



TEN YEAR CONFERENCE: IN RETROSPECT

Ian Barton

By the time of the Conference more than 100 had registered to attend, which was a good result considering how difficult attendance must have been in such adverse economic times. I think that all who attended felt that it was a great success –at least everyone has continued to tell me that. The three day conference was packed with activity but ran right on schedule due to meticulous planning and Peter Berg's superb chairmanship. The various presentations are still being collated and edited and it is hoped that the proceedings will be issued before June. In the meantime this newsletter will contain summaries of some of the activities.

Perhaps the only adverse criticism pertained to the field day when a few of those present queried the choice of venues, feeling that we should have been presenting better examples of successful indigenous tree planting. However there were reasons for this. First there were no other examples of indigenous forest management close to Hamilton; the time needed to reach better ones would have required too much travel. Secondly all three field venues exhibited important lessons to those involved in planting indigenous species; the most important being to demonstrate the

holistic nature of indigenous forestry. For we saw examples of bio-diversity enhancement, the protection of soil and water values, landscape enhancement and improved carbon sequestration; all important reasons for planting native trees. In addition Warrenheip and Whatawhata demonstrated some quite successful indigenous planting –a total of eight species at Warrenheip that will be harvestable: Warrenheip and Maungatautari showed the value of fencing to exclude animals –in these cases all animals: and Whatawhata, because the project funds were cut before it was complete, demonstrated the need to ensure that funding is available to carry projects through to completion. In summary, there were a lot of lessons to be learnt, not least the high cost of indigenous establishment which will be the subject of ongoing work by the Trust, and the field day demonstrated very well the multiple benefits of well run indigenous management projects. People involved in indigenous forestry should never lose sight of these multiple benefits. While producing timber is important, the other values are as much so; we should never forget the holistic nature of indigenous forestry.

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TĀNES TREE TRUST 10 YEAR ANNIVERSARY CONFERENCE FIELDTRIP

The Tenth Year Anniversary Conference held by Tāne's Tree Trust (TTT) on 18-20th November 2009 was rounded off with a field day on Friday 20th, inspecting three different native forestry sites within the Waikato region. Apart from the usual time constraints with so much to see and so little time, the day was a huge success, many thanks to Roger MacGibbon in particular, who organised and ran the day.

Warrenheip

The first stop was at Warrenheip, Karapiro, a deer stud farm with an enclosed 16 ha Mainland Island of regenerating indigenous forest owned by David Wallace. Here the trials of different predator-proof fence designs were carried out over a decade ago, leading to the technology now used in

establishing predator-proof enclosures that can be seen today in various sites throughout New Zealand and overseas. The fenced area at Warrenheip is free of common predators such as rats, possums, mice and stoats. The property is now home to a number of "Operation Nest Egg" kiwis, endangered brown teal ducks and giant weta. Besides inspecting the predator proof fence that surrounds the forest, David Wallace and Roger MacGibbon provided a comprehensive commentary on the erection and management of the fence, removal of predators and the significant plantings of indigenous trees and shrubs. It was noted by David Bergin that the impressive stands of native trees would provide an excellent opportunity to establish several Permanent Sample Plots (PSPs) for future growth assessment that could also be linked in with the TTT Indigenous Plantation Survey and the TTT Indigenous Plantation Database projects.

Maungatautari Ecological Island

The second stop was at the Maungatautari Ecological Island forest near Lake Karapiro on the Waikato River. The impressive feature of the forest is the 47 km pest-proof fence that surrounds the mountain providing a safe pest free environment for indigenous fauna and flora. This enormous feat of work was carried out over several years by the Muangatautari Ecological Island Trust (MEIT) which also happens to include TTT's patron Gordon Stephenson. Gordon provided an eloquent introduction and history to the development of this mainland island before dedicated MEIT volunteers guided conference delegates through the forest, including the canopy tower and bird enclosure. There were plenty of opportunities to see many of the released endangered birds such as hihi, takahe and kaka.



Mike Dodd (left) and Roger MacGibbon at the Agresearch Whatawhata catchment trial site overlooking a kauri plantation established 10 years earlier on a steep slope in the foreground with a fenced native forest remnant in the background.

Whatawata Hill Country Research Station

The final stop was at the AgResearch hill country research station at Whatawhata to the northwest of Hamilton city to view a major trial comparing the effects on water quality and biodiversity of exotic forestry, native forestry and pasture established on a catchment scale. This has been a joint initiative led by project manager Mike Dodd of AgResearch, along with John Quinn from NIWA, and Roger MacGibbon of Natural Logic. All three presented results to date, discussing the effects when significant parts of a catchment are either planted in exotic trees (mainly radiata pine), planted in native trees, encouraged to naturally regenerate (including management of remnant native forest), or managed as pastoral hill country for grazing. Excellent survival and early growth was evident for kauri and totara plantations viewed on upper slopes, although performance had been affected by frost on lower slopes for these and other planted native tree species. A wide ranging discussion on the pros and cons of establishing native forest on such hill country including economics, brought the end to a thoroughly enjoyable and productive conference field trip.

Michael Bergin

A.G.M

**– WEDNESDAY NOVEMBER 18TH 2009
WAIKATO UNIVERSITY, HAMILTON**

The meeting was attended by 29 members. Trustees Ian Barton, Ian Campbell and Roger MacGibbon, retired by rote and all were re appointed. Helmut Jansen from Marlborough was nominated and has been elected as our 14th trustee to replace Maggie Lawton who has resigned. Discussion was held about the possibility of increasing the annual subscription. The current subscription has been in place for 7 years. With 325 members this only just covers the Trusts running costs. The issue was referred to the next Trust meeting. It was suggested that the Trust reduce the cost of communication by distributing the newsletter electronically. The website is now being run by Michael Bergin and a new look website, being designed by Dab Hand, will be unveiled in February.

CHAIRMAN'S REPORT APRIL 2008 TO MARCH 2009

TRUSTEES

The trustees are:-

Ian Barton	Ian Campbell
Murray McAlonan	Peter Berg
Andrew McEwen	Rob Storey
Roger MacGibbon	David Bergin
Andrew Caddie	Bruce Burns
Robert McGowan	Greg Steward (non Trustee Member)
Mark Dean	Warwick Silvester

Maggie Lawton resigned from the Trust in December 2008 but has not yet been replaced.

NETWORK GROUP

The number of members remains at a similar level as the previous year with 28 new members joining in 2008 / 09. At November 2009 membership totalled 317. Corporate members currently number 29. We need to re-start the workshop programme in order to begin building membership again.

Subscription rates were reviewed by the Trust in July and it was agreed to not recommend a rise in subs but to ask the AGM to discuss and foreshadow a rise in the following year.

STRATEGIC PLAN

The Strategic Plan sets 19 targets to be achieved over the three year period, 2007 - 2010. At February 2009 34% of the targets had been achieved, 39% were underway, 4% are stalled and 22% had not started –some not being required until the end of the plan period –the 31 March next year. Work will begin on a new three year plan in January 2010.

INFORMATION TRANSFER

A major part of the Trust's work is the dissemination of information to our network members and further afield. This is done in several ways:-

Newsletter: The newsletter continues to be published every four months and, since there is very little feedback it is assumed that the format and content are acceptable to most

members. However if you have suggestions for improvement or items you would like published please send them to me.

Bulletins and Handbooks: None were published during the year.

SUSTANABLE FARMING FUND

We have been successful in getting funding for the following projects:-

- to write a bulletin on the beech species -which is well underway;
- to reorganize the workshop programme and produce the technical manual on planting and managing native trees –part one of which will be launched tonight;
- a project under the Climate Change programme to do a survey of planted indigenous species for carbon accounting purposes;
- to place the data obtained on the National Sample Plot Database or, if the planted areas are not large enough, on to the Trust's own database.

LAKE TAUPO PROTECTION TRUST

With funding from this newly established Trust we have begun trialing indigenous plantings designed to reduce the nitrogen input into Lake Taupo. The first planting is due to take place in spring 2009.

FUNDRAISING

The Trust has been reasonably successful in raising funds since its establishment in 2001. To date we have raised about \$820,000 in cash and a further \$150,000 as in kind contributions. In addition member's donations, which go into the dedicated research fund, now total over \$20,000 and the continuing support of members for this fund is greatly appreciated.

Much of the funding comes of course from the Sustainable Farming Fund and we are grateful to them for their continuing support. Other major contributors have been FITEC, ASB Trust, Forest Owners Association, Northland Regional Council and Environment Waikato.

INDIGENOUS FOREST RESEARCH

The Trust continues to work with Future Forests Research (CEO Russell Dale) who are responsible for influencing the research programme of Scion to maximize the funding available and our emphasis is to work with them to ensure that indigenous forestry is adequately recognized. One of our main efforts is to increase funding from FoRST.

TEN YEAR CONFERENCE

A major effort during the year has been planning for the conference to be held in November. We have put a lot of effort into determining a programme which will point the way ahead by choosing topics that have either been obvious for a long time, such as economics of establishment, or which have more recently come to the surface as important economic activities. Such a one is the Northland Totara project with which the Trust is proud to be associated. The results from this conference will be important in guiding our future course.

Ian Barton – Chairman

TRUST ACTIVITIES

– SEPTEMBER 2009 TO JANUARY 2010

Projects: The bulk of effort during the past four months was expended on preparing for the Conference. As time permitted, work continued with the bulletin on the beech species, the National Survey of indigenous plantations for carbon accounting and growth rates and on our own database to record planting. The planting trial comparing bare rooted with container grown native species was planted on a property in West Taupo during September and, because of the high rabbit populations in the area, the site was poisoned with Pindone followed by the erection of a rabbit proof fence erected around the approximately 1 ha. area. We intend to expand this trial and the fence next winter.

REPORT ON PLENARY SESSION OF TANE'S TREE TRUST

CONFERENCE:- TOWARDS A NATIONAL STRATEGY *Helen Ritchie*

INTRODUCTION

During the final session of the conference, a plenary workshop was used to identify strategic directions for advancing the productive use of native trees in New Zealand. Participants were encouraged to reflect on what was shared at the conference, so it could inform their thinking for the future.

The scope of the strategic thinking was for the whole sector, not just actions for Tāne's Tree Trust.

ACHIEVEMENTS OVER THE LAST TEN YEARS

There was a quick brainstorm of key achievements in the years 2000-2009.

These included:

- Bulletins/ publications – planting and management
- Existence of natives in farm forestry
- Change in government policy – tax, harvest
- People growing natives – ten years' successful planting projects
- Tiritiri Matangi
- Research and collaborative partnerships
- Recognition of non-timber values
- Change in perception re: viability of natives
- Permanent cover forestry
- We are not alone!

THE QUESTION FOR THE FUTURE

Participants were then asked to consider the next ten years and answer this question:

“What are some specific actions that groups or sectors can take that would make a difference to the productive use of native trees in New Zealand?”

THE THEMES

The actions suggested were collected and grouped according to links that participants could see between the various ideas. The ideas fell into the following categories and details of possible action are suggested.

Establishing effective models

- Get two species to work. Focusing for example on totara and beech. From establishment → marketing → product etc.

- Determine the population genetics of key indigenous species
- Establishing trial plots for:-
 - Planted monocultures e.g. totara
 - Planted mixed species culture for continuous cover forestry
 - Existing forests managed for selective extraction using modern techniques e.g. John Wardle (Tāne Tree Trust Strategy to be based on these 3 areas)

Making a business case

- Develop a business case for indigenous forestry
- Develop the case for using NZ native timber instead of imported wood products
- Development of a range of models that provide for the realisation of pre-harvest returns such as:-
 - Carbon
 - Nitrogen
 - Natural extracts
 - Mulch production
 - Biofuel
- Multi-value calculator
 - Free
 - Expandable
 - Wood/ non-wood
- Wall-to-wall mapping of all resource
 - Lidar
 - Spatial
 - Temporal
- Work towards net-based log/timber market – the “Timber Trade Me”

Communicating: ie, getting it out there

- Get the message out by using:-
 - Workshops
 - Demonstrations
 - Face to face
- Tāne's Tree Trust participation at Agricultural Field Days

- Put successful projects onto You-tube
- Raise perception of value of trees when teaching young children (so it lasts their lifetime) Particularly ensuring that sites are looked after following planting.
- Establishment of regional demonstration stands of key native species, and running field days
- Tāne's Tree Trust to: -
 - Produce a brochure promoting benefits of indigenous forestry as a viable land use
 - Collate and condense existing information (including the new Manual) especially aiming at farmers.
- Re-educate (public) on selective sustainable harvesting.
- Send all Regional Councils a summary from this conference → information then to be passed on to the public. [Note: all Regional Councils will be sent a copy of the Conference Proceedings]

Making the most of opportunities on farms and in the landscape

- Facilitate forestry cooperative groups among landowners in an area or catchment to:-
 - Share skills
 - Expertise
 - Planting
 - Fencing
 - Maintenance
- Promote use of native trees for shelter belts
- Encourage Transit NZ to grow podocarps on road reserves, including motorways (for ease of access for harvesting)

Working inclusively, taking a holistic approach

- Tāne's Tree Trust and N.Z. Farm Forestry Association, Indigenous Section need to work together
- Restore the mauri of the forest – the whole forest. Holistic approach
- Enhancement of utilisation of iwi resource/ knowledge in partnership with Māori

Setting targets

- Set specific targets for the indigenous forestry industry to work towards e.g. 10% of the total value of NZ forestry from indigenous forestry by 2100
- National target: Plant a million native trees by 2020

Enhancing incentives

- Put in place practical mechanisms to make it happen e.g. workshops, subsidies
- Complete research on carbon sequestration rates by natives, then lobby government to increase value of carbon credits for native forests. Subsidise if necessary to incentivise planting (recognise ecosystem services, biodiversity values in line with Biodiversity Strategy commitments)

Lobbying for better national and local policy and regulations

- Change government policy with regard to mining Fjordland
- Encourage use of MAF certificates for native plantings
- Lobby for development of a National Policy Statement on indigenous forestry
- Run a Tāne's Tree Trust coordinated letter-writing campaign to change government policy on support for locally consumed export timber
- Lobby government to remove barriers e.g. rules, research bias; in favour of realistic guidelines
- Lobby to remove disincentives and disparities to planting natives vs exotics e.g. ETS, Council rules

Securing funding

- Funding to implement strategy

WHAT HAPPENS NEXT?

Participants were asked to identify the next steps to carry this forward.

- TTT look at ideas at next meeting
- Are there others who want to join TTT?
 - FFA Waikato (Gary Blake) and National (Patrick Milne)
 - F&B Kaimai/Mamaku (Peter Maddison)
 - Institute of Forestry (Andrew McEwen)
 - Helen Moodie. - Northern Totara/ Landcare Trust
 - Te Ara Kakariki – Canterbury Greenways (Manfred von Tippelskirch)
 - Trees for Survival (David English)
 - Scion/FFR (Heidi Dungay)
 - QEII (Hamish Kendal))
 - Important to involve iwi → an inclusive approach
 - Snowberry (Mark Henderson) – pre-harvest models
 - What is the current strategy of the Green Party (Mark Henderson)
- TTT to communicate with all those listed above (after next meeting)
- Carry on and do it e.g. use Project Kahikatea network, Copenhagen response
- Strategy should be S.M.A.R.T.
- Communicate with TTT members to take action in regions/ use regional groups
- Funding to create strategy
 - AGMARDT
 - PGP
 - Landcare Trust? SFF?
 - Members/ those who want it
 - Transpower community fund?
 - Biodiversity Advice

RENEWAL OF SUBSCRIPTIONS

Those members who have not yet renewed their 2009/10 subscription will receive a reminded account with this newsletter. Payment would be appreciated as soon as possible please.

AVAILABILITY OF THE NEW HANDBOOK ON ESTABLISHING NATIVE SPECIES

Although the first part of this was launched at the Conference it was done by printing 5 copies especially for the event. It was decided to do this because we had not been able to complete all of the sections required for part 1, especially that on ecosourcing based which will be based on the conference papers. The Trust expects that part 1 will be printed by June 2010. We apologise to those who have already paid for their copies for the delay, and are doing our best to meet the June deadline

STATEMENT OF FINANCIAL PERFORMANCE AND FINANCIAL POSITION FOR THE YEAR ENDED 31 MARCH 2009

	2009	2008
Operating Revenue		
Sustainable Farming Fund	42,471	33,138
Other grants and sponsorship	32,756	39,667
Joint projects, grants and sponsorship	1200	36,517
Sales	2,364	883
Subscriptions	10,631	9,775
Donations received	11,322	8,591
Interest received	<u>3,105</u>	<u>1,011</u>
	103,849	129,582
Expenses		
Accountancy	1,330	1,230
Administration	115	0
Audit fees	602	576
Bank fees	55	24
Contractors and Consultants	65,401	40,418
Depreciation	166	0
Executive Officer	8,665	11,824
General expenses	51	90
Joint projects	0	34,736
Newsletter	3,671	2,190
Postage & telephone	546	2,064
Printing technical publications	14,712	18,566
Printing and stationary	880	652
Seminars and conferences	1,529	1,827
Subscriptions	425	0
Travel and accommodation	3,103	9,745
Website and Internet	<u>262</u>	<u>261</u>
	101,513	124,203
Net Surplus for the year	\$2,336	\$5,379
Current Assets		
Bank	22,369	10,970
GST Overpaid	2,074	6,611
Bank Term Deposits	22,500	45,000
Accounts receivable	34,631	0
Taxation	<u>0</u>	<u>195</u>
	81,574	62,776
Non Current Assets		
Fixed assets (as per schedule)	<u>3,118</u>	<u>0</u>
Total Assets	\$84,692	\$62,776
Current liabilities		
Accounts payable	<u>22,805</u>	<u>3,225</u>
	<u>22,805</u>	<u>3,225</u>
Trust equity	<u>61,887</u>	<u>59,551</u>
Total funds employed	\$84,692	\$62,776

TIMBER TREES OF THE FUTURE – TITOKI (*ALECTRYON EXCELSUS*)

Ian Barton

Introduction

Titoki belongs to the family Sapindaceae, most of the members of which are tropical and subtropical. The two New Zealand members of the genera are endemic; the second species, *Alectryon grandis*, being confined to cliffs on the northern side of the Great King Island. Titoki is relatively unusual for a New Zealand species in that the aril, a pulpy appendage which partially surrounds the seed, is bright scarlet in colour. This is used to produce a liqueur, developed in the 1980's by the D.S.I.R and used in cocktails and desserts. It is usually available from specialist liquor outlets.

History

Different species of the Sapindaceae are used throughout the Pacific for a wide range of medicinal uses. In the case of titoki the main product is an oil, produced from the seed which Maori used to anoint their bodies. This is also beneficial for skin afflictions, painful joints and earache and was taken internally as a laxative. The Maori used the wood for adze hafts and the timber was used by European settlers where great strength and elasticity was required. However it is not durable so when used for items such as bullock yokes, it was essential to keep them under cover when not in use. Other uses were tool and axe handles, swingle trees, cabinet making and particularly for wheels and coach making where strength and bend-ability were important.

Distribution

In lowland forest throughout the North Island, especially on alluvial ground and volcanic loams. In the South Island as far south as Banks Peninsula; further south on the West Coast. Other species in the Genus are confined to Hawaii, several Pacific Islands, New Guinea and Australia.

Tree Size and Growth

Recorded by Allan as normally reaching 10 metres and by Poole and Adams to 17 metres, with diameter usually to 60 cm. A big multi-stemmed tree growing at Otumotai, Tauranga, has a height of 14 metres and a diameter (at 50 cm) of 2.23 metres. This is an historic tree and was well established in 1845 when the local tribes made peace beneath it after ten years of warfare.

Height growth, determined from quite small samples taken between Auckland and Palmerston North in the mid 1980's, are consistently between 0.35 and 0.4 metres m.a.i for trees aged between 10 and 38 years. Diameter increment is more variable, between 0.38 and 1.0 cm m.a.i –the mean for trees

over 30 being 0.8 cm m.a.i. It is conservatively estimated that reasonably sheltered titoki' growing on good soil, should be able to reach 17 to 19 metres height and 40 cm diameter in 50 years.

Timber

It is difficult to understand why, given the timber qualities and potential for use of titoki, there is no information about timber quality available. All that is known is that the wood is light red in colour, straight grained and hard, with great strength, elasticity and toughness.

Poison potential

Titoki is known to liberate hydrocyanic acid. However there is only one instance where this was suspected of killing animals and that occurred over 60 years ago. The oil of titoki has been investigated and is found to contain cyanolipids which release hydrogen cyanide. However death or sickness from using the oil as a medicine does not appear to have been recorded.

Research Requirements

Research into the various attributes of this native species is well overdue. It appears that the work on the use of the fruit for oil production and liqueur does not appear to have been extended since the 1980's and knowledge of the timber, despite its acknowledged qualities, is non existent. There is presumably considerable scope for the establishment of plantations which can be grown for seed production and timber but, at the same time trials to determine the best method of managing such forests are needed. Suitable sites could be Bay of Islands, circum Pukekohe, Bay of Plenty and any other places which have light soils and adequate rainfall with reasonably high temperatures.

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Titoki fruit showing scarlet arils and black seeds

STUDY TOUR 2011

– EUROPEAN SUSTAINABLE FORESTRY

Tāne's Tree Trust is planning to take a study tour to Europe next year to look at the latest ideas in sustainable forestry. At this stage planning is tentative but we are looking at a trip of 3 weeks leaving in late August 2011 and visiting Germany, Italy, France and the UK.

We are currently seeking expressions of interest so that detailed plans can be made. If you are interested and would like to join this trip, please contact Mark Dean at: - mark@naturallynative.co.nz or phone either 07 543 1494 or 021 942 339