

## Stirling study continues

by **LACHLAN McCAW**

With the return of warm weather to the Stirling Range National Park, the experimental mallee-heath fire study is set to continue.

This project is a joint effort by fire researchers from CALM's Manjimup and Woodvale Research Centres, and park and operations staff from the South Coast Region.

The study's overall objective is to understand key aspects of the

behavioural and ecological effects of fire in mallee communities, so that recommendations for management can be made.

Preparatory work began in early 1989, and so far seven experimental fires have been completed.

The ability to predict fire behaviour in mallee fuel types is essential for planning fire management in parks and reserves, and for implementing prescribed burning, where necessary.

Fire spread prediction also plays an important role in the development of suppression strategies for wildfires, such as the extensive lightning-caused fires in the Fitzgerald River National Park last December. This season will see the continuation of the series of fires on four hectare plots at the Stirling Range site.

Detailed monitoring of these fires is providing information about rates of

fire spread, flame characteristics and fuel consumption under a range of weather conditions. Results so far suggest that the moisture content of the thin layer of ground litter beneath the scrub plays a crucial role in determining fire spread.

The intention is to conduct some fires under hot, dry conditions to ensure that a comprehensive data set is obtained.

Studies of plant and animal responses to fire will also be stepped up this year, with several larger blocks designated for burning.

Comparison of seasonal differences in response is an important element of this work.

This fire project has already provided the basis for an interim fire behaviour prescription and led to a better understanding of the patterns of activity of small vertebrates in the Stirling Range National Park.



Senior Technical Officer Bob Smith (Manjimup Research) and visiting fire researcher Marty Alexander (Forestry Canada) sampling pine foliage moisture content.

## Crown fires investigated

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Protecting pine planta-

old *Pinus pinaster* at Iffley block in Manjimup District.

To ensure safety and control during these fires, the site has been chosen within an area programmed