

BIOMAGNIFICATION

Let me Introduce you to DDT

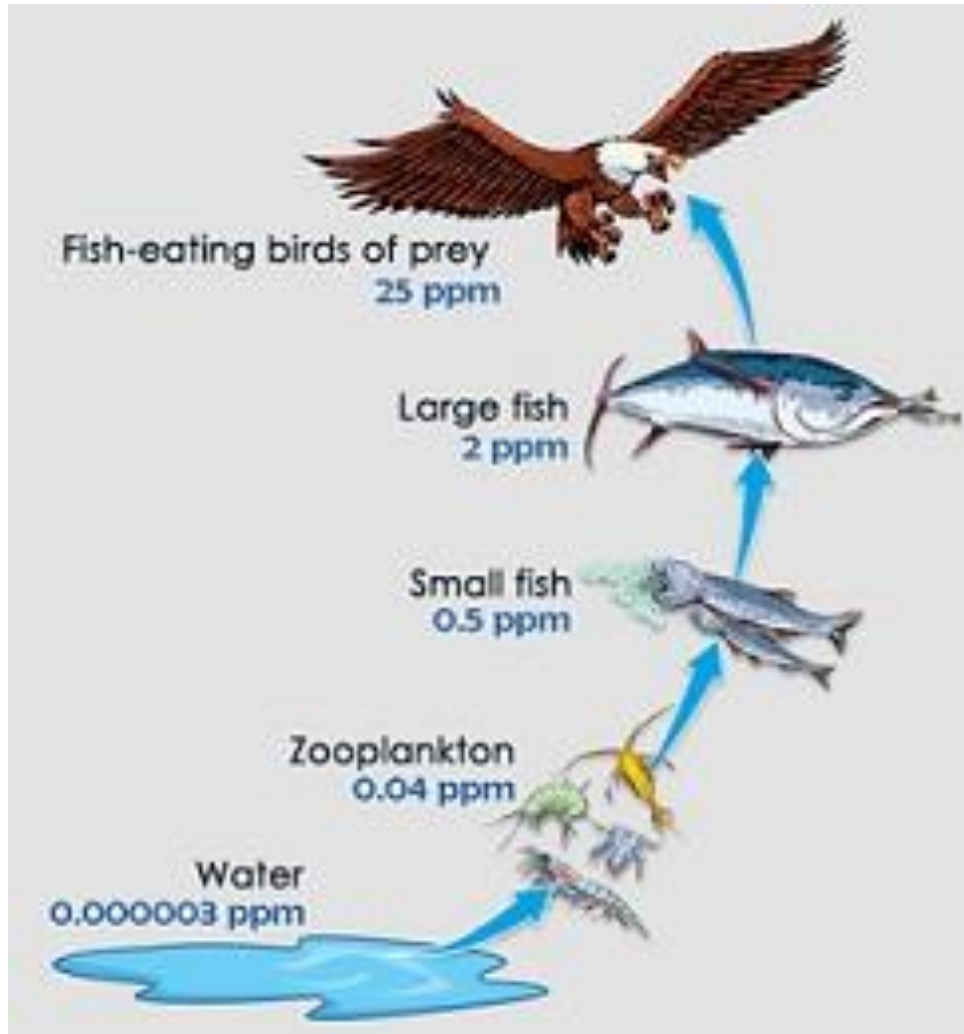
- DDT (Dichlorodiphenyltrichloroethane) was a powerful chemical pesticide developed in the 1940s used to kill insect pests before they could destroy crops.
- In 1972, the EPA issued a cancellation order of DDT
 - High level consumers such as bald eagles really took a bad hit from DDT
 - For bald eagles, this affected reproductive abilities, including severe thinning of their egg shells.
 - Why?





Biomagnification

- Magnification = Bigger
- Biomagnification is the accumulation of pollutants at successive levels of the food chain
 - Toxins such as DDT, Mercury and plastic become more and more concentrated in the tissues of organisms as you go up in the food chain.



How?

1. Primary consumers ingest poison. While this poison will kill some of these organisms, it does not kill all of them. Those who are still alive carry the poison in their tissues, making them weaker and easier targets for predators.
2. As secondary consumers eat the primary consumers carrying the poison, the toxin concentration level increases.
 - As you move up the food chain, those at higher trophic levels must eat more biomass from the level below to compensate for loss of energy
3. When tertiary consumers eat the secondary consumers, the toxic concentration level increases significantly.
 - <https://www.youtube.com/watch?v=TZk6vcmLcKw>