Understanding

Harmful Algal Blooms

SCIENCE BY THE SECOND

Part 1: Bloom Goes the Dinoflagellate!

Featuring: Dr. Ed Phlips, Dr. Michael Allen, and Betty Staugler

Main Ideas

- A harmful algal bloom (HAB) is a rapid increase in algal biomass, resulting in decreased oxygen and an increase in toxins.
- HABs can cause harm to wildlife, plant ecosystems, and humans.
- An increase in population and industrialization can contribute to HABs.
- The fishing industry is heavily affected by HABs.

Tips from the Speaker

- Learn about your local ecosystem in order to conserve natural areas and protect them from pollutants.
- 2.Not all algal blooms are harmful, understanding the differences between blooms is important in understanding their effects on the environment.

Discussion Questions

- 1. Why is it important to understand the causes of algal blooms?
- 2. How can communicators aid scientists and industry professionals during natural crises?
- 3. Were you aware of the threat of algal blooms before this podcast? How has your perspective changed?

Other Resources

https://www.flseagrant.org/habs/ https://water.ifas.ufl.edu/algal-blooms/ https://habsos.noaa.gov/ https://habscope.gcoos.org/

PIECENTER.COM/MEDIA/PODCAST

UF IFAS

Center for Public Issues Education

Understanding

Harmful Algal Blooms

Part 2: Bonus Episode

Featuring: Dr. Ed Phlips and Betty Staugler

Main Ideas

- An algal bloom is an increase in biomass compared the the ecosystem's normal level.
- Harmful algal blooms distort the pH in the water and disrupt the normal functions of an ecosystem.
- Algal blooms can release toxins that are harmful to both wildlife and humans.
- Toxins can persist in water even after filtering and boiling, resulting in a risk to human health.

Tips from the Speaker

- Learn about your local ecosystem in order to conserve natural areas and protect them from pollutants.
- 2. Not all algal blooms are harmful, understanding the differences between blooms is important in understanding their effects on the environment.

Discussion Questions

SCIENCE

- 1. In what ways can an algal bloom impact the food web within an ecosystem?
- 2.How did Florida's 2018 red tide altar human activity?
- 3. How do red tides impact fish populations in Florida?
- 4. What long term effects can a harmful algal bloom have on both human and wildlife populations?

Other Resources

<u>https://www.flseagrant.org/habs/</u> <u>https://water.ifas.ufl.edu/algal-blooms/</u> <u>https://habsos.noaa.gov/</u> <u>https://habscope.gcoos.org/</u>

PIECENTER.COM/MEDIA/PODCAST

UF IFAS

Center for Public Issues Education