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HOW TO IDENTIFY DIEBACK ON ROADSIDES: TRAINING REQUIREMENTS.

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for

Roadside Conservation Committee

July 1990

1. INTRODUCTION.

The document "How to Identify Dieback on Roadsides" was prepared to allow relatively unskilled people to search for and report on possible dieback infections on road verges. It was prepared because the detection of dieback routinely and accurately requires considerable skill and experience, and it is unlikely that the resources will be available to use skilled people to carry out even a small fraction of the surveys required on road verges. Consequently it is necessary to turn to volunteers and other interested people.

It can be expected that unskilled observers will fail to detect a significant proportion of dieback infections, and will also report numerous other causes of damage as possible dieback. The reporting of false positives is a problem because follow up work involving expert study and particularly sample testing will be expensive and time-consuming.

Despite these limitations the need for more comprehensive surveys is urgent because little is known about the distribution or impact of dieback outside the jarrah forest and the south coast.

There is no doubt that the people who use these procedures will generate useful results. The main limiting factor in applying the procedures is the need for extensive practical experience.

Procedures for how this experience could be gained are discussed here, and some of the problems involved are also described.

2. SELECTION OF PEOPLE TO USE THE PROCEDURES.

Although no previous experience with dieback is assumed in the instructions, the ability to recognise various plant groups is necessary. This cannot be taught in a short time, and people selected to use the procedures should already have this ability.

The procedures also require the following abilities:

- Being able to see dead or affected plants as well as live ones,
- Being able to recognise recent fires in vegetation,
- Being able to describe vegetation in a comprehensive way, including general condition,
- To have some knowledge of soil and drainage patterns, and particularly how these relate to vegetation patterns and natural edges in vegetation,
- To have some knowledge of the appearance of vegetation affected by other factors such as salinity and fire, and
- Have some ability to make a realistic assessment of the conservation values attached to a site.

These requirements mean that the ideal person will have a good ecological understanding of vegetation and not just the flora. It is far more useful to be able to recognise vegetation and species distribution patterns rather than to be able to identify large numbers of species. A good dieback observer can always get someone else to identify plant specimens, and identificatio to species level may well not be necessary to describe a site adequately.

The requirements described here are not essential qualifications, however people should be selected to meet as many of these as possible.

Experienced naturalists are the obvious candidates for training because they already possess many of these abilities. Within governmental organisations, there are likely to be suitable people with an interest in vegetation.

Other people may be very useful. Important new discoveries in the extent of dieback have been made by an observant CALM Reserves Officer with no previous experience of dieback, and a beekeeper who had only been told to look out for suspicious groups of deaths of certain plant groups. It is likely that these people simply had the experience of long hours observing in the bush.

Local experience with the vegetation is a major benefit in searching for and recognising dieback. As far as possible, people should be selected to work in areas where they are familiar with the local vegetation . An experienced dieback observer can be expected to deal with unfamiliar vegetation, but this should be avoided for people trying to use the procedures described here.

The final requirement for users is that they have some demonstrated commitment to carrying out the work. The training required to produce competent observers will be significant in terms of the input needed from the RCC, and it will be essential that the effort put into training is not wasted.

3. SPECIFIC TRAINING.

The ability to see dieback infections depends primarily on experience with real situations. Even where dieback was severe on the south coast it was not recognised by even very experienced botanists because they did not know what to look for, and so were not looking for it. Now that the pattern is well known, it is easily recognised by people who cannot understand why everybody else could not see it years ago.

This experience can only be gained by going out and looking at a range of situations, and methodically working through the information which leads to the best conclusion possible.

The formal training of the selected people should consist of a guided tour of a series of sites which would illustrate the application of the procedures.

A suitable series of sites would be:

- A range of impacts from severe to minor,
- A range of vegetation types,
- A range of topographical situations, and
- A series of impacts not due to dieback.

A formal training programme would need to be developed. The following is probably a realistic format:

1. An introductory talk/slide show covering basic information and organisation, and introducing the package and its use,
2. At least two one day field training sessions recording the range of sites listed above, and
3. Some sort of testing to establish that the person is ready to work on their own or as part of a small group.

It would be desirable for the people to have regular access to expert opinion so that they can obtain new information, ask questions, obtain feedback on their work, and have the option of having their work checked if they are uncertain about their decisions.

4. SELECTION OF AREAS FOR TRAINING.

There are two competing uses of the dieback recognition procedures:

1. In areas where dieback is known to be a problem, the need is to recognise existing infections so that appropriate environmental management can be applied. In most cases considerable information is already available on recognising dieback and the appropriate management could be constructed quickly.

2. In areas where dieback is not known to be present or little is known about it, the priority is to gather basic information on possible infections. A response can then be considered.

The RCC will need to draw up priorities in how its resources are to be used in carrying out dieback surveys.

The difference between these types of areas can be striking. For example, on the south coast dieback is so common that realistic management is sometimes impossible, while in the northern sandplains dieback is a recent arrival and it is feasible to develop a regional control strategy which may be effective in protecting large areas. Along the eastern edge of the area thought to be infected by dieback almost nothing is known about the distribution or impact of the fungi, and information from this area would be of great interest.

High priority could also be given to areas of particular conservation interest where dieback is known to be a threat or would be a threat.

The two types of areas described above require different approaches and it would be desirable to select people to specialise, rather than attempting to turn all the people into experts on all areas. This will also give the scheme a more realistic chance of success with volunteers.