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Alison Carmichael

Member Services
Anne Katalinic

Administration Officer
Ed Chalmers

Street address
The Institute of Foresters of Australia
Building 9, Wilf Crane Crescent
Yarralumla ACT 2600

Postal address
PO Box 7002
Yarralumla ACT 2600
P: 02 6281 3992
F: 02 6281 4693
E: ifa@forestry.org.au
www.forestry.org.au

All submissions
The Editor
Institute of Foresters of Australia
PO Box 7002
Yarralumla ACT 2600
P: 02 6281 3992
F: 02 6281 4693
E: ifa@forestry.org.au

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Front cover
Eight-year-old Spotted Gum (Corymbia maculata) with local understorey species in a multi-purpose planting on the Stewart family farm, ‘Deans Marsh’, photographed by Hugh Stewart.
I was delighted that I started working with the IFA in a conference year. Being part of the planning committee was a great way to quickly get to know the sector and the people in it. We are collectively proud of what we achieved in 2013 as a group of volunteers with help from myself as the CEO and the conference organisers. We had close to 200 participants, 32 papers, a bevy of posters and trade tables, and five full days of information and networking.

We received great feedback and support for a continued mix of field trips, social events and technical papers. The trip to the National Arboretum was considered a highlight. The new Thursday forum format came as a surprise but many say we should not wait another two years to run such an event again. We expect that by the time you receive this newsletter the conference proceedings and forum report will also be available.

Thank you again to our sponsors. They may not realise how much their support means to us, not just in monetary terms but as an outward expression of their continued interest in and support of the forestry sector in tough economic times.

We are already busy with early planning for the ANZIF conference we are hosting in 2015.

Working with the conference website we had a taste of what it is like to be able to add to, change and edit a website ourselves and that spurred us on to have the new IFA website up and running. In launching the new site we gained some functionality and temporarily lost some but are confident that we have a better product.

More changes with the *Australian Forestry* journal being published externally. In the last 10 years of publishing it in-house we never had a late issue, and were disappointed that the March issue was delayed but, like the website, we trust that the problems are temporary and the gains substantial.

As we head into AGM season we will be presenting a new IFA strategic plan to members for their acceptance. We were very pleased to report that discussions during the conference forum about the direction of the IFA validated the content of the draft plan. Finally, it is membership renewal time and we look forward to welcoming you all back for the 2013/2014 year so we can continue to work together towards a vibrant future for forestry and foresters.

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**Commonwealth Forestry Association Award**

The Commonwealth Forestry Association Regional Awards recognise outstanding work in the Forestry sector at a National and Regional level. Nominees must be a citizen of a Commonwealth Country, and must have made a significant contribution to Forestry which has had an impact internationally. During the Conference the Award was presented to Gary Morgan, CEO of the Bushfire Cooperative Research Centre (left) by the Hon John Kerin.
Thank you to all our members who made the effort and financial commitment to attend our recent Biennial conference in Canberra. I hope that you all enjoyed it as much as I did.

In the lead-up to the conference it was easy to be despondent about the ongoing restructuring among commercial forest managers and the poor economic outlook for the timber industry. However I believe there is much to be optimistic about.

Australia has 149 million ha of forests (including plantations) and all of it needs good management. Traditionally our members have been involved in production forestry whether this was in natural forests, or plantation development and management. However in area terms these are minor in comparison to forests contained in National Parks and on private land. Without going back on our production heritage the message from many of the speakers was to take a broader view of forests in Australia and how we should manage them in the 21st Century.

In my opinion the Institute is totally neutral on forest tenure – our aim is to assist sound and professional forest management irrespective of who manages the forest and for what outcome. Employment opportunities may have been lost with the reduction in production forest area but if you look carefully you will find many have reappeared in different forms and with other agencies and forest management organisations.

Our keynote speaker Dr Peter Holmgren, the Director General of the Centre for International Forest Research (CIFOR), spoke about the arbitrary dividing lines in the landscape and that forests are too important to be isolated from other sectors, in particular agriculture. He emphasised that these lines in the landscape will prevent us from finding better solutions to natural resource management.

There were strong calls to action in terms of research and development. Ric Sinclair, Managing Director of Forests and Wood Products Australia, suggested we have been living for too long on what our predecessors did, and notes that Australia ranks poorly in collaboration both between industry sectors and with other countries. Nick Roberts, Acting CEO of Forestry Corporation of NSW, said we must do more with what we have. A 20% increase in productivity from our existing plantations would largely replace our current import deficit. Bill Jackson, CEO of Parks Victoria, urged members to understand that forestry is an easy target for eNGO’s and that clearfall harvesting, woodchip exports and regeneration burning were great visual examples for eNGO’s to use to illustrate foresters as uncaring of the environment. He urged members to consider the positive values of forests such as energy, carbon, product security, and jobs in regional Australia. He stressed that the only difference between managing a National Park and a State Forest is that the latter undertakes harvesting. Jan Davis, CEO of the Tasmanian Farmers and Graziers Association, urged us to recognise the value of the private forestry sector and engage more with agriculture to position forestry as an important service and product in rural and regional areas. Plantations, she stressed, are just a long-term primary industries crop.

Dr Sadanandan Nambiar in his Max Jacobs Memorial Oration made many profound comments, particularly how forestry can lift people from poverty. This reinforced the comments made by Peter Holmgren earlier in the day who showed that, despite worldwide development, the number of people who suffer from food insecurity stands at the 1 billion and has not changed since the 1960’s. Good forest management can help alleviate this problem and the more we interact with our cousins in agriculture worldwide the more hope we have of addressing this problem.

Senator Richard Colbeck, the Shadow Parliamentary Secretary for forestry, opened our conference and returned to attend the Forum. He wants forest policies that are based on evidence, not just ideology, and the Institute is in an ideal position to provide the reliable evidence. Finally, I would like to remind members that ‘none of us are as smart as all of us’ so please use your Institute to exchange ideas and thoughts on forest management and in the words of The Hon John Kerin, our most memorable after dinner speaker, who said that while we may have been part of the problems of the past we are also part of the solution for the future.
A message from our Conference Gold Sponsor

The Illegal Logging Prohibition Act 2012 is now law in Australia
The laws have changed to support the trade of legal timber

The Illegal Logging Prohibition Act 2012 passed through the Australian Parliament in late 2012 and is now law in Australia.

Illegal logging contributes to deforestation, forest degradation, global carbon emissions, loss of habitat and biodiversity, threatens sustainable livelihoods and has other harmful environmental, social and economic ramifications. The Act aims to promote the purchase and sale of legally logged timber products in Australia.

It is now an offence to import illegally logged timber and timber products into Australia or to process Australian raw logs that have been harvested illegally. Australian importers and processors must not knowingly, intentionally or recklessly import or process illegally logged timber. There are no other requirements that importers and domestic processors are obliged to meet until the regulation under the Act is implemented.

The regulation has been developed by the Australian Government Department of Agriculture, Fisheries and Forestry in consultation with stakeholders. Following outreach and education activities, the regulation will come into force on 30 November 2014.

For further information on how new laws may apply to you, or to get involved in outreach and education activities, please contact the Department of Agriculture, Fisheries and Forestry.

Ph: 1800 657 313
Email: illegallogging@daff.gov.au
daff.gov.au/illegallogging

2012 Jolly Award Presentation

Sadanandan Nambiar (left) was presented with his 2012 Jolly Medal by IFA President Rob de Fegely and was also invited to give the 2013 Max Jacobs Memorial Oration, the text of which will be contained in the conference proceedings.
Challenges of Change: Forestry Education

by Ian Ferguson, Professor Emeritus of Forest Science, Department of Forest & Ecosystem Science, The University of Melbourne

Summary

This paper provides a brief history of the principal Australian institutions involved in forestry education. The paper then reviews recent developments that are likely to reshape forestry education over the next decade and offers some conclusions. Much of the paper is based on presentations and discussions at the recent Institute of Foresters of Australia Conference in Canberra in April 2013.

A Brief History

The School of Forestry, Creswick, was established in 1910 as an in-service school of the Forests Commission, Victoria to train diplomates in a three-year course to serve in the parent organization. Most graduates proceeded to the University of Melbourne after some field experience and completed a Bachelor of Science in Forestry degree involving two further years of study. In 1981, the Creswick School was integrated and merged with the University of Melbourne school and course, offering a four-year Bachelor of Forest Science degree and postgraduate research degrees.

In a round of sweeping changes in the mid 1990’s, the three-year degree-granting Colleges of Advanced Education that had multiplied over the years under a separate funding system were allowed to become, to merge with, or to be absorbed by universities. Kindred courses to forestry evolved in park management, environmental science and environmental management. Southern Cross University was established at Lismore, New South Wales and now offers a professional four-year course leading to a Bachelor of Forest Science and Management degree.

At the same time, the long-established universities broadened first degree education by encouraging the development of combined (i.e. double) degrees whereby the time taken to complete those degrees was, in aggregate, one year less than the sum of the normal durations. Both the Australian National University and the University of Melbourne have pursued this path such that at its peak nearly 50% of students at Melbourne were undertaking combined degrees, although substantially less than that proportion in forestry.

The previously conventional professional four-year degree program is no longer the norm in Australian universities or forestry schools. The Australian National University changed to a three-year Bachelor of Science (Forest Sciences) in 2011. The University of Melbourne in 2004 and the University of Western Australia in 2011 have moved to adopt the so-called ‘Melbourne Model’, in which all professional programs involve postgraduate qualifications, and the first degree programs have become three-year in duration and restricted to six of so major disciplines.

In 2012, the recently established University of the Sunshine Coast located 90 km south of Brisbane, Queensland established an Australian Forest Operations Research Alliance with Australian forest industry stakeholders to continue the collaborative forest supply chain research established by the Co-operative Research Centre for Forestry. It will also offer courses in Forest Operations Management and associated postgraduate research training.

Challenges of the Future

Course content

The recent Institute of Foresters of Australia forum on forestry education for practicing foresters involved two
panelists from universities (Professors Mark Brown, Sunshine Coast and Jerry Vanclay, Southern Cross) and two from major employers (Bill Jackson, Parks Victoria and Nick Roberts, Forestry Corporation, NSW) and enjoyed a wide range of input from the audience that included the heads of the Australian National University and University of Melbourne forestry units or departments. The audience was spread reasonably evenly across academic and research; government; industrial and corporate forestry; ecosystem services; and private consulting employment, the latter three reflecting the rapidly changing nature of employment.

There was general acceptance that the Institute of Foresters of Australia and forestry education in general ought to set its sights broadly, given the diverse range of employment now evident in forestry. Bill Jackson (CEO, Parks Victoria) put it well when he pointed to the existence of many forestry graduates among his staff and the fact that many of the areas of knowledge and skills needed are common to those of other forestry organizations, notwithstanding public perceptions of marked differences such as those, for example, concerning industrial forestry and national park management.

The panelists collectively identified Silviculture, Forest Inventory and Planning, Forestry Business Economics and Forestry Operation Management as the critical common components of any course, with the necessary implied underpinning in the relevant basic biological, economic, mathematical and social sciences. All stressed the importance of practical experience and communication both in the formal courses and in vacation or part-time work. Mark Brown stressed the need for international collaboration – Oregon State University in the case of Forest Operations Management, and networking between universities. There was general agreement among panelists and audience that the multi-skilled training in forestry courses, together with practical and work experience, produced people capable of rising to the challenges they had to face in the field. But there was some concern that the mentoring of young graduates was no longer possible to the same degree as in the past.

The importance of attuning future graduates, often largely from urban backgrounds, to rural life was also mentioned. In short, however, there were no great surprises about curriculum content: the focus was on changes to adapt to new technologies and priorities.

Cost-competitiveness

Thus the elephant in the room was not the design and content of courses - it was the economics of mounting such courses with minimal numbers of students.

As Jerry Vanclay pointed out, sending students to undertake a particular subject at a better-placed institution does not aid survival when numbers are precariously low, as seems the case with all forestry courses in Australia. Low student numbers are not confined to forestry: agriculture is suffering similarly and those in environmental science and management courses have plateaued and may be dropping. The high exchange rate is also not helping the recruitment of overseas postgraduate students that might otherwise compensate in part for these problems.

Collaborative arrangements may appear a sensible way of managing across the increased number of providers of forestry courses but they are dogged by difficulties that the funding system imposes in effecting transfers of student numbers or cash. There is a formal collaborative Network but it is operating on a shoestring budget for one further year and will, at best, only be able to assist in improving the teaching of three subjects. New models for collaboration are desperately needed. However, the challenges are not confined to forestry and related schools in the Australian universities. Ernst & Young (2012) recently undertook an independent study involving interviews with senior staff in 20 universities across Australia and which included interviews with 16 vice-chancellors. Ernst & Young (2013) identified the key drivers of change for Australian universities and these are summarized in Figure 1.

For those employed in university education, there are no great surprises in the nature of the drivers of change shown in Figure 1 but, if the reported responses of senior university staff and vice-chancellors cited below are any indication, the pace and challenges of those drivers of change will increase markedly:

- Teaching methods have to change. We can’t rely on delivering content anymore — it’s all about contextualisation, ways of thinking, and the student experience. University Provost.
- We will come under increased pressure on Government funding, whichever way you look at it. Head of university representative group.
- Our major competitor in ten years time will be Google… if we’re still alive! University Vice-Chancellor.
- There will be 15-20 independent, global brands … the rest will be playing for the silver medal. University Vice-President.
- The big game will be co-investment with the private sector. Head of university representative group.
- The traditional university model is the analogue of the print newspaper… 15 years max, you’ve got the transformation. University Vice-Chancellor.
- Universities face their biggest challenge in 800 years. University Vice-Chancellor.
The big change will be partnerships with industry around niches... University Vice-Chancellor.

Ernst & Young (2012) concluded that:

- Over the next 10-15 years, the current public university model in Australia will prove unviable in all but a few cases
- The drive towards this model will come from the challenge of staying competitive — in domestic and international markets — across a broad range of disciplines and segments
- Nevertheless, research will become increasingly concentrated in universities that can demonstrate excellence and impact.
- Smaller universities will become increasingly focused on a narrow range of research programs. To make this work, they will need to explicitly tie education programs and industry partnerships to these focused programs.

The Ernst & Young (2012) perspective on the relationship between the higher education sector and industry raises some additional issues. They argue that industry will not only be a customer and partner of higher education institutions but increasingly a competitor. On the one hand, research commercialization will become a source of core funding for many university research programs. On the other, industry (broadly defined) will increasingly compete with universities in the supply of specialist professional programs, principally via specialized postgraduate programs offered through professional associations, similar to the CPA and kindred qualifications. Given the relatively small size of the forest products sector and smaller size and fragmentation of professional associations involved, any progress in either front in forestry would need encouragement and financial assistance from Government in some form but it does suggest that the two Institutes should take a more active role in organizing and promoting Continuing Professional Development.

Adapt or perish

The forum audience seemed somewhat skeptical of the pressures that cost-competitiveness might pose. But they may have changed their view somewhat in the light of the announcement, as I write, that Australian universities will be subject to a 2% productivity improvement reduction in funding next year and a further 1.25% in 2015, as well as some other reductions that will affect student enrolments. These changes reflect the Government's belief that new technologies offer a counter to the rising real costs of university training and will mean that universities have to reduce their costs through new technologies in teaching and reductions in back-office employment.

Because annual student fees and government funding per student are essentially constant across the three or four years of a course, the subjects in first year with high enrolments essentially cross-subsidize the teaching of subjects with smaller enrolments in later years. The impact of these changes in teaching technology will fall first and foremost on the first-year subjects with large student enrolments where on-line teaching can be more quickly developed. Indeed over 100 subjects already exist in the Coursera scheme, a collaborative across 100
universities globally, not to mention those of the Ivy League and other universities on iTunesU, the MOOCS (Massive Open Online Courses) group and the privately funded but massive commercial endeavor by Udacity in the United States.

Students in all subjects are already walking with their fingers and most universities in Australia are reporting declining attendance at lectures. As Cris Brack of the Australian National University said at the forum, much of the change in forestry subjects will come from blended teaching involving greater use of on-line teaching but retaining face-to-face tutorials and practical teaching. The trick will be to convince the university that supporting the investment needed for the development of on-line modes of teaching will provide a reduction in long-term costs, as well as maintaining or improving quality, especially in the less-popular subjects that have smaller enrolments. Some universities already have a minimum enrolment of 15 and similar constraints may become the norm in Commonwealth funding of courses.

In the longer term, the changes will spread to other subjects at a pace that depends on the capacity of staff to adapt to and develop on-line teaching, and the nature of the subject matter. The impact across universities in general will not be easy as 25% of the academic workforce is aged over 55 years, compared to 15 % in the rest of the population (Ernst & Young, 2012). Significant proportions of the academic workforce will retire over the next decade. Those forestry schools with a predominance of younger staff will find it easier to adapt because younger staff tend to be more ‘technology-savvy’. Cost-competitiveness is inescapable. No-one can predict exactly how the changes will unravel and which universities, and schools within them, will survive.

At the forum, Kevin Harding urged that industrial forestry companies and other major employers to provide scholarships of $20,000/year to encourage students to take up forestry. My response, perhaps reflecting employer views, is that $60,000 is too much and too risky an investment, given that it is difficult to bind the recipient to employment to get your money back via his or her work. Furthermore, why spend $60,000 when you can import foresters or forestry professionals, often with field experience, for a fraction of that amount, as witness the imports over the last two decades from New Zealand, South Africa, Latin America, China and India. The market place now global - cost-competitiveness rules.

Conclusions

In my view, all four-year professional courses in Australia will probably be required to reduce to three-year programs, whether willingly or unwillingly. Most universities are likely to introduce combined (double) degrees involving one professional courses or move to a form similar to the Melbourne Model. This means that a total of five years may become the general minimum for professional forestry degrees. The growth in knowledge and technology underpinning later-year subjects has, in any event, largely outstripped the limitations of a four-year professional course and, much more so, a three-year course. This development will exacerbate the funding issues.

The preceding review ignores the numbers of postgraduate research students undertaking forestry research at forestry schools and other universities. These represent a significant additional supply of forestry professionals in specialized areas. It also ignores the smaller but nevertheless significant numbers of students undertaking first degrees in kindred areas such as environmental science and management and natural resource management who obtain employment in forestry organizations. Regrettably, the statistical data available does not enable a reliable estimate of these or indeed of the numbers of students and staff in the forestry schools. Suffice it to say that most would regard the numbers of students as being barely sufficient to maintain viability.

My own predilection is to urge the two Institutes not to try to pick winners but rather to be inclusive and supportive to ensure young graduates and recruits get the best possible grounding in forestry for the field, laboratory and office positions they are going to assume and, importantly, to provide for Continuing Professional Development – a largely neglected but increasingly important aspect of teaching and innovation in the professions. The retirement of baby boomers may rectify the employment market but attracting students remains a concern. The Institutes only have a very limited leverage in the public debate but can and should indicate to those universities interested in training foresters or forest scientists the knowledge and skills that they ought to ensure are taught or made available to students, as well as assisting in promoting those courses.

Many forestry professionals will feel uneasy, if not depressed, by the challenges of change. Survival of the fittest is not a comforting model for institutions with which one has an important and often long affiliation. But the next decade is a critical one for forestry schools in which to adapt or perish. I prefer to view the present situation as that of a glass half full, with many opportunities for those forestry schools that can rise to the challenges through networking and international collaboration. I hope that the Institute of Foresters of Australia and the New Zealand Institute of Forestry can do likewise.

In discussing how effective State and Federal governments’ efforts to preserve biodiversity by setting aside national parks and reserves, Mr Flannery admits that they have not been successful in any reduction in the rate of either flora or fauna extinctions.

Claiming that many scientists and land managers prefer to focus on protecting ecosystems rather than the fate of individual species threatened with extinction, Tim quotes a range of examples where the later approach has been successful. All his examples, however, demonstrate improvements in ecosystems health that has benefitted other stakeholders.

The essay then switches to address what he sees as the profoundly anti-patriotic contempt by some on the right of politics for all things environmental that has taken deep root in Australian, American and Canadian politics. Tim describes those opposed to environmental protection as ‘grumpy old men who have been disenfranchised’ and names Cardinal George Pell and Alan Jones.

I almost gave up reading the essay at this stage, but the balance of the essay, in contrast, provides a positive contribution to the attempt to understand historical changes to biodiversity and a useful insight into methods adopted by the Australian Wildlife Conservancy (AWC) in which he is a director, that have resulted in successes.

Considerable explanation is presented of his ‘Future Eaters’ hypothesis, published in 1994. This concerned what might have occurred when humans first arrived in Australia, around 43,000 BC when key aspects of the ecological relationship between humans and their environment first took shape.

In essence the hypothesis is that the early humans hunted to extinction in the first 1,000 years, the large herbivores which had maintained a rapid recycling of nutrients and this altered the vegetation and the weather and allowed fire to become the principle nutrient recycling agent. He claims this hypothesis is yet to be discredited and forced the people to develop a fire regime that would sustain them.

In spite of his admission that the national park system has failed due to lack of appropriate management, the essay concludes on a positive note by claiming that “we know how to solve this problem. ... The costs are not great and the expertise required is in place.”

It is now clear that while establishing a national parks system was important, in a place like Australia it is not sufficient to preserve our biodiversity.

Unless reserves and national parks are carefully managed, the outcome for biodiversity is likely to be very bad indeed.

Mr Flannery proposes establishing a Biodiversity Authority, independent of government but funded by it, to invest in programs to prevent extinctions and let non-government agencies take up work where they are expert.


Australia's New Extinction Crisis

Review by Phil Sheldey of Tim Flannery’s essay “After the future — Australia’s New Extinction Crisis”
As a side event to the IFA National Conference, a group of around 45 young foresters (and some older counterparts) gathered at King O’Malleys pub to meet, greet and air the thoughts and challenges of young foresters and student foresters. IFA board members Ross Peacock, John Clarke, Aidan Flanagan and CEO Alison Carmichael attended, and it was fantastic to see several ANU students at the event as well as good representation from young professional foresters working in the many and varied fields that a career in Forestry encompasses.

As the beer flowed and pizzas circulated, some great discussion ensued. A common concern amongst the group was a lack of strong identification with “forestry”. A significant component of the group felt that the term “forester” did not adequately describe the group and several participants did not consider themselves foresters, so therefore hadn’t considered IFA membership as relevant to them. This confusion or lack of understanding or identity with being a forester is truly something that must be considered in future if the IFA hopes to be more inclusive.

Further discussion revolved around the desire of students to gain work experience, internship opportunities and connection with professional foresters. Many young foresters have been finding it difficult to find forestry work or experience opportunities, which is surely a gap that needs to be filled if we are to encourage and support new foresters into the future.

Ultimately, however, the overall consensus of the group was that the IFA is a good platform through which to engage and provide a platform to discuss issues. Young foresters are keen, passionate and interested and this event has kick started a few initiatives that will continue to grow into the future.

Firstly, a Facebook group has been created through which to continue discussions (https://www.facebook.com/groups/AusForesters/), which will expand to other forms of social media use, including LinkedIn over the next few months.

Once the formalities came to a close (and the oldies left), many stayed on to drink, chat and get to know each other. A Monday night at the pub may not have done wonders for Tuesday’s headspace, but some valuable connections were made.

Throughout the remaining days of the conference, enthusiastic discussion continued around ideas for potential future directions and initiatives, including internship programs, tree planting days, social hiking and camping events and further gatherings for student and young foresters.

Thank you to everyone who attended for making it a successful night.

Michelle is also Victorian Rural Women’s Award winner for 2013.
Eight students from the Fenner School of Environment and Society participated in the recent IFA conference, some with thanks to conference sponsorship by the Centre for International Economics, and others with help from AusAID. The students ranged from Forestry/Forest Science undergraduates to Masters of Forestry and PhD candidates. This student cohort included Australians, Indonesians, Japanese, Nepalese and Vietnamese which gives an insight into the regional role of Australian forestry education.

In a post-conference “debrief” with the students surprise was expressed at how the IFA conference contrasted to other experiences in the Asia Pacific. There appeared to be interest here about “generational shift” – with the sector asking where were new foresters going to come from and what would they be interested or skilled in? Similarly, formal presentations as well as the Panels and informal talks covered a wide range of topics, different to those of other forestry conferences which focus on improving pulp/sawlog production and revenue turn-over. It was seen as particularly significant that many Australian foresters talked about “landscape” as opposed to just forests and promoted concepts of managing in the context of climate change and provision of environmental services. However this view is not yet fully integrated with comments like “...we are all conservationists...” followed by references to timber production. One student summed this aspect up by saying “the interest in those things is there, but the industry seems to be focused on the cash.” However, the quote “that you cannot be green if you are not in the black” used by the farming community resonated.

The demographics of the attendees was positive - with a comparatively high numbers of younger age groups and females playing active roles than in previous years. The presence of a senior politician for a substantial part of the conference, as well as representatives of the farming community, nature conservation and policy advisers was seen as positive. However, there did appear to be an absence of community involvement and indigenous views.

Forests in many parts of the world are seen as a “means of livelihood”, but to a great many in Australia it is seen more as a means of recreation. This led to the question of why does camping or bushwalking in the forest not lead to more foresters in Australia? Somewhat similarly was the question why are the young in Australia interested in climate change but not in forest management (or soil management or hydrology)?

So, did these students conclude it was worth taking a week out of their mid-term assignment writing or even out of earning term-break income in order to attend the conference? A resounding “yes”. Being with “real” foresters and land managers allowed them to hear about issues and what was happening in the real world, and consequently to see how their academic work could be embedded. For the international students in particular, the conference provided an unbeatable opportunity to gain an Australian context. A number of students commented how the presentations and the informal talks helped them to see how research could be turned into practice.

In conclusion, what advice can this “young generation” offer to the IFA or at least the next conference organisers? The IFA needs to find out what our public image really is - is it as tarnished as the radicals would have us believing? The IFA needs to increase liaison with the farmers and the non-industrial land owners or managers, and to build community friendships that have long term value. As well as having more specialist presentations for the next conference (fire, hydrology, international views), we need to hear from community, indigenous and farming representatives. The IFA also needs to ensure students can continue to afford to participate, and maybe show off a little with their own poster sessions.
As a sub-tropical southeast Queenslander and first-time visitor to the ACT broader landscape, I looked forward to the Cotter River Catchment Tour with great anticipation. Our first stop was the National Arboretum with slopes speckled with tree seedlings in pink tree guards. Established in 2005 to conserve internationally listed endangered species, the Arboretum now also serves as a tourist icon, recreational reserve and educational centre.

We then traveled to Mt Stromlo where Professor Mark Adams described how the 2003 wildfires, ignited by lightning strikes in Brindabella and Namadgi National Parks merged in the Cotter Catchment to ultimately destroy two thirds of the softwood plantation and 500 homes.

Dr Leon Bren gave us an overview of water quality experiments from the 1970s which have since been abandoned or just faded away. It appears that at that time, experimental design was fatally flawed and CSIRO Forestry research data collection wound down. Dr Bren briefly described more recent design for eucalyptus water use and hydrological issues associated with revegetation projects in the catchment.

Historically, the softwood plantations were established for catchment protection and erosion mitigation. However, since the 2003 wildfires, plantation re-establishment in the Mt Stromlo area has ceased due to perceived water quality impact and fire risk to the urban areas.

Neil Cooper gave us an overview of post fire rehabilitation. Post fire key issues for Neil included prevention of massive soil-erosion in the catchment, salvage harvesting, and minimising financial loss by supplying the local sawmills. Neil was also charged with replanting the plantation areas

Below: View from Blundell's Flat. Change in vegetation delineating natural formation of disturbed areas in the landscape as seen on the distant range.
with native species and managing understorey regeneration. All of which are under the watchful eyes of the urban community and the media.

From a vantage point at Blundell’s Flat lookout in the Upper Cotter Catchment, Associate Professor Richard Thackway gave us some insight into how his landscape and land use change analysis model is designed to compile data on spatial and temporal changes to vegetative communities. From our vantage point, we were able to observe an example of vegetative changes on the range across the valley.

Our last port of call, Bulls Head picnic area on Brindabella Range, and despite the chill in the air, was a perfect place to stop for lunch and receive our final presentations.

Dr Matthew Brookhouse described his current project using tree rings in his current work. Matthew produced samples that showed tree rings and burn scars by which fire events and their severity may be dated. After a little encouragement, he concluded with a demonstration of non-destructive tree ring dating from drilled core samples.

Dr Lyndsey Vivian revisited her honors studies where she researched fire severity distribution responses to alpine ash (*E. delegatensis*) and brown barrel (*E. fastigata*) in the Catchment. Dr Vivian described population dynamics of how these two species that differed reproductively, responded to various degrees of fire severity.

During the drive up the range, I was impressed by the regeneration following the 2003 fires. The bare skeleton of the canopy loomed above well established coppices in the lower strata. It brought the impact of the fire event to reality, and showed the recovery process in real time. Overall, it was a most informative and enjoyable day.
The Consultant was on a United Nations Food and Agriculture Organisation (FAO) mission to the Sundarbans in Bangladesh. This, the world’s largest mangrove forest, is home to the Royal Bengal Tiger. It is not easy forest to work in as the only access is by boat and at high tide it is almost impossible to walk through the forest.

Tigers provide a superb protection system. The forest needs protection as there are about 4 million people living within 10 km of the northern boundary of the forest.

It is not only difficult forest to work in, it can be scary. The Consultant wanted to check the measurement of at least a few of the plots that the field crews had measured. The teams deliberately selected plots as far away from boat access as possible, presumably because they were not used to consultants actually setting foot in the forest and did not expect The Consultant and his entourage to actually visit a plot. One day they selected a plot about 600 m from the nearest spot a boat could reach and it took about an hour to walk in to the plot site. When the party arrived the central plot of three was under 10 cm of water. It was duly remeasured to check that the procedures were being followed correctly and to provide advice on mensurational techniques. The senior staff who had actually managed to walk into the plot returned to the boat at this point while The Consultant took the team to the southern plot for some more intensive tuition. On the way back the ground was drying out as the tide was receding and tiger pug marks were observed through the main plot. The tiger must have been inspecting from less than 30m away. No actual tiger was observed, but it was clearly in the vicinity!

Tigers were also part of the Integrated Resource Management Project (IRMP). Years before British wildlife scientists had extensively mapped all the tiger ranges in the Sundarbans, and estimated that there were some 350 tigers, revised down from some 400-450 claimed to have been there many years earlier. By the 1990s some conservation groups were claiming that there were as few as 250 based on their surveys. However these surveys were suspect as their teams had spent little time in the forest and some claims were made that they may not have actually left their boats!

The British survey had been comprehensive and had taken many months. They had found tiger in all the ranges and concluded that the tiger population was in balance with the environment, living on the population of about 80,000 spotted deer in the Sundarbans. If one could have obtained good tiger and deer population data over time it would have made a great predator-prey study. Several tigers are killed each year in the Sundarbans, the reason generally given is that they are man-eaters and that they have killed someone, commonly a honey gatherer.

Conventional Bangla wisdom is mixed. Some believed that tiger become man eaters when they are old and have poor teeth, or are lame, or injured. Others believed that tiger become man eaters because they could not find a hunting range. It was not an easy ecological issue to resolve.

The conventional wisdom of the British Raj was that an adult tiger was 9 feet (ca 2.75 m) from nose to the tip of the tail. A reputable FAO tiger expert suggested that perhaps man eating tigers were young adult males that could not find a feeding range and so could not get any food and so took to easier prey. He also tentatively concluded that all the ranges were full. If the ranges are full then the tiger population is in balance. This particular expert had quite some street credibility as he had had a large chunk torn from his thigh by a tiger. He had been as far up a tree as he could get, but obviously not quite high enough.

Almost all the tigers measured were less than 9 feet in length and so by definition they were all young tiger. If only young tiger were observed then the population was probably on the decline.

While The Consultant was visiting the forest, a tiger was captured and brought in. It seemed tired and listless. It was only 7’6” (ca 2.3 m) from nose to the tip of the tail. Because of its size it was considered to be a sub-adult male. The French Ecologist managed to get the skull and in good research fashion skun the head, extracted the brains, and boiled it down so he had a skull to investigate. He found that the tiger had dislocated its jaw and that would have made it difficult to hunt. The upper canine teeth had been.

Lessons not Learned at University

Article 9 in a series by Jerry Leech
displaced and these upper canines had worn away the inside of one of the lower teeth (see Figure 1). But the significant wear had obviously taken some time and this indicated to The French Ecologist that it was not a young sub-adult tiger at all but an old male that had just got too tired to want to live. Was the length criterion for an adult tiger wrong?

There were many alternative constructs to explain the limited facts available. The original population of 450 was probably an over-estimate. The population of 250 was probably an underestimate given the lack of field experience and lack of time in the field. The 1975 (or thereabouts) estimate of 350 was at least based on credible evidence and based on an analysis of ranges. There had been some later quite detailed evidence of some tiger ranges as part of the current IRMP project and these supported the British analysis in the mid 1970’s. There was evidence that the spotted deer population was stable, which indicated that their predator population was also stable.

The fact that an adult male was only 7’6” in length suggested to The French Ecologist that the Sundarbans tiger was a sub-species of the Royal Bengal Tiger that had evolved into a smaller animal, to better survive in the mangroves. It had developed large pads to facilitate walking in the muddy environment. Now this thought really caused some consternation and senior Bangla staff insisted that this not appear in the main report. Why? Well if the Sundarbans tiger is a different sub-species then the conservation pressure would become all that much greater.

Later The Consultant carried out an Extended Natural Resources Survey of all vertebrate animals and vascular plants in Bangladesh and found that there was evidence of tiger on about 60-70% of the plots they re-visited in the Sundarbans. Given the small plot clusters and given the tidal influences this seemed indicative that tiger were all through the forest.

Basically the conclusion was that there is not yet enough evidence to really determine whether the tiger population is stable and/or endangered. The general feeling among the more rational international consultants, matched in private discussions with knowledgeable senior Bangla staff, was that the population was probably stable but was also endangered. The basis of this conclusion was the limited evidence that the ranges were full, that the tiger killed were either sub-adult males that had not been able to find a range, or were more likely old ageing sick tiger who had been hunted out of their range. Who knows what the answer really is! It was obvious that the various forms of conventional wisdom were not totally consistent and it was also obvious that political considerations intervened.

Lesson: There can be many different ways of looking at a situation, often contradictory, and it can be a challenge to work out which is right. It may even be impossible. As Flaubert said “There is no truth, there is only perception”.

Foresters of the Raj – Stories from Indian and Australian Forests

Roger Underwood’s new book on the origins of forest conservation and protection is now available. The book is an anthology of stories dealing with the evolution of forestry in India during the latter half of the 19th Century, and the development of models and systems that were ultimately exported all over the English speaking world, including Australia. It is history, but easy reading.

The stories are based on research into old journals, mostly The Indian Forester, and employs direct quotes from the foresters of the day. These are woven into an entertaining narrative, in which the many parallels to contemporary forest issues (especially bushfire management) are explored. There are also fascinating stories about Indian culture, adventure and wildlife and about the challenges and dangers faced by early foresters in British India.

A full review will be published in the September edition of Australian Forestry.

The book ($50 including postage) can be ordered direct from Roger Underwood details as follows:

Street Address: 7 Palin St  
Palmyra WA 6157

Email: yorkgum@westnet.com.au
A Lesson in Decisive Communication

by Vic Jurskis

In 1979, when I was an inexperienced young forester working for the NSW Forestry Commission, I was directed to relieve in the Casino Subdistrict in northern NSW. It wasn’t a big move. The Casino Subdistrict HQ was a couple of cubicles across from my desk in the Casino West Subdistrict HQ, both of which were within the Big Office, all under the command of District Forester Big John Bruce.

But in those days foresters used to work in the bush and the bush in Casino Subdistrict was quite different to that in the Casino West Subdistrict. So were the staff, and one day one of them ‘rounded out’ my education in effective communication.

I had been sent to a fire that had started in the fairly flat, featureless, blackbutt country of Doubleduke State Forest. It was burning east of the Richmond Range which is only a bump at its southeastern end before it terminates in the swamps of the lower Richmond River. The local foreman was Merv Bertoli, a scion of some of the original settlers of the farming district known as New Italy. Merv was a ‘one man band’ in the best sense of the expression, and he was affectionately known as ‘the Woodburn Mafia’.

Merv was already at the fire, and he called me up on the two-way and arranged to meet at the Woodburn Tick Gate. Driven by a strong northwesterly to southwesterly change, the fire had jumped the four lanes of the Pacific Highway at the Gate.

When I arrived, the wind had died and the fire was trickling quietly to the east through grassy woodland on a broad front. It was burning in vacant crown land (VCL). Between the fire front and the ‘no-go zone’ of the Airforce Bombing Range in Bundjalung National Park, there was little but paperbark swamp. However, Subdistrict Forester Brian Burke had foreseen such a contingency, and during my previous stint in Casino, he had directed me to survey and construct a fire trail on the solid ground along the western edge of the swamp country in the VCL. I remembered it well because it had been such a pleasant walk on flat ground in open grassy woodland. Also I remembered my faithful blue heeler bitch Matey trotting along ahead of me, heading towards a large black snake. Spotting the snake I whistled her, but she kept going long enough to trot over the snake before turning and trotting back over it once again. I never understood why she used to attack goannas with a vengeance and ignore snakes, and I was always fearful that one or the other of them would eventually do her in.

Merv and I conferred, and agreed on a plan. We would light up the edge of my fire trail and fill in back to the fire front, giving us a safe edge to work off while at the same time containing the fire.

Just then a park ranger arrived to discuss the situation. He didn’t like our plan. He reckoned the front was long enough already and he didn’t want the fire any closer to the park.

I tried to explain that it didn’t matter if the front was a bit longer because it wouldn’t be any wider, and the fire edge could be easily patrolled from a vehicle. He claimed jurisdiction because the front was in VCL and “threatening” the national park. I said it would take us too long to chip a fireline in the grass or get a truck and water along the front, and anyway there were no machines available. Again he rejected our plan. I started to become increasingly frustrated and agitated.

Then Merv took over. He grabbed me by the shoulder and said “You’re not explaining it properly Vic, let me have a go”. With a big hand (missing the tip of a finger, presumably from chopping meat for cured sausage), he beckoned the ranger over into a patch of blady grass, and quickly struck several fusee matches, flicking them around him into the dry grass.

“You talk your way outta that while me and Vic attend to the fire”, he said to the parkie.

The front was quickly contained, and the flanks were tidied up early the next day.

It was as good a lesson in decisive communication as I ever received.
International Awards for IFA Members

by Steve Midgley

The end of 2012 saw some major achievements of IFA members graciously recognised in both Vietnam and China.

In early November, the Government of Vietnam through its Ministry of Agriculture and Rural Development, presented medals to five Australian forest scientists for their “outstanding contribution to Vietnam’s forestry sector”. The Australian Ambassador Hugh Borrowman was present when Stephen Midgley, Chris Harwood, Sadanandan Nambiar, Rod Griffin and Khongsak Pinyopusarerk were presented with their medals in Hanoi.

The medals are an outcome of over 25 years of research cooperation between Vietnamese and Australian forest scientists with the support of CSIRO, ACIAR and AusAID. Vietnam now has over 1.3 M hectares of eucalypt and acacia plantations.

Strong and productive relationships between Australian and Vietnamese scientists have underpinned this vibrant industry, offering obvious improvement to livelihoods among acacia-growing communities; a source of considerable satisfaction to all those organisations and individuals involved; Australia can draw some pride from its role in this pleasing outcome. The next time you see acacia furniture advertised in Australia, it is likely that this was manufactured in Vietnam and represents some of this Australian collaboration returning home!

Also in November, at the annual meeting of the China Eucalypt Forum in Nanning, the Chinese Society of Forestry, the IFA’s partner organisation in China, presented awards to long-term IFA members, Dick Pegg and Stephen Midgley for their contribution to the development of the eucalypt industry in China.

Below: Australian Ambassador Hugh Borrowman with the Australian scientists and Vietnam partners from the Ministry of Agriculture and Rural Development, the Vietnam Academy of Forest Sciences and the Institute of Forest Tree Improvement and Biotechnology.
Australian acacias are a common part of Vietnam’s rural landscape, offering protection to denuded landscapes, wood for industry and fuel and make a strong contribution to rural economies and livelihoods in Vietnam. Consider the following:

- Prior to 1987, acacias were a relatively minor part of Vietnam’s plantation and reforestation programs. This has now changed and an estimated 120,000 ha of acacias were planted in Vietnam in 2011 – some 70% by smallholders.

- There are now over 700,000 ha of acacias grown in Vietnam.

- Acacias have played an important role in landscape rehabilitation in Vietnam. In 1987/88, travel between Ho Chin Minh City and Hanoi was rough and the countryside characterised by bare, overused hills and considerable poverty. The bare hills have been covered now with acacia plantings, reducing erosion and accumulating organic matter and soil nitrogen plus offering much to local economies.

- Acacias have been used as nurse crops to rehabilitate native forest areas; examples include the protection forests of Hai Van Pass and the Perfumed River catchment behind Hue.

- Vietnam’s acacia plantations now represent a valuable commercial asset and a close examination of Vietnam’s Acacia Equation makes interesting reading:
  - Vietnam is now the world’s largest exporter of hardwood woodchips and some 90% of the 5.4 million bdmt exported in 2011 was acacia, valued at US$650 million FOB.
  - In addition to the woodchip exports, acacias are the dominant furnish for Vietnam’s domestic wood pulp industry, producing pulps valued at over US$370 million.
  - Vietnam is now the world’s 4th largest exporter of wood furniture, worth about US$3.9 billion in 2011; Acacia wood forms an estimated 10% of these exports.
  - The combination of sawn wood products and woodchips means that all acacia logs can be utilised – the larger, better quality butt logs going to the saw mill and the smaller logs going to the chip mill. Some estimates from CSIRO studies indicate that IRR for smallholder acacia growers can be typically 27%.
  - The estimated value of processed and unprocessed acacia wood products in Vietnam now exceeds US$1.5 billion annually with some US$300 million returning directly to the pockets of the growers.

Both Dick and Stephen have been working with Chinese colleagues for over 30 years and have seen the Chinese eucalypt plantation resource grow from an estimated 400,000 ha to the current 3.5 M ha of eucalypt plantations in China which provide income and livelihoods for local growing communities and wood for world class industries for pulp, MDF, veneer and solid wood.

This recognition follows the prestigious award recently made to Roger Arnold for his contribution to the Chinese eucalypt industry [The Forester 55(4)] and represents the many years of good-willed collaboration between many Australian foresters and their Chinese counterparts. The Chinese forest industry is vast: according to the Canadian Wood Markets reports, China’s forest trade value exceeded US$ 118 billion in 2012, exports accounting for $US58 million and imports $US 60 million.

From left to right: Wei Ju the innovative Chinese leader for the Dong Men Project, Qi Shuxiong, China’s grandfather of eucalypts and Mme Hu Tianyu, a eucalypt specialist and long-term friend of Australia and Stephen Midgley.
Forest Research at the HIE

by Sebastian Pfautsch (NSW Division)

Although my career in forestry has led me into research so technically speaking I am not a forester any longer, my passion for forests and their management remains strong. About a year ago I joined the Hawkesbury Institute for the Environment (HIE). After speaking to members of the IFA during meetings and dinners, I was surprised that they knew little about my work place and the work we do in research and forest ecosystem functioning so I thought I would put pen to paper and fill you all in.

The HIE is one of four research institutes belonging to the University of Western Sydney (UWS) and I think it was a logical choice to establish the HIE on the Hawkesbury campus in Richmond, where research and education in sustainable agriculture has had a long tradition dating back to 1891 when the Hawkesbury Agricultural College was established. More than a century later the HIE was started as a result of a major infrastructure grant ($40 million) from the Federal Government.

Today I am part of a team of 80 researchers, higher degree students, technical and administrative staff. Even though that might seem small, our strength does come from the combination of a group of highly skilled scientists and unique state-of-the-art forest research facilities. Our success in research is reflected by the outcomes of the latest Excellence in Research for Australia evaluation that ranked the research at HIE well above world standard in Forest Sciences and in Plant Biology, and above world standard in Soil Sciences and in Ecology.

I think that the HIE has plenty to offer for forest managers, forest industry and related sectors. We concentrate our research efforts to improve the understanding of how forests will react to predicted environmental changes. In my role as member of the Ecosystem Function and Integration theme I concentrate on understanding the effects of extreme climate events, such as droughts and heatwaves, on trees and forests. The HIE is an ideal place for me to pursue such questions as it operates a range of field- and laboratory-based facilities of which some are unique in the southern hemisphere. A few examples:

- EucFACE – a large-scale field experiment in the Cumberland Plain Woodland Forest where we assess in situ the effect of elevated atmospheric CO₂ concentrations on growth of dominant and suppressed trees (mostly Eucalyptus tereticornis), shrubs, grasses, soil microbes, and quantify the effect on carbon and water cycles.

Below: Morning fog hovers over the rainout-shelters and tree plantations at the Hawkesbury Forest Experiment site in Richmond, NSW.
• Twelve whole-tree growth chambers (10-m tall!) and six large rainout-shelters at the Hawkesbury Forest Experiment where we test the capacity of trees to cope with repeated drought, flooding, heatwaves and altered nutrient availability, or combinations of these factors.

• Climate-controlled glasshouses where we grow tree seedlings and other crops under varying levels of atmospheric CO₂, temperature, water and nutrient regimes (or even pest insects) to describe how plant productivity in the near future will be affected by environmental change - including drought resistance of cultivars.

Near my office I have the benefit of access to various (small) *E. saligna* plantations and a range of other species, plus some common garden plantings. All these have been planted some years ago and are continuously used for research purposes. Some of these plantations need thinning and I leave it up to your imagination how hard it is for me to convince my fellow scientists to fell some of their beloved trees. Maybe our combined efforts during the field day of the IFA at HIE on 28 August this year will see some positive results for our in-house plantation management. During the day we will visit the major research facilities of the HIE and meet with the chief scientists responsible for them. A detailed schedule for the field day will be distributed through the IFA Email Bulletin.

You can find further information about the HIE, its research capacity and projects under www.uws.edu.au/hie.

WA IFA South West Field Trip

by Brad Barr, WA Division

A damp Saturday in mid March saw about 30 foresters, industry representatives and harvesting contractors assemble at Kirup for a field day. The purpose was to inspect pine plantation operations and be informed about happenings within the industry.

Grimwade plantation, owned by the Forest Products Commission is about 70km south of Bunbury. It is one of the largest contiguous plantations in WA, and is second rotation pine. Many of the FPC forests, including Grimwade, have suffered from delayed thinning, as markets for the products arising from commercial thinnings have been scarce. Over the last two years this has changed, with the development of export markets for wood chips. The chips are used in the pulp and paper industry in China and Japan. The hard work in establishing the program has been shared between FPC, a local sawmiller (Wespine) and an enterprising harvesting contractor (Softwood Logging Services).

The group inspected a thinnings operation being carried out by Softwood Logging Services (SLS). Mr Don Burmas, owner of SLS, explained the operation. The trees were harvested and bunched by a machine that could handle up to 10 trees before turning around and placing the trees behind it, ready for extraction by a skidder. The whole stems were fed through a CBI in-field chipper that delimbed and chipped the stems. The chips were fed straight into a truck. All attendees were very impressed by the smooth operation that enabled a 150m³ truck to be filled to overflowing with export quality woodchips in 40 minutes. The limbs, bark and needles were collected by the skidders and returned to the forest to ensure that nutrients remained on site.

Next visit was to see a salvage operation. A significant proportion of one compartment had been blown over in a particularly violent wind storm in December. An unusual harvesting method was used by SLS to
maximise revenue for the FPC from the salvage. Originally planned to be a full stem chip operation, SLS added a log processing machine to the system, and were able to recover sawlogs from the butts of larger trees. Tops were then re-bunched and skidded to the chipper.

Mr Troy Sawyer, Harvesting Manager for FPC explained the site preparation benefits of the system. The FPC were of the view that areas harvested in such a fashion would reduce considerably the costs for replanting. Less heavy equipment would be required, and certainly no burning of waste. In some areas, it would even be possible to plant directly back without any mechanical works being needed.

Travelling back to Bunbury, a brief stop was made at the Wespine Industries Sawmill. Wespine is the largest pine sawmill in WA, processing about 400,000m³ of sawlog.

The assembled participants watched a log truck be unloaded, and heard Troy Sawyer explain about the fire salvage operations currently underway in FPC and private plantations. Brad Barr, Resource Manager at Wespine spoke about the importance of the FPC thinning program to ensure the mill has future resource available.

Following the supply chain, the port operations of WA Plantation Resources (WAPRES) were inspected. Mr Ian Telfer, General Manager of WAPRES welcomed the party to the site. WAPRES is the handling and loading agent for the pine export, as well as running much larger bluegum and karri operations in their own right.

The load of chips being made in the plantation was observed being unloaded. Using a novel system, the entire chip bin is lifted off of the truck by a forklift. The forklift has a rotating attachment that enables the bin to be fully upended, and the chips tipped out upon the ground.

Retiring to the nearby Parade Hotel, the party enjoyed some jugs of beer, kindly provided by Woodland Resources Group. Woodland Resources are a log export company that has made a business taking drought killed maritime pine, containerising the logs and exporting to China.

Over beers and a lunch, old acquaintances were renewed, and fellowship enjoyed.
During Australia’s bicentenary celebrations in 1988 an International Bicentenary Forestry Conference was organised by the Australian Forest Development Institute supported by the Institute of Foresters of Australia. It was during this conference that the idea of the National Foresters Grove was born.

The Grove, sited at North Albury NSW on three hectares owned by the Albury City Council, has been developed over 25 years by a Committee of Foresters and their supporters, in conjunction with Albury City Council providing facilities and maintenance of structures. Over 180 dedications have been made so far.

The idea of the Grove is to honour those involved in the forestry profession, forest and timber industries, and private growers. For a fee, plaques can be attached to individual trees with a short inscription (less than 25 words) about the individual along with membership logos etc. The plaques can be purchased during a person's lifetime, or in memory.

The cost of the native tree with inscribed plaque placed on a red gum stump is $250 for an individual donor or $300 for a nomination from Corporations or Government Departments.

The next Dedication weekend will be held 19 and 20 October 2013 and those interested in dedicating a tree should contact:

Peter Crowe
Phone: (02) 6043 1098
Email: peter.crowe2@bigpond.com

Peter Clements
Email: pandac@bigpond.net.au

Bob Newman
Phone: (02)62862511
Email: rln@dmnewman.com.au

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IFA Celebrates International Day of Forests

New South Wales, Queensland and Western Australian Events

2013 is the first year that International Day of Forests has been celebrated world-wide since being ratified by the United Nations General Assembly. It replaces the FAO sponsored World Forestry Day which has been held on this day since 1971.

The focus of this international event is to celebrate and raise awareness of the importance of all types of forests and to show the world how trees, forests and their surrounding environments make a difference to the community where you live.

New South Wales

Timber Tramways of the South Coast

The NSW Division of the Institute of Foresters of Australia hosted a joint field weekend with the Australian Forest History Society (AFHS) and the Light Rail Research Society of Australia (LRSSA) on 22-24 March at Batemans Bay. This was a field excursion with a difference; its purpose was to examine some of the archaeological remnants of two of the five known horse drawn log and timber tramways that operated variously in the mixed eucalypt forests between Batemans Bay and Bawley Point from the 1890s into the 1920s (and in one case possibly up to the early 1950s, but this has yet to be confirmed by further investigation).

The history and remains of these tramways have been under investigation and documentation over the last several years by retired foresters Ian Barnes and Ian Bevege, both of whom happen to be members of all three of the aforesaid organizations. The field day provided an opportunity to share their findings to date with some 23 fellow tramway enthusiasts and forest historians drawn from as far afield as Albury, Canberra, Coffs Harbour, Eden, Maitland and Sydney. A number of participants hailed from two or even all three associations. Hence there was a strong community of interest in the subject matter and vigorous discussion ensued not only of the tramways but also of the forests in which they operated. The outing promoted cross fertilisation of experiences and ideas around this tramway theme, with valuable contacts being made that hopefully will facilitate cooperation on timber tramways research into the future.

The subject forests, for those unfamiliar with the south coast of NSW, comprise well developed mixed eucalypt forests in what have historically been the Brooman, Kioloa and Benanadarah State Forests immediately to the north of Batemans Bay and extending almost to Ulladulla. Parts of these State Forests have been converted to National Park tenure within the last 10 years or so, after many decades of forest management by the then NSW Forestry Commission and State Forests NSW. The forests are dominated by spotted gum, blackbutt, Sydney blue gum and turpentine (the latter restricted to the northern sector) along with lesser representation of grey and red ironbark, white and yellow stringybark, red mahogany and Sydney peppermint.

These forests provided the resource catchment for several mills, which in turn were served by horse drawn tramways constructed and operated by the mills to transport logs from forest to mill and sawn timber from mill to loading points for the coastal steamers of the Illawarra & South Coast Steam Navigation Company (the old Pig & Whistle Line) at Pebble Beach, Bawley Point, Kioloa and Cullendulla. At this time there was no coast road south of the Shoalhaven so sea transport was the mode apart from packhorse. The mills of most significance in the context of these tramways were Guy’s then Ellis’s at Bawley Point (1891-1922); Goodlet & Smith then Hepburn Mackenzie at Kioloa (1884-1926); McMillan’s at Durras Lake; Ryan’s at Cullendulla (1907) and then Durras Lake (1922-1950s). The Cockwhy log tramway served Guy’s Bawley Point Mill, the Kioloa log tramway Mackenzie’s Kioloa mill and the Cullendulla timber tramway hauled sawn timber from Ryan’s Durras Lake mill to the Cullendulla Creek terminus where barges were loaded for transit across the Clyde estuary to Batemans Bay for loading on to steamers en route for Sydney. At this point the chronology of building and use of the Cullendulla tramway, and mode of log haulage to the Durras Lake and Cullendulla mills of Michael Ryan are subject to further investigation.

Following an icebreaker on Friday night, the field day on Saturday was blessed with perfect autumn weather. Points of interest were inspected on the
Cockwhy and Cullendulla tramways. Participants were provided with comprehensive notes prepared by the two Ians and maps based on the earlier field surveys. The ground locations of these tramways, which have been traced for many kilometres with GPS, have been accurately transferred to NSW Department of Lands 1:25000 cadastral/topomaps via digital GPS conversion and plotting routines. Grateful acknowledgement is made to Ken Boer, forester Batemans Bay, for his expert assistance in this regard.

The morning started with inspection of the remains of one of the timber bridges spanning Cockwhy Creek followed by a walk along the tramline formation to examine the ‘zigzag’ which was built to overcome the break of slope where the Cockwhy tramway climbed out of Stephens Creek onto the saddle leading to the fall into Termeil. Such zigzags are very rare on timber tramways and this is the only one known on the south coast. The tramway at this location still has the remains of wooden rails in situ together with the hand made eight-inch (20cm) nails crafted by the mill’s blacksmiths for fixing rails to the half round timber sleepers.

A well-earned lunch, excellently catered for under the care of Josh Driscoll, was partaken at ‘Old Blotchy’ the largest known extant spotted gum in these forests and arguably in NSW, with a girth of 10.76m and height 59m. This tree, now in Murramarang National Park, is in a small preserve originally set aside by the Forestry Commission when the area was Kioloa State Forest; this area, which contained first class milling timber of spotted gum, turpentine, Sydney blue gum and grey ironbark, was by passed by the early cutters even though the tramway passed less than 500m away. One can only speculate as to their motivation for doing so apart from the obvious aesthetic quality if the forest at this point.

Post-lunch inspections were made of the Cullendulla tramway based on Benandarah State Forest. Much of this tramway in its southern section is now under the Princes Highway – the road surveyors evidently deciding those old timbermen knew a thing or two when it came to picking the best grade lines. Highlights were the box cut where the tramway surmounted the ridge between Benandarah and Cullendulla Creeks (a monumental piece of work when it is recalled that this was probably constructed with hand tools and horse scoops), and the terminus in the mangroves on the banks of Cullendulla Creek where timber was transferred from the tramway to barges.

Saturday night was the occasion for an informal four-course scrumptious dinner at The Coachhouse accompanied by a display prepared by Ian Barnes of model tramway and railway timber wagons and steam locomotives, timber industry history.
books. He also showed some historic black and white movies featuring timber tramways. A quick quiz of questions over a wide range of subjects from Ken Boer had many stumped and a winner (or “least loser”) earned a well-deserved prize.

Sunday saw some further swapping of notes with LRRSA member Ian McNeil who is noted for his excellent and detailed work reconstructing the Langley brothers’ Langley Vale horse drawn timber tramways in Lansdowne State Forest near Coopernook and published in the journal Light Rail in 2012; these tramways (1897-1933) were contemporaneous with the tramways on the south coast subject of this note.

Western Australia
WA honours Frank Batini

Foresters and partners celebrated International Day of Forests 2013 at the Mount Henry Tavern in Perth. The 35 people present enjoyed a very pleasant afternoon as several old friends renewed acquaintances.

Meritourious service certificates were presented to Karl Kelers, Peter Kimber and John Robley. Alex Hart, who was unable to attend, was also honoured with a certificate.

Frank Batini was a popular recipient of the WA Forester of the Year (2012) award, a curly-grained jarrah jewellery box, suitably engraved. Frank is a highly regarded WA forester and noted for his intelligence, scholarship, courtesy and charm. Graduating from the Australian Forestry School in 1962 with the Schlich medal as top student, Frank enjoyed a successful career with the WA Forests Department, culminating in management of the department’s Protection Branch for many years. Since leaving government employment in 2001, Frank has worked as a land and environmental consultant, including some pivotal work in jarrah forest catchments near Perth. Over the past few years Frank was the consulting forester for the Water Corporation’s Wungong catchment project which has proven the value of thinning for forest health and water yields.

Queensland
Tree Planting in QLD

In Queensland we celebrated International Day of Forests with a tree planting morning in Bardon along the banks of Ithaca Creek. There was no better way to commemorate this day than a community tree planting event involving retired foresters, foresters from corporations (HQ Plantations and SFM Forest Products) and government departments (Queensland DAFF), volunteers from the IFA Queensland Division, volunteers from Save Our Waterways Now (SOWN) and our families.

About 200 trees and shrubs were planted as part of the Ithaca Intact Project, which is funded under a grant provided by the Queensland Department of Environment and Heritage. This project is aiming to restore 7km of Ithaca Creek extending from Mt Cootha to Red Hill.

We had a very enjoyable morning planting trees with a wonderful exchange of ideas, experiences and information between the members of the IFA and SOWN. It was all rounded off very nicely with a morning tea including freshly baked scones and pikelets and billy tea.
The WA Division joined forces with the Bushfire Front, a local lobby group advocating the importance of prescribed burning, in hosting a seminar with historian Bill Gammage on Saturday evening, 20 April 2013. Bill has become well known in forestry circles with his award-winning book, *The Biggest Estate on Earth*, how aborigines made Australia, and was happy to spend an evening and supper with nearly 60 interested people at the Manning Hall in Perth.

In a thoughtful, measured and scholarly tone, Bill described with countless examples how aborigines, prior to 1788, deliberately and systematically carried out grass, scrub and forest burning, in all corners of our continent, in a manner which should make today’s land managers sit up and take good notice. Although some questioned the scale of burning carried out over the past 40,000 years, there is no questioning the fact that indigenous Australians were very aware of the dangers of fierce bushfires during the height of the hot dry seasons and regularly carried out what we call “prescribed” burning under generally mild conditions.

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**2013/14 Member Subscription Fees**

<table>
<thead>
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<th>Membership Category</th>
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<tr>
<td>Associate Membership</td>
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</tbody>
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No change from previous year.
West Australian foresters were saddened at the passing of Dr Eric Hopkins earlier this year.

A noted scientist, and the first officer in the history of the WA Forests Department to have taken study leave and to be awarded a PhD, Eric led the Department’s research programme for many years. He was active in tree breeding work with radiata and pinaster, nutritional and silvicultural work, and many other research projects across the forestry board. Later in his career he became Chief of Inventory and Planning, but his love for research was such that when he retired in 1989 he worked in a voluntary capacity, going back over decades of unpublished research into maritime pine silviculture, nutrition and genetics, pulling it all together and publishing the results.

Eric was well known for having his own views on most issues and was a man who did not hold back. This doggedness no doubt helped him overcome a very tough time in his early years. During his honours year at university in Canberra, Eric contracted tuberculosis. This was an enormous blow for a young man in his twenties, but new antibiotic treatments were just becoming available and Eric became part of the testing programme. After two years of recovery he was able to launch into his career with gusto.

As well as being a dedicated officer of the WA Forests Department, Eric was active in the IFA, including holding the position of chair of the WA Division for some years, as well as ANZAAS and the WA Royal Society. He was the author of the first environmental impact study ever produced in Australia — on the proposed WA woodchip project.

Eric died peacefully in Perth after a short illness. He is survived by his wife Jill, sons Mark and Paul and their families.

Foresters, family, friends, politicians and colleagues gathered in Perth on April 27th to pay tribute at the passing of Bruce Beggs, one of Australia’s greatest foresters.

Born at Dwellingup in 1928, the son of a forester, Bruce grew up in the heart of the jarrah forest and steeped in the forestry culture. He assumed responsibilities early, becoming head of the family at the age of 14 when his father died. Jimmy Beggs had been gassed in the trenches in WWI.

Bruce went on to study forestry at UWA and the AFS, graduating in 1950 and starting his career in the karri forest at Pemberton as an ADFO - the bottom rung of the professional staff of the Forests Department. Only twenty-two years later in 1972 he was appointed to the highest rung, as Western Australia’s Conservator of Forests.

During those intervening years he had served as DFO at Dwellingup, as a regional Superintendent and Chief of the Division of Forest Protection. A
milestone was his generalship in the
field during the Dwellingup Fires in
January 1961. He showed supreme
courage in leading the fight against
insuperable odds, and then tireless
strategic skills in organising the
evacuation of towns and farms on
the great blow-up day. The burning
of three towns in one night without
the loss of a single life earned Bruce
hero status.

He never forgot the lessons he learned
in 1961. As Chief of Protection
and Conservator he championed the
fuel reduction burning program, the
development of aerial burning and
aerial fire detection and he supported
investment in fire research. The
culmination of all of this was that
WA forests went to the forefront of
bushfire management internationally.

Bruce Beggs was Conservator of
Forests for ten years, a decade now
looked back upon as the zenith of
forestry in Western Australia. He
took the department to a sound
financial position, with an enlarged
professional staff supported by a
magnificent cadre of well-trained
field officers and technical support.
The research division blossomed,
and there were numerous innovations
in dieback management, health
and safety, plantations, silviculture,
recreation and community relations.
He expanded regional operations to
the Pilbara, the Kimberley and the
south coast. The Forests Department
became one of the strongest and
most effective agencies in the public
service, and its boss one of the most
outstanding and respected public
servants. Little wonder that when a
new Premier came to office in 1982,
one of his first appointments was
Bruce Beggs as Director General
of the Department of Premier and
Cabinet.

In later years, after his retirement
in 1985, Bruce retained his strong
interests in forestry and in bushfire
management. He was the Chair of the
Lands and Forests Commission for
several years, oversaw the sandalwood
industry and sat on a number of
boards and committees. He was
a member and then Patron of the
Bushfire Front to which he provided
wise political advice and guidance.
Although at times he despaired over
the stark decline in forest and bushfire
management in WA in recent years,
he never lost his positive outlook.
“The pendulum will swing” he used
to say. Eventually he succumbed to
Parkinson's disease, but although this
affected his physical capacity, his mind
remained sharp and active to the end,
including his miraculous memory for
facts, faces and names.

Amongst his many honours were
membership of the Imperial Service
Order, and the Institute of Forster's
NW Jolly Medal.

At his well-attended funeral service,
Roger Underwood spoke on behalf
of the forestry profession and Bruce's
staff in the Forests Department –

‘To us he was, simply, The Boss. A man
universally respected and admired, and who
we trusted to guide us and to look out for us.
Whatever the challenge, we knew he would
support us. We were his departmental family.

Beyond his leadership, and his demand that
we do our jobs to the highest professional
standards, Bruce was also seen by us as a
legal and generous friend. Like all good
friends, he would share our tears as well as
our laughter.

Many people love the forest. Bruce Beggs’
unique contribution was that he not only
loved the forest, but that he had a vision
for its conservation and protection plus the
capacity to implement that vision.

He also loved forest people. It didn’t matter
whether they were the highest ranking forest
scientist, or the most humble forest workman.
His oft-repeated motto became our dictum:
“Forestry is not about trees, it is about
people”.

Bruce is known today as “The Last
Conservator”. In the view of his fellow-
foresters and his many associates in
government, industry, bushfire management
and the public service, he was also ... “The
Best Conservator”.

Bruce is survived by his wife Betty,
daughters Anne, Lee and Kaye,
nine grandchildren and a great
granddaughter.
Online vs Face-time

Now that the internet has completely integrated itself into our everyday lives, we have put our faith in the system and are recognising the benefits of online shopping. Once upon a time we let our fingers do the walking. If we wanted a new appliance, we would drag out the phone book, look up local retailers and then spend days (or even weeks) driving between stores looking for the best deals.

Along the way we would talk to sales reps, check out the latest brands and trends, and at some point, decide which one we really did want. So our basic routine would go something like this:

- Research product (brands/specs/features)
- Talk to sales reps and friends about the product pros and cons
- Find stores that well your product and get best deal
- Purchase and organise for pick up

The concept of online shopping hasn’t changed how we shop, but it sure has made it easier. Firstly, manufacturers provide detailed specifications on their website about their products. This allows you to print out the information you want so that you can refer to it later when mulling over your choices. Rather than reading the side of a box, you can now read the full manual to get a clearer idea of how your appliance will actually operate. This research ability alone will save you a weekend spent driving around from shop to shop looking at what’s available.

I still talk to my friends and seek their opinions when I’m making a big purchase, and now online forums also allow me to seek the reviews of other everyday consumers for the exact product that I am looking at buying. Sometimes this can be more reliable than getting the hard sell from a sales rep reliant on commission.

Once I have settled on which product I want to purchase, the internet will give me full listings of which companies sell my product. It will show me choices of purchasing through Australian companies or overseas companies however, even for Australian companies, unless its a large chain, I always do a check through the website and ensure that all company details such as ABN, street address and contact line has been made readily available. If in doubt, give the company a call and if you get a bad vibe then don’t order from them.

When looking at the prices, online does tend to be cheaper but be clever and check if there are any postage/delivery charges on top of the advertised price. Its a 50/50 split with some online stores offering free delivery and others changing. Do your calculations just like you would if you were shopping in person at the store and if it doesn’t work out to your benefit – you are not obligated to purchase. Another aspect to consider is that, just like retail stores, online stores will offer various discounts so if you can wait, I suggest bide your time and check in regularly with the online stores and see if your product is being offered as a sale item.

Now that I have found the online store and am happy with the price, its very simple to make the online transactions. The security features used nowadays for online shopping ensure the same level of security as if you were using your card in-store. Any credit card transaction is never without risk of the human driven criminal element, however, online shopping is now a regulated and secure environment in which to participate and does not pose any more of a threat than’ shopping in store or using teller machines etc.

I love the physical act of shopping but I am finding that less and less do I have the time to spend traipsing around the stores looking for that great bargain particularly on big ticket electrical items or even insurances, so I’ll spend the 30 minutes reviewing online stores and if it fits in with my criteria of price and convenience, then I’ll happily order it online.

Who is the bargain hunter in your family?

This past year has been an expensive year for me for one reason or another, and I have found myself being even more money conscious than I normally would be when making purchases. I had cause to buy a medium sized TV and because I was in the mood, spent some time browsing the shops. Nothing caught my eye and I have to admit that I didn’t think the offers were that reasonable. Perhaps as it was after midyear but too early for the Christmas sales, that the stores were not offering anything particularly thrilling by way of prices.

This led me to take a step back and start browsing the online stores. I was particularly busy with my work and was finding that I didn’t have the time to dedicate to the task that I should have and so my son offered to shop around for me. Go right ahead I told him and gave him my member advantage card (not my credit card...).

Well let me tell you, in the ‘give it to me now’ and ‘everything grows on trees’ generation, my boy surpassed my expectations for bargain shopping! He took the time and regularly checked in with the well known brand name stores and also with the stores listed with my IFA Member Advantage program. Within two weeks, he came to me with a deal that was approx $100 cheaper than any other online or in store price and this was through my member advantage program. The key was to be patient and keep checking in. The thrill was that it was worth waiting a few weeks for because the deal was amazing. The TV has since been delivered within a few days, installed and works fantastic.

Just because the Member Advantage card is in my name, doesn’t mean I have to be the only one that can browse through the stores. Give the card to your family and find out who your online bargain hunter is. – Its optional if you want to hand over your credit card too.

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**Reward yourself with your IFA member benefits**

**TRAVEL:** Looking for a different perspective or changing scenery for your next trip? Utilise your IFA member benefits at Expedia.com and save up to 25% off published rates.

**DINE:** Dine out safely and conveniently while supporting local businesses, with a $15 discount on your group booking at Zomato.com.

**DISCOVER:** Discover Canadian wineries with Visa Infinite Cardmembers. Enjoy $35 in savings off a one-night stay at Chateau Lake Louise. Visit DiscoverYourStyle.com for more savings. Click here to find out more.

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Institute of Foresters of Australia

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Member Advantage Online Smart Shopper