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INFORMATION SHEET 6

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FORESTS DEPARTMENT WESTERN AUSTRALIA — PRODUCTION, PROTECTION, RECREATION, CONSERVATION

EUCALYPTS

A Simplified Key to 17 W.A. Species

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Eucalyptus is by far the most important genus of Australian forest trees. Its members dominate 95 per cent of our forest area and spread out over much of the remainder of the country.

As would be expected in such a widespread genus, a great range in form is exhibited by members growing under different environmental conditions.

Identification of eucalypts is often not a simple task and a single characteristic is rarely sufficient for the purpose.

Over 600 species and variations have been named. Many different eucalyptus species have similar characteristics, and even the identifying characteristics on one particular tree or trees of the same species can vary: e.g. *E. loxophleba* (York Gum) in the key.

A positive identification can generally result only from the careful consideration of a number of features possessed by an individual tree. The most helpful of these are the general size and form; the nature of the bark on the trunk and branches; the adult leaf characters, including venation and oil dots; juvenile leaf forms; flower colour type and size, shape and structure of buds and fruits. Where naturally-occurring plants are concerned, the geographical location and habitat can be of great assistance in their identification as many species are strictly limited in their distribution.

In response to enquiries received by the Forests Department, this article includes a simple key for identification of 17 of Western Australia's more important species.

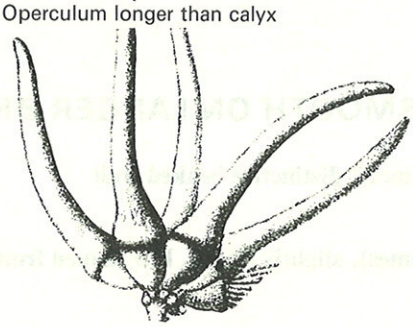
Example for using simplified key:
Assuming we have a tree with a smooth, greyish-white bark, large fruits and exsert valves.

Under the major heading "Bark smooth", the specimen fits into the *colour* of bark category *greyish-white*. The large fruit and exsert valves would then place the specimen into the first of the next two categories, which means that it is *E. megacarpa*, or Bullich.

Explanatory notes

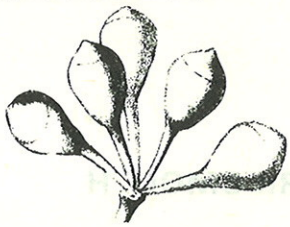
Eucalypt buds consist of the *operculum* which protects the developing stamens and which is eventually shed as these mature; and the *calyx* which develops into the fruit.

Operculum longer than calyx



E. cornuta (Yate)

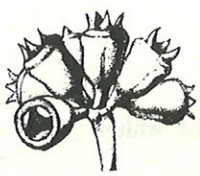
Operculum shorter than calyx



E. calophylla (Marri)

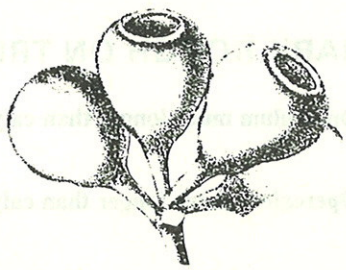
When the seeds are ripe, the valves in the fruit open and the seeds are released. The valves may either be *exsert* or *enclosed*.

Exsert valves



E. astringens (Brown Mallet)

Enclosed valves



E. marginata (Jarrah)

Eucalypts—a simplified key to 17 W.A. species

BARK THICK, ROUGH AND PERSISTENT

Stringy, peeling in long strips

- Operculum much longer than calyx . . . . . *E. marginata* (Jarrah)
- Operculum as long as calyx
  - *Large tree, higher rainfall areas small fruit (¼"–½")* . . . *E. jacksonii* (Red Tingle)
  - *Small tree, coastal sands, low rainfall areas, fruit ¾"–1"* . . . . *E. todtiana* (Coastal Blackbutt or Prickly Bark)

Deep fissures, fibrous but not stringy

- Fruit large (1"–2") . . . . . *E. calophylla* (Marri)
- Fruit usually less than 1" long
  - *Valves exsert* . . . . . *E. gomphocephala* (Tuart)
  - *Valves enclosed*
    - Forest tree, operculum pointed fruit more than ½" long — *E. patens* (Blackbutt)
    - Agricultural tree, operculum rounded, fruit less than ½". Bark usually smooth on small branches. — *E. loxophleba* (York Gum)

BARK SMOOTH

Bronze or pink

- Operculum much longer than calyx
  - *Bark light bronze* . . . . . *E. astringens* (Brown Mallet)
  - *Bark deeper bronze, stem and branches often have corkscrew twist* . . . . . *E. salubris* (Gimlet)
- Operculum as long as calyx, buds and fruits very small . . . . . *E. salmonophloia* (Salmon Gum)

Greyish-white

- Fruit large (longer than 1"), valves exsert . . . . . *E. megacarpa* (Bullich)
- Fruit less than 1" long, valves enclosed . . . . . *E. diversicolor* (Karri)

Yellowish-white

- Operculum shorter than calyx . . . . . *E. accedens* (Powderbark Wandoo)
- Operculum longer than, or as long as calyx . . . . . *E. wandoo* (Wandoo)

BARK ROUGH ON TRUNK, SMOOTH ON LARGER BRANCHES

Operculum much longer than calyx (4-5 times); distinctive beaked fruit . . . . . *E. cornuta* (Yate)

Operculum much longer than calyx (2-3 times), slightly ribbed, bell shaped fruit . . . . . *E. occidentalis* (Flat-topped Yate)

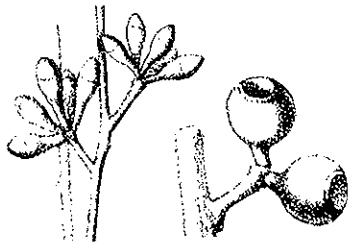
Operculum bluntly pointed, slightly longer than calyx . . . . . *E. rudis* (Flooded Gum)

Operculum shorter than calyx . . . . . *E. loxophleba* (York Gum)

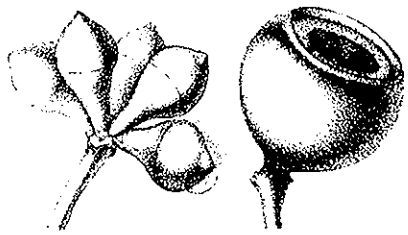
Buds and Fruits

(normal size)

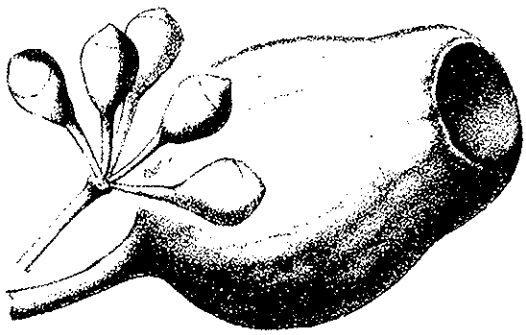
E. marginata (Jarrah)



E. jacksonii (Red Tingle)



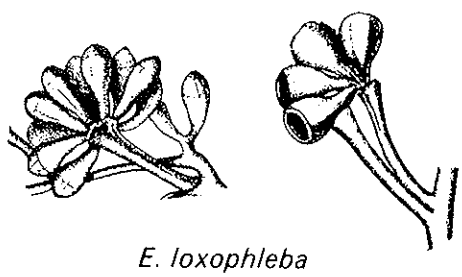
E. todtiana
(Coastal Blackbutt or Prickly Bark)



E. calophylla (Marri)

E. gomphocephala
(Tuart)

E. patens (Blackbutt)

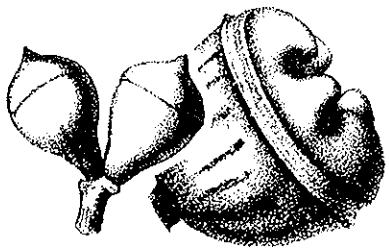


E. loxophleba
(York Gum)

E. astringens (Brown Mallet)

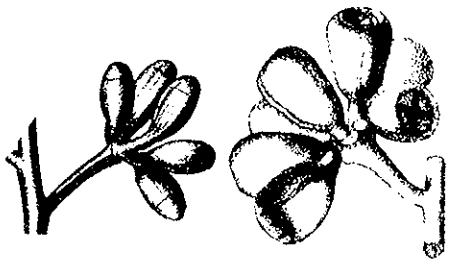
E. salubris (Gimlet)

E. salmonophloia (Salmon Gum)



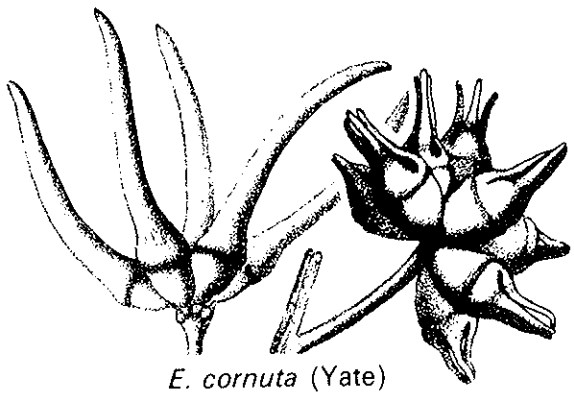
E. megacarpa (Bullich)

E. diversicolor (Karri)

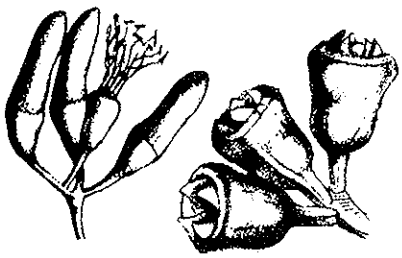


E. accedens (Powderbark Wandoo)

E. wandoo (Wandoo)



E. cornuta (Yate)



E. occidentalis (Flat-topped Yate)

E. rudis (Flooded Gum)