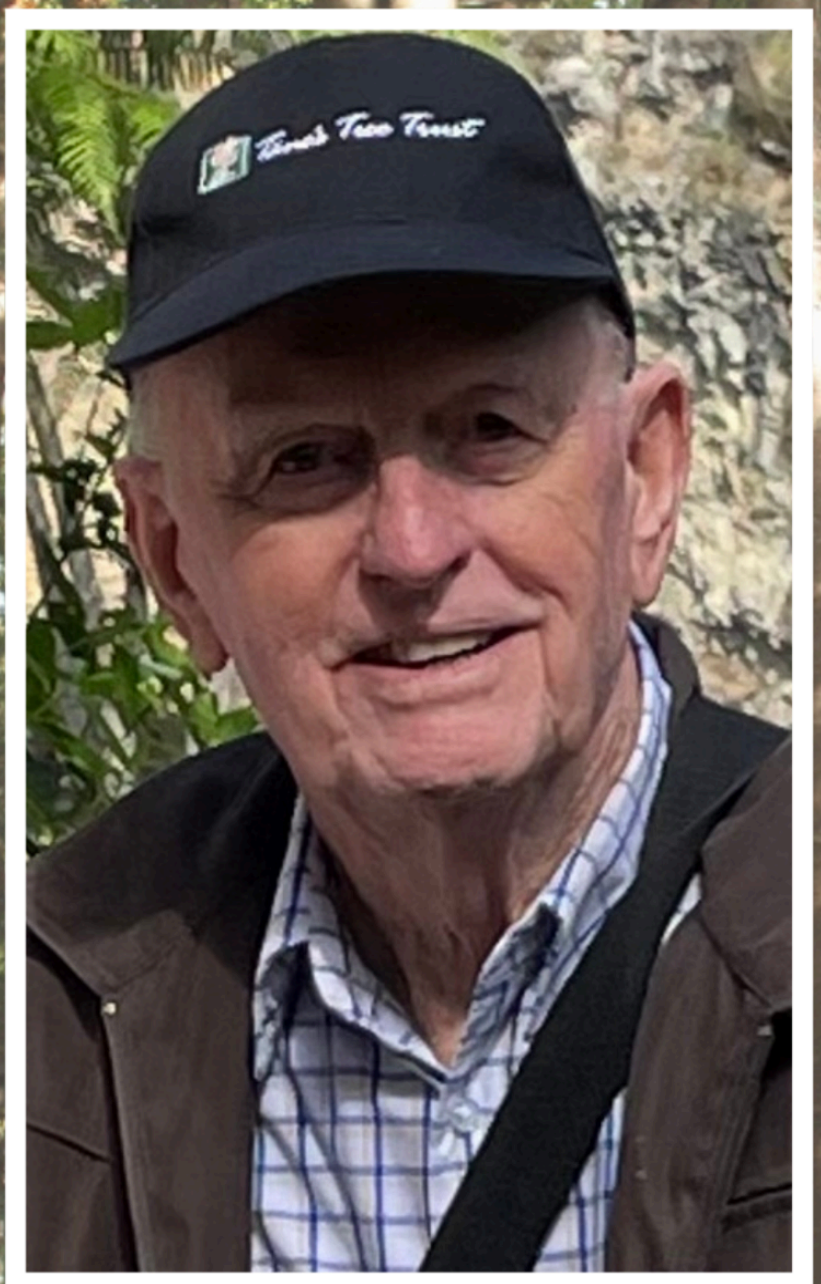
REMEMBERING



Ian Barton

1937 - 2025

Mangatangi and Hunua 18 October 2025

Contents

TĀNE'S TREE TRUST

Native Forests for our Future

Hereherea te Wao-nui-a-Tāne

Ian Barton – His life in trees

by Stuart Barton

Dad was born in 1937 in Pukekohe, five years after his parents bought the farm with the help of a mortgage from Mr Alfred Odlin of Odlin Timber and Hardware, a family friend who was a regular visitor. I imagine that Dad's first exposure to growing trees for timber was through this connection with Odlin.

Dad showed an interest in native flora and fauna from an early age and was encouraged by his parents. He described the patch of native bush on the farm as a magical place with the ground covered in kidney and filmy ferns and patches of thick moss. He began a collection of pressed plants and kept them in a large cupboard, along with interesting shells and rocks, which he called his museum.

Dad's secondary school years were spent as a boarder at Wesley College,

where he excelled, becoming the dux and head prefect in 1955 and was very active in the Scouts. It was there that he met Rob Storey and kept in touch with him as Rob became the president of Federated Farmers, and later a National Party MP, and in 2008, a trustee of Tānes Tree Trust.

Dad's interest in trees and the native environment continued and when he was 15, his father, realising that something to do with trees would be a good career choice, took Dad up to Waipoua forest to visit the kauri.

He had a holiday job in his last two years of college at the Maramarua Sawmill, where he used to spend the week at the single men's camp. It was there that he met Jim Buchanan from the Forest Service. Although most of the Forest Service was involved in growing timber from exotic species, there was enough work going on with natives that the idea of a traineeship in the NZ Forest Service was formed.

After a trip down to Wellington for an interview, he was selected for the 1956 Trainee Induction Course. The course began with three weeks in Rotorua at the Forest Training Centre, part of the Forest Research Institute, where Jim Buchanan trained the participants. After three weeks, Dad was posted to the Tairua Forest. There he worked in a forestry gang, being trained in a variety of jobs, including compass and chain survey of newly planted blocks of land, selecting and marking trees for pruning, setting out pole lines for planting and thinning pines.

After a year, Dad went to Wellington again for an interview to be trained as a forester, which initially involved studying for a Bachelor of Science degree at Auckland University. It was here that Dad was paired with Warwick Silvester for their Zoology laboratories. This, I presume, humble pairing was the beginning of a wealth of forestry and tree knowledge, as well as a lifelong friendship.

At the end of his first year, Dad was sent to Waipoua Forest, where he gained his first experience working with kauri under Frank Morrison, the leading expert in kauri at the time. From there, he was transferred to the Kaikohe District Office and worked with another kauri expert, Ron Lloyd, at the Russell Forest.

Now, Dad was bright and very studious, but his Achilles heel was chemistry, which he failed in 1957 and 58, so it was back to the Forest Service head office in Wellington to argue why he should continue as a forester. His pleas were in vain, and he was diverted to the Ranger school in Rotorua. There he was immersed in fieldwork, such as measuring stands and calculating timber volumes, often with Mike Andrews, who went on to become the CEO of various Fletcher divisions and a member of the Fletcher board of directors. Once Mike retired, Dad convinced him to become a trustee of the Kauri Studies Trust, which Dad chaired.

Following the completion of the ranger's course, Dad was posted back to the district office in Kaikohe as an assistant ranger. There Dad was involved in the management of the Northland forests, overseeing the fire control work and timber cruising, which involved measuring native timber for sawmill sales. There were seven exotic forests, including Glenbervie and Aupouri, and 22 indigenous forests, including Waipoua, Russell and Puketi.

In 1961, he was invited by the head of the water department of the Auckland City Council (later the ARA) to interview for the forester role for the Hunua Catchment area, where they were starting to establish forests in the farmlands within the catchment area, primarily as a way of suppressing ragwort, which was rampant in the area. He got the job, and a new phase of his life started. The job came with a house, and, recently married and with a newly born daughter, it meant that they were close to family support. Having finally passed his chemistry paper, he was also able to continue his studies part-time at the University of Auckland, where he met Peter Berg and completed his Bachelor of Science (BSc) degree in 1966.

Initially, Douglas fir was the main forestry tree planted in the catchment area. Unfortunately, it struggled in the north-easterly storms. Dad then led the search for alternative species to grow. This initially excluded radiata pine, as the water board thought it would be a heavy water user, reducing the water going into the reservoirs. Of the species, only Japanese cedar and Tasmanian Blackwood showed any promise, although only moderately. Eventually, the water board were convinced that there would still be enough water for the dams if radiata pine were planted, and it ended up being the dominant species planted.

When Dad arrived at Hunua, there was a small nursery at Wairoa dam for growing natives to plant around the newly created reservoir. Dad soon established a larger nursery adjacent to the forester's house with the idea of growing exotic trees in the ground for the forest. The soil proved too heavy for this, and instead, he built a nursery for growing natives in containers. This was my playground growing up, with an array of glasshouses, shade houses, and open-standing areas that produced 30,000 plants annually at its peak. Most of the restoration planting around the dams in the ranges came from this nursery.

In his spare time, Dad built a herbarium of native plants found in the Hunua ranges, which he eventually donated to the Auckland Museum. He also went on trips to the Great and Little Barrier Islands and Hen and Chickens Islands to study the botany there.

A hallmark of his time with the ARA was the studies he did on the several hundred acres of regenerating kauri, which we will see examples of this afternoon. Over the years, including after he retired, he undertook fertilising and thinning trials and was able to demonstrate that it was possible to sustainably manage kauri for timber production.

Dad enjoyed writing. While with the ARA, he wrote his first of many scientific papers, articles and technical reports (he estimated 70 – 80 in his lifetime) titled “On the Vegetation of the Hunua Ranges” in 1972. In the late 1970s, with Warwick’s urging, he returned to the University part-time to work towards a Master of Philosophy, concentrating on kauri. This absorbed all his spare time for four years. The end result was his thesis entitled “Aspects of the Physiology and Ecology of Kauri”.

All this time, he had been studying kauri; he was also thinking about other aspects of forestry. In 1984, he financed a 2 ½ month-long trip to Hong Kong, Britain, parts of Europe, Canada, and the USA, primarily to examine forestry in water catchment areas and urban forestry.

Two years later, Dad left the ARA after 25 years of service and became a consultant. Initially, he was busy with work, including conducting a large survey of the Protected Natural Area in the Hunua ranges and surrounding land, as well as collaborating with Māori in the Bay of Plenty to harvest native timber. However, work dried up when the Roger Douglas reforms of the Forest Service took effect.

Fortunately, around this time, interest was developing in Paulownia as a forestry crop, and Dad set up the Paulownia Action Group with Ian Nicholas of the Forest Research Institute. Dad started a nursery growing Paulownia from seed and root cuttings, with the whole Barton family chipping in to help. Being Dad, he needs to understand Paulownia production inside out, and he and Ian went to China to tour Paulownia production with the Chinese Academy of Forestry and bring back that knowledge to NZ. Paulownia proved more challenging to grow as a timber than early research suggested, and in 1995, the nursery closed. By then, the consultancy work was increasing, valuing small forest blocks, providing pruning certification, forest establishment, and assessments for bush and wetland protection. Additionally, he lectured at the School of Forestry, which he continued until 2013.

He also developed into one of the first urban foresters in Auckland, being a founding member of the Auckland Tree Council, which advocated for tree protection and ran seminars on the uses and benefits of trees alongside John Hogan, John Morton, and Jim Holdaway.

Dad joined the NZ Institute of Forestry as a student in 1959. He was elected to the Institute Council in the late ‘70s, eventually becoming vice president. In the late 1980s, he was elected as one of the first Fellows and became a NZIF-certified consultant. He was also a long-time member of the New Zealand Farm Forestry, having known its founder, Neil Barr, for many years.

On his overseas trip in 1984, he visited the headquarters of the American Forestry Association. He offered to help organise their proposed tour of Australia and New Zealand in 1986 and accompany them for the Northland and Rotorua legs of the tour. On this tour, he met Bob and Betty Russell, a retired couple with interests in forestry. This meeting led to the establishment of Amakiwi Forest in North Waikato. Amakiwi provided Dad with the opportunity to conduct more research and experimentation on tree growing, particularly in Continuous Cover Forestry.

I won’t dwell too much on Dad’s involvement with TTT, as it will be well known to most of this group. It was an ideal format for Dad to deposit all the knowledge he had accumulated over

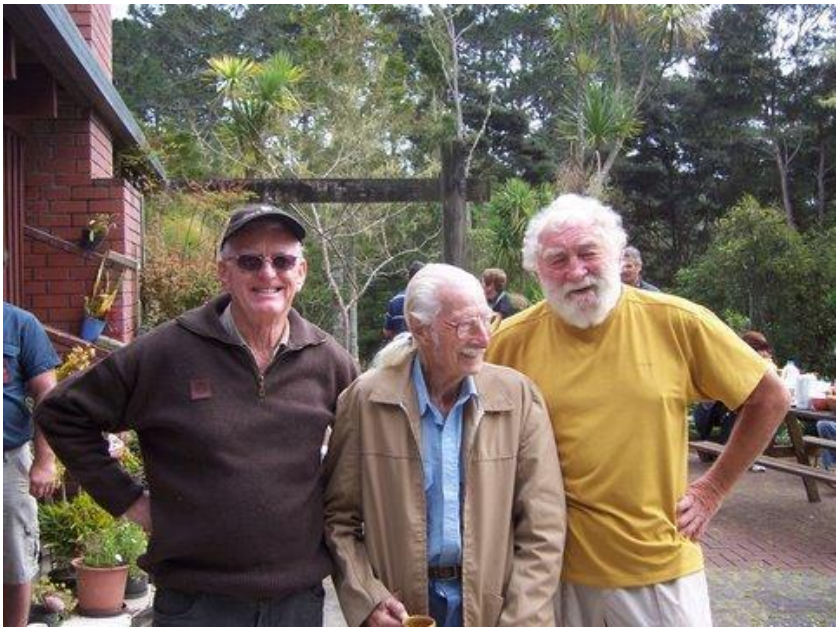
the years, including the research into CCF for natives that he began in earnest in 2006 while on holiday in England, and make it available to anyone interested, helping others to do the same.

I feel that Dad's great achievement when it comes to trees wasn't that he grew a lot of them; it was the people he educated and inspired with his wealth of knowledge, it was the friendships he made and the willingness to unselfishly take time to talk to people about his research whether it was through his articles, academic papers and technical handbooks, through the many newsletters he wrote or the untold stands he manned for TTT, Farm Forestry, Paulownia Action and Auckland Tree Council.

Ian Barton – A starter (and a finisher)

by Peter Berg, Chair TTT

A few months ago I prepared an obituary for Ian Barton, which was published in the NZ Journal of Forestry, the journal of the NZ Institute of Forestry. In that obituary I noted that Ian was a forester, ecologist, botanist and, outside of work, also an active historian and archivist. Sometimes he had projects underway for a number of these topics at the same time – and while not exactly a multi-tasker, once he embarked on a job or a mission he seldom gave up until he had achieved his objective, and usually once he had started, he did the job well. The establishment of Tāne's Tree Trust was but one of those - I particularly knew Ian as both a foundation member of the Trust and as a forester and it's in that respect that I will mostly comment.



Ian with friend David Bellamy.

Of course, Ian also had a spirit of collegiality and helpfulness, frequently involving and working with others on any project underway, and so widened the spread of interest and support in the task at hand. I encountered this several times over the many years that I knew him, first as a botany student at Auckland University about 1965. I came to Auckland from the Manawatu and Massey University where it was only possible to complete first-year studies in pure science. Joining a second-year class in one of New Zealand's premier schools of botany was challenging so I appreciated the help and guidance Ian willingly provided both inside and outside class time. Ian was a mature/senior student, being already married and working while I was still a pretty wet-behind-the-ears 19-year-old.

Ian's forestry career commenced with the NZ Forest Service when he was accepted as a trainee in 1956 and soon after sent to Tairua Forest for some introductory work experience. During this time, he was selected as a forester trainee and attended Auckland University. His first summer vacation was a posting to Waipoua Forest working amongst some of the country's most iconic kauri trees. Like most young foresters working in that area, he soon fell under their spell – the start of a career which always had a focus on native forests and particularly kauri.

In 1961 Ian, now married, was invited to apply for a position with Auckland City Council, and a little later was appointed the Council's Chief Forester with responsibility for the large native forests of the Hunua Ranges and a new plantation establishment programme. This role also included the relationship between a number of the city's water supply reservoirs and the role of the forest in ensuring a clean and reliable water supply.

Although much of the native forest had long since been cutover there were some excellent kauri remnants and second growth forest. This permitted Ian to develop his interest in native species, rather than only focus on the fast-growing exotic species which dominated most forestry activity around the country. His trials with kauri were particularly notable and led to him completing a Masters degree at Waikato University while keeping his other work going – and is of course the focus of our field trip later today.

Nevertheless, he also experimented widely and advocated for other exotic species which he found performed well on the volcanic soils making up the Hunua massif. Amongst these were Japanese cedar (Tsugi) or Cryptomeria japonica, Tasmanian blackwood or Acacia melanoxylon and later the Empress tree, Paulownia tomentosa.

The little fiefdom of the Hunua forests gave Ian the particular opportunity to experiment with a number of species. Part of his heritage was a number of trials exploring different approaches to silviculture, species mixes to determine how one species reacted to the presence of another, thinning and growth plots and so on. His applied research-by-management approach provided many demonstrations of innovative options for establishing and managing native forest, including the role of exotic species, which has become highly relevant in current research programmes.

Ian took some pride in his forestry involvement and became a student member of the NZ Institute of Foresters in 1959, and progressed through the ranks in a timely manner, spending time on the local branch committee and then the national Council where he later became Vice-President.

He also became a Registered Member and worked as a forestry consultant, maintaining his membership until 2020 when he was no longer able to maintain such an active role. He was also one of the first members to be appointed a Fellow of the NZIF.

At much the same time he was also elected a Franklin District Council Councilor. In this capacity he advocated for more focus on retaining worthwhile remnants of the natural environment – a move which resulted in the allocation of subdivision rights to landowners who were prepared to permanently protect worthwhile wetland and native forest areas, and with the merger of Franklin into the Auckland Council area this provision still persists in the Council's Unitary Plan.

His consultancy later focused on providing guidance and assessments to landowners wishing to take part in this programme, a role I later took over (about 2006) and have continued ever since. Several hundred landowners have used these provisions to protect natural areas around the Franklin and North Waikato area and the contribution to the landscape and biodiversity is very significant. As part of his community commitment he was also appointed a Justice of the Peace in 1994.

In the late 1990s, some concern was expressed that while New Zealand had an enviable record of plantation establishment and a burgeoning forest industry, our native forests were largely being ignored, and at some cost. It was ironic that a naturally forested country such as ours, and with a suite of trees with particularly useful wood properties, had not included any native species in its forestry portfolio. A conference was convened to consider this situation, and arising from that a group was elected to do something about it and part of the drive was first to set up Tāne's Tree Trust (TTT) with a vision of encouraging all landowners to consider planting native trees, and secondly to appoint Ian as Chair of TTT recognising that he would be willing to put the necessary effort into establishing an effective organisation and a worthwhile work programme.

As they say, the rest is history – despite a heart valve operation and other setbacks Ian provided the necessary impetus and the Trust was soon recognised for its ability to undertake some key work and to be a champion of native forests. This recognition was not limited to forestry colleagues, but more widely in the community. Ian's part in all of this was substantial – not only did he help assemble a great team he also continued to develop his own work. In 2008, he authored a book on the application of Continuous Cover Forestry to New Zealand forests. For more than a decade TTT was the only organisation fostering this approach more widely until today when everyone, it seems, has become much keener on close-to-nature forestry.

It was more widely recognised that better information, improved regulations and good case studies/demonstration forests were necessary. The Trust and Trustees engaged with groups such as the Northland Totara Working Group (NTWG) and foresters working with beech in the South Island, and while Ian maintained his particular interest in kauri he was always happy to introduce other species with potential into the work programme.

For ten years his leadership, engagement with Ministers, civic leaders and foresters led to steady funding and wider recognition of the Trust and its work, and with that recognition also came significant funding for projects designed to advance the restoration of New Zealand's native forests and expand the interest in those forests to provide all of the many values that we know all forests can contribute to.

Ian's groundwork ensured a good basis for continuity and the Trust and its work has continued to today with further acknowledgement and the establishment of international connections and the future for New Zealand's native forests is probably as good now as it has been since people arrived here.

Kia ora.

From kauri to Paulownia and back

by Warwick Silvester

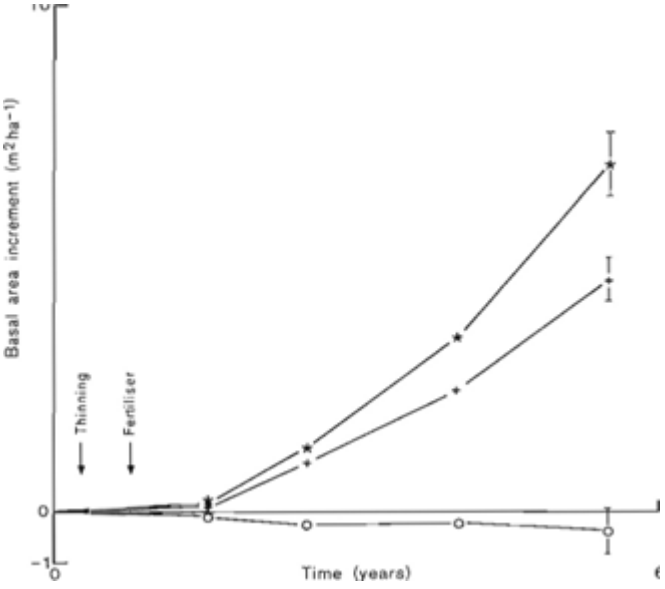
I first met Ian in 1958 in a zoology lab class at Auckland University and, unbeknownst to me at the time, this initiated an almost 70 year friendship, underpinned by our common interest in trees, including three major ventures and numerous smaller and more personal connections. Ian showed a very early interest in the bush and native plants which logically channelled him into a NZ Forest Service traineeship where he was broken-in at Tairua Forest, rubbing shoulders with professional staff and well-known fellow trainees, Alan Rockell and Barry Brickell, whom some of you will also remember. While Ian was stationed at Tairua he spent a summer at Waipoua where he must have had contact with that scion of kauri management Ron Lloyd who was a strong influence on Ian's career; he certainly spoke warmly of Ron's contribution to kauri management. His time as a trainee (1956-57) was very formative for Ian as outlined in his 2016 paper "Memories of life as a Technical Trainee at Tairua Forest". And further in life he wrote another paper on "Tairua. The Early Years (kauri timber and gold)".

In the early 1960s Auckland was planning how to cope with a population explosion. The Waitakere water catchment was reaching peak capacity and the city looked south to the Hunua range of hills. Ian was in the right place, the right time and the right person to be appointed Forester in charge of developing this enormous and complex range of hills into a contained water catchment for the city. He relished the opportunity and thrived on it, not the least because it brought him back to his roots in the Mangatangi adjacent to the family farm. Private farmland in the Hunua hills had to be repurposed to forest, a very extensive forest planting programme started, including a nursery, and staff had to be housed and managed. Ian's natural curiosity over and above the formal position was enabled by his wide-ranging

role. He delved into hydrology by setting up different vegetation runoff monitoring stations, but it was the opportunity to develop his Tairua kauri experience that reignited his fascination with that species. Remnant kauri stands in old, logged valleys and the opportunity to replant kauri in these stands gave him scope to develop his understanding of the species and become the vocal promoter of the value of the species.

It was here again that I met Ian, very soon after he had settled into his Hunua post. I had started a Master's degree and was awarded a City Council Scholarship to work in the Hunua watershed on forest restoration. This connection really cemented our friendship, partly because of his help and advice on forest ecology, but also the topic, exploring why the 1000 acre clearing, a farm in the middle of the Hunua forest, was not returning to forest as fast as expected for a water catchment. In discussions with Ian I realised how green I was, and I have much to thank him for in helping me develop my approach to this problem. But further I owed Ian a major thanks for helping me through a scary experience in the Hunuas. As part of Field Club I took a group of students into the forest near my study site to look at a kauri stand. One group became enthusiastic to explore and got lost. It was a cold overnight experience for them and a worrying time for me, but Ian knew the territory, assumed control and assured me no harm could come, and sure enough they returned cold the following morning, but eager to do Field Club again. Some of those students have remained friends ever since and Geoff and Helen married a few years later.

Ian's enquiring mind and opportunity at Hunua allowed him to explore whether nutritional limitations could be ameliorated by fertilising trees. Experiments devised by Ian and Herb Madgwick showed significant growth improvements , especially from nitrogen additions to trees and from thinning. (Barton and Madgwick 1987)



Their graph shows stem increment addition with full nutrient top line, plus N middle line and thinning only bottom line. Experiments such as this confirmed experimentally earlier work of Peterson, who based on foliar nutrient analysis, showed kauri were generally N limited.

Our next communication of note was when Ian called while I was on sabbatical in Massachusetts, USA. "Warwick," he said, "you must be near Bob and Betty Russell." Yes, it transpired they lived not 30 mins drive away. This initiated an amazing 37-year saga in what became known, for obvious reasons, as Amakiwi. The Russells met Ian while they were on a USA forestry tour of NZ, they liked the cut of his jib and thus began a most rewarding experience for a dozen or so of Ian's friends and forestry associates. (See Ian Bissett's account in this volume). Ian managed the whole enterprise of planting, pruning, and weeding some 150 ha of land shared with the Russell family. Ian's consummate people skills, along with his forestry skills gave us all wonderful friendships

and productive insights into what became a hands-on forestry experience so very ably led by Ian. It also, sometimes perversely, gave Ian a splendid canvas to both practice and experiment his forestry skills.

One such was the saga of Paulownia the Empress tree. Ian was a strong advocate for the species from the 1980s with the formation of The Paulownia Action Group. This was followed by a visit to China by Ian and Ian Nicholas to get a better understanding of the genus and the publication by the two Ians and Chris Eckroyd of the FRI bulletin 231 Paulownia. Ian persuaded us to experiment with the species and an acre or two of selected cuttings were planted. Our experiment, along with a lot of experiences by others, proved that to get the most from the species, very specific site and soil conditions (not provided at Amakiwi) are required and interest in Paulownia rapidly subsided.

On the positive side, Ian's interest in Cupressus species had a much more positive outcome. With the rapid spread of Cypress canker Amakiwi remained ahead of the game by moving to plant Cypress clones containing canker resistant genes, adding significantly to the information on which clones should be planted in the north and providing some magnificent Cypress stands, especially one underplanted in the failing Paulownia stand at Amakiwi.

But Ian's fascination in kauri, initiated in Tairua, nurtured in Hunua, lying dormant for a while then elevated again at Amakiwi, led him to pose some important questions of the species. He enrolled for a master's degree at Waikato University and we spent a couple of years learning some of kauri's special attributes. This return to kauri by Ian was accompanied by his unfailing enthusiasm for the species, perhaps ignited by Ron Lloyd but certainly nurtured by his persistent questioning of what makes this magnificent species tick. Ian asked several important questions but two stand out. Firstly, what controls kauri's latitudinal limit to the top half of NZ when we know it can grow in Dunedin? Secondly, kauri appears to be significantly drought tolerant. What attributes allow for this? Carefully controlled growth cabinet experiments established cardinal low temperature limits for kauri of -4C but for new spring growth any frost can be lethal. Kauri then is very susceptible to late spring frosts and certainly reveals a need for canopy shelter during establishment. Ian also probed the question of drought tolerance and showed both by stable isotope analysis and leaf physiology that stomata close early under water limitation, such that on summer days plants may not be stressed.

Ian's inquisitive mind, revealed in his work on kauri and forestry generally and his writing on local history and on continuous cover forestry, when put together reveal a rich and fertile vein of enquiry for which we all, and I in particular, are eternally grateful. Above and beyond that, his friendship over the best part of 70 years, has enriched my life endlessly.

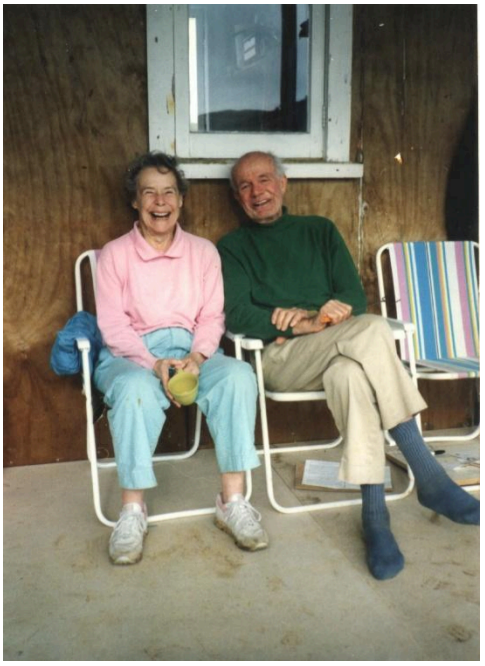
Barton I L 1985 Winter frost and its effect on kauri (Agathis australis) seedlings. N Z Jnl of Forestry. 30 (1), 94 – 101

Barton I.L. and H.A.I. Madgwick 1987. Response of a kauri stand to fertilizer addition and thinning. NZ Forestry 1987.

Amakiwi - a 30 year forest saga
Ian Barton in Control

by Ian Bissett, Amakiwi Chair 2014-2022

The long saga of the Amakiwi forest began in March 1984 when Ian Barton spent eleven weeks on a forestry study tour of parts of the UK, Europe, and North America. One organisation he visited was the American Forestry Association (AFA) in Washington D.C. where he learned that a NZ forestry trip was being planned and he offered to help manage it. Bob and Betty Russell were part of the visiting group of 40 AFA members in March 1986. Bob, a retired town planner, had a long-term interest in forestry including managing a continuous cover production forest, and an area adjacent to their house where they grew Christmas trees for sale. They hit it off well with tour guide Ian and before they departed the Russells approached Ian with a proposition: would he help them if they decided to return to New Zealand and buy a block of land for forestry? Unaware, at that time, of the future implications of his answer, Ian readily agreed!



It was during this period of negotiation in 1986 that the Silvesters were at Harvard forest where Warwick was on sabbatical. Serendipitously, this was only a few kilometres from the Russell's farm, Greenmantle, so Ian suggested that they get in touch with each other. Warwick wrote back to us in July 1986 with the following enthusiastic comments, "Well, you certainly introduced us to a fabulous couple. We spent a couple of days with them on Naushon Island, the family island at the Cape. That is another world, you have no idea, it's a part of 19th century history come back alive."

Warwick confirmed that he and Jan were very interested in becoming involved, but like the Bartons had little spare cash to put into the project. Bob and Betty wanted to invest in a forest in NZ and together with the Bartons and Silvesters they agreed to buy the land and set up a joint venture with the NZ partners. There were many properties explored. But it was just before the Russells returned in 1988 that the Waikaretu (Glen Murray, west coast Waikato) property became available. On viewing it, Bob's immediate response was a huge smile - it met with his approval. It was at this time in 1988, with the purchase of the 150 hectares of land, that the name "Amakiwi" was first used, encapsulating the partnership between American and Kiwi families. A prospectus was developed in 1989 and shared with a select group of possible partners, with the understanding that much of the work of planting, pruning etc would be performed by the new partners.

The group of partners, which arose originally out of personal connections of the Bartons and Silvesters, set about planning a forest. Ian was appointed forest manager and his tireless dedication to overseeing all aspects of Amakiwi kept everyone on task. It was his enthusiasm, his faultless record keeping and his professional skills that inspired us to continue, what was at times an arduous task, to completion. It was decided at this initial time to steer away from radiata but to concentrate on other potential forest species, with *Eucalyptus, Acacia and Cupressus* given priority. The rather, in retrospect, pretentious aim was to research the potential of these species as harvestable timber from the area.

The initial list of planned trees was

Pinus radiata	6%
Eucalyptus species	13%
Mixed Eucalyptus and Acacia melanoxylon	19%
Paulownia	11%
Mixed hardwoods	12%
Cupressus species	23%
Indigenous protection	3%
Indigenous/Exotic under Planting	3%
Firewood species	10%

However it did not take long to realise that there was a problem. Wind. After two or three years attempting to grow the species originally proposed, a special general meeting was held in December 1992. At this it was agreed that we should plant more *Pinus radiata* on exposed west facing sites. Apart from the impact of wind on two and three year old trees, which often caused severe toppling, this would have two basic effects: it would make more productive use of exposed land and would gradually provide shelter for less exposed sites.

The final composition of the forest, perforce, became mainly *P radiata*, which eventually covered 41% of the planted area. *Cupressus lusitanica* (Mexican Cypress) at 33% was next. This was often mixed with Leyland cypress *Cupressocyparis ovensii.* After several more years it became obvious that the latter was the better choice, it being much less susceptible to cypress canker to which any clone with a C. macrocarpa parent soon succumbed. *Eucalyptus* species and *Acacia*, often in combination (17%), made up the next group. The remainder of plantings (9%), were a range of exotic hardwoods and native species, often in mixtures. Planting was completed in 1998.

Significant plantings of *Paulownia* and *Acacia melanoxylon* were introduced for their superior timber properties. However, both failed to live up to their potential due to the salt laden west wind.

Members' contributions were by cash and labour which were calculated each year. To preserve the equity of those contributing labour an annual adjustment of inflation plus 1% was added annually. The annual accounts included a table "*Amakiwi Forest Trust. Inflated adjustment Contributions for the year ended….*" This table enabled all partners to not only see the amounts of cash and labour they had contributed during that year, but also the total monetary value of their contributions up to that time and, most importantly, their current percentage share of the contributed cash and labour inputs at that time. This of course included the very large cash contribution of the Russell family. When income from timber and carbon sales had to be distributed it was paid out as determined by the percentage of labour and cash which each partner group had contributed. The forest was registered early for carbon and our pine blocks in particular generated a large wealth of carbon credits which in the final wash up paid almost as much as the sale of the property.

There were multiple pests to be managed over the life of the forest. Gorse and blackberry were the main plant pests which required spraying often in awkward sites. Animal pests were multiple. In the time from 1991 to 2016 the following were reported as culled; goats 891, deer 29, possum 255 (many more poisoned), rabbit 12 and hare 7.

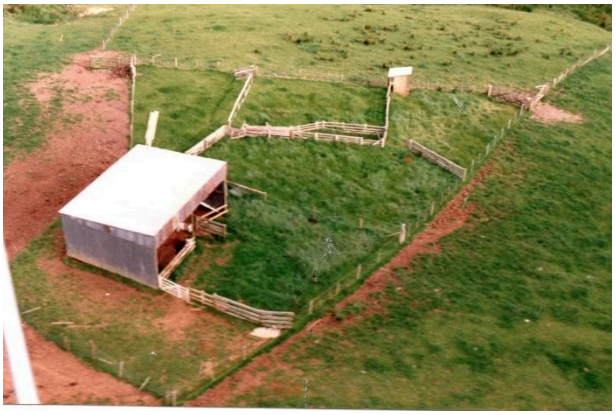
We were selected as a site for a Redwood cultivar trial generated by Bill Libby from California. This trial identified two cultivars that grew extremely well and two that failed. An ambitious trial of kauri involved planting 64 kauri with three separate conditions, fertiliser, digging wider and deeper holes and the addition of shelter in different combinations. It was clear that the only thing that made a difference was shelter and all those without shelter died. Unfortunately once the kauri grew above the shelter the goats ate them!!

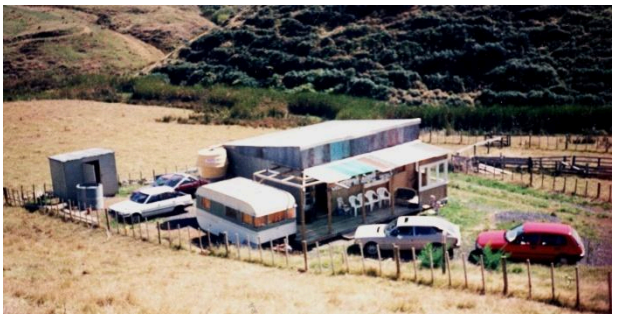
Bob, the founding father of Amakiwi, died in 2002 aged 89 and Betty brought over some of his ashes the following year. They were buried under a small plaque reading "Bob Russell, this forest, his vision".

By the late 1990s the membership of the Amakiwi forest trust was complete with the Russells (USA), Bartons, Silvesters, van Roons, Boultons, Beaumonts, Campbells, Hanifans, Bissetts and Burns. Amakiwi had become a project that brought together many people from different backgrounds. The monthly Amakiwi visits were times of working together, learned discussions, fun and shared lunch. Ladder pruning was the major activity but getting the tractors started again and mowing the tracks seemed to be Warwick's favourite task. Others preferred to walk the tracks and rebait all the possum stations. Each year the AGM revolved around a shared lunch with endless discussion about continuous cover forestry, managing tax under the trust constitution, and planning for the future.

Each year, Ian Barton presented the Forester's Report which outlined the growth of the previous year, calculated after measurements of identified trees across the plots in the forest. It was his expertise that kept us all on track and provided annual plans that directed the work for the coming year.

One of Ian Barton's interests was Continuous Cover Forestry and he authored the Tāne's Tree Trust publication addressing this is 2008. A suitable definition for New Zealand conditions could be: "The management of forests so that, as far as possible, the forests once created will self regenerate. Depending upon site factors, especially steepness, harvest removals are done as single trees or small coupe removals. CCF can be practised anywhere but is particularly suited for forestry being undertaken in sensitive areas such as lake catchments, easily erodible country, riparian areas and sites of high landscape value." There were several areas in Amakiwi that Ian considered were suitable for CCF. These were planted in Parana pine, Blackwood, rimu, kahikatea and *C.* ovensii under the cover of established Blackwood and Eucalyptus. Kahikatea did the best in this setting. When a study was performed in 2016 to identify which trees regenerated spontaneously it was two natives, kahikatea and mangeao, that were most prolific.





At the heart of the property lies the Lodge. When Amakiwi was purchased a substantial corrugated iron crutching shed was slowly rusting away. One corner of it had a raised floor of ca. 10-12 m^2 . A barrel received rainwater from the roof. The rest of the shed was open stock pens leading to outside fenced yards, with the whole east wall wide open. We suspect the shed was used mainly for crutching and, while it was substantial, its state as we received it didn't seem too satisfactory as an overnight sanctuary. However, on reflection it was the renovation of this building which became Amakiwi Lodge, that did as much, if not more, than any other early activity to cement our early friendship and create that sense of cohesion and adventure that lasted throughout. It ultimately sported a shower with gas heated hot water, a sizeable kitchen, eight bunk beds, a kerosine/electric fridge, a small solar panel to charge the truck battery, a pot belly wood burner and an outside, long-drop "Biffy".

One of the realities of forestry is that trees take many decades to mature while people age in years. As the venture reached 20 years, the energy of the members was ebbing while the trees continued to grow and need pruning, thinning and pest control. The original vision of Amakiwi was for this to be an inter-generational, perpetual forest. For this to become a reality it required a passing of the baton to the children and grandchildren. Succession planning is always a hit and miss affair and in the case of Amakiwi it was more miss than hit. The next generation were at a different point in their lives with their work and family commitments and many were living at a long distance from the site. Regular weekend activities at the forest were not a priority and the families were not in a position financially to pay others to do it. The decision to sell Amakiwi was a painful one that took years of sometimes heated debate but ultimately was unavoidable.

The next task was to harvest the mature trees. We were fortunate to engage NZ Forestry to harvest and sell the *Pinus radiata* timber and undertake the complete management of the forest including the replanting, silviculture, fire protection, weed and animal control, forest health and road maintenance. Paul Silcock and his successor, Cam Branch, did a fantastic job with this, bringing Amakiwi to a condition where it could be offered for sale as a going concern.

In total we harvested 34,118 tonnes of timber worth an average sale price of $147 per tonne. With all harvesting costs deducted, Amakiwi received a nett return of $1,706,941 ($50.03/tonne). The pruned logs returned a nett of $100.72/tonne, double that of the average. These logs made up 23% of the total harvest by weight but 40% by value. The major costs of the harvesting operation were logging $46/tonne, transport to mill or port $36/tonne, miscellaneous charges $9 tonne and NZ Forestry's management charge of $5/tonne. The value of the carbon sequestered in the remaining forest was valued at about the same price as the timber that was harvested.

Ultimately, we embarked on selling Amakiwi. We wanted new owners who would value the diversity and maturity of the remaining trees and nurture the replanting. We were very fortunate to attract a buyer, Stuart McNicoll, who wanted a place for his family to go to enjoy the forest, hunt goats and deer and grow trees, especially natives. Amakiwi was a perfect match for the family and their love of the trees lessened our pain associated with selling. The settlement was completed on 6 October 2021 and finally when Covid restrictions allowed, we went to the forest and welcomed the McNicolls on 8 January 2022. We have left her in good hands.

It was 37 years from Amakiwi's inception in 1986 to closure in 2023 - years that have left us with so many treasured memories. Lessons learnt about trees, up ladders, holding tape measures, wielding spades or loppers and around plates of food. We made new friends and shared together a major investment of time and money but, above that, it brought us all joy. None of this would have happened without Ian saying "Yes" when asked for help by an American visitor so long ago. All of the lessons, challenges, hard work and camaraderie developed under the calm and watchful eye of Ian. He led us into the unknown with his deep understanding of forestry. His leadership was unobtrusive, demonstrating common sense, good humour and humility, along with a deep respect for both trees and people.

Ian, we want to thank you that we could share in this wonderful journey with you.

Poem to mark the dissolving of the Amakiwi Trust on 11 March 2023:

Towering Totara, Kauri and Kahikatea
Moa munching Manuka
Huia hunting Huhu bugs
The chorus of Kokako
And joyful Kereru climbing and diving
While the whenua stands witness

The waka arrive
With kumara, culture and kiore
Dwellings built, gardens planted
Whanau spread
Humanity makes its mark
While the whenua stands witness

The invasion begins in earnest
Sheep and stoats
Cattle and cats
People, possums, pigs and deer
Oh dear!
While the whenua stands witness

The forest is felled
For farming and building
And boating and profit
Grass is planted and grown
Turning hills a verdant carpet
For wool and meat and milk and progress
While the whenua stands witness

A joining of peoples to turn back the tide
They are Amakiwi to replant with pride
Trees to enjoy, new friends to make
Working together in a beautiful place
While the whenua stands witness

Slowly the trees matured
But the people much faster
The Radiata is harvested
and the next crop is planted
Time to pass on to the younger and fitter
While the whenua stands witness

The McNicolls appear with fresh vigour and vision
To keep on the dream of a flourishing forest
We stand back in thanks for our wonderful times
And, 'Strength to their arm',
As they make it their own
While the whenua stands witness

Ian Bissett

Continuous Cover Forestry a legacy from Ian Barton

by Paul Quinlan

My respect for Ian Barton as a visionary thinker has grown steadily over the years. I started off impressed and excited by his forthright promotion of native forestry and sustainable harvesting. He was chairman of Tāne's Tree Trust at the time – ostensibly an organisation focussed solely on native trees. Yet in 2008, the trust published Ian's book on Continuous Cover Forestry – A Handbook for the Management of New Zealand Forests. Importantly, as the bold title asserts, it doesn't limit itself to native forests. It's for "New Zealand Forests" including exotic forests and even including possibilities for mixes of native and exotic species – an idea that probably still makes many people uncomfortable today. However, Ian wasn't afraid of expressing an unpopular view.

I also recall Ian predicting a time when clear-fell harvesting may not be permitted. That didn't rattle any hard hats at the time, but now, after several cyclones on the East Coast, that confidence is perhaps less windfirm. I've noticed articles this year in the Journal of Forestry promoting both continuous cover forestry (CCF)[1] and also limits to the size of clear-fell harvests[2] as being appropriate responses for the future.

In 2023, Tāne's Tree Trust collaborated with partners to deliver a funded project on CCF.[3] Ian had well retired from the trust at that stage, which left others of us to deliver on the task. As part of that I did a lot of reading and searched international literature on the topic. I distinctly remember being impressed anew at how well Ian had already distilled and interpreted the topic in his handbook. It remains a robust, comprehensive, and relevant publication. Of course, that reflects Ian's competency and attention to detail. However, it is really his *insightfulness* that I want to illuminate here.

---

[1] *New Zealand Journal of Forestry*, Volume N.Z.J.For. 2025, Issue N.Z.J.For. 69(4) 2025, pp Pages 11-19, **Feb 2025**

[2] *New Zealand Journal of Forestry*, Volume N.Z.J.For. 2025, Issue N.Z.J.For. 70(2) 2025, pp Pages 3-9, **Aug 2025**

[3] https://www.tanestrees.org.nz/projects/close-to-nature-continuous-cover-forestry-project/

Now in 2025, the term and concept of “transitional forestry” is being used in forestry circles, and even by the Parliamentary Commissioner for the Environment[4], particularly in association with carbon farming. We, Tāne’s Tree Trust, even have a large, funded project on the topic. Like CCF, it involves a shift in forest management approach – to manage forests as an ecosystem rather than a crop and with a more natural structure and character. Converting existing plantations to CCF – or mixed species, mixed aged forests, with more natural forest structure and processes, was covered in Ian’s CCF Handbook. Not only does this show his practical foresight, but I’ll suggest here that it has also influenced and expanded our collective thinking about potential future forms and definitions of native forestry and the role and scope of our trust’s activities.

I’ve heard Warwick Silvester observe that our language has evolved from talking about native trees, to native forests, to integrated land use and management. In this context, our advocacy and roles have also grown and matured. I consider them far more sophisticated now than they originally were. And I believe that Ian was a critical vanguard in this respect. In respect to CCF, we are only just catching up to him. However, to me, Ian’s legacy work on CCF is not just a great resource; it is proving to be a testimony to his abilities as a thinker and visionary, but there is something else as well. I suggest that he has cut the fence of our own thinking as far as what Tāne’s Tree Trust could usefully contribute to forestry in New Zealand.

[4] Alt-F Reset: Examining the drivers of forestry in New Zealand. April 2025. PCE.

Other published works of Ian Barton

by Jenny Borlase

Along with his more 'academic' publications, Ian wrote (or co-wrote) historical books centred on where he lived, his family histories, and, latterly, Queen's Redoubt. His first, in 1978, was Auckland's Southeastern Bulwark: A History of the Hunua Ranges. This was followed some years later by Hunua: The Place and Its People: A View from 2000. Mangatangi: The Twin Valleys - Centenary of Mangatangi School and a History of the Mangatangi and Miranda Districts 1919-2019 was published in 2019 to commemorate the school's centenary.

Social history and genealogy went hand in hand for The Shuker Story - From Shropshire to Otaua: 1913 - 2013 (Written for the centenary of the arrival of his mother's family in Otaua) and The Barton Chronicle – The story of one family's history and migration from Norfolk, Shropshire and Birmingham to New Zealand. A more personal memoir - Excerpts From My Life - was written in 2020 for his "Children and Grandchildren, in the hope they may learn something from it, but more particularly that they don't repeat my mistakes!"

Perhaps Ian's weightiest tome is the one he co-wrote with Neville Ritchie, A History of Queen's Redoubt and the invasion of Waikato, highlighting its role in the Waikato War. This book emerged from his many years of involvement with the Queen's Redoubt Trust. During his years on the Trust, Ian also wrote "Dispatches", the Trust's biannual newsletter.

Books in chronological order

1978 Auckland's South Eastern Bulwark : A history of the Hunua Ranges
2001 Hunua The place and its people : A view from 2000
2013 The Shuker Story From Shropshire to Otaua : 1913 - 2013
2019 Mangatangi : The Twin Valleys. Centenary of Mangatangi School and Miranda Districts (Ed)
2020 Excerpts From My Life
2021 A History of Queen's Redoubt and the invasion of Waikato (co written with Neville Ritchie)
2022 The Barton Chronicle

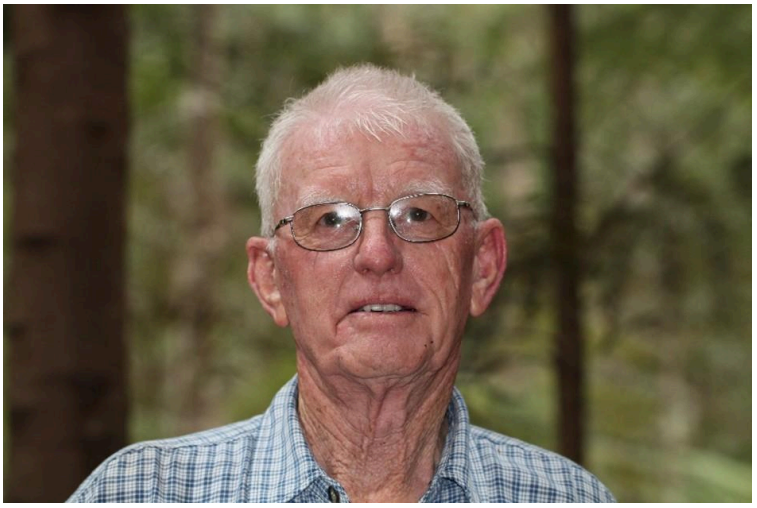
2013- 2024 'Despatches', the newsletter for the Queen's Redoubt Trust

Long-term monitoring of kauri forest growth: Ian Barton's ongoing Mangatangi kauri thinning and fertilizer trial

by Bruce Burns, School of Biological Sciences, University of Auckland

Kauri is a remarkable species. It dominates natural native forest in which it occurs, developing dense and distinctive groves of amazingly large trees. It also provides world-class quality timber, and natural kauri forest was heavily exploited for such from the mid-19th to mid-20th centuries, substantially depleting this resource. Kauri is undoubtedly one of New Zealand's native trees with the greatest silvicultural potential, however, and Ian Barton was a pioneer and visionary in both recognising this potential and researching how forestry based on kauri might develop. His trials are still some of the only research studies undertaken on kauri forest management.

Within the Mangatangi stream catchment in the southern Hunua Ranges, Ian set up several experiments on the ecology and silviculture of kauri. Of these, the two predominant trials were (1) a planting trial of kauri on different topographical sites and with different companion trees established from 1973-1977 (Steward and Barton 2012), and (2) a thinning and fertilizer trial in an existing ricker stand of kauri instigated in 1980 (Madgwick et al. 1982, Barton and Madgwick 1987, Barton 1996, Steward 1999). This contribution reports on a 2025 remeasurement of this second trial.



The trial was set up by Ian Barton and Herb Madgwick in 1980 in an approximately 1.3 ha kauri ricker stand. Ring counts from tree cores suggest the stand was initiated about 1850, making the oldest trees in the stand approximately 175 years old now. Soil and foliar samples both indicate a very low fertility ecosystem. Within this stand, 16 10 m x 10 m plots were established. Of these, eight were thinned down to a density of 700 stems/ha (= 7 stems/plot) with only the largest kauri left. As well, one-off fertilizer treatments were applied in 1980 across both thinned and unthinned plots, with each treatment assigned to two replicate plots per thinning level. The fertilizer treatments included a low nitrogen, high nitrogen, complete fertilizer, and control (no fertilizer).

This forum is not one to give too many details of the changes that have occurred in these plots over the 45-year period that they have been monitored but I will briefly compare the unthinned plots with the thinned plots. One surprising overall observation for this trial is the high survival rate of kauri observed. Ninety-eight percent of kauri present in the plots in 1980 are still alive.

The unthinned plots are dominated by kauri (76% of stems) with abundant tanekaha (17%) and a mix of other species. Tree (trunks >5 cm dbh) density of the unthinned plots has increased by about 20% over the course of the monitoring with composition remaining stable. Looking only at kauri trees present in 1980 in unthinned plots, annual diameter growth rate has declined over the four periods measured (Table 1). The one-off fertilizer applications had an effect on growth in the first period (1980-1991) but not afterwards (Table 1). The stand basal area (integrating tree size and density) of the unthinned plots has increased over time but hasn't changed much recently (Fig. 1).

The thinned plots were reduced to seven kauri stems each in 1980. Since then, stem density has increased fourfold in these plots, though they still have lower densities than the unthinned plots. This has occurred largely by recruitment of kauri, tanekaha, and kanuka saplings. Diameter growth rates of the original kauri have also declined over time but have stayed higher than growth rates of kauri in the unthinned plots (Table 1). Again, the fertilizer treatments increased diameter growth in the first period of measurement only. Stand basal areas of thinned plots are following the same slow upward trajectory of the unthinned plots (Fig. 1).

	1980-1991	1991-1998	1998-2014	2014-2025
Unthinned/unfertilized	1.8	0.9	0.9	0.3
Unthinned/fertilized	3.5	1.1	0.8	0.3
Thinned/unfertilized	4.0	2.1	1.5	1.0
Thinned/fertilized	8.2	2.2	1.3	0.8
Overall	4.0	1.3	1.0	0.4

Table 1: Annual diameter growth increments (mm/yr) for kauri (alive in 1980) at Mangatangi subject to thinning and fertilizer treatments over four-time intervals.

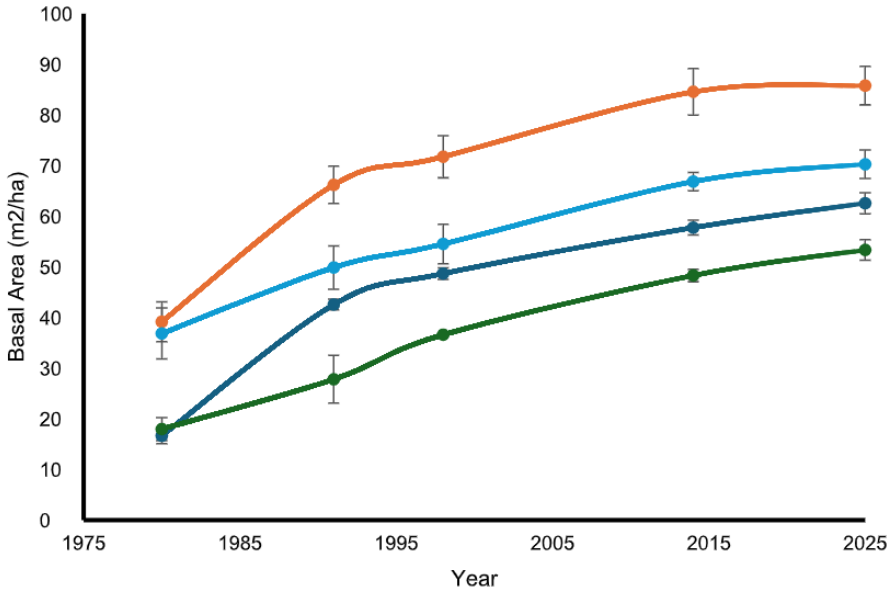


Figure 1. Changes in mean (± standard error) stand basal area (m 2 /ha) of kauri forest plots at Mangatangi subject to thinning and fertilizer treatments from 1980 to 2025. Orange = not thinned, fertilized; light blue = not thinned, not fertilized; dark blue = thinned, fertilized; green = thinned, not fertilized.

An interesting observation that Ian made when the Mangatangi thinning trial was established was that several kauri stumps left after thinning remained alive, indicating that root grafting occurs (Ecroyd 1982). During my remeasurements in 2025, I observed several such stumps that were still alive about 45 years later (Fig. 2). This observation is significant as it suggests that kauri within stands may be linked together underground and share resources, allowing them to act communally rather than individually (Bader and Leuzinger 2019).

The legacy that Ian has left behind with this trial is that kauri growth will definitely respond positively both to thinning and to fertilizer application. Over time, however, the effects of these manipulations are waning as these plots converge on more natural kauri forest dynamics. As well, competition among kauri within the Mangatangi forest is increasing (seen by the declining growth rate) suggesting that this forest may be about to enter a self-thinning phase where density is sacrificed for larger tree size. Will the root grafting evident in this stand also affect this next phase in its ecology? Ian has left us this stand as one gift amongst many, so we can learn more about kauri forest into the future.

Fig. 2. Kauri stump still alive after thinning in 1980.

References

Bader MK-F, Leuzinger S 2019. Hydraulic coupling of a leafless kauri tree remnant to conspecific hosts. iScience 19: 1238-1247.

Barton IL 1996. Managing kauri on the farm. Part 3 Silviculture. Tree Grower May 1996: 31-35.

Barton IL, Madgwick HAI 1987. Response of a kauri stand to fertilizer addition and thinning. New Zealand Forestry 32(2): 19-21.

Ecroyd CE 1982. Biological flora of New Zealand 8. Agathis australis (D. Don) Lindl. (Araucariaceae) Kauri. New Zealand Journal of Botany 20(1): 17-36.

Madgwick HAI, Oliver G, Holten-Anderson P 1982. Above-ground biomass, nutrients, and energy content of trees in a second-growth stand of Agathis australis. New Zealand Journal of Forestry Science 12(1): 3-6.

Steward GA 1999. Preliminary analysis of fertiliser and thinning treatments on growth and heartwood development in a second growth kauri stand, Mangatangi. Unpublished Forest Research Institute Report.

Steward GA, Barton IL 2012. Thinning of a planted kauri (Agathis australis) stand. Unpublished report DS045, Future Forests Research Ltd.

The legacy research of Ian Barton

by Eve Rutherford

This is a condensed version of the report done by Eve Rutherford to categorise all the unpublished research supplied by Bruce Burns and reports the main experiments found within this research. The research Barton conducted was on kauri (Agathis australis) found within the Hunua Ranges between the years of 1976-1979.

While I never met Ian during his lifetime, I feel that I have gotten to know him through his research. It was always so detailed, every thought about the experiments written down and saved. Going through all of this research has been an amazing experience and I feel so lucky to have gotten the opportunity to look at these experiments through Ian's point of view. I started my degree knowing I wanted to work within environmental science but wasn't sure what area I wanted to pursue, but after working with Ian's research, I can safely say he has inspired another person to love and want to work with trees.

In order to properly evaluate the material, I had to sort through and catalogue the information found. The research was already split into different boxes containing the two main experiments, along with smaller boxes containing related maps and figures. When categorising this research I took each document found within these boxes and assigned it a manuscript number. I then wrote a brief description of the manuscript including dates and locations when possible. I have also highlighted manuscripts that I determined to have high value information that could be useful to further investigate the research Ian conducted.

Box 1: Kauri light experiment

The first box of research relates to a kauri light experiment which was undertaken from 1976-1979 in the Hunua Ranges at the Hunua Nursery. The aim of this experiment was to understand the effect of light on the growth rate and leaf colour of kauri. In this experiment, Barton used five different full light percentages which were achieved by setting up five frames in the nursery with varying degrees of shading. The variables measured to understand the growth rate of the kauri seedlings were: height, collar diameter, leaf area, green weight, and dry weight. Due to the results found in this experiment, Ian theorised that light levels below 36% were too low and above 86% were too high.

Box 2: Kauri seed fall experiment box

The second box of information contained the kauri seed fall experiment. This experiment was undertaken from 1976-1978 in a kauri pole stand at Mangatangi, Hunua Ranges. The aim of this experiment was to discover the distribution of kauri seed fall through time and space, the germination of kauri seed on areas cleared of ground vegetation, seed fall in relation to the position of seed trees and wind flow, and the distribution of insect populations within a kauri pole stand. This seedfall experiment was undertaken by setting out four plots within the study area.

Seed collection was taken by setting up seed traps. The traps were placed approximately one meter above the ground at, or close to, each grid intersect before the beginning of seed fall each year. Wind recording information was also continuously taken within the trail area from 9th of March to the 22nd of April 1976, and covered the period in which sound seed fell.

Ian found that out of the total (354 trees) trees recorded in the area, 71% (252 trees) bore cones in 1976; 82% (291 trees) in 1977, and 76% (270 trees) in 1978. 57% (203 trees) bore cones every year, and 8% (27 trees) bore no cones during the three year period; however, they potentially were unable to do so. Ian found no consistent pattern within the seed fall, however, there was a tendency for a higher proportion of viable seed to be found in the central and west ends of the study area, which were also the lowest sections of the study area. During this experiment he also found that the first and last seed collections tended to be empty.

Recommendations

I would recommend that the kauri light experiment data and results be cleaned up and then published, as it would be an important addition to the current academic understanding of how light affects kauri growth rates. Having someone digitise the data and results to make them easier to work with and clean up would be a helpful next step, and this would also help preserve the information found in these boxes, as it is all currently paper copies. I think within the kauri light experiment, future effort should be focused on manuscript 2, as this is pages of data regarding the kauri light experiment. This manuscript is a digitised copy of the data collected within other handwritten manuscripts, and has information on both the full sample size for each full light percentage and a subsample of 10 trees.

Ian Barton and Opportunities for Urban Forestry in Auckland

by Graeme Campbell

This little story takes us back 45 years to a time when if you wanted to do something odd, but potentially ground-breaking, that might change the world, you used a PEP scheme. At that time there was a short surge in interest in urban forestry in Auckland, especially at the then Auckland Regional Authority.

In 1980 Roger Johnston, architect, planner, landscape architect, Head of Environmental Design at Canberra College of Advanced Education, tested his Green City Concept on a major part of Auckland City, which engendered a lot of public interest and debate. The Auckland Branch of the New Zealand Institute of Forestry followed up with a prominent meeting on the possibilities of urban forestry, with leading Forest Service speakers. Auckland Regional Authority was just taking over control of Cornwallis Park from the City Council, and EAJ Holdaway, chair of the Parks Committee proposed the reafforestation of that land. At the same time the Authority successfully submitted to the Government to extend the Local Authority Forestry Loan Scheme to increase loans and widen the species range eligible. Coincidentally, the ARA formed an employment Task Force Committee, to reduce the then growing unemployment in Auckland. Forestry was seen by them to be an unemployment solution, and a logical extension to the Authority activities in the Hunuas, and more importantly a beneficial use of under-used bits of Authority land.

In December 1980 a project team was established to investigate the potential for urban forestry in Auckland, under the leadership of Ian Barton of the Authority's Forestry Section and Graeme Campbell from the Regional Planning Department. Half a dozen graduate or near graduate landscape, geography, ecology and surveying university students, and a PEP supervisor, were employed for the summer. Two projects were undertaken: first a survey and assessment of suitable sites on ARA and other public land in the Auckland Region, and second, a working proposal for a community and education-focussed park to be established on 'surplus' land at Cornwallis.

The vacant public land suitable for urban forestry in Auckland

A list of suitable species for urban locations was developed, and site information and evaluation forms developed, along with record-keeping policies.

- 300 sites were surveyed
- Of these sites 92 were found to be suitable for woodlots, totalling 1447 ha, (of which 1046 ha was ARA-owned and 401 ha by other local authorities or the Crown)
- 135 ha were suitable for further recreational development
- 362 ha in bush was suitable for indigenous management (mainly in Rodney)
- 0nly two or three sites were suited to horticulture

In the Report presented to the Authority in May 1981 there are five case studies, 17 had outline plans prepared, and a detailed working plan was prepared for 'Cornwallis Forest Park'.

Case studies and plans were prepared for

Kauri Point, Birkenhead
Long Bay Regional Park
Meola Road, Pt Chevallier
Churchill Park, East Auckland
Glendowie

Plans for each of these areas will be displayed

Outlined schemes (not displayed)

Grey Lynn Park
Pratt St, Ponsonby
Yates Rd, Mangere
Milton Park, Mangere
Otara Creek - Antrim Cres
Hendry Ave, Hillsborough
Glendene Reserve
Bancroft Park, Kelston
Patts Reserve, Kelston
Arama Ave, Jenkins Bay
Kawaka Drive, Titirangi
32 Paihia Ave, Oranga
Maroa Road, One Tree Hill
Fergusson Rd Reserve, Mt Albert
Half Moonrise, Half Moon Bay
Pohutukawa Ave, Shelly Beach
Blake Rd, Mangere

The Cornwallis Forest Park Proposal

Cornwallis was the site of the first Western-style forestry operation in Auckland, in 1836, exporting native forest pit-sawn timber to Australia. Soon after the Cornwallis forest was clear-felled for 'development and construction'. It is a rich place to talk about the history and legacy of forestry in Auckland.

Cornwallis Park had been an early gift to Auckland City Council, which had taken a crop of pine trees from it, but had been defeated in their wish to replant. They resolved in 1965 to vest the Park in the ARA/ Regional Park network, but had failed to complete that formality until 1983. By 1980, the ARA however, was making plans for the land in anticipation of the promised transfer. By late 1981 the Authority had developed comprehensive objectives. Ian had established test trials to understand better the inherent infertility of the site, and tree planting trials to ascertain whether some species (native or exotic) were more likely to survive and flourish than others in this relatively hostile environment. While those

experiments were less than encouraging, plans were explored to make this forest an educational resource for urban communities and school children. There was to be a small mill, and exhibitions of the qualities and potential end-uses of different timber species. There was to be a focus and teaching about the Auckland wood market, and the value of sustainable wood production. There were to be jobs and skills training.

Ian was the inspirational puna or wellhead of these projects. He brought a wealth of knowledge from his personal experience as a forester, but also as a traveller and observer of foreign approaches, standards and motivation. Above all he was dedicated to the appreciation of New Zealand tree species, and to the things that gave each its individual qualities. On top of all that, he was a teacher - in the forest workplace, in the ARA meeting rooms, in the classroom, in the community.

In August 1981, the ARA published the report 'The proposed Cornwallis Forest Park' and called for public submissions. Submissions were antagonistic and opposed. Eventually, in 1983 the ARA bought Cornwallis from the City Council.

By then the surge in interest in urban forestry had waned, and the focus on creating employment opportunities had shifted. Responding to public pressure to restore native habitats, rather than to 'exploit' them, the Authority in 1985 introduced Family Tree Planting Days on Regional Parks – Starting at Cornwallis, building on the experience of Ian's trials. Those plantings will now be 40 years old. Local Authorities were not pushed to adopt the proposals, and at Cornwallis the Authority focussed its attention on restoring the historic wharf, newly transferred from the ex-Harbour Board, as a recreational feature (completed in 1999).

Ian retired as ARA forester in 1986. Early in his consulting career I was fortunate to secure his services for the ARA, to be the Project Leader for the Protected Natural Area Programme (PNAP) Survey of the Hunua Ecological District. The goal of the PNAP is to ensure the long-term protection of natural areas that most faithfully represent the distinctive ecosystems and landscapes that in the aggregate originally gave New Zealand its own distinctive character. Ian led the field work and survey team logistics. More than 20 expert surveyors were employed over the long summer months of 1987-1988, but the data analysis, mapping and report writing took another decade and was finally published in 1999. A copy of the Final Report is on display at the Mangatangi Hall Remembrance Event 18.10.25.

Back to urban forestry:

Was it a success? There were no projects undertaken that carried that label, but the principles were followed in Waitakere, on the North Shore, Manukau and Papakura. Some of the students involved went on to significant careers in ecology and landscape design and planning. Some of the project team and officials planted their own forests. Hugh Jarvis planned a mixed forest on his family farm at Paparoa, Prof Warren Moran planted over 100 ha on his land at Mokau, on the east coast of Northland. I planted a Leyland Cypress woodlot at Muriwai, which of course got the canker, but I saved enough to build my entire house from the timber, inside and out, except for a couple of heavy 5m roof beams, which came from Leylands at Amakiwi.

So, I live in a beautiful wooden and glass home, overlooking the wild West Coast, that was inspired by the Urban Forestry Project. The Leylands have been replanted with Puriri, Pohutukawa, Totara and Kauri.

Workman Road off Kaiaua Rd.
A = carpark at the base of the road up to the Mangatangi Dam
B = thinning trial
C = kauri planting trial

TĀNE'S TREE TRUST
Native Forests for our Future
Hereherea te Wao-nui-a-Tāne