

ON 22nd April 2002 a Field Day and Workshop was held in York on the initiative of the York LCDC with the support of the York Shire. It was held because of concern about the serious and growing problem of Wandoo Crown Decline. The day was attended by upwards of 60 people representing various interests from the locality and neighboring districts such as Beverley and Toodyay.

In the morning damage to wandoo forest and roadsides was inspected. In the afternoon workshop, we were regaled with explanations of work done so far, none of which seemed to come near the root of the problem. It does seem that sporadic attempts have been made over the past twenty years to pin the problem down but in cold hard facts no one has come up with anything better than to say the trees are suffering from the effects of various environmental stresses.

So many of the 'theories' about environmental stresses being the cause of the problem can be disproved by the perfect health of trees which have suffered all the same environmental stresses and yet remain unaffected and in beautiful condition. Should these trees finally become infected by transition of the condition, this argument would disappear, so locations should be noted now.

The wandoo forest flanking the road from York to Perth is an illustration of the problem. All across the forest, as far as the eye can see, all the upper branches are bare and dead. This is where the flowers happen. So there will be no flowering, or fruiting, or nectar, or pollen. All creatures large and small who rely on this productivity have lost their living and cannot be expected to survive. Many forest inhabitants are endemic in their own trees or plants or even their own piece of ground litter. The number of extinctions that are a likely result make a mind boggling scenario - the ecosystem, or large parts of it, must die.

FLORA

WANDOO WORRIES

Joanna Seabrook



The future

It is too soon to say what will happen to these trees in the future until we can discover what has happened to trees that have been examined in the past. Is there recovery, is the problem cyclical and if so does it remain to attack again? A huge amount of research is needed to answer these sorts of questions.

I can say that in my journeyings up and down the road I can notice that there is quite a lot of releafing going on but there are also damaged trees showing no sign of any recovery, so at this stage it is impossible to quantify anything. I would like to rule out drought as I think Australian plants are built to survive such conditions. I am convinced that we must look for a pathogen and a vector.

Professors Jonathon Majer and Harry Recher have studied the relationship between trees, invertebrates and birds, showing how interlinked everything is. The work clearly shows that many of the

myriad inhabitants of trees (arthropods eg) are exclusive to the trees they live on so that the loss of tree cover in any one place means the loss of all this invertebrate life which carries through to be the loss of the birds that feed on them and the pollinators amongst them, etc.

Besides problems with Wandoo, we know the Tuart, Flooded Gums and other trees are also subject to severe decline. How can we understand the enormity of the potential consequences of the loss of canopy we may be faced with, unless somebody does some research now?

There is a great resistance to taking the possibility of disaster seriously enough to do something about it. No one likes to be thought an alarmist, including me. One of the great needs I see right now is to collect and safely store seed of the native species of plants. We should examine all of the species under threat be it of disease, drought, salt or insect predation, and collect seed from those individual trees which seem most able to resist the particular threat. Not just a little but bushels of it. Why aren't we doing it already? Ref: "One Humble Gum Tree" J. Majer and H. Recher. *Geo*, December 1996

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Wandoo decline survey

Ecologist Jack Mercer, who is based in Albany, has recently conducted a survey across the wandoo belt, to attempt to establish whether there is a pattern in the expression of Wandoo decline. His analysis should be completed soon, and we hope to bring a precis of his conclusions to you in a future issue of *Western Wildlife*.

Nb: LFW understands that UWA has recently received some funding to study Wandoo decline - Ed.