

USGS Data Exploration Unit: Presentation 5

Opening Question

Read and answer each question.

1. What are some possible explanations for why Santa Catalina Island eagles have high DDE concentrations from 1989-2000?
Students are encouraged to come up with different explanations to account for the fact that DDE is still detectable in eagles living on Santa Catalina Island.

Presentation Questions

Fill in the questions based on information in the presentation.

Answer the following questions.

1. Where is Santa Catalina Island?
It is in California near Los Angeles and part of the Channel Islands.
2. In 1960 how many bald eagle pairs lived on Santa Catalina Island?
Zero
3. What corporation was responsible for dumping DDT into the LA sewer system and into the ocean waters surrounding Santa Catalina Island?
Montrose Corporation
4. Who filed a lawsuit against the corporation responsible for dumping DDT into the Pacific Ocean?
The United States Government and the State of California
5. How many years did it take to settle the lawsuit?
10
6. Other than bald eagles what are some other birds that were harmed by the dumping of DDT on Santa Catalina Island?
Peregrine Falcons, Brown Pelicans, Cormorants, Gulls

USGS Data Exploration Unit: Presentation 5

7. Name three symptoms adult bald eagles demonstrate when suffering from DDE poisoning?

Body Tremors, Eye Twitching, and Lack of Coordination

8. Name three pathways through which DDT moves through an ecosystem:

Diffusion, Volatilization, and Biomagnification

9. What is the average concentration of DDT in the following animals:

- a. Gulls – 5.94 $\mu\text{g/g}$
- b. Sea Lions – 3 $\mu\text{g/g}$

10. Ultimately, what type of data analysis was used to demonstrate that DDT discharged by Montrose injured birds?

Same method that the students used looking at the bald eagle data on lessons three and four.

11. How many tons of DDT did Montrose dump into Los Angeles sewers from 1940-1970?

Approximately 1800

12. How much money was awarded in the settlement with Montrose and other parties?

Approximately \$140 million

13. For what will the majority of the settlement funds be used?

The funds will be used to reduce the exposure of people and wildlife to DDT.

14. How much of the settlement money will be used for restoration programs?

\$30 million

15. Name two government agencies that are the trustees of the settlement funds.

- a. NOAA, D.O.I (U.S. Fish and Wildlife Service, National Park Service)
- b. California Department of Fish and Game, California State Lands Commission, California Department of Parks and Recreation

16. Define restoration:

Process of assisting the recovery of an ecosystem (or habitat) that has been degraded, damaged, or destroyed.

17. What restoration activities are being done?

*Bald Eagle Restoration
Fish Contaminant Surveys*