

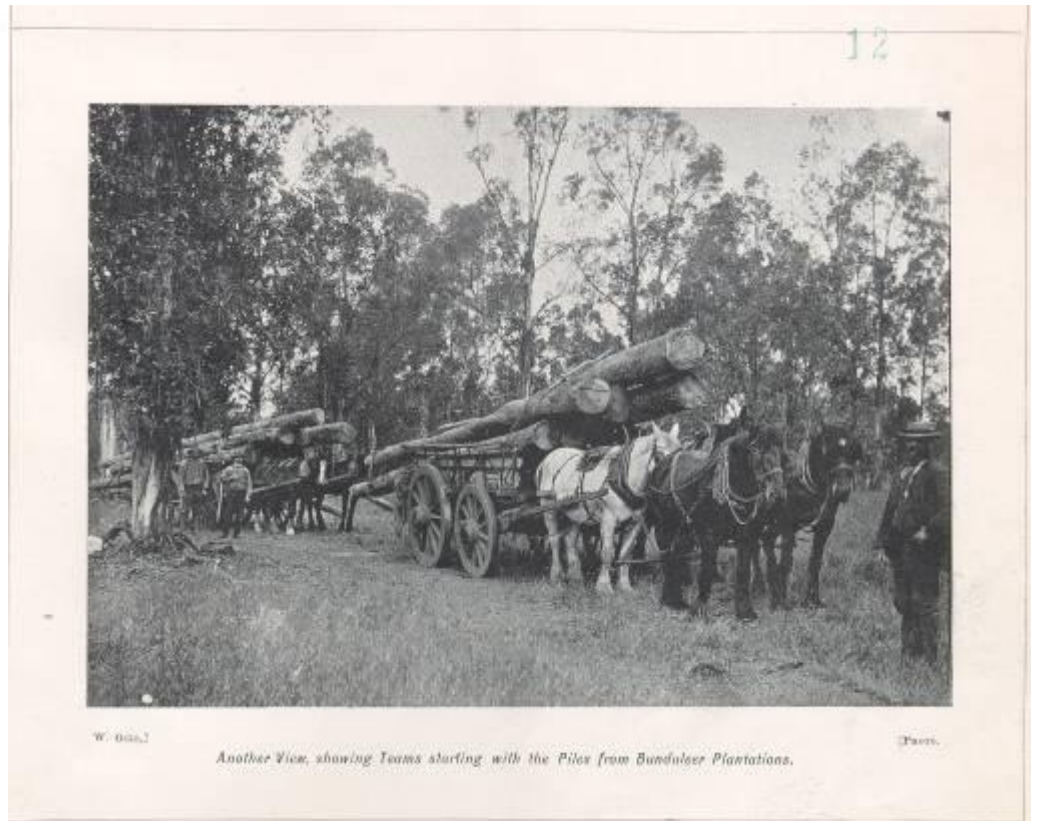
AUSTRALIAN

Forest History

SOCIETY Inc.

Newsletter No. 58
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"... to advance historical understanding of human interactions with Australian forest and woodland environments."



"Another View, showing Teams starting with the Piles from Bundaleer Plantations."

Walter Gill, a keen amateur photographer, was South Australian Conservator of Forests from 1890 to 1923. This photo was taken in 1899 of SA Woods and Forests Clydesdale teams hauling pines harvested from the first pine plantations in the Southern Hemisphere.

Photo courtesy of ForestrySA

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GUEST EDITOR'S NOTE

Australian forestry has a proud history of pine plantation establishment. The first *Pinus radiata* plantations in the world were established in South Australia in the 1870s by J. Ednie Brown, and it is logs from those plantings which are featured in the front cover photo. I have sought contributions from South Australian and NSW foresters on some of this history for this (and a future) issue of the AFHS newsletter.

This issue also includes a report of our recent Annual General Meeting, and an article from the society's new President, Greg Barton.

REPORT OF THE 2011 ANNUAL GENERAL MEETING

Kevin Frawley

The Annual General Meeting of the society was held in Canberra on 16th November 2011, attended by eight members with a small number of proxies. The meeting confirmed the minutes of the 2010 AGM. An unresolved matter from the 2010 AGM related to the proceedings of the 2004 AFHS conference in Augusta (WA). It had been agreed that the committee should approach the copyright holders - Dutch publishers Milpress - to request permission to place the proceedings on the AFHS website.

A written report prepared by the President, Brett Stubbs, was circulated and adopted by the meeting. Particular reference was made in the report to the following:

- Lismore Conference June 2010.
- Newsletter publication.
- Society website.
- Administration of the AFHS.

The Treasurer, Fintán Ó Laighin, presented a report on the audited financial accounts for the year which was adopted. The society remains in a healthy financial situation. As in 2010, the society still holds an amount under an ACT Heritage Grant (*Blundells Flat Management Plan*). The Secretary will write to the grantee and arrange to finalise the project. The meeting resolved to keep the annual subscription at its current level. The work of the Treasurer in maintaining the accounts as well as sending out information to members by email was noted by the meeting.

The following office bearers were elected for 2011-12:

President	Greg Barton
Vice-President	Jane Lennon
Secretary	Kevin Frawley
Treasurer	Fintán Ó Laighin
Committee	Robert Onfray, Brett Bennett, Sue Feary, James Beattie, Brett Stubbs

A vote of thanks to Brett Stubbs for his work as President for seven years was formally recorded.

Juliana Lazzari was reappointed Public Officer.

The society is fortunate in having Stephen Bailey as auditor for the annual accounts. A vote of thanks to the auditor was carried and it was resolved that the Treasurer approach Stephen to be auditor for the Society for 2011-12. (A small honorarium is given to Stephen in acknowledgment of his work.)

In other business:

- *Newsletter*: Newsletter coordinator, Sue Feary, noted that she would be in the Solomon Islands from March 2012 for six months. Sue advised that Leith Davis would be producing the December 2011 newsletter and that editors for the two editions in 2012 had been arranged (May 2012 New Zealand AFHS members; following edition Brett Stubbs).
- *Conference/workshop on transnational forestry*: John Dargavel and Brett Bennett noted that the matter is still under consideration but nothing has yet been determined.
- *Discussion on broadening the scope of the AFHS to become an "Australian and New Zealand Environmental History Society" (or similar)*: This was discussed in the context of factors such as declining membership of the AFHS, few new members offering to take on committee or other roles, and apparent lack of interest in organising another AFHS conference. The issue had also been discussed at the Lismore conference. Prior to the AGM, John Dargavel had suggested that the AFHS name be changed to the *Australian and New Zealand Environmental History Society (or similar)* and had also set out revised aim and objects for the society's constitution. The meeting also noted the views provided by members who were unable to attend the AGM. However, it was agreed that before any decision was taken to broaden the scope of the AFHS, there should be some discussions with environmental historians to gauge their interest in joining a combined forest and environmental history society.

THANK YOU TO BRETT STUBBS

This issue of the newsletter was commenced during the presidency of Brett Stubbs who handed over the reins to Greg Barton at the recent AGM. Brett took on the role as President of the Society in 2004 at the Society's conference in Augusta (can we ever forget it?). During the seven years following Brett introduced several innovations to "modernise" the Society, including starting the Occasional Paper series and establishing the Society's website for which he arranged the scanning of the complete set of newsletters. Brett played a major organisational role in both the Christchurch conference in 2007 and the Lismore conference in 2010. His contribution to the Society as President has been outstanding and we thank him. Brett will remain an active member of the Society - he remains on the committee and has promised to edit a future issue of the newsletter.

MESSAGE FROM OUR NEW PRESIDENT

Gregory Barton



I am greatly honoured by the election as President of the *Australian Forest History Society*. Nothing, however, could give me greater pleasure

than working with a group of people that I had learned to admire long before I joined. I first heard of the AFHS at Northwestern University in Chicago where I worked on my PhD in history, specializing in forestry and the origins of environmentalism in the British Empire, including Australia. From there I became acquainted with Steve Anderson and others at the US *Forest History Society*, and Jeff Burley of the *Commonwealth Forestry Association*. Later, my scholarship led me to associate with the "forestry mafia," as my dissertation advisor, Harold Perkin, dubbed them. These consisted of former Indian foresters, and their children, now living in the United Kingdom. From their family papers and letters, along with a mass of reports and official publications, I helped reconstruct the story of how empire foresters played a central role in the foundation of the global environmental movement. I still remember browsing over the AFHS newsletters and conference publications with great curiosity.

I have a personal connection to the forests that line the rim of the Pacific. I was born in Oregon, and raised in small logging towns, first, Coos Bay, and then Astoria. My father was a logger. I grew up at that exact point where the Columbia River meets the Pacific. The poignant smell of pulp mills, giant logging trucks hauling old growth Douglas fir over gravel roads, and the distant, melancholy wail of the chain saw, are forever etched in my memory. At 10 years of age I began riding my bicycle to the Port of Astoria where dock workers piled 2x4 boards into towering mountains ready for export to Japan. My companions and I, trespassing naughtily, crawled through the blonde canyons created by the towering stacks, breathing intoxicating ether of fir. Then jumping level to level we reached the pinnacle. From there, besides a magnificent view of the Columbia Bar could be seen the great rafts of timber floating down the Columbia. These were hoisted on a ship that towered high over the docks. As the ship filled, the deck slowly sank to eye level. I used to board these Asian ships, trading coins with the sailors, and thrilled for the chance to explore the throbbing intestines of the engine rooms.

When my family moved to Portland Oregon my mother, for a time, worked for Esco Corporation, as did I, at the age of seventeen, on my first full time job. The company, made logging equipment and great earth moving buckets, one of which is on prominent display at the National Museum of Australia in Canberra. As I explored the great outdoors in Oregon and Washington, I came to understand a deep love of the forests and its unique eco-system from living for years in Zigzag Oregon, on the border of the Mt. Hood National Forest.

From Oregon I went to Chicago, where I completed my PhD in History at Northwestern University. I wrote my thesis on an amazing group of foresters in the British Empire who I argue helped start the conservation and environmental movements. My research continued to show links between professional forestry and modern ideas of climate change, biodiversity, and sustainability.

I am now a Research Fellow at the Centre for Environmental History at ANU, where I focus on the history of environmentalism, from the nineteenth century to the present. In this capacity I have also started and now edit, with Brett Bennett, the *World Forest History* book series with ANU EPress. This project overlaps with the interests of the AFHS and continues a long and fruitful association between the AFHS and ANU. I look forward to working together with the committee and the membership as we build the AFHS together. Past Presidents John Dargavel and Brett Stubbs will be a hard act to follow, and I depend on them greatly for advice as we go forward. Working with the current committee, including the vice president Jane Lennon, and our committed board members, Kevin Frawley, Fintán Ó Laighín, Robert Onfray, Brett Bennett, James Beattie, Sue Feary (who is also our newsletter editor) as well as Brett Stubbs who remains on the committee, will be a great pleasure.

We will be tackling a number of challenges in this coming year. Our membership will discuss the issue of a name change from the *Australian Forest History Society* to the *New Zealand and Australian Environmental and Forest History Society*. The proposed name change will, if enacted, enable us to recruit members and historians from a broader base, particularly bringing those in who wish to investigate the history that forests have played in larger issue of ecology, biodiversity, climate, and culture. The society would remain committed to a non-partisan approach to issues, to forest history, and to an appreciation of the vast impact on the world that the profession of forestry has played.

We will face a special challenge building the membership base and outreach. We already have a remarkable base of high quality publications - no small feat for such a small society. In particular, I hope that, building on the success that the society has already experienced, to further expand a dialogue between our members and the mass media. Since our members range from private enthusiasts, to historians in the academy, government, and industry, we have a wealth of expertise that can address environmental and forest issues. To accomplish this I will propose to the committee and membership that a database of members who volunteer to list their expertise be available on our website for those who seek advice, comment, and consultation. This outreach can, I believe, be accomplished while still maintaining a non-partisan posture. In this regard, an enhanced website may also be useful.

In the meantime, I look forward to working with all of you in this coming year as we build on past success.

AUSTRALIAN FOREST HISTORY SOCIETY SUGGESTIONS

James Beattie

In response to John Taylor's "Future Directions" article (December 2010, p.4), I would like to thank him for bringing up several issues on the subject of forest history and the society. To my mind, two of the great strengths of our society are its inclusiveness and focus. The friendliness at our gatherings creates a wonderful atmosphere, unique, I would venture, to conferences. Our focus on a particular topic brings together all who share an interest in forest history, resulting in a rich cross-fertilisation of ideas as foresters rub shoulders with scientists, historians debate with geographers, activists sit down with timber millers. Speaking personally, as a historian I have benefited a great deal from discussion with people.

John's article as I see it, is an attempt to revitalise a society whose numbers are diminishing. As John notes, it appears for a variety of reasons that foresters themselves find it increasingly difficult to attend such meetings while we are just not attracting younger students and people to our society. I would also reiterate John's point of the difficulty of getting students to study aspects of forest history. So far I have had no success after 4 years at Waikato in attracting students to the topic!

At the meeting designed to discuss the issues facing our society, John raised the point that the topic of environmental history came up again and again as a possible avenue for us to pursue. Until recently I've resisted the idea of shifting the focus to environmental history as I suspected the forest history side of things may be overtaken. But if it will ensure our society's future, then I think it should be seriously considered. After all, that's how the American Society emerged. If we do consider the option of embracing environmental history, it would be useful if it became an Australasian Society of Environmental History or perhaps, to keep forests prominent to its focus, the Australasian Forest and Environmental History Society? We would be able to feed into and draw from the Environmental History centres at the ANU and Western Australia. I would also welcome broadening the existing journal I edit, *ENNZ: Environment and Nature in New Zealand* (which is currently hosted by the ANU anyhow), to incorporate these wider aims and to offer an outlet to publications, subject to discussion with my editorial board. Brett Bennett, Greg Barton and myself are presently exploring the possibility of a more formal journal devoted more broadly to environmental history in the region, and it is possible the society could springboard from that.

These are only suggestions, and I am looking forward to reading other ideas.



THE OLDEST CLIMATE ADAPTATION TRIAL IN AUSTRALIAN PLANTATION FORESTRY

Don McGuire, Principal Scientist Research, ForestrySA
(mcguire.don@forestrysa.com.au)

South Australia is poorly endowed with native forest resources compared with all other Australian states. Less than 1% of the state receives more than 600 mm of rainfall, and tall closed stringy-bark forest only occurs at higher elevation in limited wetter locations.

Following white settlement in 1836, the best and most accessible forest stands were rapidly exploited for timber and fuel, or cleared for cropping.

In September 1870, H.H.F. Krichauff raised alarm in parliament at the rapid decline in forests, and Goyder, the Surveyor-General subsequently reported back on the size (not less than 4 square miles) and sites of forest reserves for preserving native timbers. In 1873, Krichauff introduced into parliament "an Act to Encourage the Planting of Trees". A large number of dedicated forest reserves were formally gazetted across the state, although not all have remained under forestry stewardship. Some were maintained benignly and have become important national parks, such as Mount Remarkable and Belair. Remnants of the date palms originally established in 1895 at Lake Harry have only recently been destroyed by the Department of Environment and Natural Resources.

A Forest Board was subsequently established in 1875, with Goyder as its first chairman. Large areas of *Eucalyptus globulus* (*spp globulus, maidenii, bicostata*) were established at 5x5 m spacing (400/ha) at Wirrabara and Bundaleer Forest Reserves from 1877. The Board appointed J. Ednie Brown as first Conservator of Forests in 1878; he began testing native and exotic species on farmland, railway and reservoir reserves. Trial plantations of 105 various species were established by 1905 over a wide range of soils and climate across the state. The Woods and Forests Department (now ForestrySA) was established in 1882 to regulate further exploitation of the remnant forests, encourage tree planting on cleared land, and develop a plantation resource for future wood supply.

The exceptionally good growth rates of *E. globulus*, *leucosylon*, *viminalis* and *cladocalyx* are recorded in the 1885-86 annual report. A series of droughts in the 1890s caused severe mortality in blue gums (*E. globulus, viminalis*), and focussed attention on a few pine species to supply softwood timber of which Australia had very limited natural resources. Radiata pine proved to be outstanding in growth, form and adaptability across sites, and became the mainstay of plantation establishment.

Walter Gill succeeded Brown in 1890, and over the next 33 years, endeavoured to prove the quality of young locally grown timber against imported softwood from old growth forest in Europe and North America. Gill also created an excellent photographic record of the early history of forestry in SA. Large scale plantation establishment of radiata pine commenced in the south east region in 1907, and expanded significantly from 1925 onwards under E. Julius, particularly during the depression in the 1930s through unemployment relief schemes.



View looking down Firebreak, Plantation H, Wirrabara Forest, showing Remarkable Pines (Pinus insignis), 79 years old (Woods & Forests Department Annual Report, 1890-91, Courtesy ForestrySA).

Since the plantation resource was totally man-made using an exotic species, and necessarily funded by public loans, classical sustained yield principles under frugal expenditure constraints have driven the expansion and silviculture of the estate.

Lack of outlets for thinnings also led to pioneering of sawmilling technology, kiln drying, preservation, timber grading standards and market development.

The first management plans were developed for Kuitpo Forest by Corbin in 1916, while Swain developed plans in 1934 to supply a new pulp mill development from south east forest resources. The development of thinning schedules based on the mensuration of permanent sample plots was originally undertaken by Jolly, refined as the "Optimum Thinning Guide" by Norm Lewis, and further developed by Keeves and Leech.

The high productivity of radiata pine in south east SA is quite remarkable, particularly given the impoverished sandy soils and adverse climatic variation. Within any given compartment, site quality mapping demonstrates that soils have a greater influence on tree growth and productivity than silviculture or climate *per se*. A three fold variation in volume productivity may be encountered with variations in soil fertility, moisture supply and micro-topography. The true potential of the estate remains unknown, as improvements in silviculture raise the general level of productivity across all sites.

Most of the ForestrySA softwood estate is at the lower end of the rainfall distribution of Australian plantations, ranging from 550mm average at Bundaleer to a maximum of 900mm at Mount Burr. The Mediterranean climate of SA (cool wet winters, hot dry summers) places severe constraints on tree growth, and has driven the development of silvicultural practices during both the establishment phase and later in the rotation.

The original lack of native forests has always placed ForestrySA in the van of plantation resource development, and the need to confront issues and problems as they arose, often with little external assistance. The problem of "dieback" recognised in 1914

was originally circumvented by avoiding planting in particular soil types until the disorder was identified as zinc deficiency in 1939. The nutritional aspects of pine productivity on marginal sites been investigated for phosphorus, nitrogen and micronutrients. The problem of "second rotation decline" in productivity stimulated wider co-operative research into many aspects of pine physiology with other forestry organisations and universities. The early pioneering work of Fielding and Pawsey (Forestry and Timber Bureau) in tree breeding, was continued in the 1970s by Paul Cotterill (CSIRO), and ultimately resulted in the formation of the Southern Tree Breeding Association, a national breeding co-operative.

The replanting of large areas burnt in the Ash Wednesday wildfires in 1983 in both the Mount Lofty Ranges and south east regions was completed in the mid 1990s, and will form the main basis of sawlog availability in the near future. Current management of plantations in the southern Flinders Ranges under potential future climate change scenarios will assist the evolution and testing of silvicultural practice within ForestrySA. A comprehensive account of "Living on the edge" and the first 110 years of adaptation is given in the review by Bob Boardman in *Australian Forestry* 1988, Vol 51(3).

South Australia now has the most mature, high quality radiata pine plantation estate in Australia, backed by a long history of research and development in silviculture, harvesting and utilisation. A pine resource of 100,000 ha in the south east supports a large vertically integrated timber processing industry, with a significant contribution to the regional economy and employment.

Climate change is only one of a series of threats facing forest growers and their ability to remain sustainable and economically viable. Recent droughts have focussed attention on plantation water use and the need to be accounted within regulatory frameworks such as water allocation plans. The ill winds of the global financial crisis have caused the collapse of many Managed Investment Scheme companies and industry restructuring, while the Japanese tsunami created considerable market uncertainty. The mooted forward sale of harvesting rights of the ForestrySA estate has caused considerable community concern about local sawlog processing. Biosecurity remains a high priority, and requires constant vigilance of global issues.

It would be extremely difficult, but not impossible, to change species now, given the substantial investment in growing and processing, but it could happen. For ForestrySA, the experiment to exist continues.

Editor's Note: The ForestrySA website has a short overview titled "About Forestry in the Early Days" at www.forestrysa.com.au/AboutUs/HistoryofForestrySA/ForestryintheEarlyDays.aspx, and a page on the first two conservators (Brown and Gill) at www.forestrysa.com.au/AboutUs/HistoryofForestrySA/EarlyConservators.aspx.

WOODBURN PLANTATION - ITS DESTINY LAY IN ITS NAME: PART 1: THE EARLY NSW PLANTATION PROGRAM

Ian Barnes, Retired Forester, Batemans Bay

In the mid to late 1800s NSW forests were taking a hammering. Large areas were being cleared or ringbarked in the pursuit of agriculture and much of the timber was wasted. The easily accessible rainforest timbers were depleting, leading to large imports of softwood timbers from North America. The few forest conservators of the time began calling for forest reserves to be created and for alternative sources of soft timber supplies to be considered.

Early NSW red cedar plantation attempts were not successful and the search for a softwood plantation species inevitably led to experimental plantings of the *Pinus* genus, notably *P. radiata* (known then as *P. insignis*) and *P. pinaster*. The 1912 Royal Commission of Inquiry on Forestry in NSW concluded that there was a dire shortage of softwood timbers and recommended the planting of exotic softwood (drawing on the experience of South Australia?) and that such plantings be on "waste lands of the coast" (experience from France).

Such a program commenced in 1919 with a series of *P. radiata* and *P. pinaster* plantings across the State, the first being on old sand dunes at Tuncurry on the mid north coast. Plantings there continued until 1934 but were ultimately destroyed by fire in 1939. Further detail on the early days of NSW forestry can be explored in T.C. Grant's excellent *History of Forestry in New South Wales 1788-1988*.

Areas of the south coast were planted at East Boyd near Eden (1918-35) and in Woodburn State Forest south of Ulladulla (1921-64).

The Woodburn Story - Forester vs Fire

The history of the Woodburn plantation is largely told within 8 files and 3 maps held in the Batemans Bay forestry office records, although much of the tale in those documents does not commence until 1936. More of the

story may lie within records in Sydney but not yet sighted.

Woodburn State Forest No. 755 was dedicated on 5th November 1920. The forest is generally of gently undulating sandstone formations and ancient marine deposits. It is mainly on the latter that the Woodburn plantation was designed by clearing the native Blackbutt / Bloodwood / Scribbly Gum forest. Plantings began in 1921.

The early history of the plantation is revealed by studying the best of the three Batemans Bay maps (as shown on this page). It is of 1921 origin at a scale of 10 chains to one inch and holds quite a bit of handwritten detail of the early workings. The earliest record

noted on the map is 1924 and the latest 1930. Notations include:

*** Species planted (in order of approximate area):**

Pinus insignis (now *P. radiata*), *P. pinaster*, *P. muricata*, *P. caribaea*, (*P. ellioti*), *P. taeda*, *P. densiflora*, *P. echinata*, *P. luchuensis*, *P. patula*, *P. thunbergia*, *P. palustris*, *P. insularis* (*P. kesija*) and *P. serotina*.





Only the first three species listed had significant area. The other species appear to be small trials. At least one internal fire break was lined with Plane Tree plantings. (A later 1948 reference indicates that the plantation also had a small area of *Eucalyptus microcorys*.)

*** Management features:** compartment numbers, fences, tracks/roads, "overseers dwelling", "site for overseers cottage" (sounds like a proposed upgrade!), "workmans hut", nursery, "ringbarked and cleared", "refilled", "brushed" and firebreaks of various widths from 16 feet to 2 chains.

*** Context information:** Locality - "5 miles south of Ulladulla and a port of call for coastal steamers", neighbouring lands, road reserves, "caterpillar" ridges, swamps, lakes, rocky ground.

A second map shows the precise location of up to 80 sites soil sampled in 1927.

A 1937 report by an unknown forester, possibly Doug Lindsay, "Report on Radiata Site Quality Survey - Woodburn Plantation SF 755", and also held in the Batemans Bay forestry office library, summarises the plantings at that time:

	P. rad	P. mur	P. pin/car	P. pin	P. car	P. taed	Misc	Tot
Acres	328	201	194	193	169	69	91	1245
%	27	16	15	15	14	6	7	100

The 1937 report concluded that the plantation carried 943,000 super feet of volume (to 4" top) and that *P. caribaea* was the only species to "show promise of healthy growth". It usually achieved a maximum mean dominant height of 80 feet on this site. Subsequently, all but the "pure" *P. caribaea* and *P. taeda* stands were to be liquidated, the purging expected at the time to yield 2.1 million super feet. It is not known exactly how much was accomplished but a 1944 fire killed all the *P. radiata* and put an end to its misery at Woodburn.

In 1943 thinning was proposed. A shortage of men at the time forced the Forestry Commission to employ its own contractors at 3 shillings and one pence per 100 super feet plus horse and harness hire at 7 shillings and six pence per day. "The horse is to be treated similarly to a man and must show daily work details."

A 1948 plantation review encouraged further thinning and concluded that reforestation was only feasible with fertilisation. The results of subsequent fertiliser trials were reviewed in 1953 by biometrician Mr E. Check and reported by Senior Forester Jack Henry, finding mediocre results. Nevertheless, it appears that routine application of superphosphate continued at 3 cwt/acre and in about 1963 a landing strip nearby on the State Forest adjacent to Tabourie Lake suggests aerial applications.

A Dr Ludbrook, in association with the Forestry and Timber Bureau, continued trials and published the results in "The Response to Phosphates of Pinus Grown on Infertile Soils in NSW", CSIRO Divisional Report No. 22

of 1962. A copy is held in the Batemans Bay forestry office library.

Severe fires in the early 1950s burnt over half the standing volume of 4.5 million super feet and sawmiller Lego Bros of Hornsby enjoying the spoils of the resulting salvage. The fire prompted District Forester Fred Bailey to urge that the plantation was "not feasible any more" but there is little on the record to suggest that many were listening.

In 1954 Assistant Commissioner Muir instructed that the best quality sites (in compartments 22-25) be kept and "the rest be cleaned up". This was duly accomplished and the plantation shrank back to about 90 acres, mainly of 1931 and 1932 age class west and east of Tabourie Lake plus some 1948 age class adjacent to the Princes Highway. As the ultimate history reveals, despite some valiant efforts to expand the plantation, the 1954 hectarage would be the only survivors of further problems.

Meanwhile, the following management issues from the records are of interest.

The raising of seedlings was a serious business. An on-site nursery raised seedlings from seed sourced in north coast plantations and Woolgoolga seed orchard. In 1959 a new half acre nursery with earth dam water supply was constructed. It is not known what ultimately happened to the 1957 trial of 1 pound of seed sourced from Portugal of *P. pinaster* "Leiria strain".

In 1939 approval was sought for the sale of 25 seedlings at 15/- per 100.

In the same year the Milton Postmaster insisted that the Forestry Commission invest in a new mail bag for the plantation, the old one being resistant to further attempts to patching. In 1943 communications improved further with approval to construct a telephone line from nearby Burrill Lake, probably associated with improving fire control response.

As a result of a 1936 fire, Head Office advice was sought regarding pruning height into the green crown. Long handled saws were requisitioned, suggesting that until that time, little high pruning, perhaps any pruning, was pursued. 21,000 trees had post fire "dead and scorched limbs" removed and a similar operation was again necessary in 1939 as a result of fire.

In the 1940s, Head Office interest in turpentine and rosin production heightened with a short review of the American, French and New American method of extraction. It is not known if even experimental tapping began in Woodburn but there is reference to experience at Banyabba (NSW north coast) and in Queensland.

A 1945 record makes obscure reference to Woodburn being involved in the "making of cabinets for wireless sets", no doubt associated with the then war effort.

[Part 2 Woodburn plantation's history will appear in a future issue of this newsletter.]



THE FUTURE OF AUSTRALIA'S WOOD COLLECTIONS?

Gordon Dadswell and John Dargavel

The conservation and use of the scientific collections of wood, or "xylaria", that were built up in Australia during the twentieth century has become uncertain following institutional changes. There are two related concerns: the preservation or disposal of those collections that are not required by the institutions that now hold them; and the shortage of wood scientists who use the collections for their own research, or do so for others.

We have prepared a brief overview of the situation of the principal Australian collections as we understand it and would appreciate any corrections or further information from readers.

Xylaria are important: as important as libraries and archives, all of which hold material for use by future generations. They are however, not just repositories: their value lies in the potential access by researchers in the natural sciences, technology, archaeology and history. As with archives and libraries, future use is not necessarily immediately explicit, but develops over time. The failure to publicly endorse xylaria, particularly those held by government agencies, is reflected in the lack of obligation that attaches to such recognition to retain and conserve the collections, that results in Australia's wood heritage being sold to private companies, lost, or worse, destroyed.

Xylaria, in common with archives and libraries, have three key prerequisites: collection, organisation and conservation. It is apparent from the information gathered for this Note that both organisation and conservation is sadly lacking in all but a couple of cases. Of most concern is the failure to ensure the conservation of the national xylaria held by the CSIRO. The summary below lists known xylaria in Australia.

The information sought to assess the status of xylaria in Australia was based on two sources: the electronic version of the *Index Xylorium*, published by the International Association of Wood Anatomists and maintained by the Kew Botanical Gardens, UK in 1988; and a PhD thesis, *A Prototype Interactive Identification Tool to Fragmentary Wood from Eastern Central Australia and its Application to Aboriginal Ethnographical Artefacts*, by Jennifer Barker. As tools for assessing the current position of Australian xylaria, the *Index* was used to identify the known xylaria in Australia as well as to ascertain their status as at 1988, and the thesis, the situation as at 2005. The key questions asked of correspondents were: where is the collection housed? has material been added? and what were the sources for material if it differed from the information supplied in the reference tools? No attempt was made to update the entries for the *Index*.

The picture painted in the following summary is depressing. It would appear that the agencies responsible for collections, with the exception of Queensland and hopefully New South Wales, are potentially at risk. Indeed the lack of information from South Australia suggests that the collection in that state is lost.

Another major issue is the lack of comprehensive catalogues and listings in machine-readable form. There are two major effects of this situation. First, that potential users have no means to ascertain the coverage of wood specimens in Australia, and as many of the collections are not publicly accessible, this information remains hidden. The second point relates to the inability of researchers, particularly in the botanical sciences, to identify gaps in the collections. This is fairly critical as deforestation is continuing around the globe and many species have the potential to be destroyed before identification and samples can be taken.

It is to be hoped that this news item may encourage a conversation amongst interested parties. It is to be hoped that government agencies responsible for collections are made aware of the issues and by taking a national, rather than state, approach, we may see the retention, organisation, and conservation of these very important xylaria.

Xylaria Collections in Australia

1. National - CSIRO

Contact: Jugo Ilic has been appointed as a CSIRO honorary research fellow and has access to the collection at any time.

Foundation: 1929 by the Council for Scientific and Industrial Research, Division of Forest Products.

Scientist/Curator: The collection is currently being assessed, and it is hoped that Jugo Ilic will be appointed as scientist/curator.

Collection: The major national collection. 47,000 specimens covering 13,000 species, representing 270 families, specialising in Australia, PNG, Malaysia and the southwest Pacific.

Situation: The Division of Forest Products passed through a variety of name changes and functions from 1971. The wood collection ceased to be maintained once Jugo Ilic retired from work at CSIRO in 2005. No current access. Collection is currently stored at the CSIRO Clayton site. Not listed on CSIRO's web site as one of their national collections.

2. National - Australian National University, Fenner School of Environment and Society, Canberra

Contacts: Prof. Stephen Dovers, Director;
Prof. Peter Kanowski, Professor of Forestry.

Foundation: 1925 as teaching and research collection for the Australian Forestry School (AFS). Transferred to Department of Forestry (now Fenner School of Environment and Society) in 1965.

Scientist/Curator: None.

Collections:

1. The AFS collection consists of 7027 samples in 3118 species. It includes a Wood Library of large blocks displayed in a library in a room in the ANU Forestry Building.



2. The "Dadswell" collection consists of 2400 samples of 500 species with microscope slides.
3. The PNG collection consists of 200 species collected by the Australian Army Forestry Corps in 1942-1943.

Situation: The last full-time wood scientist (Prof. Phil Evans) left ANU in 2001. Wood anatomy was taught by casual staff until 2009. In 2011 the collections (except the Wood Library) were removed to a shipping container during a building and renovation program. An inventory of the material was made and the indexes to it are extant.

The Director of the Fenner School, Prof. Stephen Dovers, commissioned a significance assessment of the collections as a first step in deciding on their eventual future. It was conducted by Roslyn Russell Museum Services and is publicly available on the School's web site at: <http://fennerschool.anu.edu.au/about-us/wood-collection>.

3. New South Wales - NSW Herbarium, Royal Botanic Gardens, Sydney

Foundation: 1881 Forestry Commission of NSW. Transferred to NSW Herbarium in October 2011.

Scientist/Curator: Dale Dixon, Manager Collections, National Herbarium of New South Wales.

Collection: This is the second oldest collection in Australia. It was established by foresters and botanists, including J.H. Maiden. Large collection of Acacia and a comprehensive collection of thin section slides. The collection numbers some 30,000 specimens in 1380 genera. Significant collections are C.E. Lane-Poole's material collected in New Guinea, and the Acacia material collected by M. Tindale.

Situation: With the collection now housed at the Herbarium it is too early to ascertain whether previous policies such as providing samples for sectioning, exchange and publications, will continue.

4. Queensland - Department of Employment, Economic Development and Innovation, Brisbane

Contact: Gary Hopewell, Senior Technician, Forest Product Innovations.

Foundation: 1922.

Scientist/Curator: Gary Hopewell.

Collection: 4500-10,000 specimens in 200 genera, specialising in Queensland trees.

Situation: Bailey Collections (Queensland timbers): one complete set on display in Salisbury Research Facility; duplicates are in the Eco-Sciences collection in Dutton Park; a third set is housed at the Brisbane Herbarium at Mount Coot-tha.

A separate set of larger Queensland samples is on display (and frequently used for ID in the Salisbury Research Facility visiting scientist office/lab). This is referred to as the Pettigrew Collection, after an early Brisbane sawmiller.

Other Australian timbers: samples from other Australian states are housed with the main collection at Dutton Park and were acquired through reciprocal exchanges with Forestry Departments.

International: through reciprocal exchanges with other institutions around the world, with recent samples from Brazil, plantation hardwoods from Queensland, additional Pacific Island samples and an apparently colourful range from former French colonies in Africa.

The department hopes to compile a database for the collection and is seeking funding.

5. Queensland - Queensland Herbarium, Brisbane

Contact: Alan Bolin, Principal Technical Officer, Biodiversity and Ecosystem Sciences.

Foundation: 1880. Australia's oldest collection.

Scientist/Curator: Alan Bolin.

Collection: 3000 specimens including some early New Guinea Forest (NGF) collections from the 1940s (1100 specimens) and a more recent collection from North Queensland of one of the staff botanists, Dr P. Forster, in 1996 (1300 specimens). There are also three specimens from the Dadswell NGF from 1944. The herbarium maintains a list of collectors with the number of their wood collections held. No microscopic collections.

Situation: Active. Still collecting.

6. South Australia

The situation in South Australia is extremely uncertain. In 2005 Barker indicated that the wood collection, held then by ForestrySA, was in storage, but there were plans to "recover" the collection, if a suitable repository could be found. All attempts to ascertain whether this has occurred have been met with silence. The 1988 *Index Xylorium* described the collection as being about 4000 specimens.

Membership of the Australian Forest History Society (AFHS) Inc is \$25 a year, or \$15 a year for students and for overseas addresses is \$30 (**in Australian currency please**). These prices do not include GST as the AFHS is not registered for paying or claiming GST. Membership expires on 30th June each year. Payment can be made by cheque or money order, or through Electronic Funds Transfer. Cheques or Money Orders made payable to:

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GEOFF PARK SELECT BIBLIOGRAPHY

Michael Roche (m.m.roche@massey.ac.nz)

The editor apologises for accidentally omitting a section of the bibliography of the works of the late Geoff Park from the last newsletter. Here it is again, in full, with thanks to Mike Roche for pointing out the error.

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FORESTRY IN AUSTRALIA

A Swiss scientist's views (from *The Queenslander*, 12/11/1921).

Dr. Sieuold Heim, a Swiss scientist and president of the Geological Society of Zurich, who is visiting Melbourne, expressed regret yesterday at the absence of an effective forestry policy in Australia. "I have been deeply depressed," said Dr. Heim, "to find your most wonderful timber ruined. Even far away from roads and railways the most magnificent hardwood trees of the world, each one of which would be admired in Europe, and looked on a little fortune, are shamefully ringbarked, killed, and fired. This rough method might be justified for new settlement in timbered country, to prepare land for intense culture, but here it is continued in order to provide more grass for cattle and sheep." In other places, said Dr. Heim, where timber had been destroyed on slopes of mountains, the crust of weathered rock and soil, after having lost the network of roots which held it together, was gradually sliding. North of Murrurundi (New South Wales) he had seen square miles of soil gliding towards the valleys even at angles of seven degrees only, the earth being thrown up with cracks in the form of a glacier. It might take 20 to 100 years until, during wet weather, the slopes would slide down to the creek or the river, dam the water, and cause sudden outbreaks, which would be felt far down the valleys, where never before a dangerous flood had occurred. Such phenomena were well known in the Alps, and the only way to prevent them was foresting. "Should this new and wonderfully rich country short-sightedly be robbed of its natural gifts?" Dr. Heim asked. "Is it possible that not only might the uneducated farmer keep on with his practice, but that even the Ministries do not realise the calamity of the future? I must confess that after having heard of the fame of Australia's large eucalyptus trees I felt really sick to have found them chiefly in the form of a battlefield. I should feel, however, some consideration for the future of a veritable Commonwealth."

REPORT OF MEMBERS' ACTIVITIES

▫ Congratulations to *Michael Roche* who was awarded the distinguished New Zealand Geographer Medal for 2010 by the New Zealand Geographic Society in recognition of his "sustained, wide-ranging and exemplary contribution and service to geography".

▫ *James Beattie* and Professor Katie Holmes completed co-editing a special issue on "Australasian Gardens and Landscapes" for *Studies in the History of Gardens & Designed Landscapes* to appear in two issues (2 and 3) in 2011. James also presented two conference papers this year: on "Diasporic Chinese and their landscapes in Otago and Canton, 1860s-1910s" at *Otago: The Making of a Colonial Culture*, University of Otago, and "The Grand Lexicon of Imperial Health: Place, Plants and Landscape between South Asia and Australia, 1830s-1900s", at the *Health and Place Symposium*, University of Waikato.

James's book *Empire and Environmental Anxiety: Health, Science, Art and Conservation in South Asia and Australasia, 1800s-1920s* (Palgrave Macmillan) was published in June 2011. See

www.palgrave.com/products/title.aspx?pid=280584.

Demonstrating that systematic deforestation accompanied anxieties about human-induced climate change, soil erosion and a looming timber famine, *Empire and Environmental Anxiety* illuminates colonial fears about the power of environments - and environmental change - to affect health, artistic interpretation, city planning, bureaucratic developments and forest policy.

Environmental anxiety, it argues, tied together parts of south Asia and Australasia as policies, people, plants and ideas were exchanged between these areas, but adapted in light of colonies' particular political, economic and environmental circumstances and problems.

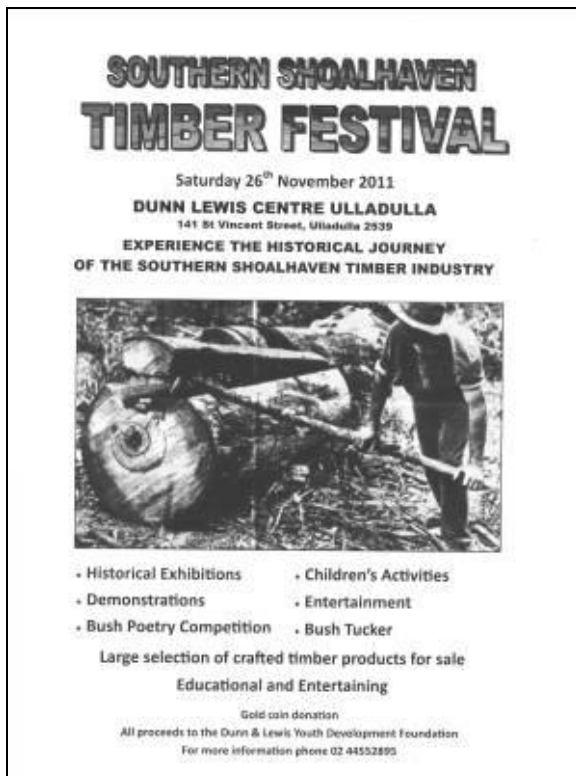
▫ *Sue Feary*, our co-ordinating editor, was one of 76 authors who contributed to *Traditional Forest Knowledge: Sustaining Communities, Ecosystems and Biocultural Diversity*, an initiative of the International Union of Forest Research Organizations (IUFRO) and published by Springer (www.springer.com) in November 2011. At the heart of the book is the belief that there is still much to be learned about sustainable forest management from local and indigenous peoples. Over countless years they have developed approaches for managing biodiversity and coping with changing environmental conditions. The book contains sections dealing with various aspects of traditional knowledge in North and South America, Europe, Africa, Asia and the Australia-Pacific regions.

CELEBRATING TIMBER HISTORY

John Dargavel


The first timber festival for the Southern Shoalhaven region of NSW showed that interest in forest history is alive and well. It was organised in Ulladulla in November by Jim Butler who, like his father before him, has worked in the industry all his life and now runs a sawmill. This sense of family connections spanning generations of timber men came through the day strongly. The Drurys, the Venesses, the Butlers and others are well known timber families in the region with two or three generations of experience. The Milton and Ulladulla Historical Society displayed its collection of photos and prepared posters of the history of the industry. The photos of fallers, logs, trucks were similar to those from other regions, but the posters that gave details of the working lives of some of the people were unusual and insightful. The most poignant was a "Roll of Honour" listing the names of 107 people who had been killed in accidents over the years - tree felling, falling limbs, crushed by logs, trucks rolling over, these were common causes. The youngest was a lad of 13 who like many young boys had gone to learn bush work with his fathers.

There were stalls of wood crafts, displays of tools, slabs of timber as well as the photo and poster displays. The festival was also a great social event, crowded with townspeople and many old timber men and their families. Entertainment ranged from a bush poetry competition to an Elvis impersonator and the NSW Heart and Soul line dance group. All the funds raised went to support the Dunn & Lewis Youth Development Foundation. What came over most strongly from the day was the enthusiasm that had been put into it.



**SOUTHERN SHOALHAVEN
 TIMBER FESTIVAL**

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**EXPERIENCE THE HISTORICAL JOURNEY
 OF THE SOUTHERN SHOALHAVEN TIMBER INDUSTRY**

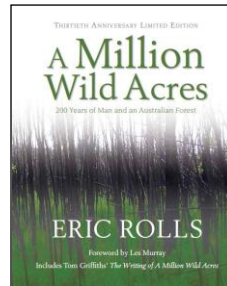


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BOOK REVIEWS



Eric Rolls 2011. *A Million Wild Acres: 200 Years of Man and an Australian Forest*. Thirtieth Anniversary Limited Hard Cover Edition. Commissioned by the Watermark Literary Society Inc.

Thirty years ago, a bomb landed in the field of Australian consciousness of itself and its land

in the form of Eric Rolls' *A Million Wild Acres*. The ensuing explosion has caused extensive and heated debate ever since amongst historians, ecologists, environmentalists, poets and writers. Now reprinted in a commemorative 30th Anniversary Edition for a new generation of readers and against the backdrop of renewed and urgent concern about climate change, it includes Tom Griffiths' seminal essay, *The Writing of A Million Wild Acres*, and a foreword by Les Murray drawn from his work *Eric Rolls and the Golden Disobedience*. Here is a contentious story of men and their passion for land; of occupation and settlement; of destruction and growth. By following the tracks of these pioneers who crossed the Blue Mountains into northern New South Wales, Eric Rolls - poet, farmer and self-taught naturalist - wrote the history of European settlement in Australia. He evoked the ruthlessness and determination of the first settlers who worked the land - a land they knew little about. He destroyed the argument that Australia's present dense eucalypt forests are the remnants of 200 years of energetic clearing.

RRP \$55.00+ p&h. Orders to lyndal@watermarkliterarysociety.asn.au.

Peter Evans 2010. *From Fjords to Eucalypt Forests: Bjarne K. Dahl's Journey*. Melbourne: Bjarne K. Dahl Trust 33 pp.

This delightfully illustrated short book by forest historian Peter Evans documents the life of "Bernie" Dahl (1898-1993), a Norwegian forester who came to Australia in 1928, and worked extensively on the forests of Gippsland and the Upper Yarra areas of Victoria. His life in forestry is well told, and accompanied by papers and objects of great interest. He died without immediate family, having outlived his wife and they had no children, so the sole beneficiary of his considerable estate was the Forests Commission of Victoria, which set up a trust fund, the Bjarne K. Dahl Trust, to further causes consistent with his interests. Through small grants the trust supports the community "for the undertaking of eucalypt education, promotion, cultivation, establishment and conservation".

This trust may also be of interest to historians of eucalypt forests. See <http://dahltrust.org.au> for details.

The biography can be downloaded from <http://dahltrust.org.au/about-us/bjarnes-story>.