

# THE ESTUARY

What are the characteristics of an estuary environment?



# THE ESTUARY

- Estuary - type of environment where freshwater and salt water mix
  - Usually ocean water (salt water) mixing with river water (fresh water)
- Brackish Water - a mixture of freshwater and salt water





Brackish Water

# THE ESTUARY

- Most productive environment for diverse marine life
- Many organisms lay eggs here because they are protected
- Estuaries tend to be located on the other side of a barrier beach
  - Barrier Beach - long ridge of sand deposited off-shore



# THE ESTUARY

- The Estuaries of Long Island Sound
  - 100 miles long and home to over 120 different types of marine life
  - Freshwater comes from the Connecticut, Housatonic, and Thames Rivers





The Long Island Sound

# THE ESTUARY

- The Estuaries of the South Shore
  - Approximately 75 miles and one of the most ecology diverse areas on the east coast





The South Shore



# THE ESTUARY

- The Salt Marsh Community
  - Salt Marshes - areas where grasses grow abundantly in shallow waters
    - Commonly referred to as wetlands
  - Decaying grass provides nutrients to produce plankton which large organisms feed from





The Salt Marsh Community



The Salt Marsh Community - Plumb Island



Life on the Salt Marsh - Black-Winged Stilt Bird

# THE ESTUARY

- The Mudflat Community
  - Mudflat - part of an estuary environment characterized by dark muddy sand and no grass
  - Often called the graveyard because no life exists except for small scavengers such as the mud snail, clams, and worms
  - Microscopic organisms decomposing give the mudflat a rancid and distinct smell



The Mudflat Community



Life on the Mudflat - Mudskipper

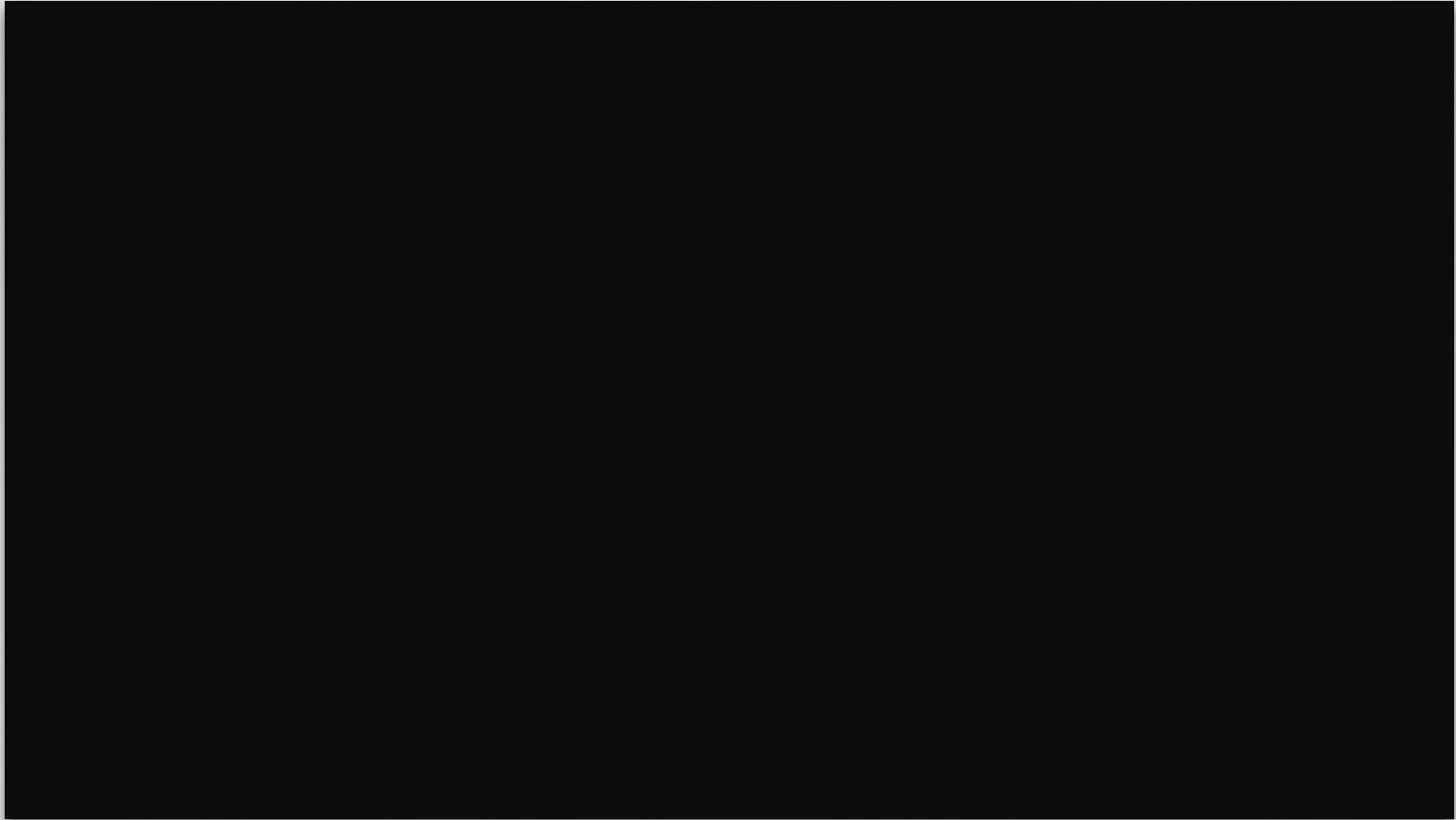
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- The Mangrove Community
  - Mangroves - trees that grow in tropical salt water conditions that act as complex filtering systems
    - During low tides the exposed roots trap debris and decomposition of organic material begins to take place
    - During high tides the roots are underwater thus helping to speed up the decomposition process





The Mangrove Community



## The Mangrove Community