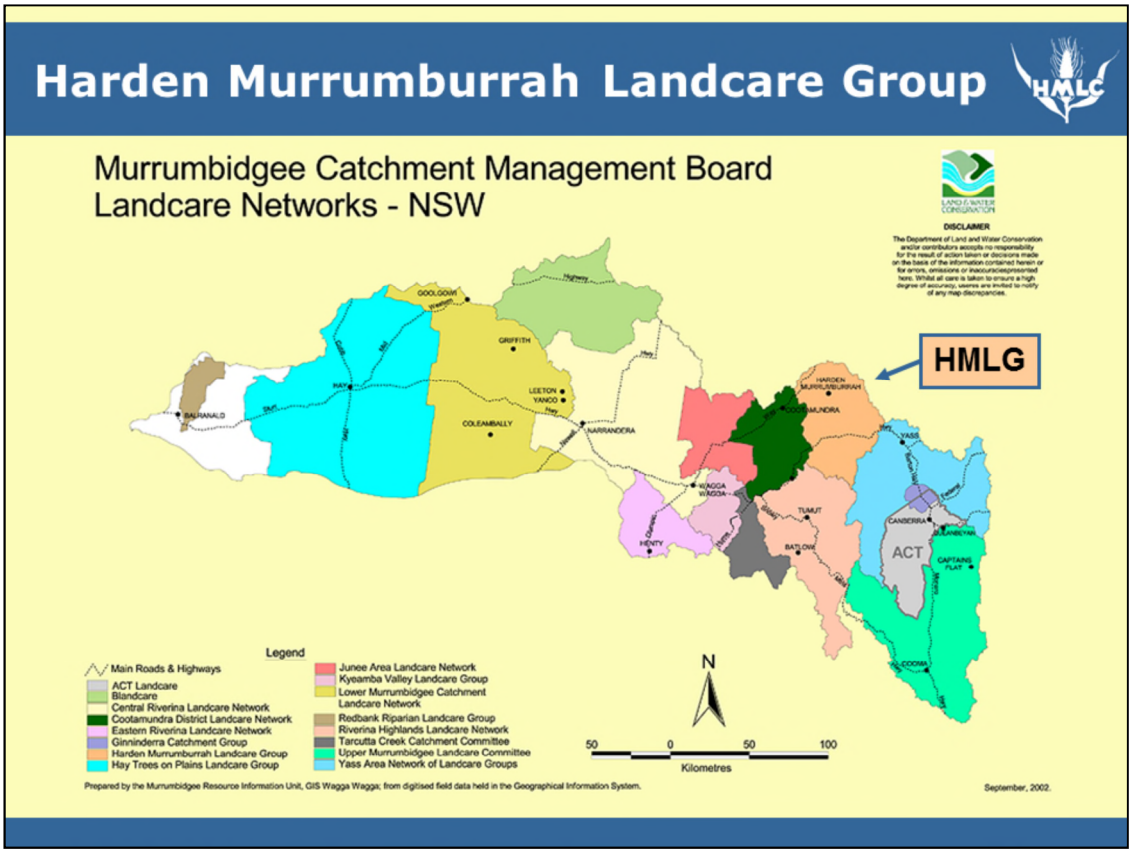


Harden Murrumburrah Landcare Group incorporates the Jugiong Creek Catchment a main tributary to the Murrumbidgee River. Its 250,000ha encompasses the Harden Shire and is substantially a wheat, canola and sheep producing area, making management of base resource a high priority for the 250 members of the Group.

Projects like Greening the Grainbelt, are in keeping with the community desire to protect their resource base and the limited remnant vegetation stands left, HMLG sought information to ensure successful native vegetation establishment..

The Greening the Grainbelt Species List is in keeping with HMLG philosophy of research based projects where the group seeks out information, disseminates and facilitates the uptake of the research.

HMLG was formed in 1989 to tackle weed infestations, soil structure and tree decline. It has focused on research to understand the issues before attempting any remedies to manage them.

"Greening the Grainbelt"

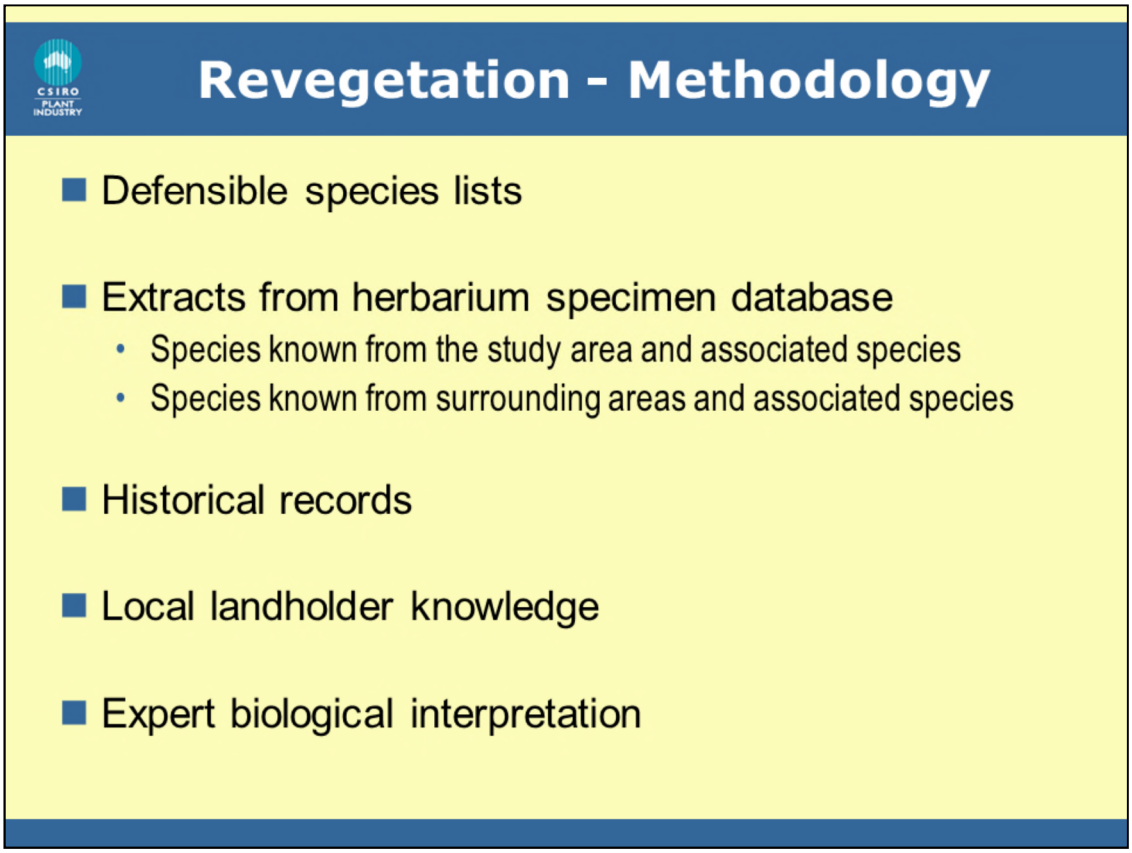
- The Harden Murrumburrah Landcare Group Revegetation project supported by the NHT
- A pressing need to revegetate the area
- Currently less than 3% native vegetation remaining in Harden shire
- Concerns relating to appropriate species to plant
- Approached Australian National Herbarium to produce a planting list based on suspected natural flora

A concern of the group relating to tree decline was the seemingly automatic selection of a particular species for a specific situation – ie a river red gum for a wet spot - and without a variety of other species they have become subjected to severe insect attack, in particular lerps - if this were to continue within a number of years the trees would surely die.

With the importance of native vegetation in the landscape recognised, the significant lack of vegetation across the Harden Shire needed to be addressed. A joint project between Harden Shire, ERIC & HMLG saw a satellite image taken, ground truthed by members and the revelation that only 2.83% original vegetation cover remained.

The question was what to plant to ensure that the investment in revegetation made by landholders was successful. A planting list had been developed in 1990 but was unsuitable with a number of exotic species having been included, local knowledge had dissipated and ground truthing had limited use.

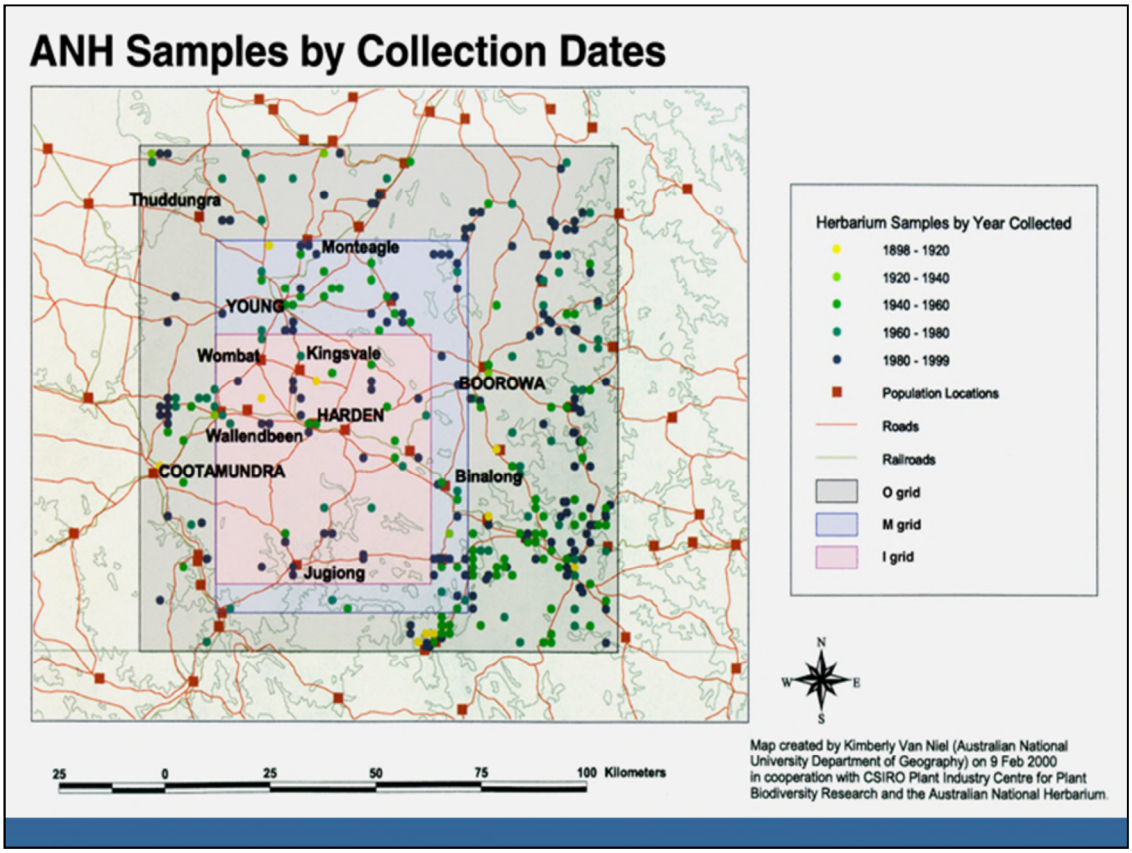
So we approached the Centre for Plant Biodiversity Research to see if they could help with respect to the plants that we should use to assist with reconstruction of the plant communities – we wanted to do more than "to just plant trees".



After raising this dilemma with the Centre they felt they could provide us with support from data held in the Australian National Herbarium, a scientifically defensible appropriate list for planting. They would list suitable planting species and provide information on the appropriate environments required for successful establishment.

So they derived the species list by integrating their herbarium specimen database of plant records on geographic coordinates to find what plants had been collected, searched historical data, like explorer's records and farm sale catalogues, undertook limited ground survey and used field notes to identify soil type, habitat and associated species as well as cross checking with noxious weeds lists to produce a list of 400 species.

This was a very collaborative process with incorporation of local knowledge and further interpretation with expertise on the ecology and biology of some of the species.



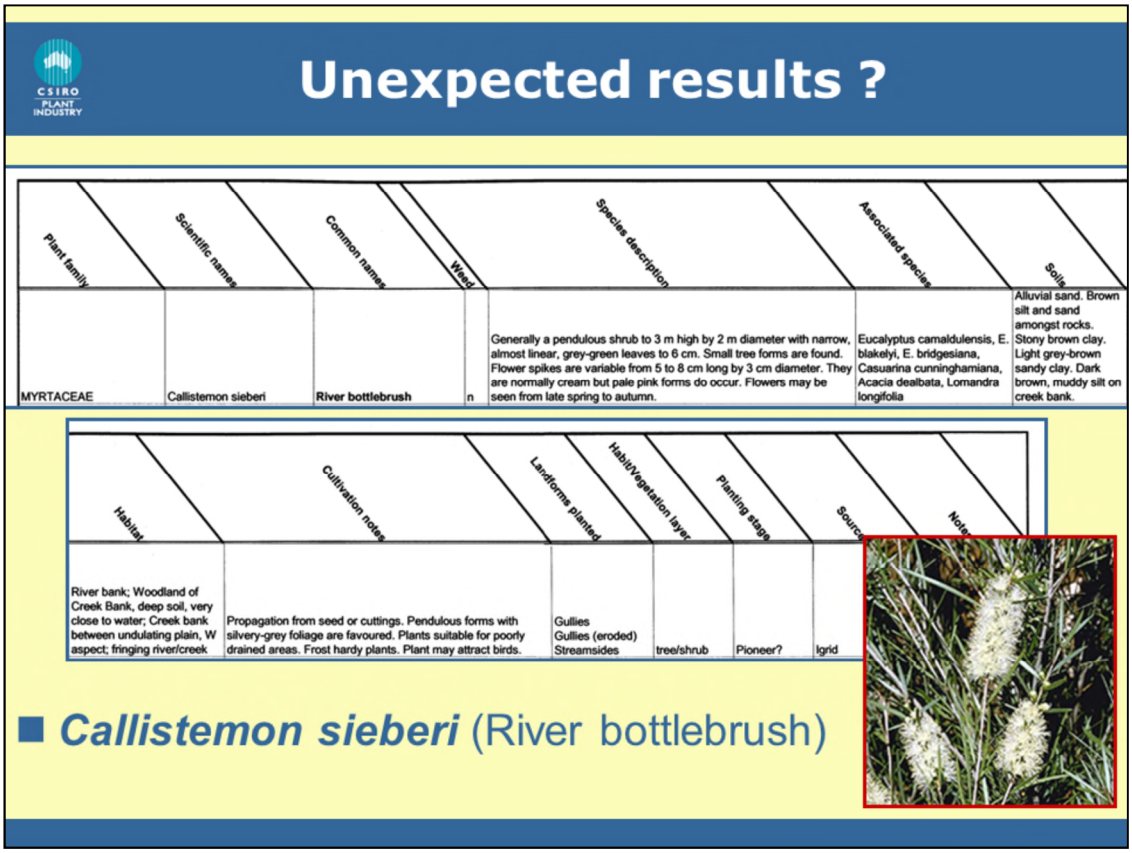
The different grids on the map – where the dots indicate the sites where specimens have been recorded (the oldest collection being 1884) – show that with progressively larger grids and incorporating slightly different habitats which the farmers knew had similar soil-types and environment as sites within the Harden shire (the inner pink grid), we were able to develop a more comprehensive and appropriate list of species.

Originally the Landcare group felt that they wanted to be able to produce a brochure providing landholders with suggested species for planting in particular land and soil types. As the project developed and the community worked with the scientists, the Committee felt if this brochure were to be produced we would be in the same position as before with a limited number of species being planted limiting diversity and creating monocultures subject to disease and isolation.

As a result the complete set of data has been made available on the web, on disk for those whose internet connection doesn't allow such a large file to download, or are not connected, and as hard copy.

The excel spreadsheet was developed and can be sorted according to need - here we searched for those species suited to grow in gullies and came up with a fairly long list of options, including this river bottlebrush **[SLIDE]** and this heathy bushpea **[SLIDE]** .

This large database has proven to be a bit complex and difficult for some members to use and a compromise is yet to be found, - perhaps a chat with Telstra and their internet speed could fix it, but more likely a project we hope NHT2 may be able to help with.



It was interesting to find a few surprises in the species list – the bottlebrush I mentioned – *Callistemon sieberi* – was one of those ….

This is an extract from the database showing there is lots of information about that species – including

- where it normally grows
- soil and landform types
- and ways to cultivate it

It seems that this species may be useful in riparian areas.

There were also some interesting absences - some HMLG members wanted to plant the trusty melaleucas and banksias as they knew they grew well in the area – to all of our surprise it turns out there has never been species of melaleuca or banksia occurring naturally in the area.

Greening the Grainbelt – Outputs & Outcomes

- An improved suggested planting list – 400 species Greening the Grainbelt website
- Encourages a greater diversity of plantings
- A practical & transferable model methodology for other Landcare revegetation projects

www.anbg.gov.au/greening-grainbelt/

There have been several important outputs from this project …

It is hoped that once this process is fine tuned it will be easy for other groups to use this methodology and to access their historical data and form their own Species lists to provide correct information to restore their native vegetation and encourage the planting of a much more diverse selection of species than is currently the practice, by ensuring appropriate plantings there will be a greater chance of survival

This project was not designed to reproduce the original density of vegetation cover, although historical data was sought, but to ensure that the community has the best possible information available so that when they plant “they stick the right plant in the right spot” ensuring its survival, catchment benefits and financial returns on monies investing in management and revegetating of our current environment.

We have included local nurseries in the development of the Species List and encouraged them to use this list to widen the diversity of the plants they propagate, enable successful establishment and include a broader range of plants in their recommendations to clients.

Greening the Grainbelt – Outputs & Outcomes

- Significant interest in the process from Government and other Landcare groups
- Enhanced community awareness of biodiversity & conservation issues
- Demonstrates the utility of herbarium specimen data in environmental planning


Harden Murrumburrah
EXPRESS
THURSDAY, NOVEMBER 2, 2000
$1.10*
Landcare lends a hand

The project attracted quite a deal of media attention and it clearly demonstrated the application of the herbarium data to environmental planning - it was part of the stimulus for the Federal Environment Minister to support the AVH, as Jim has already talked about

In finishing I believe that in attempting to revegetate catchments, enhance and create future environments it is vital that we consider all aspects being

- •The community understands and acknowledges the need for rehabilitation
- •Education and awareness is ongoing
- •Research is continually communicated to the community and its uptake encouraged and supported.
- •A balance between this and economic viability is found

The community needs to continue to work as a community with government and scientists and not in isolation, to ensure economic, environment and social survival …

so that we together establish successful and viable native vegetation