

ANIMAL FIREFIGHTERS TO THE RESCUE

BY SONJA COLE

- 1 A fire needs three things to burn: fuel, heat, and oxygen. Forest floors are covered in fire fuel. When trees fall, they are left to decompose. The fuel is made up of the dead wood along with dry grass, leaves, and bark called *duff*. Duff is extremely flammable—it catches fire easily. Heat can come from a burning match. Or from a flash of lightning. Or from a hot ember from a campfire. In the right conditions, the heat from one flaming leaf can set fire to its neighbors without even touching them. The burning leaves set fire to the whole tree. Then the fire jumps to nearby shrubs and trees. An entire forest can catch fire from one match's tiny flame. And this happens quickly. A wildfire races through a forest at up to 14 miles an hour. It burns everything in its path. On average, wildfires clear more than four million acres of land in the United States every year. That's as much land as the state of Connecticut.
- 2 Some experts recommend setting controlled fires. These fires burn away undergrowth on purpose. If there is no fuel, then the fire can't spread. But there's another way to get rid of that pesky fire fuel. Grazing animals naturally clear out the flammable layer of plants. How? By doing what they do best: eating! Hungry animals might help people prevent wildfires.
- 3 During the hot, dry summers in Portugal and Spain, wildfires have become more common. This type of fire is destructive and intense. The fire seems to eat everything. Luckily goats also eat everything. The government has hired dozens of herders and their goats. The goats' job is to eat through the thick underbrush that covers Portugal's hills.

- 4 Goats are adventurous grazers. Some breeds will even climb trees to search for supper. They nibble the brush that fires use to climb and spread to the tops of trees. In northern Spain, sheep are also pitching in. Sheep and goats munch through a lot of fire fuel. Without fuel, it's more difficult for a fire to spread.
- 5 The Northern Territory of Australia has had more wildfires than usual as summer temperatures creep higher. Invasive gamba grass has spread across a large portion of land. The tall, dry grass is a major fuel source for fires. Australian animals such as cattle or kangaroos will eat the grass when the grass is young.
- 6 In addition to fuel and heat, a fire needs oxygen. Firefighters use water or foam to drown fires and block their oxygen. Enter beavers. When beavers build dams, they flood the surrounding area. Water covers flammable plants. And the soil stays nice and wet. A wide area of wet ground helps put the brakes on a raging wildfire.
- 7 What happens around a stream where beavers live? The soil absorbs and stores some water underground in what's called a water table. Even without rain, the stream can still flow. Water seeps up from the soil underneath, like squeezing a wet sponge, leaking everywhere. What would happen without water-soaked, spongy soil in the riverbed? The river would dry up when the weather gets hot with no rain.
- 8 Due to climate change, many areas of the world are experiencing hotter weather and extraordinarily dry summers. So wildfires are getting worse. But we don't have to fight these fires alone. Animals can be conservation heroes. They just have to do what comes naturally.



When beavers build dams, it helps to flood the surrounding area and keep fires from spreading.

ANIMAL FIREFIGHTERS TO THE RESCUE

Test Questions

Circle the correct answer.

1. Which two things cause wildfires to ignite?

- a. a burning match
- b. a pile of dead leaves
- c. a group of grazing animals
- d. a gust of wind
- e. a flash of lightning

2. How do beavers and goats help prevent fires in different ways?

- a. Goats drink water, whereas beavers build dams in the water.
- b. Beavers build dams, which flood the soil, whereas goats eat the thick underbrush.
- c. Goats climb trees to escape a fire, whereas beavers build a dam to escape a fire.
- d. Beavers use underbrush to build dams, whereas goats eat the underbrush to survive.

3. What does the word *decompose* mean as it is used in the paragraph below?

A fire needs three things to burn: fuel, heat, and oxygen. Forest floors are covered in fire fuel. When trees fall, they are left to **decompose**. The fuel is made up of the dead wood along with dry grass, leaves, and bark called *duff*.

- a. flame
- b. spread
- c. grow
- d. rot

ANIMAL FIREFIGHTERS TO THE RESCUE

Test Questions (*continued*)

4. What might happen if Portugal didn't hire herders to bring in their goats?

- a. The wildfires could happen more frequently.
- b. The forests would not flood.
- c. The forests would not catch on fire.
- d. The wildfires could be controlled more easily.

5. What is the main idea of the passage?

- a. Wildfires will stop occurring in nature.
- b. Wildfires will continue to occur more frequently.
- c. Wildfires are naturally controlled by animals.
- d. Wildfires are dangerous for goats, beavers, and sheep.