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GROWTH RATES OF EXOTICS IN THE NANNUP TOWN  
ARBORETUM

by

N.G. Ashcroft and W.P. Muir

In 1922 a number of exotic pine and eucalypt species were planted at what is now known as the Nannup Town Arboretum. This site is immediately adjacent to the Blackwood River on deep, well drained, grey-brown sandy loam.

The plot has been subjected to infrequent thinning during its existence although the number and intensity are unknown. However a number of suppressed stems are present and it is assumed the thinnings could have been heavier.

The plot was measured in 1972 (at age 50 years) and the results are appended. Some of the growth rates are quite good but in examining the results, the following should be noted.

- i) Since no volume tables are held for each of the various species, the karri table was used for eucalypts and the radiata table for pine volume computations.
- ii) Because the arboretum is so small most species have established edge effect (i.e. these figures may have no application to stand growth rates). It could be argued however that proper silvicultural treatment may have produced similar figures.
- iii) Suppressed trees (whips) were not used in the calculation of average figures.
- iv) There was a tendency towards suppression of the less vigorous species by the faster growing ones.
- v) The site is a high quality Pinus radiata site.
- vi) The assessment of merchantable volume is

based on current jarrah sawlog acceptability for the eucalypts and total volume up to 100 mm for pine.

### Discussion

Bearing in mind the above, the figures presented show remarkably good growth rates by most species if compared with our native timbers, jarrah and karri.

However it is perhaps a little unfair to compare these growth rates with our native timbers, as the arboretum being so small does not indicate true stand growth. Additionally use of karri volume tables may introduce significant errors into the volume calculations. Nevertheless, the growth is exceptional and although extrapolation of results can be dangerous, trends and relative differences between species can be seen with reasonable assurance.

A couple of points worthy of comment include:-

1. P. radiata

- a) We can compare the growth rate directly against expected rates on similar soil types under the existing silvicultural system.

Under the Silviculture 70 prescription it is anticipated we will achieve an M.A.I. of 21.4 cubic metres/hectare/annum over a rotation of 30 years with a final crop of 200 stem/hectare. The arboretum plot of 0.02 hectare contained 7 stems (= 350 stems/hectare) completely enclosed by all other species and gave an M.A.I. of 22.7 cubic metres/hectare/annum over 50 years.

This gives added weight to the credibility of the Silviculture 70 theory whereby the best quality lower slope soils should be able to give a far better M.A.I. than 21.4 metres/hectare/annum

over 30 years. This would be balanced by the lesser quality ridge soils which still fit into the plantable soil classification.

- b) The height of these radiata compare favourably with the highest measured in the state. According to Hewett (1) the tallest *P. radiata* is 48.7 metres. The tallest measured in the arboretum is 47.0 metres.

## 2. Eucalypt Performance

*E. globulus*, *saligna* and *fastigata* in particular have shown excellent growth rates if the volume figures can be taken as anywhere near correct.

It is difficult not to relate the growth of these species to our native hardwoods, particularly karri which managed to provide a 3 metre g.b.h.o.b. log in 90 years. Fertility wise the arboretum would be similar to karri sites and the three species mentioned above would more than compare with karri growth.

Jarrah management aims at producing a 1.85 metre g.b.h.o.b. log in 100 to 120 years. All species shown would more than adequately compete with jarrah growth.

## REFERENCE

- (1) Hewett, P.N. : Tall Trees Information Sheet No. 1 Forests Department of W.A. 1973

Nannup Town Arboretum - Planted 1922, Measured 1972 (Age 50 Years)

Species	Plot Area (ha.)	Average Ht. (m)	Average G.B.H.O.B. (m)	Merch. Vol. U.B./Plot (m <sup>3</sup> ) *	Merch. Vol. U.B./Ha. (m <sup>3</sup> /Ha.) *	Ave. Merch. Vol. U.B./Tree (m <sup>3</sup> ) *	M.A.I. Ht. (m/ann.)	M.A.I. Volume (m <sup>3</sup> /ha./ann.) *
<i>E. globulus</i>	0.02	46.1	2.58	30.6	1530	3.9	0.92	30.6
<i>E. saligna</i>	0.02	41.5	2.06	19.4	970	2.4	0.83	19.4
<i>E. fastigata</i>	0.02	40.8	2.30	12.0	600	1.7	0.82	12.0
<i>E. goniocalyx</i>	0.024	36.3	1.61	11.4	475	1.1	0.73	9.5
<i>E. pilularis</i>	0.024	36.3	1.94	10.0	417	1.2	0.73	8.3
<i>E. sieberiana</i>	0.022	32.9	1.45	5.3	241	0.7	0.66	4.8
<i>E. robusta</i>	0.02	30.8	1.15	4.0	200	0.4	0.62	4.0
<i>P. radiata</i>	0.02	43.9	2.20	22.7	1135	2.7	0.88	22.7
<i>P. caribea</i>	0.025	28.7	1.05	8.1	324	0.7	0.57	6.5
<i>P. canariensis</i>	0.02	29.3	1.14	3.7	185	0.5	0.59	3.7

\* Using Karri Volume Table for Eucalypts  
Radiata Table for Pines.

ON CONTROL BURNING, WOMEN'S LIB AND ALL THAT!

by

A.B. Selkirk

History now hazy in the smoke has recently come to light in the form of an old snapshot taken in 1941 at Sawyers Valley. The subjects in this photo comprise a Forests Department control burning and fire suppression crew made up entirely of women.

The women in the old photograph are:

Mrs. Ken Baker,  
(Husband and two sons in A.I.F.)

Mrs. Lucy Wilson,  
(Husband in A.I.F.)

Mrs. Rumbold,  
(Husband an orchardist)

Mrs. Farrell,  
(Husband in A.I.F.)

Mrs. Phyllis Colquhoun,  
(Husband in A.I.F.)

Miss Olive Warren.

Sam Thompson was the overseer and pick up time was 0900 hrs. This was to allow house work to be done before the day in the bush. The crew was then returned to the pick up spot by 1700 hrs.

The work performance of the gang was considered to be of a high standard. It consisted of raking firelines and burning. Packsprays, referred to as "ladybirds" were only half filled to reduce the total weight. It is said that the rake trail was always colorful as each gang member still preserved her individuality in dress, although slacks were compulsory.



Screams generally indicated the presence of a snake and Sam was expected to dash in to despatch the reptile.

One member was considered capable of swinging an axe equal to any man and then another could never keep her sense of direction and in fact one day she completely surrounded herself in a ring of fire.

On one occasion when battling with an uncontrolled fire the overseer raised the question of going to get the only male crew operating, but was howled down and the fire ultimately suppressed without assistance.

This was of course before the days of radio and PAFTAC. Although the job was considered great fun one strange thing was practiced - they always referred to one another by their surnames.

## THE KARRI FLORAL CYCLE

by

P. Christensen

The annual karri seed and floral sampling was completed in June. As three mills were cutting in either seed-tree or jarrah areas which could not be sampled, sampling was done only in the areas being cut by the remaining 6 mills.

In only one area was there any reasonable seed left in remaining capsules, and this was nowhere near sufficient for a regeneration burn.

As expected, the disappearance of the pin bud crop initiated in 1971 has led to the development of a further bud crop this year, 1973, and there is also a good crop remaining of 1972 buds, which will flower this summer and autumn (1974). From past experience it is considered likely that the development of the 1973 buds may be accelerated and these will flower in 1974 at the same time as the 1972 buds, giving a good seed crop in 1975/76. Burning may be possible in autumn 1975. If this does not happen however, flowering will extend over 2 seasons, giving fairly good seed crops both in the 1975/76 and 1976/77 years.

In this sampling the Walpole area was more in phase with the main karri region, the only difference being a bigger proportion of fat to pin buds. The seed crop is expected to be about the same as in the main karri region.

At Boranup the crop is a year in advance of the main karri areas, and a very good crop of 3rd year buds was flowering over the autumn to spring period in 1973, and seed should be available in the 1974/75 season. It may be possible to burn in autumn 1974.

## WILD MEN OF THE WILD COUNTRY

by

L. Talbot

Articles in past issues of Forest Notes refer to "The Wild Country" of the south coast (R.J. Underwood Vol. 8 No. 1 and B.J. White Vol 8 No. 2). Now it is proposed that some of this region is to become a National Park. Therefore those people interested in the south coast may appreciate some notes on the "Wild Men" who frequented this Wild Country in the early years of the nineteenth century.

Even before the first British settlement in W.A. was established at King Georges Sound in 1826, sealers had been active along the coast and by the 1830's Yankee whalers were visiting the area in increasing numbers. The only forces of law and order on the south coast were at the tiny infant settlements at Albany and Augusta. The sealers, some of whom it seems were escaped convicts from Van Diemens Land, had little to fear from these and so they worked with impunity the bays, inlets, offshore reefs and islands along this all but unexplored coast.

The whalers too, many of them tough ruffians sailing under a foreign flag, showed little regard for Britain's sovereignty over the territory and spent much time laying up and sheltering in these same bays and inlets. There are accounts of them buying dogs in Albany for hunting kangaroos along the coast and at least one account of them hunting wild cattle near Two People Bay.

There is evidence too, that men were sometimes abandoned ashore from the whaling ships. While J.S. Roe and party were exploring along the south coast, they discovered the skeleton of one such sailor. He had been one of three men put ashore, on this inhospitable coast, allegedly at their own request. One of the three reached Albany and took up employment there. The other two

perished in the bush.

There are stories of callous murders amongst the sealers, who at one time had their headquarters on the islands of the Recherche Archipelago, and tales of raids by them on the natives' camps on the mainland for the purpose of carrying off native women.

When Major Edmund Lockyer sailed into King Georges Sound to found the settlement, there he found that sealers had recently abducted four native women from Oyster Harbour, shot a native man and marooned four others on Michaelmas Island.

When a few months later eight sealers came to the settlement in two boats, Lockyer had them arrested and charged them with murder and piracy and informed them that they would be sent to Sydney to answer these charges.

The men admitted taking the women from Oyster Harbour and marooning the four on Michaelmas Island but claimed the dead man had been shot in self defence after one of the sealers had been knocked unconscious by a stick or stone thrown by the natives during an affray with them. They told Lockyer they had been on the coast for eighteen months having been left with only three months supplies and an assurance that a ship would return to pick them up within eight months; but they had been left to live on whatever they could get and had even eaten a dog. They had with them when arrested, a native woman and a boy from the mainland opposite Kangaroo Island and two native women from Van Diemens Land.

They must surely have been very skilful seamen and they were familiar with the coast as far north as Rottneest Island. They told Lockyer that between Middle Island and Rottneest Island, there were safe boat anchorages every 50 to 70 miles. They had been more than twenty miles up a river about 25 miles south of the Swan and described how about six miles from the entrance it opened out into a broad stretch of water as large as Princess Royal Harbour.

After hearing tales from sealers of a large river flowing into Nornalup Inlet, William Nairne Clark with a party of white men set out in a whale-boat to explore the area in 1841. According to him the sealers called this river the "Deep River", but it was known officially as the Frankland River. The river now known as the "Deep" he refers to as the "West River".

In his letters and reports of this expedition, Clark makes several references to the sealers and in particular to one named Williams; his chief informant.

Clark, who seems to have been a haughty and superior person, in a report to the Governor went to some pain to assure that gentleman that he did not make a practice of associating with such people as sealers, whom he said were "not the most refined of people" and he seemed rather peeved to think that Williams Bay may have been named after this uncouth sealer, and he rather hoped that perhaps it had been named after His Late Majesty King William IV.

Clark had the pleasure of again making the acquaintance of his friend Williams while on this expedition, for an entry in his journal written at Chatham Island states:

"7-3-41. Williams called at the island today in his boat "Fanny" on his way to Leschenault. He reported having found fine land and a large river at Parry's Inlet. He did not land from the boat perhaps for reasons best known to himself."

Clark also refers to sealer named Isaacs who for some months lived with a black woman on Saddle Island, and he also wrote of "Sealers Cove" just inside the bay of Nornalup Inlet.

The presence of American whalers off the coast caused Clark some concern but he also saw this as a great opportunity for trade for he reported to the governor:

"Perhaps the British government is not exactly aware that upwards of 150 sail of American vessels averaging about 300 tons each are generally off this coast in the whaling season and are obliged to put into the harbours of Western Australia for refreshments consisting of potatoes, cabbages, turnips, fruits, etc. What splendid field is thus opened for the cultivation of the soil. I am sorry to say no British South Sea Whaler has as yet appeared and that the Americans are carrying away the riches of the deep for their own country".

He saw a need for a naval presence on the west coast in those days too, and showed concern for the then lack of such:

"The "Tuscalooya" American Whaler was ordered out of Two People Bay by the "Herald" Sloop or War some years ago but at this moment she is riding in Princess Royal Harbour preparing to go to the sperm whaling grounds and afterwards in the winter months to one or another of our bays where there is no Government Station. Another American whaler along side of her, called (I understand) the "John Elizabeth" is to adopt the same course and to be piloted into a British Bay by a British subject for the avowed purpose of whaling."

In 1832 a party of white men set out from Albany to walk to Augusta. They were not heard of again and from references to this party in early writings it seems there was for many years, considerable conjecture as to their fate.

When Alfred Hillman, a surveyor was exploring along the coast between King George Sound and Nornalup Inlet in 1833, he had with him as a guide a King George Sound native named "Mopie". An entry in his journal dated 8/7/1833 states in part:

"Came across the ashes of fire around which, Mopie informed us three white-men slept and I have every reason to believe them to be part of the party who left this settlement in September, 1832. At one mile from this spot we arrived at the Frankland River".

Clark with his party explored this same area between the Frankland River and the coast in 1841 and he wrote of an incident which occurred, by his reckoning, about five miles SE by E of the Nornalup Estuary:

"On my way back to the tent one of the men at a little distance uttered an exclamation of surprise and on going to the spot I found that he had stumbled on an open grave between five and six feet long by one and a half feet broad, evidently dug by a spade from the marks on its sides. On looking around we found five more graves within a short distance of one another, all on top of a sandy hill. They were about four feet deep and the soil had been shovelled away on each side. My first idea was that some goods and chattels in long boxes had been what is vulgarly called planted there, by some person or persons unknown, and afterwards dug away at a convenient opportunity without filling in these holes but on descending into one and scooping away the sand with both hands, I came to a human skelton whether aboriginal or European I could not say as after much trouble I was unable to find the skull which might have given me some glimmer of light on the subject. The bones (evidently of a tall man) lay with the shoulders to the east and the feet to the west. They were carefully replaced and reconsigned to their last resting place on this earth.

I have to remark that several white men left King George Sound some years ago for

Port Augusta and were never seen afterwards, and I heard although I cannot vouch for the authenticity of the story that murder had been committed by the sealers and the blacks indiscriminately. I might here enter into detail of facts which have been related to me but I drop the subject".

Villainous ruffians the sealers may have been, but they were also hardy and daring seamen engaging in a lonely and dangerous occupation, but probably not a particularly lucrative one, for it seems they were exploited by the traders who purchased the skins from them.

Clark, writing in the Perth Gazette described how the sealers rowed up against the wind often in a heavy swell, to where the seals lay on the rocks and reefs. The headsman standing ready in the bow of the boat would leap on the rocks armed with either a club or a gun. The moment he jumped the boat was instantly propelled backwards to prevent it being smashed to pieces. If the seals were asleep they were stunned with a club, if they tried to make for the water they were shot with rifles or double barrelled guns.

The boat meanwhile would be kept moving about by the oarsman out of reach of the surf, until the work was completed. When all was ready it would be rowed in again as quickly as possible, the man or men ashore and the skins they had taken would be picked up. It was dangerous work requiring skillful and daring seamanship to say the least.

According to Clark the hair seal was found along the west coast and the fur seal was found only along the south coast. He wrote:

"whilst the skin of the hairy seal is only worth between four and five shillings that of the fur seal fetched nearly fifteen shillings at King Georges Sound, and has been sold in London for £2/2/- each, thus affording a large profit to the buyer, more



especially as the original price is generally paid in stores, on which there is a large profit accruing to those who are skilled in the craft of merchandize".

Much of the information for this article has been obtained from the writings of William Nairne Clark. He was a "Wild man" himself though in a different way to the sealers and whalers. He was an arrogant, quarrelsome lawyer, originally from Scotland. At Fremantle in what is said to have been the only duel fought in Western Australia, he killed his adversary. He was charged with the murder but was acquitted. He was very unpopular in Perth and later moved to King Georges Sound where he set himself up as the self appointed champion of the region. He explored in the Kojonup area as well as along the south coast and wrote glowing reports of both regions. He claimed to have traced the Deep (Frankland) river up for fifty miles and described the timber in the area as "the most magnificent that I ever saw in the world". He does not seem to have achieved much recognition of his friends, but I am sure that the present day champions of "The Wild Country" will appreciate this description of it by him:

"In conclusion, I have no hesitation in stating that in point of timber, rich soil and grazing land well watered, the whole of the Territory from Parry's Inlet to Point D'Entrecasteaux is not surpassed by any other portion of the Colony, and let these who doubt the fact, go see, and judge for themselves."

SUMMARY NOTES ON THE 9TH SESSION OF THE  
ASIA-PACIFIC FORESTRY COMMISSION

by

P.J. McNamara

It is evident that most of the nations in attendance have ample technological ideas and similar lines of policy thinking as the more developed countries in the area and that F.A.O. are endeavouring to provide them with technological background and access to many sophisticated techniques. However it seems that implementation of advanced forestry policies in these countries is the main problem. Nonetheless there is a growing awareness that log export is not the most beneficial way of utilising forest resources for national development. Pressure for more agricultural land and shifting cultivation are seen as the main sources of erosion of the forest estate.

Forecasted consumption trends indicate that the demand of the developed countries will increase threefold for saw and veneer logs and tenfold for pulpwood by the turn of the century. Demands by internal traders will increase twelvefold for logs and twelvefold for pulpwood. In the Indian subcontinent mainly internal traders, log demand will increase ninefold, pulpwood demand fivefold. These estimates are only tentative and in fact the Indian sub-continent has already reached the predicted consumption level for 1980. There will thus be a gradual tightening of resource throughout the region and in addition the developing countries are already expressing concern that under current trading arrangements they may not be receiving a fair share of their profits for realisation of their natural resources.

Coupled with this situation little is known about mainland China and this country could in fact have an overall effect on timber supply and demand

situation in the region which might eclipse the gigantic effects already exerted by Japan. Land clearing in order to provide food supplies at basic survival level is seen as perhaps a more important factor than devastation of timber areas for log exporting, or the need to reserve forest areas for environmental purposes in the overall timber supply situation. All countries represented are well aware of environmental requirements and it is significant to note that in New Zealand after making all allowances for environmental reserves of every kind, further conservation pressures have resulted in the withdrawal of a further 10 to 15 per cent of the previous estimated net forest area. It is also likely that proposals for the rehabilitation of the Beech forest will meet extremely stiff opposition from the environmental groups.

Largely as a result of F.A.O. intervention there is an increasing awareness by exporting countries of the value of their resource as part of a regional resource and an increasing appreciation of the need for perspective planning. There has been a marked improvement in the basis for preparation of national plans and in addition there is a crystallising move for exporting countries to combine and co-operate in regulating and allocating supplies, and also in obtaining more information about the bona fides, and standing of consumers for their timber and end use of their product. All of these factors, together with the increasing timber deficit anticipated for Japan will combine to tighten the available resource as well as to tighten the terms and conditions under which it is to be realised. Japan is now importing 11.2% of its log supplies and 35% of its chip material. Imports will become increasingly significant due to a predicted downturn in local production but environmental restrictions are not regarded as limiting forest production in any way. Japanese proposals are positive and definite. They have made a wonderful approach to environmental matters within their own country and it is their firmly expressed intention to apply a similar rigorous approach to any operations in which they are involved overseas.

New Zealand is experiencing an insatiable demand for timber fibre in all its shapes and forms. There has been a marked price increase and heavy pressures to overcut as a result of this. The classic sustained yield concept is being relaxed in both private and public sectors and the large log export trade is now becoming permanent. Maintenance of this trade is felt to be obligatory and it could well be that New Zealand may move towards greater compensatory imports of finishing grades and finishing products. The interest in planting is increasing and is now tending to lead to land use conflict. Combined farming and forestry activities and more intensive management of both are now the basis of very careful planned availability surveys. Environmental pressures are so consistent as to seriously restrict the use of indigenous forests. This is regarded as a failure in public education.

As with most other countries in this area Thailand expressed doubts as to the feasibility of sustained yields in native forests and an embargo on log exports is proposed.

Korea has 1 million ha of plantations less than 10 years old, primarily for fuel wood, India has similar fuel problems.

Indonesia has 122 million ha of forest of which only 43 million is expected to remain as permanent forest, a rehabilitation scheme based on attracting overseas capital to develop an export trade in processed products.

In Hawaii there is a strong trend towards diversion of land into single purpose management, especially recreation and wildlife conservation. Hawaii also is under the same pressures of the litigation following the environmental era as in the U.S.A. where five hundred major law cases are facing the U.S. Forest Service regarding environmental matters.

New Guinea also does not intend to perpetuate log export. The common feeling of the exporting

countries was that they needed assistance in the control of and implementation of conditions under which logs are made available to external concessionaires.

Summarising the overall supply and demand situation, Mr. Westoby said that undoubtedly supply would tighten and the exporting companies would claim a greater share of the returns from their product. He suggested the situation would crystallise into three types of supply categories:

1. Those countries planning and able to maintain internal self-sufficiency.
2. Those countries dependant on their internal domestic programme plus a certain level of imports.
3. A joint approach to regional co-ordination of all aspects of log supply and demand.

Some indication of scale in Asian forestry and other matters is provided by the following:

1. Vietnam War Damage

In the period 1961-71 one-tenth of the total land area of Vietnam was defoliated, including one-third of the total area of commercial forest. This amounted to 1.4 million hectares containing 45,000,000 cubic metres of timber or enough to meet local timber demands for the next 30 years. Tordon 24D 245D were applied with reckless abandon in quantities of millions of pounds. Fifteen thousand pound "cheeseburgers" were used to clear heavy pads in one plane decimation. Massive assaults on bush were made by bulldozers operating in line and abreast to clear jungle likely to have been concealing guerillas, saturation bombing and artillery is estimated to have resulted in 21 million craters, roughly 9.1 metres by 1.5 metres deep and covering roughly 200,000 hectares in total area. Added to which 1 to

2 per cent of all ammunition used is dud and the whole countryside therefore remains as a vast minefield carrying timber heavily impregnated with metal from shrapnell. Similar damage is anticipated in Laos and other countries, affected by the war.

2. On the other hand Japan has 25 universities teaching forestry with a total attendance of 1,100 students. Forestry is taught in three streams, forestry, forest production and forest engineering. In addition forestry is taught at 30 junior high schools. With roughly 30% state forest and 70% private forest the Japanese Extension Service runs to a total of 2,500 professionalist officers.
3. Thailand has a training school for elephants.
4. Malaysia with 33 million ha of forest is experiencing critical problems in respect of alienations of further areas for agriculture. In collaboration with F.A.O. (Alf Leslie) they have developed a comprehensive programme to indicate the implications of various levels of alienation and the final extent of the forest estate will be determined by pressure for food not timber. Sri Lanka is experiencing similar problems and hopes to offset this by planting marginal agricultural land at 5-600 ha/yr.
5. Most countries, though proffering the application of multiple use in forest management, admitted to increasing polarisation of actual land management institutions, with control of National Parks, Wildlife and Recreation passing to separate statutory bodies for single purpose management.
6. New Zealand categorically stated that this represented failure on the part of the profession to educate the public and suggested that only the most competent people, not necessarily foresters, were good enough to

handle public relations. The U.S.F.S. has adopted a policy of "Informing and Involving" the public through regional committees under the direction of regional foresters.

7. The Brindabella Fauna Sanctuary managed by Commonwealth Department of Environment comprises 4,856 ha, including a substantial area of resumed farmland for development into habitat observation areas. The annual budget is \$50,000 for maintenance and \$110,000 for capital expenditure, a lot of money for as yet a not very impressive area.
8. The current budget for Canberra Parks and Gardens is \$6,000,000 per year.

REGIONAL NOTES

HARVEY

First Aid Competition:

A first aid competition was held at Nannup on the 12th August 1973 at which teams from Bunbury, Bridgetown, Collie, Manjimup, Nannup, Margaret River, and Harvey competed. The Harvey team consisted of Forest Department employees of the Harvey Division who were trained in competition tactics by Harold Pears of Collie.

The results of the competition were:-

First Novice            1. Harvey Forestry  
                          2. Collie  
                          3. Margaret River

Novice Individual    1. (tie) C. Platell (Harvey F.D.)  
    N. Adams (Manjimup)  
    3. I. Anderson (Manjimup)

As this was the first competition for the Harvey F.D. Team the results were particularly pleasing and the employees taking part were suitably congratulated.

Retirement - Archie Hancock

Archie retired from the Department on 27th September, 1973.

At the age of 20 he began hewing sleepers and joined the Department as a relief worker (C.U.R.A.R.A.) in 1935. His worth was soon recognized and in 1937 he was appointed Grade 1 Forest Worker. After this he maintained steady promotion as the following list indicates.

1939 Promoted Overseer and worked at Kirup and Nannup.

1944 Appointed Assistant Forester, at Hoffman.

1948 Moved to Willowdale as Acting Forester which



position was confirmed in 1949.

- 1953 Transferred to Carrinyah
- 1960 Transferred to Tallanalla
- 1964 Promoted to District Forester and transferred to Collie.
- 1972 Transferred from Collie to Harvey.

Archies' send off took place at the Wokalup Hotel when the good wishes of the Department for a long and happy retirement were expressed by Mr. Eastman, Tom Maverick and others.

#### Transfers

Phil Bryant from Harvey to Nannup to take over responsibility for Division from Noel Ashcroft.

Des Donnelly from Harvey to Kirup on promotion to Forester.

Allan Briggs from Kelmscott to Harvey.

Claus Tiedman from Narrogin to Hamel on temporary transfer.

#### Promotions

Jim Raper has been promoted to Forester and is destined to be transferred to Collie at some future date.

#### HEAD OFFICE

Congratulations to Ken Godwin, Drafting Branch, who was recently awarded the W.J. Kirkby Memorial Prize by the Australian Institute of Cartographers, W.A. Branch. This award is presented annually to the most outstanding student taking the Diploma in Cartography. A condition of the award is that an average mark of not less than 75% be attained in all subjects. Well done Ken.

WANNEROO - METRO

Humble apologies for the lateness of these notes but with leave and staff changes rife, much of our correspondence is away on or soon after its due date.

Since our note of August 24th, life has simply remained hectic with leave and staff rearrangements.

Ross Gobby moved to greener pastures (at least the ticks and flies aren't as friendly) and Alan Lush settled back into harness again for the interim period before Peter Staley returns from Long Service Leave. Alan, family and dog tripped east in their mighty Reno and talked John Brealey and Ross Gobby into doing likewise. The latter two should return to their respective stations soon and with an iota of good fortune the status quo could be restored.

Peter Staley has returned from Long Service Leave and taken up his duties at the Wanneroo Office, to supervise 41,600 ac (approximately) of plantation operations instead of the 22,200 ac (approximately) in the Gnangara - Neaves area alone, as before.

\*  
Ted "cacker" Cracknell's Yanchep successor of three and one half years ago has finally added the last coat of paint to his boat and taken to the wide blue yonder. Tom "cacker" Wood?

\* A "cacker" is the fisherman's term for an undersized crayfish. They cost about \$50.00 a pound (if you're caught).

On the research scene, Trevor Butcher has married Alan Hatch's research assistant Yvonne Mitchell, - congratulations Trevor and Yvonne - and T/A Joe Stritoff's recent experiment was 100% successful - congratulations on the arrival of your new daughter Joe and Jenny.

## COLLIE

### Staff:

Christine Bebbington resigned to take up nursing at Bunbury. A pleasant farewell party was held for Chris who was admired by everyone for her cheerful nature and her efficiency.

Marie Wood has been appointed to the position of Clerical Assistant to replace Christine.

Jim Raper has been appointed Forester to replace Tom Mavrick, and will commence duty shortly at Collie.

### Sport:

Congratulations to Charlie Broadbent and Bob Brierley for recent golfing efforts. Charles was runner-up in the annual Collie Club Championships. Bob won the plate in the same event.

Alan Pepper (navigator) was part of the runner-up crew in the recent Collie Car Club Trial.

### General:

Congratulations to Harold Pears who won the individual title in the St. John's Amblance first aid competition for the South West Region. Harold now goes on to the State title in Perth in November.

There is no truth in the rumour that Collie Forests Department spends more time chasing criminals than doing forestry.

## DWELLINGUP

A four day D/F's and Foresters School was held in Dwellingup during week commencing 13th August. Although some aspects of plantation landscaping were hotly debated it is generally accepted that even these knowledgeable gentlemen benefitted from this course.

Two fire weather courses were held in Dwellingup on 2nd, 3rd and 9th, 10th of October for all Senior operations staff in the field. It was generally agreed that this was a most valuable and practical session.

Syd Shea was away from his Dwellingup Research for a six week trip to Canada regards his Ph D work. He was due back on 16th of November.

T/A Wayne Schmidt has left Dwellingup for a two year course in landscape architecture at the University of Michigan.

#### WORKING PLANS

The "Big Tree" located in Hadfield Block (Grid Reference ED 57.7.6 adjoin 1972 planting compt 36 Brunswick) was measured on 30/8/73 by T/A Rees and B. Dick.

G.B.H.O.B. = 32'9" (bark is 1.2" thick)

girth @ 6' = 30' 3"

total height = 119' (living crown - measured with Suunto clinometer on 100' base line)

Bole height = 70'

gross bole volume : probably about 40 loads - far too large for the jarrah volume table.

This appears to be the largest jarrah tree yet measured.

#### For Comparison:

	GBH	bole ht.	bole volume
King Jarrah Manjimup	28'8"	54'	30 loads
Large Jarrah Grimwade	25'	76'	35 loads
King Tree Collie	24'4"	72'	32 loads
King Jarrah Harvey	22'3"	90'	34 loads

This tree may warrant a sign post.

Both Working Plans Officers are compiling details of the largest trees in the state. Any relevant information will be welcomed.

#### PEMBERTON

##### Staff:

Ron Hunter (from Walpole) and Greg McKay (from Grimwade) were transferred to Pemberton in September, replacing Ian Scott and Jim Shugg, both of whom have moved to Grimwade.

Ron Kitson passed his promotional exam for Forester.

Frank Quicke has departed to the Eastern States on 3 months L.S.L.

It is proposed to carry out an extensive aircraft detection trial at Pemberton this summer. A contract machine will fly a predetermined flight pattern each day and report smokes independently from the towers which will also be manned to provide a comparison of detection time and reliability.

Logging plans for all five major karri permits have been redrawn to provide for reservation of road verges and fauna refuge strips as required when chipwood cutting commences. This has meant a considerable reduction in areas of pure karri and has imposed an extra and complicated burden on the tree-marker in the demarcation of these areas on the ground. Reserves amount to an average of 20% of the area of each forest block and basically comprise 100 metre strips along each side of creeks and gullies, 400 metre strips adjoining designated public roads and other reserves, variable in size, retained as control burning buffers adjacent to private property. The amendment of present cutting plans has been necessary because all local mills will be cutting in the proposed chipwood licence area between now and 1976.

The Timber and Forestry Museum established by the Tourist Bureau at Pemberton during 1973 contains a photographic record of life and work in the karri forest which will fascinate most foresters. No apologies are made to those current officers who will find themselves immortalized as "museum pieces"! In addition to photographs there are some interesting implements, including original (restored) one-man and two-man chainsaws, a "New Record" drag saw and a pit saw.

#### MANJIMUP

Manjimup has been visited by many people in connection with the Chip Industry in the past few weeks. They include Senator McLellan of South Australia, Dr. Don McMichael and Dr. Peter Ellyard of the Commonwealth Environmental Protection Authority, several Japanese from the Marubeni Corporation and the Kokuetsu Paper and Pulp Company. In addition many local politicians from the state and federal scene and Bunnings executives complete the list. Mr. Komashido, the Japanese Consul in W.A. made a separate trip not directly connected with the Chip Industry.

The following transfers in staff have been made:

F/R J. McKenzie	Manjimup to Grimwade
F/R J. Martin	Grimwade to Manjimup
F/R R. Hunter	Walpole to Pemberton
F/G P. Tomlinson	Walpole to Nannup
F/G W. Muir	Nannup to Walpole
F/R T. Backhouse	Kirup to Walpole

The Manjimup Divisional staff spent an enjoyable weekend at Banksia Camp in perfect weather, which was specifically ordered by Jack McAlpine and Mark Sanderson, who put their new found knowledge from the Dwellingup weather school to good effect. Fish were scarce, but the bird life of Swan and the occasional Emu compensated fairly well.

Peter Gnuske retired in early December having spent eleven years with the Department in Hamel and

Manjimup - we wish him well in his retirement.

#### Karri Fallers School

Over the past few years, well trained and experienced gangs have been sent from the Northern Area to supplement local forces at uncontrolled fires. These men have, almost without exception, been unwilling to fell the larger Karri. With this in mind, a school was organised to train experienced and competent fallers from the north in the art of karri felling. The week's school, was held in early October with employees from Dwellingup, Harvey, Collie, Kirup and Nannup taking part.

The men were keen and enthusiastic, and by the end of the week each had expressed his complete confidence in felling any karri tree, even in a fire situation. At a review of the school held on the last morning the men themselves prepared the following rules and safety pointers covering choice of direction of fall, scarfing and backing down. This, in my opinion, is an admirable effort and this type of approach is considered worthy of repetition in many of our jobs.

#### Karri Falling Safety Rules:

##### Choosing the Direction of Fall

1. Observe the tree as you approach for an indication of where the tree will fall naturally. In fire situations know where the tree is alight.
2. Plumb the tree with your axe to pick the lean.
3. Extreme care must be taken on slopes. Most trees will fall down-hill but beware of the exceptions.
4. Beware of the wind especially on slopes.
5. Try to pick the leading limb - remember a pound of leaves in the right place is worth a ton of wood!

6. Sound the tree for rot.
7. Beware of all hollow butts. If in doubt consult your Sector Boss.

#### Scarfig the Tree

1. Size up the situation before commencing. Know what you will be doing and why.
2. Look up for overhead dangers.
3. Clear your work area and escape routes.
4. Sound the tree.
5. Know where your tools are and do not leave them underfoot.
6. Mark your scarf and ensure the back cut will be at a comfortable height.
7. Start the cut, stop and check that it is level.
8. The scarf must be deep and wide -  $\frac{1}{3}$  to  $\frac{1}{2}$  diameter of tree.
9. Keep the correct angle on the upper cut.
10. Use the saw to spear cut the back of the scarf and ensure the scarf is clean.
11. Always put a scarf step in.
12. Stop the saw when blocking out the scarf.

#### Safety Rules

1. Clothing must be tidy.
2. In event of a saw break down, never turn your back on the tree.
3. Wear your safety equipment - hats, ear muffs



and goggles.

4. Exercise extreme care with hollow butts - if in doubt ask your Sector Boss.
5. Know where the gang are, whilst you are working.

#### Backing Down the Tree

1. Sound the tree to get an appreciation of the internal characteristics.
2. Mark the height of the cut all the way around as a guide. This will prevent the cut running off. Get the blade of the saw in a few inches then step back and sight up the cut.
3. Make sure the backing down cut is 50 - 75mm higher than the scarf. This height should be increased on trees being felled up hill.
4. On most trees the backing down cut should commence at the back. This leaves wood on each side to pull the tree. On trees with a pronounced lean the sides must be cut first to avoid the stump splitting.
5. Ensure the backing down cut is at a comfortable height. Any discomfort or inconvenience should be tolerated on the scarf cut.
6. If the cut starts to run, stop and file the chain.
7. Beware of overcutting and pinching the bar.
8. Keep in mind a block in the scarf to obtain the desired direction of fall.
9. Be sure to carry an axe, hammer and wedge and do not be afraid to use them.

### Safety Rules

1. Make sure your get-away paths are clear and you know where they are.
2. Good footing is essential.
3. Have full control of the machine at all times.
4. A lookout is required on burning trees. He should be an experienced chain saw operator.
5. When the tree starts to fall, remove and stop the saw, place it on the ground then escape. If in trouble abandon the saw immediately and escape.
6. Do not underestimate the height of the tree. Having retreated, face the tree, look up and out in this direction.
7. Be careful with trees on slopes and beware of the wind.
8. Wear your safety gear. Hats, ear muffs and goggles.

### KIRUP DIVISION

#### Staff Transfers

- F/R Tom Backhouse transferred to Walpole on 10/9/1973.  
F/R John Martin transferred to Manjimup on 15/9/1973.  
F/G Greg McKay transferred to Pemberton on 13/9/1973.  
F/R Jim Shugg commenced at Grimwade on 10/9/1973.  
F/R John McKenzie commenced at Grimwade on 15/9/1973.  
F/R Ian Scott commenced at Grimwade on 10/9/1973.

### NANNUP DIVISION

D.F.O.N. Ashcroft left Nannup at the end of August to take up the Russell Grimwade Scholarship at Oxford University.

A.D.F.O. Bryant has taken up duties as O.I.C. Nannup.

F/G Bill Muir transferred to Walpole and was replaced by Phil Tomlinson.

Bill has recently returned from leave in Tasmania where he played the tables at Wrest Point. I don't know how much truth there is in the rumour that he is thinking of setting up his own Casino at Rest Point.

#### BUSSELTON DIVISION

Forester Des Donnelly has been transferred to Ludlow.

T/A John Kruger transferred from Collie to Busselton.