



INSTITUTE OF FORESTERS OF AUSTRALIA



22 Aug 2018

## Institute of Foresters of Australia / Australian Forest Growers Conference

### FIELD SESSIONS TUESDAY 4th September

#### NOTE:

- 1) Most sessions will start with session 1 at the National Arboretum of Canberra except session 4 (Farm forestry - east) which is a full day farm forestry session.
- 2) Please dress appropriately for the weather which may be cool or wet requiring warm layered clothing and raincoats. All sessions will require fully closed in footwear.
- 3) Session 4 - Peter Marshall has rightly emphasised that Biosecurity is everything for their family business. They have a diverse farm business but central to this is a very high value truffle business. They are chemical spray free because the use of any fungicides, herbicides etc will impact on soil biology and healthy truffle production (truffles are a fungal fruiting body). As responsible professional organisations, both Australian Forest Growers and the Institute of Foresters expect all members to be conscious of the need for biosecurity protocols to be rigidly observed and complied with on farm visits. It should be routine practice for all of us to be thoughtful visitors to all our work sites and other properties we visit to minimise the possibility of bringing pests and diseases in with us on clothing and footwear or on our vehicles.

The Marshall's have kindly allowed us to visit their family farm and all Conference attendees are expected to comply with the following mandatory protocols:

- (a) Footwear must be scrubbed and sterilised to remove all dust and dirt.
- (b) Backpacks, camera cases etc should also be scrubbed and sterilised. Wipe down cameras and field note books etc with disinfectant wipes. Please leave backpacks and camera cases on the bus.
- (c) All clothing must be freshly laundered so that it is clean on the day of the field session – to eliminate all fungal, bacterial and viral spores as well as any weed seeds etc.

Please clean and sterilise your boots, clothing and backpacks/camera cases before you leave home so that you have clean gear with you for this field session.

Anyone observed to not comply with these protocols will not be allowed to board the bus for this field session.

**Yes! ... we are serious! ... These biosecurity protocols are not optional and will be strictly enforced!**

- 4) For all other sessions please check and clean all clothing as necessary to ensure that it is free of any weed seeds.
- 5) Lunch will be provided for all sessions.



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## **Session 1 The National Arboretum of Canberra (8:00-10:30am)**

**Session leader – Assoc Prof Cris Brack, ANU**

The National Arboretum of Canberra is home to over 44,000 trees growing in 94 forests across the 250-hectare (617 acres) site. While many of the forests are still young, two are almost 100 years old – the historic Himalayan cedar and Cork oak forests. The Arboretum was created after the area was burned out as a result of the Christmas 2001 and 2003 Canberra bushfires. In 2004, the Government of the Australian Capital Territory held a nationwide competition for an arboretum, which was to be part of the recovery from the 2003 bushfires. The winning design by landscape architects Taylor Cullity Lethlean and architects Tonkin Zulaikha Greer proposed 100 forests and 100 gardens focussing on threatened, rare, and symbolic trees from around the world.

The site has been planted since 2005, and includes ceremonial trees planted by visiting heads of government and ambassadors. It was officially opened in February 2013.

<https://www.nationalarboretum.act.gov.au/visit/highlights>

A/Prof Brack will discuss how the geometric form of about 2 – 3 ha “forests” of single species in the Arboretum is unique and provides a substantial opportunity for operational and blue sky research by the surrounding universities (ANU, U.Can and UNSW) and CSIRO. This research includes testing modern measurement techniques (including networks of automated dendrometers, temperature and humidity sensors, sapflow and below-ground moisture and temperature, and terrestrial lasers and UAVs) which has resulted in 3D models of the entire site with each individual tree correctly geo-located, with its height recorded and its canopy parameters (depth, width, volume, colour in visible and multi-spectral bands) and micro-climate conditions “visible” in enhanced or virtual reality images.



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## **Session 2 Management of Canberra Urban Tree Scapes – past and present**

**Session leader: Ms Rachael Dawes, A/Gen Manager, Urban Treescapes at ACT Government**

Canberra has a wonderful history of urban tree plantings in both streets and parklands. This session will start with session 1 at the National Arboretum and then depart from there to look at some of these historic Canberra street scapes and the long-term challenges of managing mature trees. It will also highlight new suburb and urban renewal developments and the particular challenges and opportunities these provide to establish new tree plantings and successfully maintain them. Examples of the benefits gained from urban treescapes and their economic, environmental and social values will be discussed.

The session will take in Dunrossil Drive / the Governor General's property at Yarralumla / Westbourne Woods / Old Forestry School / Weston Park - some drive through and some stops TBC.

After lunch the session will move to new suburbs such as Gungahlin (current issues) and finish in the historic Haig Park in the old suburb of Turner next to ANU.

## **Session 3 Historic Canberra Tree Scapes and the Australian National Botanic Gardens**

**Session leader: AFG Life Member and experienced local Steve Thomas**

This session will start with session 1 at the National Arboretum Canberra before proceeding to the nearby Prof Lindsay Pryor Arboretum. A visit to Mount Ainslie lookout will provide an overview perspective of the extent of Canberra's broad avenue plantings of trees and parklands.

The session will also take in the Australian National Botanic Gardens where participants will partake in an interactive guided tour (1.5 hours; gentle grades) led by one of the knowledgeable Friends of the Botanic Gardens Tour guides. Topics covered may include: the history of the gardens, its research collaborations, iconic Australian species, Aboriginal plant use, Australian plants as food sources ... or feel free to suggest things of interest that the guide may be able to include in the tour.

Finally, Steve Thomas will provide a running commentary on the many points of interest taken in during a drive around the Parliamentary Triangle precinct and ANZAC avenue and the historic avenue plantings that these encompass going back to the vision of Canberra's architect/designer Walter Burley Griffin.



## **Session 4 Farm Forestry - East (Full day 8:00am – 5:00pm)**

**Session leader – Ian McArthur**

### ***Stop 1: Kowen Forest***

Peter Langdon (Forestry Coordinator, ACT Parks and Conservation Service) will talk about managing the development of mountain biking tracks and replanting harvested areas around these as Kowen Forest expands its horizons as a community multi-purpose resource. A dozer blade tip has been used to push in a new mountain bike track before pines are replanted around it this July – September. Other features of interest in this landscape are some locally rare *E. aggregata* trees, and on horizon to south east is Robert Hyles private pine plantation. David Watson has several small private pine wood lots adjacent Kowen at this location too. This site ticks the healthy farms and healthy people interaction boxes.

### ***Stop 2: Marshall Family farm, Reidsdale (south of Braidwood)***

Peter and Kate Marshall and their adult children are well on the way to being one of Australia's largest truffle growing operations. But as most farm foresters discover over time, success is a long journey of learning and accumulated experience. What is clear is that the several farms the Marshall family own and manage are oases of lushness amongst what is generally hard, bony, dry and cold sheep grazing country with a long history of gold mining and abandoned mullock heaps. The home property 3 decades ago suffered infrequent flash flooding and loss of top soil from metre deep torrents raging across it.... enter some Peter Andrews inspired contouring and strategic tree plantings and over time those irregular flood torrents are now only knee deep and the water is crystal clear. Water flows are tamed by detention basins and contours to slow the water down and rehydrate the landscape. The Marshall's have also pioneered the manufacture and use of a Biogeotextile fabric for erosion gully repair and their results are impressive. They have a commercial radiata pine plantation and stress that they have learnt many lessons on tree management to produce truffles. Training of truffle hunting dogs, importing truffle spore, biosecurity, production and use of biochar, marketing and total landscape management ... one could easily spend a week at Reidsdale and only scratch the surface of accumulated knowledge!

### ***Stop 3. Wood Works Gallery, Bungendore***

Bungendore Wood Works Gallery specialises in exhibiting and promoting Australian made wood art, sculpture, craft and contemporary furniture of a very high standard from the country's foremost designer/makers in wood. They take pride in showcasing the skill and art of Australia's wood workers and the varied richness and beauty of our native timbers.

They also exhibit fine arts from leading artists from every state and territory that range from Blake and Wynne prize-winning artists to ACT, Canberra and Bungendore regional artists.

The Gallery is a multi-tourism award winning attraction situated just 30 minutes by road from Canberra, Australia's National Capital. Bungendore Wood Works Gallery's long-term commitment to an alliance of Tourism with the Arts has created an authentic tourism experience, attracting 120,000 visitors a year.



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## **Session 5 Farm Forestry – West**

**Session leader: Dr Kevin Harding, President AFG**

This session will start with session 1 at the National Arboretum of Canberra and then at 10:30am will head west towards Murrumbateman and Yass to visit two properties with outstanding but somewhat contrasting goals for the use of trees in the landscape.

### ***Stop 1 – John and Robyn Ive, Talaheni (Yass River)***

The Ive's have received many accolades and awards for what they have achieved at Talaheni since purchasing the 250ha property in 1980. John had a long and distinguished career in CSIRO and applied his expertise to repair what was a very degraded landscape through revegetating the bare ridges and fixing soil fertility issues that had built up over many previous decades. They have recorded production improvements from 1983 and after establishing over 200,000 new trees and by implementing a niche production line they manage the inherited salinity issues as well as regular regional droughts with what is now a healthy resilient landscape. Lots of lessons here that would apply to many low to moderate rainfall areas with large seasonal temperature variation in many other parts of Australia. The Talaheni story is documented in an inspiring Soils for Life case study (<http://www.soilsforlife.org.au/cs-talaheni>) in which their work is described as having ...(quote) transformed an “environmental and farming basket case” into an enterprise that has received local, national and international recognition. John's main game is ultra-fine Sharlea wool, but he runs Angus beef cattle as well as sheep and farm forestry is an important part of the management of this now healthy property.

### ***Stop 2 – Graham and Anne Dash, Nanima***

Graham and Anne were high school teachers who purchased this 80+ ha property to plant trees as well as manage the existing woodland. On what is a typical dry somewhat harsh site for the region they have had some great success amongst their 15 ha of plantings. Their best performers include spotted gum, sugar gum and *E. benthamii* with more modest performance from iron barks and *E. camaldulensis* plantings. One of the challenges now is to find attractive markets for future thinnings and harvests as some of the ten-year-old plantings (particularly spotted gum) are averaging between 25-30cm DBHOB. A very common issue for many farm forestry plantings.