Gulf of Mexico Deepwater Horizon Oil Spill Professional Development Videoconferences for Formal and Informal Educators Within FL, AL, MS, and LA

Presented by:
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June 28, 2012
NMEA Conference
Anchorage, AK
Deepwater Horizon Oil Spill
April 20 – mid-September 2010

http://cajuntvnetwork.com/gulf-oil-spill-update
Over 200 million gallons of oil and 2 million gallons of dispersants flowed into the GoM during this timeframe.

http://cajuntvnetwork.com/gulf-oil-spill-update
This Program is funded by NOAA’s Office of Education in cooperation with the Sea Grant Programs of MS-AL, FL, and LA; the University of Southern MS, the Institute for Marine Mammal Studies, and the Dauphin Island Sea Lab
Overall Goal:

To provide Formal/Informal Educators within the northern Gulf of Mexico with a basic understanding of the DWH oil spill and its environmental and economic impacts. This goal was accomplished through videoconferencing and face to face venues within three locations in MS, AL, and LA, and one location in the Panhandle of FL. The “live” and satellite conferences were implemented on Saturday, April 30, 2011 and January 28, 2012 from 9:00 a.m.-noon.
Face to Face/Satellite Locations:

- FL: Milton FL/Santa Rosa County Extension Office;
- AL: Dauphin Island Sea Lab, Livingston, and Jacksonville;
- MS: Biloxi-Department of Marine Resources, Museum of Natural Science in Jackson, and in Oxford, MS at the University of MS;
- LA: LA State University in Baton Rouge, the Aquarium of the Americas in New Orleans, and in Bossier City Schools.

Videoconferencing capabilities were provided by MS State University.
Educator Recruitment

• Each of the 10 videoconference sites could host 20 educators who were eligible to receive a $100 stipend if they completed the pre- and posttests and Likert-scale evaluation.

• Teachers were recruited through State Science Teachers’ Associations, SAME, GOMA-EEN, GCOOS-EOC, and previous participants in education programming.
April 30, 2011 Oil-Related Scientists’ Research & Recruitment

One Scientist from each state was selected based on his/her oil related research, i.e.,

• Ms. Barbara Albrecht (UWF)-Impacts on the Marine Environment
• Dr. Frank Hernandez (DISL)-Sargassum Communities in the Gulf
• Dr. Moby Solangi (IMMS)-Oil Impacts on Dolphins and Sea Turtles
• Dr. Julie Anderson (LSU)-Seafood Safety
One Scientist from each state was selected based on his/her oil related research, i.e.,

- Dr. Julia Lytle (USM-GCRL)-Oil 101
- Dr. Mark Woodry (MS Grand Bay NERRS-MSU)-Birdlife Response to the Deepwater Horizon Oil Spill
- Dr. Richard Snyder (UWF)-Toxicity Risk, Bioavailability, and Biodegradation of Oil
- Dr. Julie Anderson (LSU/LA Sea Grant)-Dispersants
# Test Results

April 30, 2011

<table>
<thead>
<tr>
<th>Group</th>
<th>Post Test</th>
<th>Pre Test</th>
<th>T- test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>80.3208</td>
<td>50.0782</td>
<td>23.9886</td>
</tr>
<tr>
<td>SD</td>
<td>12.4775</td>
<td>13.0999</td>
<td></td>
</tr>
<tr>
<td>SEM</td>
<td>1.0471</td>
<td>1.09993</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>142</td>
<td>142</td>
<td>Sig (2 - tailed) 0.0001</td>
</tr>
</tbody>
</table>
# Test Results  
**January 28, 2012**

<table>
<thead>
<tr>
<th>Group</th>
<th>Post Test</th>
<th>Pre Test</th>
<th>t -TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>74.061</td>
<td>51.0155</td>
<td>-16.3717</td>
</tr>
<tr>
<td>SD</td>
<td>6.2104</td>
<td>7.4449</td>
<td><strong>df</strong> 127</td>
</tr>
<tr>
<td>SEM</td>
<td>2.49206</td>
<td>2.72853</td>
<td><strong>Sig (2 – tailed)</strong> 0.0000</td>
</tr>
<tr>
<td>N</td>
<td>128</td>
<td>128</td>
<td><strong>Sig at &lt;.01</strong></td>
</tr>
</tbody>
</table>
2011 and 2012 Participants’ Home Locations (average percentages)
# 2011 and 2012 Total Participation

<table>
<thead>
<tr>
<th>2011 and 2012 Deepwater Horizon Oil Spill Videoconference</th>
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</thead>
<tbody>
<tr>
<td>Formal Educators</td>
<td>273</td>
</tr>
<tr>
<td>Information Educators</td>
<td>90</td>
</tr>
<tr>
<td>Other Professions</td>
<td>60 [7 scientists; 53 public (live, web-stream)]</td>
</tr>
<tr>
<td>Men</td>
<td>2011-30 (16%); 2012-39 (22%)</td>
</tr>
<tr>
<td>Women</td>
<td>2011-156 (84%); 2012-138 (78%)</td>
</tr>
<tr>
<td>States</td>
<td>4</td>
</tr>
<tr>
<td>Conference Sites</td>
<td>10</td>
</tr>
<tr>
<td>Geographic Locations: Northern-State, Mid-State, Southern-State</td>
<td>MS, AL, LA, and FL Panhandle</td>
</tr>
</tbody>
</table>
Opportunities and Strengths – How do you plan to use your enhanced oil-spill knowledge and augmented teaching strategies/activities within your curriculum?

• I will incorporate this into my curriculum as a real life experience. Some people have the misconception that because we do not live on the coast then it doesn't affect us, but in reality it does in every aspect.

• Up until now, we have had so much mixed information about what has happened on our coast. I now feel that I have the information I need to help them see the facts behind the real issues and solutions. I can contribute so much more than I did in the past and make the learning experience mean more to them.
Opportunities and Strengths (Cont’d)

• It will allow me to be more confident in the information I convey to the children. It will also allow me to possess valuable insight to broaden the scope of lessons related to the oil spill.

• We can use science in math class to determine percentages, cause and effects, food chains, ecosystem, populations, and carrying capacity.

• The Videoconferences will strengthen both our content knowledge and technological expertise.
Challenges-State Coordinators Need to Ensure:

• Videoconferencing capabilities at Host & Satellite sites are compatible with needs;
• All scientists develop a PowerPoint;
• All participants’ names and e-mail addresses, as well as scientists’ multiple-choice questions be submitted in a timely manner to Dr. Brook, IT Coordinator;
• Pre-Posttests are identified by participants in the same manner;
• Sub-contractors’ fiscal needs are better defined by IMMS;
Challenges (Cont’d)

• Weather (tornadoes) in the mid- and northern AL interfered with reserved attendance (Mother Nature!);
• The 2011 number of actual attendees as compared to those pre-registered was “down” due to tornadoes in the central portion of AL and to a lesser degree in MS.
• Recruiting efforts need to be made well in advance of implementation; this scenario was not always the case in some states and should have been.
Challenges (Cont’d)

• The Town Hall, Estuary Live Meeting that was scheduled to be implemented at the Weeks Bay NERRS was cancelled due to: 1) unavailability of key NOAA staff in D.C./Silver Spring, MD; 2) NOAA staff member had been secured, then resigned position; 3) inability to establish program date in time to plan and coordinate IT needs between AL and NOAA in D.C./Silver Spring, MD; and 4) key AL-IT personnel resigned.

• All DWH Oil Spill Team Members were of the opinion the January 2012 Videoconference was more effective than the April 2011, because we had learned significant lessons from the first Videoconference.
• Scientists’ PowerPoint are posted to the Deepwater Oil Spill Link
http://www.gulfallianceeducation.org/OilSpill_Prof_Develop.php

• Participants’ Questions and Scientists responses are also posted to
http://www.gulfallianceeducation.org/OilSpill_Prof_Develop.php
Videoconferences 2011 and 2012 responses for... what are the three most valuable components of this Workshop?

• 1) Data from experts; 2) interaction with colleagues; and 3) opportunity to ask experts questions.

• The hands on activities will be very helpful in teaching my students.

• 1) Sharing knowledge from several sources; 2) having informal access to experts; and 3) additional printed materials available to take home.
Questions?

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