# TREES of Western Australia

By C. A. GARDNER

## No. 91—THE POWDER BARKED WANDOO

*(Eucalyptus accedens—W. V. Fitzg.)*

**THIS species was originally named by W. V. Fitzgerald from specimens which he obtained from near Pingelly in November, 1903. The name accedens is from the Latin accedo—to approach or come near—and is here used in reference to the supposed close approach of the tree to the common wandoo (Eucalyptus redunca var. elata).**

The two trees are, however, very dissimilar botanically, and any resemblance, or close approach would refer to the habit of growth and the character of the bark, in which they are not dissimilar.

They can be easily distinguished in the field by the character of the bark, which in the wandoo is white in colour except in those forms which we find eastwards from Tammin; but the bark is never powdery, and the timber is a pale yellow ochre in colour. In the powder barked wandoo the bark has a talc-like powder always in evidence at least on the protected or eastern side of the trunk; it is yellow in fracture, and the timber is more pink in colour.

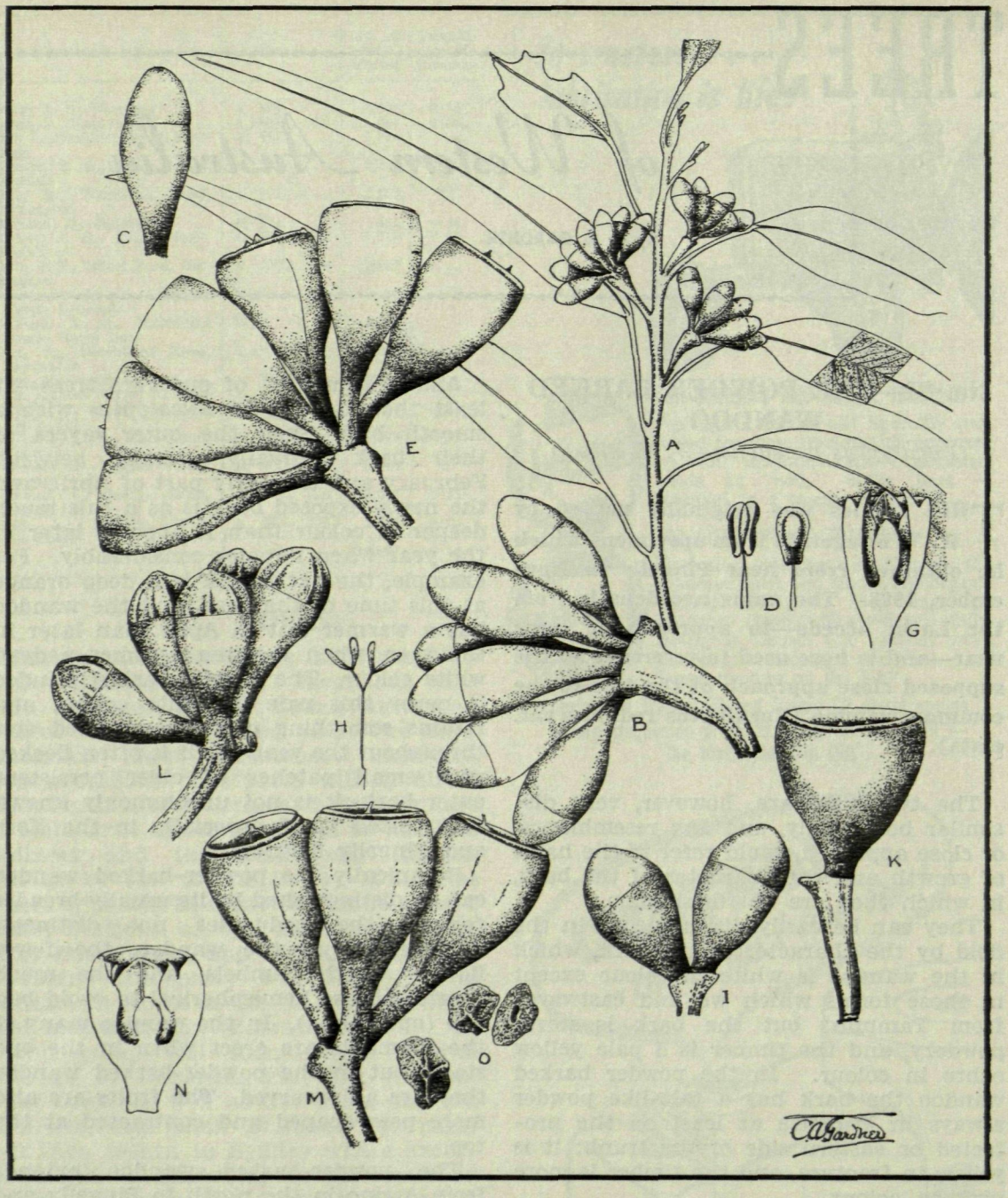
Furthermore, the two trees almost always occur in different soil types, the wandoo in clay, and the powder-barked wandoo associated with laterite on high ground. Thus we find it not infrequently in the Darling Range on high lateritic hills, often growing amongst boulders of laterite.

Almost if not all of our gum trees—at least those species of *Eucalyptus* with a smooth bark—shed the outer layers of their bark annually, usually between February and the early part of April, and the newly exposed bark is as a rule much deeper in colour than it appears later in the year when it pales considerably. For example, the karri bark is a deep orange at this time of the year, and the wandoo has a warmer tint in April than later in the year, when it often assumes a dead white colour. The powder-barked wandoo is never this pale or white colour, and retains something of its orange-red tint throughout the year. As it is often flecked with small patches of older persistent outer bark, it is not uncommonly known as "spotted gum" especially in the York and Pingelly districts.

Botanically the powder-barked wandoo can be distinguished by its usually broader foliage, the peduncles not distinctly flattened as in the wandoo, the fewer flowers of the umbels, and the much shorter obtuse hemispherical to ovoid bud cap (operculum). In the wandoo many of the filaments are erect when in the bud stage, but in the powder-barked wandoo they are all incurved. The fruits are also more pear-shaped and contracted at the top.

The powder-barked wandoo extends from Arrino in the north to Pingelly and Dwarda in the south, and eastwards to Werribee, Coates Siding, Cut Hill (near York), and Pingelly. It is also fairly common between Mogumber and Bindoon. It flowers in the early summer.

The form collected on Mount Peron, illustrated on the accompanying plate, is somewhat different to the common form.




**THE POWDER BARKED WANDOO**

*Eucalyptus accedens*—W. V. Fitzgerald

A—Branchlet with flower buds; B—Flower buds; C—Flower bud; D—Anthers; E—Fruits; G—Section of fruit; H—Cotyledons; I—Flower buds; K—Fruit. (B-K enlarged.) A-H, Wooroloo, F. M. Schoch; I-K, Mount Peron; Gardner 9412 (buds and fruits).

**THE DONGARA MALLEE**

*Eucalyptus dongarraensis*—Maiden and Blakely.

L—Flower buds; M—Fruits; N—Section of fruit; O—Seeds. (All enlarged.) Dongara, Gardner s.n.

## No. 92—THE DONGARA MALLEE

(*Eucalyptus dongarraensis*—Maiden and Blakely)

**THE originally described specimen of a species is known as the type specimen and is that which is used where possible for comparison with material collected later. Sometimes the type specimen is far from typical of the population which is the species, especially when this type specimen comes from the boundary of the known range of the species.**

For example, *Eucalyptus comitae-vallis,* previously dealt with in this series, was named from material collected near Comet Vale. The distribution extends from Kulja eastwards, and the western form was later described as *Eucalyptus brachycorys.* The common or typical form of the species is intermediate in character between the two.

Similarly *Eucalyptus dongarraensis* was described, as the name implies, from material which Maiden collected at Dongara. The species extends eastwards (at least as far as Yuna) and southwards, but just how far I do not know. It appears to be a variable species inhabiting a variety of soil types, usually a light loamy or gravelly soil, while the Dongara form grows in white sand.

The species varies from a mallee to a small tree with a ribbony bark in the lower part of the trunk, but white and smooth upwards, with reddish branchlets. The buds and fruits are much like those of *Eucalyptus accedens,* but the operculum is obtusely ribbed or wrinkled (at least in the dry state) and it is also usually shorter. The fruits are smaller and more cupular in shape and approach the Mount Peron form of *Eucalyptus accedens.* In the tree form the timber is described as being dark in colour.

The relationship between the two forms is receiving further attention.

*Eucalyptus dongarraensis* has been collected from north of Galena and from Dongara, Mullewa, Yuna and Walebing.

## No. 93—THE MESSMATE OR STRINGYBARK

(*Eucalyptus tetrodonta*—F. Muell.)

**THIS tree is widely spread over the higher rainfall regions of Northern Australia. In the Kimberleys it is found fairly widely diffused over the sandstone and quartzite country to the north of the King Leopold Range, and eastwards on the Cockatoo Sands of the lower Ord River.**

It is a common tree of the Edkins Range and the country between the Prince Regent and Glenelg rivers, the Phillips Range and eastwards to the Durack River, usually growing on the lighter soils in the valleys. Sometimes known as stringybark, the tree is more familiarly called messmate by those early settlers who came over from Queensland in the last century.

It attains a height of 60 feet, with a trunk up to two feet in diameter. The bark is rough throughout, grey in colour, and has a fibrous, stringy persistent quality. The red timber is not unlike that of the jarrah tree, but less hard and dense and somewhat paler in colour.

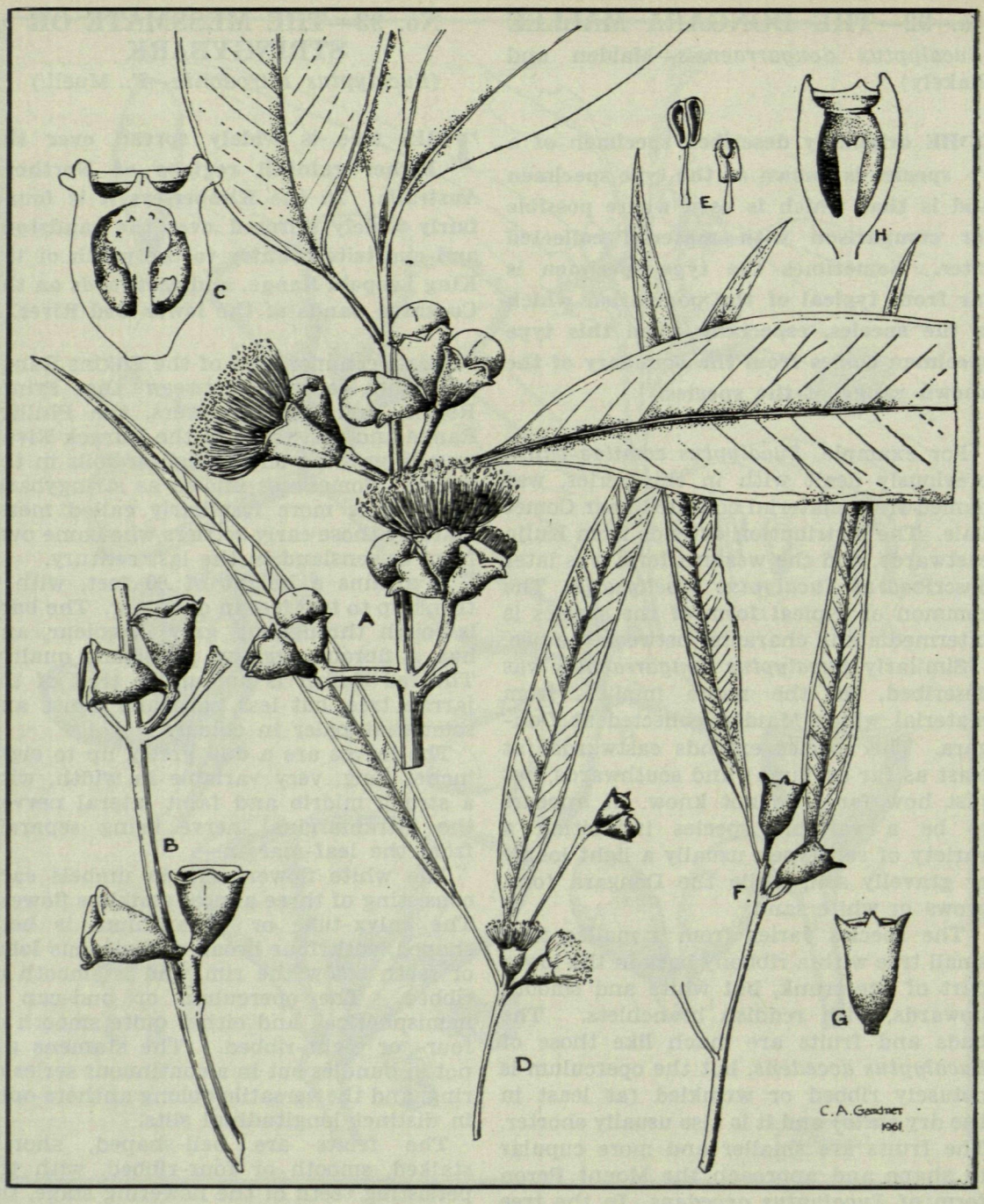
The leaves are a dull green, up to eight inches long, very variable in width, with a strong midrib and faint lateral nerves, the intramarginal nerve being separate from the leaf-margin.

The white flowers are in umbels each consisting of three almost stalkless flowers. The calyx-tube or hypanthium is bell-shaped, with four broad conspicuous lobes or teeth below the rim, and is smooth or ribbed. The operculum or bud-cap is hemispherical, and either quite smooth or four- or eight-ribbed. The stamens are not in bundles but in a continuous series or ring, and the versatile oblong anthers open in distinct longitudinal slits.

The fruits are bell-shaped, shortly stalked, smooth or four-ribbed, with the persisting teeth of the flowering stage, the rim projecting beyond them. The three valves by which the fruits open are not extended beyond the rim of the fruit.

The tree flowers from March to June.

We have seven species of *Eucalyptus* which possess teeth on the calyx; of these four are found in the south, and the stamens are in four clusters or bundles;




**THE MESSMATE OR STRINGYBARK**
*Eucalyptus tetrodonta*—F. Muell.

A—Branchlet with buds and flowers; B—Fruits; C—Section of fruit. Mount Shadforth, Edkins Range, Gardner 1075.

**THE STURT CREEK MALLEE**
*Eucalyptus odontocarpa—F. Muell.*

D—Branchlet with flower buds and flowers; E—Anthers; F—Branchlet with fruits; G—Fruit (enlarged); H—Fruit in section (enlarged). Boundary Survey, between 18° and 19° Lat. S., S. J. Stokes.

the three tropical species have the stamens not in bundles, but in a continuous ring.

The timber of the messmate is used by pastoralists, but unlike the jarrah (which it resembles), is not immune to termite attacks.

## No. 94—THE STURT CREEK MALLEE

(*Eucalyptus odontocarpa*—F. Muell.)

**THE specific name of the Sturt Creek mallee is derived from the Greek odontos, a tooth, and karpos, fruit, in reference to the small tooth-like lobes of the hypanthium.**

The Sturt Creek mallee attains a height of 12 feet, but is usually of less stature. It grows in stony hills in an arid environment, and is but little known. The writer has seen it on the rough country of the upper reaches of the Ord River, where it has slender smooth-barked stems and narrow pale-coloured leaves.

The flowers are small and white, and the species can be readily recognised by its opposite leaves, narrow buds and fruits with four small acute but prominent teeth, somewhat spreading. The operculum is much like that of the messmate, to which *E. odontocarpa* is closely related, and the stamens are in a continuous ring as in that species. The flowers are in shortly stalked clusters of two or three, or solitary, on short slender stalks.

The fruit is much narrower than in the messmate. Unlike the latter however, the operculum does not exceed the calyx-teeth, and is hemispherical to almost patelliform.

This little known mallee is common in the Northern Territory on the cliffs of the Victoria River and in the dry spinifex country to the South. In Western Australia we have it only from the vicinity of the upper Ord River and eastwards, and the desert country of the upper Oakover River. Mueller collected it in the desert of Sturt Creek in 1856; Fitzgerald found it in West Kimberley, and a specimen collected on the upper Oakover River by R. D. Royce completes our knowledge of this species in Western Australia.