

# Historical Patterns and Trends in Seagrass Dieback in Florida Bay

Panel Discussion #1  
Seagrass Workshop  
Everglades National Park  
**March 29, 2010**



# Science Priorities

- Create a list of key indicators that signal a departure from “normal” conditions.
- Identify how these indicators differ from one set of basins to another.



# **Monitoring for seagrass die-off and other seagrass related issues in Florida Bay**

Panel Discussion #2  
Seagrass Workshop  
Everglades National Park  
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# Signs of Seagrass Die off

- Signs:
  - Rhizomes in poor health; living shoots connected to dead rhizomes
  - Living blades sitting inside the shoot
  - Leaves dying at the base that will detach with the slightest disturbance
- Are there other signs?
- How were previous fish kill events linked to seagrass die off?

# Topics to Discuss

- Concerns
  - Signs of seagrass-die off
    - What “signs” should we be looking for?
  - Sloughing
  - Chlorosis
- Develop Monitoring Plan (small scale)
- Boating Impacts to Benthic Habitat
  - Sedimentation

# Potential Die-off Monitoring

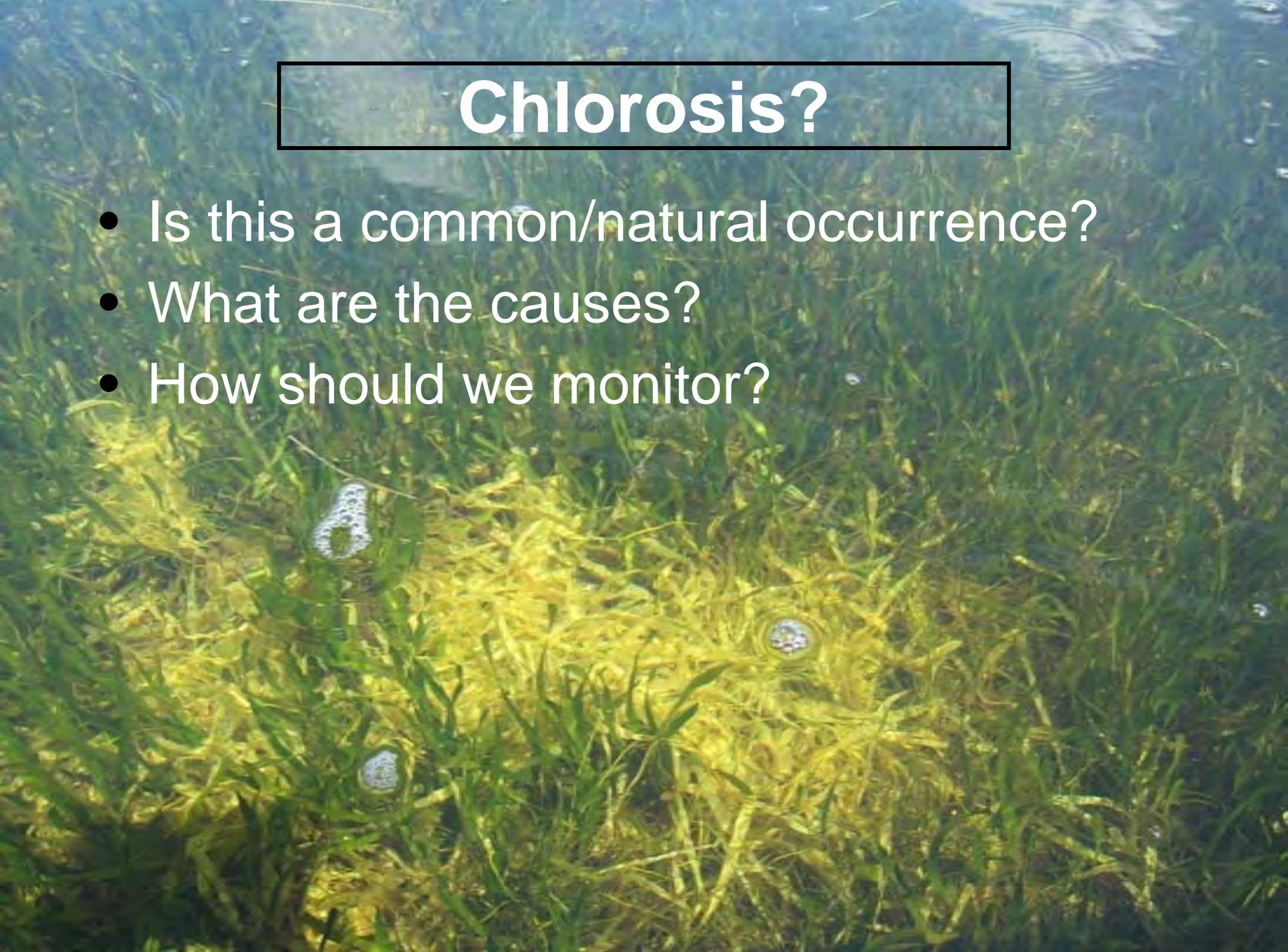
- Current Protocols:
  - Rhizome and Shoot pulls
  - Braun-Blanquets
  - Index of Sloughing
- Recommend improvements to current protocols?
- Are these sites sufficient?
  - Rankin Key, Buoy Key, Porpoise Point, Snake Bight, South side Tin Can Channel
- How many times per year?
- Other variables? Other methods?

# Seagrass Blade Loss

- What are the causes of seagrass sloughing?
- How much sloughing is considered “normal”?
- What time of year does this normally occur?

# Chlorosis?

- Is this a common/natural occurrence?
- What are the causes?
- How should we monitor?



# Boating Impacts to Benthos

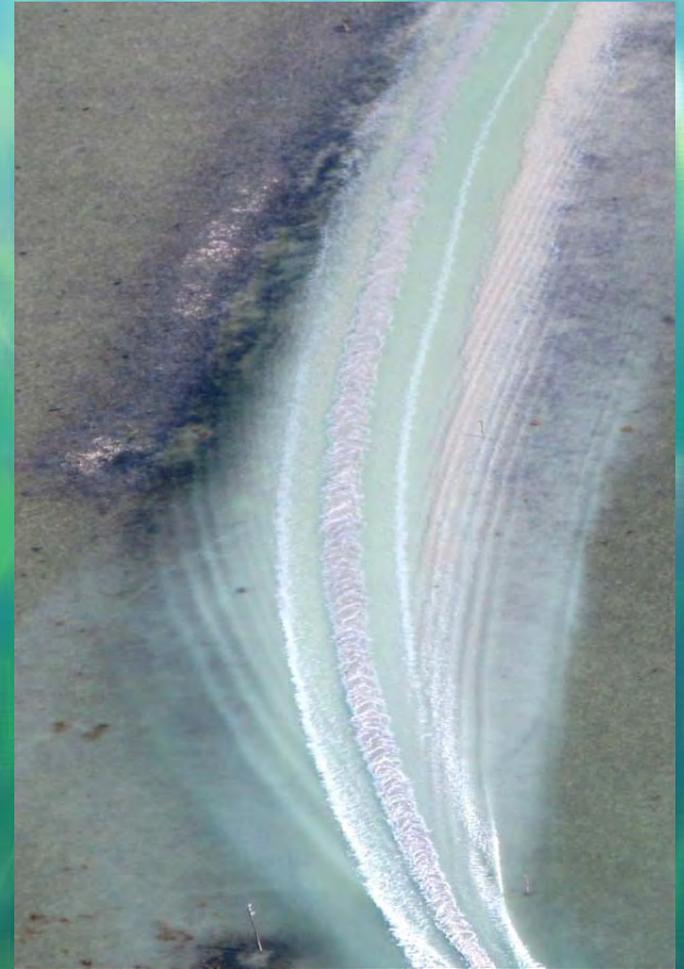
- Lack reliable data in sediment accretion, sediment movement, or the production of sediment mounds in the entrances of channels due to transport
  - Will vary with substrate type and water depth
- Does resuspension of sediments lead to an increase in nutrients (i.e., phosphorus) and algal growth?

# Sediment Plumes

- Concern exists that sediment transport due to boat use may ↑ turbidity and ↓ light levels

# Sediment Suspension

- What level of turbidity generated by boats could impact seagrass photosynthesis?
- Does an increase in turbidity lead to an increase in nutrient availability or algal blooms?



# What lessons were learned from the previous die off event?



# Science Priorities for Florida Bay: Next Steps

Panel Discussion #3  
Seagrass Workshop  
Everglades National Park  
**March 29, 2010**



An underwater photograph showing a dense field of green seagrass. The water is slightly hazy, and the seagrass blades are long and narrow, some showing signs of wear or discoloration. The text "THANK YOU!!" is overlaid in the center in a bold, white, sans-serif font.

**THANK YOU!!**