

CALM LIBRARY ACQUISITION
NOT FOR LOAN
DEPARTMENT OF CONSERVATION
AND LAND MANAGEMENT
LIBRARY

909864
110151

THE LIBRARY
DEPARTMENT OF CONSERVATION
& LAND MANAGEMENT
WESTERN AUSTRALIA

DEPARTMENT OF C.A.L.M.

VIRGIN JARRAH FOREST

PRESTON BLOCK

CENTRAL REGION

WESTERN AUSTRALIA

ARCHIVAL

30.
61.2
9412)
GIL

Tuesday 3rd February, 1998

Jock C. Gilchrist
2 Brockman Road
BUSSELTON 6280
W.A.

Ian S. Ferguson
Prof. of Forest Science
University of Melbourne
VICTORIA.

FOREST SCIENCE LIBRARY
DEPARTMENT OF FORESTRY
AND LAND MANAGEMENT
WESTERN AUSTRALIA

Dear Ian,

I cannot remember whether I met you when you worked for the Forests Dept. of W.A., as I arrived as a Forest Officer from East Africa at the end of 1963.

I was first based at the forest settlement of Grimwade from 1964-1973, and from 1973 based at Busselton I managed all Radiata pine silviculture within W.A. until I retired in 1986, just as the Labour Government changed the Dept. to C.A.L.M.

A recent set of circumstances prompted me to write this letter and enclose a few of your measurements taken 37 years ago in 1961.

When based at Grimwade, I was given the task of preparing a Plot Register to cover all plots located in and outside plantations, and all hardwood forest plots located within the Kirup Division.

Most of the plot measurements at that stage were scattered throughout files, which as you well know are hard to find and tend to get lost, thrown out, or forgotten.

One of the plots located and written into the Register was the virgin jarrah plot within Preston Block Comp. 7, established by you in 1961.

The Register was compiled in 1966 and at that stage the three outstanding jarrah trees were ^{re}measured at G.B.H.O.B.

In 1973, Neville Percival (who was probably the Forester in charge at Grimwade when you established the plot), visited Grimwade to say farewell as he retired that year aged 65 years.

During his visit we discussed the virgin jarrah plot and Neville mentioned that the actual virgin forest area outside the plot was considerable, and was not surveyed or mapped. We decided to visit the area and Neville pointed out roughly the boundary of the uncut jarrah forest.

My final survey, ground demarcation and mapping produced 144Ha (360 acres) of virgin jarrah forest, which is now marked on our forest maps.

At that stage the three outstanding jarrah trees were again remeasured at

G.B.H.O.B. and recorded.

Neville Percival died last year aged 89 years, a great old age, and shortly afterwards, as a life member of the Institute of Foresters of Australia, I received a brochure on your newly published book "Sustainable Forest Management".

It was at that stage I remembered the link all three of us had with the Preston block virgin jarrah forest area.

With time on my hands these days I decided a visit to the area with a camera would produce a worthy back-up to the measurement details. This was arranged through various Dept. of C.A.L.M. offices and a date was fixed to visit the Preston forest block with Kirup C.A.L.M. officer, Bevin Foster.

The morning selected for the visit was Friday 6th February and the weatherman came up with a clear sunny day for the job, and at 8 a.m. Bevin drove me to the virgin jarrah forest area within Preston block which I had not seen for 25 years.

The natural process of regeneration within a virgin jarrah forest produces the complete range of tree ages all from seedlings, as there is no regrowth from cut stumps, to standing overmature trees on the decline, or have already fallen over.

This growth pattern can be seen throughout the Preston virgin jarrah forest, and the objective of the trip was to try and capture some of this on film. The 21 photographs attached to this letter and described in Appendix 1, gives a reasonable picture of the virgin forest as it stands today.

As expected, we had trouble finding the banded measured trees as no repainting had been carried out since they were first marked 37 years ago, add to this the ravages of weather, fire and just the natural flaking of the bark over this long period, and the chances of finding paint marks were slim. However, luck was on our side and with only five shots left in the camera we found all three banded trees, photos 17, 18, 19 and 20 show just how much of the bands are left.

Finally before leaving the site we measured and recorded the G.B.H.O.B. of the three banded trees, returning to the C.A.L.M. Kirup office at approximately 10.30 a.m., the whole exercise having taken approximately 2½ hours.

From the girth measurements of the three banded trees from 1961 to 1998 it can be seen that they average a girth growth rate of 0.31" per annum. The annual average for the whole prime jarrah forest region is 0.60" and the highest girth growth rate is quoted at 0.75" per annum. (Ref. Forestry in Western Australia Bulletin 63) Forest Dept. 1966.

As this is a prime jarrah site it can be seen that the mature measured trees are now only growing at about half the girth rate per annum of the figures quoted above. This of course is the natural decline of large mature and over mature trees within a virgin forest.

If we take the mean of our current girth growth rate 0.31" and the maximum growth rate quoted of 0.75" the answer is 0.53".

This figure divided into the G.B.H.O.B. of our three trees taken this trip, the result shows a rough age bracket of 350-400 years.

They may however grow on for another 100 years or more if the ravages of nature allow it.

I think it must be mentioned that this total uncut area of 360 acres in Preston jarrah forest block is approximately .01% of the prime jarrah forest belt stretching north/south along the Darling Range.

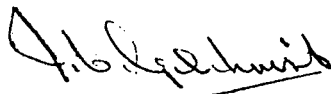
However, a 360 acre area is quite adequate to demonstrate the natural process of regeneration within a virgin jarrah forest as the attached photos demonstrate, and they were all taken over a very small part of the uncut forest.

The Preston virgin forest area is now within the boundaries of a C.A.L.M. proposed Conservation Park and what regulations cover this proposal I do not know.

However, within the virgin jarrah forest be it Preston or elsewhere I would like to see an operation to remove dead standing trees and dead fallen trees throughout the forest using a strict hygiene method, instead of wasting all these massive logs. This would also help to keep the forest healthy as rotting logs only build up fungi.

As a forest officer who has grown plantations and tended native forests for timber production for approximately 43 years, I hate to see good wood left to rot in the forest, under the disguise of conservation.

Kind regards,



J.C. GILCHRIST

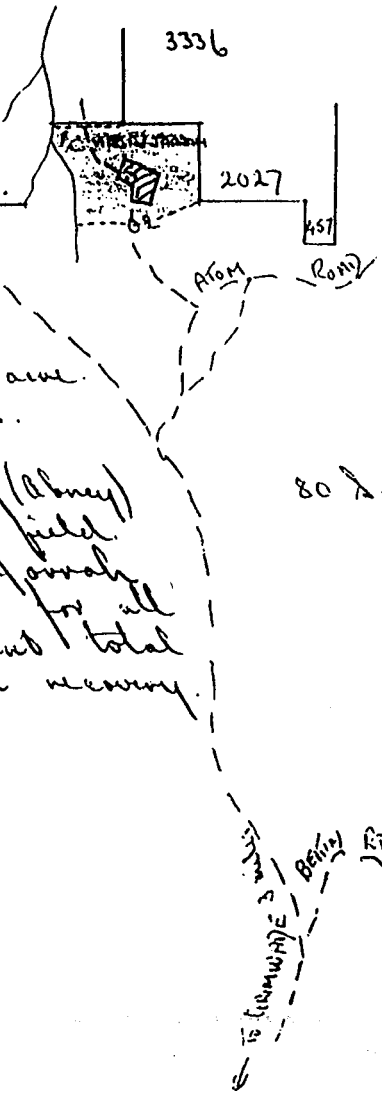
Distribution:

Director of Forests (D. Keene)
O.I.C., C.A.L.M. (Kirup)

Virgin Journal Plot.

Location Preston Camp 7. (High 80.1)

Plot established June 1961 by I.S. Ferguson. HFO.



Layout of Plot:-

Internal surround of plot laid out to include the best patch of forest + to include exactly one acre for simplicity. Actual dimensions = 210 x 476 links.

All trees were measured for C.D.H. + log length (Abney) only
 only outstanding trees were actually marked in the field.
 Volumes of all trees were read off Abbreviated Journal Volume Table 1957 - with allowances made for all hollow buttresses etc so that volume will represent total round volume which will yield 25% sawn recovery.
 Total heights of outstanding trees were measured.

80 Deal

Summary of Measurements Taken June 1966

Virgin Forest Plot (Plot 2) Plot area 1 acre.

Marketable Volume:

<u>total marketable forest vol</u> trees over 90' C.D.H.	=	120 lbs/acre (6010 cu ft/acre)	No of trees/acre =	25
trees 60" - 90" C.D.H.	=	12 3/4 lbs/acre (640 cu ft/acre)	" " "	= 9
trees 36" - 60" C.D.H.	=	2 3/4 lbs/acre (140 cu ft/acre)	" " "	= 6
<u>Grand total marketable forest = 135 1/2 lbs ac. (6790 cu ft/acre) total No trees ac 40</u>				

Unmarketable Volume:

Forest	=	2 1/4 lbs ac. (110 cu ft/acre)	No of trees ac =	3.
Moss.	=	8 1/2 lbs ac (430 cu ft/acre)	" " "	= 8.
<u>Grand total unmarketable</u>	=	<u>10 3/4 lbs ac (540 cu ft/acre)</u>	" " "	<u>= 11</u>

Outstanding Trees

- Three Rings - C.D.H. 0.13 13' 10" Log length 70' Marketable Vol 10 3/4 lbs (545 cu ft) D.D.H. 151'
 - Two Rings - " 16' 4" " " 45' " " 10 1/4 lbs (545 cu ft) " 136'
 - One Ring - " 12' 8" Log length 80' Marketable Vol 9 1/2 lbs (475 cu ft) D.D.H. 115'
- (N.B. 10' long butt allowed for - not included in log length)

Measurements of Outstanding trees measured June 1966

		1966	1973	1998
Three Rings - C.D.H. 0.13		13' 11"	14' 1/2"	14' 8"
Two Rings - "		16' 5 3/4"	16' 7 1/2"	17' 4"
One Ring - "		12' 9 3/4"	12' 11"	13' 8"

Area was demarcated in 1973. Approx area 1/4 acre.

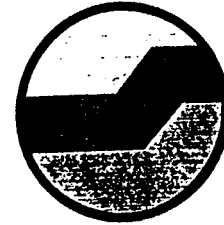
DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

HEAD OFFICE

HACKETT DRIVE CRAWLEY
WESTERN AUSTRALIA
Phone (08) 9442 0300
Facsimile (08) 9386 1578

STATE OPERATIONS HEADQUARTERS

50 HAYMAN ROAD COMO
WESTERN AUSTRALIA
Phone (08) 9334 0333
Facsimile (08) 9334 0466
Teletype (08) 9334 0546



Please address all correspondence to Executive Director, Locked Bag 104, Bentley Delivery Centre W.A. 6983

Your Ref:

Our Ref:

Enquiries:

Phone:

Mr Keene

(08) 9442 0315 / Fax: (08) 9389 8603 / Email: shirleyd@calm.wa.gov.au

Mr Jock Gilchrist

2 Brockman Road

BUSSELTON WA 6280

Dear Jock

VIRGIN JARRAH FOREST PRESTON BLOCK / BLACKWOOD DISTRICT


It gave me a great deal of pleasure to receive your phone call recently and hear your cheery if slightly unintelligible voice. It brought back memories of the period we worked closely together, particularly over the early development of the sunklands pine forest and for me to recall your professional and detailed technical knowledge of silviculture (some of your other "knowledge" was more questionable!!).

Thank you very much for sending me a copy of your letter to Ian Ferguson and including the photographs you took of the virgin jarrah forest at Preston block. I remember having the sign put up as one of a series when the original "Intensive management units" (IMU) were selected for the jarrah forest. Of course, over time, many of these have now become National Parks or Conservation Parks, a tribute to the management of our forests by early members of the forestry profession.

I will circulate your document for interest and make sure that it is suitably recorded so foresters of the future can refer back to it and monitor the progress of the forest. Although I also abhor waste, in this case it is a small economic price to pay for having a demonstration of the development of ecological processes of the whole biota of the area in an undisturbed way, except of course from the periodical fire, whether it be prescribed or otherwise - part of the process.

Please accept this small momento (probably in a separate box) of our beautiful timbers. With kind regards to all your family and hope to see you at the Esplanade in Busselton in the near future.

Yours sincerely


Don Keene

DIRECTOR OF FORESTS

for Syd Shea

EXECUTIVE DIRECTOR

5 March 1998

Copy: Ian Ferguson. I am sure you were interested in getting this report from Jock Gilchrist.

19 March 1998

Mr Jock Gilchrist
2 Brockman St
Busselton
Western Australia 6280



Professor **Ian S. Ferguson**
HEAD, SCHOOL OF FORESTRY

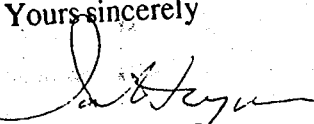
Dear Jock

It was a double pleasure to hear from you. First to re-establish contact after such a long period and second to read of what almost qualifies as ancient history updated. As with the trees, the years seem to have treated you well judging by the spritely wanderings in the bush. I may be coming over to the West in the next three months. If so, I will try to line up some time for a visit there with you, if you are free, as I would love to see the area again.

I very much enjoyed your notes and photos and also wondered if you might permit me to rewrite them under the names of Gilchrist and Ferguson, probably as an article for the IFA Newsletter. I might make it finish on the argument of leave or fall the stags, as there are some divergent views about that and the prospect of stirring a debate. I can't promise to write this in a hurry as we are in the midst of a restructure - and you know all about those traumas.

Thanks again for reviving some great memories

Yours sincerely


Professor Ian Ferguson

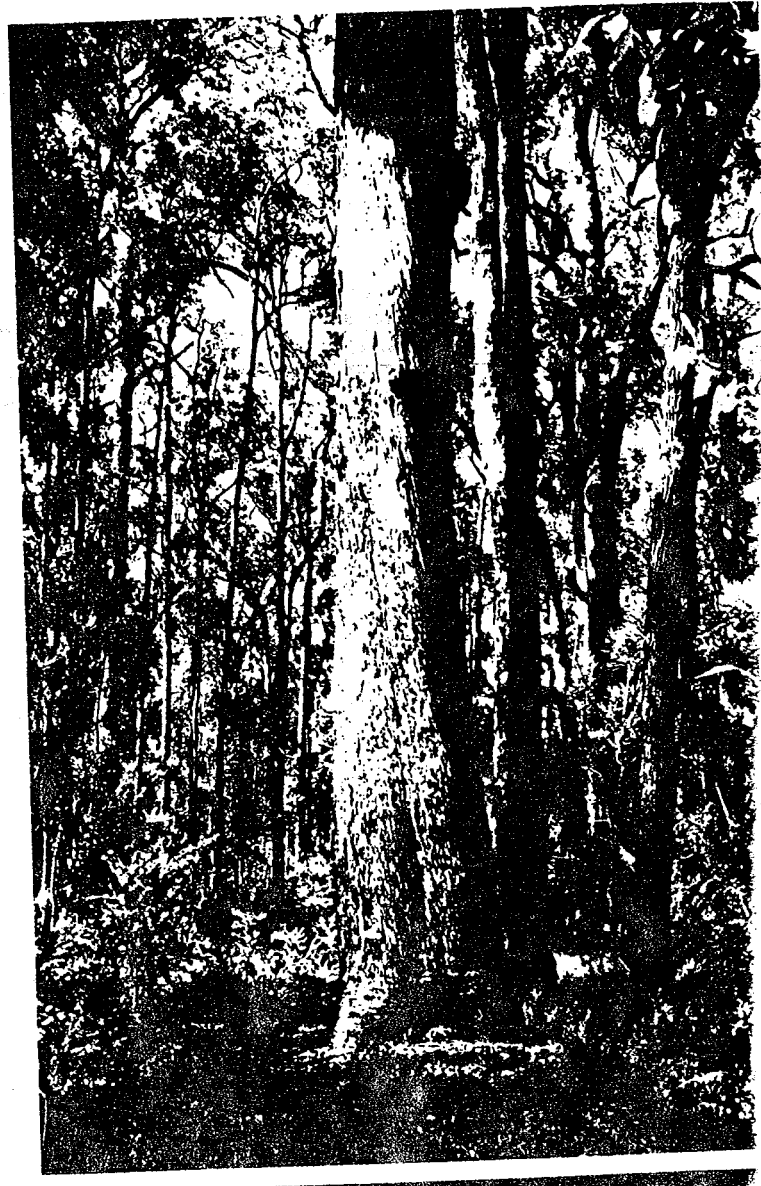
CC Don Keene, CALM, Matilda Bay, Crawley Drive, Perth, W.A.
Bevin Foster, Kirup Office, CALM, Kirup, W.A.

APPENDIX 1

Photographs taken of the varied growth patterns

No's.

- 1 - 7. Mature jarrah trees within or near the measured acre, with two combined showing the total height, see also pockets of small trees in the background.
8. A group of three mature jarrah trees with Forester Bevin Foster in the hollow butt, notice the close proximity of these trees, apparently this was quite common in early virgin stands.
- 9 & 10. Two photos combined to show a large dead standing jarrah tree in centre of a healthy group, possibly killed by Armillaria, or lightning, but not from Phytophthora (see healthy Banksia all around).
- 11 & 12. Younger jarrah groups throughout the area.
13. A dense stand of varied ages.
- 14 & 15. Two more large mature jarrah trees.
16. An overmature tree blown down fairly recently.
17. The one ring measured mature jarrah tree.
18. The two ring measured mature jarrah tree.
- 19 & 20. The three ring measured mature jarrah tree from a distance and close up, this tree is growing in a gully head below the ridge, this accounts for its extra height, as it has grown up to the canopy level of the ridge trees.
21. The sign at the entrance to the Virgin Jarrah Forest area.



2.



3

4



5



6



7



8



9

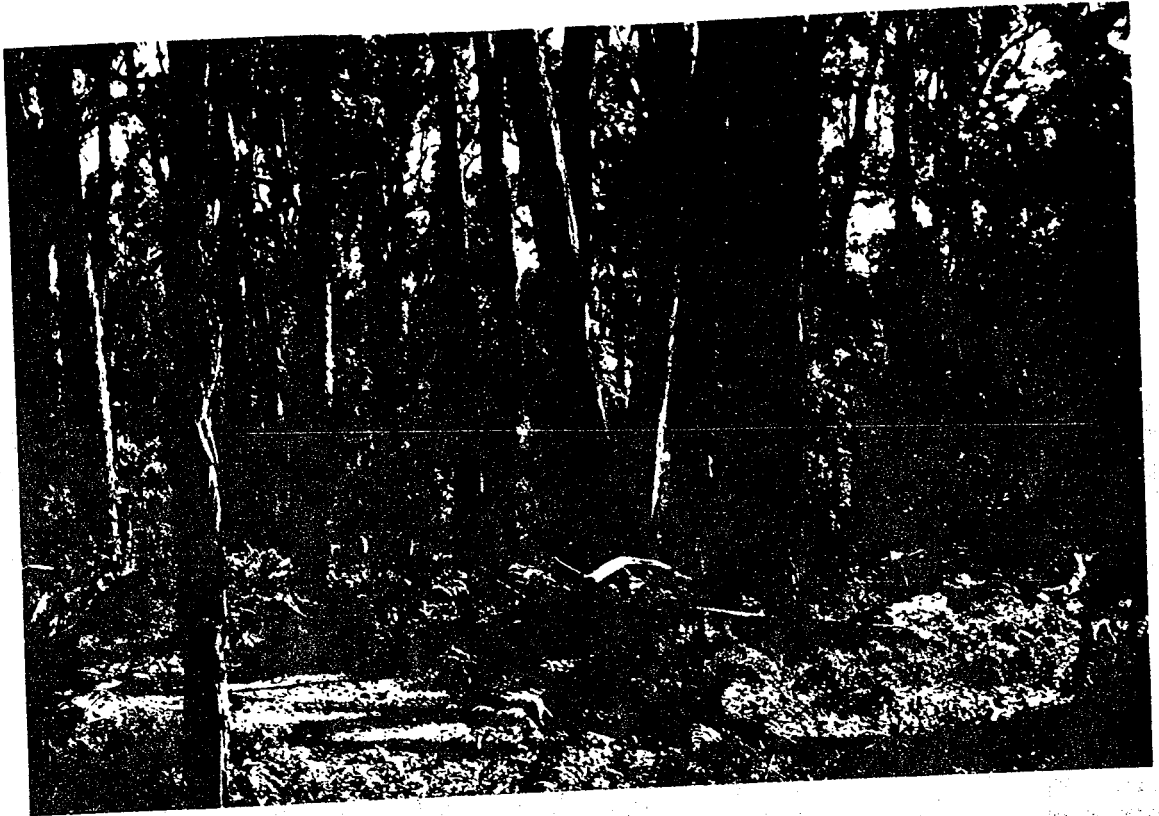
10



11



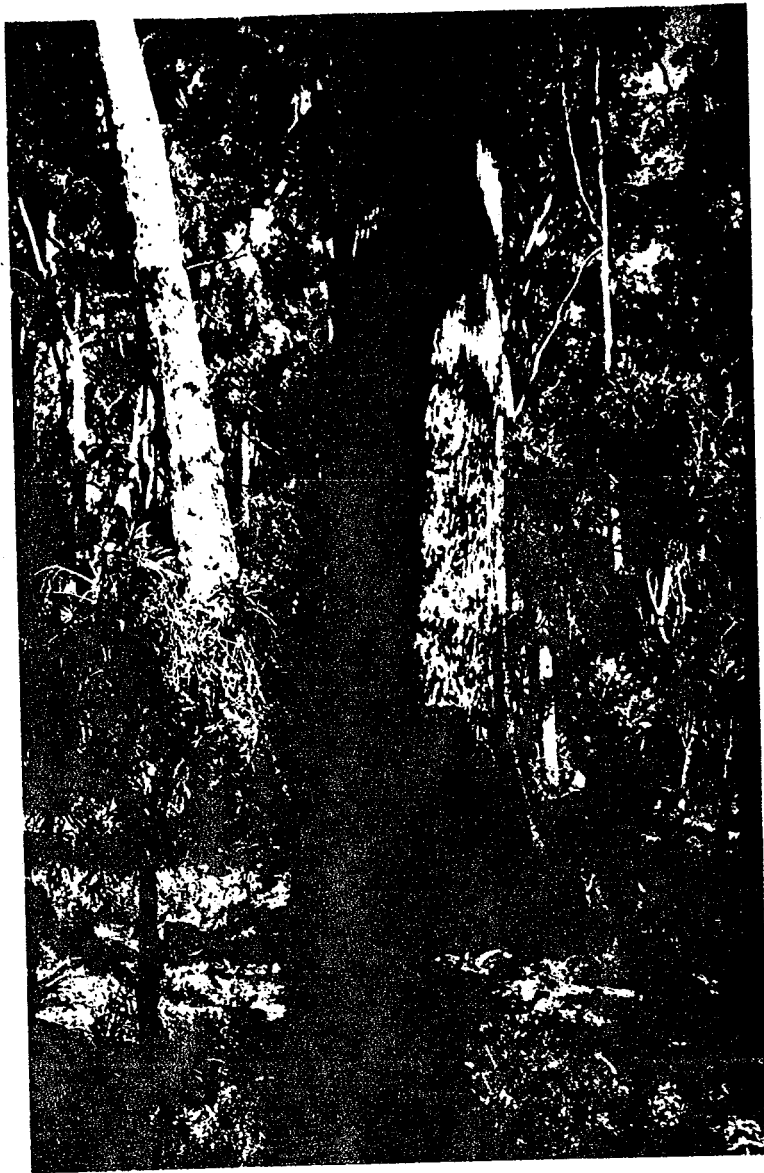
12



13



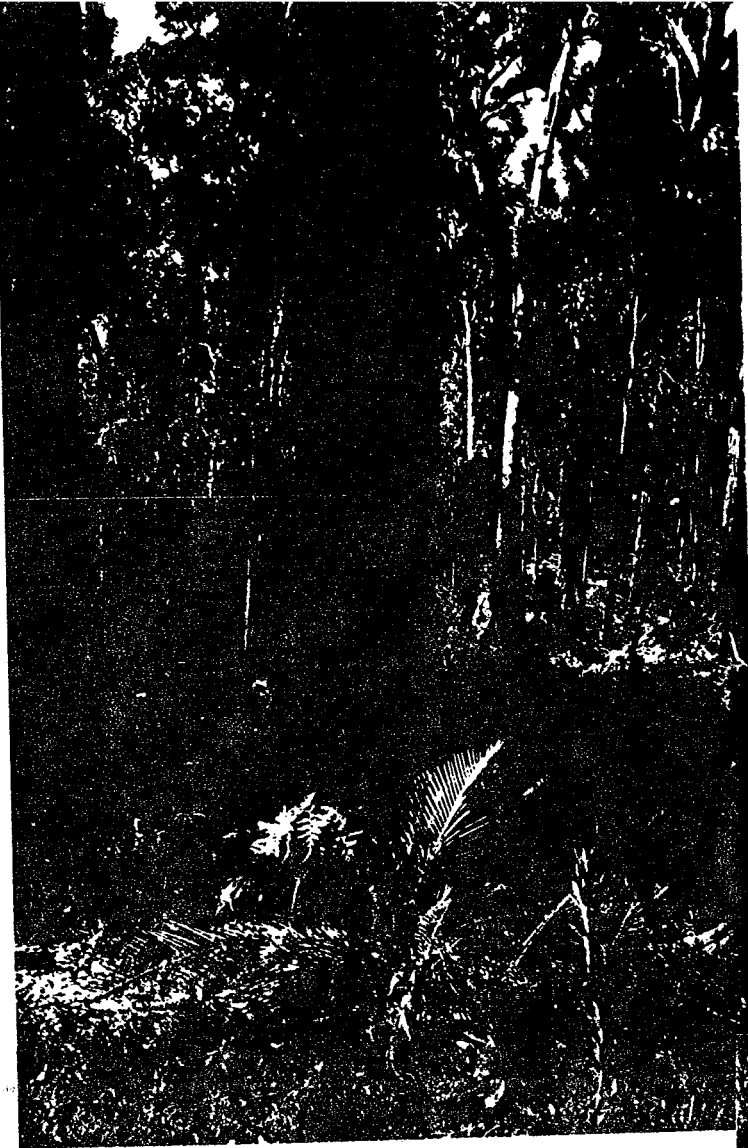
14



15



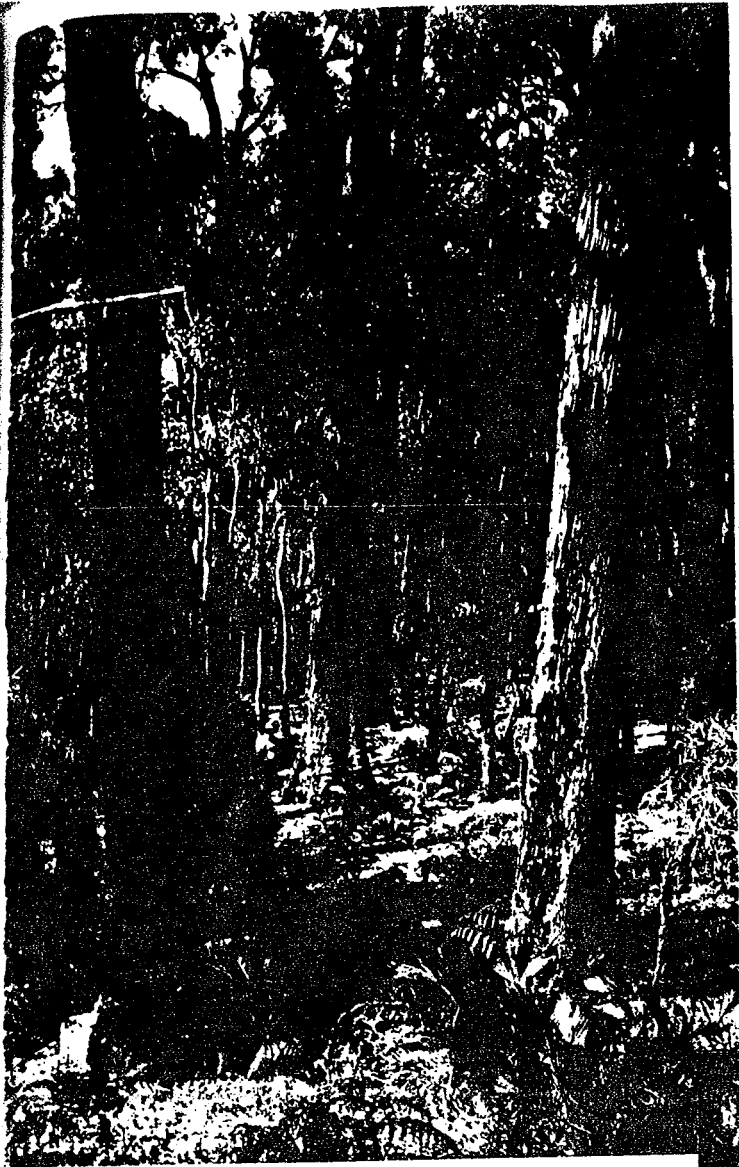
16



17



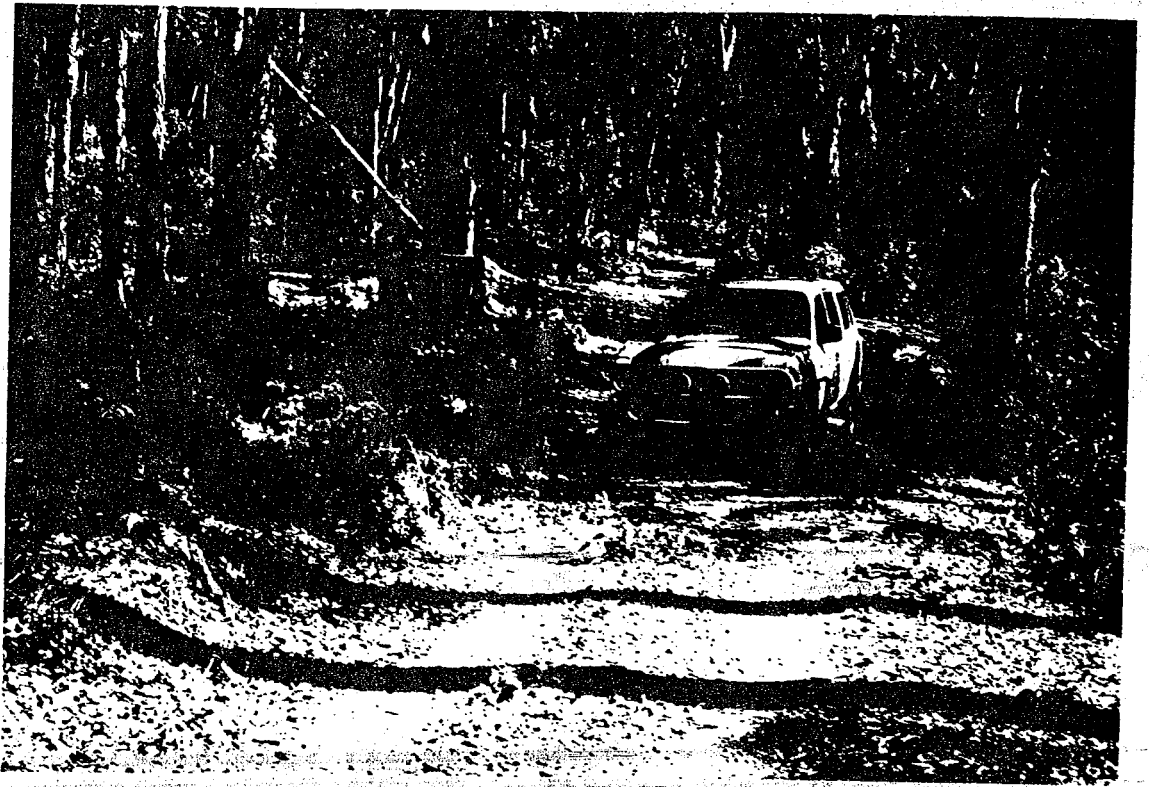
18



19



20



2

