



8:00 a.m.-4:00 p.m.

Field Studies Building Room 102

Friday, February 21, 2014

- 7:45 am Coffee and snacks, registration and CEU paperwork *
- 8:00 am Pretest *
- 8:15 am The Role of Science in DHOS Dr. Jessie Kastler
- Warm up activity
 - Fact sheet
 - Results from research (Lubchenko et al. 2010, Peterson et al. 2012)
 - Limits on Science (event-related, process-related)
- 10:15 am Break *
- 10:30 am All About Oil Jessie
- Fact sheet
 - Properties of oil and dispersant
 - Results from research (Rico-Martinez et al. 2012, Powers et al. 2013, Lee et al. in progress)
- 12:00 pm Lunch in cafeteria*
- 12:45 pm Field collection of grass shrimp
- 1:15 pm Laboratory Mr. Aaron Lamey
- Microscopic description of grass shrimp
 - Avoidance experiments
 - Oil and dispersant demonstrations (oil and dispersant)
 - Dr. Lee's lab work vs. Dr. Sook Chung's lab work
- 4:00 pm Adjourn

Saturday, February 22, 2014

- 7:45 am Coffee and snacks, registration and CEU paperwork *
- 8:00 am Oil in Food Webs Jessie
- Fact Sheet
 - Coastal habitats, Deep water habitats (extent, deep water coral)
 - Loop current (tuna and sargassum)
 - Unusual mortality events (marine mammals)
- 10:15 am Break *
- 10:30 am Oil in Food Webs, continued

12:00 pm Lunch in cafeteria *

12:45 pm Field Trip (East Beach at Weeks Bayou) Aaron

- Round trip travel time to field site ≤30 minutes*
- Practice methods scientists use to study them (water quality, sediment, plant and invertebrate sampling, transects, quadrats and profiling)
- Explore oil effects

Foul Weather Plan Jessie

- Critical reading of popular media.
 - Related articles in Mother Jones and at whistleblower.com
 - How can you tell what to trust?
- Oil spill resources (GoMRI, COAST video)

3:45 pm Post-test, evaluation, adjourn *

*** Activities outside of instructional time**

This workshop provides location specific information to address the following content areas:

MASGC Focus Areas:

1. Healthy coastal ecosystems <http://d276864.h39.zee-hosting.com/page.asp?id=195>
2. Sustainable coastal development <http://d276864.h39.zee-hosting.com/page.asp?id=193>
3. Safe and sustainable seafood supply <http://www.masgc.org/page.asp?id=189>
4. Hazard resilience in coastal communities <http://d276864.h39.zee-hosting.com/page.asp?id=191>

Ocean Literacy Principles (<http://oceanliteracy.wp2.coexploration.org/>):

6: The ocean and humans are inextricably interconnected (b,.

- b. From the ocean we get foods, medicines, and mineral and energy resources. In addition, it provides jobs, supports our nation's economy, serves as a highway for transportation of goods and people, and plays a role in national security.
- d. Much of the world's population lives in coastal areas.
- e. Humans affect the ocean in a variety of ways. Laws, regulations and resource management affect what is taken out and put into the ocean. Human development and activity leads to pollution (such as point source, non-point source, and noise pollution) and physical modifications (such as changes to beaches, shores and rivers). In addition, humans have removed most of the large vertebrates from the ocean.
- g. Everyone is responsible for caring for the ocean. The ocean sustains life on Earth and humans must live in ways that sustain the ocean. Individual and collective actions are needed to effectively manage ocean resources for all.

7: The ocean is largely unexplored.

- a. The ocean is the last and largest unexplored place on Earth—less than 5% of it has been explored. This is the great frontier for the next generation's explorers and researchers, where they will find great opportunities for inquiry and investigation.
- b. Understanding the ocean is more than a matter of curiosity. Exploration, inquiry and study are required to better understand ocean systems and processes.
- c. Over the last 40 years, use of ocean resources has increased significantly, therefore the future sustainability of ocean resources depends on our understanding of those resources and their potential and limitations.
- d. New technologies, sensors and tools are expanding our ability to explore the ocean. Ocean scientists are relying more and more on satellites, drifters, buoys, subsea observatories and unmanned submersibles.
- e. Use of mathematical models is now an essential part of ocean sciences. Models help us understand the complexity of the ocean and of its interaction with Earth's climate. They process observations and help describe the interactions among systems.
- f. Ocean exploration is truly interdisciplinary. It requires close collaboration among biologists, chemists, climatologists, computer programmers, engineers, geologists, meteorologists, and physicists, and new ways of thinking.

FOR MORE INFORMATION PLEASE CONTACT:

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