

Working Together

I will begin this final Conservation News column for 2005 by thanking all staff for your dedication, enthusiasm and contribution this year, the 20th anniversary of CALM's establishment.

Once again it has been a busy and demanding year right across the Department's broad range of activities. While last year finished with a flurry of new national parks in the south-west forests, and new and extended marine parks, this year has been more one of consolidation and ongoing delivery of our core functions.

Nevertheless, there have been a number of highlights – our performance in the January fires; the rollout of our expanded visitor facilities program in parks; the Government's go-ahead for the new biodiversity science centre and herbarium; release of the draft Good Neighbour policy; the strengthening of Western Shield; and the initiative to deploy conservation employees from the south-west to assist in projects elsewhere in the State.

Across these and all other areas, I believe CALM staff can be proud of their contribution to conservation and to the community of our State.

Together with the Minister for the Environment, Dr Judy Edwards and my colleagues on the Department's Corporate Executive, I would like to extend to all our staff, Conservation Commission members and staff, Marine Parks and Reserves Authority members, and our many volunteers and partners, my best wishes for a happy and safe Christmas and New Year.

Keiran McNamara
Executive Director



Dieback – the biological bulldozer

TAKE a look at the plant on the right – the endangered mountain dryandra (*Dryandra montana*).

Dieback is driving it to the brink of extinction. Less than 50 plants exist on the mountain tops of the Stirling Range National Park – and they're found nowhere else in the world.

A seed orchard has been established under the direction of CALM's Threatened Flora Seed Centre to increase the number of plants.



The seed orchard site, with the Albany rare flora recovery team. Pictured in the front row (left to right) were Anne Burchell (Porongurups), CALM Assistant Conservation Officer, Renee Hartley and CALM Threatened Flora Officer, Sarah Barrett, and back row (left to right) Merle Bennett from Ravenshorpe, CALM Land for Wildlife Officer, Sylvia Leighton, Judy Giles from Mt Barker, Linda Strahan and Sue Osborne from Ongerup, and CALM Senior Research Scientist and Manager of CALM's Threatened Flora Seed Centre, Anne Cochrane. Photo – Sarah Comer

Dieback threatens more than 3000 species and subspecies

WORK by CALM scientists Bryan Shearer, Colin Crane and Anne Cochrane published in the Australian Journal of Botany shows that *Phytophthora cinnamomi* dieback is threatening more than 3000 species and subspecies of plants in the South West Botanical Province – Australia's only global biodiversity hotspot.

The botanical province stretches from Shark Bay to Israelite Bay, east of Esperance, extending to the west coast. It is full of ancient flora and relict species found nowhere else on Earth.

Dieback is particularly aggressive in the south coast region around Albany. In the Stirling Range National Park, 1517 plant species are threatened by dieback.

Dieback is a soil-borne pathogen spread by water and root to root contact, killing the plants by forming lesions on the roots and

by Dave Coates and
Sue McKenna

stem, destroying both.

The potential long-term impacts of dieback involving broad-scale habitat loss and the extinction of numerous plant species have been dramatically described on a number of occasions. In a joint publication of the Dieback Consultative Council and the World Wide Fund for Nature, dieback was referred to as the 'biological bulldozer'.

CALM models show that in the year 2181, there will be very few areas of the South West Botanical Province that remain free of dieback.

In the jarrah forest region, north of Preston River, 784 plant species are now threatened by the disease, with another 1313 being threat-

ened in the Swan Coastal Plain.

The presence of dieback also causes a loss of habitat for fauna, changing the vegetation structure and reducing protection from predators. It also causes a loss of food resources.

In the past 15 years, the fungicide phosphite has been successfully used to reduce the spread and impact of dieback in small infested areas such as the Bell Track in the Fitzgerald River National Park and sections of the montane heath communities in the Stirling Range National Park.

It can be applied to trees through injections in the trunk, or aerial or ground spraying of whole plant communities.

Although phosphite has proved to be successful in localised control of the disease, particularly in threatened plant populations and threatened ecological communities, there is increasing recognition that further research is

needed to improve knowledge in relation to soils and rates of spread, susceptibility and alternative methods of control that may lead to more effective management of this devastating disease.

Conservation News December 2005

Published by Department of Conservation and Land Management Strategic Development and Corporate Affairs, Cygnet Hall, (cnr) Mounts Bay Road & Hackett Drive, CRAWLEY, Western Australia 6009

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