Tāne's Tree Trust Newsletter
Native Trees for the Future
September 2010

THE TOP END OF AUSTRALIA

Newsletter No. 21
ISSN 1176-1245

Raewyn and I have recently returned from three months travels across the "Top End" of Australia. Briefly, the visit involved travelling from Darwin to Broome, and back again by alternative route. This was followed by a journey through the green centre of Australia aboard the famous Ghan train. Along the way we travelled through the Kimberly region; the Mitchel plateau; numerous million acre plus cattle stations, some of which are famous in their own right; and equally numerous National Parks and scenic reserves of varying size. Vast areas of "high" forest; "savannah" forest; wetlands; shrub-lands; grasslands; and deserts. Tar-sealed highways; gravel roads, with and without corrugations to satisfy all tastes; dirt roads, similarly endowed; and tracks, with and without protruding bedrock. The dry and the running flood-ways and fords are not optional. Spectacular escarpments; gorges; and rock formations that blaze orange red in the setting sun. Remarkably few large wild mammals but a few kangaroos and wallabies in the early evening; a few dingoes; the odd camel; the single wild water buffalo; one snake; an apparently tame donkey; bats in trees; and frogs in loos. Not to mention the dreaded Salties (not in the loos). But...millions of birds of all description, colours and size. And termites -those fascinating native grazers of the Top End's savannah and grasslands. Cattle; the placid looking Brahman and the Kimberly Red, which comes complete with attitude -for live export to Indonesia. ..... Laconic Aussies.....

I am aware of the many and varied species of gum and box in Australia and many are present in the Top End. Unprepared though for the large number of Acacia species...tree size to tiny ground cover...all with their typical fluffy yellow flower but leaf size that varied from "elephant ear" to millimetres. Also much taken with the variety and number of Grevillea with beautiful flowers coloured from white through cream, lime, yellow and orange to red.

We were there in the burning season. Modern day version of the ancient Aboriginal practice of "burn im up". Rotational burning of vast areas of cattle station and National Park alike to reduce fuel build up, provide access and gain sweet grass. Slow, cool fires at the beginning of the dry season in ecosystems adapted to the practice from the "Dreamtime"

For those who hanker for the ordered rows of planted trees in their landscape there are, in select locations, Mango farms and Indian Sandalwood plantations, the latter of interest because of the three host species also planted in association.

Something for everyone? Certainly for nearly everyone if your transport mode allows you off the tar-seal. Although there is still lots to see for those whose caravan or lack of 4wd keeps them on the black ribbon.

My Tāne's Tree Trust "Take" on The Top End.

First it is not the dust and bare red sand capital of Australia, although there is plenty of that. There are huge areas of forest, open woodlands and grasslands. It's tropical, and the wet/dry seasons dictate. Vast areas are inundated during the wet. Much of the cattle country is open woodland/light forest. So the graziers are managing forest, as are the managers of the conservation estate. Both are managing indigenous "forest" for multiple uses. Not all cattle stations have been successful over time, and there are those both failed and currently marginal economically. Some have reverted to public management and are today incorporated into national parks. Others now include tourism and recreational adventure as part of their business.

Two special areas for us were Mt Hart Wilderness Lodge and Purnululu National Park. Mt Hart station (one of those million acre plus jobs) had, over the years, five proprietors farm it -to walk off with nothing. The bulk of the station is now incorporated in the King Leopold Ranges National Park and is being managed back to a non grazed state with the accompanying floral development. A small area of some 1000ha is retained by the owner of the current lease and is managed as a private wilderness area surrounding a lodge set-up incorporating the original homestead.

Purnululu (the Bungle Bungle Range) is now a world heritage site but was previously part of Ord River station (another biggie) which in turn was part of a vast area of prosperous grazing lands. Heavy grazing gave rise to soil erosion and silting of the Ord River which in turn led to the leases being resumed by the Government in1967, to protect the river and the massive artificial Lake Argyle which it fed. The Bungle Bungles themselves are a set of uniquely shaped sandstone features which impress almost all who visit but are only part of a larger area being managed for natural values, ecotourism and water quality. Familiar words to foresters.

And so....on to the "centre". We had expected to see red but it is a wet year. The laconic Aussies thought we should be grateful to have seen the more unique green!

Murray McAlonan

Termite mounds in open Eucalyptus forest and grassland.

TRUST ACTIVITIES - JUNE TO SEPTEMBER 2010

Trust Operation: The Proceedings of the November 2009 Conference are almost ready to print. Copies will be sent to all conference participants and free copies are available to network members who were not able to attend if you respond to the message at the bottom of page three. Copies are available to non members for $15.

The re-organization of the Trust, by seeking sponsorship to pay for our operation, is currently stalled while we prepare material to take to prospective sponsors. We hope to have this issue well progressed by the end of the year.

A new Strategic plan is in place to take us through the period 2010 – 2013. At this stage it is an update of the last three year plan but, once we have our forward funding secured, it is intended to revise the plan to reflect our changed organization.

Projects: The beech bulletin project is on track to be completed by this time next year. Final field work will be completed in the next couple of months and the final draft produced by the end of the year.

More field work is underway this month on the survey of indigenous plantations and final surveys will be completed by the end of this year. A great deal of material has been obtained and this will be loaded on to the Trust's website over the next 12 months. This project is also scheduled for completion within the next 12 months.

Volume 1 of the handbook, which should have been completed by now, still awaits final editing and proof-reading. It is hoped that copies will be available by the end of October. The Trust apologizes for this delay and we can only plead lack of time, on the part of the few people able to do this work, as a poor excuse.

The planting trials in the Lake Taupo catchment continue with 400 totara recently planted. Further plantings of shrub and tree species designed to compare bare-rooted with container grown plants will be done later this month.

Although we were unsuccessful in getting funding for further workshops the Trust has decided to try and run three workshops every year. One is proposed for an iwi group in the eastern Bay of Plenty in late October and a second one for the West Coast early next year; the third will probably be at Taupo.

Unpaid 2010-11 Subs

As this newsletter goes to the printer there are still 55 members who have not paid their 2010-11 subscriptions. Because it costs us extra money to chase late subs, it would be appreciated if your subscriptions could be paid within a month of receipt of account.

A.G.M Saturday July 24th 2010 Tapapakanga Regional Park, South Auckland: The meeting was attended by 13 members. Trustees Bruce Burns, David Bergin and Andrew Caddie retired by rote and, while Bruce was not available, the other two were re appointed.

Ian Barton presented the financial report in the absence overseas of the Treasurer, Murray McAlonan. Discussion was prompted by a comment from Grant Dumbell that it is difficult to interpret from the financial report, as currently set out, where expenditure and revenue is going. It was suggested that it may be better to separate expenditure and income into separate cost centres or by projects. Agreed that Ian Barton would discuss this with Murray McAlonan when he returns and to restructure financial reporting where possible. Relevant details of the 2009-10 year are included on a separate page.

Discussion on the annual subscription was unanimous that the current subscription, in place for 8 years, needed to be increased because the cost of administering the Trust now considerably exceeds the income from subscriptions. It was recommended that from 1 April 2011 subscriptions should be:-

Individual	$40 plus GST = $46.00
Family and non profit organisations	$50 plus GST = $57.50
Corporate	$150 plus GST = $172.50

Grant Dumbell suggested that the trust could implement a tiered subscription system (e.g. Bronze, Silver and Gold – or for a Trust theme – Kauri, Totara and Rimu) to allow members to chose how much to pay and, for those who wish, how much extra to donate. There is a need to separate the subscription, which includes GST, from donations which don't have GST.

Moved that the proposed subscription changes be accepted but, in an amendment, it was moved that the trust be given power to restructure the subscription and donation system by establishing a base rate for the subscription and allowing differing levels of donations.

David Bergin presented a report on the current Trust projects. "Tanes Tree Trust – Update on projects", prepared by David and Michael Bergin July 2010. This was greatly appreciated by those present giving, as it did, a good overview of all Trust project activities. It was proposed that the Project Update Report, or at least current project summaries, to be uploaded onto the TTT website.

There was discussion about the 2012 Calendar which is planned – this needs funding/sponsorship (at least $10,000 required) for production of the calendar and must be finalised by middle of next year at latest (mid-2011).

The issue of ownership of the photos used in Trust projects including the calendar was raised. All photos commissioned by the Trust are held by John Barran (photographer) or Ian Barton with copies on CD and hard copy is held by David. A folder of all Trust photos for ready access by Trustees and Network members has been prepared. The suggestion was made that we could have a photo section on the website but only accessible by members. We need to consider how to make them available and at what cost.

STUDY TOUR 2011 - EUROPEAN SUSTAINABLE FORESTRY

The study tour to look into the latest ideas in sustainable forestry, looks set to go ahead and the final decisions on timing, itinerary etc will be made over the next couple of months. At this stage the proposal is to go in August for three weeks and visits will be made to Germany, Italy, France and the UK.

There are still a few places available so if you are interested (no commitment required at this stage) please contact Make Dean at mark@naturallynative.co.nz or telephone him at 07 543 1494 or 021 942 339

Permanent Forests
International Limited

Permanent Forests International (PFI) wishes to make contact with owners of native forest regeneration projects who have an interest in obtaining income from carbon and other environmental services.

PFI specialises in the development of markets that pay for environmental services from forests that are committed to being managed in perpetuity for conservation.

In New Zealand we work with the Government's Permanent Forest Sink Initiative (PFSI) because the PFSI requires the forest to be maintained for 99 years. The PFSI can be enhanced by other compatible forest covenants such as QEII

In our experience the PFSI provides a much more credible mechanism than the NZ ETS because of the permanence aspect. Environmental integrity is important in international carbon markets. Not all carbon is considered equal and there is a hierarchy of pricing based upon the market involved, the type of carbon unit, and the type of project. For example carbon is currently priced between US$0.25 – US$20.00 per tonne in different markets depending on these factors.

While global trade in carbon credits grew to US$130 billion in 2009, forestry made up less than 0.1% of this. This marginalisation is due to concerns about a number of issues, with permanence topping the list. The PFSI goes a long way to ease these concerns given that participating landowners covenant their land to remain in forest for 99 years and the Crown enforces these obligations.

Through the PFSI mechanism we are pushing for greater market access and higher carbon pricing and so far we have been successful in achieving this.

We work on behalf of forest owners to get the best deal for them and to date we have represented and sold carbon from over 90% of forests registered under the PFSI (5,000ha across 20 projects).

We have achieved a number of 'firsts' in carbon forestry including establishing and registering the first carbon forest under the PFSI in 2008.

We have also sold PFSI units into markets that traditionally do not purchase forestry credits such as Japan and Europe while realizing substantial price premiums over the price paid for ETS NZUs.

We are the only company to have sold pre-2008 carbon from New Zealand forests dating back to 1990. For this purpose our company has developed a special unit to sell into the voluntary carbon market. These units (PFSI VERs) represent the carbon stored in a PFSI forest that was sequestered prior to 2008 which is not recognised under the NZ ETS or the Kyoto Protocol. We have successfully created and sold over 250,000 PFSI VERs to buyers in New Zealand, North America, and Europe.

The sale of VERs can add a significant upfront payment to PFSI forests that were established prior to 2008.

In addition to aggregating and marketing carbon credits PFI provides carbon forestry consultancy services both in New Zealand and abroad.

For more information contact Mark or Ollie at:

Permanent Forests International Ltd

P O Box 1683, CHRISTCHURCH

03 366 7989 or visit www.permanentforests.com

MAF

Pre-1990 forest landowners have an important choice to make

Pre-1990 forest land is subject to the deforestation rules of the New Zealand Emissions Trading Scheme (ETS). (Pre-1990 forest is land that was in forest before 1 January 1990 and in mainly exotic forest at 31 December 2007.) If you own Pre-1990 forest land, you now have an important choice to make:

- apply for an allocation of free New Zealand units (NZUs); or
- if eligible, apply for an exemption from the deforestation obligations under the ETS.

Each option has value and there are deadlines for applying, so you need to decide which option is right for you. An exemption or allocation is not automatically given – you have to make an application. There are no application fees.

There are deadlines for applying, so you need to know what option is right for you.

To find out more, visit www.maf.govt.nz/forestry-allocation or call 0800 CLIMATE (254 628)

OBITUARY

John Nicholls was the New Zealand Forest Service senior forest ecologist at the Forest Research Institute. John was posted to FRI in 1952, and almost immediately started with the National Forest Survey. After a long and illustrious career, John became the most knowledgeable person in New Zealand on the description and typing of New Zealand's indigenous forests. He was responsible for many of the Ecological and Scientific Reserves of the 1970s and 80s. To a large extent he was the "father" of forest typing in New Zealand. Although retired in 1985, John was still contributing his encyclopaedic knowledge to the research of others on forest ecology, until ill health meant his final retirement. For his significant contribution to forest ecology, John was awarded the New Zealand Order of Merit in 2004. John's memorial will forever be the enduring forest landscapes in reserves that he promoted and described. John Nicholls passed away on the 19th of August, 2010.

Greg Steward

Get your free copy of the Tenth Anniversary Conference proceedings by emailing Ian Barton at:- ibtrees@wc.net.nz . Provide your name and address and a copy will be posted to you.

TIMBER TREES OF THE FUTURE

TARAIRE BEILSCHMIEDIA TARAIRI - *by Ian Barton*

INTRODUCTION

Taraire is a member of the Family Lauraceae which is mainly confined to tropical and subtropical areas; probably the best known member of the family being the bay laurel, *Laurus nobilis.* New Zealand has three tree species; tawa, taraire and mangeao, plus the parasitic liane Cassythea.

HISTORY

There are no records of the Maori having used taraire for medicinal purposes but the berries were eaten; the kernel after roasting or boiling. Neither did the Maori use taraire wood, and likewise the European; for the timber is non durable and only came to be accepted with the advent of boron diffusion treatment. From the 1950's the limited amount available has been used for flooring, furniture, turnery and mouldings.

DISTRIBUTION

Taraire grows only in the north of New Zealand; from North Cape south to Raglan and East Cape. It is most abundant between the Kaipara and the Bay of Islands. The species forms the commonest under-story species in kauri forest but also is the dominant species in some lowland forests; eg, Kirk's Bush, Papakura. Taraire is found up to 650 metres altitude but is only abundant below 450 metres. It grows best on well drained, fertile soils and does not tolerate poor drainage or very dry sites.

TREE SIZE AND GROWTH

Allan records taraire growing to 22 metres tall and 90 to 100 cm diameter. Two are recorded in Burstall and Sale, at Whangarei and Cornwall Park, Auckland, but they are smaller. The largest measured is in Kirk's Bush and is 20.5 m. tall, is 107 cm diameter and has a trunk height of 14 metres. Growth data for planted trees is limited to three small groups, two in Auckland and one in Palmerston North. All trees have a mean annual height growth rate of 0.22 to 0.27 metres. The Auckland trees have a diameter annual increment of between 0.8 and 1 cm while the southern trees (outside the natural range) only grow at 0.23 cm per annum. The growth rate is probably faster than tawa but no comparative data is available.

Big taraire in Kirk's bush, Papakura (bag at base 40cm wide)

TIMBER

Timber characteristics, with *P radiata* figures shown in brackets for comparison, are as follows: -

Density:	675 kg/ m3	(500 kg/m3)
Moisture content: green heart	104 %	(130%)
Tangential shrinkage -green to 12% m.c	5.4 %	(4.7%)
Radial shrinkage	3.0%	(2.2%)
Modulus of rupture	94 Mpa	(90 Mpa)
Modulus of elasticity	10.8 Gpa	(9 Gpa)

The heartwood is an even light brown colour and the sapwood pale. Splits easily and has a good natural finish. Very similar to tawa.

FRUIT

The fruit of the taraire is a large fleshy drupe up to 4 cm long and is ripe in late spring to early summer. It is an important food for kereru which also spread the seed effectively throughout the forest.

Taraire leaves and flower.

POTENTIAL

This is a species which is unlikely to be planted on a large scale because of its requirement for soil of reasonable quality. It may have potential as a companion species for kauri, with which it is commonly associated in nature. The timber has potential for high quality, decorative uses

Taraire fruit.

RESEARCH REQUIREMENTS

More data on growth rates is needed and trials on soil of good quality should be established. Its potential growth rate of 1 cm diameter or higher indicates the potential to produce millable logs in 50 years. The ecology of the species is poorly understood, especially its relationship with kauri, and investigation is needed into this aspect.

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