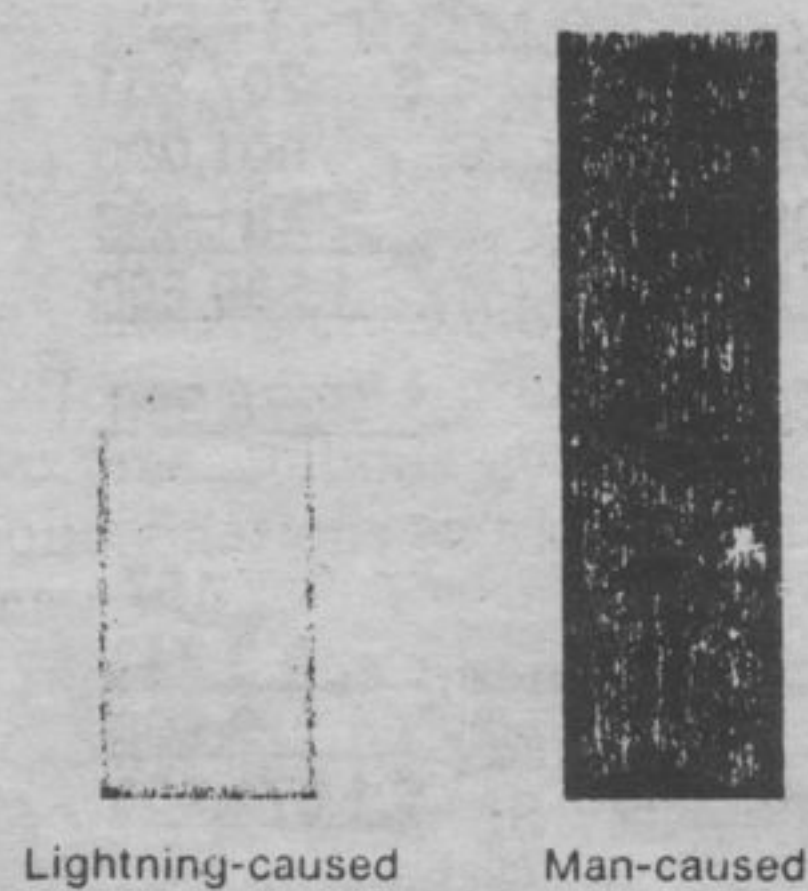


Fire Causes

Lightning is the only natural cause of fire and is responsible for 30 per cent of all forest fires. People are responsible for the remainder. Records of fires caused by people establish the responsible groups and sources of ignition. This information allows managers to direct fire prevention efforts to the cause of the problems.

The careless smoker is responsible for more forest fires than any other forest user. Nearly one-quarter of all fires caused by people are ignited through the careless use of smoking materials.



*1980-85, 6-year annual average

Carelessly attended campfires rank just behind smoking materials, igniting approximately 19 per cent of all people-caused fires. While the number of campers and outdoor enthusiasts using the forests has increased, the number of blazes caused by this group has actually dropped, but not significantly.

Residents burning grass, brush or rubbish trigger about 13 per cent. About 13 per cent of fires in recent years have been railway related, caused by exhaust carbon, work crews or pieces of hot metal from brakeshoes.

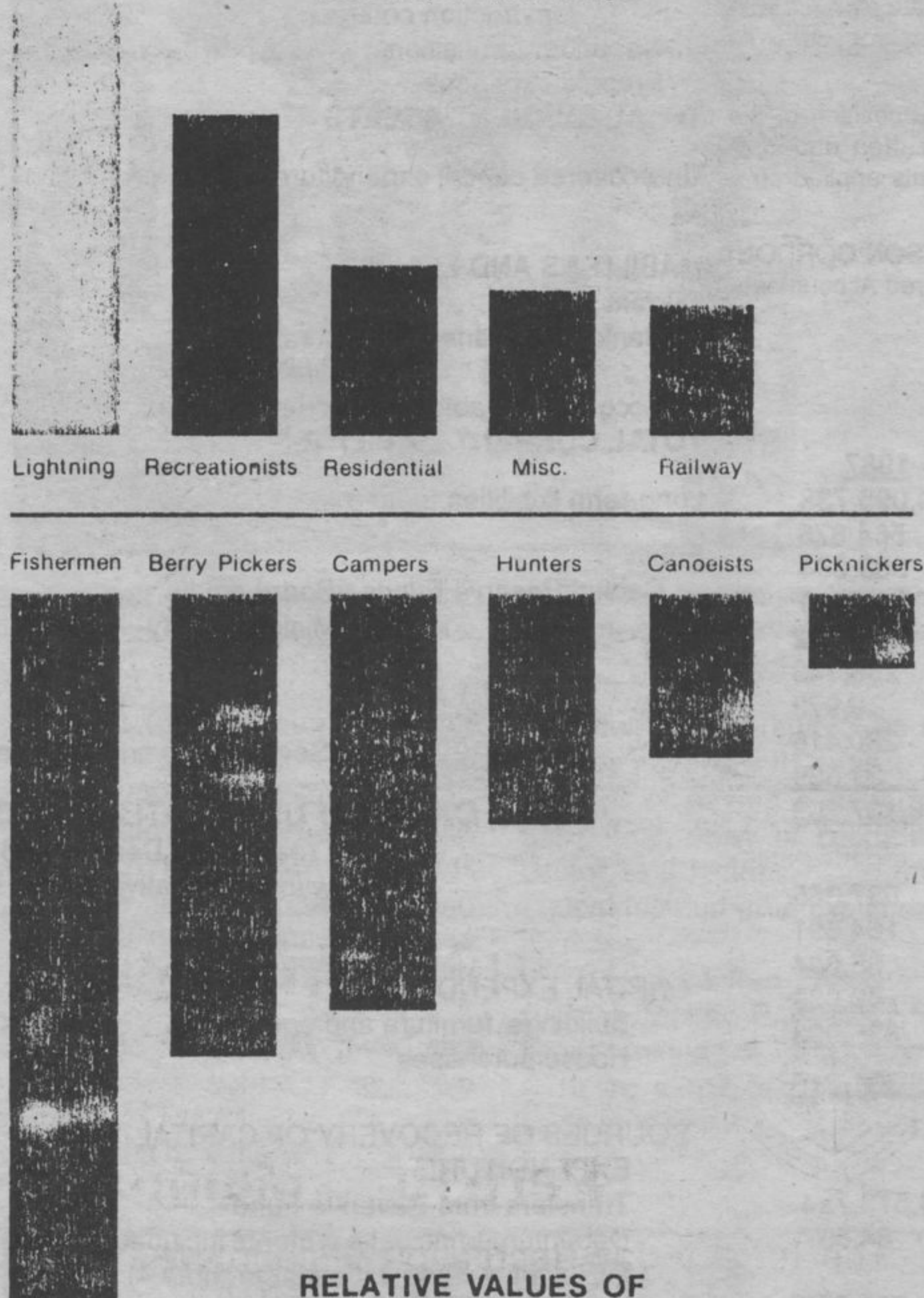
In addition, many forest fires can be traced to children playing with matches.

In theory then, the majority of forest fires, since they are started by people, can be prevented.

Who Causes Fires?

RELATIVE VALUES OF FOREST FIRES FROM ALL CAUSES*

*1980-85, 6-year annual average



RELATIVE VALUES OF RECREATIONIST-CAUSED FIRES*

*1980-85, 6-year annual average

NOTE: For the period 1980-85, inclusive, a total of 9202 fires were caused by all sources. Of this total, 6147 were man-caused and 3055 lightning-caused. Among man-caused fires, recreationists using Ontario's woodlands were the largest single source, accounting for 1923 fires during the period specified. The annual average number of fires from all sources was 1533.

Forests burn differently

The various combinations of fuel type and condition, weather and topography produce three different types of fires: sub-surface, surface and crown fires.

Sub-surface fires burn beneath the surface of the forest floor. This type of fire can smoulder for extended periods of time, burning peat, roots and decaying vegetation before breaking through to the surface, often far from the source of the fire.

Surface fires are the most common type of forest fire. They burn brush, leaves or grasses and

forest debris. When burning on a forest floor, they can damage the bark of trees and often lead to torching of the entire tree.

The flame of a crown fire is the most dangerous and destructive. The fire can easily spread from the crown or top of one tree to another, often moving faster than a person can run. High winds can result in the canopy of the forest being set ablaze over a large area, while the forest floor remains relatively untouched. This is the most spectacular type

of fire and the most difficult to manage.

A forest fire can include all three types of burning during its life span.

Three components of fire prevention

A fire prevention program has three components, often referred to as the three E's: Education, Enforcement and Engineering.

Of the three, public education is the most visible. Advertising and public relations are used to create a public awareness of the dangers and causes of forest fires. Through the media, the schools, public gatherings and the use of printed materials, films and videotapes, Smokey Bear and road signs, the ministry is putting forth a concerted effort to educate and warn the general public and industry about people-caused fire problems.

Ministry information officers channel information to the media about current forest fires and fire hazard situations, explain the cause and effect of fire, and spread the fire prevention message. Special fire prevention campaigns are co-ordinated and directed toward forest user groups.

Enforcement is based on The Forest Fires Prevention Act. This legislation applies to the Ontario fire region, a described geographical area that excludes the largely urban or agricultural south and the extreme north.

The Act and regulations spell out safety precautions and measures governing the use of fire in forests, and establish penalties to deter violators and careless users.

The Act defines a period in each year to be recognized as the fire season (April 1 to October 31.) During these months the fire danger is the greatest and fire prevention legislation applies. A fire permit must be obtained before shooting off fireworks or before starting any fire outdoors during the fire season, except for cooking and warmth. Fire permits allow fire managers to keep track of the number and type of fires burning in a given area at any given time.

Smoking while walking or working in a forest during the fire season is prohibited. Likewise, it is forbidden to throw or drop smoking materials, live coals or ashes.

By law, a campfire may only be started in a location with a one metre area around the fire edge cleared to the bare rock or mineral soil. If you start a fire, the Act states that it must be tended by a responsible person at all times, and must be extinguished completely before you leave the site.

The Act provides the Minister of Natural Resources with the authority to impose and enforce special restrictions during periods of extreme hazard. The Minister may declare a ban on open fires or may close access to portions of the forest.

These restrictions are applied to eliminate people-caused fires and to reduce the risk of forest fires.

Controls also apply to commercial operations. Regardless of the time of year or fire danger, a work permit is required to carry on logging, mining or industrial operations in the forest and within 300 metres of a forest. Permits are also required to clear land, operate a lumber mill or perform any operation producing slash or debris. Any permit will be suspended or cancelled if fire conditions become hazardous or if the terms of the permit are not met.

One of the tasks of firefighters is to determine the cause of the blaze. This is usually not difficult, since the fire burns out or away from the source. Fewer than five per cent of fires are classified as unknown in origin. Once the point of ignition is located and the cause determined - often careless use of smoking materials or camp-fires - a routine investigation usually finds the person responsible.



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PLEASE, SHARE IN THE RESPONSIBILITY FOR

FIRE PREVENTION



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