
Menhaden Fishery and Health of the Chesapeake Bay

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What are Menhaden?

- Small fish
 - Around 12-15 inches in length and weigh around one pound
- Very oily
- Forager fish
- Live along the Atlantic coast and Gulf of Mexico



MENHADEN

Health of the Chesapeake Bay

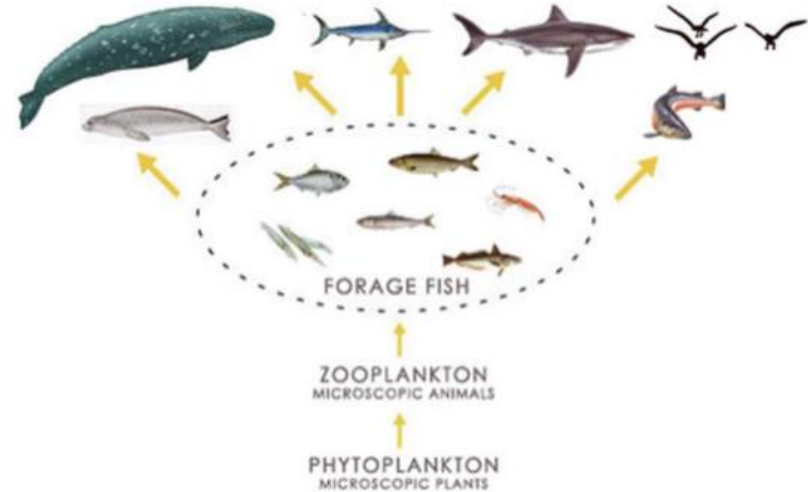
- Main foragers disappearing
 - Mollusks (Oysters)
 - Menhaden
- Filtration of the Bay
 - Declining without foragers
- High nitrogen levels
 - Toxic algae blooms
 - Expanding dead zones



General Importance of Menhaden

- Foragers
 - Major prey for larger marine life
 - An important link in the marine food web
- Filter the water
- Play important role in energy transfer through the food web

Forage Fish: The Vital Link of the Ocean Food Web

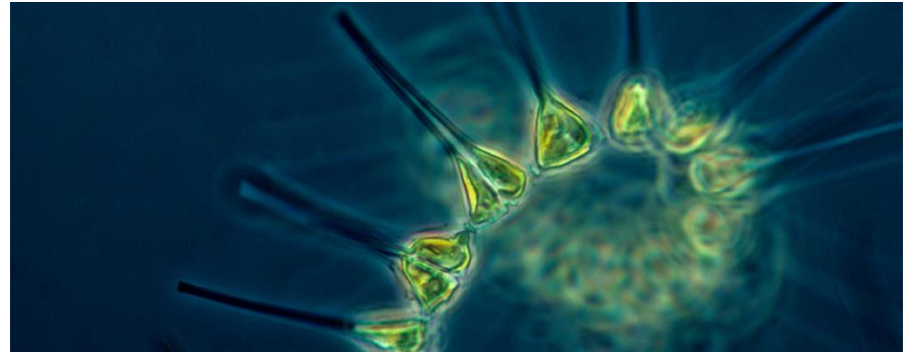


Discussion

Based on the information given so far, what values do you think the menhaden fish have?

Value to the Chesapeake Bay

- Ecological:
 - Purify water by filter-feeding
 - Eat plankton and algae
 - Remove nitrogen and increase dissolved oxygen
 - Essential link in Bay's food web
 - Food for striped bass, bluefish, osprey, etc.



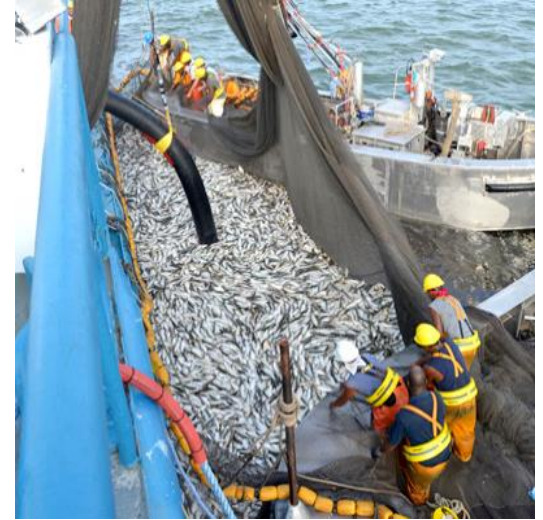
Value to the Chesapeake Bay

- Economic:
 - Agriculture feed
 - Dietary supplements



Why are menhaden populations declining?

- Menhaden have declined over 90% in recent years
- Menhaden fish oils are very beneficial to health
- Menhaden are harvested for their oils
- Oils are used in feeds and dietary supplements
- Mainly used in animal feeds in agriculture
- Menhaden are being overexploited

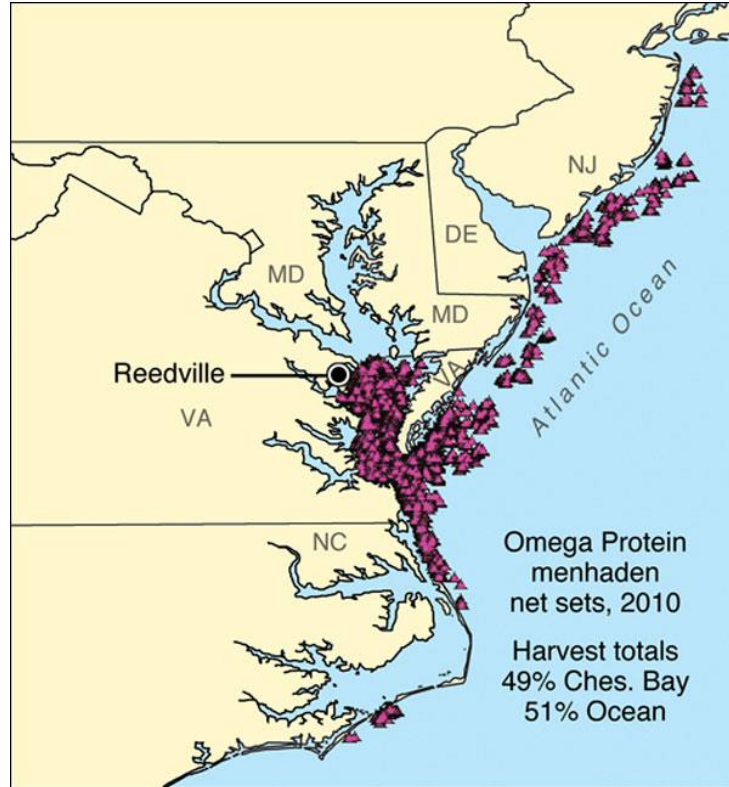


Omega Protein

- The main harvester of these oils is a company named Omega Protein
- Omega Protein was established in 1913
- Omega Protein has 8 locations
 - 2 head quarters, 1 warehouse, and 5 manufacturing facilities
- Only one location on the east coast
 - manufacturing facility in Reedville, VA



Omega Protein Fishing in Chesapeake Bay



Menhaden Video

<https://www.youtube.com/watch?v=pcUHly7zmeQ>

Laws and Legislature

- Menhaden management is controlled by Virginia State Legislature
- Catch limit regulation
- Supported by the Omega Protein Industry, alternative would have been complete shutdown of menhaden industry
- The Public Trust Doctrine

Laws and Legislature

- Omega Protein company fined \$5.5 million for violating the Clean Water Act in 2013
- Most bills regarding menhaden production never make it out of committee



Discussion Questions

- Do you think Virginia laws and regulations are strict enough?
 - If so, why? If not, what laws and regulations do you think should be passed?
- Can you think of any alternatives for making these supplements?
 - If so what are they?
- What actions can you take to help the movement for menhaden fish in the Chesapeake Bay?

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