South Carolina

From the Mountains to the Sea
SC Science Standards:

- Area I  Strand I:  B1ad,C1acgh2  4abc,D,E,F1
- Strand II:  A23,B123abc,C123,D
- Area II  Strand II:  A 1
- Area III Strand I:  D 1 2 5
- Strand III:  B 1 2
- Area IV Strand II:  A 1 2 4 a b
- Language Arts  IV Listening, B
Technological Applications in Aquatic Systems

• Concepts
  – People apply knowledge in various sciences to create technology needed to replicate habitats found in nature.
  – Animals have basic survival needs which must be met in their habitats. Using technology, people can create artificial environments which can support life.
Objectives:

- Collect and synthesize information from a variety of sources.
- Describe the objective of the unit and project to be completed. List important deadlines.
- Formulate pertinent questions and identify problems to solve.
- Name the basic survival needs of the animal.
Districts and Areas

http://macmosaic.eng.clemson.edu
Lake Moultrie

Santee River

Tailrace Canal

West Br.

Cooper River

Future Site for Ground Truthing

12 miles
Lake Moultrie

Location - Berkley County (Part of Santee Basin)

Surface Acres - 60,400

Water Usage
- Hydropower generation, recreation, domestic water supply
- 75% surrounded by dike
- connected to Lake Marion by Diversion Canal
Common Plant Species of Lake Moultrie

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Scientific Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duckweed</td>
<td>Potamogeton</td>
<td>Nymphoides sp..</td>
<td>Potamogeton</td>
</tr>
<tr>
<td>Pondweed</td>
<td>Utricularia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Primrose</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrilla</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slender naiad</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Common Animal Species of Lake Moultrie

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Largemouth Bass</td>
<td></td>
</tr>
<tr>
<td>Striped Bass</td>
<td></td>
</tr>
<tr>
<td>Bream</td>
<td></td>
</tr>
<tr>
<td>Black Crappie</td>
<td></td>
</tr>
<tr>
<td>Channel Catfish</td>
<td></td>
</tr>
</tbody>
</table>
South Carolina Coast

Grand Strand Myrtle Beach

Bulls Bay to Charleston

Hilton Head
Future Sites for Ground Truthing

Santee River Delta
Tracing the Cooper River to Charleston

http://streetsofcharleston.com/java/maps/images/smcount.jpg
Will sediment effect the organisms that inhabit the area?
Site of Ground Truthing

Fort Sumpter
Folly Beach Seining
Fish Caught in a seine net at Folly Beach

FLORIDA POMPANO *Trachinotus carolinus*

SPOT *Leiostomus xanthurus* (Norfolk spot)

NORTHERN SEAROBIN *Prionotus carolinus* (Searobin)
Over Fished Species

Black Sea Bass

http://www.geocities.com/TheTropics/4888/gallery/black_sea_bass
http://www.fl-fishing.com/images/fishimage/blackseabass.gif
Characteristics of Black Sea Bass

- Genus Species: *Centropristes striatus*
- Habitat: Can be found from Cape Cod to northern Florida.
- Size: up to 24”; 1 1/2 to 5 lbs.
- Taste/Texture: Medium-dense, light meat with a mild-to-moderate flavor.
- Unique facts: they begin life as females and develop into males (protogynous hermaphrodites,)

20
To Be Continued...