

THE BRIGHTER SIDE OF WILDFIRES

by Lachlan McCaw

The Fitzgerald wildfires provided the opportunity to gather valuable information about the behaviour of fire in mallee and heath vegetation during extreme fire conditions.

Much information can be gained from careful analysis of wildfire spread patterns, provided that basic data is available for weather conditions, fuel types and location of the fire at successive times.

Studies of this type were conducted following the large forest fires at Dwellingup in 1961, Boorara in 1969 and the multiple outbreaks associated with Cyclone Alby in 1978.

Fires of large size and high intensity cannot generally be implemented

as part of an experimental program because of cost and safety limitations.

Therefore analysis of wildfires provides the next best means of extending the range of data available to the researcher.

Weather data from an automatic weather station located near Jerramungup have been made available by the Agriculture Department.

Wind gusts in excess of 56 kmph were recorded on December 21 when the main fire run took place.

Preliminary analysis indicates that fires may have spread at up to 8 kmph during this period.

High rates of forward spread are characteristic of fires in mallee and

heath.

During the current program of experimental burning at the Stirling Range National Park spread rates of 3 kmph have been recorded on days of only moderate fire danger rating.

Useful observations were also made during the Fitzgerald fires with regard to which fuel types continued to burn overnight.

As a rule, fires went out overnight in the sparser heath fuels but continued to burn steadily in the litter beneath the mallee thickets and yute woodlands.

These fires provided potential sources for flare-ups on the following day.

The fact that fires

burnt through vegetation of a wide variety of types and ages provides an opportunity to determine the length of time for which fuel-reduced buffers remain effective.

Post fire plant and animal responses will also be a high priority for research.

By making good use of the research opportunities provided by the Fitzgerald wildfires, it should be possible to improve the fire management of all parks and reserves in the mallee/heath zone.

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