METCALF INSTITUTE FOR MARINE & ENVIRONMENTAL REPORTING Science Seminar: Impacts of the Deepwater Horizon Oil Spill April 6-8, 2011

Seminar Agenda

April 6, 2011

Participants arrive at Louisiana Universities Marine Consortium's DeFelice Marine Center for lunch by 12:00 p.m.

12-1 Introductions and Lunch **LUMCON Cafeteria** Overview of Science Seminar goals and expectations 1:15-2:45 An Introduction to the Natural History of the Gulf of Mexico Auditorium NANCY RABALAIS, Louisiana Universities Marine Consortium, moderator M. SCOTT MILES, Louisiana State University School of the Coast and Environment EDWARD CHESNEY, Louisiana Universities Marine Consortium The Gulf of Mexico is the ninth largest body of water in the world, containing nearly half of America's coastal wetlands and supporting a significant portion of the nation's commercial fisheries. The Gulf has long been subject to the impacts of naturally occurring oil seeps and human activities. This opening session will provide an introduction to the natural history of the Gulf of Mexico prior to the Deepwater Horizon Oil Spill (DHOS), including the occurrence of oil in Gulf waters, the causes and consequences of the infamous Gulf of

2:45-3 Break Cafeteria

3-4:30 Science Translation I: Graphing for Communication of Complex Data Auditorium

KELLY HENRY, LSU School of the Coast and Environment

Mexico "dead zone" and the state of regional fisheries.

This session will provide an introduction to the basics of interpreting graphs and some commonly used statistical tools. Participants will learn about techniques for visualizing data and then apply these techniques in an informal "challenge" to interpret more complex graphs.

4:30-5 Break

5:00-6:30 Reception and Dinner Cafeteria

6:30-8 Risk Communication I: Communication Lessons Learned from

Auditorium

an Environmental Disaster

LISA LUNDY, LSU Manship School of Mass Communication, moderator

MELISSA TROSCLAIR DAIGLE, Louisiana Sea Grant

MICHEL CLAUDET, Terrebonne Parish President

Risk communication plans for local, state, and federal institutions are informed by well-established research and prior experience. The Deepwater Horizon Oil Spill, however, demonstrated that these plans can be very difficult to follow in the heat of the moment. Panelists will discuss some of the basic tenets of effective risk communication, and what they learned about their communication strategies in the wake of the 2010 Gulf Oil Spill.

8 p.m. Adjourn for evening

Reminder: Participants should read science paper assigned for the second Science Translation session.

April 7, 2011

Reminder: Participants must wear shoes with non-skid soles and closed toes.

Participants arrive at LUMCON's dock prepared to board by 8:45 a.m.

7-8:30 Breakfast Cafeteria

8:45 Participants board R/V Acadiana

Dock

9 a.m.-1 p.m. Measuring Impacts: An Introduction to Oceanographic Techniques

NICOLE COTTEN, Louisiana Universities Marine Consortium

SUNSHINE MENEZES, Metcalf Institute for Marine & Environmental Reporting

The four-hour trip on the R/V *Acadiana* will take participants to upper Terrebonne Bay to gain a hands-on understanding of the tools and techniques used to collect oceanographic data in the wake of the Gulf Oil Spill. Participants will collect hydrographic data (salinity, temperature, and dissolved oxygen) and sample for nekton, plankton and benthos using standard methods. Bag lunches will be provided for participants during return trip.

1-1:30 Break Cafeteria

1:30-2:10 Oil Fate and Transport: Where Did the Oil Go, and When?

Auditorium

CHRISTOPHER D'ELIA, LSU School of the Coast and Environment, moderator

M. SCOTT MILES, LSU School of the Coast and Environment

EURICO D'SA, LSU Coastal Studies Institute

While public attention has shifted toward the longer-term effects of the Deepwater Horizon Oil Spill, it is still important to know the observed and projected oil distribution and the ways in which the oil has been partitioned and decomposed. In this session, the panelists will describe the current understanding about fate and transport of oil from the DHOS, using a variety of physical and chemical techniques.

2:10-2:30 Q&A

2:30-3:15 The Devil You Know: Dispersant Use and Impacts

SUNSHINE MENEZES, Metcalf Institute, moderator

KALLIAT T. VALSARAJ, LSU Cain Department of Chemical Engineering

ELIZABETH KUJAWINSKI, Woods Hole Oceanographic Institute

JOE GRIFFITT, University of Southern Mississippi

One of the most contentious aspects of the Deepwater Horizon Oil Spill response was the use of chemicals to disperse the oil at depth. In this session, panelists will provide an overview of how dispersants work, what is known about the behavior of dispersants used to address the DHOS, and the current state of knowledge about dispersant toxicity.

3:15-3:30 Q&A

3:30-3:45 Break

3:45-5 Science Translation II: Deconstructing a Scientific Publication

Auditorium

Partnering scientists: CHRIS D'ELIA, LSU; JOE GRIFFITT, USM; ELIZABETH KUJAWINSKI, WHOI; M. SCOTT MILES, LSU

In this second session on the translation of published science for general audiences, participants will partner with scientists in four groups. Using a pre-assigned science journal article as a model, each group will discuss tools that can be used to effectively read and "translate" a science journal article for a news audience or visitorship. In the auditorium at the end of the exercise, groups will share tips gained during the session.

Break-outs: Distance Learning Room, Teaching Lab #313, Lecture Room #202, Cafeteria

5:30-6:30 Dinner Cafeteria

6:30 p.m. Adjourn for the evening

April 8, 2011

7-8:45 Breakfast Cafeteria

9-10:15 a.m. The Long Haul: Measuring Ecosystem Impacts

Auditorium

NANCY RABALAIS, Louisiana Universities Marine Consortium, moderator ALEXANDER KOLKER, Louisiana Universities Marine Consortium PAUL SAMMARCO, Louisiana Universities Marine Consortium ANDREW WHITEHEAD, LSU Department of Biological Sciences

It will be years to decades before researchers have a clear understanding of how the Deepwater Horizon Oil Spill affected Gulf of Mexico organisms and ecosystems. Panelists in this session will provide an introduction to some of the major scientific questions with regard to coastal and offshore impacts of the spill, with a focus on their specific research projects. Speakers will also highlight different approaches to these research questions, including assessing genetic responses, measuring biogeochemical changes, and recording changes in offshore populations. Finally, speakers will discuss potential challenges to measuring effects resulting from the use and availability of different technologies.

10:15-10:30 Break Cafeteria

10:30-11:45 Assessing Seafood Safety in the Wake of an Oil Spill

Auditorium

SUNSHINE MENEZES, Metcalf Institute, moderator DANIEL HARRINGTON, LSU School of Public Health

RANDY PAUSINA, Louisiana Department of Wildlife and Fisheries

RALPH PORTIER, LSU School of the Coast & Environment

In spite of rigorous testing of Gulf seafood by numerous state and federal agencies, many people still doubt the safety of shellfish and finfish from the region. Some of these doubts come from a misunderstanding of the process by which seafood consumption advisories are developed, while others arise from concerns about whether the appropriate tests were used. In

this session, panelists will discuss the methods used to develop seafood consumption advisories and the role of state agencies in developing and/or disseminating the advisories. Panelists will also describe specific efforts to assess seafood toxicity in the wake of the Deepwater Horizon Oil Spill.

12-1 p.m. Lunch Cafeteria

1:15-2:15

Science Translation III: Turning a Science Paper into a Story/Presentation

Partnering scientists: Chris D'Elia, LSU; Daniel Harrington, LSU; Alexander

Kolker, Lumcon; Nancy Rabalais, Lumcon; Paul Sammarco, Lumcon

In this final of three sessions on translating peer-reviewed research for public audiences, participants will again partner with scientists in five pre-assigned groups. Building on the science translation tools identified in previous sessions and with the help of partner scientists, participants will read and "translate" a science journal article and identify one or two key conclusions from the paper. They will then take the lead and help their scientist partners identify points of interest for various types of public audiences. In the auditorium, a participant from each group will summarize their conclusions and the scientist will pitch an idea for a public presentation or news story on those conclusions.

Break-outs: Distance Learning Room, Teaching Lab #313, Lecture Room #202, Cafeteria (2 groups)

2:15-2:30 Break Cafeteria

2:30-3:45 Risk Communication II: Implementing Lessons Learned

Auditorium

BRITT CHRISTENSEN, LSU Manship School of Mass Communication and SUNSHINE MENEZES, Metcalf Institute, moderators

In this second of two sessions on risk communication, participants will share perspectives on the different requirements of risk communication for scientists, informal science educators, and journalists. Participants will then break into groups of roughly five people by profession and develop strategies for communicating risk, especially regarding the Deepwater Horizon Oil Spill, specific to informal science education settings or news reporting, using the tools and information gained during the Science Seminar. Finally, back in the auditorium, representatives from each group will present strategies and mechanisms developed in break out groups and respond to questions.

Break-outs: Distance Learning Room, Teaching Lab #313, Lecture Room #202, Cafeteria

3:45-4 Wrap-up Auditorium

4 p.m. Science Seminar concludes