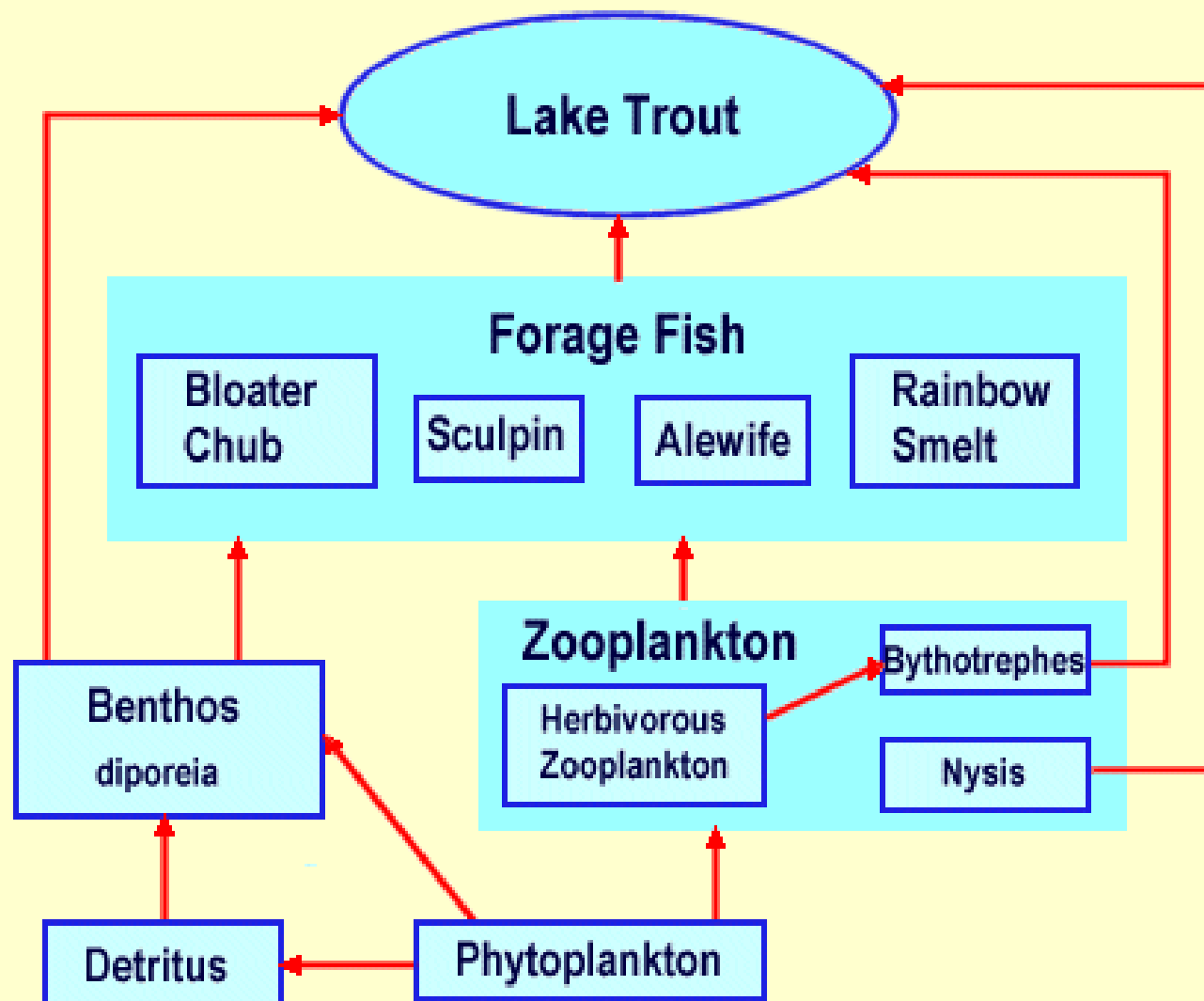


# Lethal Legacy



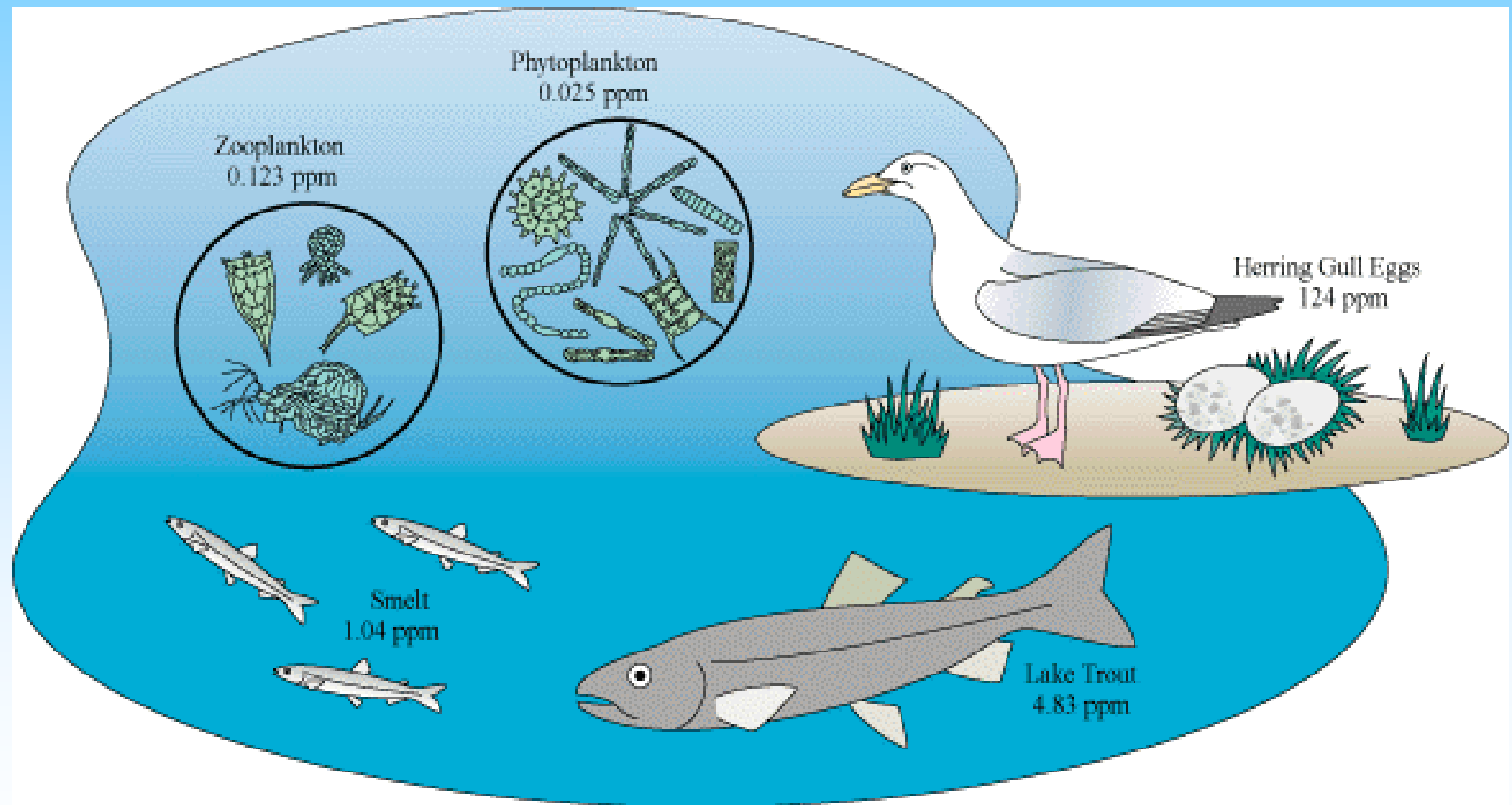
## Simplified Food Web for Lake Trout in Lake Michigan



# Pollution leading to Bioaccumulation

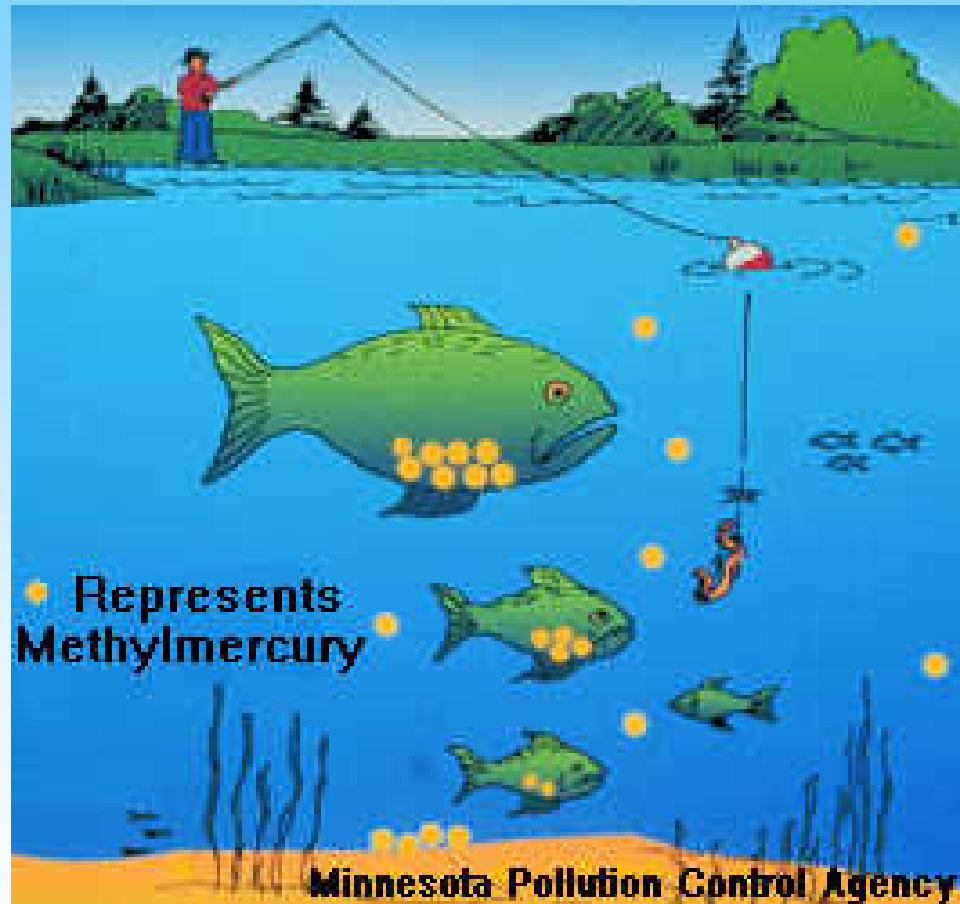
- Chemicals such as heavy metals such as Hg, PCB's, and pesticides such as DDT
- body is unable to metabolize or excrete certain chemicals.
- These chemicals are 'fat soluble' or get stored up in the fatty tissues in the body.
- These chemicals can remain in the body throughout the organisms life time
- These chemicals tend to get passed through the food chain

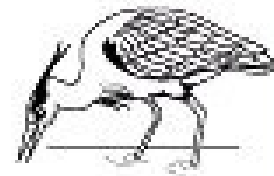
# Aquatic Food Chain



# Bioaccumulation/Biomagnification

- Is the tendency of the concentration of chemicals to increase as it moves up the food chain.
- The amount of chemical in an organisms body is dependant on:
  - the amount that an organisms eats
  - Its age
  - Its position in the food chain





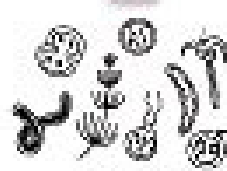
great blue heron



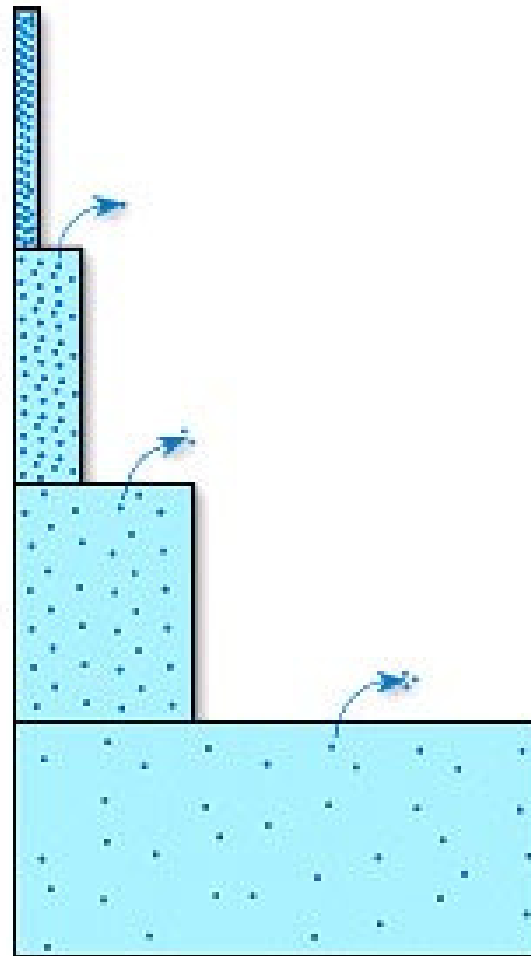
sunfish



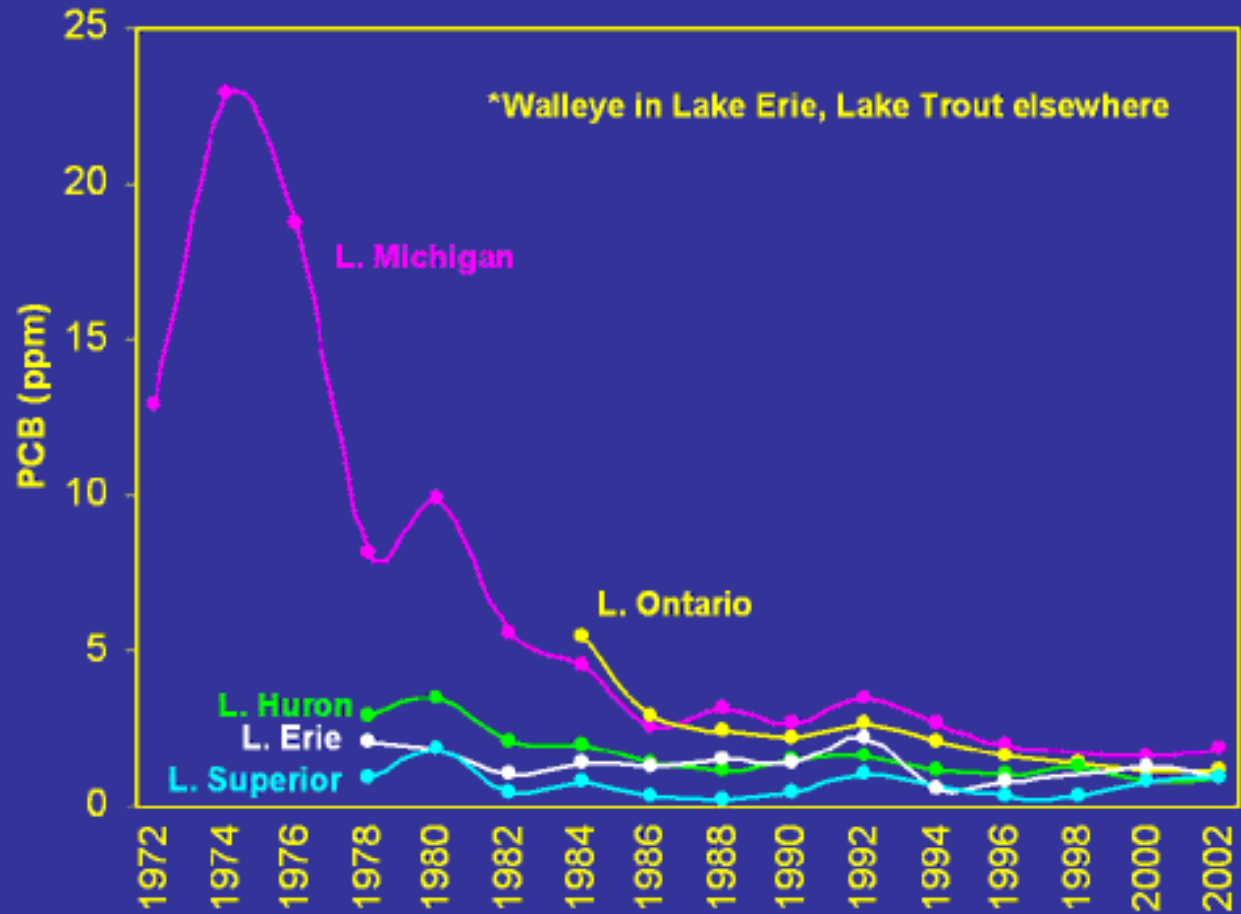
mayfly nymph



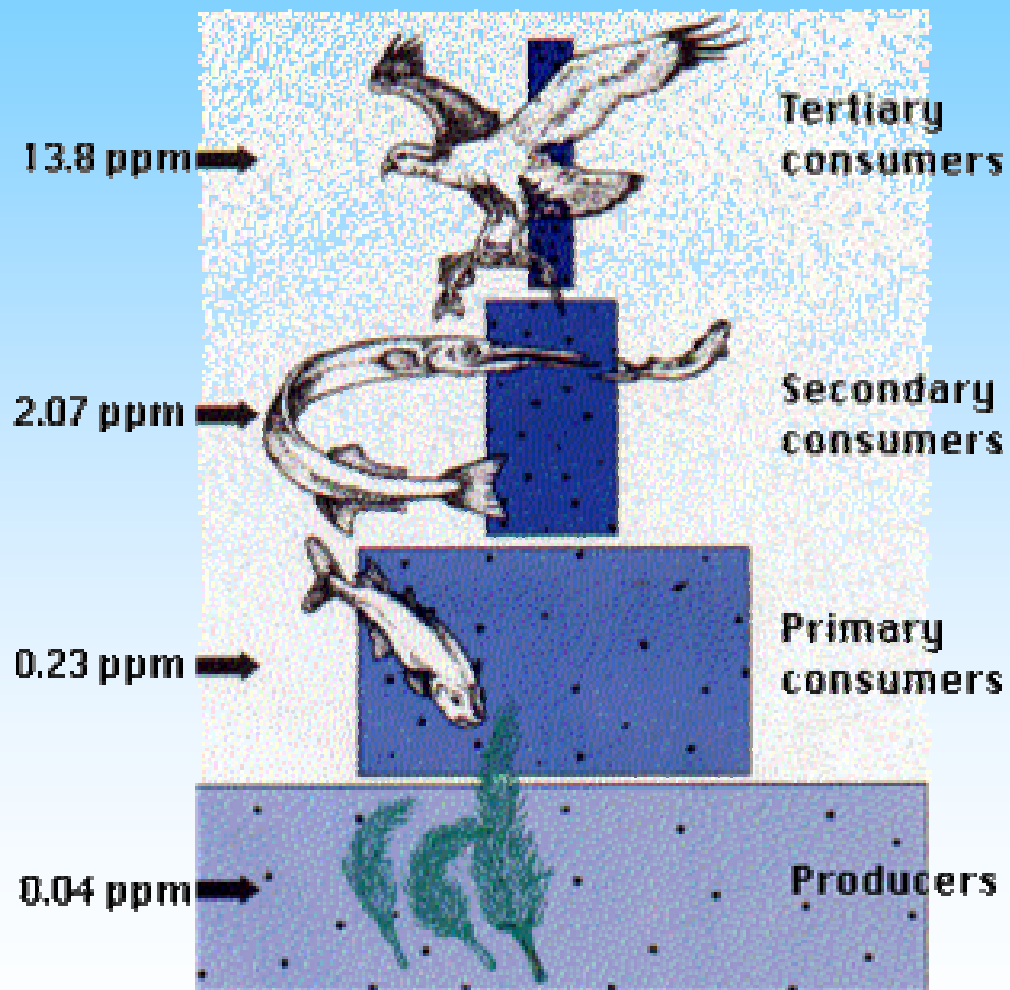
algae



## PCBs in Great Lakes Top Predator Whole Fish\*, Even Year Sites



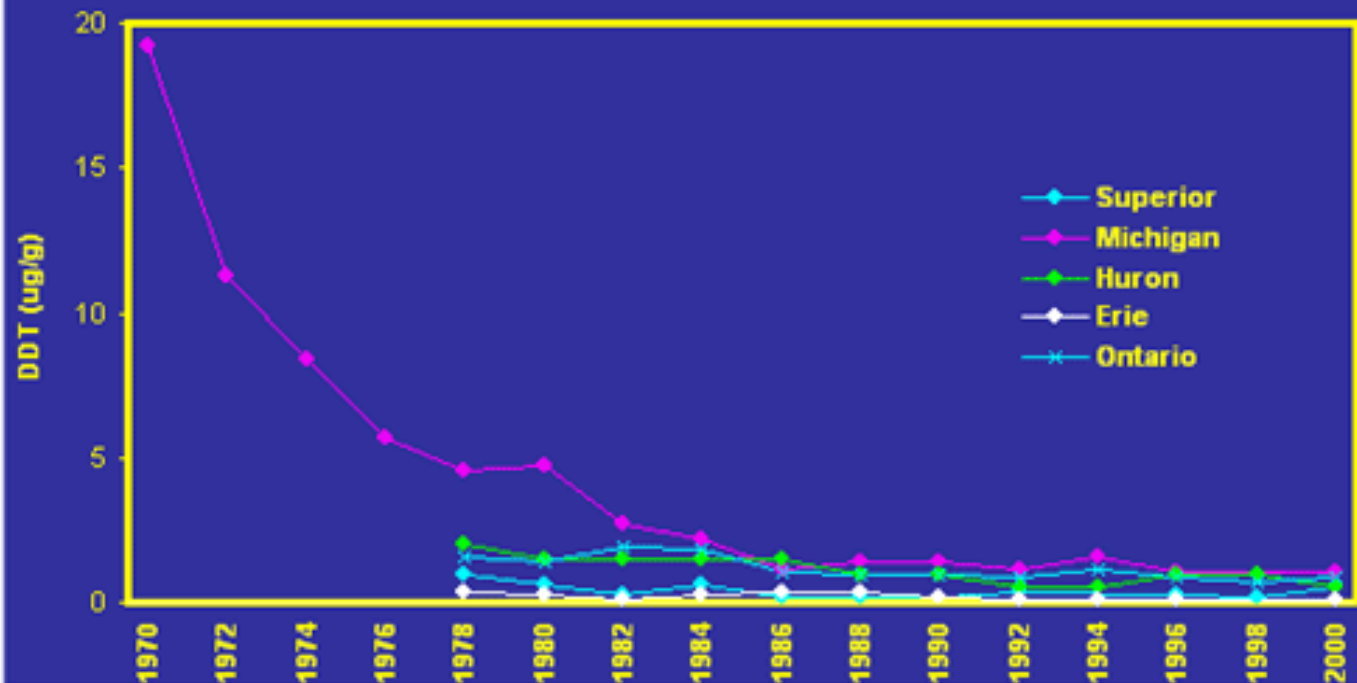




The numbers are representative values of the concentration in the tissues of **DDT** and its derivatives (in parts per million, ppm)

## Total DDT\* in Great Lakes Top Predator Fish Lake Trout (Walleye in Lake Erie)

\*DDT = Sum of DDT (p,p'-ddt, p,p'-dde, p,p'-ddd)



# The DDT Story

- What does DDT stand for?
- What was DDT used for? Explain the benefits.
- What effect did DDT have on non target insects?
- What effect did DDT have on Bald eagles?
- How did DDT become banned?
- Text Questions...

Investigation 1-C in Science Power 10

Read p 30-31 Q 1-11 p 32