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Department of Biodiversity,
Conservation and Attractions

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Until a cure can be found, the best strategy is preventing the artificial spread of the fungus by people. Dieback mapping is used to plot the disease and allow high risk areas to be quarantined. Sophisticated colour photography has been developed to map the disease in WA forests. Unfortunately it's much more difficult to map the disease in heathlands, although new remote sensing trials look promising. Strict hygiene is maintained and all CALM vehicles and machinery are washed down after working in dieback areas.

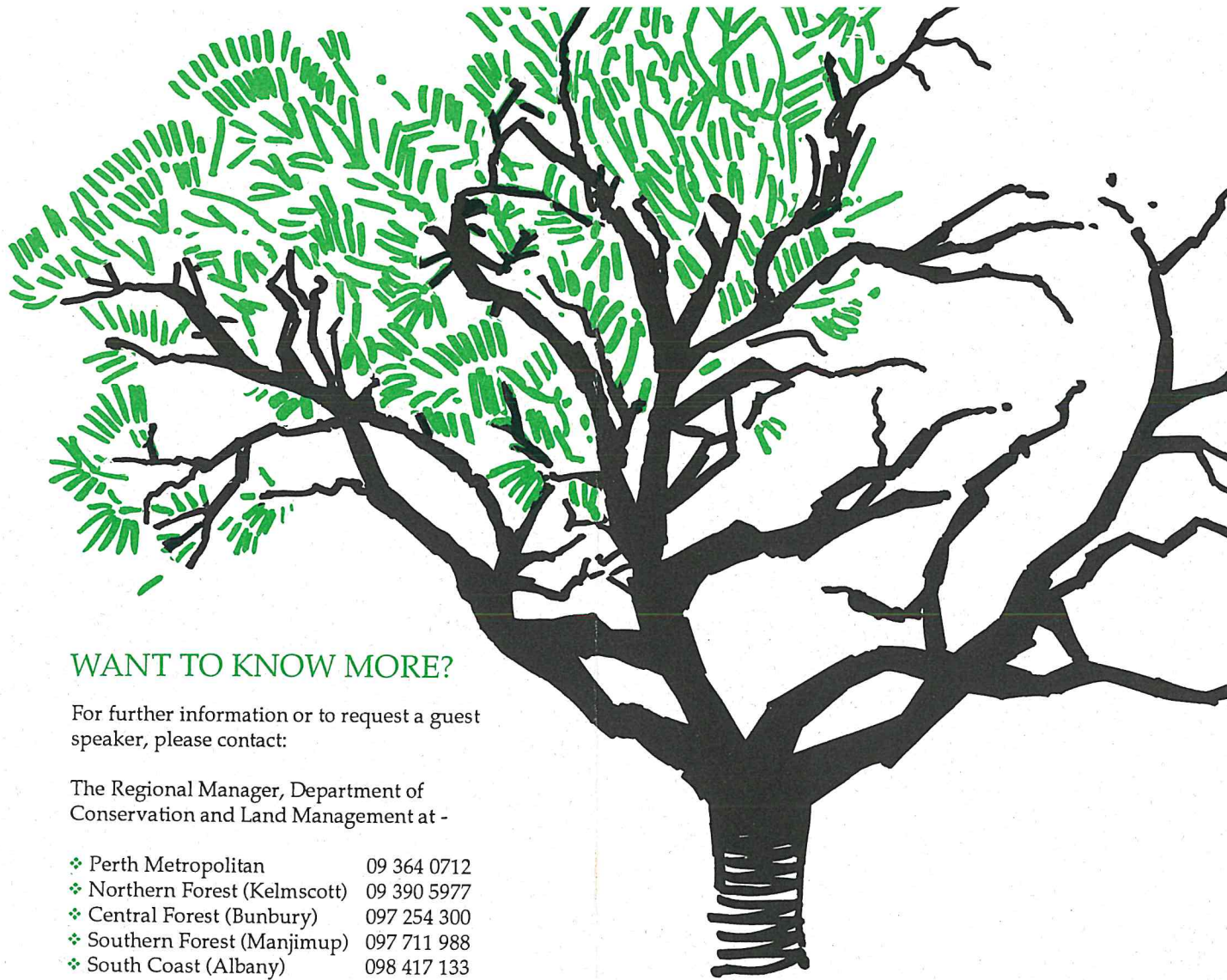
Rotary District 946 has joined CALM in its public education programme with a special dieback awareness campaign. Rotarians are calling on their community network to join the fight against dieback.

It's impossible to 'police' the huge area under threat from dieback. Making people aware of the danger of spreading the fungus and the need to comply with restrictions to access to parks and forests is vital.

WHAT CAN YOU DO TO STOP DIEBACK?

At some times of the year it is necessary to close tracks and footpaths to restrict access to areas at risk, in order to protect them. Please keep to well formed, well drained roads and obey road closed signs.

Some restrictions now will avoid the need to close off large areas in the future. Your co-operation is essential if this strategy is to work.



WANT TO KNOW MORE?

For further information or to request a guest speaker, please contact:

The Regional Manager, Department of Conservation and Land Management at -

❖ Perth Metropolitan	09 364 0712
❖ Northern Forest (Kelmescott)	09 390 5977
❖ Central Forest (Bunbury)	097 254 300
❖ Southern Forest (Manjimup)	097 711 988
❖ South Coast (Albany)	098 417 133

Local rangers and reserve officers will provide you with specific information on their area.

Your local Rotary club is:

Fight dieback

Give our plants a chance



DEPARTMENT OF CONSERVATION AND LAND MANGEMENT



ROTARY INTERNATIONAL District 946

WHAT IS DIEBACK?

Dieback is a plant disease caused by a soil borne fungus. In Western Australia, *Phytophthora cinnamomi* is the most common - and most destructive - of the several *Phytophthora* species infecting native plants.

The fungus was introduced from the tropics, probably in the nineteenth century, but it was not until the mid-1960s that it was correctly identified. In the decades following the first observation of dieback in the jarrah forest, failure to identify a cause prevented effective control in State forests, national parks and nature reserves. The unsuspected fungus was spread unintentionally throughout the south-west of the State.

The microscopic fungus lives in the soil and is easily carried by water above or below the ground or when the soil itself is moved. It kills plants by rotting their roots so they can't take up water, often giving the appearance of plants dying of drought.

The disease is known to attack at least 900 plant species and many, such as banksias and dryandras, die very quickly.

It's possible to kill the fungus with standard fungicides, but there's no known practical cure for the disease in the field.

WHERE IS IT?

The fungus is spread in patches throughout the south-west of the State from Kalbarri in the north, Cape Arid in the south and inland to Boyagin Rock.

The south coast areas are particularly at risk because the climate is warm and moist for most of the year, providing ideal conditions for this tropical fungus. Many of the plants in the region have little resistance to dieback.

Dieback is not restricted to national parks and forests. It has already spread to native plants growing on farms, roadside vegetation and even home gardens.

It's estimated that 13% of WA forests are infected with *Phytophthora*. It's more difficult to map the disease in reserves and national parks where the principal vegetation is heathland. Some reserves, such as Two Peoples Bay Nature Reserve, have been severely affected by the fungus while in others, such as Fitzgerald River National Park, the disease is restricted to a relatively small area.

WHAT'S THE RISK?

The fungus can cause damage wherever it's introduced, but some plants are particularly vulnerable. For example, the national parks and reserves on the south coast contain combinations of plants and animals found nowhere else in the world.

Rare and endangered plants - and the animals that depend on them for food, shelter and nesting - are dying.

HOW DOES IT SPREAD?

Dieback fungus has two types of spores; a small spore which swims in water and larger, inactive spores formed in the soil and the roots of plants.

The fungus spreads passively as spores carried in water soil, or artificially by movement of infected soil. Any activity which disturbs the soil or alters the drainage pattern may encourage the spread of dieback.

The disease is spread in WA mainly in infected soil carried on the wheels and underbodies of vehicles. On the south coast, possibly because environmental conditions are so favourable for the fungus, it can be spread by bushwalkers and animals. It also moves from infected roots to healthy roots when they come in contact.

WHAT'S BEING DONE TO STOP DIEBACK?

Since its formation CALM has been committed to stopping the spread of dieback and has continued the extensive work of one of its predecessors, the Forests Department.

The dieback fungus attacks hundreds of plant species, including many horticultural and agricultural crops throughout the world. Intensive research here and overseas has been carried out for more than 40 years. CALM scientists are studying the nature of the disease in WA and working to develop a cure.

