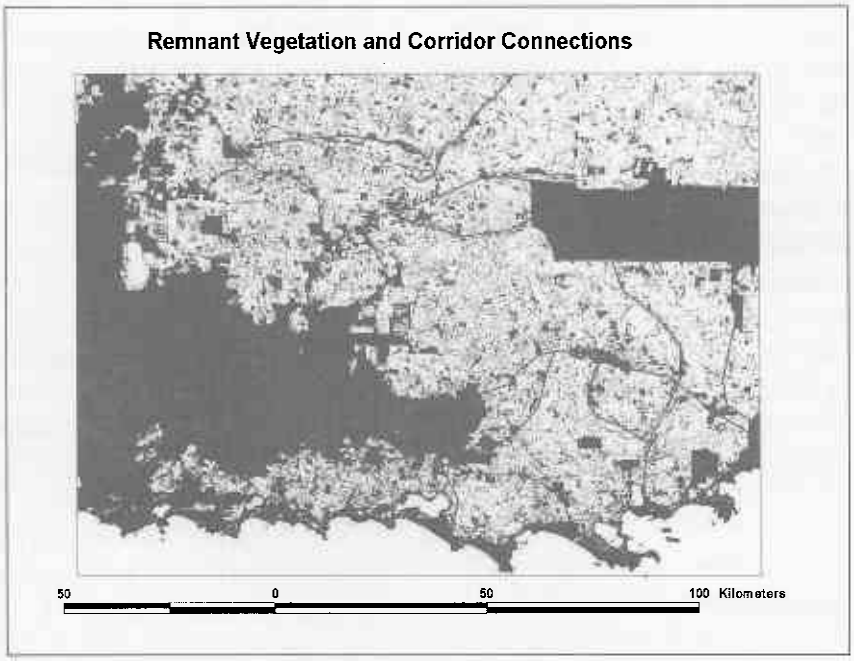
REVEGETATION

CONNECTING THE STIRLING RANGE TO THE SOUTH-WEST FORESTS

Sylvia Leighton

Recently I attended a seminar promoting a community-based program called 'Gondwana Link West'. The seminar was organised by Green Skills and was held at Kendenup Hall. The aim of the project is to reestablish stronger environmental links between the Stirling Range westward to the southern forests involving landscape-scale conservation works between the Stirling Range, Porongorup, Mt Lindesay and Mt Roe National Parks.

The principal speaker at the seminar was Steve Hopper who is Professor of Plant Conservation Biology at the UWA. His research publications have contributed towards international recognition of the Southwest Australian Global Biodiversity Hotspot. The main message from Steve's talk was to impress upon us not to rely on research from overseas and interstate to provide us with suitable techniques for conservation and land management in the south-west of Western Australia. Many other parts of the word have had recent glacial action resulting in the soils of that landscape being much younger and more fertile than our ancient more infertile soils. He reminded us that unlike those younger landscapes most of our soil fertility lies only in the top 5 centimetres.



'Macro-corridors' and potential 'Gondwana Link East'.

Steve Hopper explaining ecological interactions. The bushland is recovering from a very severe wildfire – note that the grass is mostly native species, which are natural pioneer plants after a major fire.

Our landscape has been unglaciated since the Permian (270 million years ago (my)), it has been oceanically buffered since the Jurassic (150 my) and is a relatively stable landscape with few mountains. It experiences a Mediterranean climate and is dominated by old, weathered nutrient deficient landscapes, yet it is floristically rich with high endemism.

Our plants have evolved many extraordinary physiological features over thousands of years to deal with this difficult landscape. Steve provided examples of some of the special root adaptations many of our plants have developed to survive in these extremely infertile soils. Some have set up root adaptations like cluster roots (see WW 9/2), others have developed nitrogen producing nodules using bacteria to convert nutrients (WW 4/3) whilst others have established symbiotic relationships with fungi to absorb extra nutrients from the soils (WW 2/2, 3/3, 6/3 etc).

Steve also reminded us not to be tricked into assuming that plants with similar physical features and appearance belong in the same taxomonic group. Our local native plants have indicated many times over that this is not the case (hence the continuous taxonomic name changes we have to deal with). He

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provided the example of the kingia grass tree (*Kingia australis*) that was assumed to be related to the balga grass tree (*Xanthorrhoea* spp.) because physically they look quite similar. However taxonomists indicated that the genus *Kingia* was actually more closely related to the *Dasypogon*, *Calectasia,* and *Baxteria* genera and they were all placed in the Order Dasypogonales. Recent DNA and fossil research has dated the Dasypogonales back to 120 million years and the Order is not related to any of the plant Orders in existence today!

Other speakers at the workshop were Wendy Bradshaw (Greening Australia), Simon Judd (Wilderness Society), Keith Bradby (Gondwana Link East) and myself (DEC *Land For Wildlife*) each providing different input on other aspects of land management.

The morning's sessions were followed by a bus trip to look at key 'stepping stone' bushland remnants and inspiring revegetation works on farms adjacent to the Stirling Range NP. We were privileged to be able to visit *Land For Wildlife* members Eddy and Donna Wajon's property. Unfortunately their beautiful wandoo woodland was burnt out by the Tenterden fires three years ago but they have been doing some inspiring weeding and habitat restoration to assist the property to regenerate back into previous healthy condition. Of particular interest were the nest boxes they have installed for the Carnaby's Cockatoo. Just getting these large nest boxes up into the wandoo trees is a challenge in itself. The property provided a great opportunity for lots of discussion, so thank you to Eddy and Donna for allowing the large group of seventy workshop participants onto their property. The Wajons had provided water baths for each participant to clean their shoes of dieback spores (*Phytophthora cinnamomi*) before we entered their bush block.

It was a great day. Look out for further updates as the Gondwana Link West project develops.

Sylvia Leighton is LFWO at Albany

Many readers will already have heard that Prof. Hopper is leaving WA to become Director of Kew Gardens in England - arguably the most prestigious position a botanist could hold. Steve has always been supportive of *LFW*, speaking at Field Days and writing articles, and I am sure all *LFWers* will join with me in wishing him every success in his new position. *Ed.*

Note: Celebrate 10 years of LFW in the Albany area with Prof. Hopper as keynote speaker - Friday 25th August. *See p. 20.*