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# QUARANTINE IN NATIVE FORESTS

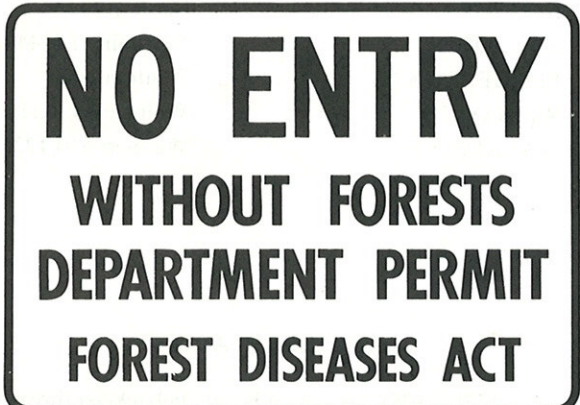
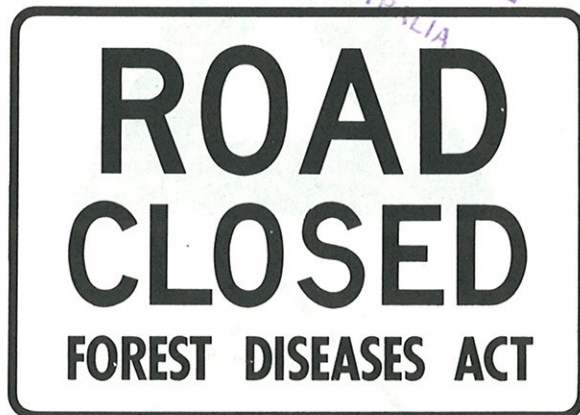
F. E. BATINI

DEPARTMENT OF FISHERIES & WILDLIFE LIBRARY WESTERN AUSTRALIA

Jarrah dieback, a disease caused by the fungus *Phytophthora cinnamomi*, is a grave threat to the forest and woodland communities in the south-west of Western Australia.

Already some 9 per cent of state forests and timber reserves (172000 ha) has been affected by this disease, which is also known to occur on other Crown land, national parks and private property. The *estimated* total area affected by dieback at 30 June 1974 was 282000 hectares.

In Western Australia, the fungus may kill a wide variety of native plants. It is also widespread throughout the world, and has caused serious problems in forests, plantations, orchards, domestic gardens and nurseries.



in the susceptible vegetation (e.g. *Banksia grandis*), and the Forests Department's hygiene programme has been based on these visible symptoms. This technique has limitations because of the time lag between infection and the expression of visible symptoms. Because of this, it has become apparent that infected soil can still be spread unwittingly from areas that appear to be disease free.

To overcome this problem, it has become necessary to quarantine apparently healthy areas from sources of infection, so as to allow sufficient time for visible symptoms to develop. It should then be possible to map the diseased areas and their perimeter accurately, and subsequently to limit the artificial spread of diseased soil by appropriate hygiene measures. The quarantine will involve restriction of vehicles moving between diseased and healthy areas. Washing down facilities will be provided to clean vehicles carrying mud and soil from infected areas. A quarantine period of three years has been nominated as a safe interval on which to base future planning.

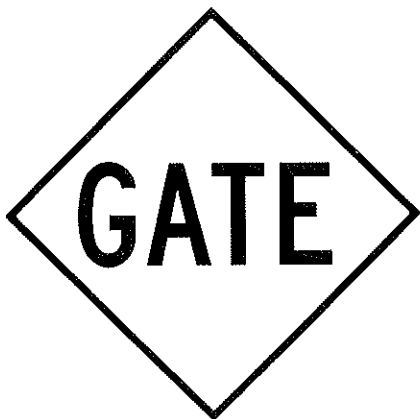
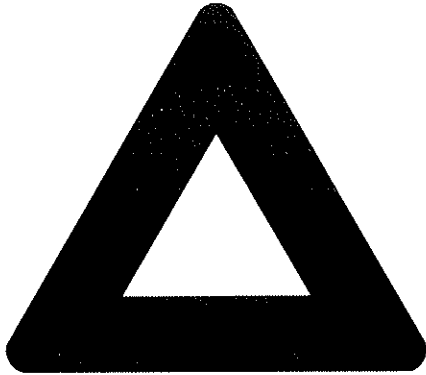
The illustrations shown on this information sheet are examples of the sign-posting used in association with forest quarantine.

If allowed to proceed unchecked, most forest values will be adversely affected. The loss of jarrah trees will reduce the volume of timber suitable for milling, and will threaten the long-term existence of sawmills. Extensive areas of dying forest could increase the salinity of the streams which feed the water supply reservoirs. Forest eco-systems are in peril, and some species (such as *Banksia littoralis*) are in danger of extinction. Birds and animals will suffer through the loss of vegetation. The recreational and aesthetic appeal of forests will diminish.

One of the major means by which the fungus is spread through the forest area results from the activities of man. New infections are often caused by the movement of diseased soil on vehicles and heavy machinery. Diseased areas are diagnosed primarily from the visible symptoms

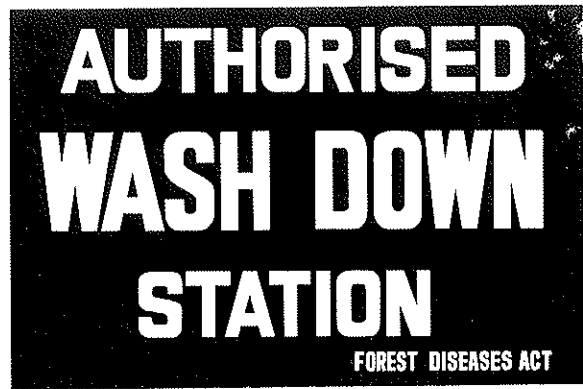


Following Cabinet approval, detailed quarantine proposals were prepared, and the Forest Act Amendment Act (No. 77 of 1974) was passed and proclaimed. A large portion of state forest has been quarantined. Within the quarantined area, unrestricted vehicular access is limited to the main public highways and entry to private property. Very limited vehicle access, under permit and along specified routes, will be available for essential services. Access on foot will not be restricted. All forest operations (sawmilling, pole and pile, firewood, etc.) have been relocated outside the quarantine areas for the period of three years.



These proposals have been considered and accepted by the timber industry, established mining companies, other government departments and instrumentalities and the Department of Environment and Conservation.

The impact of quarantine on the recreating public should not be too severe. The areas of forest which will not be quarantined will remain accessible to the public. Vehicular access along the main highways will be available and access on foot is permitted within the quarantined zone. Access to the established picnic areas (such as Mt. Dale, Lesley, Sullivan Rock, etc.) will be maintained. However, vehicular access (motor car, trail-bike, horse, etc.) into the quarantine area is prohibited. The area will be signposted and patrolled to ensure an understanding and compliance with the regulations, which carry severe penalties for deliberate breaches.



For further information on dieback, inquiries may be directed to Forests Department offices at:

|                      | <i>Telephone No.</i> |
|----------------------|----------------------|
| PERTH . . . . .      | 25 8077              |
| COMO . . . . .       | 67 6333              |
| BUSSELTON . . . . .  | Busselton 52 1677    |
| COLLIE . . . . .     | Collie 34 1988       |
| DWELLINGUP . . . . . | Dwellingup 30 9078   |
| HARVEY . . . . .     | Harvey 55            |
| KALGOORLIE . . . . . | Kalgoorlie 21 2095   |
| KELMSCOTT . . . . .  | Perth 97 5516        |
| KIRUP . . . . .      | Kirup 31 6232        |
| MANJIMUP . . . . .   | Manjimup 71 1988     |
| MUNDARING . . . . .  | Perth 95 1117        |
| NANNUP . . . . .     | Nannup 44            |
| NARROGIN . . . . .   | Narrogin 81 1444     |
| PEMBERTON . . . . .  | Pemberton 7          |
| WALPOLE . . . . .    | Walpole 40 1034      |
| WANNEROO . . . . .   | Wanneroo 91 1222     |

#### FURTHER READING

- Shea, S. R. (1975). "Focus on jarrah dieback—a threat to W.A.'s unique jarrah forest", *Forest Focus* No. 14, April 1975.
- Shea, S. R. (1975). "Jarrah dieback." Information Sheet No. 4.
- Shea, S. R. (1975). "Environmental factors of the northern jarrah forest in relation to pathogenicity and survival of *Phytophthora cinnamomi*." Bulletin 85.
- Batini, F. E. (1973). "Jarrah dieback. A disease of the jarrah forest of Western Australia." Bulletin 84.
- Batini, F. E. (1974). "Some aspects of logging hygiene." Research Paper No. 3.



# WESTERN AUSTRALIA

## FOREST AREAS OF THE SOUTH WEST



### LEGEND

State Forest and Timber Reserves  
(Forest Act)

Divisional Offices

District Offices

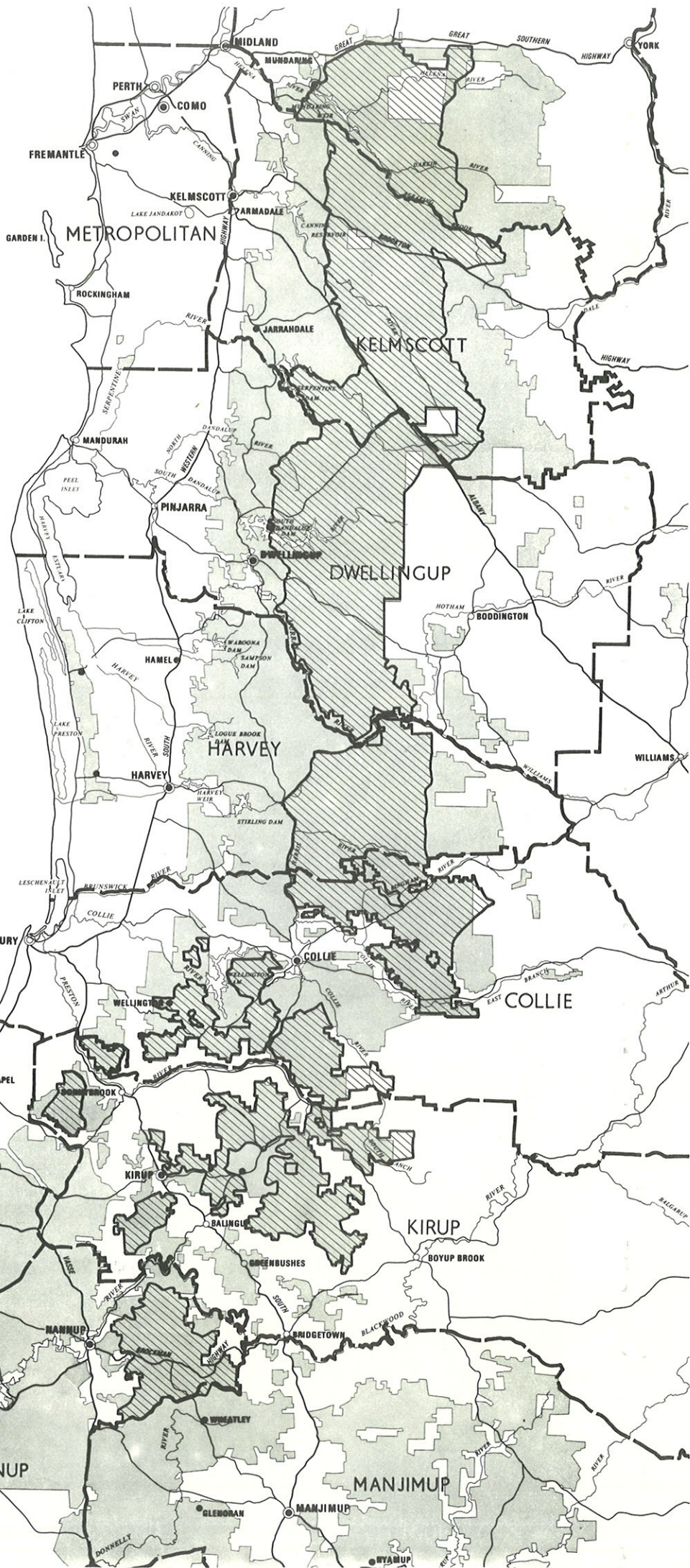
Major Towns

Other Towns

Area at Risk and Proposed for  
Quarantine

Divisional Boundary

ROTHNEST I.



INDIAN OCEAN

CAPE NATURALISTE

GEOGRAPHE BAY

BUSSELTON

BUSSELTON

MARGARET RIVER

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