



Australian Forest History Society

Newsletter No. 84
December 2021

*"... to advance historical understanding of human interactions with
Australian forest and woodland environments."*

The Islands Issue



Fraser Island
Queensland



Kangaroo Island
South Australia



Lord Howe
Island



Norfolk
Island



Great Barrier Island
New Zealand



The Territory
of Papua

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NEXT ISSUE

The newsletter is normally published three times a year, with the occasional special issue (such as this one). The next issue should be out in early 2022.

Input is always welcome.

Contributions can be sent to
fintan_olaighin@yahoo.com.au.

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EDITOR'S NOTE

By Fintán Ó Laighin

The idea for this special issue came about due to a convergence of two events – in August 2020 John Huth submitted an article on Fraser Island shortly after I had started writing up my notes taken on forests and forestry during a holiday to Lord Howe Island in September 2019. I thank John for his patience in agreeing to defer the publication of the article.

It has been a long time coming. A call for contributions was first included in the December 2020 issue of the newsletter (which also contained an article titled "A Short History of the Maryborough Forestry District", co-written by Peter Cook and John Huth, and which included a lengthy section on Fraser Island).

The call for contributions noted the receipt of the article on Fraser Island, a promise of articles on Norfolk Island, and one on Lord Howe. It also noted that "There are other islands in Australia, New Zealand and elsewhere which have a forest and/or forestry history – Kangaroo Island in South Australia, for instance, has a place called Timber Creek that flows into Murray Lagoon. The name suggests a forestry history of some sort."

Articles have come in, some written specifically for the newsletter, and some suggestions for reprints of previously published articles. In the former category, I received articles from Mike Roche on Kangaroo Island, and ones on Norfolk Island from both Jane Lennon and John Gray, and in the latter category, one from Paul Star.

There is even an article on a carrier pigeon postal service which has nothing to do with forest history but which I thought was an interesting story.

Thanks to Juliana Lazzari for her help with this issue.

FRASER ISLAND, QUEENSLAND



FORESTRY ON FRASER ISLAND – ADDRESS TO THE MARYBOROUGH HISTORICAL SOCIETY, CA. 1960 *

By Andy Anderson † (contributed by John Huth)

I have prepared this talk as a paper in which, as the audience is an historical society, I have tried to present an account of Forestry activities in the district as a history but as we go I will give you some explanation of what these activities involved and also, as far as I can, give you some idea of what future developments may be.

Forestry generally speaking looks to the future. The motto of the Australian Forestry School is "Mihi cura futuri" (Mine is the care of the future). At the same time our methods and techniques are based on what has been learned in the past. Recording of past operations and observations is therefore important.

The earliest Forestry operation I have heard of in the district or in fact in Queensland was carried out by Mitchell at Bogimbah on Fraser Island. I haven't heard any exact record of the date this work was done but it would appear to have been done in the 1870s. Mitchell as you probably know was in charge of the aboriginal mission station at Bogimbah. It is not clear whether his venture into Forestry was his own idea or whether it was prompted by the Government, but he established a nursery at the head of Bogimbah Creek and raised kauri pine there. These were planted out in standing heavy satinay and box scrub in lines. In addition, wild kauri stock when encountered was lifted and removed to the planting lines.

This work was of course carried out long before the establishment of any Forest Service in Queensland which took place, I think in 1912. In itself, Mitchell's

experiment was an utter failure but was of value as an object lesson to his successors in Forestry not only on Fraser Island but also the rest of Queensland. Mitchell's trees may still be found but their average height would probably no more than 12 feet and diameter not much more than an inch. Inside the old nursery, that still can be recognised, is a large kauri pine of about 90-inch girth. It is safe to assume that this tree is the same age as the stunted ones in the scrub and it indicates what might have happened if the whole plantation had been free of competition. Underplanting of kauri pine was never carried out on Fraser Island again though it was tried with hoop pine in the Mary Valley and Kilkivan districts with the same result.

I am very hazy about logging on Fraser Island in the early days, but it is certain that the species first logged were hoop and kauri pine which were rafted to the mainland. I have heard stories of kauri logs being jockeyed down Bogimbah Creek by the aboriginals from the Mission. Apparently, the logs were hauled to the creek which is rather fast running but shallow. In places the logs would float but in others had to be manhandled over the shallow parts.

The Forest Service after its inception did not waste much time in commencing operations on Fraser Island and seems to have started there in 1913 and it remained one of the three main Forestry centres in Queensland for many years.

Appropriately enough the first Forest Officer-in-Charge of Fraser Island was W.R. Petrie, a descendant of the discoverer of the Mary River.

Although by this time hardwoods were being cut on Fraser Island the accent in silviculture in Queensland was on hoop pine plantations and most of the early work on the Island was in that direction. The first Forest Service nursery was established on Bogimbah within a couple of miles of Mitchell's old nursery. Within a few years this nursery was abandoned and a new one established near the mouth of Woongoolbver Creek.

In 1920 this one was also abandoned and one was constructed on the site of the present Forest Station five. Species planted from this nursery were mainly hoop and kauri pine with some exotic pines particularly slash and loblolly pines.

As the years passed it was found that that although small sections of plantation showed reasonable results the general development of trees in plantations compared

* **Editor's Note:** In 1960, the Fraser Island Forestry Sub-District was part of the Maryborough Forestry District, and this address also includes information on the broader district.

† The December 1982 issue of the *Institute of Foresters of Australia Newsletter* included the following obituary: A. (Andrew) Anderson (1909-1982): Formerly District Forester, Maryborough, Andy passed away in August. He graduated in 1931 with Bill Suttie from the A.F.S. and spent a distinguished career with the Department. He retired from the Department in 1974 and remained in Maryborough. He was one of the characters of Forestry in Queensland and had a strong love for Fraser Island with all its charms. One of his sons – Mike – is Sub-District Forester in the Gympie Forestry District. oa.anu.edu.au/obituary/anderson-andrew-andy-18218

unfavourably with those in mainland plantations. Accessibility also favoured the mainland. The cost of this was also higher on the Island because of the heavy timber stands which had to be cleared. Another factor which began operating was the increased use of hardwoods in comparison with softwoods, resulting in some of the species which had to be cleared to establish plantations becoming acceptable.

Planting ceased on Fraser Island (except experimentally) in 1930 and the nursery was finally abandoned. The total area of effective plantation remaining there is only about 200 acres.

Even during the period of planting some hardwood treatment work was carried out and this was continued up to the present time. This treatment consists of encouraging the growth of young specimens of desirable species by removing useless trees by ringbarking and where necessary thinning out dense stands. In addition, where there is not sufficient advance growth, regeneration is encouraged by burning. These fires are usually carried out in March when seed of blackbutt, red stringybark and tallowwood is ripe and when weather conditions are most favourable. An area of about 23 000 acres has received regeneration treatment on Fraser Island.

Other work on Fraser Island is the protection from fire of these stands and involves the construction and maintenance of tracks and firebreaks.

As a matter of interest, the total cut of timber from Fraser Island last financial year was about 8 000 000 super feet easily the highest cut in the whole history of the Island.

There appears to have been a Forests Office in Maryborough for most of the time operations were taking place on the Island, but I do not know which year it was established. However, the Forest Officer in Maryborough seems to have been occupied almost entirely in timber sales work.

In the middle 1920s however, a trial plot was established on the Boonooroo Road. A variety of species was tried but from our point of view the most interesting species was slash pine. This is the exotic pine we are planting at Tuan.

The Boonooroo plot was an excellent pilot experiment for us at Tuan for although the trees did not grow vigorously at least they survived on a site which was much worse than our Tuan planting areas. The Boonooroo plot was fertilised with Nauru phosphate in 1940 and an additional area was planted. Trees responded well to fertilising.

Another early attempt at planting was made at Wooroonga near Biggenden in 1928 and 1929. A nursery was established there and a small amount of planting of hoop pine was carried out. This area was closed down about 1930 most probably through the effects of the depression.

Considerable expansion in silvicultural work took place in the Maryborough District from 1934 on. Several hardwood reserves were staffed and work commenced in fire protection work by the construction of firebreaks

and in regeneration treatment work. A great deal of work was also necessary in providing accommodation in the form of cottages and camps on these staffed reserves. The first fire lookout in the district which was also one of the earliest in Queensland was constructed on Mt Benarige on the St Mary Reserve in 1936. This was a sixty-foot tower and is now due for replacement.

There has been some increase in the area of State Forests in the district through the purchase of suitable private property and reservation of vacant land. The total area is now 873 000 acres made up with 352 000 acres in the Maryborough Sub-district, 393 000 acres in Fraser Island Sub-district and 128 000 acres in Bundaberg Sub-district.

I previously mentioned a treated hardwood area of 230 000 acres on Fraser Island. Hardwood treated in Maryborough Sub-district is 84 000 acres and Bundaberg 36 000 acres a total of 134 000 acres.

Although hardwood treatment remains an important part of silvicultural work in the Maryborough District the biggest Forestry investment in Maryborough District today is in the Tuan exotic pine plantations. Some discussion of the background of this work would not be out of place.

It has been calculated that the supply requirements for Queensland's population at the turn of this century 250 000 acres of plantation are required. At the beginning of planting operations hoop pine was used almost exclusively. This was a natural choice as it is a native species of very high quality and was found to grow well in scrub areas. Unfortunately, these scrub areas are limited and a high proportion of them are very suitable for agriculture. It was found that about only 120 000 acres was available for planting this species, leaving a deficiency of 130 000 acres.

When it was realised that this deficiency existed trial plots were put in various types of country using a variety of species. Because of the large area of wallum country available this type was naturally amongst the first trial. The Boonooroo plot was one of these.

Amongst species which were tried were several pines from similar climates in other parts of the world.

Amongst these were a group of pines from the south-eastern states of (the) USA known as Yellow Southern Pines. The region they are natural to is one of the greatest timber-producing areas of the States. The total cut of these pines in (the) United States is about ten times greater than the total cut of all timber in Australia. Much of this cut is for pulpwood but a great deal is for high quality sawn timber.

One of these species – slash pine or *Pinus elliottii* – showed itself to be the most satisfactory for our poor coastal lands. The original seed of this species was imported into Queensland from Florida in 1925. In 1930 the Department started to grow it at Beerwah in a fairly large way.

Because of some soil deficiencies notably phosphorous the species had some teething troubles and much of the early plantings showed the deficiency in a disorder known as fused needle disease. Research showed that this disorder could be corrected by adding phosphate to

the soil and by 1940 this was done to all exotic pine plantations.

Having found that slash pine could be grown satisfactorily on the coastal lands, investigation was made to determine what suitable land was available for planting though the war delayed this investigation. This investigation was commenced in the Maryborough District in 1945 guided by the Boonooroo Plot and three plots which had been established in 1933 on the Howard Road.

A large area of suitable land was found in the Parishes of Poona and Tahiti. A nursery was established there on Big Tuan Creek in 1947 and planting was commenced in 1948.

The total area of land reserved at Tuan is about 100 000 acres. This area has been closely investigated by a soil and vegetation survey. Soil bores have been put down on a 10-chain grid to determine what areas are plantable. On the present basis of plantability which depends mainly on depth of soil and height of natural vegetation about 40 000 acres are plantable but some of the land now considered unplantable can be made productive by the use of different cultural methods involving in some cases drainage and fertilising with certain elements.

The original planting programme aimed at Tuan was not reached till 1953 when we planted 1190 acres. After 1957 the annual programme was curtailed and is now only 500 acres per year.

The total area now planted at Tuan is 9800 acres. The total number of trees planted in this area would be over 6 000 000. Some unmerchantable thinning has been carried out and there have of course been some minor losses so that I would estimate the tree population of Tuan to be about 4 000 000.

It is expected that merchantable thinning will commence at Tuan within three years' time. The final crop however, will not be cut till the trees are 50 years old i.e. the first final crop trees will be cut in 37 years' time. After that time the cut will be continuous. As areas are cut out, they will be reforested either by replanting or by natural regeneration. It is anticipated that this sustained yield will be about 40 000 000 super feet or about twice the present input of logs to the Maryborough mills. It is safe to assume that the present sources of supply will sustain the present cut which means that in 37 years' time the size of the timber industry in Maryborough will be trebled.

This will give you some idea of the value of the Tuan operation to Maryborough particularly from the point of view of employment. The present wages staff at Tuan is 50 out of a wages staff for Maryborough District of 110 and Fraser Island 24. In addition to the wages staff Maryborough District employs 16 officers under the Public Service. This means that there are 200 individuals directly employed by the Department around Maryborough. Bundaberg Sub-District which is controlled from Maryborough has a total staff of 33 giving 233 for Maryborough Forestry District comparing with a State total of 2082.

It will be realised that employment in the sawmilling industry also largely depends on Forestry operations as the bulk of the log input to Maryborough mills comes from State Forests. While the anticipated plantation area of 40 000 acres is being built up staffing at Tuan will have to be increased as not only will new areas have to be planted but planted areas will have to be maintained by tending, fertilising, pruning and thinning. Also, additional roads and firebreaks will have to be constructed and existing ones maintained.

There is one aspect of planting in which considerable progress has been made since the early days of Forestry and that is in accommodation for workmen. Up to the middle thirties the only accommodation normally supplied was tents and a few sheets of old iron for a galley. Nowadays most workmen are accommodated in comfortable barracks. Tuan has 14 sets of barracks capable of accommodating a maximum of 112 men. On the hardwood areas including Fraser Island we have barracks accommodation for 60 men. In the barracks the men are provided with a 10×12 room between two, with stretchers, mattresses and pillows and cooking and eating utensils. A kitchen and dining room is provided and also a galley, shower room and laundry facilities.

In addition to barracks there are eight cottages and eleven camps for married men. At most of the reserves the men have to batch but at Tuan a ranch house operates. The Department constructed the ranch house and maintains it as well as pays a subsidy towards the wages of a cook.

Some other statistics may be of interest. There are five fire lookouts on hardwood reserves and one at Tuan. A start has now been made on the construction of a second lookout tower at Tuan. The existing one at Tuan was built in 1959. It has a height of 82 feet to the floor of the cabin and is the highest yet constructed by the Department. It is built on four piles 85 feet long. These were cut from satinay trees on Fraser Island and rafted from there to Boonooroo.

The total length of roads maintained in the whole district is about 1050 miles. These are not merely tracks but have all been constructed though there is some variation in their quality, for instance Fraser Island roads are mere sand roads not because they are less important to the Department but because no suitable road material is available there. Seventy-five percent of the road mileage consists of properly formed roads gravelled where necessary.

With a total road mileage comparable with the distance from here to Cairns you will realise that considerable road plant is necessary for construction and maintenance. In this district the Department has four dozers, two patrol graders, two tracked tractors, two wheeled tractors, three tow graders and two end loaders as well as smaller articles of plant. Tuan itself has about 200 miles of road all of high standard.



KANGAROO ISLAND, SOUTH AUSTRALIA



THE FOREST OF KANGAROO ISLAND: H.H. CORBIN'S REPORT OF 1917

By Mike Roche



In 1917, Hugh Corbin, Lecturer in Forestry at the University of Adelaide, and Consulting Forester to the South Australian Government, after a ten-day long field investigation, submitted a somewhat hastily written report on forestry options for Kangaroo Island. Portions of it concerning the economic development of the Yacca industry were reported in the

press, but the entire document was never published, buried with a change of government later that same year (Jolly, 2014). Corbin's full report ran to 25 pages and over 6000 words. What follows is an edited version, retaining his taxonomic nomenclature and capitalisation. Minor changes to punctuation have been made to add clarity. Most of the excisions are from the first two parts of the report; Part 3 – Corbin's "Recommendations" – have been left intact.

The report displays Corbin's Edinburgh training whereby the forester was an expert natural resource manager able to act in the "national interest" and was a conservationist of a wise use type (Roche, 2013). For Corbin, management of the natural forests and the establishment of exotic plantations over the western half of the island was a superior land use than either agricultural or pastoral farming. His scheme was intended as a demonstration of the benefits of forestry which if completed would, in his view, advance the cause of scientific state forestry in South Australia. Alternative trajectories prevailed, however, with the establishment of a flora and fauna reserve in 1919 (the forerunner of Flinders Chase National Park) and state land development for returned soldier farms after WWII, using heavy machinery and superphosphate to replace scrub with pasture (Griffin and McCaskill, 1986).

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H. Hugh Corbin: Report on Kangaroo Island

Part 1. A Brief Description of Present Conditions

THERE ARE NOT AT PRESENT ANY RABBITS OR FOXES ON THE ISLAND,

and it is hoped there never will be. If the rabbit pest gets to the Island it will ruin it from several points of view. The population of the Island is about 1500 of which 1400 are found in the Hundreds of Menzies, MacGillivray Haines and Dudley i.e. East of the line North and South through the Duncan River on the North coast ... Practically all the agricultural activities are found East of the line, and to the West the country is purely forest country, much of which has been captured by scrub ... On the east of the line there is a considerable area of unutilized crown lands, some of it carrying the famous Narrow leaf (*Eu. cneorifolia*) which is the best Mallee for the production of eucalyptus oil ...

THE VEGETATION

Type 1. Dwarf oak (*Casuarina distyla*), *Eu. cosmophylla* (Cabbage gum), Honey-Suckles (*Banksia*), Hakeas and *Isopogon ceratophylla*¹), *Xanthorrhoea tateana* (Grass Tree).

This type of associated species was found very widely distributed over the area wherever fires had been prevalent and larger timber does not exist to surpass it.

Type 2. Mallee associated with *Banksia* and a few *Xanthorrhoeas* and *Casuarina distyla*.

Type 3. The Sugar gum (*Eucalyptus corynocalyx*) with an undergrowth of Prickly Wattle (*Acacia armata*). *Acacia armata* is providing wonderfully good shelter and humus in this association seen at its best in the Ravine de Casoars. ... The Sugar Gum can be described as the

¹ The Australian Plant Name Index says that this should be *I. ceratophyllus*.

only Forest tree on the Island of any importance from the point of view of quantity. It reaches in most places a height of 80-90 feet and a diameter up to two feet Breast Height. ... At Rocky River it was found growing on the Limestone rock very well indeed, and on the Ravine it was excellent on the richer gully soils and on the North coast it was equally good right on the hill tops and ridges of quartzites and schists an often on ironstone. ...

Type 4. Stringy bark (*Eucalyptus capitellata*) occurred in many places on poor Ironstone formation. On the head of the Rocky River and the south West[ern] and Stun'sail Boom Rivers it reached a height of 60-70 feet and a diameter up to 3 feet, but in many places particularly towards the centre of the island towards to the North coast between the Western river and Stoke's Bay it is only stunted in habit up to 25 feet high and 8 inches in diameter and of little commercial value as far as can be seen at present. ...

THE YACCA OR GRASS TREE. (*Xanthorrhoea tateana* and *quadrangulata*)

... In the places where the more or less mature trees are thickest the number reaches possibly 100 to the acre. The height of these trees would be 4 to 8 feet; there are very few places on the whole area where the Yacca tree is not found. Besides the larger trees there are many hundreds of young trees to the acre, which have not yet developed a thickened stem ... the Surveyor General for South Australia ... says there are 500,000 acres of Yacca tree country with an average of 30 trees per acre of suitable size for working, and Mr Earl of the Department of Chemistry Adelaide estimated that each would yield about 35 lb of refined Yacca gum ... On this evidence there cannot be any doubt that this matter requires to be taken up and this cannot be better done than by declaring the whole area a forest reserve for the special purpose of conserving the grass tree. ... The matter of the utilization of the Yacca gum is receiving special attention by chemists of the Advisory Council in Australia and in London at the Imperial Institute. ... unless control exists the product is likely to disappear as an article of commerce within a few years ... the conservation of these Grass trees is a matter of National importance.

THE SETTLERS AND THEIR HOLDINGS

... The settlers make a living off sheep, poultry, pigs, and a little timber exploitation but some of the revenue is obtained by trapping wallabies and other animals and hunting Kangaroos. The drawbacks of most of these holdings are (1). The soil is hardly rich enough over a sufficient area for farming or any closer settlement (2). The holdings on the North coast are too steep except for grazing (3). The nature of the pasture for sheep and cattle seems poor and I believe consists of inferior grasses ... (4). The mustering of sheep is a very difficult matter as they get away into the dense scrub, many straying away ... Fruit culture has so far proven a failure, the trees apparently grow well and bear well but when half grown is attacked by innumerable birds, parrots chiefly ...

BUSH FIRES

... it is obvious that much of the country is captured and held by that vegetation that is extremely fire resistant, e.g. *Xanthorrhoea*, and that which is reproduced in great profusion after a fire by natural seeding and coppicing. The indigenous scrub of the Island reproduces abundantly from seeds or coppice shoots and much of the scrub is mature enough in two or three years to produce substantial seed whereas the Forest trees do not produce any quantity of mature fertile seed in less than 10 to 12 years at the least, the result being that in a good many places a short firing at periodic intervals eliminates all but the mallee, grass trees, scrub *Casuarina*, *Banksia*, and such a weed as *Isopogon ceratophylla* all of which enjoy a very wide distribution on the Island and have possibly encroached on all the timber country after firing ...

Part 2. Developmental

Forestry

Conservation

The narrow leafed mallee (*Eucalyptus cneorifolia*). ... there are extensive areas of narrow leaf country on Crown Lands and no opportunity should be missed to make the most of this asset as scientific opinion is strongly in favour of the commercial development of the industry. Except as regards narrow leaf and the establishment of an arboretum near Kingscote there is nothing at present calling for more than ordinary comment on matters connected with tree culture on the areas east of the line North and South through Duncan River. ...

Sugar Gum Belts

These should be conserved without delay for the areas are valuable and promising, and occupying land which at present has very little commercial value, these belts in the aggregate occupy thousands of acres and only need to be protected from the ravages of fire and handled scientifically.

Grass Trees

These like the narrow leaf should be strenuously protected and conserved, ... it[s] value on site is £2 per ton and £4 f.o.b. ...

Other Trees

Besides the sugar gum the only other tree worth conserving is a small belt of *Casuarina quadrivalvis* showing wonderful regeneration in the Valley of the Ravine and also a small clump of a few acres of *Callitris* at Brownlow near Kingscote ...

SOFTWOODS

There are very extensive areas taken in the aggregate of which it would be possible to establish either by planting or by sowing areas of coniferous trees. Possibly on the South coast on the large stretches of coastal sand dune the *Pinus maritima*². *Pinus halepensis* and *Acacia pycnantha* would work wonders, the *Insignis* would possibly succeed in the richer and deeper soils and the *laricio*³ on the heavier and deeper soils, the *halepensis* may flourish on the limestone, unless on further investigation the climate may be found to be too cold in which case several other

² A taxonomic synonym of Maritime Pine (*Pinus pinaster*).

³ *Insignis* (now *radiata*) and *laricio* are both *Pinus* species.

coniferae can be tested. On the North coast and in the centre of the Island Canary Island Pine should be planted extensively. *Pinus laricio* should play an important part as well. ... The gullie[s] running in the North coast should be capable of carrying enough first class softwoods to go a long way to providing the State with its raw material requirements. ...

The soil conditions and the rainfall and the shelter are such that one cannot expect a better place for the planting of a softwood forest, from the point of view of extraction of timber the situation of Snug Cove is about as near ideal as can be, the timber can be slid down the slope, taken on a down grade to the beach, floated a few yards out to sea, hoisted on board a ship in a harbour which is quite safe for steamboats for many months of the year, thence to the several important harbours of the State. This proposition offers one of the best prospects for State enterprise in Forestry to be found in South Australia. ... Along the south coast are many square miles of sand dune virulently shifting and encroaching inland. The land is at present utterly worthless but as in Gascony under the *Pinus maritima* it might support a large industry in soft wood and turpentine and become a large asset. The planting of the coastal sand dunes with conifers is matter of national importance. Planting and sowing on sandy soils is one of the cheapest forms of sowing and planting there is.

HARDWOODS

There are localities to be found which with light clearing and burning and seeding many of the superior trees on the mainland could be developed e.g. *Eucalyptus leucoxylon*, *Eucalyptus cornuta*, *Eucalyptus viminalis*, *Eucalyptus globulus*, several Casuarinas, *Acacia melanoxylon*, also *Ailanthus glandulosa*, *Lagenaria*, *Pattersonii* and many others. The *Acacia melanoxylon*, *Fraxinus americana*, poplars and oaks should be introduced in suitable places in the gullies. *Robinia pseudoacacia* will be a valuable tree for certain sheltered spots on the marls and limestone.

Other Species

Wattles: Another cheaply grown and early revenue producing species is the Wattle, especially the *Acacia pycnantha*. ... the great advantage of this species is that under the conditions on the Island the poorest and driest country with certainty, fires of course being eliminated, made revenue producing. ... *Acacia pycnantha* will succeed on some of the poorest country the Island has e.g. the drifting sand on the coast and possibly under the indigenous sugar gums it should make a very useful substitute for the apparently worthless *Acacia armata* which is however an excellent soil shader and growing beautifully underneath of the sugar gums.

... Considering softwoods alone:- it can be assumed that 1% of the area at the very least is capable of carrying a second rate stand valued at £100 per acre which is very low, this for the area means £640,000 worth of timber within 20-30 years, if it were all put under forest now, the sustained yields would be less.

The area capable of carrying softwoods cannot be estimated immediately ... Suppose it reaches as high as 10%, which it might readily seeing that about 25% of the area is already alienated, that would mean that instead of

£640,000, a sum of £6,400,000 or a value of timber on a 30 year rotation of £31,000 per annum ... The planting would be cheaper than on the mainland because there is no necessity to fence against vermin ...

Native Fauna

The object of the management of the area under report shall be Forestry which combines the preservation and utilisation of the fur bearing and other animals ...

FISHING

There are numerous rivers and creeks running into the sea in which bream and other fish abound ...

Introduced Fauna

It is the general opinion that the Black possum of Tasmania the fur of which is very valuable if introduced into the Island would flourish ...

This special aspect of Forestry – the development of areas of the Fauna Reserve for the sake of revenue from pelts, fishing and shooting licenses and as a natural zoological garden for many forms of life which are fast becoming extinct in Australia is one that should appeal to every right thinking citizen ... By suitable administration it should be possible to arrange for the sportsman and tourist to obtain a certain amount of sport on license and under proper supervision ...

Tourism

... The multiplicity of interesting places ... should be enough to make the Island a sanatorium for the whole of Australia ...

Labour

... about 90% of the money spent on Forestry and timber working goes to labour. ... If gaol labour could provide 30 workmen to be applied continuously to Forestry ... a revolution in the condition of the Island would be within measurable distance.

FAUNA PROTECTION AND THE SETTLER

... fencing might stand over for the present if the settlers and lease holders were brought out and a thoroughly well defined boundary of the forest were set out along the line North and South through Duncan River, and a wide strip of bush cleared along the boundary ...

Part 3

Suggestions and Recommendations

The Forest of Kangaroo Island

1. That the whole of the Island which is at present Crown land and which is carrying the narrow leaf eucalyptus east of the line north and south through Duncan River and bounding the Hundreds of Menzies and McGillivray on the East be set aside for forest purposes with the object of conserving and developing the narrow leaf oil industry. That other land carrying the Grass tree should be selected and reserved as a forest area with the object of conserving the Yacca trees on these areas. That the whole of the area West of a line described above which is at present Crown Land should be set aside for forest purposes and that the whole of the area which is at present freehold and leasehold be obtained by the government for a similar end. That the areas held by the light houses be considerably reduced and added to the land already suggested. That the whole

area required for forest purposes be called the Forest of Kangaroo Island.

Objects of Management

That the object of management of the Forest of Kangaroo Island be such as to most efficiently develop the respective areas suitable for the production of timber, bark, gums, hides, furs and that the area be so managed as to provide, under proper supervision, scope for the public to tour, fish, shoot, picnic and camp, and at the same time the area should act as a field for scientific work in any direction that may be found from time to time necessary.

2. From the special point of view of the preservation of certain sorts of animal life which are seriously threatened with extinction on the mainland of Australia, the setting apart of the area indicated is an absolute necessity. By dedicating this area as a sanctuary for animals which are becoming extinct it will to some extent minimise the crime which is being committed against the animal kingdom and preserve to posterity an asset the value of which cannot be realized at present.

In order that this last object may be satisfactorily arrived at it is absolutely necessary to pin the responsibility for carrying out this work to [an] individual or individuals who should more or less be independent of malicious criticism and be invested with the powers necessary to obtain the end. That this matter is so urgent in view of threatened extinctions of certain species and the necessity of forest in this State that immediate action be taken.

3. That during the coming season every precaution be taken in order to prevent devastating bush fires from sweeping large tracts of the supposed forest areas by

placing an officer in charge of fire protection without delay by giving him necessary powers, assistance the requisite amount of labour; by vigorously enforcing what laws there are connected with bush fires and by solemnly warning any persons in the proposed area that any infringement of the laws connected with bush fires will be seriously dealt with. That the labour necessary to put this scheme into operation be supplied from the gaols in a manner that is similar to that which is in operation in N.S.W. In so much as from the information already obtained it seems that the fauna of the Island will within a few years be returning a considerable revenue to the settlers, the appointment of an officer who has special knowledge of the habits and requirements of the Fauna to take control and co-operate with the forester in developing this special aspect of the forest be made without delay.

[No recommendation 4.]

5. As soon as necessary a small tannery for the purpose of cheaply and properly treating furs and hides be established under the control of the forester in charge at some suitable spot in the forest.

6. That special legislation be introduced in order that control of the trade in pelts of the Fauna of the Island be secured until such time as is necessary to give effect to these recommendations.

7. That special powers be given to the Forester and his subordinates in order that they can more effectively carry out the duties of their respective offices ...

Source

GRC 16/4 1915-17 Report on Inspection of Kangaroo Island. State Records of South Australia, Adelaide SA.



The map of Kangaroo Island which Corbin included with report.

His handwritten annotations include the names of rivers, a line showing his itinerary (encircling "The Forest of Kangaroo Island"), and some sand dunes in the south. The L-shaped hatched line is the "proposed boundary".

The map is signed "H. Hugh Corbin Lecturer in Forestry June 1917".

LORD HOWE ISLAND



LORD HOWE ISLAND FOREST HISTORY

By Fintán Ó Laighin

Lord Howe is a small crescent-shaped island in the south Pacific, about 600 km east of Port Macquarie and about 900 km south-west of Norfolk Island. A remnant of an ancient volcano, it covers an area of about 14.5 km². It has been part of New South Wales since 1855. It is governed by the seven-member Lord Howe Island Board, four of whom are elected by the residents, while three are appointed by the NSW minister to which the board reports. The island has an unofficial flag which features a Kentia (Thatch) Palm, designed by John Vaughan and which was first flown in November 1998. While unofficial, it is flown around the island, including the airport.



The Lord Howe Island Group comprises Lord Howe Island, the Admiralty Islands, the Mutton Bird Islands, Ball's Pyramid, and associated coral reefs and marine environments. The group was inscribed on the World Heritage List in 1982¹ and on Australia's National Heritage List in May 2007². Most of the island is dominated by rainforests and palm forest. Grasslands occur on the more exposed areas of Lord Howe Island and on the offshore islands. Most of the main island and all of the offshore islands are included in the Lord Howe Island Permanent Park Preserve which was established by a 1981 amendment to the *Lord Howe Island Act 1953* (NSW).

The island was first sighted in February 1788 during a voyage by HMS *Supply* (one of the 11 ships of the First Fleet) which was travelling from Botany Bay to Norfolk Island. On the return journey in March, a party was sent ashore to claim the island as a British possession. One of the ship's officers, Richard Blackburn, wrote effusively about the abundance of turtles but was less impressed by the vegetation which he described as just "Cabbage (trees) & Mangrove".³

A scientific expedition was undertaken in 1853 when the HMS *Herald*, captained by Henry Denham, voyaged to Lord Howe Island, New Caledonia and the Isle of Pines. The crew included botanist William Milne from the

Edinburgh Botanic Garden and naturalist John MacGillivray. Denham's report notes that the export of timber could be a profitable enterprise.⁴

The first government official, Captain Robert Armstrong, was appointed in 1878. Among his many posts were Forest Ranger, Resident Magistrate, Clerk of Petty Sessions, Postmaster and Registrar of Births, Deaths and Marriages. His role as Forest Ranger followed the entire island having been declared a forest reserve in order to protect the Kentia Palms which were being increasingly exploited in the 1870s. Armstrong came into conflict with the islanders and was removed from the island in 1882 following an adverse report from a commission of inquiry. He was subsequently cleared by two parliamentary inquiries although was not reappointed.

The commission of inquiry investigated more than just Armstrong's conduct. It was led by former NSW parliamentarian, the Hon. John Bowie Wilson who was appointed by the NSW Government to inquire into and report upon the present state and prospects of Lord Howe Island. Wilson's report appeared in the *Sydney Morning Herald* of 19 July 1882:⁵

One of the characteristic features of the indigenous vegetation of the island is the numerous palm trees that grow all over its surface, the seeds of which are collected by the residents – also the most magnificent banyan tree, a species of figtree – but I am sorry to report that there appears to be a disease among the banyan trees, as many of them are dying. None of the timber growing on the island is of any value for industrial, economic, or commercial purposes, and it is very desirable that some of the forest trees of New South Wales should be planted with as little delay as possible. The following is a list of some of the trees which should be planted not later than in the months of August and September, viz.: Blue-gum, cedar, box, ironbark, jarrah, cork-oak, kauri pine, Moreton Bay pine, sheoak, camphor trees, and New South Wales ash.

Wilson also refers to Kentia Palm being used as thatch over a framework made from local timbers.⁶

¹ whc.unesco.org/en/list/186

² www.awe.gov.au/parks-heritage/heritage/places/world/lord-howe

³ David Blackburn, 1788, p327.

⁴ Cited in Kimberley Ann Owens, 2008, p75.

⁵ National Library of Australia, Trove. trove.nla.gov.au/newspaper/article/13515208/1420011, p7.

⁶ Cited in Howard Tanner and Associates, n.d., p65.

Four reports were appended to the main report, including one on the vegetation of the island prepared by John Duff⁷ of the Botanic Garden in Sydney. Another report, by Henry Wilkinson to the Under-Secretary for Mines, was summarised in the *Sydney Morning Herald* of 5 September 1882:⁸

Also, in accordance with your instructions, I procured twenty-eight specimens of the timber indigenous to Lord Howe Island. Seven other samples will be obtained and forwarded by the first vessel coming from the island. The short time at my disposal, and the almost inaccessible places from which they are obtainable, rendered it necessary to leave the forwarding of them till the next opportunity.

While tourism is now the dominant industry on Lord Howe Island, along with exports of the endemic *Kentia* Palms, in the 20th century, the island had a small timber industry. What is now Stevens Reserve has a short walking track with interpretative signs, including one headed "Timber plantation".



Photograph by Juliana Lazgari.

The sign explains:

Early houses on Lord Howe Island were constructed initially using palm trees – the trunks for a frame and the leaves to thatch walls and the roof. Later a variety of local trees were used to provide timber for the construction of more substantial homes – trees such as Scalybark *Cleistocalyx fullagarii*,⁹ Blackbutt *Cryptocarya triplinervis* and Maulwood *Olea paniculata* were sawn into planks and used.

In the 1930s the Lord Howe Island Board decided to plant tree species from the mainland to provide building material for future home construction. In this area, which had already been cleared by Campbell Stevens as a farm, the following trees were planted: Norfolk Island pine *Araucaria heterophylla*, Hoop pine

Araucaria cunninghamii, Bunya pine *Araucaria bidwillii*, Tallowood *Eucalyptus microcorys* and Southern Bluegum *Eucalyptus globulus*. These trees are still growing and can all be seen in this vicinity.

The walk doesn't include interpretative signs for any of the species listed above, but does have ones for Curly Palm *Howea belmoreana*, Thatch Palm *Howea forsteriana*, Banyan *Ficus macrophylla* subsp. *columnaris* (another species endemic to Lord Howe Island), Greybark *Drypetes deplanchei* ssp. *affinis*, the aforementioned Maulwood and Blackbutt, and one on Birdlife featuring five of the 18 land birds that breed on the island – Emerald Ground Dove, European Songthrush, Golden Whistler, European Blackbird and the Lord Howe Island Currawong.

In 1940, the Lord Howe Island Board of Control (a forerunner to the current Lord Howe Island Board) established a sawmill to process fallen timber for fence posts, pig sties, fish casks and packing crates for exporting seed, and also used to mill Norfolk Island Pine timber for house framing. The sawmill was moved to a new location in 1946, and was used until about 1956-57.¹⁰



The old sawmill.

Lord Howe Island Museum Collection.

References and further reading

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- Howard Tanner and Associates, n.d. (c. mid-1980s). Lord Howe Island Heritage Study. heritagensw.intersearch.com.au/heritagenswjsui/retrieve/4a29f8eb-7b1f-4a84-b880-834964af0eed/H03227%20-%20LORD.pdf

⁷ In December 1882, Duff was appointed the NSW Inspector of Forests, replacing Henry Kendall who died in August 1882. Kendall had been appointed in 1881.

⁸ National Library of Australia, Trove. trove.nla.gov.au/newspaper/article/28376667/1418305, p5.

⁹ Ferdinand von Mueller described the scalybark in 1873 as *Acicahyptus fullagarii*, before it was renamed *Cleistocalyx fullagarii* in 1937. The species was reclassified in the large genus *Syzygium* by Lyn Craven in 1998. Mueller named the scalybark after one of the collectors of the original specimen James P. Fullagar, however originally misspelt the name *fullageri*. en.wikipedia.org/wiki/Syzygium_fullagarii#Taxonomy Wikipedia doesn't say, but the 1937 renaming was authored by Elmer Drew Merrill and Lily May Perry.

¹⁰ Chris and Margaret Betteridge 2012, p173.

NORFOLK ISLAND



NORFOLK ISLAND PINE

By Jane Lennon

Have you ever considered the origin of those distinctive pine trees lining many coastal foreshores in Australia? They are Norfolk Island pines (*Araucaria heterophylla*) which are endemic to Norfolk Island, a volcanic island of 35 square kilometres (3529 ha) in the Pacific Ocean between New Zealand and New Caledonia.

The genus *Araucaria* occurs across the South Pacific, and especially in New Caledonia where 13 closely related and similar-appearing species are found. It is sometimes called a star pine, Polynesian pine, triangle tree or living Christmas tree, due to its symmetrical shape as a sapling, although it is not a true pine. Its relatives Hoop pine (*A. cunninghamii*) and Bunya pine (*A. bidwilli*) are features of outstanding universal value in the Gondwana Rainforests of Australia, the most extensive area of subtropical rainforest in the world and a World Heritage Site with fifty separate reserves totalling 366,500 hectares from Newcastle to Brisbane.

With their high tolerance to salt and wind, Norfolk pines are well suited to coastal situations where they have become an iconic species in Australia. They were planted in coastal towns as landmarks for shipping in the first half of the twentieth century. Mature trees now form much loved, heritage listed esplanades in Manly, Coolangatta, and Fremantle, but they give landscape character to many east coast towns.

Nineteenth century timber use

Norfolk Island was brought to the attention of Europeans when Captain James Cook sighted it on 10 October 1774. In claiming the island for the British Crown, he noted that:

... the chief produce of the isle is Spruce Pines which grow here in vast abundance and to a vast size, from two to three feet in diameter and upwards, it is of a different sort to those in New Caledonia and also to those in New Zealand and for Masts, Yards & Ct superior to both... (Cook, 1961:565-6).

One month after Sydney had been established, the first convict settlement on Norfolk Island began. By October 1796, 619 hectares of land had been cleared of timber which was used by sawyers for construction purposes. In 1798 the 25 ton decked boat *Norfolk* was built of local pine and Matthew Flinders sailed this vessel in his circumnavigation of Van Diemen's Land in 1799. However, the planned use by the Admiralty of Norfolk

Island pine did not eventuate and the cleared land was given over to agriculture until the settlement was abandoned in 1814 (Hoare, 1999:25-7).

During the second convict settlement the sawpits were re-opened and a timber yard was established in Kingston by 1831. By 1856 when the last convicts sailed for Hobart, the island had been cleared of 40% of its vegetation and woody weeds were already a problem having over-run much of the cultivated land and the native forest (Nobbs, 1991:161).

The Pitcairn Island community was relocated to Norfolk Island in June 1856. Despite some construction of small boats from pine logs, shore-based whaling and subsistence agriculture remained the main activities during the nineteenth century (Hoare, 1999:97). In 1895 the New South Wales government took over responsibility for Norfolk Island and in 1896 the population was over 800 of whom about one-third belonged to the Melanesian Mission (Hoare, 1999:107).

Twentieth century timber use

Norfolk Island was "placed under the authority of the Commonwealth of Australia" in 1913 and a resident Administrator appointed. There was a "banana boom" in the late 1920s due to the demand for disease-free fruit in Australia and New Zealand and the population rose to 1231 in 1933 (Hoare, 1999: 126-7). By this time, the vegetation of the island was dominated by many plants whose exotic names give evidence of their origins – African Olive and Box thorn, China Wood-oil Tree, English oak, Hawaiian holly, Illawarra flame tree, Japanese honeysuckle, Jersey cud weed, Lombardy poplar, Lord Howe Island blackbutt, Madeira vine, Mexican poppy, Moreton Bay fig, New Zealand Christmas bush and pittosporum, Queensland black bean and umbrella tree. They varied from sturdy tree invaders to shrubs, flowers, grasses and creepers.

Interest in forest conservation increased with the intervention of the new Commonwealth authorities, in the person of the Inspector General of Forests, C.E. Lane Poole. He first visited Norfolk Island in 1925 and made recommendations regarding timber reserves, training, timber royalties, reforestation etc [printed report of 1926 (C.1460)]. However, by June 1931 the Administrator, Colonel Bennett, was only seeking his advice on technical matters such as transplanting seedlings from the forest.

Lane Poole favoured nursery production rather than transplanting seedlings as forest seedlings may be many years old and be suppressed by the canopy and the roots of old trees of the forest. He cited Queensland, where it had been customary to transplant forest seedlings of hoop pine, a sister of the Norfolk Island pine, the failures reached 85% and the department resorted to the sounder practice of raising the seedlings in a nursery. He advised raising trees in a nursery if large scale planting was contemplated and transplanting them at two years of age to their permanent site, where they should be planted in rows about eight feet apart, and the same distance between plants if commercial use was envisaged, giving 680 trees to the acre. He gave further instructions about nursery practice, tilth, weeding and shading.

The Administrator ignored his advice. Not one to be ignored, Lane Poole persisted and when the Administrator objected to his interference in setting the royalty for cutting pine on lease hold land, Lane Poole wrote on 24 June 1931 to the Secretary of the Department of Home Affairs. This letter is an excellent summary of the need for a forest policy, and, just as relevant today, for private lessees to develop a "forest conscience" outlining the planting requirements to maintain a mosaic of reserves for both use and protection:

My fear is that in [the] desire to cultivate as much land as possible, trees may be felled on sites which will not be retained permanently for agriculture. This is what has occurred in all the States of Australia and in most other lands. I should like to see the price of the timber – the Crown's property – raised to something approaching what it will cost to grow it, so that instead of making it very easy for settlers to destroy an asset they will be forced to consider very carefully the relative value of land and timber before applying for a permit ...

The policy of planting three trees to replace one cut down is a very interesting revival of a law which has been tried in many lands, both old and new, and which has had to be abandoned for certain reasons, the most cogent of which are as follows:

1. It takes a number of trees, usually more than three, to supply one sound mature mill tree.
2. The trees must be correctly placed apart when planted.
3. They must be in sufficient numbers to form a little wood otherwise the necessary "forest condition" will not become established.
4. They must be thinned at intervals so as to assure the maximum development of timber of the right size and form.
5. The area on which they are growing must be reserved or otherwise set aside for the production of timber and this reservation must be maintained for at any rate the duration of the life of the species making up the wood, which may be as long as 60 or 100 years.

The wood must be protected from small and great stock, from vermin, from fire, and from man during the whole period of its life. The practical impossibility of securing such a continuity of policy as is required for forestry from private owners soon rendered the laws regarding replacement of trees inoperative and they became a dead letter or were repealed (NAA, A2430, 1931 POL13, pp11-15).

Lane Poole advocated selecting an area on each leasehold that was less valuable for agriculture, fencing it and reserving it for forestry purposes as a "wood lot" for planting trees to replace those cut down plus an annual area planted so that a mosaic of forestry reserves would dot the island. This proposal was in addition to applying sound forestry principles to the existing government forestry reserves such as Mount Pitt which was then only partly enclosed from straying stock. He was also concerned about the spread of rabbits from nearby Phillip Island which was in a barren condition and noted that "the stages on the road to desolation are so gradual as to be hard to distinguish but they are always progressive".

The major effort on Norfolk Island at this time was directed at collecting seed for distribution elsewhere in Australia. In October 1931 Lane Poole advised that the request from the Western Australian Conservator of Forests for 2 cwt of seed of Norfolk Island pine could not be filled as the "seed ripens in June and rapidly deteriorates in quality after maturing". The prospects for next year were good but in July 1932 the Queensland Forestry Board was informed that supplies of fertile Norfolk Island pine seed were unavailable. There was also a request from the South Australia Forests Department for seed. However, private sources of seed were available. On 5 July 1932, John R. Logan of Edrom, Eden, NSW, ironically just near the current wood chip mill, enquired of Lane Poole whether he could obtain 20/- per lb for the seed from his Norfolk Island pine: "1 cwt gathered after a gale and more to come; tree planted by B. Boyd in 1847 and is 85 feet 5 inches high and nine feet around the butt". Lane Poole replied that 20/- was possible from nurserymen and seed merchants with direct supplies to other states.

In July 1932 Captain Charles Pinney was appointed as the new Administrator of Norfolk Island, and soon after reported on the deplorable condition of the Mount Pitt Forest Reserve where the northern slopes were "almost bare of marketable pine and the tracks cut through the undergrowth by various logging parties only serve as tracks for straying cattle who devour every young pine in sight". (NAA, A2430, 1932 POL13, p34).

Pinney wanted to plant 100 acres of hardwoods and requested seed. Funds were granted to complete the fencing of Mount Pitt reserve and Lane Poole sent three parcels of seed (each about half a pound) for planting in Mount Pitt Timber Reserve. These parcels were comprised of tallowwood (*Eucalyptus microcorys*), requested from L. Hudson, Forest Office, Taree – "same gathering as we sowed at Coopernook", turpentine (*Syncarpia laurifolia*) and grey ironbark (*E. paniculata*), the latter having been collected in November 1930 by Andrew

Murphy, "botanical seed collector of Australia" Grand View, Woy Woy, NSW, at a cost of 25 shillings per lb. (NAA, A2430, 1932 POL13, pp21-33).

Lane Poole also advised the Secretary of the Department of the Interior, on the training (wages, board, fares, conditions) of Master E.V. Stephenson, the local lad selected to be a forester. This involved up to two years at the Australian Forestry School training in nursery (at Yarralumla nursery), clearing and planting and two months at a Queensland nursery tending and raising hoop pine; and a five-year bond "because this country would have its attractions for a young islander" (NAA, A2430, 1932 POL13, pp11-12).

The new Administrator invited the Inspector General of Forests to visit and advise on afforestation matters. This must have pleased Lane Poole, who sailed from Sydney on SS *Morinda* on 19 January 1933. He was astonished at the change in the landscape viewed from Mount Pitt as many trees had been destroyed in cultivating the land for bananas.

In 1925, there were two mills ... combined output of 12,500 cubic feet (150,000 super ft) a year – just enough to supply the little needs of the population in case wood and building timber, and to provide a tiny export to Vila and Lord Howe of second-class case wood; today there are five mills and the export of fruit alone takes 84,000 cases a year. In addition, there has been a large increase in buildings. ... it is clear that the trees on private property will not be replaced and the same applies to leasehold, so that as time goes on such lands will become treeless.

However, the previous period of apathy towards forestry seemed to be over and the new Administrator was implementing a forest policy for the island. Headstone Reserve was enclosed and the Mount Pitt Reserve would soon be fenced. The very satisfactory growth of the self-sown pines on Rocky Point Reserve showed "what would have occurred on the other reserves had they been also closed against stock ..." Mount Pitt had areas without any old pines to act as seed trees and planting up of these blank areas with nursery raised stock was the most certain solution and he thought that the Administrator's proposal to "spot sow" them with the help of the boy scouts and girl guides may prove economical. Lane Poole further advised on raising grey ironbark and tallowwood seeds in tubes at the nursery site which was the "old bowling green, surrounded by tall pines ... fair soils" and, as an experiment, recommended that the whole of the old bowling green be fenced in and the ground cultivated. This would demonstrate the possibilities of raising pine trees naturally around the old trees in Kingston which would need replacing as they died out. Their cultivation needed to be deep so as to sever the roots of the mature pines or the young pines would die during summer drought through root competition.

An increase of 485 acres in the area of forest reserves had been recommended

in 1925 by Lane Poole. In 1927 the minister approved 400 acres being set aside for reforestation, but in September 1927 Colonel Bennett recommended leasing 263 acres for agricultural purposes. By 1933 this serious blunder was rectified in part by the new Administrator re-reserving 172 acres. Lane Poole wisely noted that:

Chopping and changing in any government policy leads to dissatisfaction. In forestry, changes of policy result as a rule in alienation of forest land and destruction of a government asset. It is to be hoped ... that the boundaries of forest reserves in Norfolk Island will not again be interfered with but will remain intact as an area dedicated to the growing of the Island's future requirements in timber ...

Despite these hopes he observed that Norfolk Island was progressively being commercialised and the subdivision of the Melanesian Mission lands resulted in settlers from the mainland who initiated progressive farming methods and built up an export trade in bananas, potatoes, beans and passion fruit. There was a general rise in the standard of living, and with the restoration of stable economic world conditions the island would continue to prosper. However, he warned that:

... the need of a sound forest policy, important as it was in the old lotus-eating days, is now a fundamental necessity if the Island is to be a self-supporting unit of the Empire ... having to import timber must be avoided ... The cutting of timber must be carefully regulated and the inhabitants must submit to laws and regulations which will minimise waste in utilization and prevent forest destruction by stock of young trees growing up in forest reserves. They must be prepared to pay a fair price for the trees, that is a price that will pay the cost of growing the forest again. (C.E. Lane Poole, Inspector General of Forests, 21.2.33, A2430, 1933 POL13 Pt 2).

The annual report for 1933 noted (p8) that a nursery had been established in the grounds of Government House where pine and eucalypt seedlings were being raised for planting out by the forestry student on his return. In addition, Lane Poole argued for the reservation of Phillip Island as a forest reserve as it had the worst case of erosion that he had seen on "the three continents where I have worked as a forester" (Lane Poole, 4 August 1933 to Prime Minister's Department, A2430, 1933 POL13 Pt 2, pp74-5). It was to be another 50 years until this erosion was seriously tackled.

8

AFFORESTATION.

In January the Commonwealth Inspector-General of Forests Mr. C. E. Lane-Poole, visited Norfolk Island at the invitation of the Administration. A survey was made of the timber resources of the Territory and a report furnished to the Prime Minister. On the recommendation of the Inspector-General, Mount Pitt Reserve was closed to cattle to prevent the young seedlings being eaten.

Mr. E. V. Stephenson, a local resident born on the island, is at present being trained at the Commonwealth School of Forestry, Canberra, to enable him to take up forestry work on his return.

A nursery has been established in the grounds of Government House, where seeds of pine, eucalyptus, &c., are being planted with a view to having trees ready for planting out in the various reserves on the return of the forestry student.

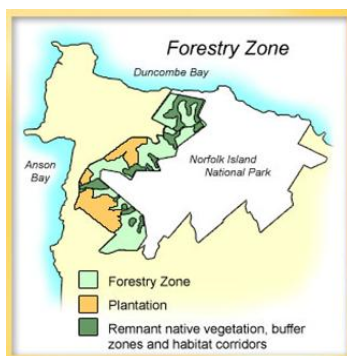
During the visit of the Inspector-General of Forests, Phillip Island was visited, and it was recommended that as a first step towards clothing this bare island with vegetation the numerous rabbits be poisoned. An attempt to eradicate this pest will be made as soon as the dry weather arrives. It is hoped then to plant suitable grasses to prevent further soil erosion and to permit the planting of the Norfolk Island pine.

World War II had a major impact on island conditions and construction of the airstrip in 1942 involved cutting down the convict planted Avenue of Pines (Hoare, 1999:130). The demand for timber exploded during the war years and production increased to 65,000 super feet per month causing severe depletion of the island's timber reserves – cutting out all accessible hardwoods and making heavy inroads into stocks of local pine (NIPFS, 2003:21).

An influx of settlers especially from New Zealand occurred in the mid-1960s and led to locals forming the Norfolk Island flora and fauna society in 1967 due to their concerns about destruction of native trees. In 1968 the Australian Conservation Foundation published Professor John Turner's report on *The Conservation of Norfolk Island* in which reservation of Mount Pitt as a national park was recommended as well as flora reserves along the cliffs and islets, reservation of Philip Island as a bird sanctuary and conservation of the historic Kingston landscape.

Mount Pitt "nature reserve" and the botanic garden were proclaimed as Commonwealth reserves on 30 January 1986 under the *National Parks and Wildlife Conservation Act 1975* following a request from the Norfolk Island Legislative Assembly. The Kingston and Arthurs Vale Historic Area was designated a reserve in 1981 and development was restricted there (Hoare, 1999:146-7).

Norfolk Island National Park currently forms 14% of the total land area of Norfolk Island. Prior to World War II, the Old Mountain track was the main access to Mount Pitt and it is now used by walkers as a direct route from the park entrance to the summit. Much of the area was infested with introduced trees and shrubs which are gradually being removed and replaced with native species as part of a rehabilitation program.



The area comprising the Forestry Zone was cleared for banana plantations during the 1930s but after the collapse of the banana industry developed into a dense thicket of African Olive. In 1955, it was included in the Mount Pitt Reserve as an area reserved for

forestry purposes although it includes scattered areas of remnant native vegetation. Some sections adjacent to the western boundary were cleared of olive and eucalypt plantations were established by the local forestry service. In the late 1950s, a trial shipment of Norfolk pine logs was sent to plywood manufacturers in Sydney with the hope of developing a timber export industry on Norfolk Island. Although the plywood companies reported excellent results, the industry was deemed not sustainable by the Norfolk Island Advisory Council, which decided to reserve timber production for local use.

Work on *Phelinus noxius* – the root rot that has impacted several key forest species including *Arancaria* – was

undertaken in the 1980s, and Parks Australia and local naturalists in the early 1990s developed a rehabilitation strategy for the rainforests.

The Norfolk Island government passed the *Trees Act 1997* to preserve and manage the taking of protected trees and to control the exploitation of the forestry resources. All 36 tree species native to Norfolk Island are protected and permits are required to take any of these species; but some are not protected until they reach a specified height (e.g. *A. heterophylla* at 4.5m). In addition, the Trees Act aimed to promote and protect the conservation of the natural environment and landscape beauty of the island; and to encourage the cultivation of plantation timbers as a renewable resource. There has been significant planting of pines and other native trees and shrubs on the island during the past 20 years. However, Norfolk Island pine is susceptible to borer and most pine is treated at the tanalith plant. Some eucalypt is cut annually mainly for posts and rails.



The Forestry Area is now part of the national park and the eucalypt area was reduced and replanted with native species; an area of pine plantation is managed for sustainable timber production for the local community. The mature eucalypt

plantations are considered a fire risk to the island but they would be costly to remove and provide a habitat for the endemic green parrot and Norfolk Island robin. Sections 2.9 and 2.10 of the *Norfolk Island National Park and Norfolk Island Botanic Garden Management Plan 2018-2028* detail these actions. An independent review of the forestry operations in 2012 concluded that the Forestry Area had little economic value for the island and should be rehabilitated to provide for community recreation and tourism. Lane Poole would be very disappointed.

The utility of *A. heterophylla* has spread far and wide across the Pacific. It has been widely planted in Hawaii with positive impacts and in Puerto Rico. However, in some parts of coastal New South Wales it is now regarded as a weed because of its landscape impact and, although once considered non-invasive, seedlings of Norfolk Island pine have in recent years began appearing in native bushland. This is an example of the "lag effect" whereby an introduced "sleeper" that seems for many years to be benign, suddenly starts to spread and to become an environmental weed (www.ilda.com.au/page/weeds.html).

On Norfolk Island, Lane Poole's hope of a "forest conscience" has occurred with reservation of the national park and public reserves and extensive replanting. But this is not the forest conscience that Lane Poole envisaged because these moves are aimed at conserving the native species and no harvesting is planned, so that timber supplies for building on the island have to be imported. Despite the increase in vegetation on Norfolk Island, the native species are at risk from the uncontrolled spread of exotics and an awareness of the value of the endemic forest is now needed.

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A PERSONAL EXPERIENCE OF FORESTRY UNDER PROTEST ON NORFOLK ISLAND

By John Gray *

In about 1959, I was instructed by the then Forestry and Timber Bureau in Canberra to visit Norfolk Island and arrange for a parcel of Norfolk Island Pine (*Araucaria excelsa*) logs to be shipped to Sydney for testing. The decision by the Commonwealth Government to take this action followed a lengthy period of disagreement with the residents of the island over how best to finance the operation of the island and it considered that forestry was a possibility.

The island is situated 1600 kilometres north-east of Sydney and 1100 kilometres north-west of Auckland. It has an airport and is now regularly served by airlines. Most readers will be aware of the history of Norfolk Island. It was discovered and named by Captain Cook in 1774 during his second voyage around the world in HMS *Resolution* and was eventually inhabited permanently in 1856 by the descendants of the mutineers of HMS *Bounty* following their relocation from Pitcairn Island. The famous mutiny took place in 1789. The *Bounty* had been under the command of William Bligh, a future Governor of New South Wales (August 1806 to January 1808).

The Australian Parliament accepted the administration of the island as an external territory in 1914 when the

Norfolk Island Act 1913 came into force, and an Administrator was appointed. Inhabitants are Australian citizens. Norfolk Island's current population is 1750.

I had some reservations about the task of logging Norfolk Island Pine forests. I had previously visited the island and knew that the forests were not extensive. The island itself is only 8 kilometres long and 5 kilometres wide. The residents are proud of their Norfolk Island Pine trees and the tree is featured on the island's flag. There were no wharves then where the logs could be loaded onto a ship and I would have to load the logs at sea. I had no experience of this type of loading and I knew that there was inadequate equipment for such an operation. I also became aware that there was strong opposition from Norfolk Islanders to the proposed logging operation and criticism of my expenditure of funds for my purchase of equipment prior to my arrival on the island.

When I arrived at the Norfolk Island airport, I was not surprised when told that the Administrator wanted to meet with me. The meeting with him included members of his advisory council who were all Norfolk Islanders and who were intent on expressing opposition to the logging operation.

This was obviously not going to be a pleasant task and I was not surprised when a number of Norfolk Islanders turned up in the next few days at the log launching site. I suspected that they hoped I would drop the first log into the sea to be towed to the ship and that it would sink to the floor of the ocean! As it turned out it didn't and confirmed my density calculations prior to my departure from Canberra. By the end of the day a large parcel of logs had been loaded onto the ship.

On arrival in Sydney the logs were test peeled successfully. One of those present at this operation was Charles Lane-Poole, the former head of the Forestry and Timber Bureau and the Australian Forestry School in Canberra.

However, the Commonwealth Government did not proceed any further with the establishment of a forestry industry on Norfolk Island.

THE FLAG OF NORFOLK ISLAND

The flag of Norfolk Island was approved by the Norfolk Island Council on 6 June 1979 and became the official flag on the commencement date of the *Norfolk Island Flag and Public Seal Act 1979* on 17 January 1980. (Wikipedia, https://en.wikipedia.org/wiki/Flag_of_Norfolk_Island) Schedule 1 of the Act states that "The middle panel shall contain a representation in green of a Norfolk Island Pine" and an illustration is shown in Schedule 2.



* Dr John Gray OAM is a retired forester and landscape architect. He spent much of his career working on Canberra's urban forest. Prior to his retirement in 1988, he was Director of Landscape Architecture in the National Capital Development Commission. His doctoral thesis in 1999 was on horticulturalist Charles Weston, Canberra's founding tree planter. It can be accessed on line at researchsystem.canberra.edu.au/ws/portalfiles/portal/33690578/file.

GREAT BARRIER ISLAND, NEW ZEALAND



GREAT BARRIER ISLAND AND THE KAURI TIMBER INDUSTRY

By Paul Star*

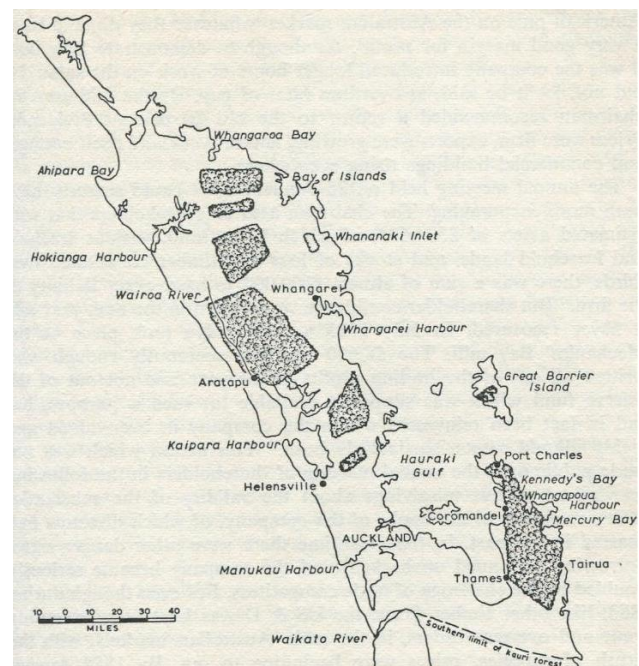
When the German scientist Ferdinand von Hochstetter visited northern New Zealand in 1859 he saw densely forested landscapes typified by the one represented on the front page of this newsletter (Scherzer 1861-2: 138). But while it was the luxuriance of the tree ferns (*Dicksonia* and *Cyathea* spp.) and the height of one of the podocarps, kahikatea (*Dacrycarpus dacrydioides*), that perhaps first attracted the attention of early European observers like Hochstetter, commercial interest soon focussed on another tree, an araucaria which in its maturity achieved extraordinary bulk.

This tree was the New Zealand kauri (*Agathis australis*), which only grew naturally in the northern regions of North Island, and no further south than Tauranga. In 1886 an English visitor noted that "the kauri pine, of which (New Zealanders) have, or had, enormous forests, produces the best timber for all purposes which grows anywhere on the globe ... (It) takes 800 years to grow. They are cutting it down and selling it as fast as axe and saw can work ... It is counted that at the present rate of consumption they will all be gone in thirty years" (Froude 1886: 247).

Froude wrote when the kauri timber trade was at its height, supplying both New Zealand and overseas (largely Australian) markets (Roche 1990: 104-115). The Union Sash and Door Company was cutting through the forest around Aratapu on Auckland's West Coast, while the Auckland Timber Company worked around Whangaroa on the East Coast, and the Mercury Bay Company on Coromandel Peninsula. Two years later, in 1888, these and other businesses collapsed under the weight of over-borrowing, over-production and overseas competition (Stone 1973: 93-111).

Existing mills and much of the remaining resource were then acquired by the newly-formed Kauri Timber Company (KTC). This Melbourne-based syndicate gained cutting rights over 180,000 hectares of kauri forest (Orwin 2004: 152) and, as one contemporary put it, had "every inducement to push on the working out of

its forests as quickly as possible. It has to pay a large guaranteed interest to the shareholders ... and it must do an extensive trade to earn this. For the first few years the destruction of the kauri forests will be forced to the utmost" (*Evening Post* 9 August 1888). While KTC became "the largest industrial combination to operate in the Auckland province in the nineteenth century" (Stone 1973: 106), only a decade later did it begin to make a profit.



Location of bush areas acquired by Kauri Timber Company 1888 (Stone 1973: 103)

The industry peaked again in 1906, when over 3500 people were employed in the province's mills and over 440,000 cubic metres of kauri were cut (Orwin 2004: 110). Logging continued through to the interwar years, until, of the 1.2 million hectares of kauri forest extant around 1800, less than 5% was left. KTC continued as the trade's main player while the removal of virtually all kauri suitable as timber proceeded with seeming inexorability.

The records of KTC have been studied (Carter 1972, Pink 1998), but no-one has closely tracked the company's involvement in Great Barrier Island (Aotea). Attention has centred on its retrieval of 217,000 cubic metres of kauri timber from the Kaueraua, near Coromandel, after

* Originally published in AFHS newsletter June 2012
foresthstory.org.au/newsletter/afhsnewsletter59.pdf. The two URLs in the list of references have been updated.

the First World War. The Company's last major assault, however, was on Great Barrier Island's forests, from which 130,000 cubic metres were taken in the 1920s (Orwin 2004: 153).

I recently visited this 7690 hectare island, located above Coromandel Peninsula and just a short flight from Auckland. From an environmental perspective, the significance of the island's kauri forests lies in the remnant and in regeneration (Armitage 2001 and 2009, Great Barrier Island Trust 2010). For the forest historian, however, there is also significance in the lateness of the exploitation of much of this forest, when the difficulties of timber removal from a remote terrain were overcome using skills developed on the mainland in the preceding decades.

Some of the island's trees were in fact cut down early in the European period. The largest vessel ever built in New Zealand was constructed of kauri on "the Barrier" in 1861 (Reed 1964: 50), and from the 1840s through to the 1880s the Great Barrier Company or Fitzroy Harbour Timber Company removed all the more accessible kauri (Bailey 1994). Their holdings passed to KTC in 1888 but, because of the Barrier's remoteness and until most of the mainland kauri forests had gone, they were for long subjected to only limited exploitation.

The pace stepped up in 1909, when KTC set up a mill at Whangaparapara, on the island's west coast. At its peak, this mill was reputedly the southern hemisphere's largest, employing fifty people and producing 60,000 feet of sawn timber daily (Bailey 1994). For a few years this mill functioned as "a sort of free port outside the range of Waitemata Harbour charges" (Halkett and Sale 1986: 114). In addition to kauri logs brought down from the Barrier's forests, many were rafted in from Coromandel and the Bay of Islands, processed at the mill, then the timber shipped directly to Australia and Europe (Bailey 1994).

Nowadays, the nearest sleeping place to the mill site is "The Green", a notorious Department of Conservation (DOC) camping area where I had three nights in my tent and where the mosquitoes had me. Examining the mill site, all I found, apart from a restored steam traction engine, were rails, an iron tank and chimney stack, and the remains of a wharf.

While all agree that this mill only operated for a few years, different sources say it closed in 1914, 1916 and 1928. On the evidence of J G Erne Adams, at least the bush tramway was still operating in the 1920s, bringing logs out of "real 'tiger' country" down to booms in the harbour beside the mill. Tracing the course of the tramway (now a slippery DOC track) (Department of Conservation 2011: 12-13), Adams (1986: 32) found "gradients were so steep that braking devices had to be used. Two spindly viaducts carried the track from one razor-back ridge to the next".

After the mill closed, kauri logs felled on the island were driven into booms at Port Fitzroy harbour (up the coast from Whangaparapara Harbour), formed into "herringbone" rafts, then floated across Hauraki Gulf to KTC's Auckland mill in Freemason's Bay.

George Murray, under contract to KTC, was responsible for the last 10 million feet of kauri "worked" on Great Barrier Island (Reed 1964: 147). This "last major mopping-up on the island of all reachable kauri with a diameter of 30 centimetres or more" occupied Murray from 1926 to 1933 (Halkett and Sale 1986: 64). His wife took charge of the cookhouse at Kaiaraara, and their two sons acted as his right hand men. Most of the workforce, however, were Maori from Katherine's Bay in the island's north (Bailey 1994).

Murray, 6 feet 8 inches tall, was "the most skilful of bushmen, known especially for the true level of his stumps and for the neatness of his cross-cutting". He was "a master – in matching the cut of the saw with the scarf of the axe. If they were imperfectly matched, long splinters of heartwood would remain attached to the base of the tree when the trunk fell". While they only became a concern as kauri became scarce, "these splinters represented a serious loss of clean and valuable timber for as far up inside the log as they penetrated" (Halkett and Sale 1986: 90).

George Murray had been brought up at Whangaroa and first felled kauri further down the Northland east coast at Takou Bay, between Kao and Kerikeri (Halkett and Sale 1986: 90). Before the First World War he worked the kauri forest in Mercury Bay, near Whitianga (Reed 1964: 157). These were the same areas where the better known Bert Collins worked, along with his brother Tudor whose photographs adorn Reed's *New Story of Kauri* (1964).

In 1922, while working in Kaueranga Bush behind Thames, Murray and his sons tackled the biggest kauri trees to be felled for six years (Reed 1964: 191). This is a clear indication that the supply of suitable old growth timber was close to exhaustion. It was time for KTC, and the Murrays, to move on to the upper reaches of Kaiaraara Stream on Great Barrier Island.

In order to proceed, they first had to build a succession of seven dams, so that the logs from Kaiaraara could be driven down to the sea. The most notable of these was the main Kaiaraara Dam, 4.27 metres high and with a 9.4 metre wide gate (Halkett and Sale 1986: 114). This in itself used 60,000 feet of kauri timber, pit-sawn in situ, and took two months to build (Bailey 1994). It employed "the distinctive New Zealand style of loose plank gates", in general use since the 1870s, but unusually had three layers of sills below the flume (Diamond and Hayward 1975: 14, 16-17).

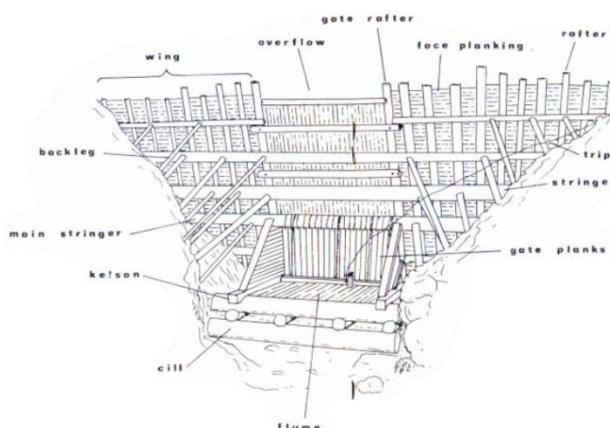
Eighty-five years after construction, this dam is still there, an extraordinary sight for anyone determined enough to climb the first 567 steps (by my reckoning) of the recently upgraded Kaiaraara Track. Knowing that Charles Blomfield entitled his well-known 1921 painting of kauri forest "The Vaulted Aisles of Nature's Cathedral" (Pawson and Brooking 2002: 134), it seemed heretical that this dam, symbolic of the forest's destruction, reminded me of nothing so much as a gigantic cathedral organ.

Who taught Murray how to build such a dam? John McLeod from Nova Scotia, who settled at Awaroa in Northland, built the first driving dams in New Zealand

early in the 1850s (Helensville Museum, n.d.). Since Awaroa was Murray's home town they must surely at least have met. McLeod brought North American techniques with him, which he and others adapted to local conditions (Diamond and Hayward 1975: 26).

In the annals of kauri dam building, a prominent place is also given to the Gibbons family who owned a sawmill near the entrance to Manukau Harbour. Ebenezer Gibbons, like McLeod, moved to New Zealand in the 1850s, in his case from Newfoundland. He redesigned the North American Gilchrist timber jack to create the "Jack of all Trades", which was standard equipment in New Zealand for a century (Diamond and Hayward 1991: 13). Gibbons was not far behind McLeod in building dams, and his family continued doing so for decades (Diamond and Hayward 1991: 26). The Auckland War Memorial Museum has a photograph of a "kauri dam on the Kaiaraara Stream built by Edward Gibbons, 1924". Murray began building his dams there just a couple of years later.

All of these were "driving dams", designed to force logs downstream in a sudden rush of pent-up water, a method of moving timber which, in steep-sided valleys where slopes were steep and streams ran fast, was more practicable than laying down tramlines or using bullock teams. As forest historians Diamond and Hayward have noted, "Most driving dams built after 1880 ... featured the use of loose planks fitted tightly together to create the gate, instead of the much heavier, one- or two-piece gates of the earlier overseas designs. The loose gate planks were attached at one end by chain and later by wire rope to the dam framework, to stop them being swept away each time the gate was opened or "tripped". The first new type (as at Kaiaraara) had upright loose gate planks that were set side by side across the opening. They were held in place by two short beams (called cross trips) laid across the flume floor at the bottom. When tripped, these cross trips were freed, releasing the gate planks and water" (Diamond and Hayward 1991: 27-28).



*Sketch of the large dam on Kaiaraara Stream
(Diamond and Hayward 1975: 16-17)*

The excitement of the resulting "drive", is conveyed in a climactic incident in *The Passionate Puritan* (1921), the worst novel by one of New Zealand's best early writers. Jane Mander wrote from experience, having grown up in Ramarama, a remote community to the south of

Auckland where her father Frank owned the local sawmill.

Continuing beyond Murray's main dam there are 769 steps to a smaller, less well-preserved dam, and then a final 791 steps to the 621metre summit of Mount Hobson (Hirakimata). The only large natural stand of kauri and its associated flora that remains on Great Barrier Island now constitutes the "ecological area" near the very top. Even for Murray, these trees were simply too difficult to fell economically.

From the summit I descended slightly to overnight at DOC's new Mount Heale Hut, which is the ultimate "room with a view". Looking westward from here, Little Barrier Island (Hauturu) (2817 ha) appears to have been placed on the ocean like blancmange on a plate. New Zealand's greatest early botanist, Thomas Kirk, would have seen it from some such vantage point in the 1860s. By that time the kauri on Great Barrier Island was already being worked and the habitat of its associated plants and birds destroyed. Indeed, in his 1868 paper on the flora of the island, Kirk described the kauri of Wairahi (north of Whangaparapara) and Kaiaraara as already cut out. In 1872, Canterbury runholder T H Potts first published the idea that New Zealand's threatened species might be spared by the creation of island sanctuaries (*Nature*, 2 May 1872). Kirk (1895: 26) later claimed that in 1868 he had already considered Little Barrier suitable for exactly this purpose. Having now stood where Kirk once stood, I am more inclined to believe his claim. By 1895, when it became New Zealand's second such sanctuary, some of the Little Barrier Island's kauri had already been felled. Those that remain there are smaller than many that grew on Great Barrier Island.

A H Reed, writing in 1953, stated that "scarcely a vestige" remains of Great Barrier Island's kauri forest, (Reed 1964: 136), and indeed, once away from Mount Hobson, I came across only two large trees, a signpost leading me to their location just a few metres from the Forestry Road between Kaiaraara and Whangaparapara. It is hard to imagine why these trees, alone, were saved.

Now, however, in addition to the remnant near Mount Hobson's summit, there are over 470 hectares of kauri forest in Wairahi Forest Sanctuary (Sale 1978: 114). This formed part of the main cut-over area that KTC sold back to the Government in 1943 for a Forests Ministry experiment in regeneration. From 1950, R C Lloyd of the New Zealand Forest Service recorded the growth of this "second-crop (regenerating) kauri" and of kauri seedlings hand-planted among them. Kauri saplings were "liberated" by clear-felling the manuka overstorey (Halkett and Sale 1986: 206). 10,000 hectares on the Barrier, including 8,000 hectares of regenerating kauri, was gazetted as "state forest" in 1973. While the intention clearly long remained that kauri would eventually again be milled, since 1987 DOC has administered all this land with the intention of preserving its kauri in perpetuity.

If any Australian forest historians are planning a trip to New Zealand, they would surely enjoy a look at Great

Barrier Island and its kauri. Furthermore, as my own quick look at the evidence from this island has indicated, there is still much to uncover about the kauri timber industry and its commercial links with Australian business, and about the flow of technical know-how from North America to New Zealand.

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GREAT BARRIER ISLAND PIGEON POST

By Fintán Ó Laighin

An interesting part of Great Barrier Island's history (interesting for those of us who like stamps that is) is that from 1897 to 1908, there were two companies that operated carrier pigeon postal services between the island and Auckland, about 105 km away across the Hauraki Gulf.

The need for better communication between the island and the mainland was emphasised in 1894 when the Northern Steamship Company's ship *SS Wairarapa* ran aground on the northern end of the island with the loss of 121 lives. The news took several days to reach Auckland. In 1896, a reporter from the *New Zealand Herald* covered a memorial event for the tragedy and filed his report by carrier pigeon which took 75 minutes to arrive.

Shortly afterwards, in February 1897, the owner of the pigeon – Walter Fricker – established "The Great Barrier Pigeongram Agency", quickly followed in May by JE Parkin's "Great Barrier Postal Pigeon Service" which was subsequently taken over by S. Holden Howie. Somewhere along the way, it was renamed "The Original Great Barrier Pigeongram Service". (I imagine that this name would have rankled Fricker somewhat.)

In November 1898, the Service started producing stamps, with a face value of a shilling to send a message by carrier pigeon to Auckland. They are not official stamps as they were issued by a private company, but are considered to be the world's first airmail stamps. The company also provided pigeongrams to the towns of Port Charles at the top of the Coromandel Peninsula and Whitford which is south-east of Auckland, and to Waiheke Island, another island in the Hauraki Gulf.

The Service issued three stamp designs, one of which has a variation arising from an overprint in black bold type. The November 1898 issue was a simple design which was prone to forgery so a more elaborate design was introduced in March 1899. The first two designs had the words "Special Post" but the New Zealand Post Office objected as it considered that they could be mistaken as officially-issued stamps. In June 1899, the Service overprinted the words "Special Post" with "Pigeongram", and reissued the second design in August 1899 with "Pigeon Gram".



Following interest expressed by the operators of the copper mine on Marotiri (Marotere) Island off the east coast of the North Auckland Peninsula, the Service also operated between Marotiri and Auckland. The first stamps were issued in August 1899 and were the "Pigeongram" overprints, with a second overprint – "Marotiri" – over the words "Great Barrier", but a specially designed stamp was issued in September 1899.



In July 1899, the Agency responded to its competitor's stamps with its own issue of a blue 6d stamp, which was the cost of sending a pigeongram to Auckland. The price of sending a pigeongram from Auckland to the island was a shilling and two stamps were needed. The price difference was because it was easier to train a homing pigeon to get to Auckland than to train one to get to the island. Two blue stamps were originally required, but a red 1 shilling stamp of essentially the same design was also issued by the Agency.



The pigeongram services came to an end in 1908 when an underwater telegraphic cable was laid between the island and the mainland.

However, the story doesn't end there. In June 1993, "The Great Barrier Pigeon-Gram Co. Ltd" re-established a pigeongram service. Intended for the tourist market, the company operated until 2013. It issued at least one stamp design although there are reported to be others.



Various commemorative items have also been released, including a special cover (envelope) issued in 1948 by the Auckland Philatelic Society to mark the 50th anniversary of the first stamp. The cover included a special "stamp" which was "postmarked" using one of the original cancellation strikes used by the Great Barrier Postal Pigeon Service.



In July 1949, the Air Mail Society of New Zealand issued a special cover to mark the 50th anniversary of the first stamp issued by the Great Barrier Pigeongram Agency.

In 1997, New Zealand Post issued two stamps (40¢ and 70¢) to mark the centenary of the establishment of the first service. The stamps followed the design of those issued by the Great Barrier Pigeongram Agency. While not the first stamps, the Agency was the first company to operate.

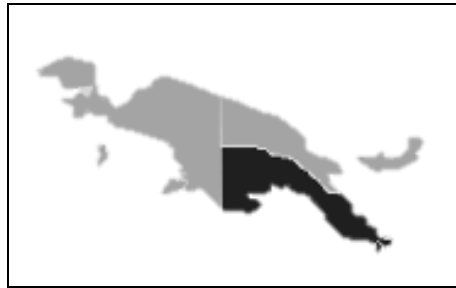


Special sheets featuring these stamps were also issued for the PACIFIC 97 World Philatelic Exhibition in San Francisco in May/June, and for the AUPEX '97 National Stamp Exhibition in Auckland in November.

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THE TERRITORY OF PAPUA



THE TERRITORY OF PAPUA – AUSTRALIA'S FIRST FORESTRY LEGISLATION?

By Fintán Ó Laighin

The interest of the Australian colonies in New Guinea was long-standing, going back to at least the 1870s. In 1883, concerned by the possibility of a potentially hostile European power on its border, Queensland annexed the south-east of the island but this claim was not recognised by the Colonial Office in London. However, at the urging of the colonial parliaments in Australia, the United Kingdom proclaimed British New Guinea to be a protected territory in 1884 and a colony in 1888. The north-east of the island was German New Guinea (or Kaiser-Wilhelmsland) which had become a German protectorate in 1884, a few weeks after the proclamation of British New Guinea, while the western part of the island was Dutch New Guinea, with Dutch claims going back to the 1660s.

After the outbreak of WWI, Kaiser-Wilhelmsland was captured by Australian forces and, as a result of the 1919 Treaty of Versailles which stripped Germany of its colonies, it became the League of Nations Mandated Territory of New Guinea. Australia administered this territory from 1923 till 1949, when it was combined into an administrative union with the Territory of Papua. However, the two territories retained their separate legal status. Papua New Guinea became a self-governing territory on 1 December 1973 and an independent state on 16 September 1975.

On 16 November 1905, Royal Assent was given to the *Papua Act 1905*¹ which had been passed by the Australian Parliament earlier in the month. The Act, which came into force on 1 September 1906, provided "for the acceptance of British New Guinea as a Territory under the authority of the Commonwealth, and for the Government thereof". British New Guinea, which comprised the south-eastern part of the island of New Guinea, became the Territory of Papua.

One consequence of the Act was that the Australian Parliament became responsible for the various ordinances and subordinate laws that had been issued under the previous administration which, from 1884 till 1906, was essentially Queensland on behalf of the United Kingdom. Section 6(1) of the Papua Act states

that "Subject to this Act, the laws in force in the Possession of British New Guinea at the commencement of this Act shall continue in force in the Territory until other provision is made."

One of these subordinate laws was Ordinance no. VII of 1892 which regulated the cutting of indigenous timber, thereby making it possibly the first forestry-related law of the Australian Parliament. The reason for this Ordinance, is explained by the Administrator of British New Guinea, Sir William McGregor, in his annual report to the Governor of Queensland:^{2,3}

ORDINANCE No. VII. of 1892 was adopted to regulate the cutting of indigenous timber. Several inquiries were made from Australia as to the terms and conditions under which timber could be obtained here for export; a considerable trade in sandalwood was also springing up, and it became necessary to provide against certain abuses connected with it. It is by no means clear that timber can at present be profitably exported from this country, and it seems that the sandalwood market is limited and capricious. It was therefore seen that any restrictions imposed, and any dues to be collected, should be as little burdensome as possible. The Ordinance does not apply to land alienated by the Crown, nor to land leased from the Crown, unless the Crown has reserved the timber on the leased land. District inspectors can be appointed by the Administrator to see that the Ordinance or any Regulation under it is carried out.

The cutting of timber may be altogether prohibited in certain areas, or the cutting of specified kinds of timber only may be disallowed. No sandalwood trees can be cut if of less than twelve inches circumference a foot from the ground. This limitation was needed because the sandalwood was being generally cut by natives who, especially at first, felled trees of all sizes, but more generally the small ones which were of course useless for export.

² Parliament of Queensland, 1894. *Annual Report on British New Guinea from 1st July, 1892, to 30th June, 1893; with Appendices*. nla.gov.au/nla.obj-84336012, pp.v-vi. I haven't able to find the text of the Ordinance online. Annual reports to at least 1922 are available in different collections on the National Library of Australia website: 1886 to 1888 nla.gov.au/nla.obj-82594572; 1888-89 to 1905-06 nla.gov.au/nla.obj-82611572; and 1906-07 to 1921-22 nla.gov.au/nla.obj-268724687.

³ The report was addressed to the Governor of Queensland because the Colony of Queensland shared administrative responsibility with the British Government.

¹ www.legislation.gov.au/Series/C1905A00009

A license is required for cutting timber to be sawn otherwise than by hand, or to be exported or sold as timber. The fees payable for licenses, their duration and scope, are to be defined by Regulations. The Ordinance does not apply to timber cut by a native on his own land or for the use of natives.

A native may enter into a contract before a timber inspector to supply any person with a specified quantity of timber at a fixed price, but not for remuneration in the shape of wages.

Regulations were made by the Administrator in Council under this Ordinance on 31st December 1892. Under these every application for a license to cut timber on Crown lands has to be made in writing. The license may be issued for six or for twelve months. It empowers the licensee and his servants to cut any timber (not forbidden to be cut) on Crown land within the district to which the license applies. A license is not transferable nor transmissible. The license fee is—For twelve months, £2; for six months, £1. Timber cannot be cut on Crown lands within twenty yards of high-water mark, or within twenty yards of any permanent stream or sheet of water.

This Ordinance remained in force until it was repealed by the Timber Ordinance (Consolidated) of 1909, the purpose of which was "To Amend and Consolidate the Law relating to Indigenous Timber".⁴ The consolidation was necessary as, besides the 1892 Ordinance, a number of other ordinances related to timber had also been passed: the Indigenous Timber Ordinance of 1903; two Sandalwood and Rubber Ordinances of 1907 (the first of which was repealed by the second); the Timber Ordinance of 1907; and the Timber Ordinance of 1908. The five that remained in force were repealed by the 1909 consolidation. The following descriptions are taken from the annual reports of 1903-04, 1906-07, 1907-08 1908-09, and 1908-10.⁵

Indigenous Timber Ordinance of 1903 (No. II of 1903): To regulate the cutting of indigenous timber and to amend "The Indigenous Timber Ordinance of 1892."

The above measure was passed in the interest of the sandalwood industry, and does not affect the cutting of cedar or other local timbers. Only one clause, viz.—"No. VII," exists in the initial Ordinance, which prohibits the cutting of sandalwood trees below a certain size. This was subsequently followed by certain Regulations as to licences to cut timber on Crown lands, and the Ordinance under review closes legislation on the subject for the present. In the year 1892-3, the period in which the original Ordinance was passed, the export of sandalwood was valued at £7,183. The production in the year under notice was valued at £8,382.

Sandalwood and Rubber Ordinance of 1907 (No. VI of 1907): The Sandalwood and Rubber Ordinance deals with the licensing of persons who cut sandalwood or collect or buy it from natives, or who collect or buy

tree-rubber from natives, or who tap or cut indigenous rubber-producing trees. It also provides that timber which has not been properly stacked, and has consequently been seized under the Indigenous Timber Ordinance of 1903, is not to be forfeited until after one month's notice in the *Gazette*, and a penalty is imposed upon any person who without reasonable excuse destroys an indigenous rubber-producing tree, not being a tree which is growing upon land lawfully occupied by him under the provisions of one of the Land Ordinances.

Sandalwood and Rubber Ordinance of 1907

(No. XIV of 1907): Ordinance No. XIV (Sandalwood and Rubber Ordinance) repeals No. VI. of 1907, and re-enacts it with a few alterations. The provision that "No licence shall, without the consent of the Lieutenant-Governor in Council, be issued to any person who is not of European descent" is omitted; a licence may be issued for six months; and servants of a licensee need not have a licence. It is also enacted that no person shall have an absolute right to a licence, and that a magistrate may refuse a licence without assigning a reason.

Timber Ordinance of 1907 (No. I of 1908): The Timber Ordinance of 1907 (No. I of 1908) was passed in view of the interest which was being taken in the timber of the Territory. Timber Reserves may be proclaimed and licences granted conferring the exclusive right to cut timber in the area to which the licence applies. The maximum area is 75,000 acres, and the longest term for which the licence can be granted is 25 years; the shortest term is one year. Rent is to be paid half-yearly in advance at the rate of £1 for every 100 acres. A royalty is also payable on the quantity of timber felled; the amount of the royalty may be fixed by regulation, but is not to exceed 7s. 6d. per 1,000 superficial feet. The licensee must also, within one year or such longer time as the Lieutenant-Governor may fix, erect a saw-mill of power proportional to the area; the proportion is to be fixed by regulation.

Leases under the Land Ordinance of 1906 may be granted of land proclaimed as a timber reserve or of land under a timber licence, subject in each case to conditions necessary for the protection of the timber and the rights of the licensee. Only Crown land can be proclaimed as a Timber Reserve; the relations between timber getters and the natives are left subject to the legislative conditions which existed before this Ordinance was passed. Timber rights may be acquired by the Government by purchase from the natives.

Timber Ordinance of 1908 (No. XVI of 1908):

Ordinance XVI, of 1908 amends the Timber Ordinance of 1907. The most important alteration is that royalty is to be paid on all timber that is exported. This Ordinance, with others, is consolidated in the Bill of 1909 which has not yet (July) received the Governor-General's Assent.

Timber Ordinance (Consolidated) of 1909

(No. XXVIII of 1909): Ordinance XXVIII. of 1909 repeals all timber, sandalwood, and rubber Ordinances that have been enacted during the last eighteen years, and combines all the essential legislation into one consolidated Ordinance.

⁴ parlinfo.aph.gov.au/parlInfo/download/publications/tailedpapers/HPP032016002120_60g/upload_pdf/HPP032016002120_60a.pdf, pp12-18.

⁵ 1903-04 nla.gov.au/nla.obj-95439371 (p3), 1906-07 nla.gov.au/nla.obj-163903696 (p6), 1907-08 nla.gov.au/nla.obj-158284369 (p6), 1908-09 nla.gov.au/nla.obj-158298678 (p3), and 1909-10 (p33) nla.gov.au/nla.obj-158312564.



