Insects and Tuart health.

Abstract

A convenient method of defining Tuart ecosystem health is to use the health of Tuart as an indicator of ecosystem health. While this is perhaps a narrow indicator, it allows discussion of insects as threats to Tuart health in the context of broader models of ecosystem functioning.

While many species inflict damage on Tuart, few insect species could be considered as direct threats to Tuart health. These species include: Tuart Bud Weevil *Haplonyx tibialis*, which damages flower buds and poses a potential threat to canopy seed pools; pasture derived leaf feeders which damage young Tuart in early regeneration or afforestation plantings; and stem girdling wood and cambium feeders.

Tuart leaf area can be considered as an equilibrium between leaf area production and leaf area loss. During Tuart decline new leaf production diminishes and defoliating processes become important. The characteristics of Cerambycid stem borers can result in a contribution by this group of insects to defoliation.

The difficulties of separating damaging insects from those which threaten Tuart health is explored by detailing the principle wood/cambium feeders found at Yalgorup during the Tuart decline event.

P. acanthocerus. Borer of large stems and tree trunks. Rarely cases defoliation. Symptoms of stem boring more visible in stressed trees?
Bimia bicolor. A rarely collected branch borer common at Yalgorup. Characteristic species of mature tuarts?
P impavida. Borer of saplings and branches. Probably contributes to net leaf area loss in when new leaf production rate is slow.
P. semipunctata. Stress opportunist: preferentially attacks stressed and felled Eucalyptus spp. Variation in both susceptibility and attractiveness of stressed hosts. Little evidence of mass attack by *P. semipunctata* at Yalgorup.

The abundance or absence of symptoms of some of these species may provide indications of the state of Tuart health at in other Tuart stands.

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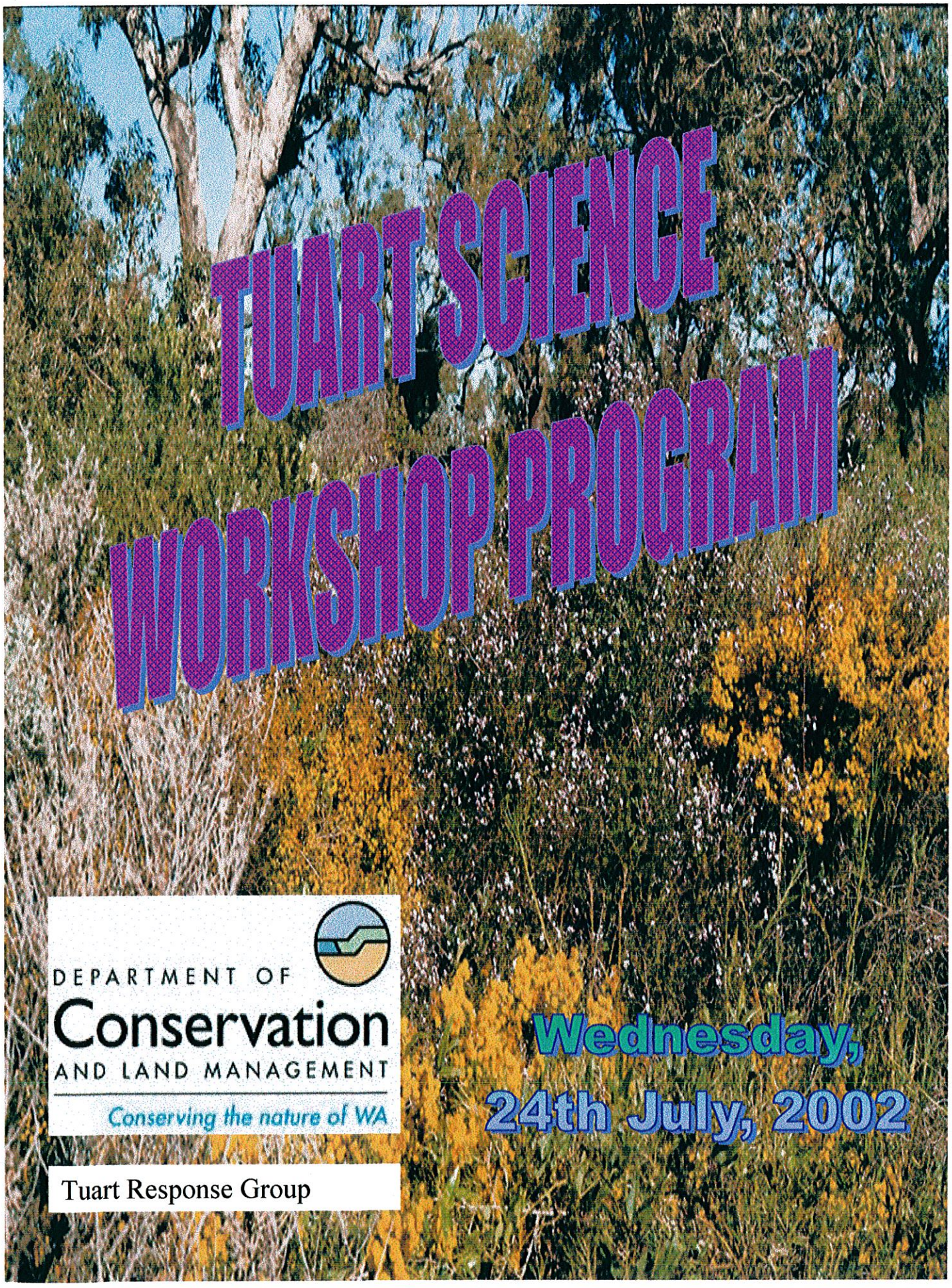

TUART SCIENCE WORKSHOP PROGRAM

DEPARTMENT OF
Conservation
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Conserving the nature of WA

Wednesday, 24th July, 2002

Tuart Response Group