace Genetic Foundation and the Farvue Foundation.

## Educators Guide for “Dispatches from the Gulf” Short Videos



### Pre-viewing Suggestions for Short Videos

In order to most effectively connect the short videos to your curriculum and learning objectives, consider adapting the following tips to your particular class and students as well as to the shorts you have selected:

- Ask your students what they already know.
- Tell your students what you want them to listen for, specifically.
- Identify the questions you would like students to think about and be ready to discuss after viewing the short(s). These could range from questions with specific factual answers to broader, more overarching questions related to your particular course.

### Post-viewing Suggestions for Shorts

After viewing the short(s), consider the following:

- Engage all of the students by asking them to write down their answers to your pre-viewing questions before discussing them aloud as a class or in small groups.
- Ask your students what connections they make between the short videos and your class. Why do they think you chose this film segment to view?
- As a result of watching this film clip, what do they wonder about? What questions does the short raise for them?

Many of the short videos focus on a scientist from a wide variety of scientific fields. The following post-viewing ideas may be helpful:

- What question is this scientist asking?
- How are they going about studying their question? What methodology did they use? What technology do they rely upon?
- What are they learning from their results? What new questions are arising?
- What excites each of the scientists? What are they passionate about? What seems to motivate them?
- What do you find surprising about the scientists and their work?
- Which scientists had a working hypothesis? Which scientists gathered results that supported their hypothesis? Which did not? Were there any scientists who did not have a working hypothesis? What can you infer about the nature of the scientific process?
- What are the virtues of being a scientist?