

SOUNDS IN THE BAY



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VIMS



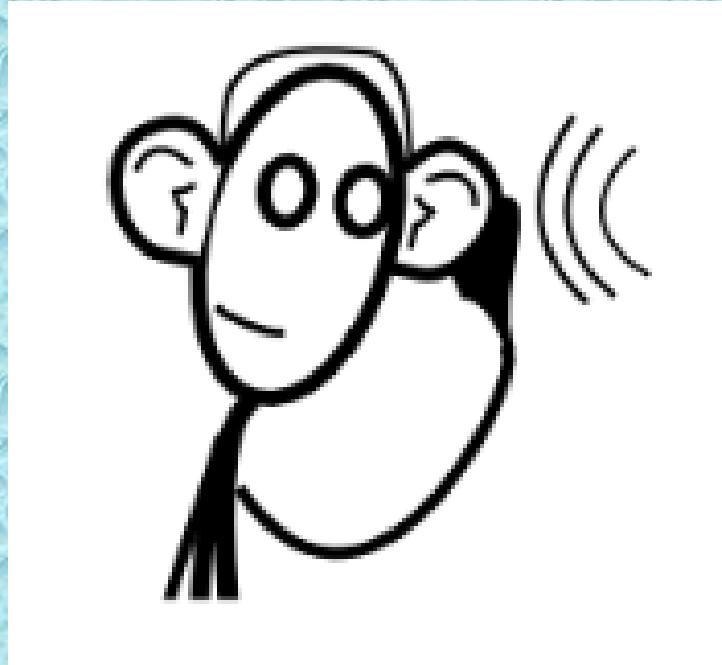
<http://www.dosits.org/audio/fishes/weakfish/>

What is sound?



Why do you make sounds?

Is the Chesapeake Bay silent
underwater?



No!

Why do animals use sound?



1. Talk to each other
2. Find Food
3. Find Mates

Do fish have ears?



Human Ear

Seal



Dolphin

Do fish have ears?

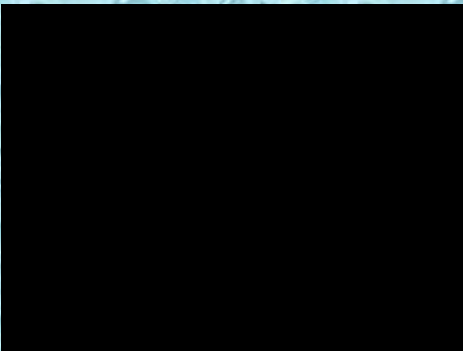
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Who makes sounds in the Bay?

Atlantic Croaker



Spotted Seatrout



Black Drum



Red Drum



- These fish are commonly called “Drums”

Do other fish make sounds?

Oyster Toadfish



Snapping Shrimp



Dolphins



Sound Pollution

- Humans have been adding sound to the ocean
 - Boat Sounds
 - Industry
 - Sonar



**What do you do when you hear
a loud sound?**

**How do you think loud sounds
affect fishes?**



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Thank you!
Questions?



Future Research Directions

- Are there distribution differences between noisy and less disturbed habitats
- Are fish in noisy environments less likely to find mates than fish in less disturbed habitats?
- Are fish able to communicate in noisy habitats?
- Are fish able to find food items in noisy habitats?

Chesapeake Bay

- Total Drainage Area: 64,299 mi²
 - Same Size as:
 - 300 Gloucester Counties
 - 1.5 Virginias
- 267 fish species
 - Only 32 are residents

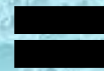
Why so few resident fish species?

- Temperature Range very extreme
 - Winter: 32 F (Freezing)
 - Summer: 86 F



Noise pollution

- We know it can hurt marine mammals
 - Whales



December 7, 2004

BATTLE TO SAVE DOLPHINS AND WHALES FROM 'KILLER' **SONAR**

Navy **Sonar** May Give Whales the 'Bends';
Condition Similar to Decompression Sickness Found in **Mammals** Beached on Canary Islands

October 5, 2008 Sunday

Security vs. species preservation

October 15, 2003 Wednesday
Late Edition - Final

Whale Deaths Linked to **Sonar**

October 20, 2005 Thursday
Final Edition

Group Sues Navy to Limit **Sonar** It Says Harms **Marine** Life

June 15, 2008 Sunday

Dead dolphins: Navy admits use of anti-sub **sonar**

Noise pollution

- We know it can hurt marine mammals
 - Whales
- But does it impact other animals?
 - Probably



August 4, 2010 Wednesday
Edition 1;
Scotland

Keep it down, you will harm the **fish**;
News Bulletin

June 14, 2005 Tuesday
National Edition

Undersea din killing marine life: scientists: Exploded ears on squid

But what about noisy estuaries?

Outline

- Introduce Chesapeake Bay
- Underwater Sounds and who makes them
- Noise pollution: A growing concern