

Program 5 - THE RED DEMON RIDES AGAIN - October 21, 1940SOMETHING TO DO AND TALK ABOUT FIRST

Explain to the children that fire is so destructive of trees and all forms of forest life that the Conservation Department of our state spends more money to prevent fires and protect forests than for all its other services. The forested area of the state is divided into ten fire protection districts. Over 150 fire towers have been erected from which tower men keep on the lookout for fires. Up-to-date fire fighting machinery is ready constantly to answer the call of the tower men. Conservation wardens visit schools to tell children about the destructiveness of fires, and what they can do to help prevent them.

Ask the Radio secretary to write or visit the nearest Ranger Station, or write the Wisconsin Conservation Department in Madison for fire prevention pamphlets. Invite the Ranger to visit your school and show how fires are located from towers. Ask him to tell you what we mean when we say "Everybody loses when forests burn."

DO YOU KNOW THESE WORDS?

Conservation Department

humidity

humus

LISTEN FOR THESE IDEAS

1. What are the most frequent causes of forest fires?
2. Why do fires increase during the months of May and October?
3. Why is there greater fire danger when humidity is low? Why do fires burn less fiercely at night?
4. What figures are given to show that fire is more destructive than the axe? Note these figures.
5. What are the destructive results of fire on tree life, wild life, soil, and moisture? Take notes on these.

SOMETHING TO DO AND TALK ABOUT LATER

1. Visit a wood which has been burned over and one which has not. Note the difference in amount of humus on the forest floor. Compare the abundance of flowers and shrubs. Note fire scars at the butts of trees. Observe the difference in numbers of birds and other forms of wild life.
2. Fill a basin with humus from a forest floor. Pour in a measured quantity of water, and allow to stand for a little while. Remove unabsorbed water, measure, and determine how much remains in the humus. What happens when this humus is destroyed by fire?
3. There is a fire warden in your neighborhood. What are his duties?
4. How can we aid in fire prevention when we visit the woods?

Wisconsin School of the Air
Afield with Ranger Mac
October 21, 1940

THE RED DEMON RIDES AGAIN

Hello Boys and Girls:

Bells clang and sirens shriek as a fire truck sweeps through the street. Something is burning. There is excitement as the engines dash by. People stop from their daily tasks to watch and it is difficult for you to get back to your studies after the fire apparatus goes clanging by the school. For the fire that warmed some home or turned the wheels in some factory, has escaped control and has become a red enemy. But the average city fire is nothing compared to the sweep of the flames through a forest dried out by the hot sun. Just as every city maintains fire stations with fire trucks and fire fighting apparatus and men always ready to rush to the scene of the fire, so now in the important forested areas of our state, towers have been erected to detect fires, and men trained in the methods of fighting forest fires, and fire fighting apparatus stand ready to rush to the scene of the forest fire and put it out before it gets much of a start. For one of the secrets of successful fire fighting, whether it be in the city or in the forest, is getting to the scene as quickly as possible in order to get the fire under control before it gets much of a start. Just as a city is divided into fire zones, so the forested area of our state is divided into fire districts. There are ten of these fire districts in our state, each one with a headquarters station and with two or more sub-stations located at important points in the district. These are called Ranger Stations. The eyes for these stations are the many towers which have been erected at high points that command wide views of the country. There are over one hundred fifty of these towers. Besides, each of the district headquarters and the ranger stations is equipped with trucks, tractors, water pumps, axes, shovels, and other equipment all ready to be rushed to the fire when the call comes. All these buildings, equipment, and the labor of men cost considerable money to secure and to maintain. Ranger Mac calls your attention to this fact simply to remind you that forest fires are so destructive of trees and all forms of forest life that our state spends more money preventing fires and protecting forests from fire than in any of its other services. So we can come to the conclusion

that if forests are to cover the land where trees should grow, it will be because fires are kept out of these areas. The fact is, if fires are kept out of the woodlands, nature will in time restore trees to the land. Perhaps you have noticed, just as I have, areas where fire has been kept out for a great many years. There we find nature has restored tree growth, and often all that is needed to have a fine forest occupy the land is to keep fires out. But there are some areas that have been so completely cut and burned over that planting by the hand of man is necessary in order to have the right kind of trees growing on this land. So trees are grown by the millions in the three state nurseries for planting on this land. And, of course, there is no use planting trees unless they are protected from fire.

You have heard that statement "An ounce of prevention is worth a pound of cure" and when it comes to forest fires, education is the ounce of prevention. Most forest fires are caused by man's carelessness, and here is where education plays an important part. I am going to recite the causes of forest fires. There's lightning, steam engines on railroads, campers, smokers, brush burning, lumbering and fires that are set on purpose. Which of these do you think causes the largest number of fires? Smokers cause the largest number, and that of course is pure carelessness - failure to put out the match or to extinguish the cigarette. This causes on the average of 810 forest fires each year. So you can see the reason for the many signs along the roads in forested areas which read: Smokers extinguish your match; smokers, put out your cigarette. And so while the conservation department has been building up a fire fight equipment, education in preventing fires has been going on all the time, with the result that people are more careful than ever before. The practice causing the next largest number of fires is brush burning. When clearing the land, farmers burn the piles of brush; the fire gets out of control and spreads into the surrounding areas. 527 such forest fires are caused each year. There is a law now which prohibits brush burning without a permit, except when snow is on the ground. More and more farmers have come to see the importance of this law and willingly abide by it. The next greatest cause of forest fires is purposeful setting of fires. This is done purposely to burn over marshes, drive animals from the woods, or to create jobs as fire fighters. There is a rather heavy penalty for this kind

act, just as there should be. Railroads are next in line as the cause of forest fires. Sparks escaping from the smoke stack, or coals from the ash pan cause these fires. Now, during the dry seasons of the year, trailers are sent after the trains to put out any fires set by the engines as they pass thru the forested areas. Campers are next in line causing about 147 forest fires each year, lightning causes about 97 each year and lumbering about 36. So you see that most forest fires are caused by people, over 90% of them, and education has played a large part in teaching people who visit the woods why they should be careful with fire and how to be careful with fire. Most of Ranger Mac's Trail-hitters have had lessons in school on how to prevent forest fires. I know this is true because I have seen the rules posted on the wall in many school rooms. And so education is doing about as much to prevent forest fires and protecting our forests as the vast equipment and the many men hired by the state whose main purpose is fire fighting.

Now let's see what damage a forest fire does. First of all it causes the death of trees. If the fire does not kill the trees outright, they are weakened and scarred and fungus and insects enter the fire wounds, bringing disease and decay. Most trees have a long, hard struggle to survive anyway, and a fire, even a slight fire, may cause the tree to lose the fight for its life. Even if it does survive, its strength is weakened and it will never grow as fast thereafter. Some farmers are foolish enough to burn their woodlots every year. The first fire may just scar the trees at the butt. But the next fire burns with a hotter flame because it is fed by the resinous gum nature uses to protect the first scar. So, as fire follows fire, the tree weakens, disease sets in and finally the tree crashes to the ground - a martyr to stupidity.

Trees and vegetation are not the only things that suffer from fire. The very soil itself becomes poorer and poorer. Soil is not decomposed rock only. Soil is decomposed rock and rotted vegetable matter. This vegetable matter is called humus. Vegetable matter that lies on the ground is decomposed by fungus and microscopic life called bacteria. When fire runs over the ground it destroys this humus and even the microscopic life in the soil. So each fire, however small, leaves the country a little poorer, a little less livable than it was before. That is what is meant by the statement

"Everybody loses when fires burn the countryside." Farmers who burn their hillsides thinking they get a better catch of grass, make a sad mistake. After repeated burnings the vegetation is burned down to the mineral soil, gullies appear on the slope, and soon the owner has the problem of erosion. There are parts of our country where fires have burned the trees, humus and soil down to the barren rock and forests are no longer possible in such areas. This is true about parts of the Adirondacks. Where fires have removed vegetation from the hillsides, rainfall runs off readily causing floods, carrying soil and stones to choke up the water courses or to cover fertile fields.

An even less pleasant story can be told about the death and disease that come to wild life because of fire. Some of my listeners who live in Wood county will remember the fire of some years ago that burned over 120,000 acres of good game territory. After the fire more than a score of deer were found dead, and this was, no doubt, a small percentage of all destroyed. Live deer were captured and most of them had burned feet. For several months after the fire freshly dead deer were found, all having died from disease due to weakened condition. During the winter more deer died from starvation because the fire had destroyed the vegetation upon which they lived. One deer was found walking upon its knees, and when it was put out of its misery, it was found that both of its front feet had been burned and stiffened in a bent condition.

The fire warmed the water in the river and its tributaries and the ash poisoned the water so that fish, frogs and crayfish died in large numbers. Rabbits found refuge in their burrows, but their food and cover were destroyed, and because they had no protective hiding places, hawks and owls preyed upon them. Beavers were able to escape by the water routes, but their food was entirely destroyed, and no one knows how many died of starvation.

This is the story of just one fire. A similar story could be told about most every fire, The effect of fires upon wild life varies with the season in which the fire occurs. Early Spring fires prevent birds from mating and building their nests. Late spring fires destroy the nests of birds and their young, as well as young animals. Fall fires destroy the food and cover necessary to survive the winter.

Well, Ranger Mac, has told you many ways in which fires are very destructive. You have all read the story about the boy who killed the goose that lay the golden egg. Well, forest fires do just that. But I want to mention one more thing forest fires destroy and that is beauty. The influence of forests bring health to the body and inspiration to the souls of man. A fire swept landscape is a most depressing sight. Fires make poor land, and poor land makes poor people.

There are two months when there are more forest fires than at any other time. These two months are May and late October. In May before the earth gets green, when the dead vegetation gets dry. It is then that thousands of trout fishermen visit the streams and their carelessness with matches, cigarettes and camp fires cause many fires. October is another bad month for fires. It is then that the leaves fall and the frosts kill the vegetation. When this gets dry, as it does so often, then we have our fall forest fires.

Sometime when you visit a Ranger Station, notice the white box that sets out in the ~~year~~ on a post. That box contains an instrument that tells how much moisture there is in the air. When the air is laden with moisture, the danger of fires is not great, but when there is not much moisture in the air, then the men must keep a watchful eye for fires. That moisture in the air is called humidity. At night there is quite sure to be greater humidity; for this reason fires burn less fiercely at night, and can be put out more easily.

Nothing that man has ever gained has been so valuable to him as fire. Without fire there would be no food cooked in the world. Without fire we could have no steam or electricity, and there would be no factories and railroads. Without fire we would not have so much as an iron hammer or knife in the world, for we could not work metals. Almost everything we have and use and do is made possible by fire. Long ago the fire came to stand for home, and now in stories and poems you see such expressions as the "Hearthstone" meaning the home. By controlling fire, we have conquered the cold and the dark. But fire that is not controlled is a red demon, and Ranger Mac hopes that none of his trailhitters will have cause to say that his

country is poorer because he was careless of fire when out in the open.

May the Great Spirit

Put Sunshine into your Heart

Today, and Forevermore,

HEAP MUCH!