

‘Oh for the love of Banksia trees’

Bring Back the Banksias & Friends of the Forgotten Woodlands

Silver Banksia Information Workshop at Lake Bolac

A recent workshop was held on February 24, 2017 at Lake Bolac, Victoria to provide an update on progress of various Silver Banksia (*Banksia marginata*) research and restoration projects on the Victorian Volcanic Plains (VVP) and beyond.

By sheer coincidence it was the 274th anniversary of Joseph Banks’ birthday in 1743, adding to the significance of a day that focussed on the issues of Banksia decline, genetics, and ecological understanding.

The workshop, organised by Aggie Stevenson from Glenelg Hopkins Catchment Management Authority (GHCMA) and Friends of the Forgotten Woodlands (FoFW), and Martin Driver from the Australian Network for Plant Conservation (ANPC), brought together almost 70 interested people from across Victoria and interstate including landowners, landcare practitioners, seed collectors, nursery suppliers, propagators, researchers, project officers and consultants.

The aim of the workshop was to showcase recent happenings with Silver Banksia research, mapping, genetics and seed orchards established to encourage efficient propagation and reverse decline of the species.

Dr Adam Miller from Deakin University, Nature Glenelg Trust and FoFW reported on his preliminary findings on the genetic structure of the scattered populations of Silver Banksia populations on the VVP. With funding provided by the GHCMA through the Australian Government’s National Landcare Programme, Dr Miller and FoFW have collected samples from 22 selected Silver Banksia populations across the VVP. Encouraging analysis results from the collection indicate the problem can be overcome.

Dr Miller’s work indicates remaining populations on the plains have a relatively even genetic spread. This genetic distribution is consistent with the previous widespread but patchy distribution, and long lifespan. Past clearing and continuous grazing has prevented regeneration in most populations.

Dr Miller explained it is genetically concerning that Silver Banksias have become confined to small fragmented populations and individual plants. “However, all is not lost. It hasn’t been left too late to turn things around. There’s still lots of hope,” Dr Miller told the gathering. “There is still enough genetic diversity in existing populations to prevent species extinction,” Dr Miller said.

However, he explained that to bolster the gene pool and grow populations, smart genetic management and intervention is required. “We need to move genes around to maximise genetic diversity and the adaptive capacity of local populations. Genes doing well in the past might not necessarily do well in future. Genes from some non-local sources may do better,” Dr Miller explained. “There’s a need to mix things up and let natural selection then happen”.

This positive news demonstrates the importance of establishing Seed Production Areas (SPAs), and combining and capturing existing diversity for future seed production and restoration projects.

Dr Steve Sinclair from Arthur Rylah Institute and FoFW presented historical evidence of past distributions of Silver Banksia and other woodland species, highlighting the level of decline that has taken place since European settlement and pastoralism. Possible threats contributing to the decline of this keystone species include livestock, rabbits, superphosphate intolerance, fungal disease, pollination failure, frequent burning, drought, as well as issues arising from kangaroos, black cockatoos and phalaris.

Simon Heyes from LaTrobe University outlined his initial research work on site population age class structures across the range of Silver Banksias on the VVP. His project has collected demographic data and will scientifically analyse possible reasons for the decline of Silver Banksias. Again this presents a positive outlook; mostly there has been at least some scattered regeneration across the sites sampled. This work raises some questions about seed production, ecology and constraints on field regeneration.

Speakers Will Ford (Trust for Nature, NE) and Cathy Olive (Euroa Arboretum) explained how the Silver Banksia populations in north-east Victoria and Goulburn Broken CMA are seriously depleted. Restoration efforts can no longer depend on remnant populations and growers need to outsource seed supplies. Will outlined a new project that will follow the genetic review process of existing populations in conjunction with North East CMA, Wooragee Landcare and Norman Wettenhall Foundation. Cathy outlined the history and management of the Silver Banksia seed production project and the future inclusion of further north east seed populations.

Bill Weatherly and Tim D'Ombra talked about the formation of the FoFW group and its role in initiating on-ground restoration projects and seed production sites for Silver Banksia. To get approval for the establishment of seed orchard sites along roadsides, it has been critical to gain support from adjoining landholders and the Country Fire Authority, as well as partners, including VicRoads. FoFW have established five seed orchard sites on both private and public land where Silver Banksia as well as Drooping Sheoaks and Sweet Bursarias are being planted and records of seed sources kept.

A key milestone for FoFW has been the development of a central Silver Banksia database to be used for the co-ordination of seed collection and seed orchard development planned across Victoria. The database will store all population and location data collected for *Banksia marginata*. Martin Driver called for other Catchment Management Authorities to get on board.

Acknowledgment was paid to the value of restoration work done in the 1980's by Liz Fenton, Rod Bird and others at sites like Lake Linlithgow near Hamilton.

A concluding workshop segment identified the need for a co-ordinated and planned approach, resolving to investigate the extension of Silver Banksia genetic works into North Central, Gippsland and Wimmera CMAs, and South Australia. It was also resolved to seek further funding from the Norman Wettenhall Foundation for Bring Back the Banksias project communication and to investigate a future workshop information series including the Friends of the Forgotten Woodlands.

For further information on presentations please contact Martin Driver, ANPC, projects@anpc.asn.au or Aggie Stevenson, GHCMA, a.stevenson@ghcma.vic.gov.au

Thanks go to Aggie Stevenson, Bill Weatherly and the range of project sponsors and supporters that made the day possible, including the Norman Wettenhall Foundation.

Katrina Weatherly, GHCMA and Martin Driver, ANPC