

# HUMAN EFFECTS ON ECOSYSTEMS

The earth's ecosystems are complex ecological environments which have developed over billions years. The intricate components of an ecosystem cannot be severely altered because the changes will affect its success. However, humans harm the environment by causing global warming, habitat destruction, acid deposition, and environmental estrogens.



Each effect demonstrates the conflict between humans and their surrounding species.

## ENVIRONMENTAL ESTROGENS

Wildlife often shows signals first, that something is seriously wrong in the environment. This is the case with a group of pollutants, most of which were first designed as pesticides, that by chance have hormone-mimicking properties. There is now evidence that these environmental estrogens are causing problems in humans as well. This is a classic example of humans having adverse effects on their environment, and eventually on ourselves. These compounds that were designed to be harmless insect killers have turned out to have much more drastic consequences.



# ACID DEPOSITION



Acid deposition results from human interference in ecosystems. Scientists define acid deposition as the process of depositing acidic pollutants from the earth's atmosphere to its surface. Although it was an unanticipated side effect, it has become a large concern. Data suggests that humans cause 95% of the acid deposition that occurs on earth. Nitrogen and sulfur oxides from

automobiles and industry are the major sources of acid deposition. It effects aluminum mobilization, and pH depression. This type of pollution also greatly affects both aquatic and forest ecosystems by shifting the species diversity and inhibiting chemical processes. Countries have now taken action and established regulations to help reduce this problem.



## DEFORMED FROGS

During the month of August 1995 a group of students from the Minnesota New Country School in Le Seur made a startling discovery. The students visited the Ney Pond to catch a glimpse of nature, but instead found frogs that were grotesquely deformed. In the last two years deformed frogs have been



found across the country. Their discovery has started a national search for the cause. The cause for these deformities has been a mystery, but scientists come up with these main theories; natural parasites, increased ultraviolet radiation due to the hole in the ozone layer, viruses, and algae bloom, predators, pesticides. Frogs don't occur in nature at such alarming numbers. The frog deformities are the result of human effects on the ecosystem.

found across the country. Their discovery has started a national search for the cause. The cause for these deformities has been a mystery, but scientists come up with these main theories; natural parasites, increased ultraviolet radiation due to the hole in the ozone layer, viruses, and algae bloom, predators,

Prepared  
By  
Nicole Muscat & Stephanie Vassallo

