

REVEGETATION

HEALTHY ECOSYSTEMS – INLAND WANDOO WOODLAND CASE STUDY WYALKATCHEM NATURE RESERVE

Liz Manning and Teagan Smith

On the 23rd March a group of people converged on the small town of Wyalkatchem to take part in the Healthy Ecosystems workshop. The message behind the free community information day was to raise public awareness of woodland decline, highlight the importance of protecting remnant vegetation and demonstrate the role that fire can play in maintaining balanced and functional woodlands.

The Shire of Wyalkatchem and the Land Conservation District Committee hosted the event while the Department of Environment and Conservation's *Land for Wildlife* and the Wandoo Recovery Group designed the workshop, with support from WWF – Australia.

The workshop evolved out of Penny Hussey's keenness to show people a brilliant example of fire in inland wandoo (*Eucalyptus capillosa*) woodlands and how it affects the vegetation community composition. Penny had personally been on site a few days after the fire in 1998 and had documented the initial damage caused by the fire which was accompanied by photographs. In spring 2005 Penny returned to the site to evaluate the changes over time through photographic monitoring.

The workshop covered a number of topics in addition to fire, including the importance of woodlands and woodland decline. The latter is the particular concern of the Wandoo Recovery Group.

A tremendous amount of information was delivered on the day in relation to woodlands being more than 'just a stand of trees'. They provide many important resources including habitat and food sources for many fauna, recreation, enjoyment and visual beauty, successful pollination of many plant species and windbreak



Eight days after the fire, 30/11/1998.



A line of wandoo saplings on the ashbed, dense shrubby plants elsewhere, 15/09/2005.



The area that was burnt starts at the flowering shrubs, foreground unburnt for at least 60 years. 15/09/2005.

and shelter for stock. Healthy ecosystems comprise a suite of components that interact to keep the system functioning. Co-occurring species such as sedges, rushes, liverworts and fungi are important indicators of a healthy system. A healthy cryptogam layer on the surface of the soil (soil crust) ensures that the soil has a suite of micro-organisms which are extremely important for plant growth. Salinity, weeds, climatic change and tree decline threaten woodlands and biodiversity richness in general across the entire region. Protecting our remaining woodlands and recognising their tremendous value is crucial if these last stands are to survive intact for future generations to enjoy.

Feedback from participants showed the excursion to Wylie Nature Reserve to be the highlight of the day. The practical experience of utilising one's senses to look, listen and feel is by far the best method of learning and appreciating the bush. Participants visually observed the complete change in vegetation composition between the areas burnt and those unburnt. It was noted that areas that were not burnt were predominantly low understorey vegetation with a mixture of grasses and herbaceous species, interspersed with mature wandoo. This was

in stark contrast to where the fire had passed through, with a definite line of transformation, which displayed a low dense shrubby understorey, many of which were nitrogen-fixing plants such as *Acacia* and *Gastrolobium* species, with dense clusters of regenerating wandoo growing on the ashbeds. Wandoo regeneration is triggered

Wandoo and fire

by fire and ashbeds are nursery sites for germination of the seed that falls afterwards. Close to the burnt out stumps where the ashbeds were deepest, the wandoo saplings were tallest. This illustrates that regeneration on ashbeds can be a practical and cost effective method of revegetating areas of wandoo.

Lessons learnt

Always be aware of and look for change. Use your observations to monitor and evaluate the health and quality of vegetation.

Appropriate fire management techniques are guided by the size of the remnant, location, time of year that burning will be carried out, fuel litter load, species present, weed invasion and the seed bank present.

Community days such as this are terribly important as a means of getting together with people, to talk and learn from each other in a way that is friendly, inspiring and memorable.

Liz Manning is the Executive Officer of the Wandoo Recovery Group, contact lizmanning@bigpond.com. Teagan Smith is Project Officer with DEC's Western Shield programme.