Coastal Watershed Connections: Student Impact, Stewardship, and Reflections

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Coastal Watershed Connections: Student Impact, Stewardship and Reflections

Sherry S. Herron and Shelia A. Brown | Center for Science and Mathematics Education

PROJECT SUMMARY
The project provided students and teachers in six coastal and noncoastal Title 1 secondary schools in Mississippi with experiential learning activities to emphasize connections between their local watershed and coastal habitats of the Gulf of Mexico using GLOBE (Global Learning and Observations to Benefit the Environment) protocols, OBIS (Outdoor Biology Instruction Strategies) Science) and service-learning projects.

PARTNERS
• NOAA B-WET Program
• Southern Miss Gulf Coast Research Laboratory’s Marine Education Center in Ocean Springs, Miss.
• Southern Miss Center for Science and Mathematics Education in Hattiesburg, Miss.
• Grand Bay National Estuarine Research Refuge in Gautier, Miss.
• Mississippi Department of Environmental Quality

ACTIVITIES
• Three-day summer workshop for 12 teachers from six schools
• Three visits to each school during the school year - 400 total students impacted/visited
• Two-day field trip to coastal habitats per school
  - Gulf Coast Research Center
  - Grand Bay National Estuarine Research Reserve
  - McLeod State Park
  - Ship Island (a Mississippi barrier island)

SCHOOL EXPERIENCES
‘Sharks Make Sense’
A compass simulates the Ampullae of Lorenzini and detects hidden magnets taped to pictures of rays, the prey.

How long was a megalodon?
- 1” of tooth = 10’ of shark

GLOBE IN THE SCHOOLS

SERVICE-LEARNING PROJECT
Tutoring Elementary Students

TUPELO MIDDLE SCHOOL
in the Tupelo Daily Journal

Summer Teacher Workshop

Table 3: Pretest/Posttest Evaluation Results

<table>
<thead>
<tr>
<th>School</th>
<th>Date</th>
<th>Location</th>
<th>Pretest Mean</th>
<th>Posttest Mean</th>
<th>Significance Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hancock North Central Elementary</td>
<td>3/18/11</td>
<td>GNDNERR Clermont Harbor, MS</td>
<td>7.2162</td>
<td>4.7059</td>
<td>≤0.01 (0.000)</td>
</tr>
<tr>
<td>Nicholson Elementary</td>
<td>3/25/11</td>
<td>GNDNERR Ship Island, MS</td>
<td>3.8333</td>
<td>2.9630</td>
<td>≤0.01 (0.000)</td>
</tr>
<tr>
<td>Tupelo Middle School*</td>
<td>4/7-8/11</td>
<td>Ocean Springs, MS and Ship Island, MS</td>
<td>5.364</td>
<td>9.578</td>
<td>≤0.01 (0.000)</td>
</tr>
<tr>
<td>Vancleave High School**</td>
<td>4/19/11</td>
<td>GNDNERR Ship Island, MS</td>
<td>5.5937</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*One two-day field trip.
**Teacher has not returned the tests.

*Table 3: Pretest/Posttest Evaluation Results

AA/EOE/ADA

64918.5087 7.11