Upcoming Events:

Sheepshead minnows. A Louisiana State University research study found that fish exhibit avoidance behavior in the presence of medium to high concentrations of fresh oil, but no avoidance behavior in the presence of weathered oil. Read more in the Science Corner section of this issue and here. Photo Credit: C. Filosa.

DISPATCHES
From the Gulf

GoMRI and Screenscope Films Announce *Dispatches from the Gulf 2: Research • Innovation • Discovery*

Contributing Authors: Rebecca Howland and Sam Sheline

The Gulf of Mexico Research Initiative (GoMRI), the GoMRI Research Board, and Screenscope Films are pleased to announce the release of *Dispatches from the Gulf 2: Research • Innovation • Discovery (Dispatches 2)*, the follow-up to the Emmy® Award-winning documentary, *Dispatches from the Gulf 1: Science • Community • Recovery.*

Narrated by Matt Damon, *Dispatches 2* is the fifteenth episode in Screenscope's *Journey to Planet Earth* series. The sequel features GoMRI-funded researchers investigating the Gulf of Mexico's health in the aftermath of the Deepwater Horizon oil spill. Stories from the film include research on the health of the bottlenose dolphin population, the collapse of the Louisiana oyster industry, and how the oil spill impacted the Gulf's largest predatory shark. The film also chronicles the development of a brand new type of ocean drifter that tracks ocean currents. An interdisciplinary research team battled inclement weather to launch the largest-ever deployment of these devices, and the results are radically improving scientists' understanding of ocean currents.

Dispatches 2 will premiere at the 2018 Environmental Film Festival in Washington, D.C. The Mississippi PBS network will broadcast the show in the United States, and additional screening announcements will be shared on the *Dispatches from the Gulf* website. The National Geographic Channel in New Zealand and Australia will also broadcast both films.

To accompany the documentaries, Screenscope has launched a series of short videos and podcasts. DVDs, teachers' guides, and lesson plans are available free of charge to educators, librarians, homeschoolers, and community activists. Visit the *Dispatches from the Gulf* website for more information.

"This is what we live for, what we work for. All the time spent behind the computer - we only do that so we can get out here and collect data at sea." Dr. Dean Grubbs, *Dispatches from the Gulf 2*

Note from the Research Board Chair

Dr. Rita Colwell, University of Maryland and Johns Hopkins University

The GoMRI Research Board is pleased to announce *Dispatches from the Gulf 2*, second in the *Dispatches from the Gulf* documentary series produced by Screenscope Films in partnership with the Gulf of Mexico Research Initiative. The GoMRI Research Board supports communication and outreach activities that highlight GoMRI research, and the GoMRI partnership with Screenscope in producing the *Dispatches from the Gulf* series is an important component of that effort.

Dispatches from the Gulf 2 explores lingering scientific questions that GoMRI researchers seek to understand after the Deepwater Horizon oil spill that occurred in 2010. Immediate impacts of oil on marine animals in the Gulf, including dolphins and sharks, and lasting effects of residual oil on these populations are under intense study. Impacts of dispersants are also a focus of GoMRI researchers. How the spill affected local communities relying on the Gulf of Mexico for their livelihoods is addressed in the documentary. A key question to which an answer is sought concerns the ability to model the path of oil in the ocean. The documentary also includes GoMRI-funded graduate students who play an important role in both the GoMRI program and in GoMRI's legacy. While these points of study comprise only a snapshot of the extensive research supported by GoMRI, *Dispatches from the Gulf 2* shares GoMRI's unprecedented, interdisciplinary scientific research and education program.

The GoMRI Research Board gratefully acknowledges its continued partnership with Screenscope Films in creating these important documentaries and supplemental products. We hope you will enjoy this new release and find the film to be a useful resource. I encourage you to visit the *Dispatches from the Gulf* website to learn more.

Video Clip of the Quarter

In the summer of 2017, scientists with the Relationships of Effects of Cardiac Outcomes in Fish for Validation of Ecological Risk (RECOVER) consortium embarked on a three-day expedition to satellite tag mahi-mahi. The satellite tags collect important information on mahi-mahi migration, as well as temperature and depth during their travels, over a 96-day period. RECOVER's overall objective is to better understand how exposure to oil impacts wild mahi-mahi, and this tagging expedition was the first step in beginning to understand the population's behavior in the wild. More information on this experiment, including a video, can be found here.

As Hurricane Irma approached Florida this past fall, scientists at the University of Miami Experimental Fish Hatchery, including those who work for RECOVER, sprang into action to safely transport and protect valuable fish from the impacts of the storm. The fish were moved to the Surge-Structure-Atmosphere Interaction (SUSTAIN) Facility at the University of Miami's Rosenstiel School of Marine and Atmospheric Science to ride out the storm. Ironically, the SUSTAIN Facility is used to study wind, waves, and storm surges during tropical cyclones and hurricanes and is designed to generate and withstand forces up to a Category 5 hurricane. RECOVER shared a video of the transfer on their Facebook page; check it out here.

Following their *Jewels of the Gulf* expedition this past summer, the Ecosystem Impacts of Oil and Gas Inputs to the Gulf (ECOGIG) consortium produced a three-part video series to share more about deep sea corals and why studying them is so important. The videos were produced in partnership with Allison Randolph, a filmmaker and ocean education advocate, who participated in the *Jewels of the Gulf* expedition. More information on the video series can be found on ECOGIG's website here, and the videos can be viewed here. Be sure to check them out!

Don't forget to check out GoMRI's YouTube Channel here.

GoMRI Scholars in Action

GoMRI recognizes the graduate students whose vital research contributes to improving understanding about the damage, response, and recovery of the Deepwater Horizon oil spill. Candidates for this program must be graduate students who have participated in a GoMRI-funded project for at least one year, whose research is primarily funded by GoMRI, and who are working on a dissertation or thesis based on GoMRI-funded science.

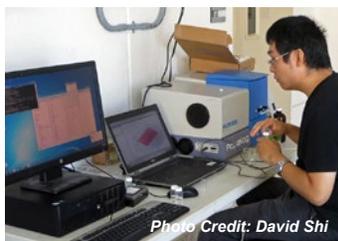**Learn more about the scholars' research and career paths on the GoMRI website!**

Photo Credit: David Shi

Grad Student Shi Uses Chemical Fingerprinting to Investigate Oil in the Water Column

Photo Credit: Ben Prueitt

Grad Student Rohal Examines Tiny Organisms to Understand Deep-Sea Ecosystems

Photo Credit: Xinzhi Xue

Grad Student Xue Uses Light to Characterize Oil Plume Fragmentation

Photo Credit: Claudia Husseneder

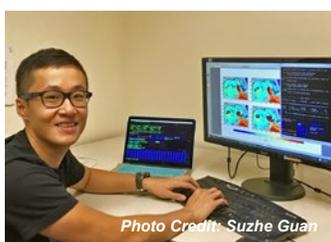Grad Student Bhalerao Analyzes Food Webs of Horse Fly Larvae to Assess Marsh Health

Photo Credit: Suzhe Guan

Grad Student Wang Quantifies Ocean Model Uncertainty to Improve Prediction Accuracy

Photo Credit: Hamburg University of Technology

Grad Student Malone Uses Engineering Skills to Put Pressure on Oil

GoMRI Newsmakers

GoMRI is pleased to share that GoMRI Research Board Chair Dr. Rita Colwell has been selected as the 33rd laureate of the International Prize for Biology. The award is given by the Japan Society for the Promotion of Science and recognizes scientists for their contributions to the "advancement of research in fundamental biology." The prize is one of the highest honors a natural scientist can receive. Dr. Colwell will receive her award at a ceremony in her honor, which will be held later in 2017 at the Japanese Academy in Japan. GoMRI congratulates Dr. Colwell on receiving this exceptional award!

Dr. William "Monty" Graham, principal investigator of the Consortium for Oil Spill Exposure Pathways in Coastal River-Dominated Ecosystems (CONCORDE) and Director of the University of Southern Mississippi's School of Ocean Science and Technology (SOST), has been selected to chair the governor of Mississippi's newly formed Ocean Task Force. The task force will provide recommendations on how the state of Mississippi can enhance unmanned maritime systems applications through both advancement of technologies and supporting workforce professional development. GoMRI congratulates Dr. Graham on being selected to lead this important effort.

CONCORDE Partners with Local Fishers on Citizen Science Initiative

Contributing Author: Jessie Kastler, CONCORDE Education and Outreach Coordinator

Following the Deepwater Horizon oil spill, scientists, including those now working with the Consortium for Oil Spill Exposure Pathways in Coastal River-Dominated Ecosystems (CONCORDE), heard many questions about the spill from local communities, fishers, and other stakeholders. They knew that much more research would be needed to understand the impacts of the spill. Because answers were not readily available, the scientists began to notice the public losing trust in them and the scientific process.

A community of local fishers in Mississippi, including many who are refugees from Vietnam, have relied on the Gulf of Mexico fisheries for their livelihood for many years. The community was harshly impacted by Hurricane Katrina in 2005 and again by the Deepwater Horizon oil spill in 2010. In some cases, their fishing boats were used in clean up and recovery efforts, so they felt especially connected to the event. They continue to seek answers about the spill's impact on their livelihood more than seven years later.

Scientists and outreach coordinators with CONCORDE decided to expand on a partnership initiated in 2013 between the University of Southern Mississippi (USM) Marine Education Center (MEC) and the Mississippi Coalition of Vietnamese American Fisher Folks and Families (MSCVAFF), led by Thao Vu, to engage local fishers in the science CONCORDE is doing.

By building a bridge between the scientific community and local fishers, CONCORDE hopes the fishers will begin to understand and trust the process of science. Ideally, their involvement will empower them to speak for themselves and have a stronger voice in decision-making related to the resource they rely on for their livelihood.

CONCORDE's three-year award through GoMRI provided an opportunity to further develop this partnership and create a long-term citizen science project to integrate the fishers into CONCORDE's research. The goal is to teach them how to collect temperature and salinity measurements with depth, using conductivity-temperature-depth (CTD) casts. They are also taught how to take notes

and record descriptions, adding valuable context to the data they collect. The data are used in CONCORDE's modeling efforts to understand where oil could go along Mississippi's complicated coastline. Depth profiles of temperature and salinity at various locations ground truth researchers' models and help to parameterize them. At a recent training, one of CONCORDE's modelers gave a presentation on how the data collected by the fishers is helping inform their research and improve the models.

Since 2016, CONCORDE has hosted four training workshops, and more than 24 fishers have participated. Of those, 20 have collected data during their fishing expeditions at least once.

They make five casts in a 24-hour period, during trips that last anywhere from a day to a week. Members of CONCORDE meet the fishers at the docks for conversation, to answer questions, to transfer equipment, and to get to know each other. When needed, Thao Vu attends and serves as an interpreter. CONCORDE compensates them for their time and efforts. The fishers appreciate being taken seriously as a part of the process.

The fishers are learning from the scientists, and incorporating them into CONCORDE's research is helping to build that trust in the science and the scientific process that was questioned after Deepwater Horizon. But the initiative has had other benefits as well. The value the fishers provide to CONCORDE goes beyond data collection. Fishers have their own understanding of the ocean and the coast, from years spent working on the water. Their interpretations provide valuable new insights into the data, increasing understanding of the quality and limitations of the data, ultimately improving CONCORDE's models and response capacity in the event of future oil spill events. The MSCVAFF and MEC will continue to build the relationship among researchers and fishers through a new grant from the National Academy of Sciences through which a USM toxicologist will conduct research to assess oil impact on Mississippi Sound oyster reefs.

To learn more, please visit CONCORDE's blog here and here, and the GoMRI website here.

Science Corner

Published Science Highlights from the GoMRI Program

Study Describes How Marine Particle Aggregates Influence Oil Spill Fate
R.A. Lambert, E.A. Variano
Journal of Geophysical Research: Oceans, 2016, Vol. 121(5), pgs. 3250-3260

Study Finds Low Oil Concentrations Impair Self-Preservation Behaviors in Coral Reef Fish Larvae
J.L. Johansen, B.J.M. Allan, J.L. Rummer, A.J. Esbaugh
Nature Ecology and Evolution, 2017, Vol. 1, pgs. 1146-1152

Study Characterizes Oil and Gas Bubbles Released from Natural Hydrocarbon Seeps
C. Johansen, A.C. Todd, I.R. MacDonald
Marine and Petroleum Geology, 2017, Vol. 82, pgs. 21-34

Study Assesses How Sunlight and Microbial Degradation Affect Oil-Derived Sand Patties
B.H. Harriman, P. Zito, D.C. Podgorski, M.A. Tarr, J.M. Suflita
Environmental Science and Technology, 2017, Vol. 51(13), pgs. 7412-7421

Study Finds Different Avoidance Behaviors in Estuarine Fish to Oiled Sediment
C.W. Martin
Marine Ecology Progress Series, 2017, Vol. 576, pgs. 125-134

Study Describes How Autonomous Surface Vehicles Improve Marine Mammal Monitoring
A.T. Ziegwied, V. Dobbin, S. Dyer, C. Pierpoint, N. Sidorovskaia
OCEANS 2016 MTS/IEEE Monterey

Study Develops Biogeographic Classification of the World's Deep Oceans
T.T. Sutton, M.R. Clark, D.C. Dunn, P.N. Halpin, A.D. Rogers, J. Guinotte, S.J. Bograd, M.V. Angel, J.A.A. Perez, K. Wishner, R.L. Haedrich, D.J. Lindsay, J.C. Drazen, A. Vereshchaka, U. Piatkowski, T. Morato, K. Blachowiak-Samolyk, B.H. Robison, K.M. Gjerde, A. Pierrot-Bults, P. Bernal, G. Reygondeau, M. Heino
Deep Sea Research Part I: Oceanographic Research Papers, 2017, Vol. 126, pgs. 85-102

Modelling Study Demonstrates Dispersants Lowered Health Risks During Oil Spill
J. Gros, S.A. Socolofsky, A.L. Dissanayake, I. Jun, L. Zhao, M.C. Boufadel, C.M. Reddy, J.S. Arey
Proceedings of the National Academy of Sciences of the United States of America, 2017, doi: 10.1017/pnas.1612518114

Study Finds Small-Scale Flows Alter Transport Pathways on the Ocean's Surface
A.C. Haza, T.M. Ozgokmen, P. Hogan
Ocean Modelling, 2016, Vol. 107, pgs. 28-47

Study Finds Oil Exposure Reduces Cardiac Function and Survival in Red Drum Larvae
A.J. Khursigara, P. Perrichon, N. Martinez Bautista, W.W. Burggren, A.J. Esbaugh
Science of the Total Environment, 2017, Vol. 579, pgs. 797-804

To see all GoMRI publications, please visit the GoMRI Publication Database.

Sea Grant

Texas • Louisiana • Florida
Mississippi-Alabama

The Sea Grant Oil Spill Science Outreach Team has been hosting a series of seminars focused on bringing together scientists and responders, called *Responding to Oil Spills*. The series features information on how science helps manage oil spills, including what data and information can help enhance predication and response. Two seminars in the series were held this fall: *Responding to Oil Spills: Coastal Wetlands Habitats* took place on October 26, 2017 at the Mississippi State University Coastal Research Extension Center in Biloxi, Mississippi, and *Responding to Oil Spills: Nearshore and Beach Habitats* took place on November 13, 2017 at the Disaster Response Center in Mobile, Alabama. A third seminar in the series will be held on January 9, 2018 in Lacombe, Louisiana on *Offshore and Deep Sea Habitats*. More information on these seminars can be found here.

The Sea Grant Oil Spill Science Outreach Team has also released a new publication and one-page fact sheet. The publication *Where Did the Oil Go?* shares what scientists have learned about where the oil went in the Gulf following the Deepwater Horizon spill. *Is it Safe? Examining Oil Spill Health Risks from the Deepwater Horizon Oil Spill* is a one-page fact sheet that discusses what scientists have learned about the impacts and safety of Gulf of Mexico beaches, water, and seafood following the spill. For more information on the Gulf Sea Grant Oil Spill Science Outreach Program, please visit gulfseagrant.org.

Education Spotlight

C-IMAGE Attends EMSEA Conference in Malta

Outreach coordinators Teresa Greely and Angela Lodge from the Center for the Integrated Modeling and Analysis of the Gulf Ecosystem (C-IMAGE) attended the European Marine Science Educators Association (EMSEA) conference from October 7-10, 2017 in Valletta, Malta. The EMSEA "provides a platform for ocean education and promoting ocean literacy within Europe." Their goals are to encourage conversations, and share resources and teaching materials, between European and international marine scientists and educators. This year's conference had several themes, including the integration of ocean literacy into school curriculums, ocean literacy in the digital age, oceans and human health, and the role of ocean literacy in the future. The conference program can be found here. There were approximately 70 participants from 20 countries in attendance.

Many visitors came by the C-IMAGE booth hosted by Teresa and Angela. They shared information and giveaways from GoMRI and many of the GoMRI-funded consortia, including a flash drive with education resources, *Dispatches from the Gulf 1* DVDs, Gulf Sea Grant Oil Spill Science Outreach Program publications, and C-IMAGE's podcasts. Their goal in attending the conference was to share resources, exchange information with other marine science educators, and share how a scientific consortium such as C-IMAGE can "build infrastructure, communications, and collaborative partnerships across geographic, language, and research specialties."

Keep up with the Consortia Blog Roll and Social Media

Some of the consortia have updated their blogs. Check them out!

ACER: Educational Blogs
CARTHE: Measure. Model. Mitigate
CRGC: News
CWC: Marsh Edge-U-Cation
DEEPEND: Blog

Many consortia are active on social media, including Twitter, Facebook, and Instagram. Follow along!

ACER: Facebook, Instagram
ADDOMEx: Facebook, Twitter, Instagram
CARTHE: Facebook, Twitter
C-IMAGE: Facebook, Twitter
CONCORDE: Facebook, Twitter, Instagram
CRGC: Facebook
CWC: Facebook, Instagram
DEEPEND: Facebook, Twitter, Instagram
DROPPS: Facebook, Twitter
ECOGIG: Twitter, Instagram
LADC-GEMM: Facebook
RECOVER: Facebook, Twitter

Photo Caption: C-IMAGE outreach coordinators Teresa Greely (right) and Angela Lodge (left) with graduate student Theodora Sam from Guana at EMSEA. Photo Credit: Teresa Greely

Photo Caption: Angela Lodge interacts with a University of Malta graduate student at the booth at EMSEA. Photo Credit: Teresa Greely

GoMRI Researcher Interview with Dr. Steve Saul

Dr. Steve Saul from Arizona State University answered a few questions about his RFP-V project, Avoiding Surprises: Understanding the impact of the Deepwater Horizon oil spill on the decision making behaviors of fishers and how this affects the assessment and management of commercially important fish species in the Gulf of Mexico using an agent-based model.

1. Thank you for talking with us! Tell us about your research. What are the goals of your RFP-V project?

The Deepwater Horizon oil spill disrupted the livelihoods of many individuals living along the coast of the Gulf of Mexico, ranging from those in the tourism industry to those who fish the Gulf's waters for a living. Many of those in the fishing industry, and the sectors that depend on it (fuel, restaurants, tourism, etc.), had to suspend their operations in the months after the spill due to spatial closures restricting access to potentially polluted waters. In the short run, for those fishers who lived adjacent to the closed areas and worked in areas that were closed, this affected their ability to work, their catch, and subsequently their family income. Others may have been able to continue fishing but may have had to reduce their time at sea or alter their fishing locations to work around the spatial closures.

The need to adjust behaviors in 2010 may have permanently altered the way some individuals fish and the locations where they conduct fishing operations. Such short-term and longer-term effects of the oil spill closures have not yet been evaluated in terms of how they may have socioeconomically affected the fishing community or biologically affected fish populations.

The National Marine Fisheries Service relies heavily on information compulsorily provided by the fishing industry to the government when assessing the status of fish populations in the Gulf of Mexico. If the distribution of data collected from the fishing industry has somehow changed due to changes in how people are fishing, not understanding or accounting for this change could affect the assessment and management of the Gulf's fish resources. In order to study the magnitude and direction of these effects from the spill, we are developing a spatially explicit, agent-based bio-economic model to represent important commercial fishery species and the fleets that harvest them in the Gulf of Mexico. The model will be used to understand fishing fleet dynamics, fish population dynamics, and the interaction of these in response to spatial closures and oil pollution. Alternative responses to the spill will also be evaluated to understand the scope of the possible effects of oil spills on fish populations in the Gulf, how they recover, and to explore different management strategies that can be used during such events.

2. What is your background and how did you get involved with this kind of work?

I received my Ph.D. in marine biology and fisheries and a master's degree in marine affairs and policy from the University of Miami's Rosenstiel School for Marine and Atmospheric Science. After graduate school, I worked as a Research Fisheries Assessment Biologist for the National Marine Fisheries Service in Miami, where I conducted stock assessments on commercially important reef fish in the Gulf of Mexico and provided management advice to regional management bodies. I then worked as a Senior Research Scientist for Nova Southeastern University, where I was a Khalid bin Sultan Living Oceans Foundation Fellow. During this time, I contributed to the Global Reef Expedition by using remotely sensed and ground-truthed data to develop depth elevation and habitat maps of coral reefs for resource managers in Small Island Developing States. I am now an Assistant Professor at Arizona State University. My research interests include using quantitative tools, simulation modeling, remote sensing, and a systems-based approach to support natural resource management both domestically and internationally.

3. What are some of the most significant or exciting findings so far from your RFP-V project?

This project is an expansion of the work I did as part of my dissertation. The first version of the model represented the reef fish fishery on the west Florida shelf and was developed to help resource managers understand how the behaviors of fishers affect their catch, where they fish, how long they fish, and what type of gear they use. We are currently in the process of developing a version of the model, which spatially

encompasses the northern Gulf of Mexico, the portion located within the United States Exclusive Economic Zone. The analysis of approximately 15 data sources is currently underway in order to expand the spatial extent of the model and update biological and human behavior parameters using the most up-to-date data sources. As part of this process, the number of fish species in the model will also be augmented to include most of the commercially important reef fish species targeted by the fishery. An exciting component we are working on, as part of the data analysis and parameterization component, are novel ways to statistically compute the spatial distribution of fish in the Gulf of Mexico. The ability to better understand how commercially important fish are spatially distributed across the Gulf of Mexico can help resource managers better manage fish populations.

Photo Credit: Steve Saul

4. Which fish species in particular are you incorporating into the model?

We selected fish species to include in the model from the snapper-grouper management complex based on their financial importance to the commercial and recreational fisheries that operate in the Gulf of Mexico. These species include red grouper, gag grouper, red snapper, vermilion snapper, mutton snapper, gray triggerfish, golden tilefish, and yellowedge grouper. The primary reason for selecting these species is because the spatial and temporal distribution of these fish stocks drive fisher behavior and decision-making of the commercial and recreational demersal fleets. In addition, these species are distributed in different ways across the Gulf of Mexico, both in the north-to-south and east-to-west directions and in terms of depth strata. For example, yellowedge grouper and golden tilefish live at deeper depths than the other species; mutton snapper are primarily concentrated off the coast of southwest Florida, while red snapper are primarily concentrated west of the Mississippi River delta. Incorporating multiple species across different habitats provides a diversity of options to the

simulated fishing vessels with respect to site selection, fishing gear, and targeting choice, commensurate with the actual set of choices fishers select from in the real world.

5. Can you talk more about how you are evaluating the behaviors of the fishers, to understand what changes they may have made in response to the oil spill?

We are evaluating the behaviors of fishers in two ways: through conducting quantitative questionnaires that ask vessel captains about their decision-making process and by developing discrete choice models by converting the logbook data that fishers report to the government into a panel dataset. Fisher logbook information contains records of vessel captain decisions, such as when they started a fishing trip, where they fished, and when they returned to port. This information is then merged together by date, with other information containing daily observations of processes that could affect a vessel captain's decisions. This information can include, but is not limited to wind speed, fuel price, fish price, fishing regulations, socioeconomic status, or quota allocation (i.e. how many pounds of each species each fishing boat is allowed to catch). Discrete choice models will be fit to data prior to and after the oil spill occurred in order to see if behavioral changes can be detected in the decision-making process. Discrete choice model parameter estimates, together with questionnaire results, will be used by the simulated fishing vessels to drive their behavior and decision-making.

Photo Credit: Steve Saul

6. If funding were not an issue, what would you add to your project?

In the absence of funding limitations, I would most like to develop the model for the entire Gulf of Mexico large marine ecosystem and include the reef fish populations and fishing fleets that operate in the waters governed by Mexico and Cuba.

Smithsonian Ocean Portal recently released an article called *Fish Get Risky Around Oil*, which includes contributions from the Relationships of Effects of Cardiac Outcomes in Fish for Validation of Ecological Risk (RECOVER) consortium. Scientists have been studying how chemicals, including ethyl alcohol and carbon dioxide, impact the brains and behavior of fish and other organisms that live in the ocean. Exposure to these chemicals can impair fish behavior by making them less fearful of predators and slower to respond to dangers. Researchers are beginning to learn that many of the same behavioral changes can occur when fish are exposed to even small concentrations of oil. Read more here.

Frequently Asked Questions by Dr. Chuck Wilson

Dr. Chuck Wilson, Chief Scientific Officer for the Gulf of Mexico Research Initiative (GoMRI), answers a few questions about the 2018 Gulf of Mexico Oil Spill and Ecosystem Science (GoMOSES) conference which will be held from February 5-8 in New Orleans, Louisiana.

Question: What is this year's theme?

Answer: This year's conference theme is "*Response, Restoration, and Resiliency in the Gulf.*" To emphasize this theme, the opening plenary of the conference, "*The Three R's of Gulf Research,*" will explore the state of oil spill science and encourage GoMOSES attendees to consider how their research can be applied to response, restoration, and resource management plans and activities. More information on the opening plenary, including a list of speakers, is available here.

Question: How has the GoMOSES conference been evolving and how is that reflected in this year's program?

Answer: This year's theme represents a continuation of GoMOSES' effort to move toward the integration of oil spill and restoration science with practical applications in the Gulf of Mexico. To better facilitate discussions related to the conference theme, the organizers built the program around a set of topical tracks, resulting in 24 oral sessions and two poster sessions. They are also introducing mini-sessions, which will each feature four presentations highlighting key topics surrounding the conference theme. More information on the program, including a list of the topical tracks, can be found here.

Question: What is the future of the GoMOSES conference?

Answer: The closing plenary will address the future of the GoMOSES conference beyond the end of the GoMRI program in 2020. Members of the GoMOSES Executive Committee will participate in a panel which will address the future of GoMOSES and seek input from the audience regarding what attendees would like to see from the conference going forward. The panel will also discuss with the audience how GoMOSES might evolve topically in the future; for example, should future conferences focus on restoration science and safe industry practices in addition to oil spill science. More information on the closing plenary is available here.

For more information about the conference, including how to register, please visit the GoMOSES website here. Follow along on Facebook and Twitter using the hashtag #GoMOSES.