Tāne's Tree Trust
NATIVE FORESTS FOR OUR FUTURE
Hereherea te Wao-nui-a-Tāne

NEWSLETTER
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TRANSITIONING EXOTIC TO NATIVE FOREST

An update on one of our current projects ...

PROJECT STATUS: Started

- by Paul Quinlan

This five-year project will undertake research to guide the transitioning of exotic forest to native forest. The results, including management prescriptions and recommendations, will be freely and widely disseminated to landowners, forest owners, forest managers, policymakers and regulators.

The project is largely funded by the Ministry for Primary Industries, through the Sustainable Food and Fibre Futures fund.

Introduction and Background

The advent of permanent forestry and carbon farming under the Emissions Trading Scheme (ETS) has sparked debate on the potential to manage transitions from exotic to native forest. The case for using fast growing exotic trees (e.g., *Pinus or Eucalyptus)* as the primary vehicle for rapid early carbon storage is garnering much interest among landowners interested in permanent forestry options. In other circumstances, large tracts of exotic plantation on highly erodible or environmentally sensitive sites (e.g. Tairāwhiti) will need alternative forest management options to conventional clear-fell harvesting. Likewise, effective management options need to be explored for areas afflicted with wilding conifers where a transition to native forest is conceivable.

The current state of knowledge on such transitional forestry and the priorities for research have been set out in a report by Adam Forbes for MPI:

https://www.mpi.govt.nz/dmsdocument/47521-Transitioning-Exotic-Plantations-to-Native-Forest-A-Report-on-the-State-of-Knowledge-2021-22-

This project is urgently needed to inform both regulation and forest management practices.

Overview

The project will:

- Review existing forest inventory datasets.
- Undertake field surveys of existing representative forest examples to assess key factors and regional variations that affect regeneration of native species within exotic forests;
- Undertake forest planting, fencing and canopy manipulation trials to assess active management interventions to promote native regeneration; and
- Model transitional forest dynamics and carbon profiles.

Project details

The project comprises four workstreams:

- **Workstream 1 – LUCAS analysis**: Investigates existing data sets of native understory development and forest characteristics within existing plantation forests to better understand these forests and necessary management.

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- **Workstream 2 – Tairāwhiti canopy plot surveys**: Assesses canopy density effect on indigenous vegetation regeneration. This workstream is being undertaken in Tairāwhitii to examine the characteristics of understory growth in relation to low, medium and high pine canopy densities. Where possible, effects of seed source proximity and browser presence will also be assessed.

- **Workstream 3 – Bioclimate surveys:** Assesses existing regeneration along key bioclimatic gradients to determine levels of regeneration and the extent of intervention required to achieve a transition to native forest. This workstream is at a national scale.

- **Workstream 4 – Transition trials:** Establishes permanent trials of canopy manipulations, understory enrichment planting performance and browser effect on plantings and natural regeneration. This workstream will involve replicated trials along key bioclimatic gradients at a national scale.

Native regeneration under mature pine, Gisborne. Photo: Meg Graeme

- **Workstream 5 – Carbon modelling:** Models the temporal dynamics of transitioning forests. Carbon modelling will incorporate plantation stand and understory vegetation characteristics, regional bioclimatic differences/restrictions, and plant diversity/growth with and without browsing pest control.

- **Workstream 6 – Best practice guidelines:** Provides advice, in the form of guidelines and management prescriptions, to carbon farmers and forestry managers wishing to retire plantation stands. Guidelines will be based on the findings of all the workstreams and incorporation of relevant outcomes from other relevant research (e.g., TTT Normalising Native Forests Programme, National Science Challenge).

Researchers

The project research team includes Dr Adam Forbes, Michael Bergin, Mark Kimberley, Dr David Bergin, Paul Quinlan and Meg Graeme. For more information about the project email project manager Meg Graeme at meg@ecologist.nz or Tāne's Tree Trust at office@tanestrees.org.nz.

Does the Climate Change Commission's Draft advice to Government shift the forestry focus?

The Climate Change Commission (CCC) recently released "*2023 Draft advice to inform the strategic direction of the Government's second emissions reduction plan".* This is part of the Commission's role, as laid out in the Climate Change Response Act 2002 (the Act), to provide independent, evidence-based advice to successive governments on the actions needed to achieve the country's climate change objectives. This draft is the second report in that regard and is to help Government set its processes for the period 2026-30 towards meeting our Nationally Determined Contribution (NDC) under the Paris Agreement for 2030 and 2050.

The recent report is available on the CCC website, but as summarised in the press: Climate Change Commission urges new targets without forestry in new report | RNZ News It appears to emphasise a *without forestry* subtext in the narrative and may possibly create some concern over whether this will harm our on-going work on native forest establishment. The Tāne's Tree Trust trustees have considered the report further and agree:

Firstly, we will always emphasise and advocate for all the wide range of values that native forest establishment brings. Carbon sequestration is one of those, but only one.

Secondly, we endorse the whole thrust of the CCC report in that emphasis must be given to reduction in emissions and any mitigation from forestry in whatever form, while important, must be seen as secondary to that. The Parliamentary Commissioner for the Environment (PCE) has emphasised in the past that diverting attention away from carbon reduction may provide a false sense of security and the CCC seems to be echoing those views.

Further, and this redresses the balance**,** the CCC Chairman's message at the head of the Draft advice to Government says *inter alia:*

"Forests will play an essential role in the transition to a low emissions future, including as a source of biofuel, and the benefits from expanding native forests. However, we need to make sure we cut the amount of greenhouse gases being released, as well as plant more trees. The role of forests in managing emissions needs to be addressed, and with urgency. Under current policies, there is a high risk that relying too heavily on carbon removals from forests will undermine the gross emissions reductions that New Zealand needs to maintain net zero long-lived emissions post-2050."

We think that this is a balanced view of the situation and does not, in any way, undermine our advocacy for the planting and managing of native forests for ALL the values that this brings.

- Warwick Silvester

Tāne's Tree Trust Annual General Meeting

Planning for our AGM is underway. We will be holding it towards the end of the year and plan to hold a workshop or field day, possibly in Northland. Watch this space ...

A tribute to the late, great Jaap van Dorsser 1931 – 2023

"I have always been happiest in the company of trees"

Tāne's Tree Trust pays homage to a friend and a legend, the great Jaap van Dorsser.

Jaap and his late wife Sue were exceptionally generous, kind-hearted and altruistic. They gave an enormous amount of time and energy to multiple organisations, including Tāne's Tree Trust.

Dutch-born Jaap understood the impact of war. His family's home was destroyed in 1945. In 1953, he came to New Zealand searching for a better life. He was employed as a nurseryman at the Forest Research Institute (FRI). Jaap was visionary and innovative. His work was of international significance, particularly the development of industrial-scale, bare-root propagation systems for forestry species.

Jaap retired from full-time work in 1987, leaving a big hole in the FRI nursery. He continued some consulting work in NZ and overseas, including a foreign-aid project helping tree nurseries in India.

In 1994, Jaap started another amazing legacy – the highly successful restoration of nine hectares of riparian vegetation along the Awahou Stream, which he undertook with his wife Sue and close friends -

https://www.tanestrees.org.nz/news-events/articles/restoration-of-the-awahou-stream-using-natives/?highlight=Awahou+Stream

Jaap and Sue had previously planted natives on their side of the stream, but ramped up efforts to include neighbouring properties. The Awahou Stream had become a rubbish dump for a local farmer, and it was overgrown with blackberry, barberry, willow and other weeds. Getting rid of the rubbish and clearing the weeds was a major mission, which was followed by plantings of native trees and shrubs to create a riparian corridor along the stream.

The initial planting included coprosma, pittosporum, manuka, five-finger, broadleaf, kanuka, cabbage trees and low-growing monocots. Subsequently, the 'aristocrats' were planted - kahikatea, totara, rimu, matai, miro and tanekaha. Intense weed control was needed until canopy closure.

The friends got together every Wednesday for restoration work. The Awahou Care Group volunteered thousands of hours. TTT trustee Ian Brennan produced a video capturing their amazing mahi - https://vimeo.com/275610535

Tāne's Tree Trust and other organisations have had numerous field trips and occasional major events at Jaap's and Sue's place, viewing their amazing Awahou restoration effort. Jaap also generously shared his skills and enthusiasm in other regeneration projects throughout the Rotorua area. Jaap was awarded the Queen's Service Medal for his dedicated services to the environment in 2016, and Jaap and Sue were jointly awarded the Landcare Trust Award for Innovation in Sustainable Forestry in 2019.

We will miss Jaap's cheeky grin, his sincerity, wisdom, and his passion for restoring natural ecosystems. We will miss him! We send loving condolences to Jaap's family and friends.

- Jacqui Aimers

A classic virtuoso performance from Jaap van Dorsser

Venue: a tidy shed, with clean floor and workbench.

Non-stop commentary from Jaap and Sue, a rare example of a couple whose minds are so closely interlinked that they complete each other's sentences. Mostly Sue providing the final words.

Theme: Conversion from bagged trees to bare roots, and preparation for planting.

First the bag is removed and discarded. The potting mix is then removed by vigorous shaking and raking with the fingers. It pours onto the bench and then overflows to the floor, some by way of Jaap's clean trousers and boots. Sue is also shaking and raking. Over time the soil will form a substantial pile spreading on the floor.

Jaap holds the plant up and inspects the roots with an expression of disapproval. He picks up giant scissors and cuts off the roots below a prescribed level. These join the discarded potting mix on the floor.

He hold the plant aloft with a contented expression for all to admire.

He places the plant in a bucket of water. Later he removes them from the bucket, 25 at a time and now seriously bare rooted, and places them in a white plastic bag.

They are taken to the site, put in the shade, and Jaap assures us the can be left there for up to a week before planting.

Can that possibly work? Certainly it does. Jaap's survival figures are spectacularly good, a fraction under 100%. Much better, he takes pleasure in telling us than the deplorable figures from the Auckland Council plantings. We then visit the forest, where over 25 years, Jaap and friends have transformed a degraded gully system into a model example of forest restoration.

This will grow and become enriched over a thousand years, and will be Jaap's legacy.

- Ian Brown

The Rights of Plants

- by Rob McGowan

There is a lot of talk about 'rights' these days. The Covid mandate and the protests at Parliament highlighted that more than ever. So any talk about plants having rights is likely to be most unwelcome. The next thing the plants will be protesting … or maybe they are already?

The huge problems that have affected Aotearoa because of Cyclone Gabrielle actually could be seen as a protest from the plant world. If the integrity of the landscape wasn't so compromised by more than a century of inappropriate development, the clearing of bush from steep erosion prone hill country, the draining of wetlands and the channelling of rivers, etc, the impact would have been much less, if it had happened at all. Wasn't the cyclone a direct result of climate change, the result of overuse of the earth's resources by us humans over that last 10,000 years, done without considering the effects it might have on the planet itself and all the other living beings we share it with?

An Italian scientist has written a little book called "The Nation of Plants". In it he proposes a "Bill of Rights of the Nation of Plants". My first reaction, I must admit, was: "Goodness me, what next?", but then I read the Bill of Rights and it got me thinking. In the back of my mind I was mulling over Cyclone Gabrielle and the damage it had done, climate change and, most disturbingly, what was coming next!

So here is the Bill of Rights.

Mancuso, Stefano (2019). The Nation of Plants.
ISBN 978-1788168601

THE BILL OF RIGHTS OF THE NATION OF PLANTS

Article 1
The Earth shall be the common home of life. Sovereignty shall pertain to every living being.

Article 2
The Nation of Plants shall recognise and protect the inviolable rights of natural communities as societies based on the relationships among the organisms that compose them.

Article 3
The Nation of Plants shall not recognise animal hierarchies, founded on command centres and centralised functions, and shall foster diffuse and decentralised vegetable democracies.

Article 4
The Nation of Plants shall universally respect the rights of the currently living and those of future generations.

Article 5
The Nation of Plants shall guarantee the right to clean water, soil and atmosphere.

Article 6
The consumption of any resource non-reconstitutable for future generations of living beings shall be prohibited.

Article 7
The Nation of Plants shall not have borders. Every living being shall be free to travel, move and live there without limitation.

Article 8
The Nation of Plants shall recognise and foster mutual aid among natural communities of living beings as an instrument of coexistence and progress.

Do plants have rights? Of course they do. They have been on the planet for hundreds of millions of years. The human species has been around for less than a million years so who are we to presume that our rights are absolute and that trees and plants are here just for our use?

Do the special trees that inspired the founding of Tāne's Tree Trust; kauri, totara, rimu, matai, etc. have rights? Do they have the right to their place in the landscape of Aotearoa, more so than Pinus radiata and other species that contribute so much to our economy?

A forest is much more than a whole lot of trees growing together in one place, its worth measured by quantifying its economic value. Rather a forest is a community of species living in a symbiotic relationship for the benefit of each and all, and ultimately for the benefit of the earth itself.

Ka ora te Whenua, ka ora te tangata. When the earth is well, we are well.

Annual membership fees for 2023/24 are now due. We have kept our subscription rate at $45 for the year.
If you have updated your contact details (email, phone, mailing address) please advise the office — office@tanestrees.org.nz

DONATIONS: A note from the Treasurer - all members should be aware that all donations (but not subscriptions), are eligible for a 33.33% tax rebate on your income tax. If required, we can send you a receipt of donation for you to submit to IRD with your tax return.

SUBSCRIPTIONS: Membership renewal notices are sent out annually on April 1st via email or post. Members can access all resources at www.tanestrees.org/resources. If you need to update your contact details , simply email us at office@tanestrees.org.nz