NATIVE T·R·E·E·S of DRYANDRA and NEARBY DISTRICTS

by
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Ken Wallace

Introduction

Dryandra State Forest is about 20 kilometres to the north-west of Narrogin (Figure 1).

While plantations of brown mallet in the forest support a local timber industry, nature conservation is the area's primary value.

Dryandra contains the largest area of native woodlands on the western edge of the wheatbelt, and it provides habitat for a number of rare animals including the numbat.

Trees described in this guide are those most commonly found in Dryandra and the area shaded in Figure 1.

Further Reading

The books and articles listed below provide further information on the trees described in this key.

BENNETT, E.M. (1982). A guide to the Western Australian she-oaks (Allocasuarina and Casuarina species). *The Western Australian Naturalist 15* (4): 1-77.

BLACKALL, W.E. and GRIEVE, B.J. *How to Know Western Australian Wildflowers, Parts I-IV*. University of Western Australia Press, Nedlands.

BROOKER, M.I.H. and KLEINIG, D.A. (1990). *Field Guide to Eucalypts, Volume 2 (South-Western and Southern Australia)*. Inkata Press Pty Ltd, Melbourne.

CHIPPENDALE, G.M. (1973). *Eucalypts of the Western Australian Goldfields (and adjacent wheatbelt)*. Australian Government Publishing Service, Canberra.

ERICKSON, R., GEORGE, A.S., MARCHANT, N.G., and MORCOMBE, M.K. (1973). *Flowers and Plants of Western Australia*. Reed, Frenchs Forest.

GARDNER, C.A. (1979). *Eucalypts of Western Australia*. Western Australian Department of Agriculture Bulletin 4013.

GEORGE, A.S. (1984). *An Introduction to the Proteaceae of Western Australia*. Kangaroo Press, Kenthurst.

GEORGE, A.S. (n.d.). *The Banksia Book*. Kangaroo Press in association with the Society for Growing Australian Plants (NSW) Ltd.

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continued

b) small trees which rarely grow in white or grey sand and which never flower in summer. Flowers produce seed pods which may be found on the ground after seeds have been released
.....**various species of wattles** (*Acacia species*)
Figure 34

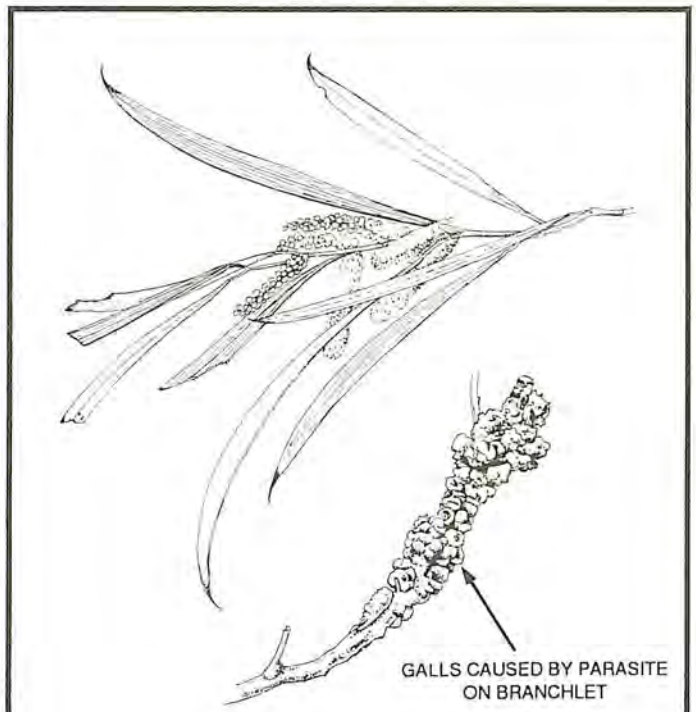


Figure 34

One of the more common is jam (*Acacia acuminata*), which can be separated from the others by the presence of a whitish, furry edge along the leaf - you will have to look very closely to see this, and it is more obvious on new leaves.

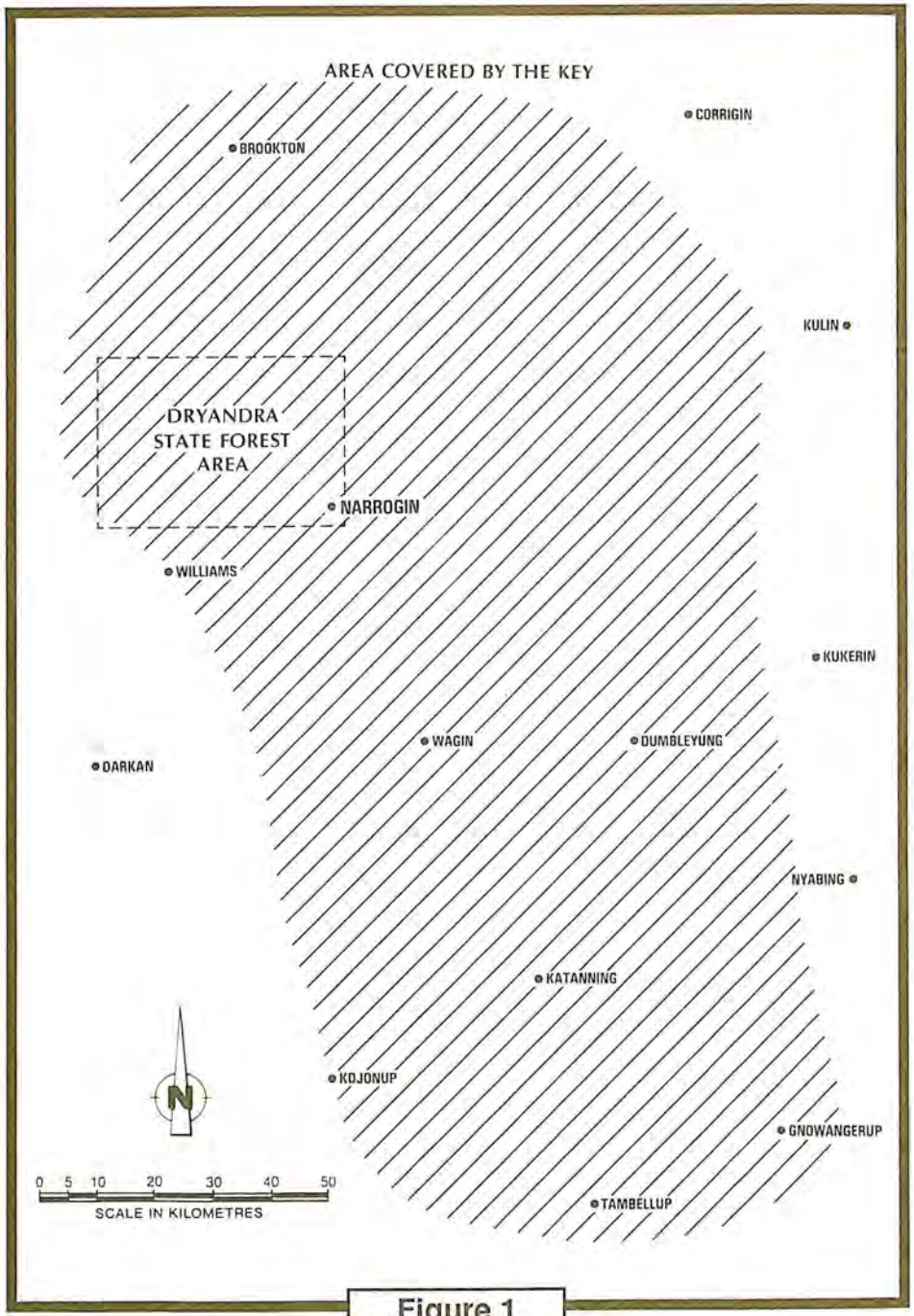


Figure 1

In an area with every variation in form between shrubs, trees and mallees, it is necessary to define what is meant by these terms.

For our purposes, I have used the following definitions.

(a) A **shrub** is formed by a series of branches which divide from the main stem very close to or at ground level (**Figure 2**).

(b) A **mallee** is a type of eucalypt (a plant whose crushed leaves smell of eucalyptus oil, sometimes called gums) which sends up many stems from an underground mallee root (**Figure 3**).

In fact the mallee root is a specialised part of the stem, called a lignotuber, which may be over a hundred years old - but that is another story!

A number of eucalypts grow as both trees and mallees.

(c) A **tree** has a well defined trunk or main stem which generally does not branch for at least 0.5 metres above the ground (**Figure 4**).

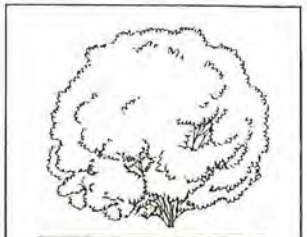


Figure 2

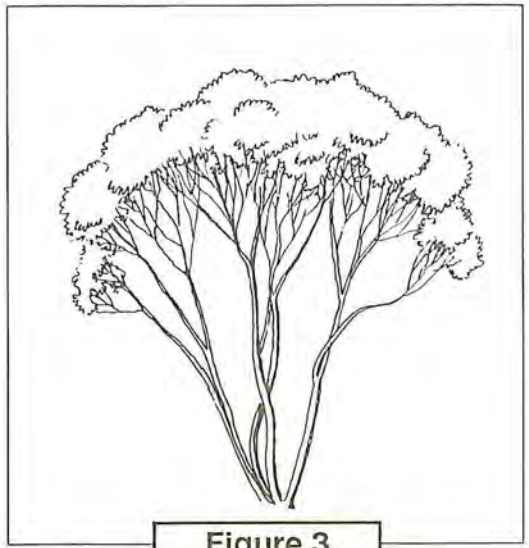


Figure 3

The KEY

29. a) small tree growing in grey or white sand, flowers during summer, produces fruit with papery wings .....Christmas tree (*Nuytsia floribunda*) **Figure 33**

(continued overleaf)

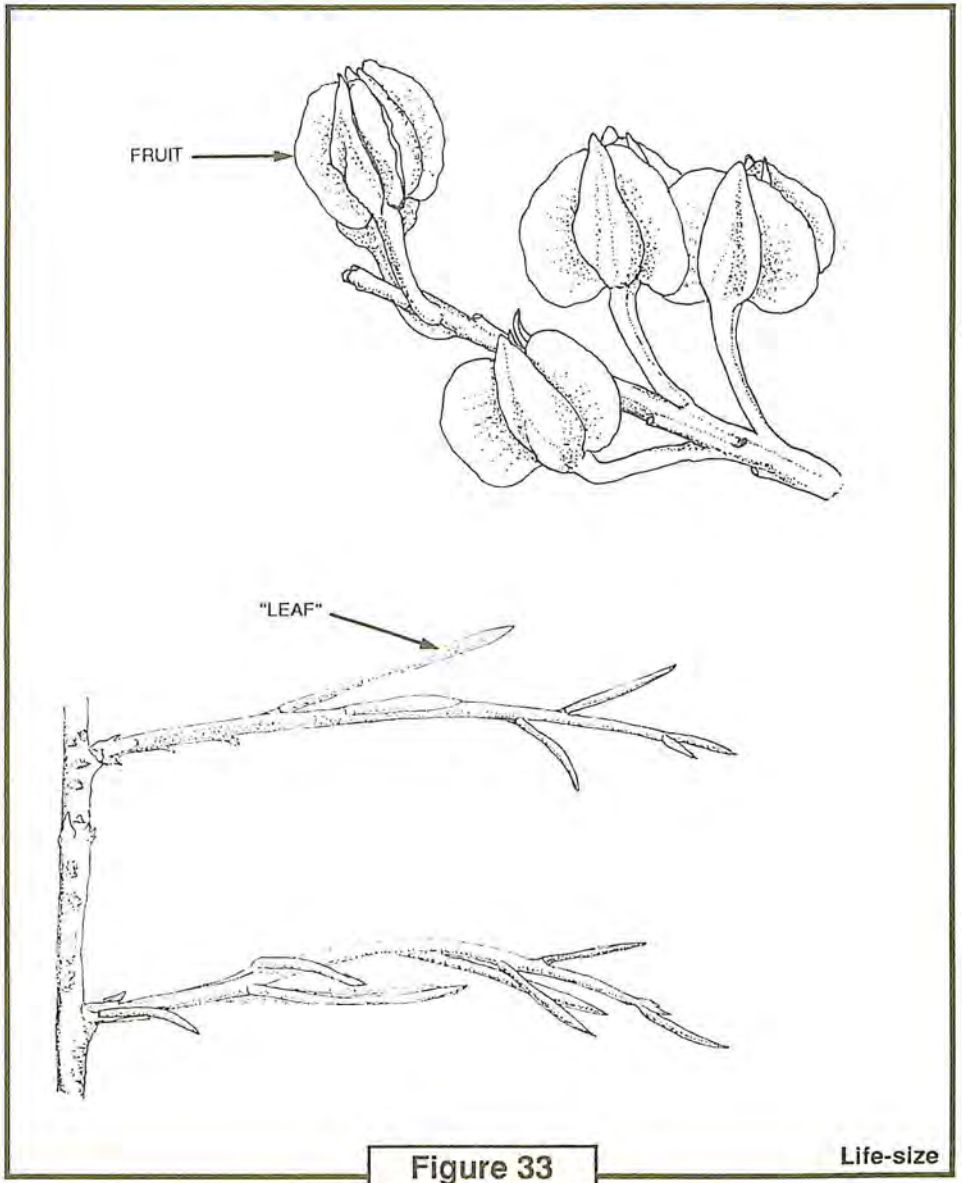


Figure 33

continued

b) plant is not "weeping" .....**quandong** (*Santalum acuminatum*)
Figure 32

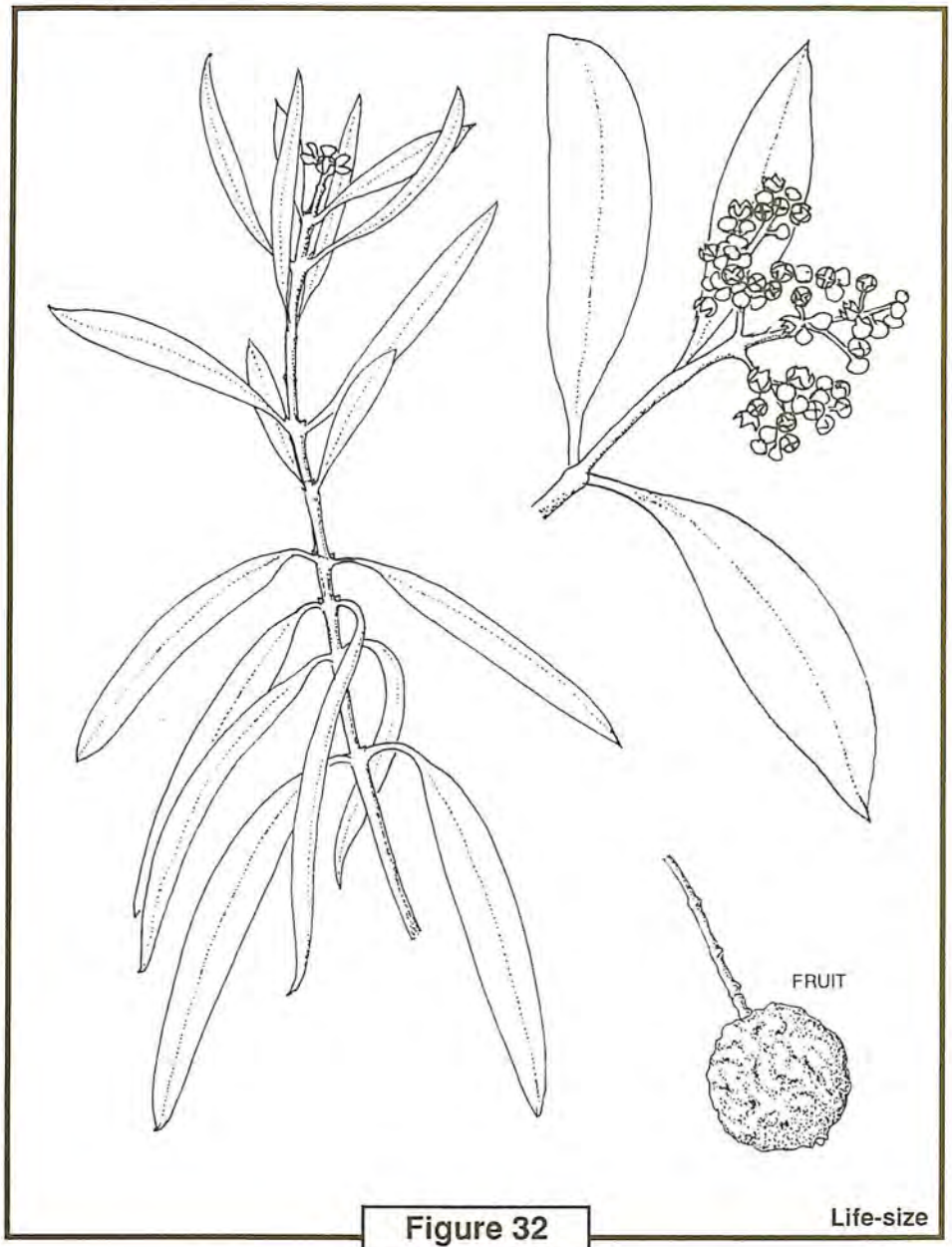


Figure 32

NATIVE TREES OF DRYANDRA AND NEARBY DISTRICTS

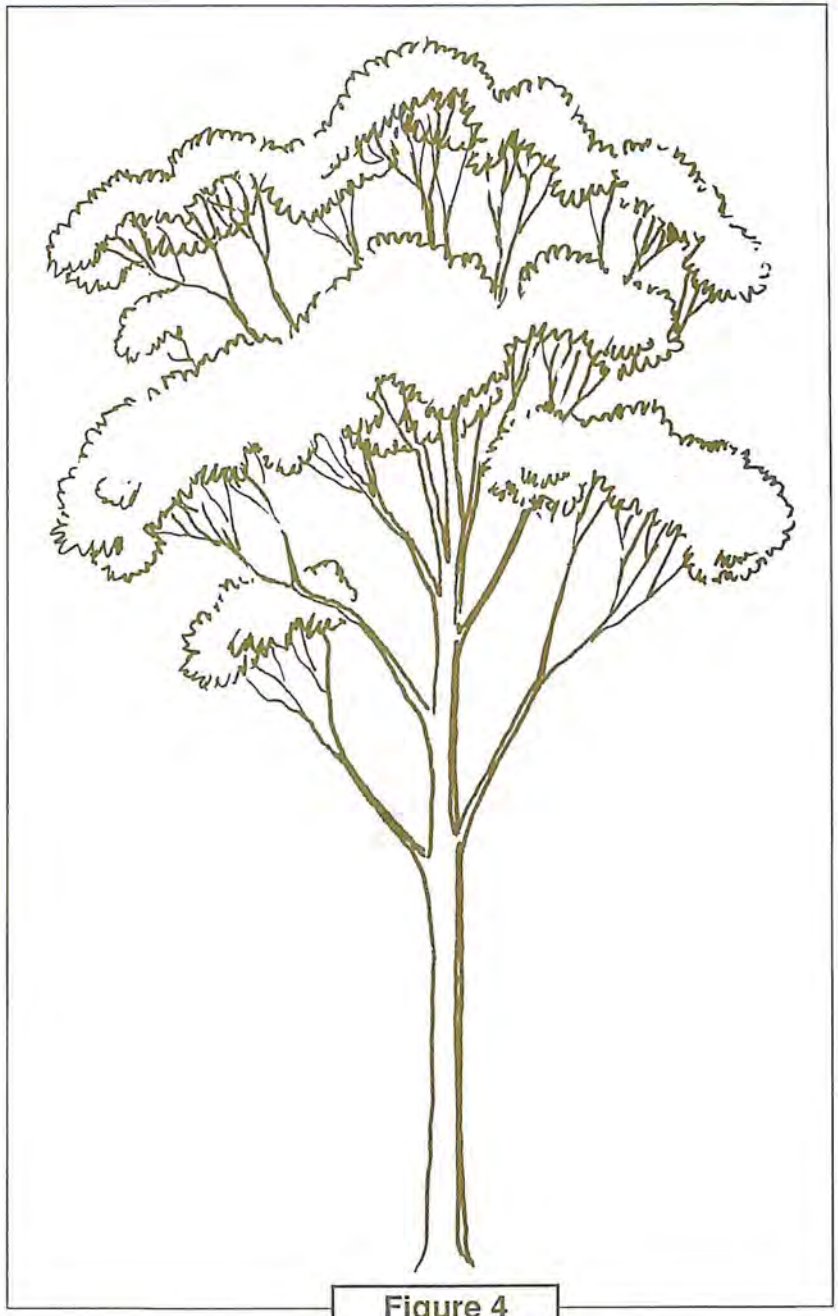


Figure 4

Identification

There are many ways to identify plants. Here I have used a key - the most common method - to separate the different tree types.

A key is a set of alternative questions. Only one of these alternatives will fit a particular tree or group of trees, and after following a sequence of questions you will arrive at the correct identification for a specific tree. Perhaps the best way to learn the key is to use it to identify a tree you already know.

When using the key, remember to start with question 1 and answer "a" or "b". Your tree will fit one of these choices. Then, follow the directions to other parts of the key and choose the answers which fit the particular tree you are trying to identify. The diagrams will help you to check your identifications.

A few tips before you try the key. Firstly, rough-barked trees have rough, fibrous or flaky bark completely covering the stem between the ground and the first branches. Some trees have rough bark extending along all branches to the foliage. Jarrah (*Eucalyptus marginata*) is a good example of one of these.

Smooth-barked trees, like mature wandoo or white gum (*Eucalyptus wandoo*), may have some flaky bark along the stem, but mostly the stem is smooth to touch.

In many cases the fruit (which contain seed) or flower buds help to identify a tree. Figures 5 to 17 are fruit (or nuts) and flower buds of some trees from the eucalypt group. If the fruit and buds are too high to see, then look on the ground for old ones which have dropped. Be careful if there are two or more different types of trees occurring together - you may mismatch trees, fruit and flower buds!

Finally, identifying the smell of freshly crushed leaves is important in the first part of the key. If leaves are out of reach, then look for fresh leaves which have fallen onto the ground. Even old leaves retain some odour, but be careful - the smell in these is very weak. For those who have not experienced the smell of eucalyptus oil, it is often used in cough lollies and mixtures, and some disinfectants.

The KEY

28. a) plant has a "weeping" habit
.....**weeping quandong** (*Santalum murrayanum*)
Figure 31

(continued overleaf)

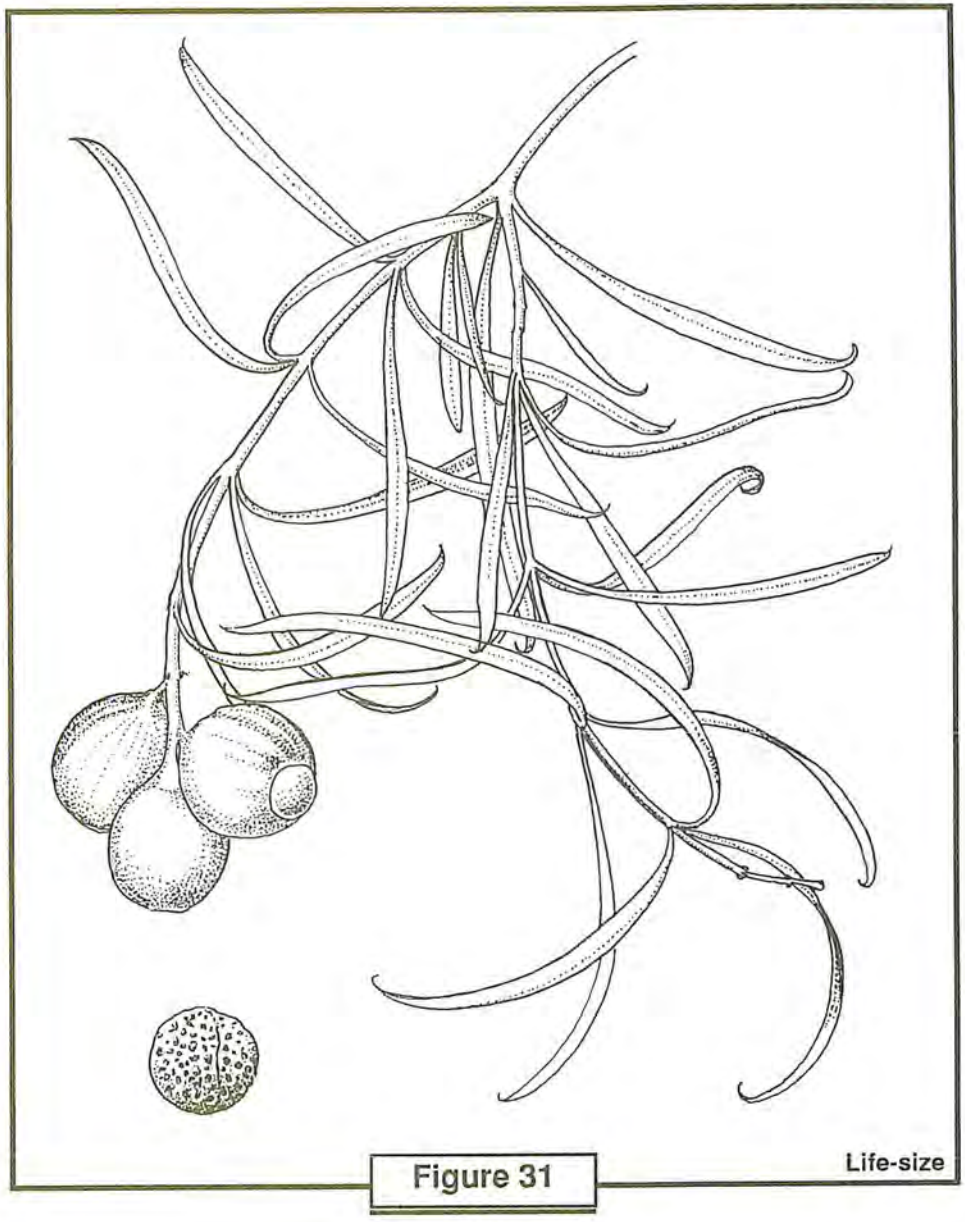


Figure 31 **Life-size**

continued

27. a) fruit (with flesh removed) is a smooth nut
.....**sandalwood** (*Santalum spicatum*)
Figure 30

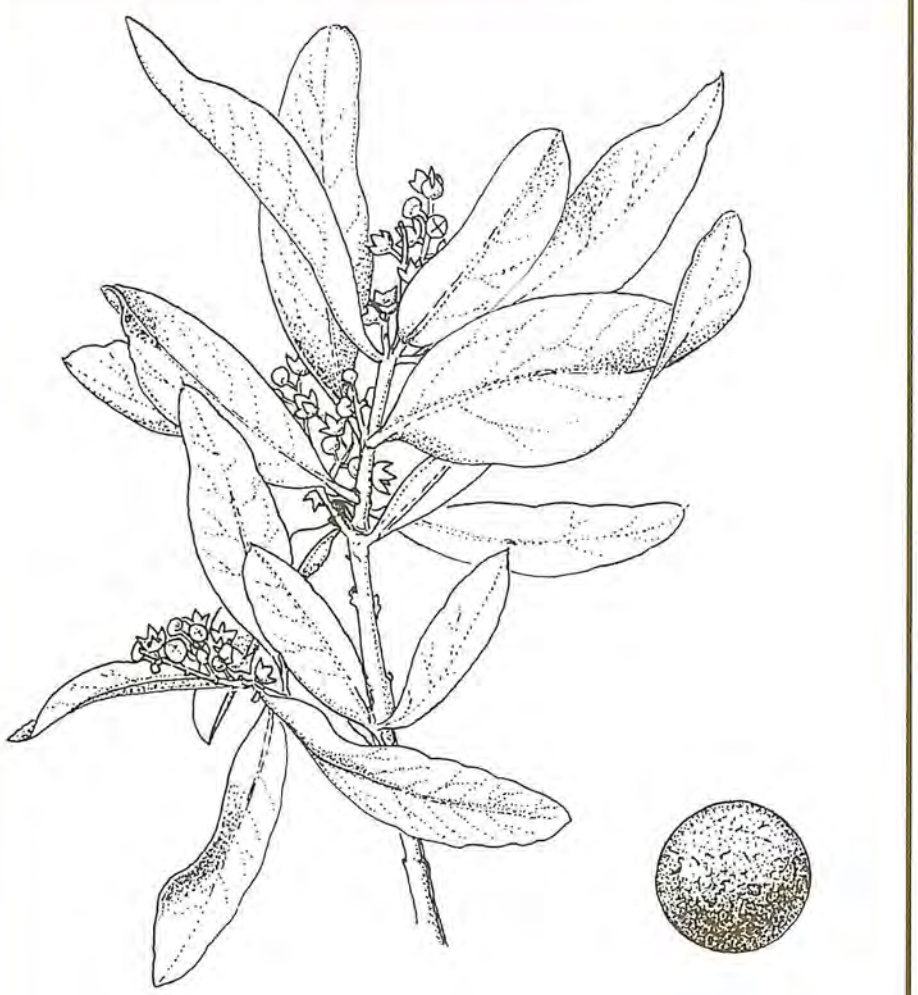


Figure 30 Life-size

b) fruit (with flesh removed) is pitted and rough .....***go to 28.***

The KEY

1. a) the crushed leaves of the tree smell of eucalyptus oil; flower buds with a cap, and fruit bell-like (see Figures 5-17): eucalyptus group .....***go to 2.***
   b) the crushed leaves never smell of eucalyptus oil, although the paperbarks and weeping pittosporum have strongly scented leaves; flower buds do not have a cap .....***go to 14.***

2. a) bark of adult tree is rough (jarrah, marri, york gum, morrel, flooded gum and yate) .....***go to 3.***
   b) bark of adult tree is smooth .....***go to 8.***
   (Note: quite tall, young wandoos have rough bark)

3. a) mature leaves are shiny .....***go to 4.***
   b) mature leaves are dull, sometimes only on one side .....***go to 6.***

4. a) tall, straight-stemmed trees, with the first branches over 2 m from the ground .....***go to 5.***
   b) rarely straight-stemmed, and first branches usually occur less than 2 m from the ground .....**york gum** (*Eucalyptus loxophleba*)
   Figure 5

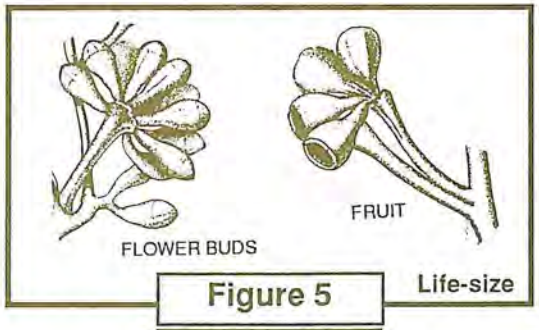


Figure 5 Life-size

The KEY

5. a) fruit prominently bell-shaped, growing only around lakes, clay-pans and water-courses. Found naturally from Wagin southwards
.....**flat topped yate** (*Eucalyptus occidentalis*)
Figure 6

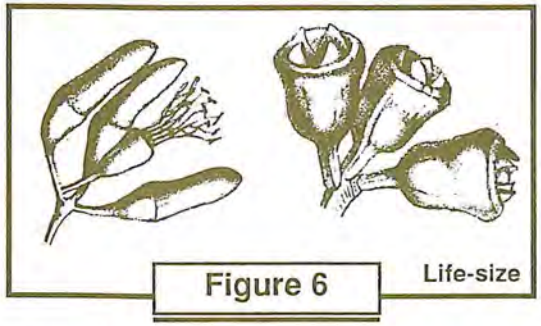


Figure 6 Life-size

b) fruit globular, not growing as above
.....**red morrel** (*Eucalyptus longicornis*)
Figure 7

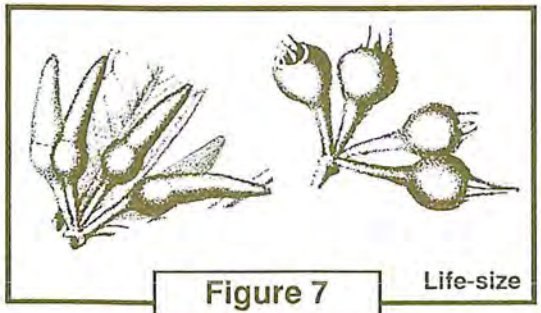


Figure 7 Life-size

NOTE: bud caps are usually shorter in wheatbelt trees.

NATIVE TREES OF DRYANDRA AND NEARBY DISTRICTS

The KEY

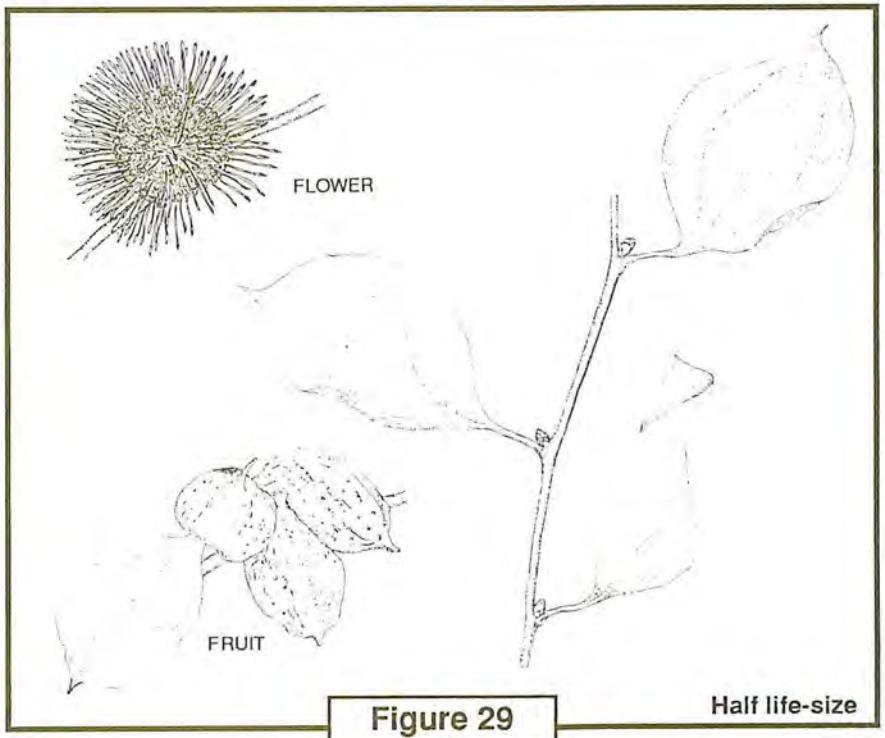


Figure 29 Half life-size

26. a) fruit is a rounded nut, often found on the ground under the tree
.....***go to 27.***
b) fruit has papery wings or a long, thin pod .....***go to 29.***

continued

24. a) fruit (nut) is woody, over 1.5 cm long and not spherical .....***go to 25.***
b) fruit is not as above .....***go to 26.***

25. a) fruit is pear-shaped, about 8 cm long; tree grows in yellow sand
.....**woody pear** (*Xylomelum angustifolium*)
Figure 28

Figure 28 Half life-size

b) fruit is not pear-shaped, less than 8 cm long
.....**various hakea species, e.g. sea urchin hakea** (*Hakea petiolaris*)
Figure 29
(see overleaf)

continued

6. a) fruit (nuts) of tree are very large, more than 2 cm long
.....**marri** (*Eucalyptus calophylla*)
Figure 8

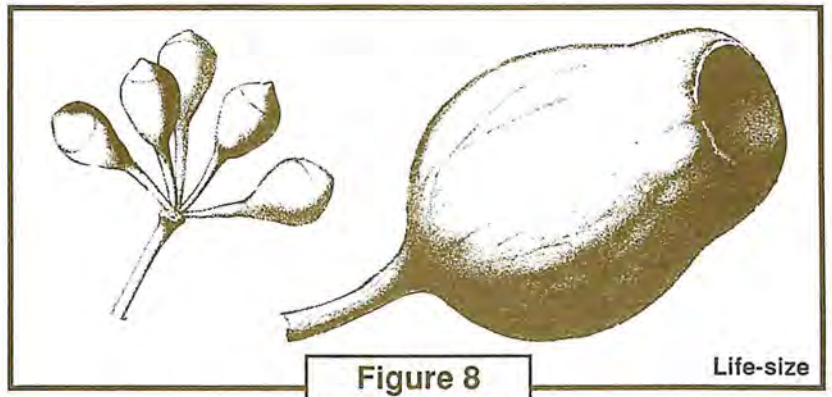


Figure 8 Life-size

b) fruit less than 2 cm long .....***go to 7.***

7. a) tree found on or near water-courses in loamy soil
.....**flooded gum** (*Eucalyptus rudis*)
Figure 9

Figure 9 Life-size

b) tree grows in sandy or gravelly soils on upper slopes and plateaux
.....**jarrah** (*Eucalyptus marginata*)
Figure 10
(see overleaf)

The KEY

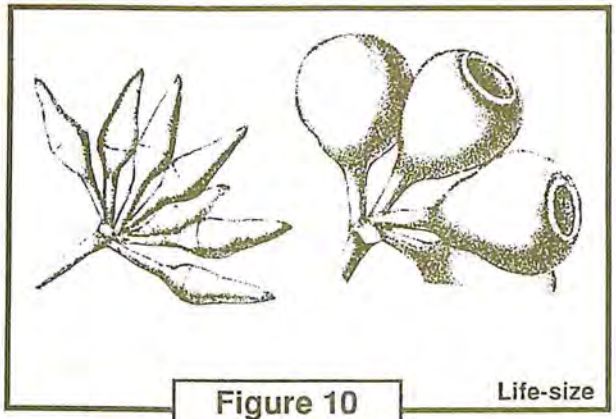


Figure 10 Life-size

8. a) very straight-stemmed trees growing on or near laterite (gravel) or ironstone breakaways and ridges ..... ***go to 9.***
   b) not as above ..... ***go to 11.***

9. a) mature leaves shiny .....**brown mallet** (*Eucalyptus astringens*)
   Figure 11

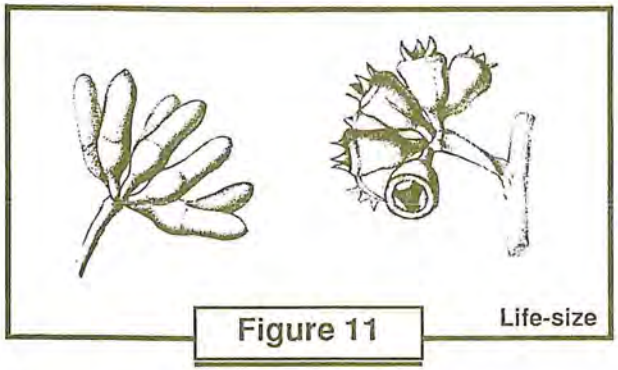


Figure 11 Life-size

   b) mature leaves dull ..... ***go to 10.***

The KEY

23. a) crushed leaves have a sweet, scented smell, tree grows on loamy soils .....**weeping pittosporum** (*Pittosporum phylliraeoides*)
   Figure 27

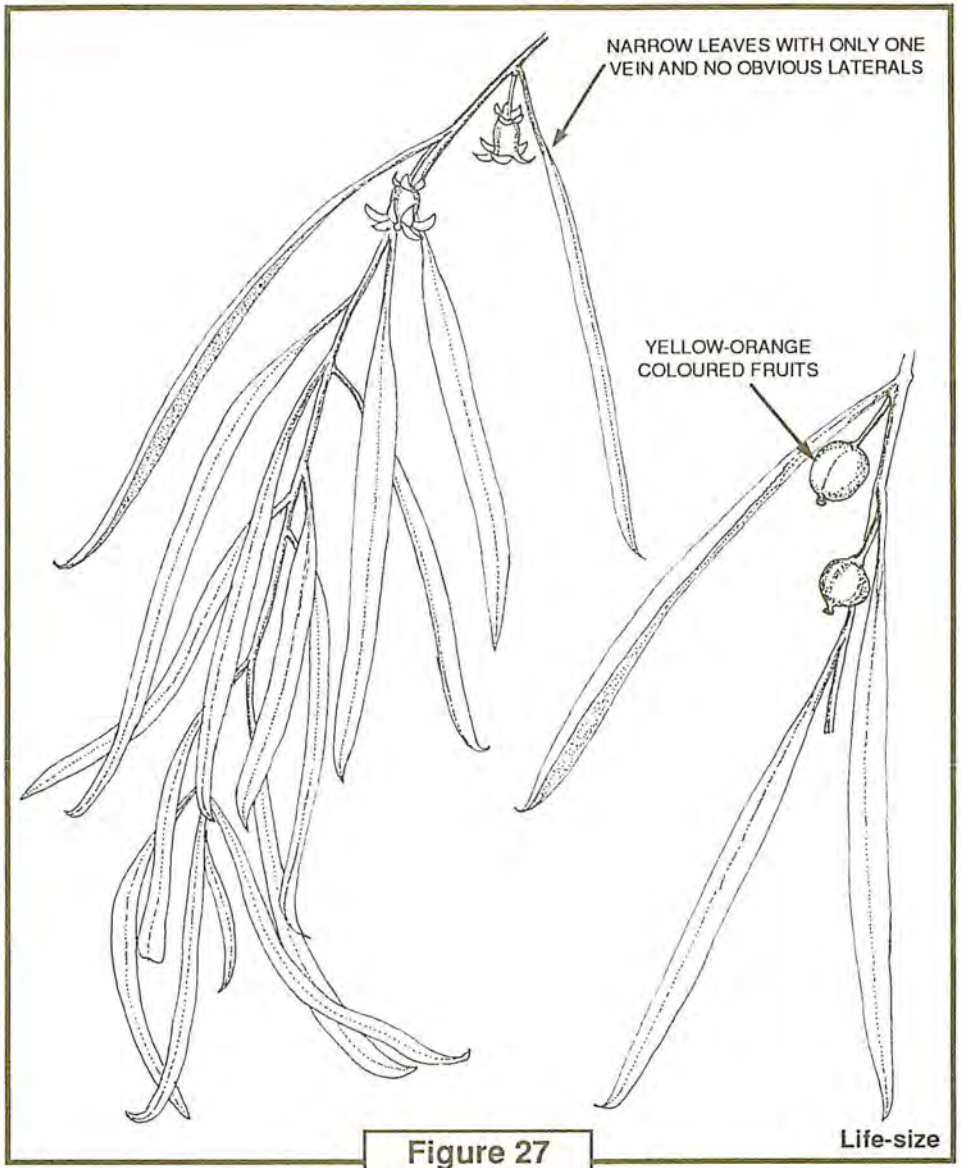


Figure 27 Life-size

   b) crushed leaves are not sweet-scented ..... ***go to 24.***

continued

b) underside of leaves are as pictured here:

flowering spikes are yellow, flowers are hairless
.....**slender banksia** (*Banksia attenuata*)
Figure 26

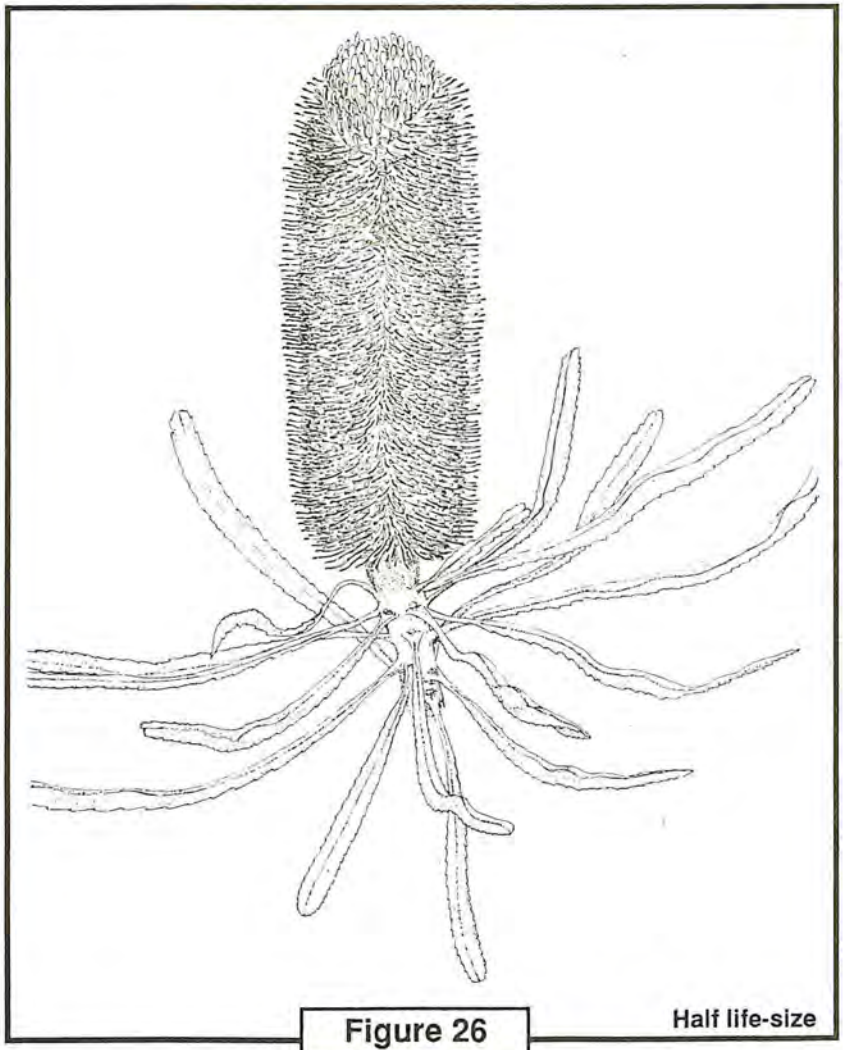


Figure 26 **Half life-size**

continued

10. a) leaves bluish green, fruit cylindrical ...**blue mallet** (*Eucalyptus gardneri*)
Figure 12

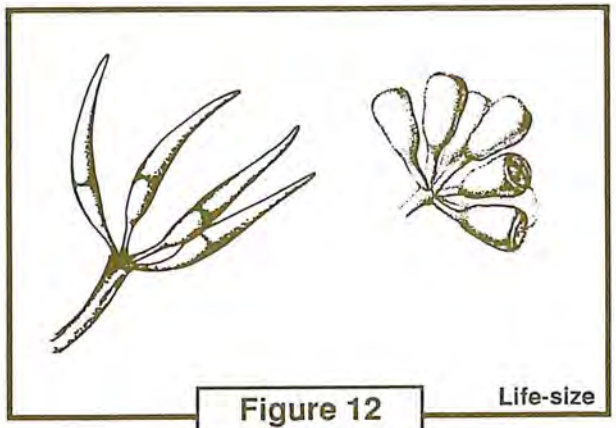


Figure 12 **Life-size**

b) leaves greyish green, fruit squat .....**silver mallet** (*Eucalyptus falcata*)
Figure 13

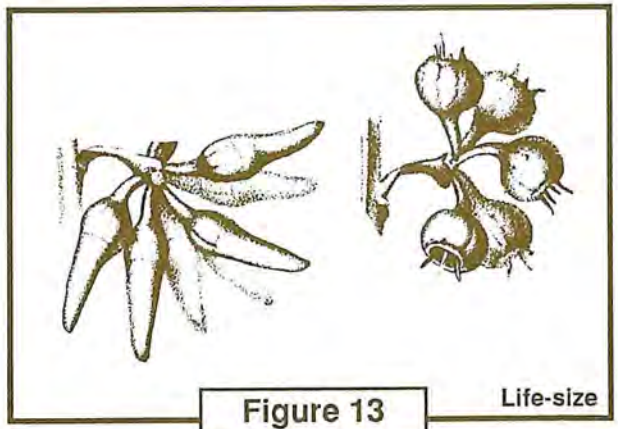


Figure 13 **Life-size**

The KEY

11. a) **m**ature leaves shiny .....**salmon gum** (*Eucalyptus salmonophloia*)
Figure 14

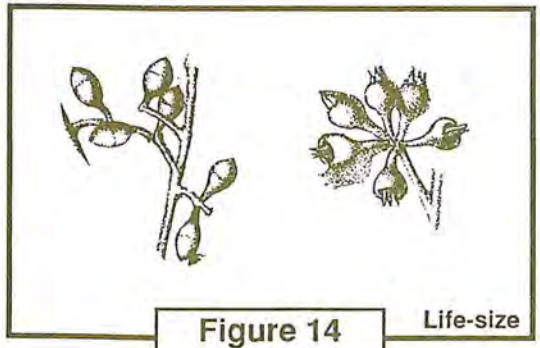


Figure 14 Life-size

b) **m**ature leaves dull .....***go to 12.***

12. a) **b**ark surface powdery (if you rub the bark with your hand, it will be covered by talcum-like powder), usually grows on gravel slopes
.....**powderbark wandoo** (*Eucalyptus accedens*)
Figure 15

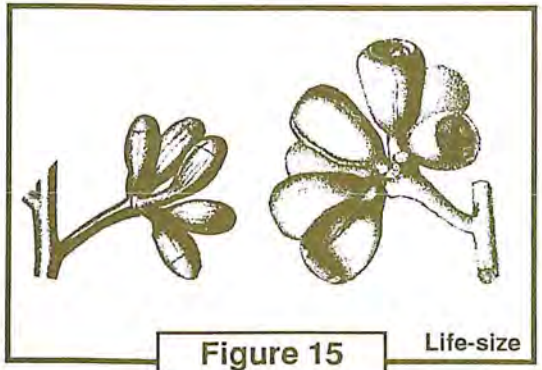


Figure 15 Life-size

b) **b**ark not powdery .....***go to 13.***

The KEY

22. a) **u**nderside of leaves are as pictured here:

flowering spikes are cream and gold, flowers are hairy
.....**acorn banksia** (*Banksia prionotes*)
Figure 25
(continued overleaf)

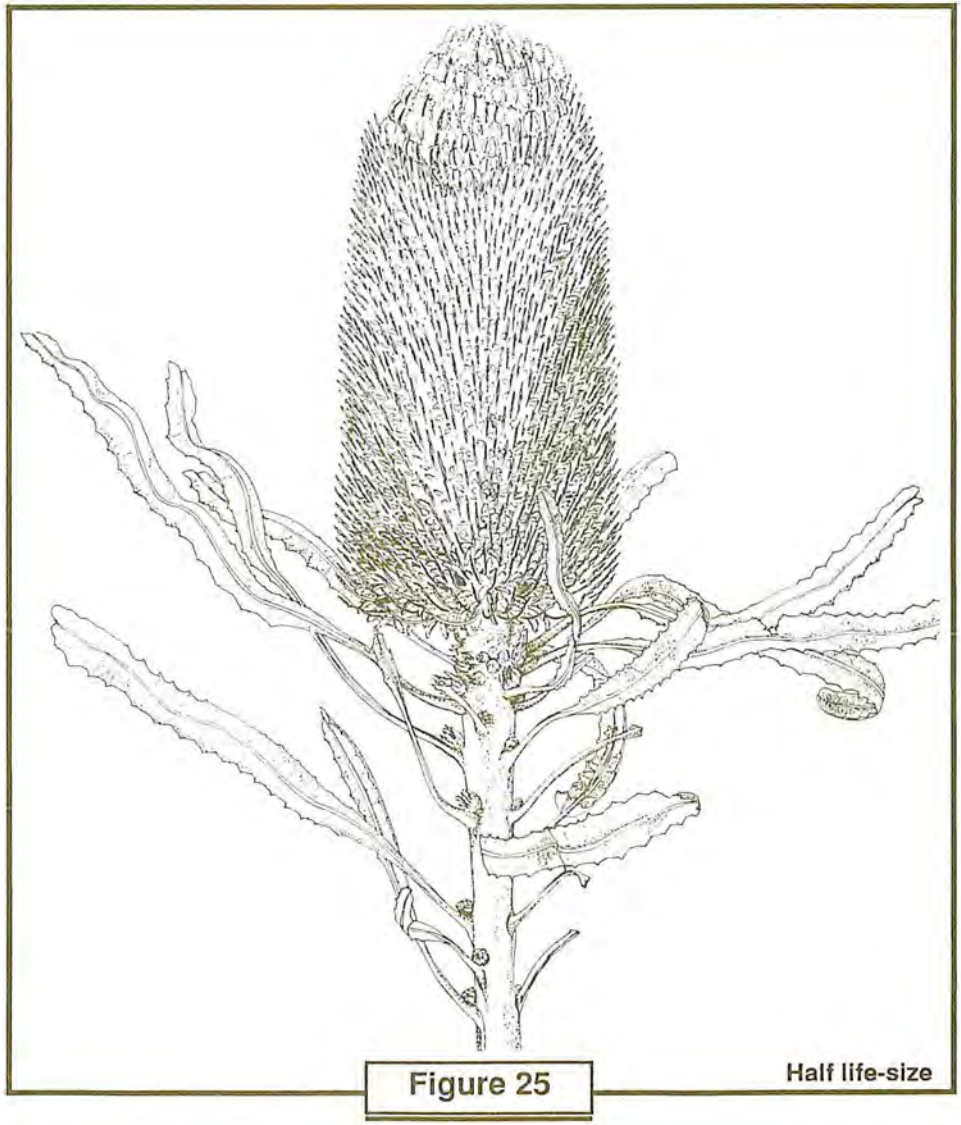


Figure 25 Half life-size

continued

21. a) serrations along the edge of the leaf are very large, reaching to the middle of the leaf; leaf is larger than 3 cm wide
.....**bull banksia** (*Banksia grandis*)
Figure 24

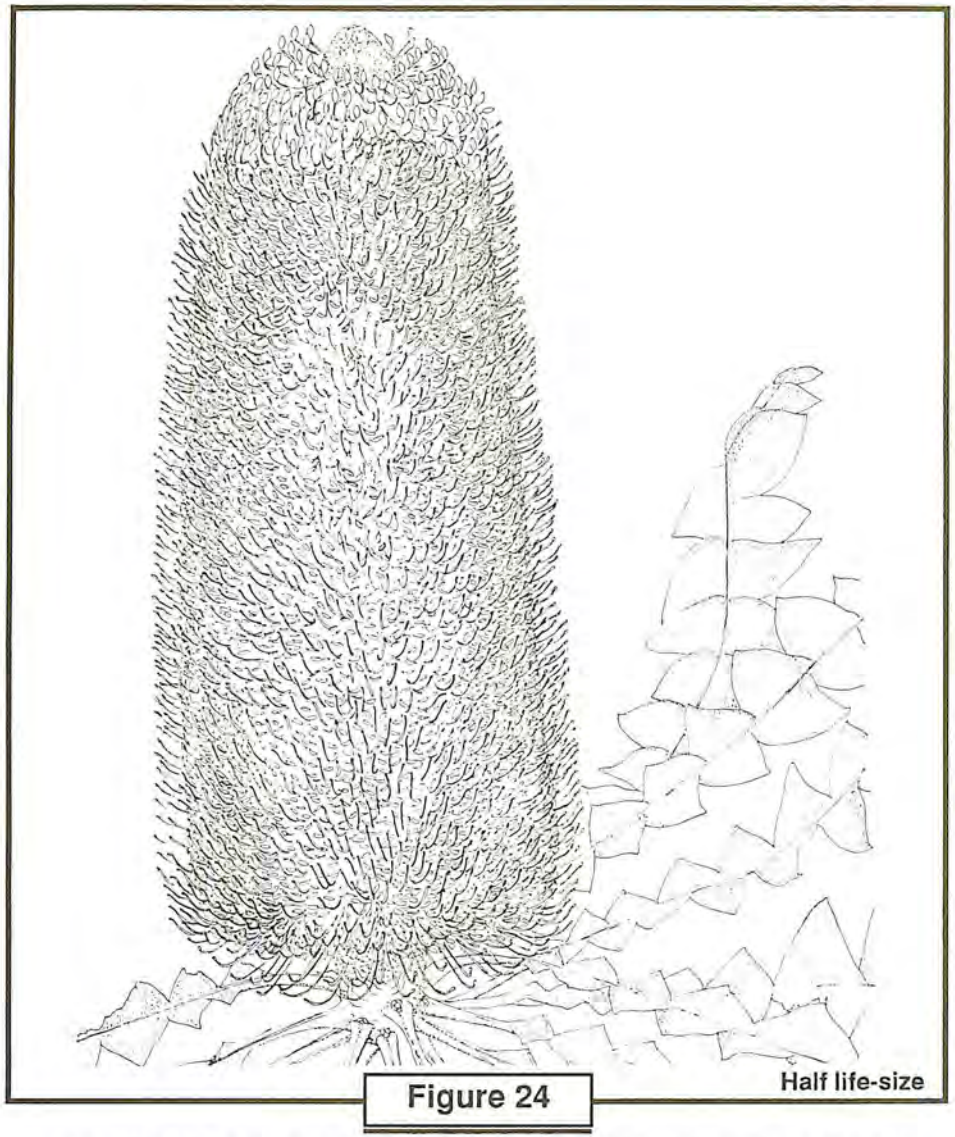


Figure 24 Half life-size

b) serrations do not reach the middle of the leaf and the leaf is less than 3 cm wide .....***go to 22.***

continued

13. a) small tree usually less than 4 m high, generally growing as an occasional tree among scrub on gravel plateaux
.....**Drummond's gum** (*Eucalyptus drummondii*)
Figure 16

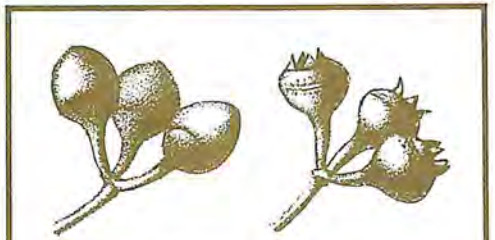


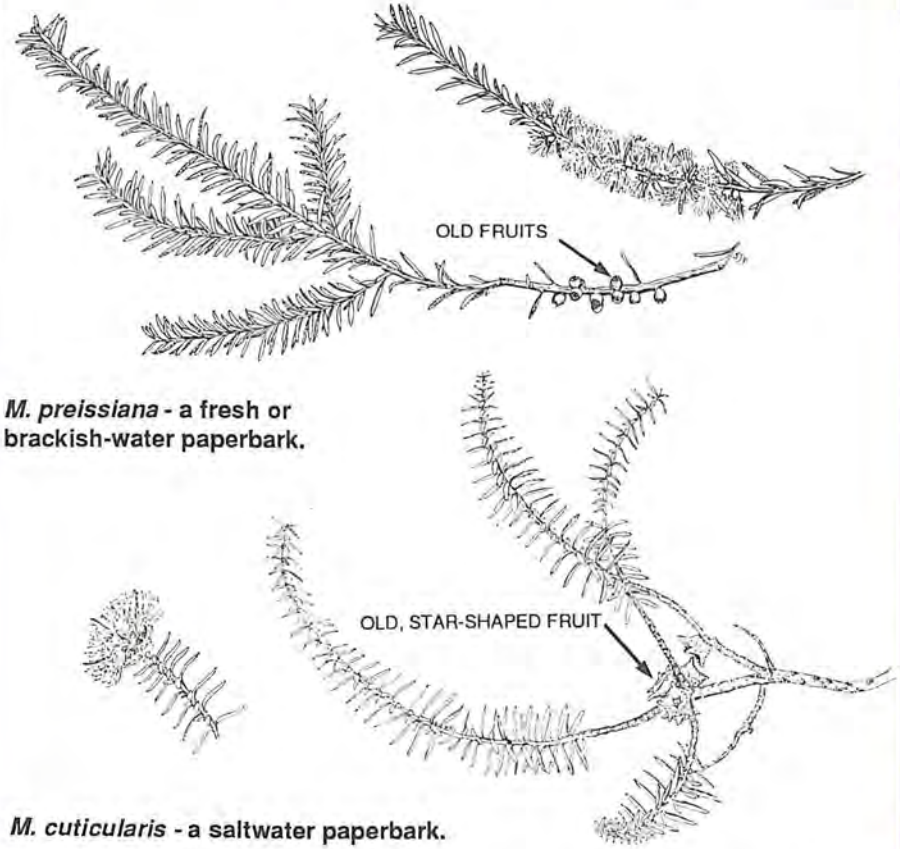
Figure 16 Life-size

b) tree usually greater than 4 metres high, generally growing as a woodland on hill slopes and valley flats ...**wandoo** (*Eucalyptus wandoo*)
Figure 17

Figure 17 Life-size

The KEY

14. a) bark peels in papery strips, tree grows around lakes and large water courses ..... **paperbark** (*Melaleuca* species) **Figure 18**



M. preissiana **- a fresh or brackish-water paperbark.**

M. cuticularis **- a saltwater paperbark.**

Half life-size

Figure 18

NOTE: The needle-leaved fresh or brackish-water paperbark, *Melaleuca rhaphiophylla*, may be found along watercourses in the southern and western part of the area.

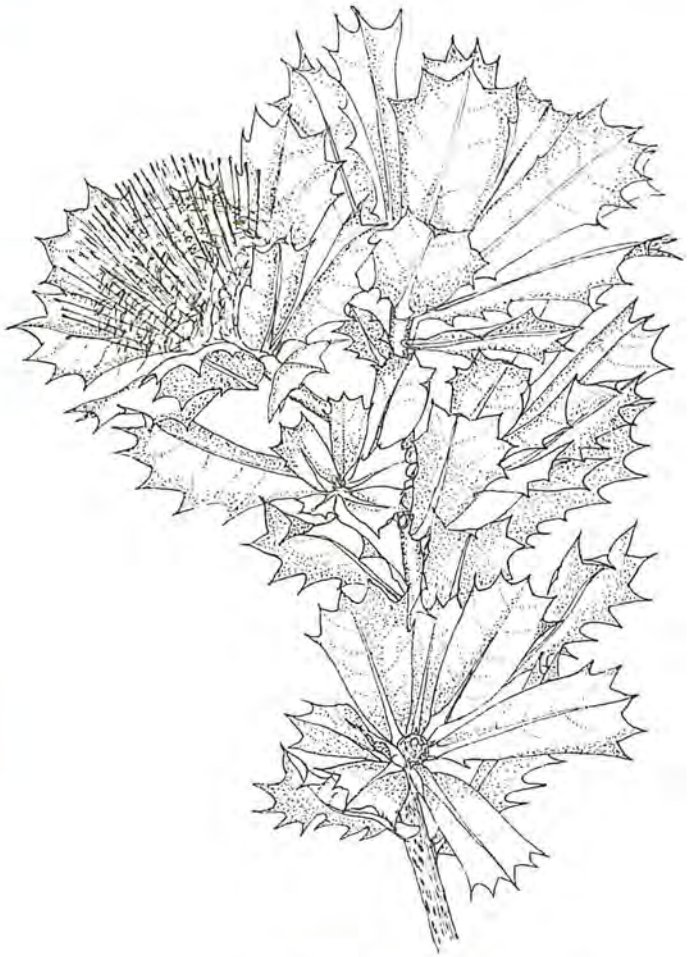
b) bark not papery ..... ***go to 15.***

15. a) leaves needle-like ..... ***go to 16.***
b) leaves flat ..... ***go to 19.***

The KEY

19. a) edges of leaves are toothed or serrated ..... ***go to 20.***
b) edges of leaves are smooth ..... ***go to 23.***

20. a) flower heads are more than 10 cm long (banksias) ..... ***go to 21.***
b) flower heads are less than 5 cm long .... **parrot bush** (*Dryandra sessilis*) **Figure 23**



Life-size

Figure 23

continued

(from previous page)

Flowers are yellow and pea shaped, fruit does not persist on the tree for long after reaching maturity. Usually grows in infertile white or grey sands.....**stinkwood** (*Jacksonia sternbergiana*)
Figure 22

Figure 22 **Half life-size**

continued

16. a) "leaves" (leaf-like branchlets) have joints along their length and fruit (nuts) are a cone about 2 cm long, with more than twenty seeds in each cone .....***go to 17.***

b) leaves not jointed, fruit not a cone, two seeds or less per individual fruit .....***go to 18.***

17. a) tree grows around the edge of lakes, swamps, or major drainage lines, "leaves" rigid, mostly at right angles to branches .....**swamp sheoak** (*Casuarina obesa*)
Figure 19

Figure 19 **Half life-size**

b) tree usually grows higher in the landscape, although sometimes in low-lying sandy areas; "leaves" soft and drooping. As its name suggests, this tree is often found growing in association with granite outcrops .....**rock sheoak** (*Allocasuarina huegeliana*)
Figure 20
(see overleaf)

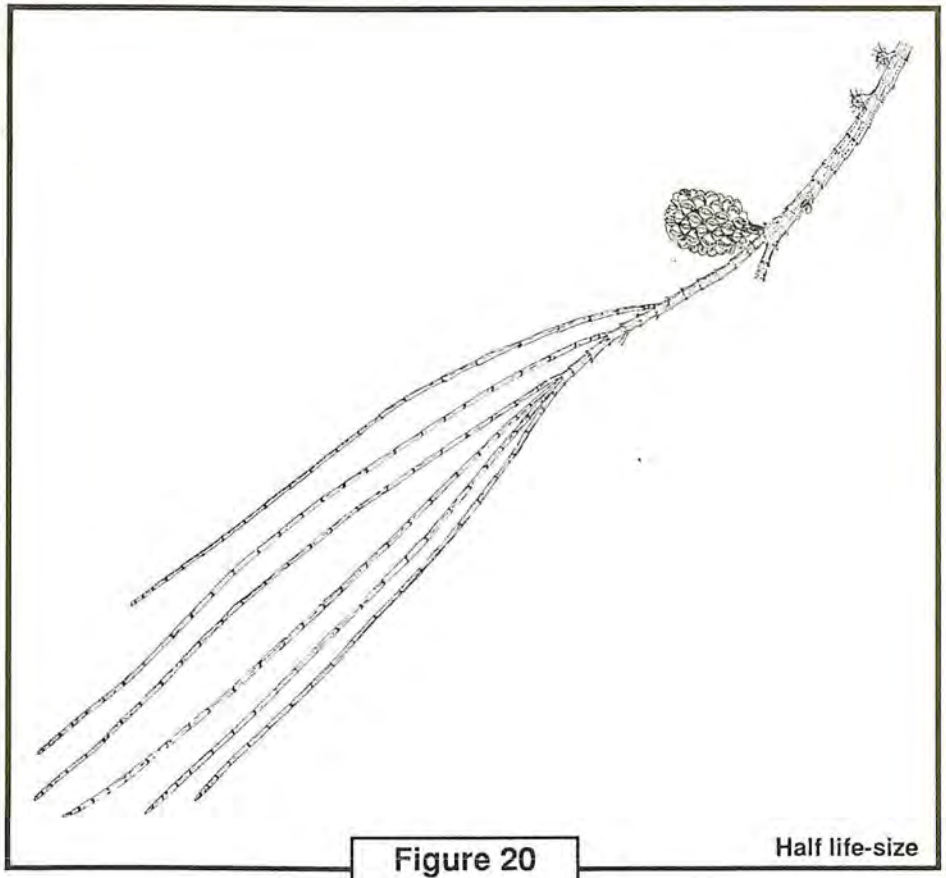


Figure 20

Half life-size

The KEY

18. a) fruits hard and woody, two winged seeds inside each fruit, leaves end in a rigid point. Fruits persist on tree long after flowering is finished .....**needle tree** (*Hakea preissii*)
Figure 21

Figure 21

Life-size

b) fruits thin-walled, two round seeds inside each fruit, leaves end in a soft point.

(continued overleaf)