

**RIVER GUM**

(*Eucalyptus camaldulensis* Dehn.)

A—Branchlet with leaves and flower-buds; B—Flower-bud (enlarged); C—Anthers (enlarged); D, E, and F—Fruits (E and F enlarged); G—Fruit in longitudinal section. Bowes River, Gardner 13166

# TREES

## of Western Australia

By C. A. GARDNER

### No. 97—THE RIVER GUM

(*Eucalyptus camaldulensis* Dehn.)

**T** HIS tree, which has a wide range within the continent was for many years known as *Eucalyptus rostrata*, the Murray River Red Gum.

Its range of distribution extends from Queensland and the Northern Territory to the drier parts of Western Australia, South Australia, New South Wales and Victoria. In Western Australia it is confined more or less to the banks of watercourses within the summer rainfall zone, which brings it southwards to Wiluna and Meekatharra and the Bowes River not far to the north from Geraldton.

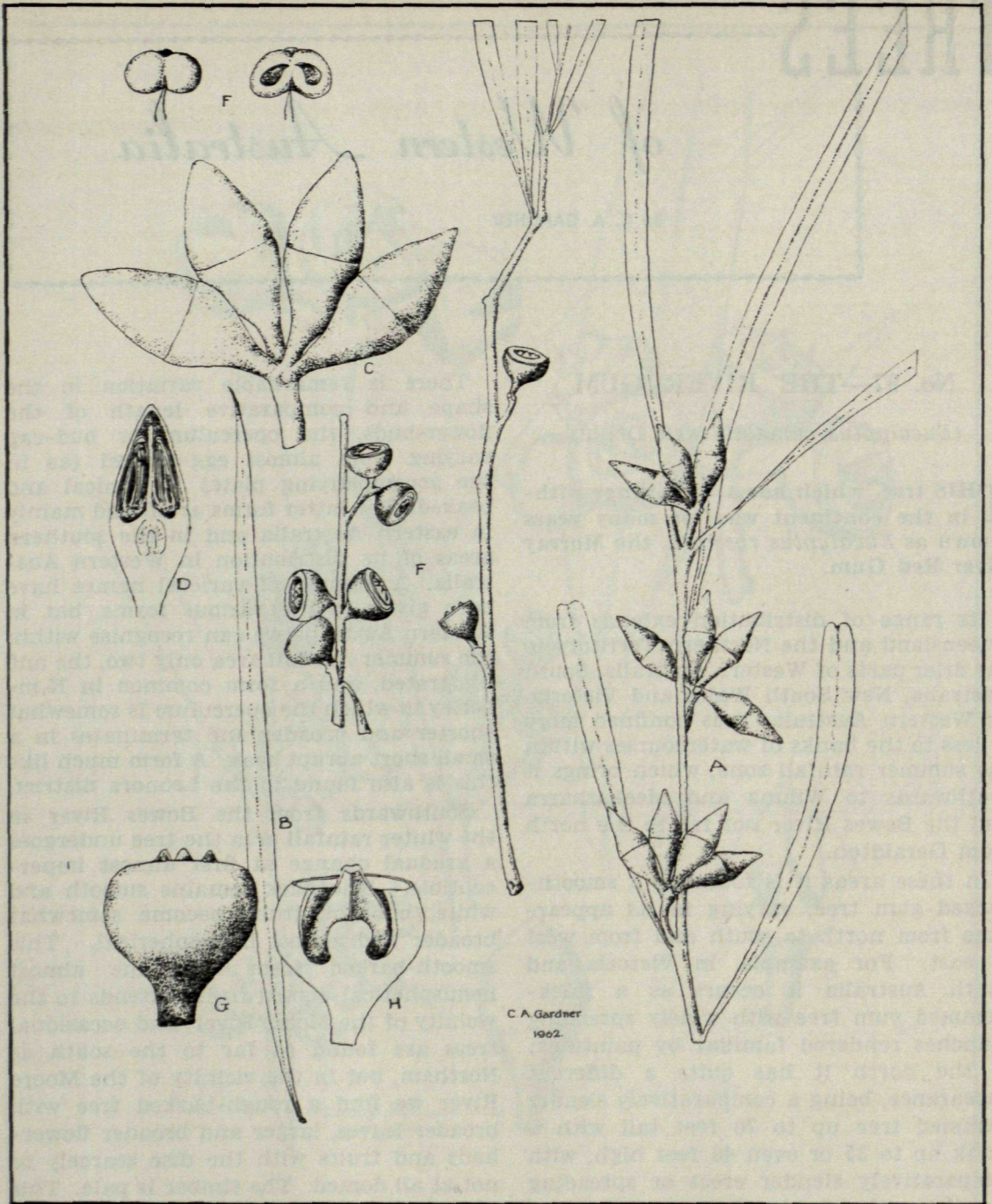
In these areas it is found as a smooth-barked gum tree, varying in its appearance from north to south and from west to east. For example, in Victoria and South Australia it occurs as a thick-stemmed gum tree with widely spreading branches rendered familiar by paintings; in the north it has quite a different appearance, being a comparatively slender stemmed tree up to 70 feet tall with a trunk up to 35 or even 40 feet high, with comparatively slender erect or spreading branches, the bark always white and smooth.

The foliage varies in colour from green to a blue-green and the leaves are frequently very long and narrow. The timber is a pale to deep red in colour, and straight-grained.

There is remarkable variation in the shape and comparative length of the flower-buds, the operculum or bud-cap varying from almost egg-shaped (as in the accompanying plate) to conical and beaked. The latter forms are found mainly in eastern Australia and in the southern areas of its distribution in Western Australia. A number of varietal names have been given to the various forms, but in Western Australia we can recognise within the summer rainfall area only two, the one illustrated, and a form common in Kimberley in which the operculum is somewhat shorter and broader and terminates in a small short abrupt beak. A form much like this is also found in the Leonora district.

Southwards from the Bowes River in the winter rainfall area the tree undergoes a gradual change at first almost imperceptible. The bark remains smooth and white, but the fruits become somewhat broader and almost hemispherical. This smooth-barked form with the almost hemispherical domed fruits extends to the vicinity of the Moore River, and occasional trees are found as far to the south as Northam, but in the vicinity of the Moore River we find a rough-barked tree with broader leaves, larger and broader flower-buds and fruits with the disc scarcely or not at all domed. The timber is pale. This is the "flooded gum" (*Eucalyptus rudis*) which occupies the same environmental conditions as the river gum.

Although readily separable in its southern range from the river gum, the flooded gum cannot be separated from this tree in the region extending from the



**JUTSON'S MALLEE**

A—Branchlet with leaves and flower-buds; B—Leaf; C—Flower buds of the broader type (enlarged); D—Flower-bud in longitudinal section; E—Anthers; F—Fruits; G—Fruit enlarged; H—Fruit in longitudinal section. Comet Vale, Gardner 13859

*(Eucalyptus Jutsonii* Maiden.)

Bowes to the Moore rivers. The difference in the two types of bark is considerable, being smooth and white in the north, and rough and fibrous-flaky in the south. The difference in timber is not so remarkable or important, since we have occasional tuart trees in which the timber is light red, and similar differences have been observed in other trees, although rarely so. Both trees are generally spring and summer flowering.

One of the most interesting features of *E. camaldulensis* is that although restricted almost entirely to the vicinity of streams, it proves hardy under cultivation in a variety of soils and climates. For example we see it at Onslow growing on the coast in red sand; it has proved equally hardy in the sandplain country of our southern agricultural districts, as well as in the red clay loam, and one gains the impression that it can be grown anywhere in Western Australia.

It is remarkably rapid growing, and is recommended for planting in the eastern agricultural areas as well as in the pastoral district; large trees occur naturally as far inland as Leonora and Doyle's Well, at Wongawal, at Roebourne and the Strelley River, and at Nannine, while in Kimberley it is the most common tree of the watercourses, especially in sandy soil on the banks of the intermittent rivers and their tributaries.

It is not recommended for street planting or planting in suburban residential blocks on account of its size and the brittle nature of the branches, a characteristic it shares with the lemon-scented gum (*E. citriodora*.)

The timber is in common use in the tropical areas for structural purposes, being very strong and straight-grained, but it will not withstand the ravages of termites and should never be placed in contact with the soil.

**T**HIS species commemorates the name of J. T. Jutson, a field geologist of the Geological Survey of Western Australia from 1911-1918, well known as the author of "The Physiography of Western Australia." He collected both this species and *E. comitae-vallis* at Comet Vale.

The species is a very distinctive one, growing in red sand at Comet Vale. It attains a height of 25 feet, and is a small tree, or more commonly a mallee with close erect leafy branches. The stem is up to six inches in diameter, and covered with a light grey flaky and longitudinally fissured persistent bark which becomes stringy in the upper trunk, the branches and branchlets, and usually the upper part of the trunk with a smooth silvery-reddish brown bark.

The leaves are remarkably narrow and very finely pointed, and commonly five to six inches long but rarely more than three-eighths of an inch broad, a bright lustrous green on both surfaces, and always erect.

The flowers are in axillary umbels of commonly four or five flowers on short pedicels, the operculum varying from narrow conical to broadly conical, and longer than the hypanthium. The white staminal filaments are inflected in the bud, and bear small anthers (versatile) which open in small oblique slits, sometimes confluent at the apex.

The small fruit is hemispherical, about a quarter of an inch in diameter, with a wide slightly domed disc and three broad deltoid valves. The style is relatively thick and slightly dilated in the upper part.

*E. Jutsonii* flowers in December. It is most closely related to *E. angustissima* of the south coast around Israelite Bay.

