

Fires: Good, Bad or Just Ugly?

Part 1—Prescribed Fires—Good Fires

Fire is an important natural force that causes change in an ecosystem. Prescribed fires are fires intentionally set when the conditions are correct, reintroducing the beneficial effects of fire into an ecosystem. The beneficial effects are many: reducing fuel build-up so that wildfires that do start will not become catastrophic, releasing plant nutrients back into the soil enhancing plant growth, and keeping areas open and free of shrub and tree growth among others.

Effects of Fire on Plants and Animals

If fire is a natural force that has always been around it makes sense that plants and animals have adapted to surviving fires. To explore the effects of fire on plants go this website and complete the chart below.

<http://www.pbs.org/wgbh/nova/fire/plants.html>

Plant	How is it adapted to fire?	How fire can help the plant?
Larch		
Ponderosa Pine		
Scrub Oak		
Lodgepole Pine		

To explore the effects of fire on birds and mammals go the following website and complete the chart below.

<http://www.fs.fed.us/database/feis/animals/index.html>

Find the common name for a bird or mammal, click on the abbreviated scientific name, and click on “Fire Effects and Use.”

Mammal	How is it adapted to fire?	How fire can help the animal?
White-tailed deer		
Eastern Cottontail Rabbit		
Black Bear		
Bird	How is it adapted to fire?	How fire can help the bird?
Mallard		
Kirkland's warbler		

To explore what happens when fire is taken out of the ecosystem, read the following story "Smokey Gets Smoked."

http://whyfiles.org/shorties/058fire_ecorest/

1. What were the problems that developed for squirrels after fire suppression started about a century ago?

A. _____

B. _____

2. Explain the statement "Fire is an important to the ecosystem as rain or snow."

Part 2—Wildfires—the Bad and the Ugly

Wildfire is one of the most destructive natural forces known to mankind. While sometimes caused by lightening or volcanoes, nine out of ten wildfires are caused by people. Put simply “wildfire” is the term applied any unwanted and unplanned fire burning in the forest, shrub, or grasslands.

What do you think is causing more wildfires today?

The current increase in wildfires can be explained by four factors:

1. Past fire suppression policies, including one of “total suppression” which allowed for the accumulation of fuel in form of fallen leaves, branches, and excessive plant undergrowth in forest.
2. Increasingly hot, dry weather.
3. Changing weather patterns across the U.S.
4. Increase residential development in forested areas.



**Did you know?? Every year ...
There are an average of 106,400
wildfires.
Over 4 million acres of land are
burned.
9 out of 10 fires are started by
people.**

Human-caused wildfire case studies:



Where: Northern Wisconsin
When: July, 1999
Type: Wildfire

Cause: bottle rockets shot from a tree set a hay meadow on fire destroying a barn.



Where: Wisconsin
When: July 5, 2001
Type: Wildfire

Cause: a blow-torch set some tall, dry grass on fire. The fire spread and damaged a neighbor's cabin.



Where: Oklahoma, Kansas
When: February 24, 1996
Type: Wildfire

Cause: a utility vehicle ignited some dry grasses. This fire eventually consumed 120,000 acres or 35 square miles.

What do you think could have been done differently to prevent any one of these situations from happening?

Summary

Now that you have read and studied about fire from both sides, you need to make a decision. Fill out the chart below and then present your opinions about fire by answering the following questions.

	Advantages of Fire	Disadvantages of Fire
Animals		
Plants		
People		

1. Are all forest fires bad?

2. What is the difference between a “good” fire and a “bad” fire?

3. When should a fire be allowed to burn?

4. How have people moving into what once were wild areas changed the way we fight fires?

5. Do you think Smokey Bear's message of *Only You Can Prevent Forest Fires* is still a good one, why or why not?

6. How would you rewrite Smokey Bear's message?
