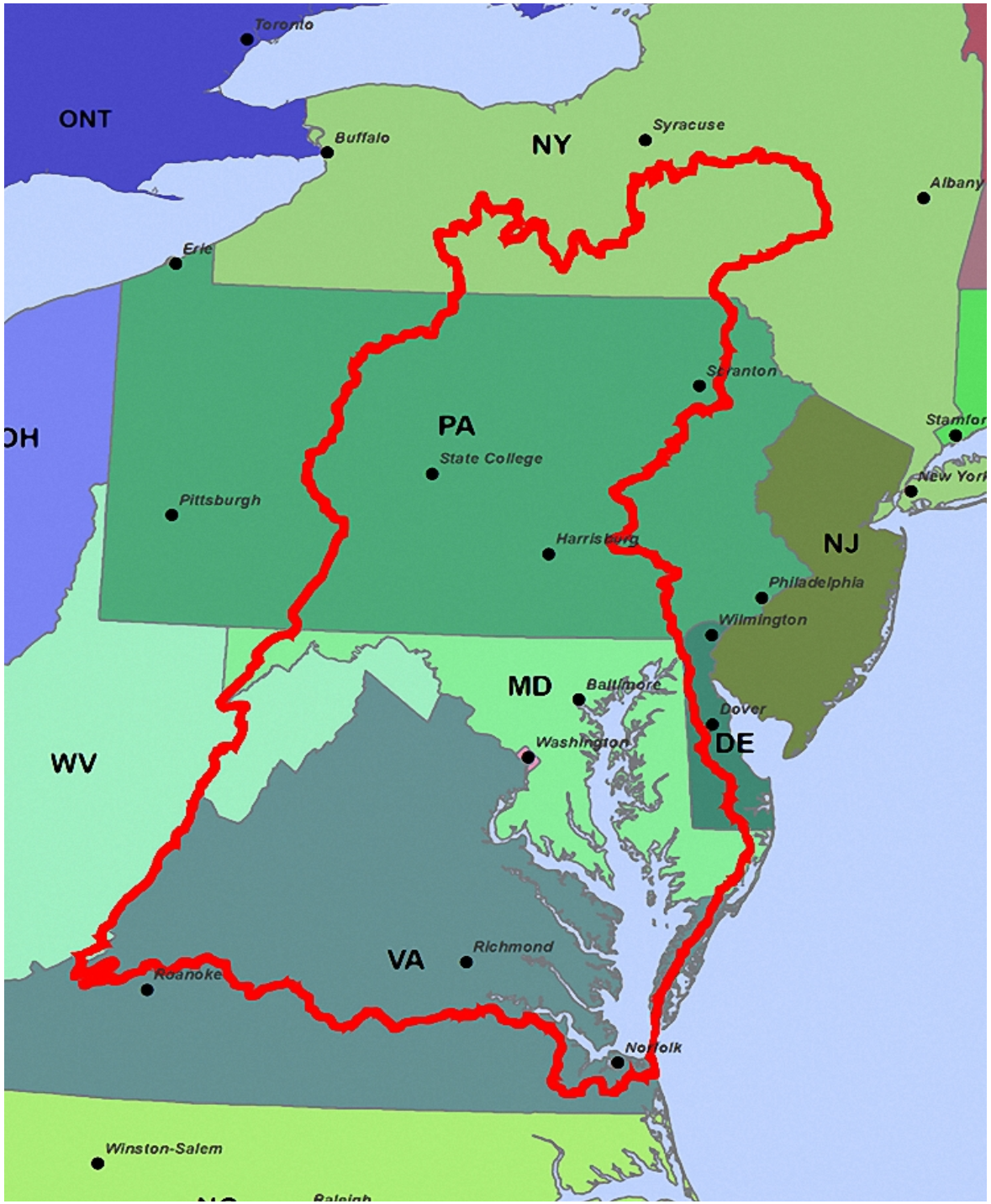

Chesapeake Bay



The Chesapeake Bay Watershed


Largest estuary in the United States

- Fishing Industry of:

Blue Crab

Oysters

Striped Bass

Clams

- No other American estuary has a higher yield


The Bay Is Not Healthy


Nutrient Pollution Causes Algal Blooms and Fish Kills

Nutrients, Algae and Fish Kills

- In normal ecosystem low nutrient levels keep algae in check
- Adding nutrients causes algal blooms
- Algae die and become detritus (decaying matter)
- Detritus is decomposed by microbes, microbe populations boom.
- Microbes use the oxygen in the water
- Low dissolved oxygen in the water kills fish and other organisms
- Dead zones appear in the bay where nothing can live

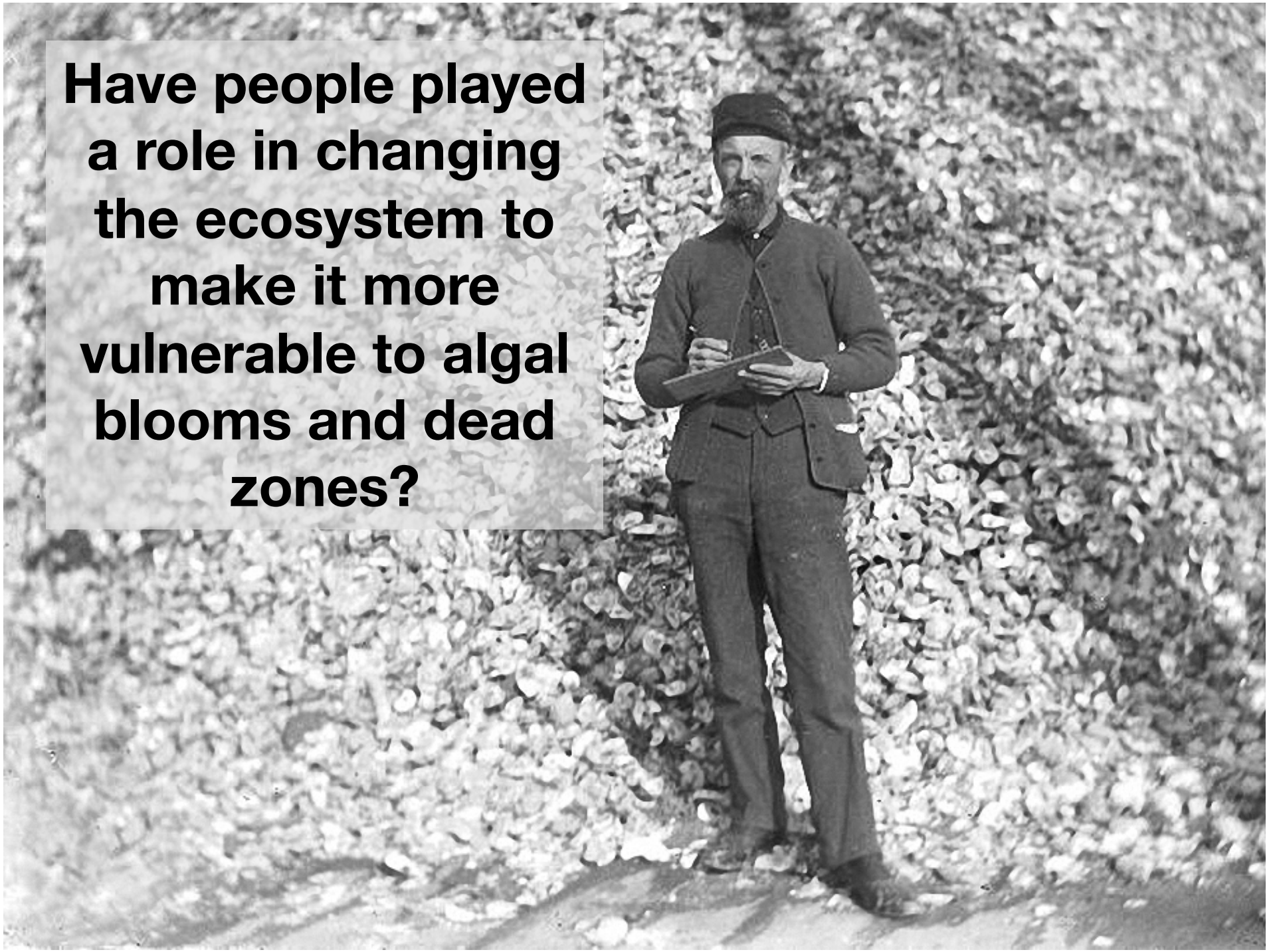
Fish kill caused by nutrient build-up, Nanticoke River, Chesapeake Bay, 1992

What causes the excess nutrients?

Rivers and tributaries are bringing the nutrients to the Chesapeake Bay:

- Sewage
- Farming

Factory farms discharge 650 million lbs of chicken manure each year


Have people played a role in changing the ecosystem to make it more vulnerable to algal blooms and dead zones?

To Investigate this question you will:

- Analyze historic and modern day food webs
- Chart trends in harvesting and ocean health using real data on the Chesapeake Bay
- Draw conclusions from your analyses and make recommendations for restoring Chesapeake Bay ecosystems
- Watch a short film about the Chesapeake Bay and discuss your seafood consumption choices

Image Credits

1. Chesapeake Bay: US Coast Guard
2. Chesapeake Bay Watershed: US Department of Agriculture
3. Chesapeake Bay Map: NASA
4. Blue Crab: The Children's Museum of Indianapolis
   Oyster: David Monniaux
   Striped Bass: Mike Smedley
   Clam: Aung/Wikipedia
5. Map: NASA
6. Algal Blooms: Jennifer L. Graham/US Geological Survey
7. Dead Fish: US Geological Survey
8. Hog Farm Waste: USDA
   Chickens: SRAP
   Pigs: Farm Sanctuary
9. Longshoreman Atlantic City: Isabella & Carroll Walker Collection/The Norfolk Public Library