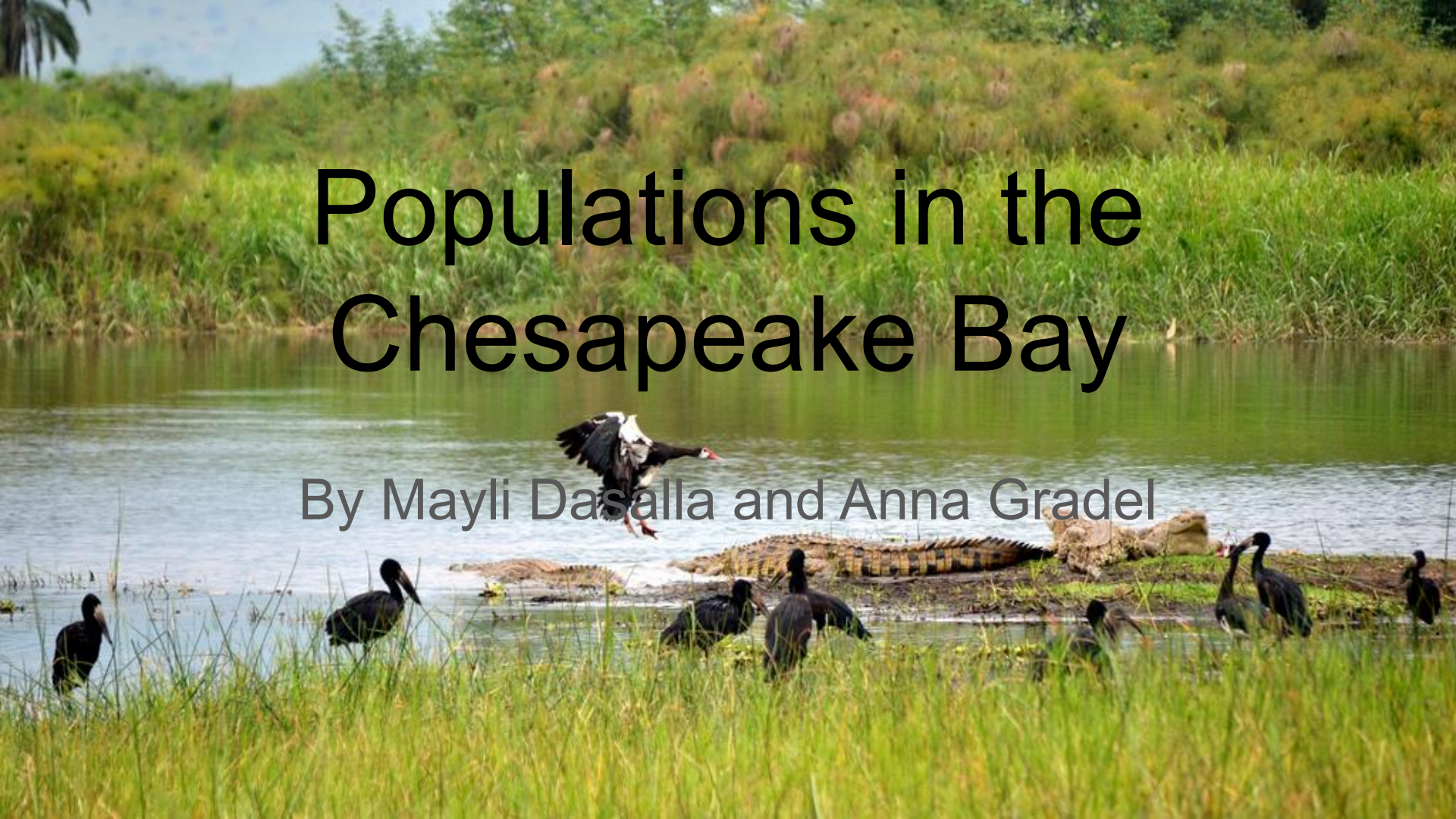


Populations in the Chesapeake Bay

By Mayli Dasalla and Anna Gradel



What factors affect a species population size?



Factors that negatively impact a population

- Predators
- **Competition**
- Habitat loss
- Parasitism and Disease

Factors that positively impact a population

- An abundance of resources (food, water, space, oxygen)
- **Cooperation**
- Birth
- Immigration

What factors affected your assigned species?

HOW POPULATIONS INTERACTS WITH ENVIRONMENT

- Community VS Ecosystem
 - What's the difference?
- Abiotic VS Biotic
 - Give an example of each
- **How does your species interact with a nonliving part of the Ecosystem?**
- Keystone Species
 - Is your species a keystone species?
 - What does that mean for the Chesapeake Bay?

- **Cooperation VS Competition**
 - Who competes with your species
 - Who helps?
- Predators
 - Who eats your species?

How do your species interact with each other?



CARRYING CAPACITY & LIMITING FACTOR

Carrying Capacity

- Greatest number of individuals that can thrive in an ecosystem before harming it.
- **What is your species approx. carrying capacity?**

Limiting Factor

- Environmental variable that can restrict growth, abundance, and distribution.
- **What does your species consider a limiting factor?**

How are these two terms related to each other?

HUMAN INTERACTIONS

- Humans as predators
- Humans as competitors: what do we compete for?
- Overpopulation?
- Pollution?
- Deforestation?
- Pollutants in the environment
- What are we doing to help?
 - Conservation efforts
 - Limiting overfishing/harvesting
 - Protecting endangered species



CHANGES IN ENVIRONMENT

- How does an ecosystem change daily
 - Day VS Night
 - What changes might your species experience?
- What changes occur seasonally?
 - Summer
 - Fall
 - Winter
 - Spring
- Long term changes
 - What kind of changes might occur
- What long term changes may have specifically occurred in the Chesapeake Bay
 - Water flow
 - Water rise
 - Pollutants



CLIMATE CHANGE & NATURAL DISTURBANCES

- Climate change
 - What is it doing to the environment
 - What is affecting the Chesapeake Bay?
 - Sea level rise
 - Ocean acidity
 - Shoreline erosion
 - Coastal flooding
 - Change in wildlife abundance
 - Migration patterns
- What's the difference between natural disturbance and a long term change?
 - Did you know that the Chesapeake Bay was once hit by a meteor?
 - How did this affect the habitat?

What does this mean for your species?



EXIT TICKET

Please give a full sentence(s) response!

Feel free to search for your answers in your foldable or online.

Pair and Share with a partner when you are finished.

Thank you for being our students for a day :)