

# Timber harvesting of Crown land in the south-west of Western Australia: an historical review with maps

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## SUMMARY

The forests in the south-west of Western Australia have been harvested and their timber utilized since the beginning of European settlement in 1829. The earliest methods of timber production were pit-sawing, which was common until about 1900, and hewing, which was significant until about 1945. Hauling of logs and sawn timber was done exclusively by horse or bullock team until the introduction of timber tramways in the 1870s. Since about 1970, all log hauling has been by log truck. The first sawmill in the State operated in Perth in 1833, but the first of the large sawmills was established at Quindalup in 1858.

Reliable timber harvesting records in the form of maps are held by the Department of Conservation and Land Management (CALM) for the period since 1920. Incomplete or less detailed records are available for the period 1829 to 1920. The author considers that some additional areas not shown as harvested in the CALM records were harvested before 1920. Other areas are recorded as harvested before 1920 but date unknown. Likely dates (decades) of cutting are postulated for these areas.

Maps are presented showing likely dates of first, second, third, and fourth logging (harvesting) on Crown lands in the south-west of Western Australia. Based on these maps, about half of the jarrah and wandoo forest on Crown land in the northern and central forest areas (CALM's Swan and Central Forest Regions) has been logged twice and some areas five times to 31 December 1989. By contrast, there was little logging in the southern forest area (CALM's Southern Forest Region) until about 1900 and most of the karri forest has only been logged once.

## INTRODUCTION

Reliable timber harvesting records for Crown lands in Western Australia (WA) are available in the form of maps

held by the Department of Conservation and Land Management (CALM) for the period since 1920; i.e. since the Forests Department was created. Much less reliable records are available for the period before 1920. This paper has been written to synthesize a considerable volume of scattered information on timber harvesting in south-west Western Australia into a unified account intended to be useful for forest biologists, forest managers and others.

## BACKGROUND

In this paper, jarrah and karri forest is defined as described in Department of CALM (1992), to include associated species such as marri.

### Logging

Logging (harvesting) is the felling of trees, preparation of logs (the utilizable part of a tree stem), extracting (snigging) logs from the site of felling at the tree stump to a landing or loading point, loading and carting the logs to the sawmill or other timber processing plant.

### Felling Methods

Felling and snigging methods have been described by Hewett (1979). In the early days of European settlement, trees were felled using an axe or an axe and cross-cut saw.

The development of portable engines paved the way for mobile power saws in the mid-1940s. The first of these was mounted on two (occasionally one) wheels and fitted with either circular or cross-cut saw blades.

In the late 1940s the first chain-saws became available in WA. The first models were two-person saws about 2 m long and were very heavy. These saws were in use for about seven years until the first one-person chain-saws arrived in Australia in about 1955. These were still very heavy by modern standards but had better chain than the earlier chain-saws. Since then chain-saws have been greatly improved by reducing their weight, noise and vibration levels.



## Hewing and Pit-sawing

The earliest methods of timber production in Western Australian hardwood forests were hewing and pit-sawing.

Hewing was a three-part process of felling, splitting and squaring large pieces of timber for railway sleepers, bridge and jetty decking and large beams. The work occurred beside the stump at the site of felling and only the finished product was carried or dragged to a loading site. Sleeper hewing involved enormous waste (Mills 1989). Between about 1900 and 1935 most sleepers produced in the State were hewn. Teams of hewers operated in many areas, notably Sawyers Valley (east of Midland), Mungilup (Lucknow, near Collie), Noggerup and Mullalyup (both near Kirup), Hester (near Bridgetown) and Palgarup (near Manjimup). By 1945 sleeper hewing had been virtually replaced by sawmilling.

Much the same process occurred with pit-sawing, except that a log was rolled with bars and levers onto a sawpit and sawn by cross-cut saw (Underwood 1977). Pit-sawing was the most common method of log sawing between 1829 and the 1880s. By 1900 it had given way to sawmilling.

## Snigging

In WA's south-west forests, teams of horses or bullocks were used for snigging (dragging logs) until the 1920s. The logs were often supported by a whim or logging arch consisting of a pair of large wheels joined by a cranked axle allowing the machine to straddle logs. Chains were used to lift the front of the log off the ground for easier snigging.

The first advance from animal power for snigging occurred in the 1920s, with the introduction of steam powered hauling machines for winching logs to landings on the timber tramway. (Timber tramways were light, often temporary 'railways', usually with wooden rails, whereas train railways are always steel.) These hauling machines comprised a steel cable on a drum a metre or so in diameter and were extremely heavy so remained stationary at the landing while a small team of horses or bullocks extended the cable to the logs which were then winched on to the landing.

During the late 1930s, crawler tractors were first used for snigging small logs. As heavier and more powerful tractors were developed during and after the Second World War, they gradually displaced all other snigging methods. Since the 1960s rubber tyred articulated tractors have replaced crawler tractors except under the most difficult conditions (e.g. for very large logs or working on a steep terrain).

For photographs of snigging operations, see Forests Department (1969) and Hewett (1979).

## Log and Timber Hauling

Hauling (transporting) of logs and sawn timber was carried out exclusively by horse or bullock teams until the introduction of timber tramways in the 1870s. The first

steam powered locomotives used for timber hauling were the 'Ballarat' used by WA Timber Company on the Lockville concession near Busselton from 1871 and the 'Governor Weld' used on the Jarrahdale Concession from 1872 (Southcombe 1986). Some of the smaller sawmills used horses rather than locomotives on their tramways. The first locomotives ran on wooden rails, but the wear was so great that it was not long before they were replaced with steel rails.

Provision of a reliable and economic transport system was essential for development of the timber industry. Timber company railways were among the first railways in the State. Government railways did not operate until 1879 near Geraldton and 1881 near Perth. The Government eastern railway reached Chidlow in 1884 and York by 1886. The railway network was extended into the south-west as follows: to Bunbury in 1893, Busselton in 1895 and to Collie and Bridgetown in 1898. Lines were extended to Nannup in 1909, Dwellingup in 1910, Manjimup in 1911, and Pemberton in 1913. With the advent of the Government railway system the timber company railways were only needed to transport logs to the sawmills and sawn timber from these mills to the nearest Government rail siding.

Normally the first timber tramway to be built in an area was the one to convey the sawn timber from the mill to the nearest shipping point. Then lines were constructed leading to the bush to enable logs to be hauled to the mill. Initially all the formations for the line were constructed by hand and many men were employed laying, and then pulling up line after the timber had been cut in the area.

Bush locomotives remained in general usage in the jarrah forest until around 1950 when the huge cost of pulling up and re-laying lines made their operations uneconomic and motor transport started to take their place. Some locomotives continued to be used by timber companies, especially in the karri forest, until about 1965. Since then, all log hauling has been by log truck.

## Early Logging and Forest Administration

Nunn (1957) reviewed the history of timber production in WA. Reports of the valuable hardwood forests existing in WA influenced the decision of the British Government to establish a settlement at the Swan River in 1829. Timber was one of the State's first exports. Sawn timber was exported as early as 1831. This timber was pit-sawn, as no sawmill existed at that time.

The first sawmill in the State was operating in Perth, at the foot of Mt Eliza in Kings Park, by 1833. Mr J Monger was associated with this mill and also the first steam sawmill in the State, which began operations at Guildford near Midland in 1844. The latter mill was operated by Monger and Cowan. Also in 1844 J & G Handcock established a mill at Belmont near Perth. Pit-sawyers were active on the coastal plain near Perth and in the hills just east of Perth from about this time. By the 1860s pit-sawing was also taking place near Walpole, Augusta, Busselton and Bunbury.



In 1858 the first of the larger, longer lasting sawmills in the State was operating at Quindalup, west of Busselton: the earlier sawmills were typically very small, producing less than 500 m<sup>3</sup> of sawn timber per year. H. Yelverton operated the Quindalup mill on a concession granted to him by the Government. In the early 1870s further concessions were granted at Lockeville, Jarrahdale (near Serpentine Dam) and Canning (near Canning Reservoir). Concessionaires were granted sole rights for a number of years, at a nominal rent per annum, to remove, sell or export timber from their concessions.

In 1875 special timber licences were introduced. From 1889 until 1898 special timber licences were issued under Clause 96 of the Lands Act Regulations. Between 1899 and 1904 timber leases were issued under Section 113 of the same Act. In the Land Act amendment of 1904, sawmilling permits were issued for the first time, under Section 11.

Until 1896, timber harvesting on Crown lands was administered by the Lands Department. In 1896 a new Department, the Department of Woods and Forests, was created with a trained forester, J Ednie-Brown, as Conservator acting under the Minister for Lands. Ednie-Brown died in 1899. From then until 1916, the Department was headed by its Chief Clerk, Mr C Richardson. During these years there was no trained forester in the Department, which functioned as little more than a revenue collecting organization (Mills 1989).

In 1916 a trained forester, C.E. Lane-Poole, was appointed Conservator of Forests. Lane-Poole was a graduate of a French forestry school and was primarily responsible for drafting the Forests Act, 1918. This Act was passed by Parliament in December 1918 and the Forests Department of Western Australia came into being in January 1919. From that time, sawmilling and other timber permits were issued under the Forests Act and Regulations, until the Forests Department was absorbed into the Department of Conservation and Land Management in 1985.

## Silvicultural History

### Jarrah

Stoneman, Bradshaw and Christensen (1989) have described the typical silvicultural practices followed in the jarrah forest.

Prior to the 1920s there was effectively no forestry control over logging operations within timber concessions, licences, leases or permit areas. Sawmillers selected the trees they wished to cut, leaving behind the poorer trees. This meant that some areas of high quality forest were heavily cut and others had a very light selective cut. Sleeper hewers also operated over large areas of forest, selecting only the best trees. In high quality forest, the gaps created by logging generally quickly filled with saplings which developed from ground coppice, but there was no systematic attempt at reforestation, or at fire protection of new regrowth stands.

Between the early 1920s and 1940 a group selection system was employed. Areas for felling were treemarked by Forests Department foresters to create gaps for regeneration, leaving groups of immature trees intact. After logging the areas designated for gaps the remaining unwanted trees were ringbarked and small malformed trees cut off (to the extent that funds permitted this). During the Depression (in 1929 and early to mid-1930s) extensive areas of jarrah regrowth stands were thinned and unwanted overstorey trees were ringbarked (Forests Department 1969).

From the 1940s to mid-1960s a lighter selection cut was applied. Unwanted jarrah and marri trees were retained for possible future markets. There was no ringbarking of unwanted trees or cutting off of small malformed trees. The system was primarily a single tree selection system.

From the mid-1960s until 1985 the cutting intensity increased, particularly after 1970 when a more intense cut in a smaller area was introduced to reduce the area harvested each year. An individual tree selection system was employed with little or no attempt at producing gaps. In addition, all saleable produce was removed (salvaged) from areas infected by *Phytophthora cinnamomi*. Some areas were non-commercially thinned (excess trees poisoned) during this period.

In 1985, a group selection system was reintroduced, with renewed emphasis on thinning.

### Karri

Bradshaw and Lush (1981) have described the development of forest policy and practice in the karri forest in the southern part of south-west WA. The earliest logging in the karri forest was carried out under a clear-felling system (all marketable trees harvested). Most of the areas logged were converted to agriculture, although harvested forests at Karridale (north of Augusta) and Denmark exhibited prolific regeneration following clear-felling. In 1925 the first karri forest was dedicated as State forest, an area of 2900 ha at Big Brook, near Pemberton. A working plan was prepared for this area and the silvicultural system employed was the clear-felling method. As most of the trees had been removed by the local sawmill, regeneration preparation was carried out and areas burnt in the next few years, to be regenerated by seed-fall from the remaining unwanted trees. Once seed-fall had taken place these trees were then ringbarked.

The clear-felling system of harvesting and regeneration was maintained in karri State forest until about 1938 when, for a variety of reasons, it gave way to the selection system. The clear-felled areas, apparently devastated and finished with, were under continuous pressure for release for agriculture: selection cut stands did not attract as much pressure for alienation to agriculture. Clear-felling and regeneration burning involved some wastage of small and defective trees, and substantial areas of old growth karri forest were deteriorating owing to fire damage and old age. A lighter selection cut enabled faster salvage of this



wasting resource and expedited the provision of access to remote areas of forest to facilitate fire protection. All of these factors contributed to the change from clear-felling to selection cutting in the 1940s.

By the mid-1960s, a number of problems with selection cutting and regeneration of the karri forest had become obvious. There were difficulties of burning for regeneration in small gaps in the forest: a hot fire is needed to produce good seed bed conditions, but this often damaged the remaining trees. Retained trees often declined in health. Also, growth of regenerated forest was depressed by nearby mature trees. Another problem was the difficulty of carrying out subsequent harvesting and regeneration burning among groups of regenerated trees without destroying them. For these reasons the selection system was discontinued in favour of clear-felling in 1967.

The next major change in karri forest management practice occurred in 1975 with the establishment of the woodchip industry. To ensure optimal regeneration after harvesting, it is desirable to remove all trees from an area, including those unsuitable for sawmilling, so that there will be no competition for the new regrowth. Provision of a market for woodchips to utilize those trees unsuitable for sawmilling greatly reduced the need for ringbarking, poisoning or bulldozing unwanted trees to make way for new regeneration.

## METHODS

CALM timber harvesting records were consulted to establish Crown land areas recorded as cutover (harvested) before 1920 and since 1920 (by decades), and the number of times they had been cutover, as at 31 December 1989. Some areas shown in the CALM cutting records as not cutover as at 1920, were inside sawmilling tenements, and adjoined mills or timber tramways/railways and so were almost certainly cutover before 1920 despite the evidence in the records. Other areas are recorded as cutover before 1920 but year unknown. From historical data it is possible to postulate the decade of the initial cutting for these areas. This can be done by using records of early sawmill operations and dates of operation, and records of timber licences, leases, permits, timber tramways and railways.

Maps held by CALM Information Management Branch and CALM Library and the Battye Library in Perth were searched for the locations and years of operation of sawmills and the associated roads, timber tramways and railways. Old files for timber tenements, held by the Battye Library, were also perused for similar information.

Useful historical information, such as the location of early sawmills, timber tenements and tramways was found in early reports on the forests of WA by Fraser (1882) and Ednie-Brown (1896, 1899). Further information on the dates of operation of early sawmills (opened before 1930) was obtained from the *Annual Reports* of the Woods and Forests Department and Forests Department from 1896/97 to 1929/30.

Local histories for towns and shires in and near the forest areas show how important the timber industry was in the early development of the south-west of the State and many provided data useful in establishing early logging history. These include Eliot (1983) covering Mundaring Shire; Slee (1979) Kalamunda area; Popham (1980) Armadale area; Coy (1984) Serpentine-Jarrahdale Shire; Fall (1979) Jarrahdale area; Richards (1978) Murray Shire; Snell (1980) Waroona Shire; Staples (1979) Harvey Shire; Frost (1976) Donnybrook area; Frost (1979) Balingup area; Gaines (1970) Bridgetown area; Gilbert (n.d.) Nannup area; Fall (1974) Augusta area and Berry (1987) Manjimup district.

A number of publications covering the history of the timber industry as a whole or the operations of one timber company also provided useful data, notably Thomas (1937-38), Robertson (1956), Gilchrist (1962), Calder (1980), Mack (1985), Abbott and Loneragan (1986), Southcombe (1986), Mills (1986, 1989) and Moore (1987). Some WA Heritage trail booklets provide valuable historical data, notably 'Cala Munnda', 'Geegelup', 'Kattamorda' and 'Mason and Bird'.

Records of timber exports and estimated total timber production in the early years, from Rotherham (1985), were used to derive estimates of volumes and areas logged in those years at each sawmilling centre. These data provided further evidence that some areas were harvested before 1920, before accurate records were kept. This highlighted the need to update CALM's records for pre-1920, using other available information.

## DISCUSSION

Early sawmills were concentrated in the forest north of Manjimup (Appendix 1). These resulted in an extensive network of tramways and railways through the forest (Appendix 2). Activities of these mills resulted in much of the northern forest (now in CALM's Swan and Central Forest Regions - see Appendices 3a-3d) being harvested several times, especially those close to the Darling Scarp (Appendices 3a-3d). These maps are based on the best available records at the time this study was done. In addition, two areas near Jarrahdale are considered to have been harvested for sawlogs five times. It is possible that more comprehensive records of early logging may emerge in the future and revisions can be made. For example, further searches of old files in the Battye Library and access to timber company records may locate additional data.

It should be noted that the cutting records depicted in Appendices 3a-3d refer only to areas harvested for sawlogs. Many areas harvested for sawlogs had previously been worked by hewers cutting railway sleepers, or settlers cutting fencing timbers. Near Collie coal fields and adjoining areas some areas have also been harvested for mining timber on one or more occasions since 1898. Similarly, mining timber has been removed



from the Greenbushes area. Some areas (mainly regrowth areas) have been harvested once or twice for poles and/or piles, in addition to the sawlog harvesting. Other areas were harvested for firewood, including a large area around Helena Reservoir which was ringbarked and then cut for firewood for the pumping stations.

In recent years, cutting for different products has been fully integrated, with sawlogs and other forest products taken in one operation. Previously, most minor forest produce such as domestic firewood and fence posts, was removed as an independent operation.

Sawmilling began on present day State forest (jarrah forest) in the Kalamunda area (near Kelmscott) in the 1860s, and in the 1870s near Serpentine Dam and near Bunbury and Busselton. Sawmilling began in the karri forest at Karridale (near Augusta) in the 1880s, Denmark in the 1890s and near Manjimup and Pemberton in the period 1912-1914. At least 260 sawmills operated throughout the south-west forests before 1930 (Appendices 4-13). Their dates of operation have been established as near as possible from the incomplete records now available. The data provided are the sawmill owner or owners (and dates ownership changed), date the mill commenced and ended operations (if known) and location. Some mills, particularly large, long-life mills, had more than one owner. Some mills had a name which, if known, is listed. In general, very small sawmills, e.g. under 500 m<sup>3</sup> per year of sawn timber output, have not been listed. The dates listed are the best guess, based on the available data. Some mills closed for periods. The classification of some mills (big, medium, small) changed over time.

Logging intensity varies from a thinning or light cut removing only a small proportion of the marketable trees, to a heavy cut removing a large proportion of the marketable trees. In a clear-cut, all the marketable trees are removed. The number of trees (or proportion of original number) remaining after logging is greatly affected by what products are marketable at the time and by the silvicultural system being practised. Many small trees are not marketable. If only sawlog is sold, then trees too small to contain a sawlog will be retained plus large trees not suitable for sawlogs (e.g. deformed trees) and any other trees retained as crop trees (seed trees) or for other purposes. In addition, within the harvested area there are usually pockets of trees not harvested because they occur along watercourses, or areas too steep to log. Since the late 1980s, habitat trees for fauna, often containing merchantable timber, have been retained at rates of 3-5 trees per hectare in the jarrah forest. Tree-less areas (wetlands, rocks, open areas) are obviously not harvested but have sometimes in the past been affected by logging activity such as snig tracks and haul roads.

The nominal cutting cycle for jarrah forest has typically been 30 to 50 years between cuts, in the higher rainfall areas and where a selection cutting system has been used. That is, in the first harvest (cut) in the selection cutting system only those trees of high commercial value are harvested, leaving less developed trees to develop to

maturity so that they will then be harvested in a subsequent cutting cycle in 30-50 years. In less productive forest, such as occurs in the eastern low rainfall sector, the cutting cycle has been longer and many areas have been harvested only once or twice since 1829. In recent years many areas have been harvested earlier than initially planned because of the need to salvage timber on areas to be cleared for public utilities, mining or pine plantations, or to salvage windblown or diseased trees.

Rotation lengths for karri forest are described in Department of CALM (1994). Most multiple use karri forest is intended to be managed on a rotation length of at least 100 years.

A recent paper by Abbott and Christensen (1994) shows that, based on a synopsis of indicators, the jarrah and karri forests are in ecologically good condition after up to 120 years of timber harvesting.

In CALM's latest management plan covering the south-west forests (Department of CALM 1994), some 384 000 ha of jarrah forest and 53 000 ha of karri forest is in existing or proposed conservation reserves, including 135 000 ha of unlogged jarrah forest and 40 000 ha of unlogged karri forest. Additional areas are set aside to be managed as riparian and faunal travel route zones. These areas combined represent some 33 per cent of the jarrah forest and some 46 per cent of the karri forest on Crown land managed primarily for nature conservation where logging operations cannot occur.

## CONCLUSIONS

Logging of forests on Crown land in areas now defined as CALM's Swan and Central Forest Regions (see Appendices 3a-3d) commenced in many areas in the 1870s or 1880s, and many easily accessible areas have been harvested for sawlogs three or more times since then. About half of the jarrah forest on Crown land in CALM's Swan and Central Forest Regions has been harvested twice. Access to the forests of the Southern Forest Region was much more difficult and logging did not commence until after 1900, apart from some pit-sawing near Walpole in the 1860s and logging by Millars in the Denmark area in the late 1890s. Of the karri forest that has been logged, most has only been logged once.

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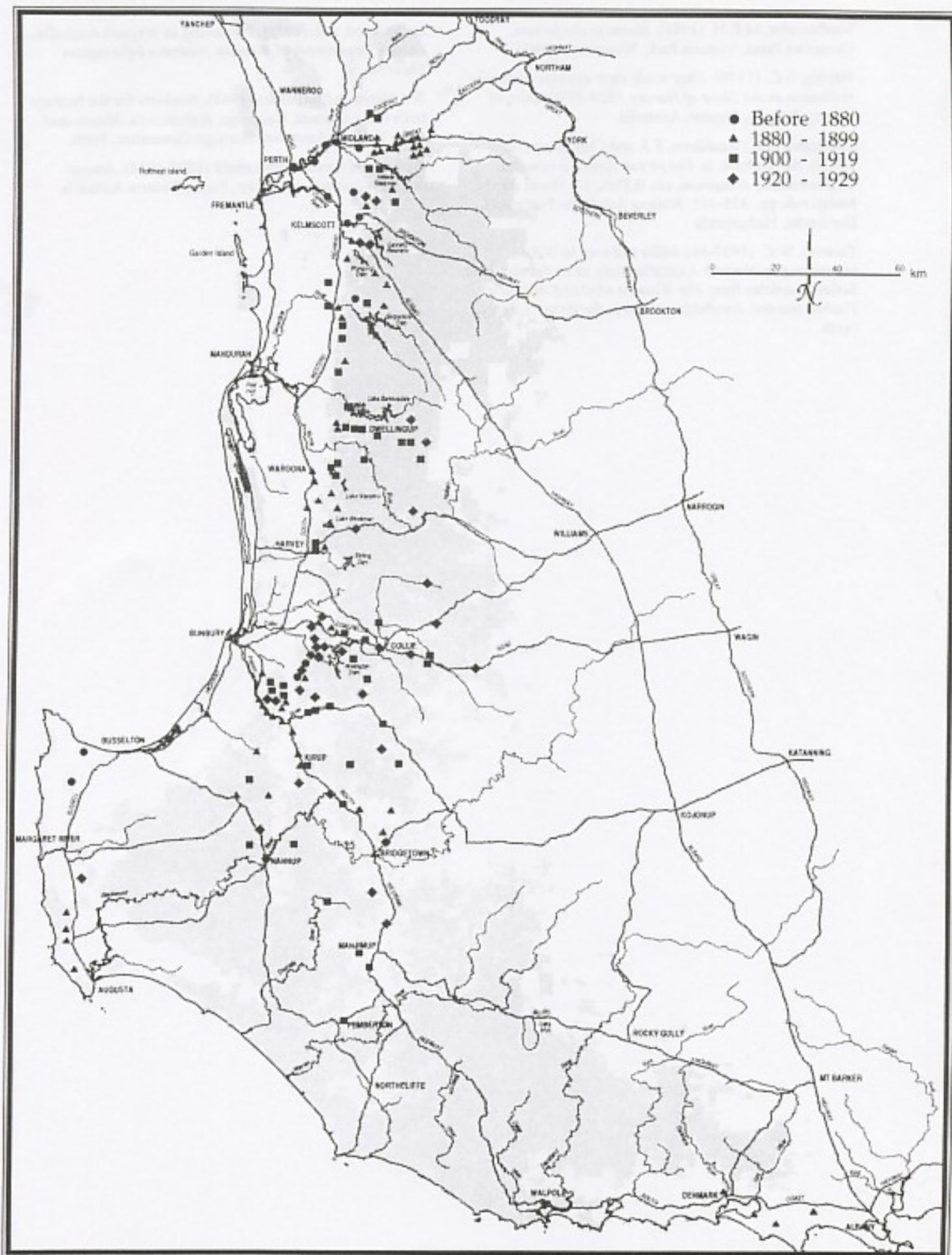
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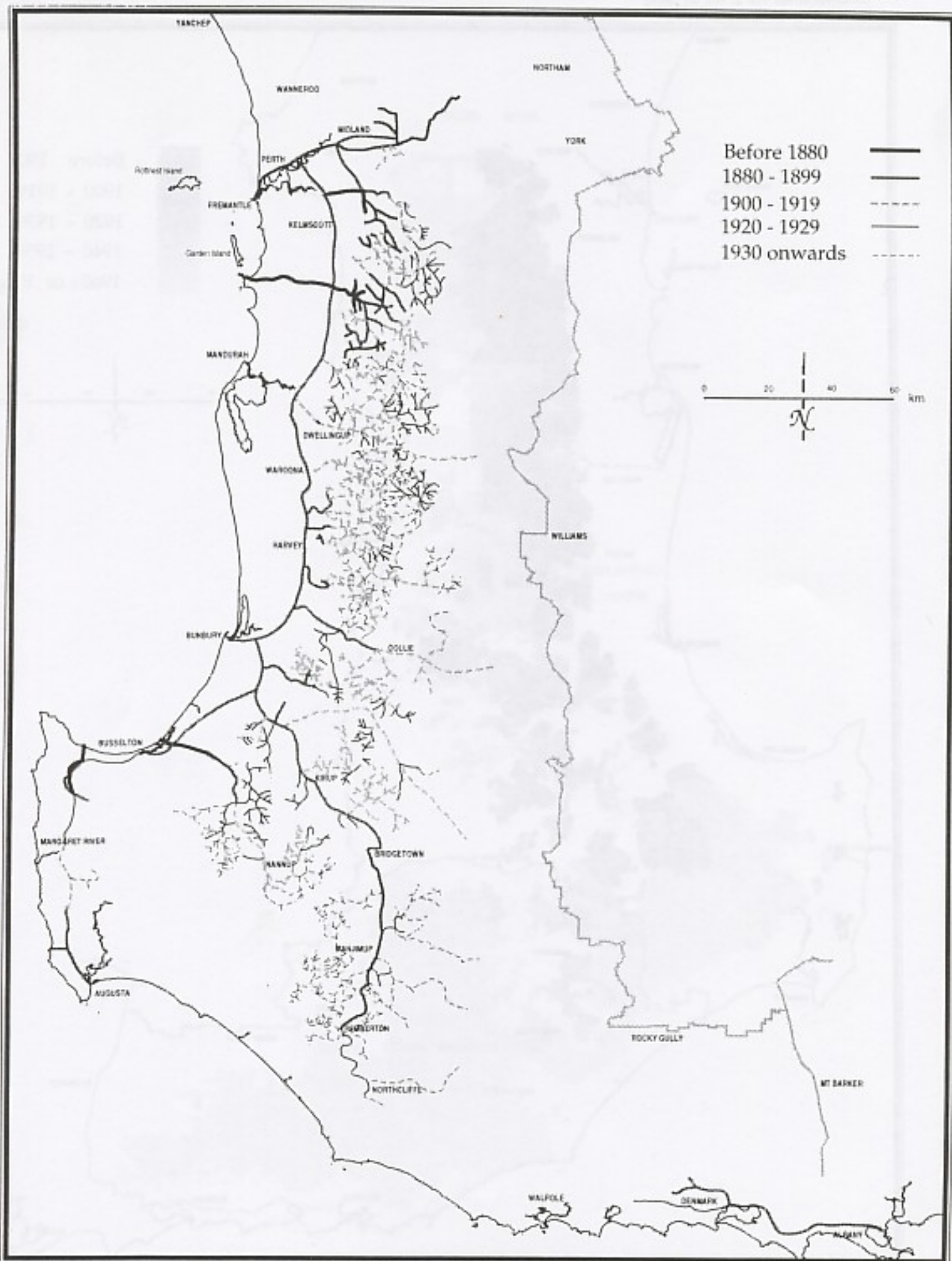
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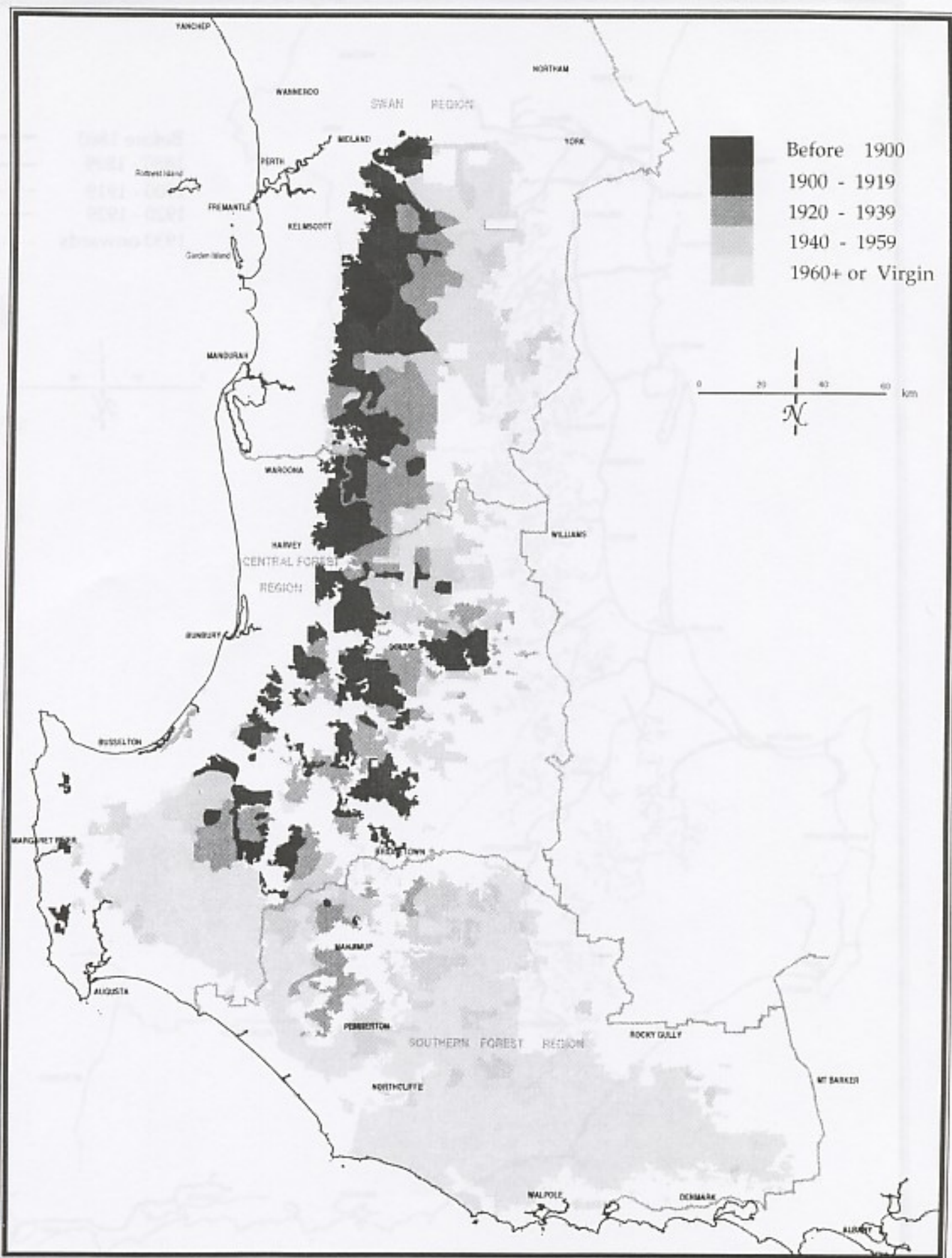




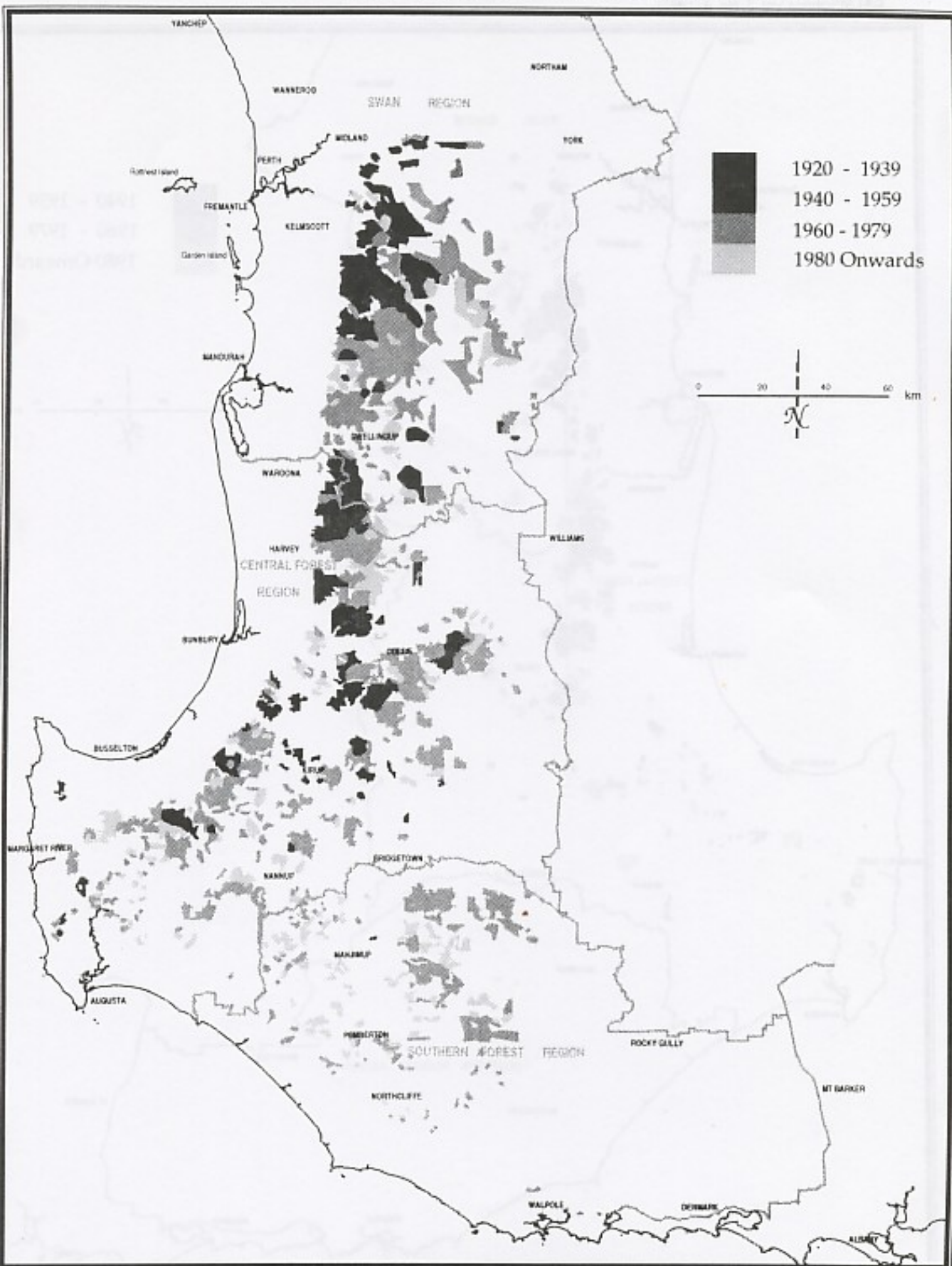


Appendix 2. Railways and tramways first used.



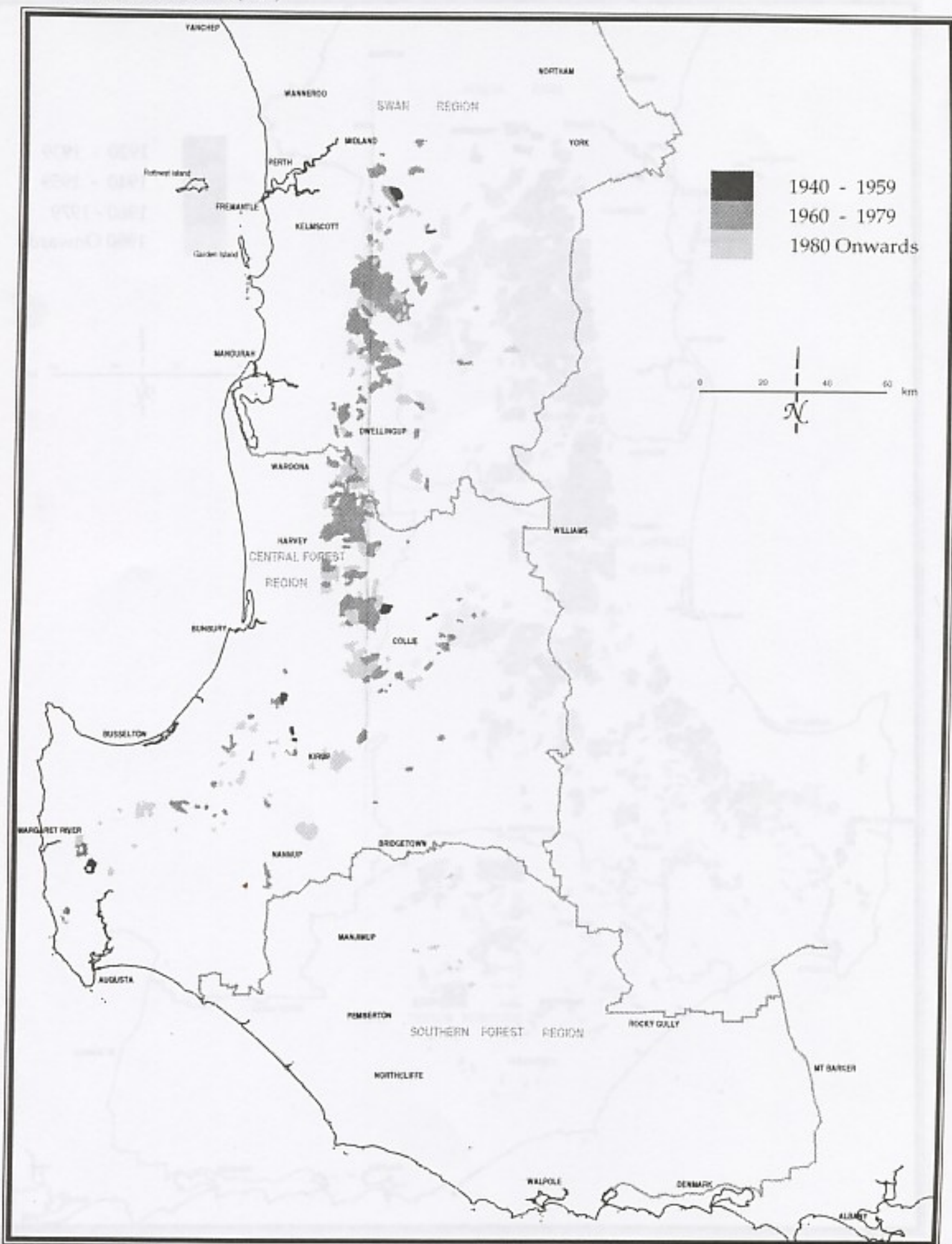




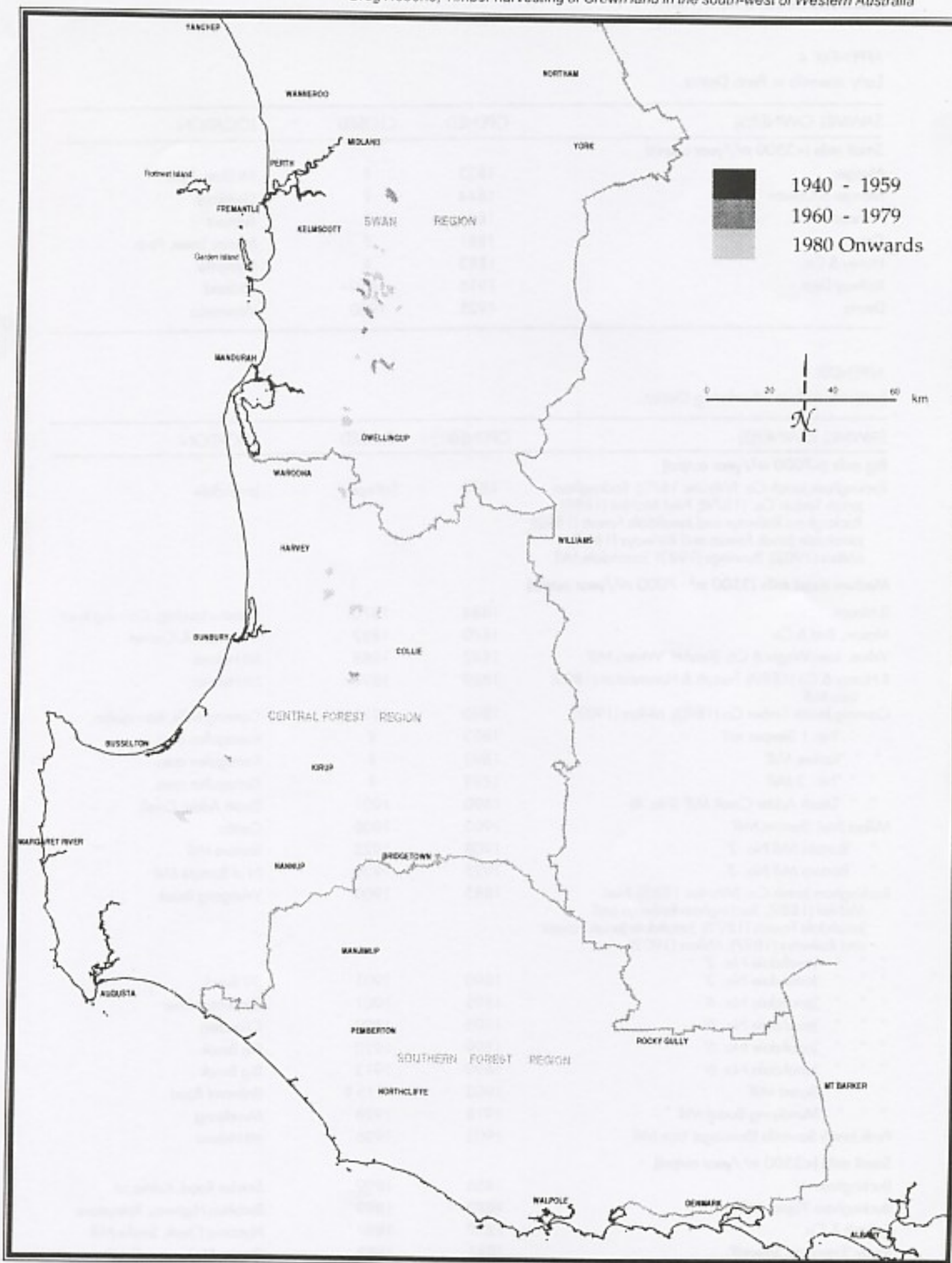


Appendix 3b. Areas cutover - date of second logging.









Appendix 3d. Areas cutover - date of fourth logging.



## APPENDIX 4

Early sawmills in Perth District.

| SAWMILL OWNER(S)  | OPENED | CLOSED | LOCATION             |
|---|--------|--------|----------------------|
| <b>Small mills (&lt;3500 m<sup>3</sup>/year output)</b> |        |        |                      |
| Monger  | 1833   | ?      | Mt Eliza, Perth      |
| Monger & Cowan  | 1844   | ?      | Guildford            |
| Hancock   | 1844   | ?      | Belmont              |
| Graves  | 1881   | ?      | Murray Street, Perth |
| Honey & Co.   | 1883   | ?      | Fremantle            |
| Railway Dept  | 1916   | 1929+  | Midland              |
| Dennis  | 1925   | 1930   | Wanneroo             |

## APPENDIX 5

Early sawmills in Mundaring District.

| SAWMILL OWNER(S)   | OPENED | CLOSED     | LOCATION                      |
|--|--------|------------|-------------------------------|
| <b>Big mills (&gt;7000 m<sup>3</sup>/year output)</b>  |        |            |                               |
| Rockingham Jarrah Co. (Wanliss 1870); Rockingham Jarrah Timber Co. (1874); Neil McNeil (1889); Rockingham Railways and Jarrahdale Forests (1892); Jarrahdale Jarrah Forests and Railways (1897); Millars (1902); Bunnings (1983) 'Jarrahdale Mill' | 1870   | Still open | Jarrahdale                    |
| <b>Medium sized mills (3500 m<sup>3</sup> - 7000 m<sup>3</sup>/year output)</b>  |        |            |                               |
| B Mason  | 1884   | 1870       | Masons Landing, Canning River |
| Mason, Bird & Co.  | 1870   | 1882       | Masons Mill, Carmel           |
| White, later Wright & Co. (Keane) 'White's Mill'   | 1882   | 1888       | Mt Helena                     |
| R Honey & Co (1889); Forsyth & Hummerston (1893) 'Lion Mill'   | 1889   | 1898       | Mt Helena                     |
| Canning Jarrah Timber Co. (1890); Millars (1902)   | 1890   | 1916       | Canning Mills, Karragullen    |
| * * 'No. 1 Sleeper mill'   | 1893   | ?          | Karragullen area              |
| * * 'Yankee Mill'  | 1893   | ?          | Karragullen area              |
| * * 'No. 3 Mill'   | 1893   | ?          | Karragullen area              |
| * * 'Death Adder Creek Mill' (No. 4)   | 1890   | 1901       | Death Adder Creek             |
| Millars (first) 'Bartons Mill'   | 1903   | 1908       | Canilla                       |
| * 'Bartons Mill No. 2'   | 1908   | 1925       | Bartons Mill                  |
| * 'Bartons Mill No. 3'   | 1925   | 1939       | N of Bartons Mill             |
| Rockingham Jarrah Co. (Wanliss 1885); Neil McNeil (1889); Rockingham Railways and Jarrahdale Forests (1892); Jarrahdale Jarrah Forests and Railways (1897); Millars (1902)   | 1885   | 1900       | Wungong Brook                 |
| * * * 'Jarrahdale No. 2'   |        |            |                               |
| * * * 'Jarrahdale No. 3'   | 1890   | 1901       | 39 Brook                      |
| * * * 'Jarrahdale No. 4'   | 1895   | 1901       | Serpentine River              |
| * * * 'Jarrahdale No. 5'   | 1895   | 1899       | Chandlers                     |
| * * * 'Jarrahdale No. 5'   | 1899   | 1910       | Big Brook                     |
| * * * 'Jarrahdale No. 6'   | 1899   | 1913       | Big Brook                     |
| * * * 'Board Mill'   | 1903   | 1915 ?     | Balmoral Road                 |
| * * * 'Mundijong Board Mill'   | 1918   | 1928       | Mundijong                     |
| Perth Jarrah Sawmills (Bunnings) 'Lion Mill'   | 1905   | 1926       | Mt Helena                     |
| <b>Small mills (&lt;3500 m<sup>3</sup>/year output)</b>  |        |            |                               |
| Buckingham   | 1866   | 1899       | Stocker Road, Kelmscott       |
| Buckingham 'Poplar Mill'   | 1872   | 1899       | Brookton Highway, Roleystone  |
| A. Smith & Co.   | 1877   | 1897       | Nyaania Creek, Smiths Mill    |
| Lacey 'Enterprise Sawmill'   | 1881   | 1883       | Zamia, Mahogany Creek         |



## Appendix 5 (continued)

|   |       |       |                    |
|---|-------|-------|--------------------|
| Gill & Co. (Alex Forrest & Lacey 1888) 'Enterprise Sawmill' | 1882  | 1896  | Sawyers Valley     |
| M Smith & Sons  | 1882  | ?     | Sawyers Valley     |
| Buckingham  | 1882  | 1900  | East Byford        |
| Sexton  | 1885  | 1886  | Forsyth            |
| Sexton  | 1886  | 1896  | Gorrie             |
| Dunton & Forsyth  | 1890  | ?     | Chidlaw            |
| West Australian Jarrah Timber Co.                           | 1890  | 1897  | Chidlaw            |
| Byfield   | 1891  | 1901+ | Wooraloo           |
| Sexton (1893); Shepperdson (1894)                           | 1893  | 1898  | Mundaring          |
| Firms   | 1893  | 1918  | Serpentine, Karnet |
| Atkins & Law  | 1894  | 1896  | Raleystone         |
| McDowell, Byfield   | 1894  | 1895  | Wooraloo           |
| McDowell  | 1895  | 1898  | Parkerville        |
| Dunton & Co. (1896); Forsyth (1899)                         | 1896  | 1903  | Forsyth            |
| Gill & Co. (Alex Forrest & Lacey)                           | 1896  | 1897  | Mahogany Creek     |
| McDowell (1896); Gill McDowell (1897)                       | 1896  | 1898  | Sawyers Valley     |
| Dunton & Co. (Adams & Conaughton)                           | 1896  | 1900  | Chauncy Gully      |
| Forsyth & Dunton 'Helena Sawmill'                           | 1896  | 1903  | Gorrie Road        |
| Sexton  | 1896  | 1897  | Gorrie             |
| Isbister, Wiseman & Co. 'Federation Sawmill'                | 1896  | 1900  | Sawyers Valley     |
| Tamlinson   | 1896  | ?     | Sawyers Valley     |
| Patterson   | 1897  | ?     | Smiths Mill        |
| Sexton  | 1897  | 1902  | Parkerville        |
| McCoy & Oudaille  | 1897  | 1898  | SE of Chidlaw      |
| Connaughton & Crossman 'Gem Sawmill'                        | 1897  | 1900  | Sawyers Valley     |
| Brown   | c1897 | ?     | Chidlaw            |
| Silberthorpe & Adair  | c1897 | ?     | Serpentine         |
| Johnston, Blakeney & Co                                     | c1897 | ?     | Armadale           |
| Armadale Timber Co.   | c1897 | ?     | Armadale           |
| Higgs 'Armadale Sawmill'                                    | 1897  | 1904  | Byford             |
| Guppy   | 1898  | ?     | Gooseberry Hill    |
| WA Timber Co. (1898); Brown (1899) 'Excelsior Mill'         | 1898  | 1900+ | Chidlaw            |
| Hummerston  | 1899  | 1904  | Mt Helena          |
| Port & Honey  | 1900  | 1913  | The Dell           |
| Sexton  | 1901  | ?     | Sawyers Valley     |
| Forsyth 'Avonholme Mill'                                    | 1903  | 1906  | Chidlaw            |
| Franklin & Finlay   | 1903  | ?     | Keysbrook          |
| Frawley   | 1904  | ?     | Myara              |
| Sampson (1904) 'Dalgarnup Mill'; Bunnings (1906)            | 1904  | 1906  | Gidgegannup        |
| Dyke & W Smith (1905); Bunnings (1906)                      | 1905  | 1910  | Gidgegannup        |
| Buckingham  | 1905  | 1907  | South Kalamunda    |
| Buckingham  | 1907  | 1909  | Keysbrook          |
| Buckingham  | 1909  | 1911  | Serpentine         |
| Patterson   | 1910  | 1913  | Mundaring Weir     |
| Groth   | 1918  | 1919  | Sawyers Valley     |
| Wilson  | 1918  | 1920  | Wooraloo           |
| Robinson  | 1918  | 1919  | Keysbrook          |
| Groth   | 1919  | 1920  | Keysbrook          |
| Bunney  | 1919  | 1921  | Kelmscott          |
| Curtis, Chisholm & Co.                                      | 1921  | 1929+ | Bedforddale        |
| Smailes, Weston, Leibow                                     | 1922  | 1929  | Pickering Brook    |

## APPENDIX 6

## Early sawmills in Dwellingup District.

| SAWMILL OWNER(S)  | OPENED | CLOSED | LOCATION           |
|---|--------|--------|--------------------|
| <b>Big mills (&gt;7000 m<sup>3</sup>/year output)</b>                         |        |        |                    |
| Whittakers  | 1902   | 1946   | North Dandalup     |
| Millars   | 1904   | 1961   | Nanga              |
| Millars   | 1910   | 1930   | Marrinup           |
| South West Timber Hewers Coop [1910];<br>State Sawmills No. 5 [1920]          | 1910   | 1960   | Holyoake           |
| Railway Dept No. 2  | 1911   | 1963   | Banksiadale        |
| <b>Medium sized mills (3500-7000 m<sup>3</sup>/year output)</b>               |        |        |                    |
| McDowell, Gill McDowell Jarrah Co; Millars (1902)                             | 1895   | 1903   | Waroona            |
| Bunnings  | 1898   | 1901   | North Dandalup     |
| Gill McDowell, Millars (1902) '11 Mile Mill'                                  | 1902   | 1904   | Waroona Dam        |
| Gill McDowell, Millars (1902) 'No. 5 Mill'                                    | 1908   | 1910   | Near Nanga Road    |
| Port, Honey & Co No. 1  | 1911   | 1929   | Pindalup           |
| Railway Dept No. 1 (leased to Holmes)   | 1912   | 1914   | Dwellingup         |
| State Sawmills No. 4  | 1913   | 1924   | Wuraming           |
| South West Hewers Coop [1913]; Plavin [1918];<br>Australian Lumber Co. (1923) | 1913   | 1928   | Inglehope, Plavins |
| Port & Co. No. 2  | 1923   | 1929   | Pindalup           |
| State Sawmills No. 4  | 1924   | 1951   | Hakea              |
| Port & Co. No. 8  | 1925   | 1929   | Duncans            |
| <b>Small mills (&lt;3500 m<sup>3</sup>/year output)</b>                       |        |        |                    |
| Tuckey  | 1885   | 1886   | Marrinup           |
| Hannans   | 1895   | 1900   | Marrinup           |
| Goodrich & Massey   | 1896   | ?      | North Dandalup     |
| Shearer, Weatherhead & Co   | 1897   | 1899   | North Dandalup     |
| Parkers   | 1899   | ?      | Serpentine         |
| Frank & Finlay  | 1900s  | ?      | Karnet             |
| Teesdale-Smith & Timms  | 1902   | ?      | East Pinjarra      |
| Frawleys  | 1904   | ?      | Karnet             |
| lyalls  | 1904   | 1905   | Pinjarra           |
| Paterson  | 1913   | 1925   | Amphion            |
| Federal Trading and Engineering   | 1919   | 1920   | Pinjarra           |
| Australian Lumber Co. No. 1 & 2   | 1920   | 1921   | Hotham             |
| Mann  | 1920   | 1921   | Pinjarra           |
| Sundercombe   | 1927   | ?      | Waroona            |
| Forsyth   | 1928   | 1929   | Murray River       |
| Waroona Sawmilling Co.  | 1929   | ?      | Waroona            |



## APPENDIX 7

## Early sawmills in Mornington District.

| SAWMILL OWNER(S)  | OPENED | CLOSED     | LOCATION                  |
|---|--------|------------|---------------------------|
| <b>Big mills (&gt;7000 m<sup>3</sup>/year output)</b>                           |        |            |                           |
| Millars; Bunnings (1983)  | 1895   | Still open | Yarloop                   |
| Millars   | 1896   | 1919       | Hoffman old               |
| Millars   | 1898   | 1961       | Mornington                |
| Canning Jarrah Co. (1899); Millars (1902)                                       | 1899   | 1920       | Wellington                |
| Millars   | 1920   | 1964       | Hoffman new               |
| <b>Medium sized mills (3500 m<sup>3</sup> - 7000 m<sup>3</sup>/year output)</b> |        |            |                           |
| Millars   | 1895   | 1898       | Benger                    |
| Millars   | 1897   | 1909       | Waterous                  |
| Port (1893); Jarrah Timber & Wood Paving Corp. (1898)<br>No. 1 mill             | 1893   | 1901       | Gervasse                  |
| Jarrah Timber & Wood Paving Corp. No. 2 mill                                    | 1898   | 1902       | Worsley                   |
| Jarrah Timber & Wood Paving Corp. (1898)<br>No. 3 mill; Millars (1902)          | 1899   | 1902       | Worsley                   |
| Millars No. 4 mill  | 1899   | 1904       | Klondyke                  |
| Lyall (1904); Bunnings (1907)   | 1904   | 1968       | Lyalls                    |
| South West Timber Hewers Co-op  | 1909   | 1911       | Lucknow Mungilup          |
| Buckingham (1911); State Building Supplies (1954);<br>Hawker Siddaley (1961)    | 1911   | 1968       | Muja                      |
| Lewis & Reid No. 1 (1911); Bunnings (1923)                                      | 1911   | 1925       | Allanson                  |
| Lewis & Reid No. 2 (1913); Bunnings (1923)                                      | 1913   | 1925       | Harris River              |
| Wandoo Timber Co. (1913); Bunnings (1914)                                       | 1913   | 1930+      | Muja                      |
| Millars spot mills (3)  | 1920   | 1928       | Wellington                |
| Australian Lumber Co.   | 1920   | 1927       | Bowelling                 |
| Bunnings  | 1920   | 1926       | Lowden                    |
| Millars (Trees Limited)   | 1920   | 1958       | Treesville                |
| State Sawmills No. 6A   | 1920   | 1923       | Worsley                   |
| State Sawmills No. 6B   | 1923   | ?          | Windy Ridge Road          |
| Westralian Timber & Trading   | 1924   | 1926       | Maroondale (Loc. 1)       |
| State Sawmills No. 6C   | 1925   | 1926       | Patters Gorge, River Road |
| State Sawmills No. 6D   | 1926   | 1927       | Groom Road                |
| State Sawmills No. 6E   | 1927   | 1928       | Harnett Road              |
| State Sawmills No. 6  | 1928   | 1930       | Sneaker Road              |
| <b>Small mills (&lt;3500 m<sup>3</sup>/year output)</b>                         |        |            |                           |
| Clifton   | 1845   | 1875+      | Australind                |
| M C Davies  | 1875   | 1884       | Pile Road                 |
| M C Davies  | 1875   | 1884       | Worsley                   |
| Bunbury Jarrah Timber Co.   | 1881   | 1882       | Ferguson Road             |
| Port  | 1894   | 1898       | Crooked Brook             |
| Teesdale-Smith & Timms (1894); Port (1895)                                      | 1894   | 1895       | Boyanup                   |
| Wright  | 1895   | 1901+      | Dardanup (Crooked Brook)  |
| Hooker '17 Mile Mill'   | 1895   | 1899       | Boyanup                   |
| H J Yelverton   | 1895   | ?          | Bunbury                   |
| Law   | 1895   | 1896       | Samson Brook              |
| Williams (3 spot mills)   | 1896   | 1913       | Harvey Weir               |
| McCoy, (later Ferguson)   | 1897   | 1914       | Logue Brook               |
| McDevitt & Mitchell   | 1897   | 1899       | Drakesbrook               |
| Canning Jarrah Co. spot mill  | 1897   | 1899       | Wellington                |

## Appendix 7 (continued)

|   |       |       |               |
|---|-------|-------|---------------|
| Hooker  | 1898  | 1899  | Bunbury       |
| Atkins & Low, later leased to Port                      | 1898  | 1899+ | Worsley       |
| Drysdale  | 1904  | 1905  | Picton        |
| Bunnings  | 1906  | 1908  | Hamilton Hill |
| Harnetts  | 1910s | ?     | Beela         |
| Coolup Milling Co.                                      | 1914  | 1920  | Coolup        |
| R Palmer  | 1919  | 1922+ | Collie        |
| Harnett   | 1919  | 1929+ | Gervasse      |
| McSweeney   | 1920  | 1921  | Boyanup       |
| Plavin  | 1920  | 1925  | Bowelling     |
| Lewis & Stirk   | 1920  | 1926  | Shotts        |
| Connell   | 1920  | ?     | Mungilup      |
| Amalgamated Collieries                                  | 1920  | 1929+ | Collie        |
| Port & Co.  | 1920s | ?     | Waroona       |
| Bunnings 'Preston Valley Sawmills'                      | 1921  | 1925  | Yabberup      |
| Collie Land & Timber No. 1 (McCluskeys)                 | 1921  | 1925+ | Shotts area   |
| Connell No. 2   | 1924  | 1927  | Collie        |
| Jackson & Rodgers                                       | 1925  | 1926  | Boyanup       |
| Collie Land & Timber No. 2                              | 1925  | 1927  | Shotts area   |
| Mumballup Timber Syndicate                              | 1925  | 1929  | Mumballup     |
| Collie Land & Timber No. 3 (1928), Douglas Jones (1933) | 1928  | 1960+ | Harris River  |
| Worsley Timber No. 1                                    | 1928  | ?     | Worsley       |
| Worsley Timber No. 2                                    | 1928  | ?     | Worsley       |

## APPENDIX 8

## Early sawmills in Blackwood District

| SAWMILL OWNER(S)  | OPENED | CLOSED     | LOCATION        |
|---|--------|------------|-----------------|
| <b>Big mills (&gt;7000 m<sup>3</sup>/year output)</b>   |        |            |                 |
| Westralian Jarrah Forests Co. (1898), WA Timber Corporation (1899)                                | 1898   | 1926       | Greenbushes     |
| Jarrah Wood & Sawmills Co. (1899); Millars (1902)   | 1899   | 1983       | Jarrahwood      |
| Sexton & Drysdale (1906); McLean Bros & Rigg (Vincent), Bunnings (1914) 'Preston Valley Sawmills' | 1906   | 1925       | Naggerup        |
| WA Jarrah Sawmilling Co. (Bartram), Kauri Timber Co. (1912)                                       | 1908   | 1925       | Barrobus        |
| Millars 'East Kirup Mill'   | 1910   | 1928       | Grimwade        |
| Kauri Timber Co.  | 1914   | 1925       | Ellis Creek     |
| Kauri Timber Co. (1925); Douglas Jones (1961), Millars; Bunnings (1983)                           | 1925   | Still open | Nannup          |
| <b>Medium size mills (3500 m<sup>3</sup> - 7000 m<sup>3</sup>/year output)</b>                    |        |            |                 |
| WA Jarrah Timber Co.  | 1883   | 1888       | Harrington      |
| Lyall, McDowell (1902); Bunnings (1905)   | 1894   | 1940       | Argyle          |
| Teesdale-Smith & Timms (1894); Yelverton (1895), Imperial Jarrahwood Corp. (1897)                 | 1894   | 1898       | Donnybrook      |
| Port (1893); Jarrah Timber & Wood Paving Corp. (1898) '24 Mile Mill'                              | 1893   | 1899       | N of Donnybrook |
| Port, Baxter & Prince No. 1 mill  | 1894   | 1902       | Irishtown Road  |
| Baxter & Prince   | 1894   | 1896       | Argyle Block    |



Appendix 8 (continued)

|  |      |        |                      |
|--|------|--------|----------------------|
| Baxter & Prince No. 2 mill   | 1896 | 1902   | Irishtown Road       |
| Baxter & Prince (Preston Timber Co. [1899], WA Jarrah Sawmilling Co. [1906]) | 1899 | 1909   | Kirup                |
| Baxter & Prince spot mills (2)   | 1902 | 1906 ? | Donnybrook Block     |
| Millars  | 1908 | 1910   | Kirup                |
| Adelaide Timber Co.  | 1908 | 1987   | Wilga                |
| Swan Sawmills (Fergusons)  | 1914 | 1921   | Lowden               |
| Swan Sawmills [1920]; Millars [1923]   | 1920 | 1929   | Claymore             |
| Lewis & Reid   | 1921 | 1929+  | Mullalyup            |
| Sussex Timber Co. (Nicholson)  | 1923 | 1929+  | Dellerton            |
| Timber Corporation   | 1926 | 1931   | Woop Woop            |
| <b>Small mills (&lt;3500 m<sup>3</sup>/year output)</b>                      |      |        |                      |
| Baxter   | 1895 | 1899   | 5 km S of Donnybrook |
| Koetze   | 1895 | 1896   | Bridgetown           |
| J Scott  | 1896 | 1900   | Hester               |
| Jarrah Timber & Wood Paving Corp. (Port)                                     | 1897 | 1900   | Donnybrook           |
| Imperial Jarrah Wood Corp. (Yelverton) [1898]; Millars [1902]                | 1898 | 1903   | Newlands             |
| Adelaide Timber Co.  | 1899 | 1907   | North Greenbushes    |
| Sexton & Drysdale  | 1905 | 1906   | Queenwood            |
| Hodder & Staughton   | 1901 | ?      | S of Boyanup         |
| Plewright & Mann   | 1905 | 1907   | Balingup             |
| Adelaide Timber Co.  | 1907 | 1908   | East Greenbushes     |
| Donnybrook Sawmills  | 1914 | 1919   | Brookhampton         |
| Mitchell & Ryan  | 1916 | 1922+  | Jayes Road           |
| Martin   | 1918 | 1922+  | Queenwood            |
| Connell  | 1918 | 1920   | Hester               |
| Griffith   | 1919 | 1922   | Donnybrook           |
| Machin   | 1919 | ?      | Bridgetown           |
| Grist, Nicholas & Co.  | 1920 | ?      | Donnybrook           |
| Smith  | 1920 | 1921   | Barrabup             |
| Bunnings 'Preston Valley Sawmills'   | 1920 | 1925   | Lowden               |
| Holdsworth   | 1920 | 1929+  | Hester               |
| Thompson   | 1921 | 1922   | Argyle               |
| Whistler Bros  | 1921 | 1927   | Dinninup             |
| Jenkins  | 1922 | 1930+  | Balingup             |
| Colsen   | 1926 | ?      | Nannup               |

## APPENDIX 9

Early sawmills in South West Capes District.

| SAWMILL OWNER(S)  | OPENED | CLOSED     | LOCATION         |
|---|--------|------------|------------------|
| <b>Big mills (&gt;7000 m<sup>3</sup>/year output)</b>   |        |            |                  |
| West Australian Jarrah Timber Co.   | 1870   | 1878       | Lockeville       |
| M C Davies  | 1899   | 1913       | Jarraldene       |
| <b>Medium sized mills (3500 m<sup>3</sup> - 7000 m<sup>3</sup>/year output)</b>                 |        |            |                  |
| M C Davies  | 1882   | 1901       | Karridale        |
| West Australian Jarrah Timber Co.   | 1883   | 1888       | Goodwood         |
| M C Davies  | 1886   | 1910       | Boranup          |
| Forests Department (tuart mill)   | 1920   | 1930       | Ludlow           |
| WA Jarrah Forests 'Pilgrims Mill' [1924]; Adelaide Timber Co. [1929]; Worsley Timber Co. [1984] | 1924   | Still open | Witchcliffe      |
| <b>Small mills (&lt;3500 m<sup>3</sup>/year output)</b>   |        |            |                  |
| H J Yelverton   | 1858   | 1864       | Quindalup        |
| H J Yelverton [1864]; Imperial Jarrah Wood Corp. [1897]   | 1864   | 1900       | Station Gully    |
| M C Davies  | 1881   | 1882       | Coodardup        |
| M C Davies (tuart mill)   | 1881   | 1882+      | Capel            |
| Imperial Jarrah Wood Corp. (1900); Millars [1902]   | 1900   | 1906       | W of Treeton     |
| Payne   | 1918   | 1919       | Capel            |
| Farley  | 1919   | 1922       | Capel            |
| Grist & Nicholas  | 1921   | ?          | Goodwood Road    |
| Margaret River Timber Co.   | 1923   | 1926+      | Margaret River   |
| Bonola  | 1925   | 1926       | Alexandra Bridge |
| Scott   | 1926   | 1929+      | Capel            |
| Busselton Sawmills  | 1927   | 1929+      | Yallingup        |

## APPENDIX 10

Early sawmills in Manjimup District.

| SAWMILL OWNER(S)  | OPENED      | CLOSED     | LOCATION       |
|---|-------------|------------|----------------|
| <b>Big mills (&gt;7000 m<sup>3</sup>/year output)</b>                           |             |            |                |
| Lvall & Drysdale [1911]; Wilgarrup K & J Co [Millars] [1912]; Bunnings [1983]   | 1911        | ?          | Jardee         |
| State Sawmills [1912]; Hawker Siddeley [1961]; Bunnings [1970]                  | 1912        | Still open | Deanmill       |
| WA Timber Corporation [1921]; Millars [1931]                                    | 1921        | 1983       | Palgarup       |
| <b>Medium sized mills (3500 m<sup>3</sup> - 7000 m<sup>3</sup>/year output)</b> |             |            |                |
| Wheatley [1910]; Bethell [1912]   | 1910        | 1917       | Donnelly River |
| Lewis & Reid [1923]; Bunnings [1925]  | 1923        | 1948       | Yornup         |
| Australian Lumber Co.   | 1924        | 1927       | Alco           |
| <b>Small mills (&lt;3500 m<sup>3</sup>/year output)</b>                         |             |            |                |
| Nelson Co-op Soc.   | 1913        | ?          | Palgarup       |
| Machin  | 1918        | 1922+      | Glentulloch    |
| Smith   | early 1900s | 1916       | Winneup        |



## APPENDIX 11

## Early sawmills in Pemberton District

| SAWMILL OWNER(S)  | OPENED | CLOSED     | LOCATION    |
|---|--------|------------|-------------|
| <b>Big mills (&gt;7000 m<sup>3</sup>/year output)</b>                           |        |            |             |
| State Sawmills No. 2 & 3; Hawker Siddeley (1961);<br>Bunnings (1970)            | 1914   | Still open | Pemberton   |
| <b>Medium sized mills (3500 m<sup>3</sup> - 7000 m<sup>3</sup>/year output)</b> |        |            |             |
| Nil   |        |            |             |
| <b>Small mills (&lt;3500 m<sup>3</sup>/year output)</b>                         |        |            |             |
| State Sawmills (spot mill)  | 1913   | 1914       | Pemberton   |
| Carrig  | 1924   | 1926+      | Northcliffe |

## APPENDIX 12

## Early sawmills in Walpole District

| SAWMILL OWNER(S)  | OPENED | CLOSED | LOCATION  |
|---|--------|--------|-----------|
| <b>Medium sized mills (3500 m<sup>3</sup> - 7000 m<sup>3</sup>/year output)</b> |        |        |           |
| Millars   | 1896   | 1905   | Scotsdale |
| <b>Small mills (&lt;3500 m<sup>3</sup>/year output)</b>                         |        |        |           |
| Keith   | 1910   | 1922+  | Hay River |
| Saw   | 1919   | 1922+  | Bow River |

## APPENDIX 13

## Early sawmills in Albany District

| SAWMILL OWNER(S)  | OPENED | CLOSED | LOCATION     |
|---|--------|--------|--------------|
| <b>Big mills (&gt;7000 m<sup>3</sup>/year output)</b>                           |        |        |              |
| Millars   | 1896   | 1905   | Denmark      |
| <b>Medium sized mills (3500 m<sup>3</sup> - 7000 m<sup>3</sup>/year output)</b> |        |        |              |
| Nil   |        |        |              |
| <b>Small mills (&lt;3500 m<sup>3</sup>/year output)</b>                         |        |        |              |
| Egerton-Warburton   | 1880   | ?      | King River   |
| Millars   | 1884   | 1888   | Torbay       |
| Millars   | 1889   | 1890   | Albany       |
| Millars   | 1890   | 1893   | Torbay       |
| Millars   | 1895   | 1896   | Denmark      |
| Douglas   | 1912   | 1922+  | Denmark      |
| Denmark Timber Co.  | 1916   | 1920   | Denmark      |
| Floy  | 1918   | 1923   | Ferry Inlet  |
| Harper  | 1918   | 1922+  | Albany       |
| Hawkins   | 1919   | 1922+  | Porongurup   |
| Bennetts, Stokes  | 1919   | 1922   | Gledhow      |
| Groth & Adams   | 1920   | 1922   | Marbellup    |
| Douglas Bros  | 1921   | ?      | Kalgan River |
| Steele  | 1921   | 1922   | Albany       |
| Forte   | 1921   | 1922   | Marbellup    |