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**N.S.W.  
RAINFOREST TREES  
PART III  
FAMILY MYRTACEAE**

**AUTHOR:  
A.G. Floyd**



**FORESTRY COMMISSION OF N.S.W.  
RESEARCH NOTE No. 28**

**Sydney, 1973  
2nd Edition 1979**

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**N.S.W. RAINFOREST TREES**

**PART III**

**FAMILY MYRTACEAE**

AUTHOR

**A. G. FLOYD**

**FORESTRY COMMISSION OF NEW SOUTH WALES**  
SYDNEY, 1973  
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## ADDENDUM

*Austromyrtus* sp. nov. (Nightcap Range) has now been formally described as *Uromyrtus australis* A.J. Scott.

*Rhodamnia* sp. nov. aff. *argentea* has now been formally described as *Rhodamnia costata* A.J. Scott.

*Rhodamnia trinervia* Blume should be known as *Rhodamnia rubescens* (Benth.) Miq.

*Rhodomyrtus beckleri* (F. Muell.) L.S. Smith should be known as *Archirhodomyrtus beckleri* (F. Muell.) A.J. Scott.

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## INTRODUCTION

This is a revision of the third in a series of research notes of the Forestry Commission of N.S.W. describing the rainforest trees of the State.

Other publications in this series are—

Research Note No. 3 (1960)

Second Edition 1979—

N.S.W. Rainforest Trees.  
Part I, Family *Lauraceae*.  
A. G. Floyd.

Research Note No. 7 (1961)—

N.S.W. Rainforest Trees.  
Part II, Families *Capparidaceae*, *Escalloniaceae*,  
*Pittosporaceae*, *Cunoniaceae*, *Davidsoniaceae*.  
A. G. Floyd and H. C. Hayes.

Research Note No. 30 (1976)

Second Edition 1979—

N.S.W. Rainforest Trees.  
Part IV, Family *Rutaceae*.  
A. G. Floyd

Research Note No. 32 (1977)—

N.S.W. Rainforest Trees.  
Part V, Families *Sapindaceae*, *Akaniaceae*.  
A. G. Floyd.

Research Note No. 34 (1977)—

N.S.W. Rainforest Trees.  
Part VI, Families *Podocarpaceae*, *Araucariaceae*,  
*Cupressaceae*, *Fagaceae*, *Ulmaceae*,  
*Moraceae*, *Urticaceae*.  
A. G. Floyd.

Research Note No. 35 (1978)—

N.S.W. Rainforest Trees.  
Part VII, Families *Proteaceae*, *Santalaceae*,  
*Nyctaginaceae*, *Gyrostemonaceae*, *Annonaceae*,  
*Eupomatiaceae*, *Monimiaceae*.  
A. G. Floyd.

Research Note No. 38 (1979)—

N.S.W. Rainforest Trees  
Part VIII, Families *Mimosaceae*, *Caesalpinaceae*,  
*Papilionaceae*, *Simaroubaceae*, *Bursseraceae*,  
*Meliaceae*.  
A. G. Floyd.

The family *Myrtaceae* is common in all forms of rainforest and contains a number of economically important species for either timber or beautification purposes. In this revision, the number of species has been increased to thirty three by the addition of one new undescribed species of *Rhodamnia*. Additional field information on some of the rarer species has been added, whilst for most species more information on distribution, flowers and fruit is included. The emphasis as previously is on field characteristics.

Diagnostic features of each species are shown in italics. Standard Trade Names used are those in Australian Standard AS02-1970 "Nomenclature of Australian Timbers".

The locations in N. S. W. for each species are shown in latitudinal order of the major river systems; and where on State Forests (S.F.), Flora Reserves (F.R.), National Parks (N.P.) and Nature Reserves (N.R.), their location from the nearest large town is listed in the appendix.

Another work by this author is 'Key to Major Rainforest Trees in N.S.W.' (Research Note No. 27).

# FAMILY MYRTACEAE

## CHARACTERISTICS OF THE FAMILY IN N.S.W.

Small to large trees consisting of thirty three species in ten genera.

**Trunk**—Commonly straight, but crooked and flanged in *Austromyrtus acmenioides* and *A. bidwillii* or buttressed in *Syzygium crebrinerve* and *S. francisii*.

**Outer Bark**—Many species with smooth and papery flaked barks, some scaly or corky and a few species of *Rhodamnia*, *Austromyrtus* and *Backhousia* with stringy fissured bark. Colour red-brown, brown, or grey.

**Inner Bark**—Mostly red or red-brown but some brown.

**Branchlets and Young Shoots**—Smooth except for hairs on *Choricarpia*, *Decaspermum*, *Rhodamnia argentea* and *R. trinervia*, *Rhodomyrtus psidioides*, *Backhousia myrtifolia*, *Austromyrtus acmenioides* and *A. lasioclada*. Sap milky in *Tristania conferta*, otherwise clear.

**Leaves**—Simple, mostly opposite (except *Tristania laurina* — alternate and *T. conferta* — in groups), entire, usually tapering to a point (except *Backhousia sciadophora*). Mostly with translucent oil dots.

**Venation**—In *Rhodamnia*, the basal pair of lateral veins are almost as conspicuous as the midrib and curve parallel to the margin. Most other species have a pronounced vein running parallel to the margin but a short distance from it (intramarginal vein); but this is often absent in *Austromyrtus* sp. (Nightcap Range), *A. fragrantissima*, *Acmena smithii*, *Decaspermum*, *Rhodomyrtus beckleri* and *Syzygium paniculatum*. It is always absent in *Austromyrtus hillii*, *A. lasioclada*, *Backhousia anisata*, *B. myrtifolia* and *Rhodomyrtus psidioides*.

**Flowers**—White to yellow (*Tristania laurina*), mauve to red. Borne singly or in racemes, panicles or cymes. Calyx above the ovary. Calyx lobes and petals usually four in *Rhodamnia*, *Acmena* and *Syzygium* otherwise five for the other genera. Stamens numerous and free, except *Tristania* where they are united into five bundles. The buds of *Eugenia caryophyllata* are the cloves of commerce.

**Fruit**—Variously coloured, either a dry capsule (indehiscent in *Backhousia* or dehiscent with two seeds in *Choricarpia* or numerous in *Tristania*) or a fleshy berry sometimes with a single seed resembling a drupe. One seed in *Acmena*, *Syzygium* and sometimes *Rhodamnia*; two to ten seeds in *Rhodamnia*, *Austromyrtus*, *Decaspermum* and *Pilidiostigma*; or many seeds in *Rhodomyrtus*.

**Habitat**—An important component of all types of rainforest and rainforest margins. Some of the tallest trees in the subtropical rainforest are *Acmena brachyandra*, *Syzygium corynanthum* and *S. crebrinerve*. Palm forest commonly contains large specimens of *S. francisii*, riverine rainforest is often characterised by *S. floribundum* and in addition *S. moorei* in the north, littoral beach rainforest may be dominated by

*Acmena hemilampra*, *Syzygium coolminianum* and *S. luehmannii*, whilst warm temperate rainforest may contain *Acmena smithii*, *Pilidiostigma*, *Rhodamnia* and *Tristania* spp. Even in the cool temperate Nothofagus forest, *Tristania laurina* may be common in the lower canopy as at Nothofagus Mountain.

**Wood**—Close-grained and heavy.

# KEY TO THE RAINFOREST TREE SPECIES OF THE MYRTACEAE IN N.S.W.

## A. USING LEAVES AND BRANCHLETS ONLY

- 1. Leaves alternate or apparently in whorls ..... 2
  - 2. Leaves over 4 cm broad in apparent whorls .. *Tristania conferta*  
R. Br.
  - 2. Leaves under 4 cm broad, alternate .... *Tristania laurina* R. Br.
- 1. Leaves opposite ..... 3
  - 3. Basal pair of veins as prominent as the midrib and extending almost to the tip of the leaf (i.e. trinerved) ..... 4
  - 3. Lateral veins terminating in a pronounced intramarginal vein but not as distinct as the midrib ..... 8
  - 3. Lateral veins not terminating in an intramarginal vein ... 35
  - 4. Veins on the undersurface not hairy ..... 5
    - 5. Leaves under 2.5 cm broad .... *Rhodomyrtus beckleri*  
(F. Muell.) L. S. Smith
    - 5. Leaves over 2.5 cm broad ..... 6
      - 6. Leaves with a drawn-out rounded tip .....  
*Rhodamnia maideniana* C. T. White
      - 6. Leaves quickly tapering to a point .....  
*Rhodamnia* sp. nov. aff *argentea*
  - 4. Veins on the undersurface hairy ..... 7
    - 7. Leaves white or silvery beneath .. *Rhodamnia argentea*  
Benth.
    - 7. Leaves brown or grey-brown beneath .....  
*Rhodamnia trinervia* Blume
- 8. Mature leaves not exceeding 2 cm wide ..... 9
  - 9. Leaf tip narrowing abruptly to a drawn out point (i.e. acuminate) ..... 10
  - 10. Lateral veins visible on the upper surface .....  
*Acmena smithii* (Poir.) Merr. & Perry
  - 10. Lateral veins not readily visible on the upper surface ..... 11
    - 11. Leaves light green above, aromatic ..... 12
      - 12. Half-expanded leaves smooth, oil dots numerous ... *Rhodomyrtus beckleri* F. Muell.
      - 12. Half-expanded leaves silvery hairy, oil dots obscure ... *Austromyrtus* sp. (Nightcap Rge)
    - 11. Leaves dark green above, not aromatic .....  
*Syzygium luehmannii* (F. Muell.) L. Johnson
- 9. Leaf blade tapering gradually to the tip ..... 13
  - 13. Leaf tip finely pointed ..... 14
  - 14. Branchlets four-angled ... *Syzygium paniculatum*  
Gaertn.
  - 14. Branchlets rounded .. *Acmena smithii* var. *minor*  
(Maiden) Merr. & Perry

13. Leaf tip rounded ..... 15
15. Leaves thick, flat with visible oil dots .....  
*Pilidiostigma glabrum* Burret
15. Leaves fairly thin, undulate, without visible oil dots .... *Syzygium francisii* (F.M.B.) L. Johnson
8. Mature leaves exceeding 2 cm wide ..... 16
16. Young leaves rusty hairy beneath ..... 17
17. Leaves over 3 cm long ... *Choricarpia leptopetala* (F. Muell.) K. Domin.
17. Leaves under 3 cm long *Austromyrtus fragrantissima* (F. Muell. ex Benth.) Burret
16. Young leaves not rusty hairy beneath ..... 18
18. Mature leaves commonly exceeding 10 cm long  
*Syzygium moorei* (F. Muell.) L. Johnson
18. Mature leaves seldom up to 10 cm long ..... 19
19. Lateral veins scarcely visible on the undersurface but more conspicuous above .....  
*Decaspermum paniculatum* Kurz
19. Lateral veins more clearly visible beneath ... 20
20. Leaves distinctly lemon scented and sticky when crushed ..... *Syzygium coolminianum* (C. Moore) L. Johnson
20. Leaves not distinctly lemon scented nor sticky 21
21. Mature leaves commonly more than three times longer than broad ..... 22
22. Branches slender pendulous .....  
*Syzygium floribundum* F. Muell.
22. Branches not slender or pendulous .... 23
23. Branchlets ribbed. Petioles and branchlets red ... *Acmena brachyandra* (Maid. & Betche) Merr. & Perry
23. Branchlets not ribbed. Petioles and branchlets not red ... *Acmena smithii* (Poir) Merr. & Perry
21. Mature leaves commonly less than three times longer than broad ..... 24
24. Leaves strongly aromatic when crushed 25
25. Leaf buds and midrib of young leaves silky hairy ... *Backhousia sciadophora* F. Muell.
25. Leaf buds and midrib of young leaves smooth ..... 26
26. Leaves dull above, oil dots six diameters apart .....  
*Austromyrtus acmenioides* (F. Muell.) Burret
26. Leaves shiny above, oil dots one diameter apart *Austromyrtus bidwillii* (Benth.) Burret

24. Leaves not strongly aromatic ..... 27
27. Leaf buds silky hairy .....  
*Pilidiostigma glabrum* Burret
27. Leaf buds glabrous ..... 28
28. Leaves gradually narrowed at the base and merging with the petiole at its junction with the stem. Branchlets thick light fawn .....  
*Syzygium corynanthum* (F. Muell.)  
L. Johnson
28. Leaves abruptly narrowed. Branchlets not thick or light fawn (except *S. francisii*) ..... 29
29. Leaves shortly and bluntly pointed at the tip ..... 30
30. Intramarginal vein conspicuous to the naked eye .....  
*Rhodamnia* sp. nov. aff *argentea*
30. Intramarginal vein barely visible with the naked eye ...  
*Acmena hemilampra* (F. Muell.)  
Merr. & Perry
29. Leaves drawn out into a fine point at the tip ..... 31
31. Lateral veins scarcely visible on the undersurface ..... 32
32. Oil dots absent or ten to fifteen diameters apart .....  
*Syzygium francisii* (F.M.B.)  
L. Johnson
32. Oil dots three to eight diameters apart .....  
*Acmena smithii* (Poir)  
Merr. & Perry
31. Lateral veins clearly visible on the undersurface ..... 33
33. Petioles of young leaves not red, midrib drying straw or nut-brown in colour ....  
*Syzygium francisii* (F.M.B.)  
L. Johnson
33. Petioles of young leaves red, midrib drying reddish-black ..... 34
34. Intramarginal vein 1.5 mm from the margin and almost parallel to it throughout .....  
*Syzygium crebrinerve*  
(C. T. White) L. Johnson

34. Intramarginal vein  
3-5 mm from the margin  
forming loops between  
the lateral veins .....  
*Syzygium hodgkinsoniae*  
(F. Muell.) L. Johnson
35. Leaves with an aniseed odour even when dried .....  
*Backhousia anisata* Vick.
35. Leaves without an aniseed odour ..... 36
36. Young shoots and leaves smooth ..... 37
37. Midrib alone clearly visible on either surface .... 38
38. Petiole 1.5 mm long ..... *Austromyrtus hillii*  
(Benth.) Burret
38. Petiole 6.5 mm long .... *Rhodomyrtus beckleri*  
F. Muell.
37. Lateral veins also visible on both surfaces. Petiole  
6.5 mm long ..... 39
39. Leaf blade gradually tapering to the tip. Young  
shoots sour when chewed *Syzygium paniculatum*  
Gaertn.
39. Leaf blade abruptly narrowed to a long point.  
Young shoots not sour .... *Acmena smithii* (Poir)  
Merr. & Perry
36. Young shoots and leaves hairy ..... 40
40. Mature leaves over 5 cm long ..... 41
41. Underside of leaves smooth .....  
*Rhodomyrtus psidioides* Benth.
41. Underside of leaves with brown hairs .....  
*Austromyrtus lasioclada* (F. Muell.) L. S. Smith
40. Mature leaves not exceeding 4 cm long ..... 42
42. Young shoots with dark brown hairs .....  
*Austromyrtus fragrantissima* (F. Muell. ex Benth.)  
Burret
42. Young shoots with silvery hairs ..... 43
43. Venation indistinct on both surfaces ..... 44
44. Mature leaves exceeding 2 cm wide ...  
*Decaspermum paniculatum* Kurz
44. Mature leaves under 2 cm wide .....  
*Austromyrtus* sp. (Nightcap Rge)
43. Venation prominent on the undersurface, less  
so above *Backhousia myrtifolia* Hook & Harv.

## B. USING BARK ONLY

1. Outer bark stringy and/or fissured ..... 2
2. Outer bark red-brown, live bark very thin .....  
*Rhodamnia maideniana* C. T. White  
*Rhodamnia trinervia* Blume
2. Outer bark grey ..... 3
3. Blaze light brown with darker brown flecks .....  
*Backhousia sciadophora* F. Muell.
3. Blaze grey to purple-brown with few paler vertical stripes ...  
*Syzygium floribundum* F. Muell.
2. Outer bark brown or grey-brown ..... 4
4. Blaze yellow-brown with paler dots *Pilidiostigma glabrum*  
Burret
4. Blaze pink to dark red-brown ..... 5
5. Blaze pink to pink-brown with scattered paler threads . .  
*Backhousia myrtifolia* Hook & Harv.
5. Blaze dark red-brown with pale green marbling ....  
*Austromyrtus fragrantissima* (F. Muell. ex Benth) Burret
5. Blaze red ..... 6
6. Underbark brown with cream horizontal lines ...  
*Rhodamnia* sp. nov. aff *argentea*
6. Underbark brown without cream horizontal lines s  
*Austromyrtus hillii* (Benth.) Burret
1. Outer bark smooth, paper scaly or corky ..... 7
7. Outer bark grey ..... 8
7. Outer bark brown ..... 13
7. Outer bark red-brown ..... 26
8. Bark corky ..... *Backhousia anisata* Vick.
8. Bark smooth, not papery or scaly ... *Acmena brachyandra*  
(Maid. & Betche) Merr. & Perry
8. Bark rough, papery or scaly ..... 9
9. Blaze brown without red colouration ..... 10
10. Blaze light brown with paler longitudinal lines. Not  
darkening except for sapwood *Syzygium corynanthum*  
(F. Muell.) L. Johnson
10. Blaze turning dark brown ..... 11
11. Initially light brown with dark brown flecks . .  
*Backhousia sciadophora* F. Muell.
11. Initially uniform dark brown *Rhodamnia argentea*  
Benth.
9. Blaze pink to red-brown ..... 12
12. Blaze pale pink-brown to purple, turning brown ...  
*Tristania laurina* R. Br.
12. Blaze pink-brown, sapwood only darkening ....  
*Syzygium luehmannii* (F. Muell.) L. Johnson
12. Blaze deep red-brown, sapwood only darkening ..  
*Syzygium crebrinerve* (C. T. White) L. Johnson

13. Bark scaly at base but smooth above ... *Tristania conferta*  
R. Br.
13. Bark smooth throughout ..... 14
13. Bark corky ..... 18
13. Bark scaly to papery ..... 19
14. Bark not blotched ..... 15
15. Blaze pink-brown ..... *Acmena brachyandra*  
(Maid & Betche) Merr. & Perry
15. Blaze deep purple-brown with lighter streaks ...  
*Syzygium hodkinsoniae* (F. Muell.) L. Johnson
14. Bark blotched ..... 16
16. Outer surface of live bark brown .....  
*Austromyrtus acmenioides* (F. Muell.) Burret
16. Outer surface of live bark green ..... 17
17. Blotches brown and green. Live bark very thin.  
*Austromyrtus bidwillii* (Benth.) Burret
17. Blotches light and dark brown, live bark mod.  
thick .. *Syzygium francisii* (F.M.B.) L. Johnson
18. Blaze dull red ..... *Backhousia anisata* Vick.
18. Blaze pale pink with brown vertical fibres .....  
*Choricarpia leptopetala* (F. Muell.) K. Domin.
19. Blaze brown (not red) ..... 20
20. Dead bark with cream and plum rings .....  
*Rhodamnia argentea* Benth.
20. Dead bark uniformly brown .....  
*Decaspermum paniculatum* Kurz
19. Blaze pink to red-brown ..... 21
21. Blaze pale pink ... *Rhodomyrtus psidioides* Benth.
21. Blaze pink-brown to dark red ..... 22
22. Blaze pinkish-brown with paler and darker  
horizontal lines .. *Syzygium paniculatum* Gaertn.
22. Blaze darker red ..... 23
23. Outer margin of live bark light brown ....  
*Austromyrtus hillii* (Benth.) Burret
23. Outer margin of live bark red ..... 24
24. Blaze pink to red ... *Austromyrtus* sp. nov.  
(Nightcap Rge)
24. Blaze red-brown ..... 25
25. Blaze turning dull brown *Acmena smithii*  
(Poir) Merr. & Perry
25. Blaze not changing colour .....  
*Rhodomyrtus beckleri* F. Muell.
26. Blaze faintly pinkish-grey with darker dots .....  
*Austromyrtus lasioclada* (F. Muell.) L. S. Smith
26. Blaze pink-brown to red-brown ..... 27
27. Blaze with vertical paler or darker lines ..... 28
28. Blaze red-brown, sapwood alone turning purple...  
*Acmena hemilampra* (F. Muell.) Merr. & Perry

28. Blaze pink-brown, whole surface changing ..... 29
29. Blaze fading more pinkish ..... *Acmena smithii*  
var. *minor* (Maid.) Merr. & Perry
29. Blaze darkening to brown ..... *Syzygium moorei*  
(F. Muell.) L. Johnson
27. Blaze of uniform colour without vertical lines .... 30
30. Blaze deep red-brown, changing to dull brown ...  
*Acmena smithii* (Poir) Merr. & Perry
30. Blaze pink-brown or purplish red-brown ..... 31
31. Blaze darkening to red-brown .....  
*Syzygium coolminianum* (C. Moore) L. Johnson
31. Blaze turning purplish ... *Syzygium luehmannii*  
(F. Muell.) L. Johnson

## ACMENA BRACHYANDRA (Maid. & Betche) Merr. & Perry

**Synonym**—*Eugenia brachyandra* Maid. & Betche, *Acmena australis* (C. Moore) L. Johnson.

**Reference**—Journ. Arn. Arb. XIX, 17, 1938.

**Derivation**—Acmena from Greek "Acmenae" the nymphs of Venus who were very beautiful, referring to the flowers and fruits; brachyandra from Greek "brachys" short and "andros" a male, referring to the short stamens of this species.

**Common Name**—Red Apple.

**Standard Trade Name**—Southern Satinash.

A tree attaining a height of 35 m and a stem diameter of 90 cm.

**Trunk**—Often tall, straight and cylindrical, large trees often buttressed.

**Outer Bark**—*Greyish-brown to light grey*, smooth. Underbark pink-fawn. Outer surface of live bark green, cream and pink-fawn to dark brown vertical streaks.

**Inner Bark**—Blaze on a tree 55 cm diameter outer half pinkish-brown. A few pale coloured lines extend from the outer margin towards the centre of the blaze which is of a darker brown but becoming paler towards the sapwood, inner margin turns purplish after a few minutes exposure. Astringent taste but no distinctive smell. 15 mm thick.

**Branchlets**—*Smooth, red. Usually angular* or ribbed.

**Leaves**—Opposite, simple, entire, *elliptical*, 7-13 cm long, often protracted into a point at the tip, upper surface glossy, underside paler. Oil dots indistinct in old leaves but are often clearly visible in young growth. Leaf stalks 3-6 mm, often red.

**Venation**—Distinct on both surfaces. Midrib sunken on the upper surface but prominently raised on the underside. Often red at the base becoming paler towards the tip.

**Flowers**—White, in panicles at the ends of the branches. Shorter than the leaves. Calyx about 3 mm diameter, bell-shaped with four to six rounded lobes. Petals 1.2-1.8 mm long. Stamens numerous, about 1 mm long. Flowering period December.

**Fruit**—Berry, *red, globular, 25-40 mm diameter*, marked at the top by the circular scar of the calyx rim. Containing a single green seed which is surrounded by a red lined inner membrane and then a white succulent acid pulp. Fruit ripe May to August or irregular.

**Habitat**—Rainforest on volcanic soil. The species reaches its best development in the red basaltic soils and is a common tree in the rainforest along the McPherson Range.

**Distribution**—From Casino, N.S.W. to Gympie, Queensland. Recorded in N.S.W. from Casino, Toonumbar S.F., Beaury S.F., Koreelah S.F., Mt. Wilson, Mt. Nothofagus F.R., Mt. Lindesay, Mt. Glennie, Lever's Plateau, Wiangaree S.F., Whian Whian S.F., Brunswick River, Bangalow, Limpinwood N.R. and Couchy Creek.

**Timber and Uses**—Light brown, moderately hard. Suitable for brush stocks, lining, scantling, flooring, cases; liable to attack by borers.



Scale 2.5 cm \_\_\_\_\_

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Plate No. 1

*Acmena brachyandra* (Maid. & Betche) Merr. & Perry

**ACMENA HEMILAMPRA** (F. Muell. ex F.M. Bail.) Merr. & Perry

**Synonym**—*Eugenia smithii* var *hemilamppra* F. Muell. *Eugenia hemilamppra* F. Muell. ex F.M. Bail.

**Reference**—Journ. Arn. Arb. XIX, 15, 1938.

**Derivation**—Hemilamppra from Greek “hemi” half and “lamppra” shining, referring to the glossy upper leaf surface.

**Common Name**—Broad-leaved Lilly Pilly, Eungella Gum, Red Eungella Gum.

**Standard Trade Name**—Blush Satinash.

A tree attaining a height of 30 m and a stem diameter of 120 cm (on McPherson Range). Crown usually sparsely foliated when growing in the rainforest but is often dense and pyramidal in shape on trees growing in the open.

**Trunk**—Sometimes flanged and prominently buttressed at the base in large trees.

**Outer Bark**—Reddish-brown, smooth, or in large and old trees sometimes scaly.

**Inner Bark**—Blaze on a tree 30 cm diameter reddish-brown (deep red on larger trees) with numerous paler and darker fine vertical, wavy lines. Inner margin pale yellow. Surface of the sapwood turning purplish after a few minutes exposure. 6 mm thick.

**Branchlets**—Brown, smooth, greenish towards the tips.

**Leaves**—Opposite, simple, entire, broad lanceolate, 4-9 cm long, 2-3 times as broad, protracted into a blunt point at the tip (acuminate in *A. smithii*), gradually narrowed at the base, dull, paler and sometimes glaucous beneath, somewhat thick in texture, oil dots few. Leaf stalks 1.5-6.5 mm long.

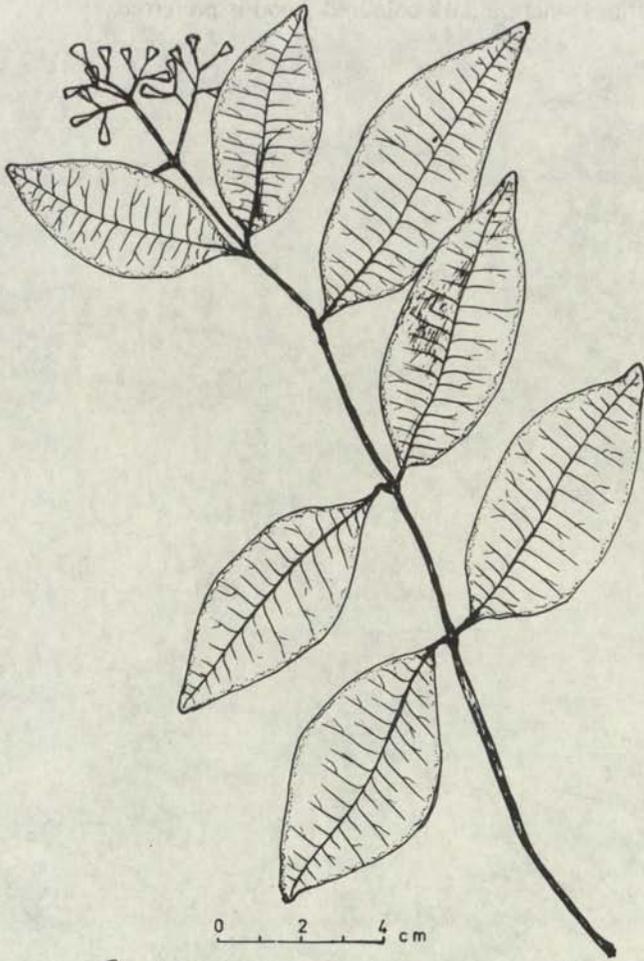
**Venation**—Lateral nerves at 45° to the midrib (70°-80° in *A. smithii*) parallel, terminating in an intramarginal vein. Midrib and lateral nerves visible on the upper surface; midrib raised on the underside but sunken above, lateral nerves often indistinct below.

Mueller originally separated this species from *A. smithii* because of its thicker leaves with blunter tips, duller undersurface and less divergent veins. Merrill and Perry in 1938 admitted to gradations between the two; and regarded the lines running down the branchlets and the scarcity of oil dots on the underside of the leaves and on the branchlets to be the only reliable diagnostic features of *A. hemilamppra*. Francis in 1951 considered it doubtful whether it could be definitely distinguished from *A. smithii*.

**Flowers**—Cream, in panicles at the ends of the branchlets or in the forks of the upper leaves. Flowering period October to November.

**Fruit**—Berry, white, globular, crowned by the circular calyx rim, 8-20 mm in diameter with a fleshy slightly acid pulp enclosing a single large seed. Fruit ripe May to July.

**Habitat**—Riverine and littoral rainforests, on volcanic soils and on the poorer sedimentary (*ceratopetalum*) soils.



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Plate No. 2

*Acmena hemilampra* (F. Muell. ex F.M.B.) Merr. & Perry

**Distribution**—The species reaches its best development at the higher altitudes of the McPherson Range and is found from Iluka, N.S.W. to Cape York, North Queensland. Recorded in N.S.W. from Iluka N.R., Ballina, Alstonville, Lismore, Toonumbar S.F., Wiangaree S.F., Whian Whian S.F., Hayter's Hill and Brunswick River.

**Timber and Uses**—Wood dark red, medium hard, close-grained and is said to be durable. Could no doubt be used to advantage for furniture and in door fittings where a dark coloured wood is preferred.



## ACMENA SMITHII (Poir) Merr. & Perry

**Synonym**—*Eugenia smithii* Poir.

**Reference**—Journ. Arn. Arb. 19:16, 1938.

**Derivation**—*Smithii* after Sir J.E. Smith who described many Australian plants.

**Common Name**—Lilly Pilly, Eungella Gum, Coast Satinash.

**Standard Trade Name**—Lillipilli Satinash.

A tree attaining a height of 20 m and a stem diameter of 45 cm.

**Trunk**—Sometimes moderately buttressed in large trees.

**Outer Bark**—*Brown, scaly*, shedding in irregular pieces. Underbark mid-brown. Outer surfaces of live bark pale creamy-green or deep red on large trees.

**Inner Bark**—*Blaze* on a tree 45 cm diameter *deep reddish-brown*, paler towards sapwood. Woolly fibrous in texture, the fibres resembling fine hairs on the surface. Changing to a dull brown after a few minutes exposure. No distinct smell, but slightly astringent to the taste. 10 mm thick.

**Branchlets**—Smooth, from grey to reddish-brown in colour.

**Leaves**—Opposite, simple, entire, lance-shaped, 4-8 cm long, protracted into a long blunt point at the tip, *two to two and a half times as long as broad*. Glossy above, less so beneath. *Oil dots numerous* and conspicuous. Leaf stalks 2-6 mm long. Some forms on the N.S.W. South Coast have juvenile leaves 17 cm long and 8 cm wide.

**Venation**—Midrib and lateral veins visible on both surfaces. Midrib raised beneath, slightly sunken above.

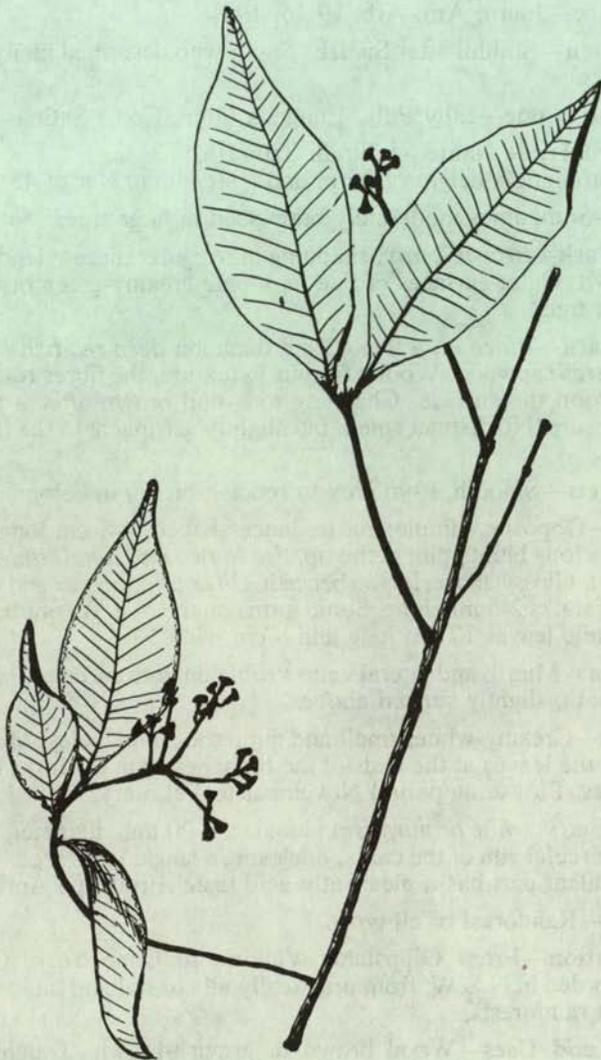
**Flowers**—Creamy-white, small and numerous in panicles. Mostly shorter than the leaves at the ends of the branches or in the forks of the upper leaves. Flowering period November to February.

**Fruit**—Berry, *white or purplish*, globular, 8-20 mm diameter, crowned by the circular rim of the calyx, enclosing a single large seed. Outer white succulent part has a pleasantly acid taste. Fruit ripe April to July.

**Habitat**—Rainforest of all types.

**Distribution**—From Gippsland, Victoria to Cape York, Queensland. Recorded in N.S.W. from practically all coastal and table and escarpment rainforests.

**Timber and Uses**—Wood brown or greyish-brown. Tough and close-grained. In tropical Queensland the wood is extensively used in buildings for scantling and flooring.



Scale 2.5 cm

Condon

Plate No. 3

*Acmena smithii* (Poir) Merr. & Perry

## ACMENA SMITHII VAR. MINOR (Maid.) Merr. & Perry

**Synonym**—*Eugenia smithii* var. *minor* Maid.

**Reference**—Journ. Arn. Arb. XIX, 16, 1938.

**Derivation**—*Smithii*, after Sir J. E. Smith who described many Australian plants; *minor* from latin "minor" small, referring to the small leaves and fruits.

**Common Name**—Small-leaved Lilly Pilly.

**Standard Trade Name**—None.

Generally a small bushy tree up to 6 m high and a stem diameter of about 20 cm.

**Trunk**—Usually short and often branching from the base into several stems.

**Outer Bark**—*Reddish-brown, smooth* except for a few fine surface cracks and small scales. Outer surface of live bark green.

**Inner Bark**—Blaze on a tree 15 cm diameter pinkish-brown with numerous pale vertical lines, bordered on the outer margin by a pale green line. The paler inner margin darkens to a purplish shade at first, but gradually turns brownish after several minutes exposure. In contrast to the inner margin, the surface of the blaze often fades to a more pinkish shade after 8-10 minutes exposure. No distinct smell or taste. About 3 mm thick.

**Branchlets**—Light grey in colour with a very thin flaky bark, or sometimes brown with light grey patches. Often finely fissured, becoming brown and square in cross-section towards the ends.

**Leaves**—Opposite, simple, entire, elliptic, 3-6 cm long, drawn out into a long blunt point at the tip, tapering towards the base. *Three times as long as broad*. Dark green and shining above, paler and less shiny beneath. *Oil dots large and more scattered than in A. smithii*. Leaf stalks 1.5-4.5 mm long.

**Venation**—Midrib, lateral and intramarginal veins distinct. Midrib sunken on the upper surface, prominent on the underside.

**Flowers**—Creamy-white, numerous in panicles at the ends of the branchlets or sometimes in the forks of the leaves. Inflorescence sometimes longer than the leaves. Flowering period November to December.

**Fruit**—Berry, purple, or white tinged with purple, globular, 6-15 mm diameter, containing a single large seed surrounded by a succulent acid pulp. Fruit ripe May to July.

**Habitat**—Commonly found along water courses and in scrubby sheltered situations in the Coastal Division.

**Distribution**—From Victoria through New South Wales to Bunya Mountains, Queensland. Recorded in N.S.W. from Barcoongere S.F., Glenreagh, Broomes Head, Coaldale, Urbenville, Roseberry, Eureka and Crabbes Creek.

**Timber and Uses**—Wood brownish, medium hard and tough, but the stem is generally too small and short to be of much use.

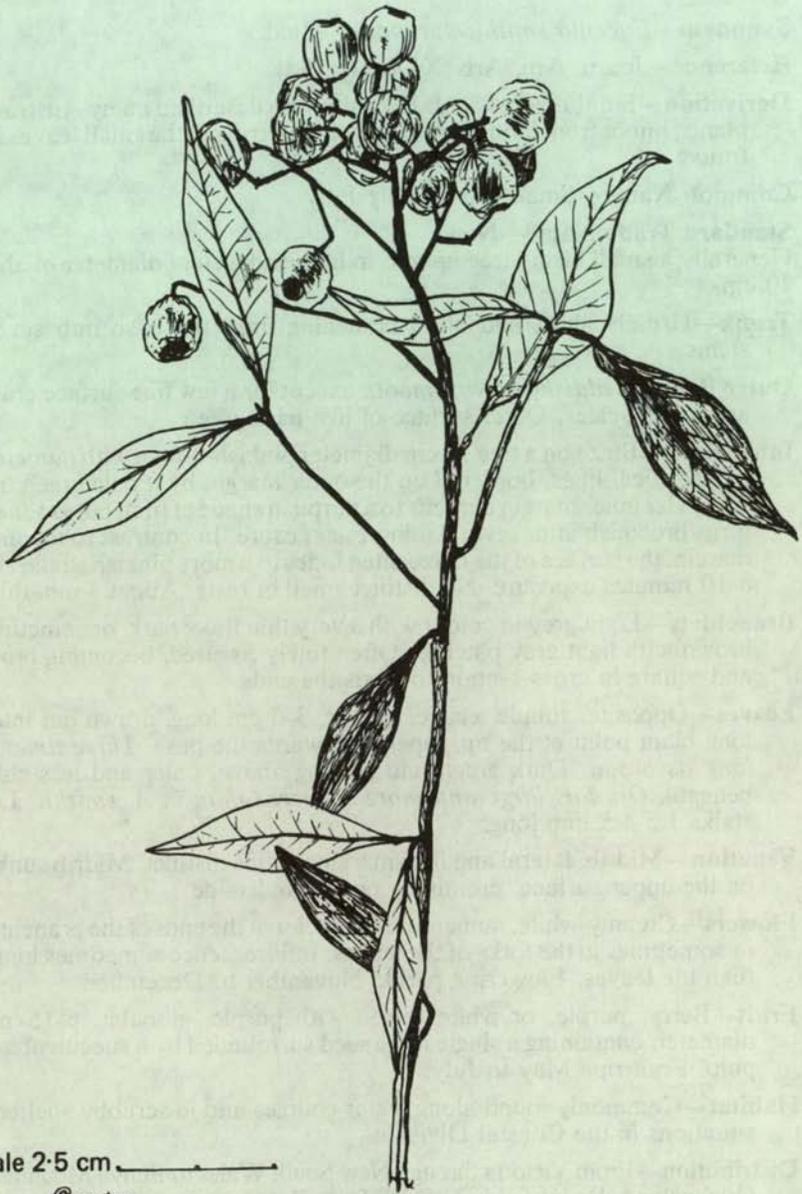


Plate No. 4

*Acmena smithii* var. *minor* (Maid.) Merr. & Perry

## AUSTROMYRTUS ACMENIOIDES (F. Muell.) Burret

Synonym—*Myrtus acmenioides* F. Muell.

Reference—Notizbl. Bot. Govt. Berlin XV, 501, 1941.

**Derivation**—Austromyrtus from Latin "Australis" southern and "Myrtus" a myrtle referring to this genus being confined to the southern hemisphere but resembling *Myrtus communis* of Europe; acmenioides from Acmena, an allied genus, Greek "eidos" resembling, referring to the likeness of the species to an Acmena.

**Common Name**—Scrub Ironwood, Ironwood.

**Standard Trade Name**—None.

A small tree rarely exceeding a height of 15-18 m and a diameter of 25-30 cm.

**Trunk**—Irregular, crooked, very conspicuous by the smooth, brown mottled patches.

**Outer Bark**—Brown, smooth, shedding in thin paper-like patches. Outer surface of live bark brown. In *A. bidwillii* the bark is mottled brown and green; and the outer surface of the live bark is green.

**Inner Bark**—Blaze on a tree 23 cm diameter light brown paling to white next to the white sapwood. Very thin, 1.5 mm thick.

**Branchlets**—Smooth, brown. Expanding leafbuds brown silky (smooth in *A. bidwillii*).

**Leaves**—Opposite, simple, entire margins, elliptic to ovate, 5-8 cm long, tapering to a long sharp point at the tip, green and smooth both surfaces, more or less dull. Oil dots few, large and scattered, not pellucid or as conspicuous as in *A. bidwillii*. Leaf stalks 3-6 mm long.

**Venation**—Lateral veins oblique, about 45° to the midrib, mid and lateral veins distinct, midrib raised on both surfaces. Intramarginal vein distinctly removed from the leaf edge.

**Flowers**—White, in twos or three on a very short brown silky hairy peduncle not more than 6 mm long in the forks of the leaves. Individual flower stalks 6-13 mm long. Flowering period November.

**Fruit**—Succulent berry, nearly globular, about 6 mm diameter, crowned by five persistent calyx lobes and containing 3-5 smooth seeds which are rounded on the back and flattened on the inner faces. Fruit ripe February to April.

**Habitat**—Common in dry rainforest.

**Distribution**—From Illawarra, N.S.W. to Gladstone, Queensland. Recorded in N.S.W. from Jamberoo, Woko, Bellangry S.F., Wild Cattle Creek S.F., Chapman's Plain F.R., Glenugie F.R., Woodburn, Lismore, Unumgar S.F., Koreelah S.F., Mullumbimby, Uki, South Pumpenbil Creek and Tumbulgum.

**Timber and Uses**—Too small and crooked to be used.

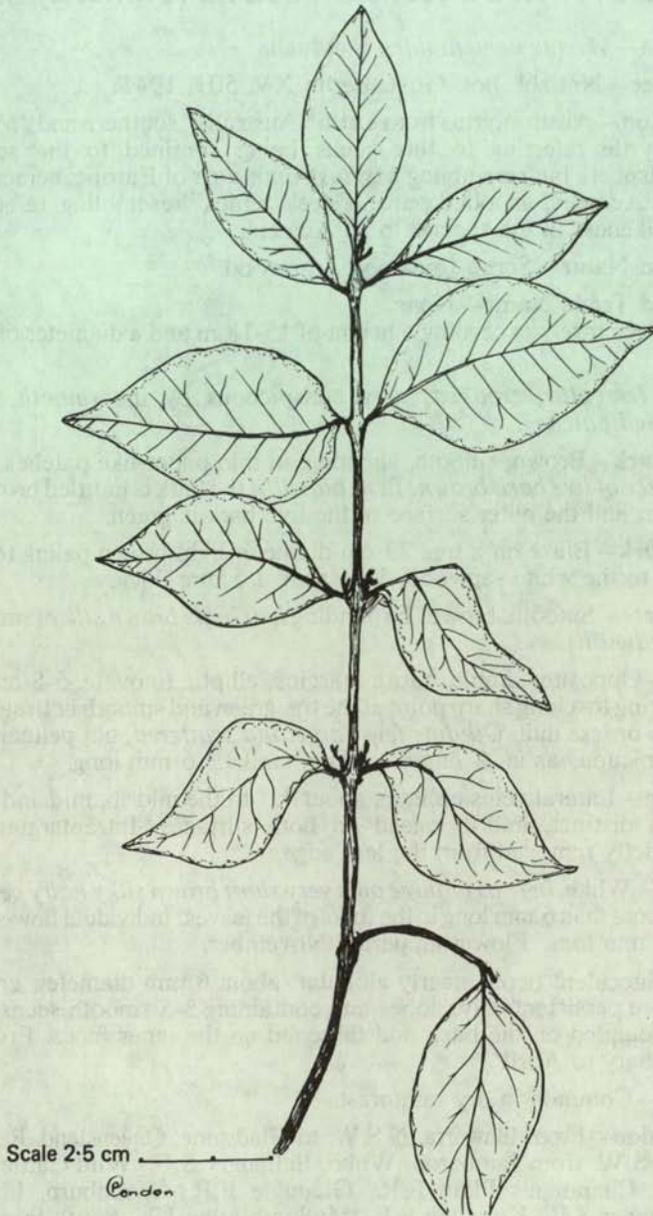


Plate No. 5

*Austromyrtus acmenioides* (F. Muell.) Burret

## AUSTROMYRTUS BIDWILLII (Benth.) Burret

**Synonym**—*Myrtus racemulosa* Benth., *M. bidwelli* Benth.

**Reference**—Notizbl. Bot. Gart. Berlin XV, 501, 1941.

**Derivation**—Bidwillii after J. C. Bidwill who first collected this species at Wide Bay where he was Commissioner of Crown Lands. He was later the first director of the Sydney Botanic Gardens.

**Common Name**—Python Tree, Lignum-vitae, Scrub Ironwood, Smooth-barked Ironwood.

**Standard Trade Name**—None.

A medium size tree 18-25 m high and up to 20 cm diameter.

**Trunk**—Short and crooked of irregular cross section.

**Outer Bark**—Brown and green blotched, smooth, shedding in papery flakes. Outer surface of live bark green.

**Inner Bark**—Blaze on a tree 20 cm diameter light green to white next to the white sapwood. No change in colour on exposure. No taste or distinctive smell. Very thin. 1.5 mm thick.

**Branchlets**—Smooth, brown. Leaf buds not silky as in *A. acmenioides*.

**Leaves**—Opposite, simple, entire, elliptic to ovate, 5-8 cm long, tapering to a long fine point at the tip, shiny dark green above, paler and less shiny beneath. Oil dots more numerous and conspicuous than in *A. acmenioides*, small and pellucid about the diameter of an oil dot apart. Faint eucalyptus odour when crushed. Leaf stalks 3-6 mm long.

**Venation**—Lateral veins oblique about 45° to the midrib, mid- and lateral veins distinct, midrib raised on both surfaces. Intramarginal veins distinctly removed from the leaf edge.

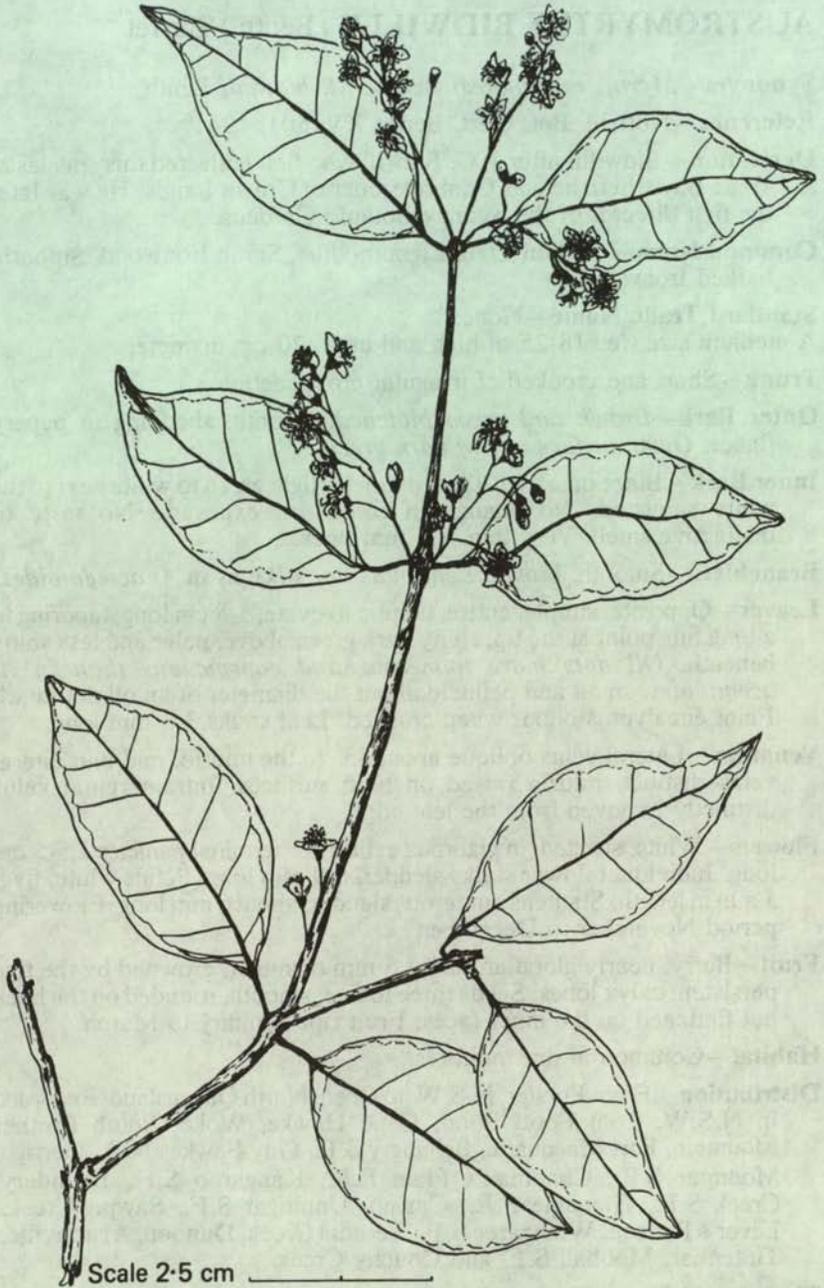
**Flowers**—White, scented, in glabrous axillary or terminal panicles 2.5-5 cm long. Individual flower stalks slender, 6-9 mm long. Petals white, five, 5 mm in length. Stamens numerous slender, about 6 mm long. Flowering period November to December.

**Fruit**—Berry, nearly globular, about 6 mm diameter, crowned by the five persistent calyx lobes. Seeds three to five, smooth, rounded on the back but flattened on the inner faces. Fruit ripe January to March.

**Habitat**—Common in dry rainforest.

**Distribution**—From Forster, N.S.W. to Coen, North Queensland. Recorded in N.S.W. from Booti Booti, Cape Hawke, Woko, South Brother Mountain, Port Macquarie, Bellangry S.F., Guy Fawkes N.P., Dorrigo, Moonpar S.F., Chapman's Plain F.R., Kangaroo S.F., Boundary Creek S.F., Glenugie F.R., Casino, Unumgar S.F., Sawpit Creek, Lever's Plateau, Wiangaree S.F., Terania Creek, Dunoan, Alstonville, Tintenbar, Mooball S.F. and Couchy Creek.

**Timber and Uses**—Too small and crooked to be used.



Scale 2.5 cm

London

Plate No. 6

*Austromyrtus bidwillii* (Benth.) Burret

**AUSTROMYRTUS FRAGRANTISSIMA** (F. Muell. ex Benth.) Burret

**Synonym**—*Myrtus fragrantissima* F. Muell. ex Benth.

**Reference**—Notizbl. Bot. Gart. Berlin XV, 501, 1941.

**Derivation**—Fragrantissima from Latin "fragrantissima" very fragrant, in reference to the numerous sweet-smelling flowers.

**Common Name**—Sweet Myrtle, Small-leaved Myrtle.

**Standard Trade Name**—None.

A rare shrub or small tree.

**Outer Bark**—Fawn-brown, *rough*, flaking off in short scales. Underbark pinkish-brown, very thin. Outer surfaces of live bark creamy-pink.

**Inner Bark**—Blaze on a tree 12 cm diameter pale pink with fine darker vertical streaks towards the outer margin, white near the sapwood. Sapwood dark. No change in colour on exposure. No smell. Delayed slightly bitter taste and increased salivation. 2 mm thick.

**Branchlets**—Brown, *hairy*, (not smooth as in *A. acmenioides* and *A. bidwillii*). Young shoots covered with sparse short dark brown hairs.

**Leaves**—Opposite, simple, entire, broad ovate, 13-25 mm long, more or less shortly pointed or rounded at the tip, shiny on upper surface with a dull silvery sheen underneath. Stalks very short, 3-6 mm.

**Venation**—*Main lateral veins five to eight*, visible on the lower surface only. Differs from *A. acmenioides* and *A. bidwillii* which have fifteen to twenty lateral veins. Intramarginal vein usually absent.

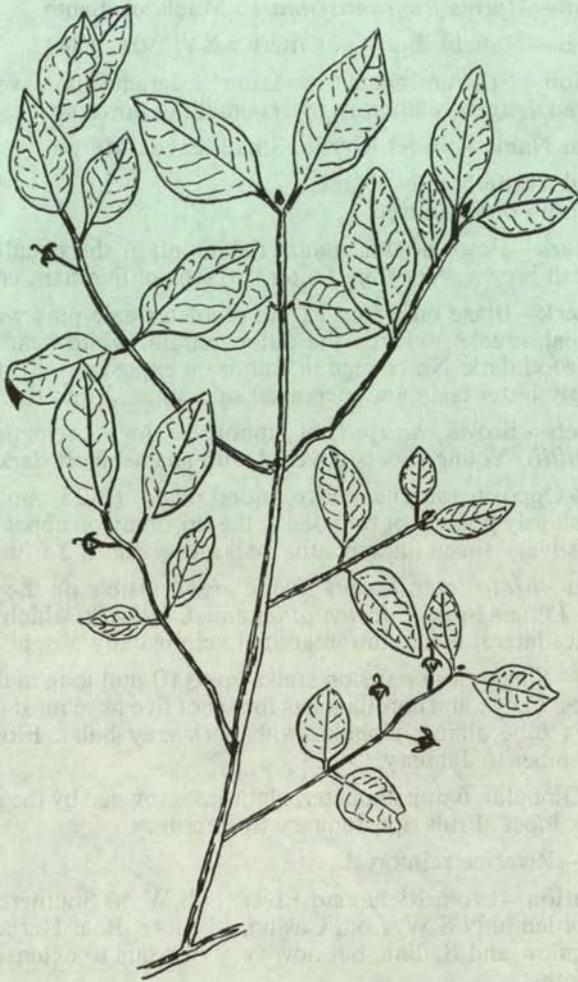
**Flowers**—Singly or in pairs on stalks up to 10 mm long in the axils of the leaves. Calyx and corolla lobes four (not five as in most other species). Calyx tube almost globular with dark grey hairs. Flowering period December to January.

**Fruit**—Globular, 6 mm diameter, glabrous, crowned by the persistent four calyx lobes. Fruit ripe January to February.

**Habitat**—Riverine rainforest.

**Distribution**—From Richmond River, N.S.W. to Southern Queensland. Recorded in N.S.W. from Casino, Lismore, Boat Harbour, Booyong, Bangalow and Ballina; but now very rare due to extensive clearing of rainforest.

**Timber and Uses**—Too small and rare to be used.



Scale 2.5 cm 

Forrigan

Plate No. 7

*Austromyrtus fragrantissima* (F. Muell. ex Benth.) Burret

## AUSTROMYRTUS HILLII (Benth.) Burret

**Synonym**—*Myrtus hillii* Benth.

**Reference**—Notizbl. Bot. Gart. Berlin XV, 501, 1941.

**Derivation**—Hillii after Walter Hill, who first collected this species in Queensland.

**Common Name**—Scaly Myrtle.

**Standard Trade Name**—None.

A small tree, attaining a height of 12 m and a stem diameter of 30 cm.

**Trunk**—Usually crooked and irregular in shape.

**Outer Bark**—Light brown, pale yellow or creamy immediately beneath the scales. *Slightly fissured and finely scaly*, shedding in thin irregular flakes. Underbark light brown.

**Inner Bark**—Reddish with a pale layer next to the sapwood. Sapwood creamy.

**Branchlets**—Brown, later becoming grey, smooth.

**Leaves**—Opposite, simple, entire, smooth, elliptic, 2-5 cm long, tapering to a blunt point at the tip, *smooth, green and shining both surfaces. Oil dots small, numerous and opaque with some scattered larger and pellucid.* Leaf stalks smooth, 3 mm long.

**Venation**—Midrib along visible beneath, mid and lateral veins distinct above. Midrib raised both surfaces. Fine intramarginal vein close to the leaf margin.

**Flowers**—Single in the leaf forks or two to three springing from a very short stalk, the stalks very slender and measuring 8-25 mm long. Calyx lobes densely hairy. Flowering period November to December.

**Fruit**—Berry, black, shiny, globular to oblong, 8-10 mm diameter crowned by the five persistent calyx lobes with a purple, sweet pulp and containing one to four light brown hemispherical to angular seeds, 3-4 mm diameter. Fruit ripe January to March.

**Habitat**—Common in the dry rainforest. Known by Sydney Herbarium as *Austromyrtus* sp. aff. *acmenioides*; but specimens from Toonumbar have been identified by L. S. Smith as *A. hillii*.

**Distribution**—Moses Rock, Wild Cattle Creek S.F., N.S.W. to Atherton, North Queensland. Recorded in N.S.W. from Wild Cattle Creek S.F., Mt. Pikapene S.F., Toonumbar S.F., Unumgar S.F., Acacia Plateau, Sawpit Creek and Lever's Plateau.

**Timber and Uses**—Too small and rare to be used.

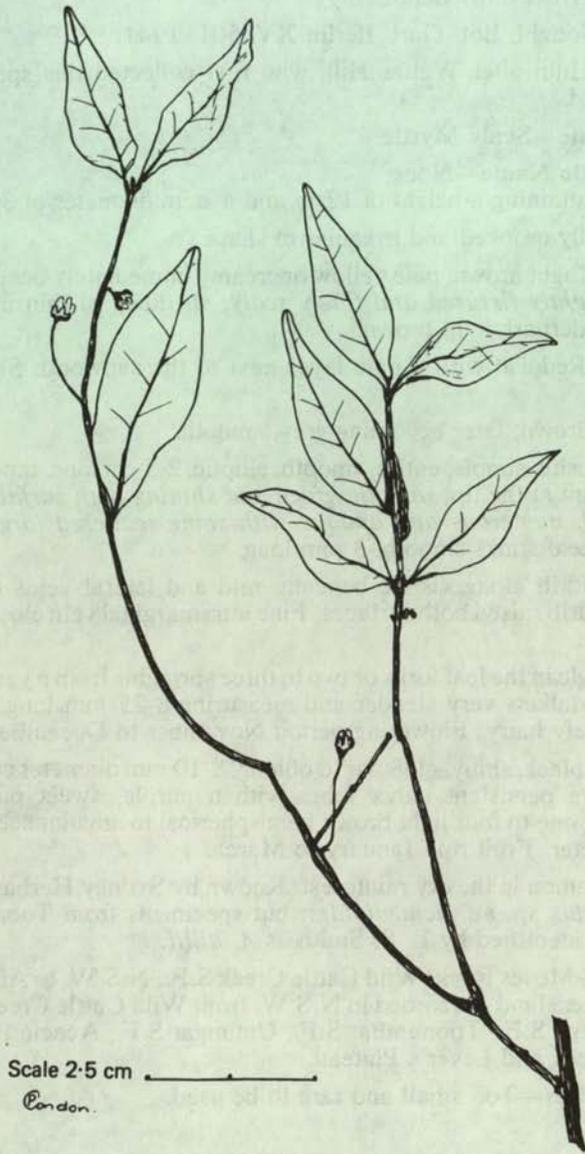


Plate No. 8  
*Austromyrtus hillii* (Benth.) Burret

## AUSTROMYRTUS LASIOCLADA (F. Muell.) L. S. Smith

**Synonym**—*Myrtus lasioclada* F. Muell.

**References**—Proc. Roy. Soc. Qld., LXVII, 35, 1956.

**Derivation**—Lasioclada after Greek "lasios" woolly' "clados" a branch, referring to the soft velvety hairs on the branchlets.

**Common Name**—Suggest Velvet Myrtle.

**Standard Trade Name**—None.

A tree attaining a height of 9 m and a stem diameter of about 23 cm.

**Trunk**—Often irregular, particularly towards the base.

**Outer Bark**—Reddish-brown, scaly.

**Inner Bark**—Blaze on a tree 15 cm diameter faintly pinkish-grey with some darker dots and flecks. Paler at the inner margin which rapidly oxidizes to purple and then brown. Faint distinctive odour when freshly cut. About 3 mm thick.

**Branchlets**—*Densely covered in brownish-black to yellow-brown hairs.*

**Leaves**—Opposite, simple, entire, elliptical to lanceolate, commonly 5-8 cm long but up to 13 cm if juvenile, the tip not drawn out but tapering quickly to a blunt point. Smooth, dull green above, *dull and softly rusty hairy beneath* especially along the veins. Leaf margin rolled under. Oil dots not visible. Leaf stalks 6 mm long, clothed in almost black or rusty hairs.

**Venation**—Lateral veins almost at right angles to the midrib ( $60^{\circ}$ - $70^{\circ}$ ), midrib prominent on both surfaces, sunken above and raised beneath. Lateral veins hardly visible above but very conspicuous and raised below. All veins clothed in rusty or yellow brown hairs.

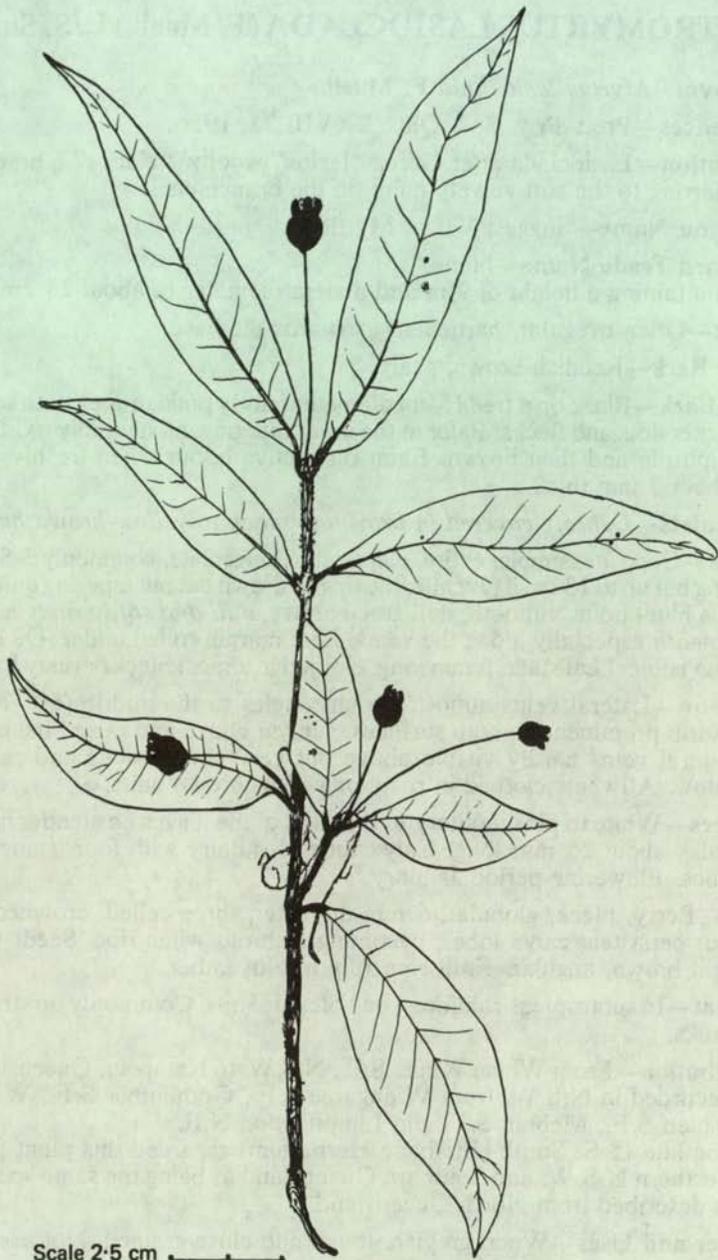
**Flowers**—White to pink, solitary in the axils of the leaves on slender hairy stalks about 25 mm long. Calyx tube also hairy with four triangular lobes. Flowering period January.

**Fruit**—Berry, black, globular, 6 mm diameter, three celled, crowned by four persistent calyx lobes, becoming glabrous when ripe. Seeds five, light brown, angular. Fruit ripe July to November.

**Habitat**—In subtropical rainforest on volcanic soils. Commonly on stream banks.

**Distribution**—From Whian Whian S.F., N.S.W. to Nambour, Queensland. Recorded in N.S.W. from Wiangaree S.F., Goonimbar S.F., Whian Whian S.F., Mebbin S.F. and Limpinwood N.R. The late L. S. Smith (Brisbane Herbarium) regarded this plant from Northern N.S.W. and Southern Queensland as being the same species as described from North Queensland.

**Timber and Uses**—Wood greyish, tough and close-grained. Not used.



Scale 2.5 cm

Condon

Plate No. 9

*Austromyrtus lasioclada* (F. Muell.) L. S. Smith

## AUSTROMYRTUS SP. NOV. (Nightcap Range)

[See Addendum Page ii]

**Common Name**—Peach Myrtle.

**Standard Trade Name**—None.

A small tree attaining a height of 12 m and a stem diameter of 15 cm.

**Trunk**—Cylindrical but often crooked.

**Outer Bark**—*Brown, scaly or flaky*. Dead bark thin. Underbark dark brown. Surface of live bark dark red or cream if decayed.

**Inner Bark**—Blaze on a tree 10 cm diameter *dark red to pink without streaks*, lighter near sapwood. Dulling on exposure. Slightly fragrant and very astringent. 2 mm thick.

**Branchlets**—White at first, turning dark brown then grey with age. *Young shoots clothed in white silky hairs*, later becoming smooth.

**Leaves**—opposite, simple, entire, broad, lanceolate, 2.5-4.5 cm long, gradually tapering to a point at the tip, shiny above, but dull beneath. *Young leaves with white silky hairs*, becoming glabrous, red then bright green when young. Oil dots obscure. No distinctive smell. Leaf stalks 2-3 mm long, silky hairy on young leaves only.

**Venation**—Midrib alone prominent on both surfaces, lateral veins obscure, raised above but sunken below. No intramarginal vein.

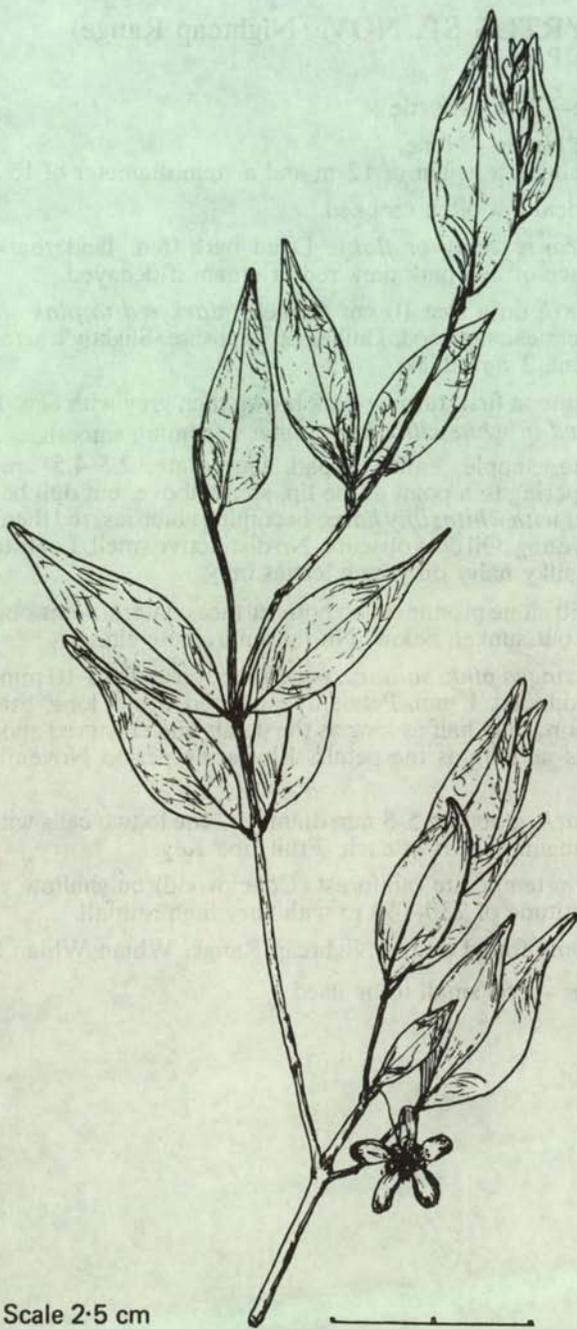
**Flowers**—*White tinged pink, solitary*, pendulous, on stalks 6-10 mm long. Sepals five, rounded, 1 mm. Petals five, cupped, 5 mm long. Stamens numerous, short, only half as long as the petals and clustered about the style which is as long as the petals. Flowering period November to December.

**Fruit**—*Berry, black*, globular, 5-8 mm diameter, one to two cells with two fertile fawn angular seeds in each. Fruit ripe July.

**Habitat**—In warm temperate rainforest (Coachwood) on shallow yellow earth at an altitude of 730-740 m with very high rainfall.

**Distribution**—Only found on the Nightcap Range, Whian Whian S.F.

**Timber and Uses**—Too small to be used.



Scale 2.5 cm

© London.

Plate No. 10

*Austromyrtus* sp. nov. (Nightcap Range)

[See Addendum Page ii]

## BACKHOUSIA ANISATA Vickery

**Reference**—Contrib. N.S.W. Nat. Herb. 1, 129, 1941.

**Derivation**—Backhousia after James Backhouse an early Quaker missionary amongst the convicts and a keen botanical collector; anisata from Latin “anisatus” partaking of the scent of Anise (*Pimpinella anisum*), referring to the aniseed-like odour of the crushed leaves.

**Common Name**—Ringwood, Aniseed Tree.

**Standard Trade Name**—None.

A tree attaining a height of over 60 m and a stem diameter of 150 cm. The crown is often dense when growing in the open, making it an attractive shade and ornamental species.

**Outer Bark**—Grey or greyish-brown, somewhat *soft and corky*, with vertical shallow fissures dividing the surface into narrow scales. Underbark pink-brown. Outer surface of live bark creamy-brown with occasional light green vertical streaks.

**Inner Bark**—Blaze on a tree 75 cm diameter dull red changing to brown around the inner margin after a few minutes exposure. The sapwood surface also changes to brown. Very slightly astringent taste, but no smell. 8 mm thick.

**Branchlets**—Light grey or pale reddish-brown becoming green towards the ends, smooth.

**Leaves**—Opposite, simple, entire with an *undulate margin*, lanceolate, 6-12 cm long, drawn out to a long fine point at the tip. Smooth and shiny above, paler beneath. Oil dots small, numerous, pellucid. The leaves when crushed have a *strong aniseed odour*. *Leaf stalks red* 5-6 mm long.

**Venation**—Lateral veins numerous, parallel, 60°-80° to the midrib, visible on both sides. Midrib sunken on the upper surface, raised beneath. Intramarginal vein close to the edge.

**Flowers**—White, sweet-scented, borne in short panicles mostly at the ends of the branchlets and generally shorter than the leaves. Calyx funnel-shaped with four to five triangular lobes, petals four to five, stamens numerous, 5 mm long. Flowering period October to November.

**Fruit**—Capsule, brown and dry when ripe, *funnel-shaped* with four or five persistent calyx lobes and a central persistent style. About 5 mm long. Fruit ripe May.

**Habitat**—Occurs in riverine rainforest on the better alluvial soils along streams and in warm temperate rainforest on the poorer soils of the ridges.

**Distribution**—Confined to the Nambucca and Bellingen valleys, N.S.W. Recorded in N.S.W. from Buckrabendinni S.F., Cook's Creek, Bellingen, Boggy Creek, Hyde's Creek, Pine Creek S.F. and Orara West S.F.

**Timber and Uses**—Wood reddish-brown, fairly hard and durable. The common name of “Ringwood” refers to the thin brownish concentric arcs on the cross section of the log apparently the result of the formation of vessels with comparatively large luminae. These concentric chains give the impression that the timber would upon drying at once “shell

off'. Hence it has not been used, although in actual fact the timber will not warp or open up even under the most extreme climatic conditions. It is resistant to termites and fungal attack. This unjustly condemned timber, though once locally abundant, is now reduced to a few scattered trees.



Plate No. 11

*Backhousia anisata* Vickery

## BACKHOUSIA MYRTIFOLIA Hook. & Harv.

**Reference**—Bot. Mag. t. 4133.

**Derivation**—Myrtifolia from Latin "myrtus" a myrtle; "folia" a leaf, referring to the resemblance of the leaves to that of the European myrtle.

**Common Name**—Grey Myrtle, Ironwood, Neverbreak, Carrol.

**Standard Trade Name**—Ironwood.

A tree attaining a height of 12 m or over and a diameter exceeding 30 cm.

**Trunk**—Usually cylindrical, but sometimes large trees flanged or slightly buttressed at the base.

**Outer Bark**—*Brown, vertically fissured and scaly.* Underbark pink-brown. Outer surface of live bark light orange-brown with pale stripes.

**Inner Bark**—Blaze on a tree 30 cm diameter *pink or pinkish-brown* with scattered pale thread-like markings, cream towards the inner margin. Generally there is no rapid change in colour on exposure. Astringent taste but no smell. 10 mm thick.

**Branchlets**—*Brown, scaly* with loose strips of bark, *white and softly hairy towards the tips.*

**Leaves**—Opposite, simple, entire, ovate or elliptic, 4-7 cm long, drawn out into a fairly long fine point at the tip. *Young leaves somewhat hairy at first.* Dark green on the upper surface, paler green beneath. Oil dots small, numerous, pellucid. Leaves when crushed have a distinctive odour. Leaf stalks very short, 4-6 mm long.

**Venation**—Lateral veins oblique at 50°-70° to the midrib, visible both sides but more conspicuous beneath. Midrib sometimes raised on the upper surface, invariably raised below. Intramarginal vein close to the edge.

**Flowers**—White in small cymes or contracted into heads forming terminal leafy panicles. Individual flowers about 15 mm diameter. Calyx tube clothed in soft white hairs, lobes five, lanceolate, yellowish-green, resembling petals, 6 mm long. Petals less than 3 mm long. Stamens numerous 6 mm long. Flowering period December to January.

**Fruit**—*Capsule enclosed in the hairy, bell-shaped, five-lobed calyx.* Each lance-shaped lobe is about 6 mm long. Fruit ripe March to May.

**Habitat**—In various types of rainforest usually along water courses.

**Distribution**—Bermagui, N.S.W. to Fraser Island, Queensland. The tree occurs in most State Forests along the Central and North Coasts of New South Wales. Recorded in N.S.W. from Bermagui, Cobargo, Bodalla, Tuross River, Conjola, Jervis Bay, Nowra, Bulli, Otford, Blue Mountains, Camden, Sydney, Wyong, Gosford, Lake Macquarie, Maitland, Wallsend, Upper Williams River, Myall Lakes N.P., Stroud, Bulga, Port Macquarie, Doyle's River, Bellangry S.F., Kunderang Brook, Taylor's Arm, Pine Creek S.F., Bellingen, Orara West S.F., Bruxner Park, Orara East S.F., Lower Bucca S.F., Wedding Bells S.F., Conglomerate S.F., Wild Cattle Creek S.F., Guy Fawkes N.P., Dalmorton, Ramornie, Copmanhurst, Mt. Pikapene S.F., Mt. Glennie, Broadwater, Ballina, Nullum S.F. and Limpinwood N.R.

**Timber and Uses**—Wood pinkish-grey when seasoned. Very hard and tough, close grained. Sometimes used for axehandles and fishing rods.



. Ponder.

Scale 2.5 cm 

Plate No. 12

*Backhousia myrtifolia* Hook. & Harv.

## BACKHOUSIA SCIADOPHORA F. Muell.

**Reference**—Fragm. ii, 26, 171.

**Derivation**—Sciadophora from Greek “sciadós” of unknown meaning; “phoreo” I carry, referring to the flowers being borne in umbels.

**Common Name**—Shatterwood, Ironwood, Boomerang Tree.

**Standard Trade Name**—None.

A small tree with a handsome crown of dark glossy-green leaves attaining a height of 30 m and a stem diameter of 80 cm.

**Trunk**—Often cylindrical and sometimes flanged at the base.

**Outer Bark**—Grey, rough with short fibres, finely vertically fissured, shedding in narrow scales. The bark structure appears to consist of numerous layers which become softer and more paper-like towards the live bark.

**Inner Bark**—Blaze on a tree 30 cm diameter light brown with darker brown flecks. Inner half of blaze changing in a few minutes to a purplish shade and then gradually to dark brown. No distinct taste or smell. 8 mm thick.

**Branchlets**—Grey to reddish-brown, smooth.

**Leaves**—Opposite, simple, entire, glabrous, broadly ovate or elliptical, 5-10 cm long, with a short rounded point or sometimes notched at the tip. Upper surface glossy dark green, paler on the underside. Oil dots small, numerous, pellucid. Odourless. Leaf stalks very short, 3 mm long.

**Venation**—Lateral veins oblique at 60° to the midrib, straight. Visible both surfaces. Midrib sunken on the upper surface, slightly raised beneath. Intramarginal vein looping and well removed from the edge. A second intramarginal vein close to the leaf edge is also present.

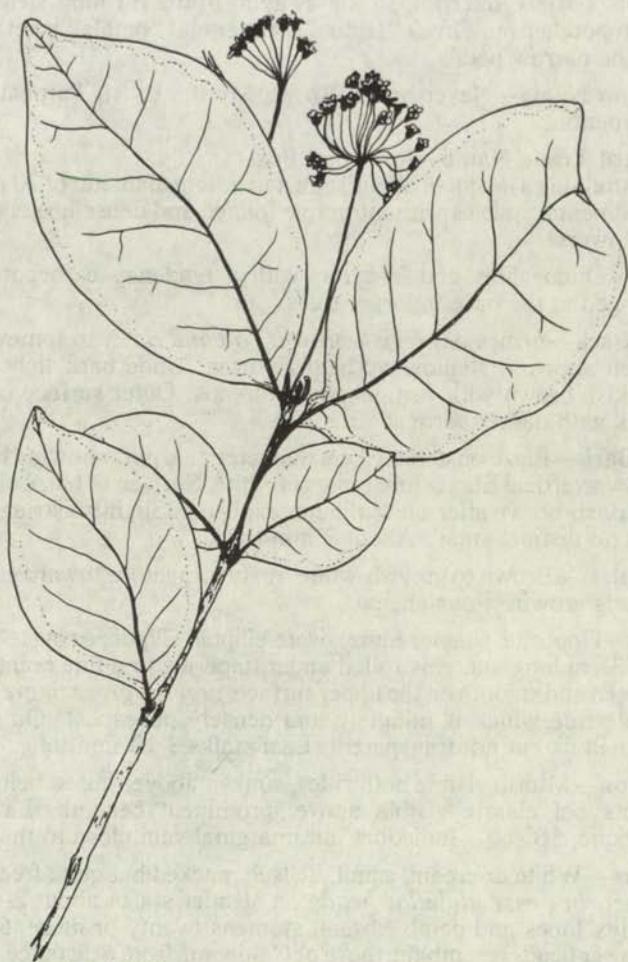
**Flowers**—White, small, numerous in axillary clusters or umbel-like cymes on a common peduncle from 10-45 mm long, pedicels slender up to 13 mm long. Calyx tube glabrous, bell-shaped. Lobes rounded and short. Flowering period June to July.

**Fruit**—Capsule, brown (when ripe), bell-shaped, 5 mm or a little over in diameter including the persistent calyx lobes. Ovary enclosed in the four-lobed calyx tube. Fruit ripe August.

**Habitat**—The drier phases of rainforest in gorges and on steep slopes on sedimentary soils.

**Distribution**—From Gloucester, N.S.W. to Rockhampton, Queensland. Recorded in N.S.W. from Bruschy Mountains, Coneac, Wingham, Lorne S.F., Doyle's River S.F., Bellangry S.F., Kunderang Brook, Chandler Gorge, Carrai, Camara Creek (near Bellbrook), Kangaroo River S.F., Boundary Creek S.F., Richmond Range S.F., Kyogle, Goonimbar S.F. and Wollongbar.

**Timber and Uses**—Wood light grey when seasoned, hard and tough, close grained. Of no particular use, but sometimes used for tool handles.



Scale 2.5 cm \_\_\_\_\_

Condon

Plate No. 13

*Backhousia sciadophora* F. Muell.

## CHORICARPIA LEPTOPETALA (F. Muell.) K. Domin.

**Synonym**—*Syncarpia leptopetala* F. Muell.

**Reference**—Bibl. Botan. 89, 5, 472, 1026, 1928.

**Derivation**—Choricarpia from Greek "choros" a dance and "karpos" a fruit possibly referring to the swaying fruits on long slender stalks; leptopetala from Greek "leptos" slender and "petala" a petal referring to the narrow petals.

**Common Name**—Never-break, Brown Myrtle, Brush Turpentine, Rusty Turpentine.

**Standard Trade Name**—Ironwood Box.

A tree attaining a height of about 15 m and a stem diameter of 20 cm or over. An ornamental species with attractive foliage and dense heads of creamy-white flowers.

**Trunk**—Often short and irregular with a tendency to become slightly flanged at the base in larger trees.

**Outer Bark**—Brown or greyish-brown. Soft and corky to somewhat scaly, often showing shallow vertical fissures. Underbark light brown or pinkish-brown with vertical white threads. Outer surface of live bark pink with darker vertical striations.

**Inner Bark**—Blaze on a tree 15 cm diameter pale pink showing hard, short, brown vertical fibres. Inner margin white. Surface of blaze changes to a purplish-brown after a few minutes exposure. Slightly astringent to taste but no distinct smell. About 2 mm thick.

**Branchlets**—Brown to greyish-white, rusty tomentose towards the ends on young growth. Four-angled.

**Leaves**—Opposite, simple, entire, ovate-elliptic, elliptic, or ovate-lanceolate, 5-13 cm long, margins rolled under, tapering to a fine point at the tip. Green and smooth on the upper surface, greyish-green or greyish on the underside which is minutely and densely pubescent. Oil dots small numerous but not transparent. Leaf stalks 3-10 mm long.

**Venation**—Midrib visible both sides, sunken above, raised below. Lateral veins not clearly visible above, prominent beneath. Lateral veins oblique, 50°-60°. Indistinct intramarginal vein close to the edge.

**Flowers**—White or cream, small, densely packed but quite free from each other, in dense globular heads on slender stalks about 2-4 cm long. Calyx lobes and petals absent, stamens twenty or more, 6 mm long. Flower heads resembling those of *Callicoma* from a distance. Flowering period July to September.

**Fruit**—Capsule, conical, hairy, 2 mm diameter, usually two celled with one ovule in each cell. Crowded into dense round heads about 13 mm diameter. Fruit ripe August to October.

**Habitat**—Rainforest on poorer sedimentary soils, favouring the banks of water courses but also on ridges in moist eucalypt forest.

**Distribution**—From Stanwell Park, N.S.W. to Buderim Mountain, Queensland. Recorded in N.S.W. from Stanwell Park, Wyong, Newcastle, Paterson River, Myall Lakes N.P., Bulahdelah, Stroud, Comboyne, Port Macquarie, Bril Bril S.F., Bellinger, Orara West S.F.,



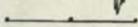
Scale 2.5 cm 

Plate No. 14

*Choricarpia leptopetala* (F. Muell.) K. Domin.

Orara East S.F., Lower Bucca S.F., Wedding Bells S.F., Conglomerate S.F., Bagawa S.F., Kangaroo River S.F. and Mebbin S.F.

**Timber and Uses**—Wood light brown in colour. Hard and tough, close grained. Could possibly be used for small tool handles.

## DECASPERMUM PANICULATUM Kurz.

**Synonym**—*Myrtus sericocalyx* C. T. White.

**Reference**—Journ. Ag. Soc. Beng. XLVI.

**Derivation**—Decaspermum from Greek "dek" ten and "sperma" a seed, referring to the fruit commonly having ten seeds; paniculata from Latin "panicula" a tuft in allusion to the branched (paniculate) inflorescence.

**Common Name**—Silky Myrtle, Currant Myrtle.

**Standard Trade Name**—None.

A tall shrub or tree up to 15 m in height and a stem diameter of 25 cm. With an attractive glossy crown.

**Trunk**—Often crooked, angled, or fluted and slightly buttressed at the base.

**Outer Bark**—Brown to dark brown, rough, with narrow vertical papery scales. Underbark dark brown with creamy-brown transverse wavy lines. Outer surface of live bark brown.

**Inner Bark**—Blaze on a tree 15 cm diameter brown, tough and fibrous. No change in colour on exposure. Slightly astringent but no smell. 5 mm thick.

**Branchlets**—Silvery silky hairy at first, later becoming smooth to loosely fibrous and reddish-brown.

**Leaves**—Opposite, simple, entire, ovate-lanceolate, 2-5 cm long, margin rolled under (flat in *Austromyrtus acmenioides* and *A. bidwillii*), gradually tapering to a long fine point. Shiny above, less so below, dark green both sides, glabrous, oil dots minute indistinct. Leaf stalk 6 mm long.

**Venation**—Midrib visible on both surfaces and raised. Lateral veins barely visible above, not visible below. Lateral veins 60°-70° to the midrib. Indistinct intramarginal vein very close to the edge.

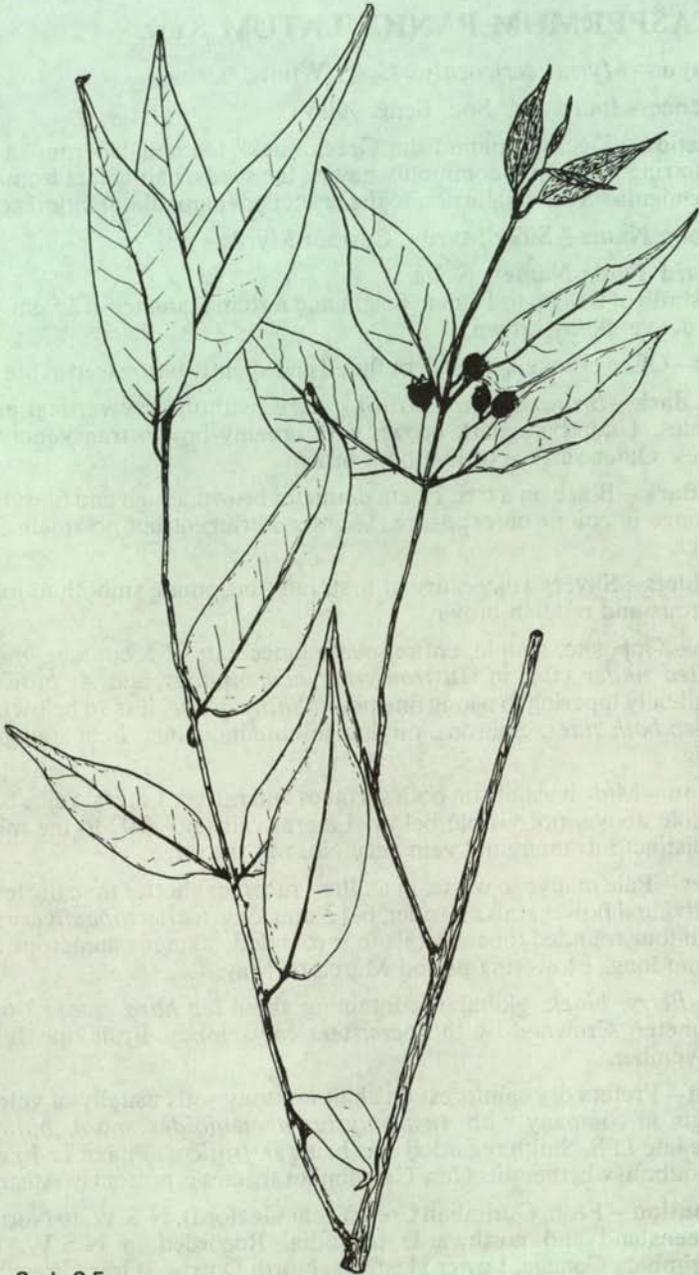
**Flowers**—Pale mauve to white, in axillary racemes shorter than the leaves. Individual flower stalks slender, 6-13 mm long. Calyx tube silvery silky with four rounded lobes, petals four rounded, stamens numerous up to 6 mm long. Flowering period March to May.

**Fruit**—Berry, black, globular, containing about ten hard seeds, 3-6 mm diameter. Crowned by the persistent calyx lobes. Fruit ripe July to November.

**Habitat**—Prefers dry rainforest on shallow stony soils usually of volcanic origin in company with *Austromyrtus acmenioides* and *A. bidwillii*. The late L. S. Smith regarded it as being *D. fruticosum*; but L. Johnson is doubtful whether this New Caledonian species is present in Australia.

**Distribution**—From Ourimbah Creek (near Gosford), N.S.W. to Northern Queensland and northwards to India. Recorded in N.S.W. from Ourimbah, Coneac, Lower Hastings, North Dorrigo, Orara West S.F., Coramba Mountain, Wild Cattle Creek S.F., Moonpar S.F., Cloud's Creek S.F., Ballina, Alstonville, Wollongbar, Lismore, Mt. Pikapene S.F., Casino, Beaury S.F., Koreelah S.F., Mt. Lindesay, Mt. Glennie, Lever's Plateau, Wiangaree S.F., Mt. Warning N.P. and Couchy Creek.

**Timber and Uses**—Wood reddish-brown, very hard and tough, close-grained. Too small to be of any value.



Scale 2.5 cm

Ponda.

Plate No. 15

*Decaspermum paniculatum* Kurz.

## PILIDIOSTIGMA GLABRUM Burret

**Synonym**—*Myrtus rhytisperma* F. Muell. var. *grandifolia* Benth.

**Reference**—Notizbl. Bot. Gart. Berlin XV, 548, 1841.

**Derivation**—Pilidiostigma from Greek "pilidion" a night cap and "stigma" a stigma referring to the cap-like stigma; glabrum from Latin "glabrum" without hairs because of the smooth leaves and floral parts.

**Common Name**—Plum Myrtle.

**Standard Trade Name**—None.

A bushy shrub or small tree up to 5 m in height and 8 cm diameter.

**Trunk**—Cylindrical.

**Outer Bark**—*Brown, finely and vertically wrinkled.* Underbark orange-brown. Outer surface of live bark creamy-green.

**Inner Bark**—Blaze on a tree 5 cm diameter *yellowish-brown* with paler dots towards the outer margin. Paler towards the inner margin composed of very numerous and fine vertical hairs. No change in colour upon cutting. Slightly bitter with an unpleasant odour. About 2 mm thick.

**Branchlets**—*Purple-brown.* At first smooth, then becoming finely scaly towards the base with *very thin scales lifting in long pieces.* Leaf buds finely silky-hairy.

**Leaves**—Opposite, simple, entire, oblong-elliptic or oval-oblong, 2-9 cm long, *tapering into a blunt point* at the tip. Leaves shiny dark green above, pale green beneath. Oil dots not visible. *Leaf stalks* 2-6 mm long, *purple, smooth.*

**Venation**—Midrib conspicuous on both sides, sunken above and raised below. Lateral veins obscurely visible above, hardly visible below. Intramarginal vein 3-5 mm from the edge, visible below.

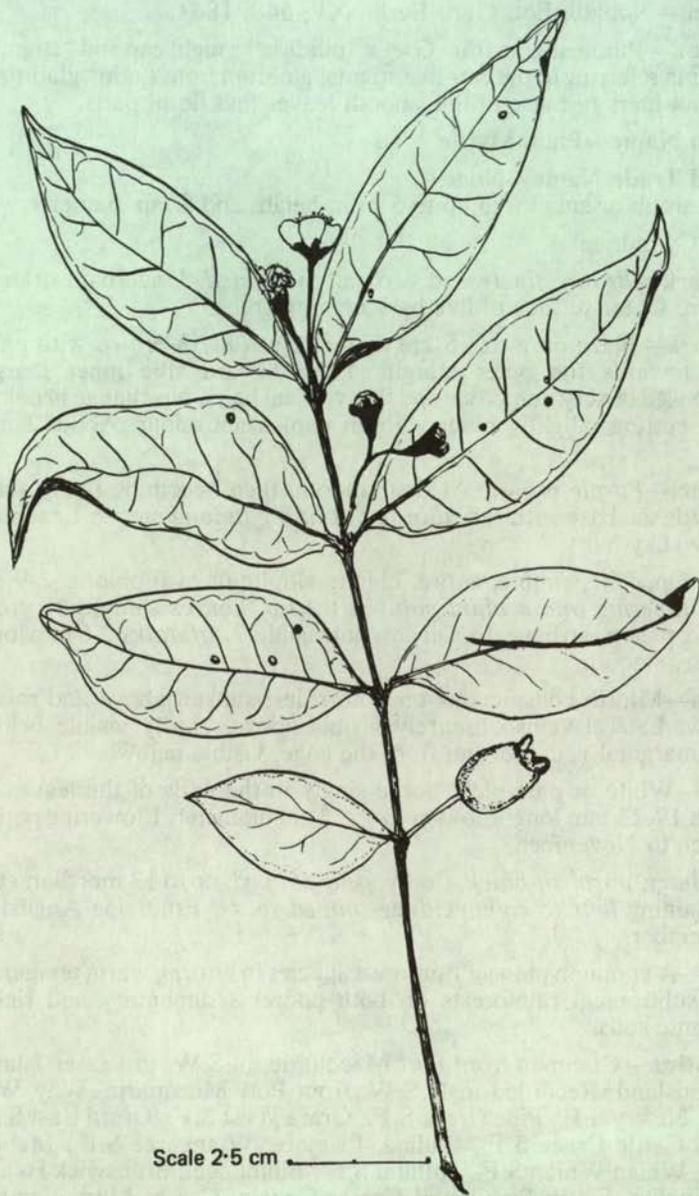
**Flowers**—White or pale pink, borne singly in the axils of the leaves on stalks 19-25 mm long. *Flowers large, 2 cm diameter.* Flowering period March to November.

**Fruit**—*Berry, purplish-black, fleshy, pear-shaped,* up to 13 mm diameter. Containing *four to eight, kidney-shaped seeds.* Fruit ripe August to September.

**Habitat**—A common pioneer rainforest species in littoral, warm temperate and subtropical rainforests on both poorer sedimentary and richer volcanic soils.

**Distribution**—Common from Port Macquarie, N.S.W. to Fraser Island, Queensland. Recorded in N.S.W. from Port Macquarie, Way Way S.F., Newry S.F., Pine Creek S.F., Orara West S.F., Orara East S.F., Wild Cattle Creek S.F., Ballina, Lismore, Wiangaree S.F., Mebbin S.F., Whian Whian S.F., Nullum S.F., Billinudgel, Brunswick Heads, Burringbar, South Pumpenbil Creek, Couchy Creek, Murwillumbah and Tweed Heads.

**Timber and Uses**—Wood pale brown, hard, close grained. Too small to be of much use.



*Conda.*

Plate No. 16

*Pilidiostigma glabrum* Burret

## RHODAMNIA ARGENTEA Benth.

**Reference**—Fl. Austr. III, 278.

**Derivation**—Rhodamnia from Greek “rhodamnos” a young branch, probably referring to the slender branchlets of the first species so named; argentea from Latin “argenteus” silvery, referring to the silvery under surface of the leaves.

**Common Name**—Malletwood, White Myrtle, Silver Leaf, Silver Malletwood, White Turpentine.

**Standard Trade Name**—Malletwood.

A tree attaining a height of 30 m and a stem diameter of 85 cm.

**Trunk**—Often tall and straight. Sometimes fluted and moderately buttressed.

**Outer Bark**—Grey or brown, soft papery flaky with a tendency to become longitudinally fissured and wrinkled in large and older trees. *Underbark plum* coloured beneath with alternating cream and plum rings.

**Inner Bark**—Blaze on a tree 60 cm diameter rich dark brown, gradually becoming paler towards the sapwood. After some minutes, the inner margin darkens and the whole blaze surface changes to a darker and more uniform brown. The surface of the blaze has a distinctive smooth and fine-grained appearance. Bark about 3 mm thick.

**Branchlets**—Brown, generally with a dense silvery-white cottony indumentum towards the ends extending to the young shoots.

**Leaves**—Opposite, simple, entire, lanceolate, elliptic, or oval, 4-10 cm long, rounded or tapering quickly into a blunt or fairly fine firm point at the tip formed by the extension of the midrib. Upper surface green and glossy, *underside* and leaf stalk clothed with a dense silvery-white tomentum. Leaf stalks 3-20 mm long.

**Venation**—Distinct both surfaces but raised and more conspicuous on the underside, *three veined*, with two prominent basal veins diverging from the midrib above the base and joining it again at the tip. Midrib sunken on the upper surface.

**Flowers**—White, in one-four cymes springing from the forks of the leaves. Each cyme has a stalk 6-13 mm long and usually bears three small flowers. Flowering period November to January.

**Fruit**—Berry, black, globular, fleshy, about 10 mm diameter, containing one or more smooth yellowish seeds. Fruit ripe March to May.

**Habitat**—Found in all types of rainforest from littoral and riverine to mountain forests on sedimentary and volcanic soils.

**Distribution**—From the Hastings River, N.S.W. to Mackay, Queensland. This tree reaches its best development on the basaltic soils in the McPherson Range. Recorded in N.S.W. from Bellangry S.F., Bruxner Park F.R., Coramba Mountain, Coramba Reserve, Wild Cattle Creek S.F., Moonpar S.F., Cloud's Creek S.F., Ewingar S.F., Ramornie, Woodburn, Mt. Pikapene S.F., Iluka, Lismore, Toonumbar S.F., Yabbra S.F., Beaury S.F., Koreelah S.F., Mt. Clunie, Mt. Lindesay, Moore Park, Lever's Plateau, Wiangaree S.F., Whian Whian S.F., Byron Bay, Mebbin S.F. and Mt. Cougal.

**Timber and Uses**—Wood grey, hard and tough. Suitable for wood-working planes, gun stocks, boot lasts, turnery and golf clubs. 850 kg. per cubic metre.



Scale 2.5 cm 

*Cardon.*

Plate No. 17

*Rhodamnia argentea* Benth.

## RHODAMNIA SP. NOV. AFF. ARGENTEA

[See Addendum Page ii]

A small tree 6-8 m tall, 10 cm diameter commonly with 6-12 stems arising from a single root stock. Foliage dense.

**Trunk**—Crooked, not fluted or buttressed.

**Outer Bark**—Grey-brown, softly vertically fissured. Underbark brown with cream horizontal lines. Outer surface of live bark red-brown.

**Inner Bark**—Blaze on a tree 10 cm diameter dark red. No change in colour on exposure. Astringent, no smell. 3 mm thick.

**Branchlets**—Brown in the leafy section, later turning grey, smooth and rounded. Young shoots with short scurfy hairs.

**Leaves**—Opposite, simple, entire, egg-shaped to oval, 4-8 cm long, rounded at the tip or occasionally pointed and quickly tapering at the base. Upper surface dark green, somewhat glossy but *pale green to white* and dull *beneath*. Smooth on both surfaces. Leaf stalks 5-10 mm long.

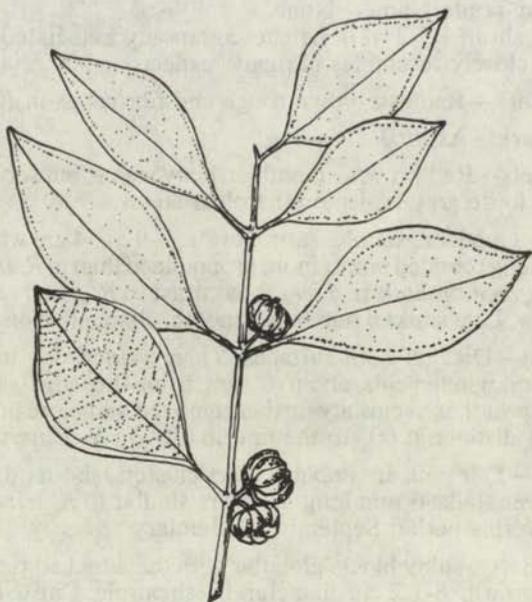
**Venation**—Only the midrib and intramarginal vein clearly visible above, but *all veins* including the net veins *very conspicuous on the underside*. The intramarginal vein is more conspicuous than the lateral veins so that the leaf is almost three-veined.

**Fruit**—Berry, turning red then glossy black, globular-flattened with eight segments superficially resembling that of *Glochidion ferdinandi*, fleshy, 8-10 mm wide on short thin stalks 2-4 mm long. Singly or in pairs in the leaf axils. Crowned by the remains of the four calyx lobes. Seeds smooth angular two to five, straw-coloured 3-4 mm long. Fruit ripe May to July.

**Habitat**—In dry rainforest dominated by hoop pine on basaltic soil. On hot dry stony slopes and ridges.

**Distribution**—Acacia Plateau, N.S.W. to Benarkin, South Queensland. Recorded in N.S.W. from Acacia Plateau, Mt. Lindesay and Lever's Plateau.

**Timber and Uses**—Too small to be of use.



0 1 2 cm.

E.S.

Plate No. 18  
*Rhodamnia* sp. nov. aff. *argentea*  
[See Addendum Page ii]

## RHODAMNIA MAIDENIANA C. T. White

**Synonym**—*Rhodamnia trinervia* Blume var. *glabra* Maid. & Betche.

**Reference**—Blumea Suppl. 1, 215-6, 1937.

**Derivation**—Maideniana in honour of J. H. Maiden, a former Director of Sydney Botanic Gardens.

**Common Name**—Suggest Smooth-leaved Scrub Turpentine.

**Standard Trade Name**—None.

A bushy shrub 1.5-3 m in height, commonly associated with *R. trinervia* which it closely resembles in many respects.

**Outer Bark**—Reddish-brown rough and fibrous as in *R. trinervia*.

**Inner Bark**—As for *R. trinervia*.

**Branchlets**—Red-brown, smooth on leafy stems; but soon becoming rough with loose grey scales on the older stems.

**Leaves**—Opposite, simple, entire, ovate, 6-9 x 3-4 cm wide, tapering into a fine long rounded point (more pronounced than in *R. trinervia*). *Smooth and green on both surfaces* in contrast to *R. trinervia* which is downy below. Leaf stalks 6 mm long, smooth, channelled on the upper surface.

**Venation**—Distinct both surfaces. *Three veined* due to the conspicuous intramarginal veins about 6 mm from the edge of the leaf. (In *R. trinervia* these veins are further removed and more prominent). Lateral veins distinct at 60° to the midrib (90° in *R. trinervia*).

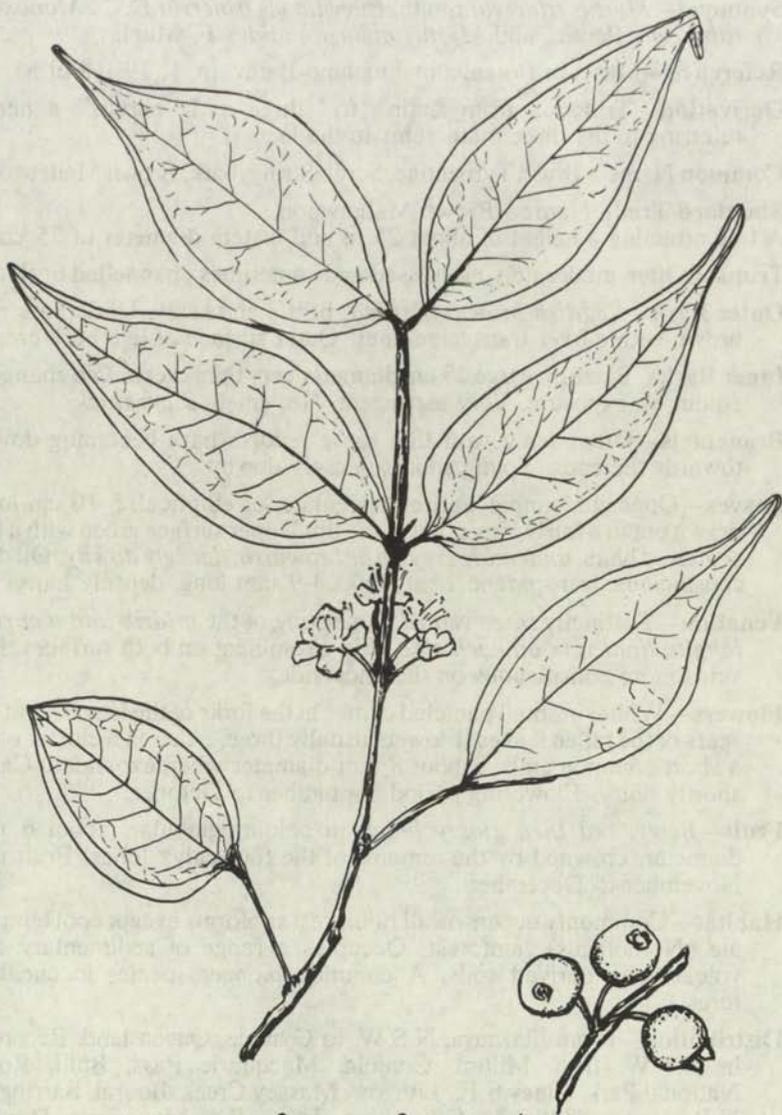
**Flowers**—Pale pink, in simple axillary clusters, shorter than in *R. trinervia*. Flower stalks 6 mm long. Flowers similar to *R. trinervia* but smaller. Flowering period September to January.

**Fruit**—Berry, shiny black, globular with the attached remains of the calyx as a crown, .8-1.2 cm diameter. Flesh purple. One to ten bone-coloured glossy seeds, globular, hemispherical or angular, 3-4 mm long. Fruit ripe July to August.

**Habitat**—An occasional shrub in rainforest on volcanic or alluvial soil.

**Distribution**—From the Richmond River, N. S. W. to Tallebudgera Creek, Queensland. Recorded in N. S. W. from Rous, Mullumbimby, Burringbar, Mooball S. F., Wollumbin Wildlife Refuge, Crystal Creek and Bilambil.

**Timber and Uses**—This species is not known to ever obtain sufficient size to be of commercial value.



Condon

Plate No. 19

*Rhodamnia maideniana* C. T. White

## RHODAMNIA TRINERVIA Blume

[See Addendum Page ii]

**Synonym**—*Myrtus trinervia* Smith, *Eugenia* (?) *trinervia* D.C., *Monoxora rubescens* Benth., and *Myrtus melastomoides* F. Muell.

**Reference**—Museum Botanicum Lugduno-Batavum, 1, 79, 1849-51.

**Derivation**—*Trinervia* from Latin "tri" three and "nervus" a nerve, referring to the three main veins in the leaf.

**Common Name**—Brush Turpentine, Scrub Stringybark, Brown Malletwood.

**Standard Trade Name**—Brown Malletwood.

A tree attaining a height of about 25 m and a stem diameter of 75 cm.

**Trunk**—Often moderately buttressed and sometimes channelled or fluted.

**Outer Bark**—*Reddish-brown, fissured*, brittle and scaly. Underbark reddish-brown with darker transverse lines. Outer surface of live bark cream.

**Inner Bark**—Blaze on a tree 25 cm diameter very thin, cream. No change in colour on exposure. Very astringent. No. smell. 3 cm thick.

**Branchlets**—Often scaly with thin loose reddish bark becoming downy towards the ends. Young shoots densely downy.

**Leaves**—Opposite, simple, entire, lanceolate, or elliptical, 5-10 cm long, drawn out to a fairly long point at the tip. Upper surface green with a few scattered hairs, *underside greyish or brownish, densely downy*. Oil dots conspicuous, transparent. Leaf stalks 4-9 mm long, densely hairy.

**Venation**—Distinctly *three veined*, consisting of the *midrib and a curved longitudinal vein on each side* of it. Prominent on both surfaces. Net veins more conspicuous on the underside.

**Flowers**—White, in small paniced cymes in the forks of the leaves or at the scars of the fallen leaves. Flowers usually three, either in a cluster or on a short common stalk. About 8 mm diameter when expanded. Calyx shortly hairy. Flowering period September to October.

**Fruit**—*Berry, red then glossy black* in colour, globular, about 6 mm diameter, crowned by the remains of the four calyx lobes. Fruit ripe November to December.

**Habitat**—Commonly occurs on all rainforest subforms except cool temperate (Nothofagus) rainforest. Occupies a range of sedimentary and volcanically derived soils. A common pioneer species in eucalypt forests.

**Distribution**—From Illawarra, N.S.W. to Gympie, Queensland. Recorded in N.S.W. from Milton, Conjola, Macquarie Pass, Bulli, Royal National Park, Olney S.F., Lithgow, Massey Creek, Booral, Barrington N.P., Upper William's, Gloucester, Taree, Port Macquarie, Doyle's River S.F., Bellangry S.F., Pinnacle Creek, Nambucca S.F., Newry S.F., Dorrigo N.P., Pine Creek S.F., Bruxner Park, Coramba Mountain, Orara East S.F., Lower Bucca S.F., Wild Cattle Creek S.F., Moonpar S.F., Marengo S.F., Gibraltar Range N.P., Mt. Belmore S.F., Mt. Pikapene S.F., Girard S.F., Toonumbar S.F., Unumgar S.F., Yabba S.F., Beaury S.F., Tooloom, Acacia Creek, Mt. Lindesay, Lever's Plateau, Wiangaree S.F., Whian Whian S.F., Byron Bay, Brunswick Heads, Mebbin S.F. and Murwillumbah.



Scale 2.5 cm

Plate No. 20

*Rhodamnia trinervia* Blume

[See Addendum Page ii]

**Timber and Uses**—Wood yellowish-brown, hard, tough and durable, close grained. Suitable for flooring, scantling and hard turnery.



## RHODOMYRTUS BECKLERI (F. Muell.) L. S. Smith

[See Addendum Page ii]

**Synonym**—*Myrtus beckleri* F. Muell.

**Reference**—Proc. Roy. Soc. Qld., 37, 1956.

**Derivation**—Rhodomyrtus from Greek "rhodon" rose and "myrtos" myrtle, referring to the rose coloured flowers; beckleri after Dr. H. Beckler, a German doctor with the Burke and Wills expedition who also collected in the Clarence and Bellingen areas where he first collected this species from Cloud's Creek.

**Common Name**—Rose Myrtle, Small-leaved Myrtle.

**Standard Trade Name**—None.

A shrub or small tree attaining a height of 15 m and a stem diameter of 25 cm.

**Outer Bark**—Light brown, surface divided by narrow longitudinal lines into soft flaky scales. Underbark mid brown. Outer surface of live bark creamy-brown.

**Inner Bark**—Blaze on a tree 18 cm diameter outer margin red becoming paler red-brown towards the sapwood. No change in colour on exposure. Very astringent. No smell. 3 mm thick.

**Branchlets**—Red-brown, smooth.

**Leaves**—Opposite, simple, entire, lanceolate or ovate-lanceolate, 2-8 cm long, gradually tapering to a blunt point at the tip. *Thick and green on both surfaces, glossy above, paler beneath.* Oil dots small, numerous, obscure. Leaves with a strong aromatic odour when crushed. *Leaf stalks 2-6 mm long, red.*

**Venation**—Midrib visible both surfaces, *lateral veins not distinct.* Somewhat three veined due to the intramarginal vein being well removed from the edge.

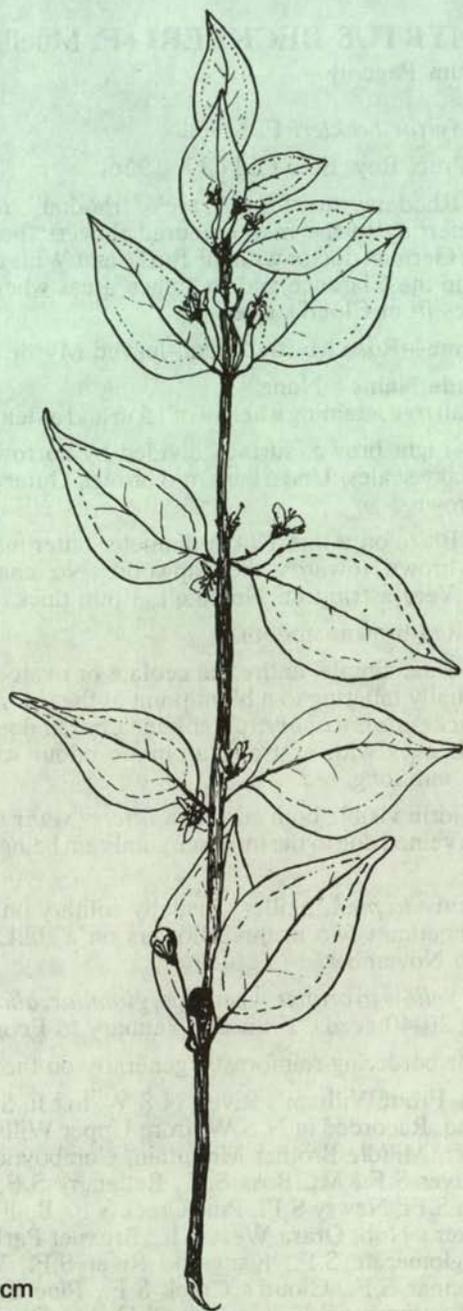
**Flowers**—*Mauve to pink,* axillary, usually solitary on stalklets 5-25 mm long or sometimes two to three flowers on a stalk. Flowering period October to November.

**Fruit**—*Berry, yellow to orange* when ripe, *globular, about 5 mm diameter,* containing 20-40 seeds. Fruit ripe January to February.

**Habitat**—In or bordering rainforests, generally on the poorer soils.

**Distribution**—From William's River, N.S.W. to Mt. Spurgeon, Northern Queensland. Recorded in N.S.W. from Upper William's River, Upper Allyn River, Middle Brother Mountain, Comboyne, Port Macquarie, Doyle's River S.F., Mt. Boss S.F., Bellangry S.F., Styx River S.F., Nambucca S.F., Newry S.F., Pine Creek S.F., Bellingen, Never Never S.F., Tucker's Nob, Orara West S.F., Bruxner Park F.R., Orara East S.F., Conglomerate S.F., Kangaroo River S.F., Wild Cattle Creek S.F., Moonpar S.F., Cloud's Creek S.F., Pine Brush S.F., Ballina, Lismore, Toonumbar S.F., Unumgar S.F., Mt. Glennie, Whian Whian S.F., Nullum S.F., Mullumbimby and Couchy Creek.

**Timber and Uses**—Wood hard and close grained. Could be used for small turnery.



Scale 2.5 cm

London . . . . .

Plate No. 21

*Rhodomyrtus beckleri* (F. Muell.) L. S. Smith

[See Addendum Page ii]

## RHODOMYRTUS PSIDIOIDES Benth.

**Reference**—Benth. Fl. iii, 272, 1866.

**Derivation**—Psidioides from Latin "Psidium" the guava tree; and Greek "eidos" resembling, because of its similarity in leaf and habit to the cultivated guava tree.

**Common Name**—Native Guava.

**Standard Trade Name**—None.

A shrub or small tree up to 12 m tall and 25 cm diameter.

**Trunk**—Cylindrical.

**Outer Bark**—*Brown, softly scaly* and somewhat powdery and pale towards the live bark. Underbark fawn. Outer surface of live bark bright green.

**Inner Bark**—Blaze on a tree 20 cm diameter pale pink, paler towards the inner margin. Somewhat soft and a little fibrous in texture. The surface darkens slightly after a few minutes exposure. Freshly cut bark has a faint aromatic odour and slightly bitter taste. 13 mm thick.

**Branchlets**—*Grey or brown, becoming green and hoary* — *pubescent towards the ends*. Very young shoots and flower buds densely silvery hairy.

**Leaves**—Opposite, simple, entire, ovate elliptic to ovate-lanceolate, 6-16 cm long, drawn out into a short or long blunt or sometimes fairly fine point at the tip. *Shining upper surface, paler beneath*. When crushed the leaves have a faint but distinctive fragrance. Leaf stalks 13-20 mm long.

**Venation**—Midrib and lateral veins quite distinct on both surfaces, but more prominent on the underside.

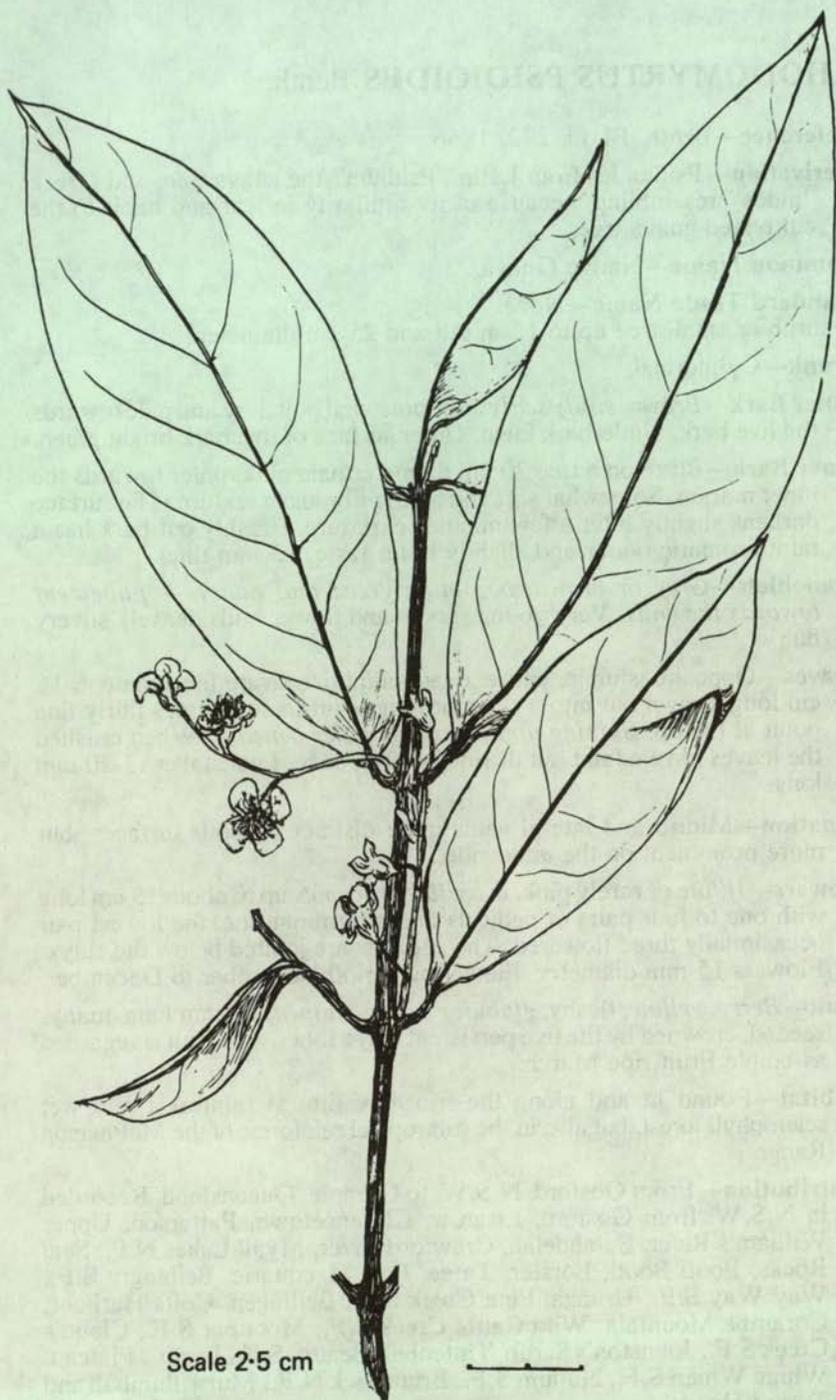
**Flowers**—*White* or rarely pink, in *axillary racemes* up to about 15 cm long with one to four pairs of pedicels and a terminal one, the lowest pair occasionally three-flowered. The pedicels are jointed below the calyx. Flowers 15 mm diameter. Flowering period November to December.

**Fruit**—*Berry, yellow, fleshy, globular or egg-shaped*, 30 mm long, many-seeded, crowned by the five persistent calyx lobes. The fruit is regarded as edible. Fruit ripe March.

**Habitat**—Found in and along the fringe of littoral rainforest and wet sclerophyll forest, but also in the subtropical rainforest of the McPherson Range.

**Distribution**—From Gosford, N.S.W. to Gympie, Queensland. Recorded in N.S.W. from Gosford, Lisarow, Clarendetown, Patterson, Upper William's River, Bulahdelah, Crawford River, Myall Lakes N.P., Seal Rocks, Booti Booti, Forster, Taree, Port Macquarie, Bellangry S.F., Way Way S.F., Urunga, Pine Creek S.F., Bellingen, Coffs Harbour, Coramba Mountain, Wild Cattle Creek S.F., Moonpar S.F., Cloud's Creek S.F., Johnston's Scrub, Tintenbar, Beaury S.F., Lever's Plateau, Whian Whian S.F., Nullum S.F., Brunswick N.R., Murwillumbah and Tweed Heads.

**Timber and Uses**—Wood light coloured and tough. Of no particular use.



Scale 2.5 cm

London.

Plate No. 22

*Rhodomyrtus psidioides* Benth.

## SYZYGium COOLMINIANUM (C. Moore) L. Johnson

**Synonym**—*Eugenia coolminiana* C. Moore, *E. cyanocarpa* F. Muell. ex Maid. & Betche.

**Reference**—Contrib. N.S.W. Nat. Herb. III, 3, 98-9, 1962.

**Derivation**—*Syzygium* from Greek "syzygos" joined or yoked together, probably referring to the joined cotyledons; *coolminianum* after "coolmin" the aboriginal name for the edible blue fruits.

**Common Name**—Blue Cherry, Blue Lilly Pilly.

**Standard Trade Name**—Scented Satinash.

A tree attaining a height of 12-15 m and a stem diameter of 30 cm.

**Trunk**—Cylindrical, often crooked.

**Outer Bark**—*Reddish-brown, scaly*, shedding in narrow longitudinal scales. Underbark mid-brown. Outer surface of live bark cream with light brown vertical flecks.

**Inner Bark**—Blaze on a tree 30 cm diameter *reddish or purplish-brown* on the outer half, *then pinkish-brown*, becoming paler towards the sapwood. The surface changes to a darker reddish-brown after a few minutes exposure. Bark woolly, fibrous in texture, astringent to taste. 13 mm thick.

**Branchlets**—Brown, becoming green towards the ends, smooth. *Leaf-bearing branchlets and leaf stalks often red* on the upper surface.

**Leaves**—Opposite, simple, entire, lanceolate to ovate, 5-10 cm long drawn out into a *long narrow point at the tip*. *Upper surface glossy, dark green*, underside much paler. When *crushed the leaves are sticky with a lemon-like odour*. *Oil dots numerous and conspicuous*. Leaf stalks 3-6 mm long. The short-leaved coastal form was previously known as *E. coolminiana*; and the normal large-leaved form as *E. cyanocarpa*. Both are now united by L. Johnson under *S. coolminianum*.

**Venation**—Lateral veins visible or indistinct on the upper surface. Midrib sunken on the upper surface, the groove continuing down the centre of the leaf stalk. Midrib raised on the lower surface and the lateral veins generally visible, oblique and looping into the prominent intramarginal vein.

**Flowers**—Creamy-white, in panicles at the ends of the branches or in the upper leaf forks, shorter or as long as the leaves. Flowering period November to February.

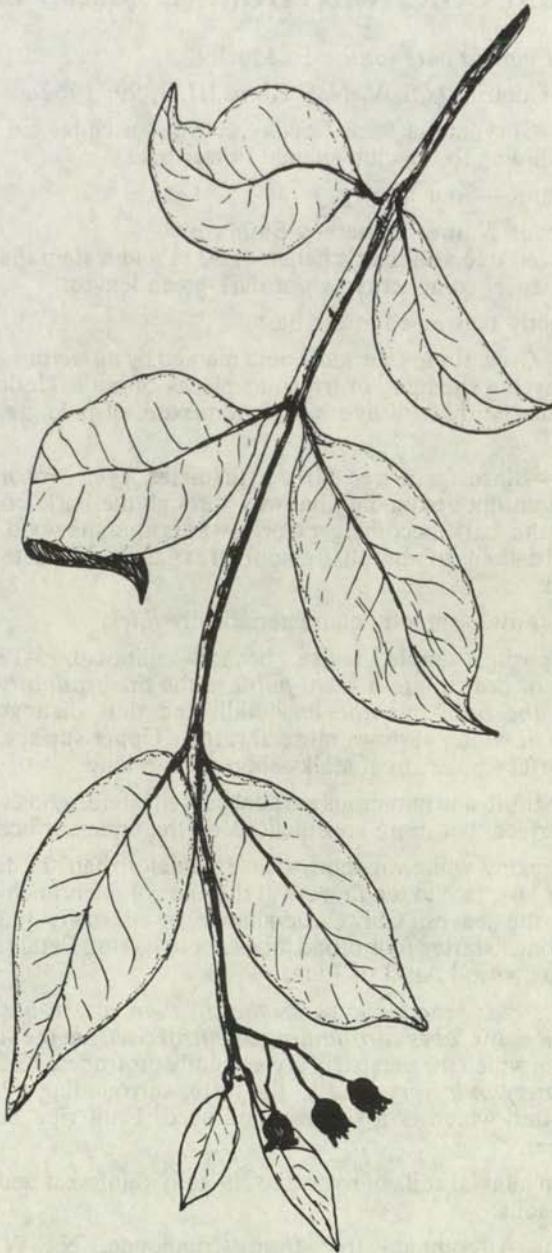
**Fruit**—Berry, deep purplish-red when young, changing to *purplish-blue* when ripe. Globose or urn-shaped, 13-40 mm diameter, shiny, containing a single mauve-pink round seed 8-15 mm diameter surrounded by the succulent pulp. Fruit ripe March to August or as late as November.

**Habitat**—On all types of soil, being common in the coachwood type on soils derived from sedimentary rocks on the Dorrigo Plateau, on deep coastal sands and the rich basalt soils of the McPherson Range.

**Distribution**—From Jervis Bay, N.S.W. to Atherton, North Queensland. Recorded in N.S.W. from Jervis Bay, Nowra, Port Hacking, Manly, Barrenjoey, Gosford, Stroud, Bulahdelah, Myall Lakes N.P., Comboyne, Port Macquarie, Doyle's River S.F., Bellangry S.F., Pine Creek S.F.,

Boambee S.F., Orara West S.F., Bruxner Park F.R., Coramba Mountain, Wild Cattle Creek S.F., Moonpar S.F., Ewingar S.F., Cangi S.F., Maclean, Broadwater, Ballina, Lismore, Casino, Toonumbar S.F., Mt. Glennie, Wiangaree S.F., Whian Whian S.F., Tintenbar, Byron Bay, Mullumbimby, Brunswick N.R., Nullum S.F., Mt. Warning N.P., Limpinwood N.R., Couchy Creek and Murwillumbah.

**Timber and Uses**—Wood greyish-brown, tough, could be used for tool handles and cases but the tree is generally too small to be of much commercial value.



Scale 2.5 cm 

Pendon.

Plate No. 23

*Syzygium coolminianum* (C. Moore) L. Johnson

## SYZYGium corynanthum (F. Muell.) L. Johnson

**Synonym**—*Eugenia corynantha* F. Muell.

**Reference**—Contrib. N.S.W. Nat. Herb. III, 3, 99, 1962.

**Derivation**—Corynantha from Greek "koryne" a club; and "anthos" a flower alluding to the club-shaped flower-buds.

**Common Name**—Sour Cherry.

**Standard Trade Name**—Killarney Satinash.

A medium sized tree attaining a height of 30 m and a stem diameter of 90 cm. With a dense, compact crown of dark green leaves.

**Trunk**—Slightly buttressed at the base.

**Outer Bark**—Grey, somewhat scaly, and marked by numerous depressions, caused by the shedding of irregular pieces of bark. Underbark pink-fawn. Outer surface of live bark is a mixture of pale green and light brown.

**Inner Bark**—Blaze on a tree 80 cm diameter light brown with paler longitudinal lines extending halfway through the bark from the outer surface, the bark becoming paler towards the sapwood. The white sapwood darkens to a purplish colour on exposure. No taste or smell. 20 mm thick.

**Branchlets**—Fawn, smooth, characteristically thick.

**Leaves**—Opposite, simple, entire, broadly elliptical, 5-13 cm long, rounded or drawn into a blunt point at the tip, gradually narrowing towards the base into the leaf stalk and thus distinguished from *S. francisii* which narrows more abruptly. Upper surface dark green, under surface paler. Leaf stalks short, 6 mm long.

**Venation**—Midrib and numerous parallel curved lateral veins visible on the upper surface, but more conspicuous on the undersurface.

**Flowers**—Creamy-white, in short, dense panicles, half the length of the leaves or less, two to ten flowers at the ends of the branchlets or in the forks of the leaves. Calyx cup-shaped or narrowly funnel-shaped, 13 mm long, bearing four broad lobes about its rim. Petals cream, four. Flowering period April to June.

**Fruit**—Berry, red, broader towards the tip than at the base with four persistent calyx lobes surrounding a central cavity at the summit of the fruit, from which the persistent style usually protrudes. 13-20 mm long, outer watery pulp very acid to the taste, surrounding a hard conical layer within which is a single round seed. Fruit ripe September to November.

**Habitat**—On alluvial soils of river flats, in gully rainforest and also on red basaltic soils.

**Distribution**—A common tree from Comboyne, N.S.W. to Imbil, Queensland. Recorded in N.S.W. from Comboyne, Port Macquarie, Bellinger River, Boambee S.F., Bruxner Park F.R., Coramba Mountain, Woolgoolga Creek, Coramba Reserve, Gibraltar Range N.P., Washpool S.F., Yabba S.F., Beaury S.F., Koreelah S.F., Mt. Clunie, Mt. Nothofagus F.R., Mt. Glennie, Lever's Plateau, Whian Whian S.F., Eltham, Ballina, Mt. Warning N.P. and Mt. Cougal.

Number and name—this used in the botanical description  
has been used for cases and should be in the purpose

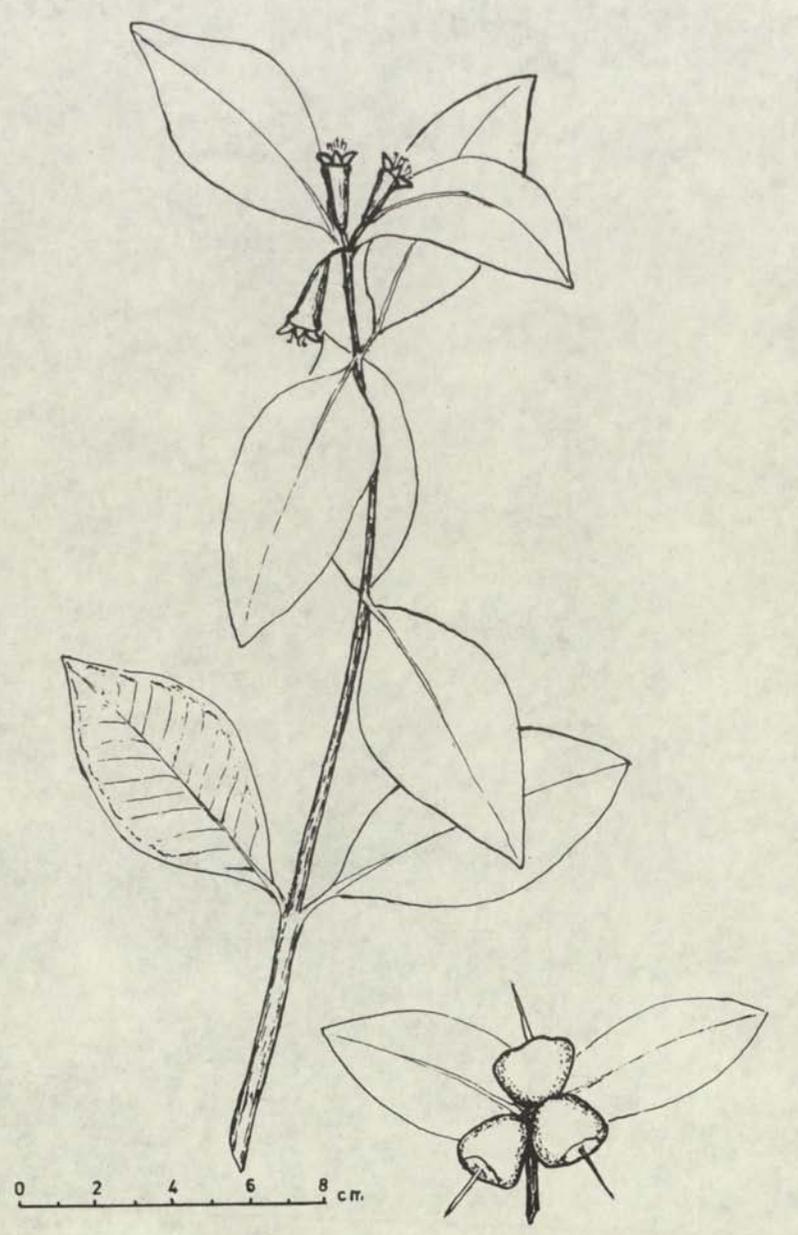


Plate No. 24

*Syzgium corynanthum* (F. Muell.) L. Johnson

**Timber and Uses**—Little used in N.S.W. The brownish free-splitting timber has been used for cases and is suitable for building purposes.

## SYZYGium CREBRINERVE (C.T. White) L. Johnson

**Synonym**—*Eugenia crebrinervis* C.T. White

**Reference**—Contrib. N.S.W. Nat. Herb. III, 3, 99, 1962.

**Derivation**—Crebrinerve from Latin “creber” crowded; “nervus” a nerve, referring to the numerous lateral veins of the leaves.

**Common Name**—Purple Cherry, Black Water Gum (Qld.).

**Standard Trade Name**—Rose Satinash.

A medium sized tree occasionally attaining a height of over 30 m and a diameter of 90 cm. *Crown is dark green and shiny with the young leaves bright red.*

**Trunk**—Large trees usually prominently buttressed, with a somewhat irregular bole.

**Outer Bark**—*Grey with occasional partly detached scales*, longitudinal fissures and numerous depressions. The depressions are due to the continual shedding of the bark scales. Underbark speckled cream and brown. Outer surface of live bark purplish-brown.

**Inner Bark**—Blaze on a tree 40 cm diameter *deep red-brown*, paler towards the sapwood which darkens on exposure. Texture of bark somewhat woolly. No taste. Sugar cane smell. 15 mm thick.

**Branchlets**—*Branchlets and leaf stalks red* on the upper surface, green on the lower surface — this feature being more pronounced in very young trees.

**Leaves**—Opposite, simple, entire, lanceolate to broad lanceolate, up to 11 cm long, margins rolled under, narrowed at each end and drawn out into a long tapering point. Upper surface *deep green and shining*, under surface paler, drying to a characteristic red-brown. Young leaves are bright red. Leaf stalks 6 mm long.

**Venation**—*Numerous fine oblique lateral veins* terminating in a looping intramarginal vein commonly visible on upper surface but very conspicuous on the lower surface.

**Flowers**—White, in panicles up to 40 mm long at the ends of branchlets. Calyx funnel-shaped, about 6 mm long, the rim divided into four broad, rounded lobes. Flowering period November to December.

**Fruit**—Berry, purple globular or slightly disc-shaped with a somewhat dry, *mealy*, slightly acid pulp, 17-25 mm diameter. The single seed, about 5 mm diameter, is distinguished by its scale-like irregular shape, concave beneath with the upper rounded surface tapering to a short point in the centre. Seed commonly partly eaten by grubs. Fruit ripe January to March.

**Habitat**—Fairly common in rainforest on basalt or alluvial soils.

**Distribution**—From the Comboyne Plateau, N.S.W. to Mt. Glorious, Queensland. Recorded in N.S.W. from Comboyne, Thumb Creek, Dorrigo N.P., Bellinger River, Bellingen Island, Pine Creek S.F., Bruxner Park F.R., Wild Cattle Creek S.F., Gibraltar Range N.P., Toonumbar S.F., Yabbra S.F., Beaury S.F., Koreelah S.F., Mt. Wilson, Mt. Nothofagus F.R., Mt. Lindesay, Roseberry S.F., Lever’s Plateau, Wiangaree S.F., Whian Whian S.F., Davis Scrub, Eureka,

Mullumbimby, South Pumpenbil Creek and Mt. Cougal.

**Timber and Uses**—Timber pale red. Used for cases and general building purposes.

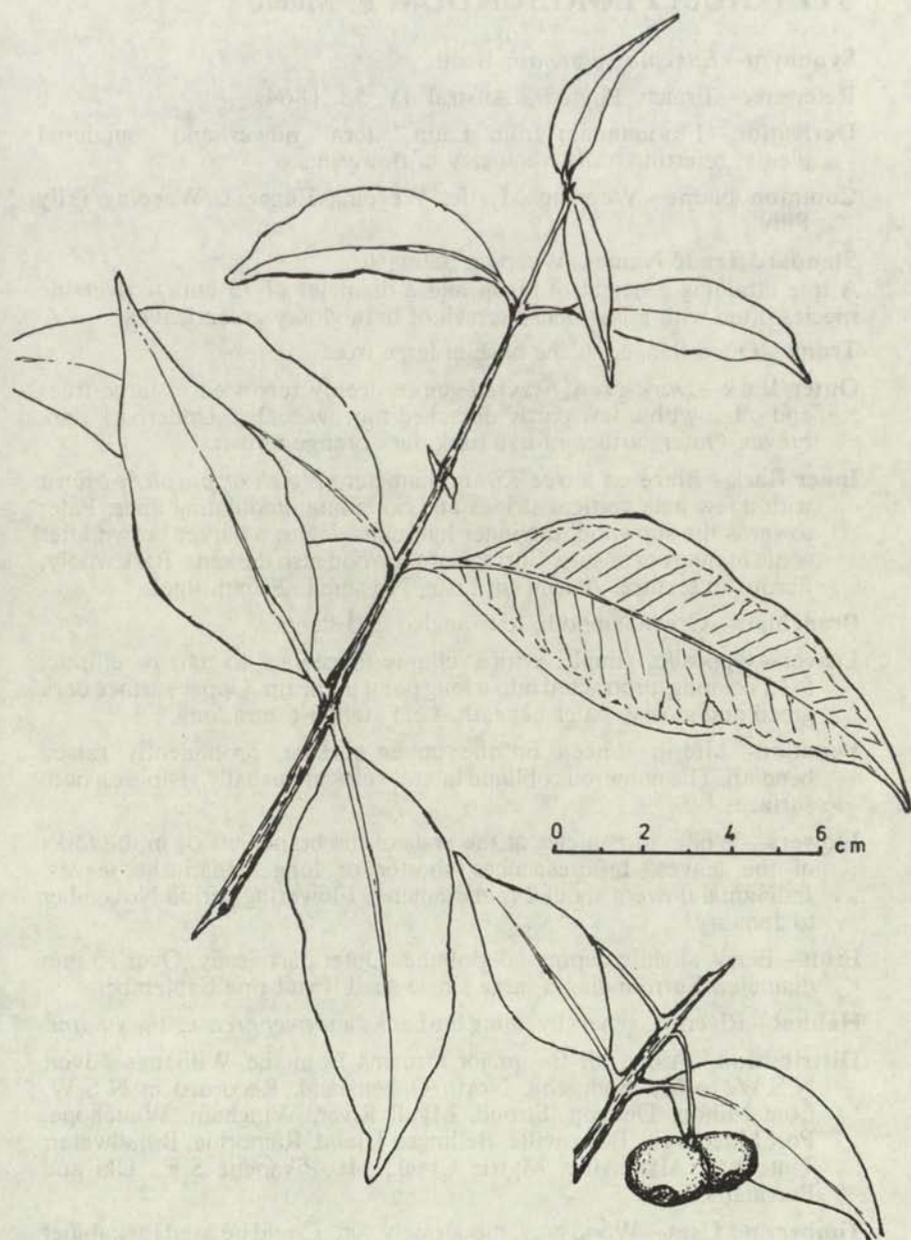


Plate No. 25

*Syzygium crebrinerve* (C.T. White) L. Johnson

## SYZYGIVM FLORIBUNDUM F. Muell.

**Synonym**—*Eugenia ventenatii* Benth.

**Reference**—Fragm. Phytogr., Austral. IV, 58, 1864.

**Derivation**—Floribundum from Latin “flora” flower and “bundum” plenty, referring to its frequency of flowering.

**Common Name**—Weeping Myrtle, Weeping Eugenia, Weeping Lilly Pilly.

**Standard Trade Name**—Weeping Satinash.

A tree attaining a height of 30 m and a diameter of 75 cm. A riverside species often with a low dense crown of dark glossy green leaves.

**Trunk**—Often flanged at the base in large trees.

**Outer Bark**—*Dark grey, fissured*, more deeply furrowed in large trees and often with a few partly detached narrow scales. Underbark dark brown. Outer surface of live bark dark orange-brown.

**Inner Bark**—Blaze on a tree 75 cm diameter *greyish or purplish-brown* with a few pale vertical stripes and horizontal undulating lines. Paler towards the sapwood, the inner half changing to a darker brown after some minutes exposure. Surface of sapwood also darkens. Bark woolly, fibrous in texture. Astringent taste. No smell. 20 mm thick.

**Branchlets**—Green, smooth, four-angled and slender.

**Leaves**—Opposite, simple, entire, elliptic-lanceolate to narrow elliptic, 5-15 cm long, protracted into a long point at the tip. Upper surface dark green and glossy, paler beneath. Leaf stalk 3-6 mm long.

**Venation**—Midrib sunken on the upper surface, prominently raised beneath. The numerous oblique lateral veins are usually visible on both surfaces.

**Flowers**—White, in panicles at the ends of the branchlets or in the forks of the leaves. Inflorescences shorter or longer than the leaves. Individual flowers about 2 mm diameter. Flowering period November to January.

**Fruit**—Berry, slightly depressed-globular. Outer part fleshy. Over 13 mm diameter. Surrounding a large single seed. Fruit ripe September.

**Habitat**—Riverine, generally lining the banks and *over arching the stream*.

**Distribution**—Along all the major streams from the William’s River, N.S.W. to Mt. Spurgeon, North Queensland. Recorded in N.S.W. from Milton, Dungog, Stroud, Myall River, Wingham, Wauchope, Port Macquarie, Bowraville, Bellingen Island, Ramornie, Broadwater, Tintenbar, Alstonville, Myrtle Creek, Mt. Pikapene S.F., Uki and Burringbar.

**Timber and Uses**—Wood grey, moderately soft. Could be used for cabinet work.

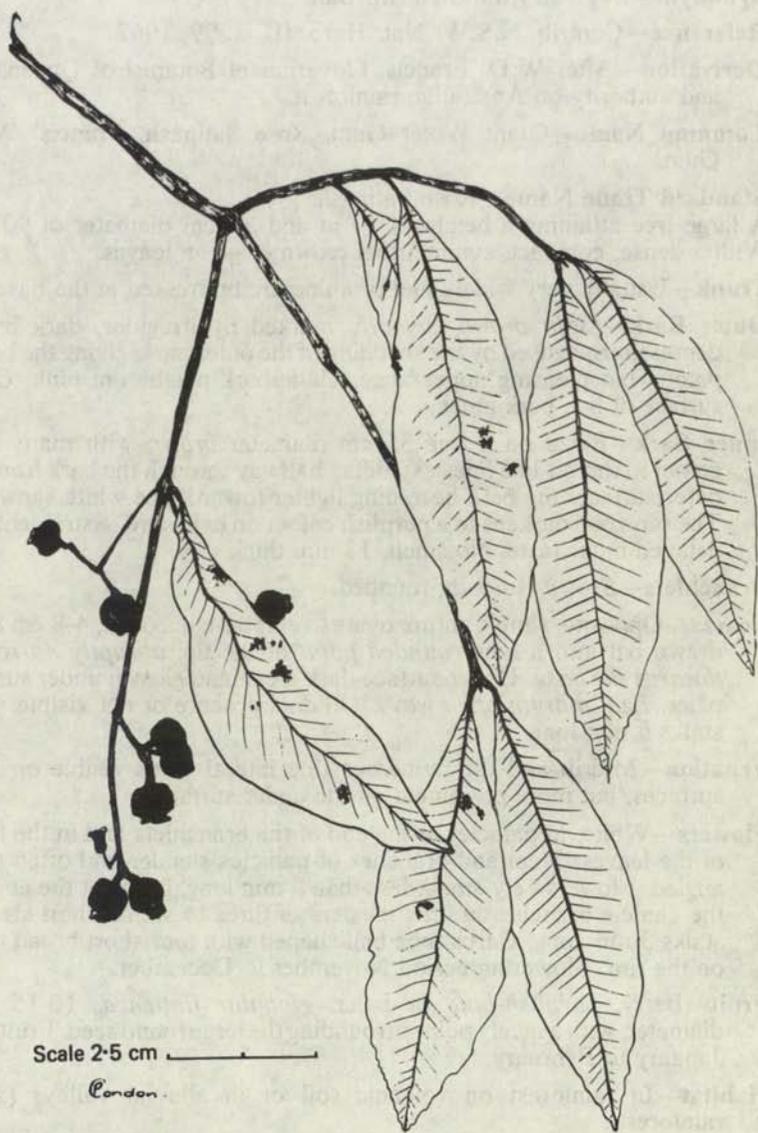


Plate No. 26

*Syzygium floribundum* F. Muell.

## SYZYGium FRANCISII (F.M. Bail.) L. Johnson

**Synonym**—*Eugenia francisii* F.M. Bail.

**Reference**—Contrib. N.S.W. Nat. Herb. III, 3, 99, 1962.

**Derivation**—After W.D. Francis, Government Botanist of Queensland and authority on Australian rainforest.

**Common Name**—Giant Water Gum, Rose Satinash, Francis' Water Gum.

**Standard Trade Name**—Rose Satinash.

A large tree attaining a height of 30 m and a stem diameter of 90 cm. With a dense, compact, symmetrical crown of green leaves.

**Trunk**—Usually very widely and prominently buttressed at the base.

**Outer Bark**—*Light brown, smooth*, marked by irregular, dark brown depressions, caused by the shedding of the outer bark, giving the bole a patchy but pleasing appearance. Underbark mushroom pink. Outer surface of live bark green.

**Inner Bark**—Blaze on a tree 35 cm diameter *brown* with many light coloured thread-like lines extending halfway through the bark from the outer surface, the bark becoming lighter towards the white sapwood. The sapwood darkens to a purplish colour on exposure. Astringent and delayed bitter taste. No smell. 13 mm thick.

**Branchlets**—*Brown*, smooth, rounded.

**Leaves**—Opposite, simple entire, ovate to elliptic-lanceolate, 4-8 cm long, drawn out into a *long rounded point* at the tip, *abruptly narrowed towards the base*. Upper surface dark green and glossy, under surface paler. *Leaf margin often wavy*. Oil dots obscure or not visible. Leaf stalks 6 mm long.

**Venation**—Midrib and the numerous fine lateral veins visible on both surfaces, but more prominent on the under surface.

**Flowers**—White, in panicles at the end of the branchlets and in the forks of the leaves. Stem and branches of panicles slender and often four-angled. Flowers very small, less than 6 mm long, borne at the ends of the panicle branches in little clusters of three to six on short slender stalks 3 mm long. Calyx tube bell-shaped with four short broad teeth on the rim. Flowering period November to December.

**Fruit**—Berry, *purplish-blue* or paler, *globular flattened*, 10-15 mm diameter, with a mealy pulp surrounding the large round seed. Fruit ripe January to February.

**Habitat**—In rainforest on volcanic soil or in alluvial valleys (gully rainforest).

**Distribution**—A common tree from Seal Rocks, N.S.W. to Gympie, Queensland. Recorded in N.S.W. from Seal Rocks, Cape Hawke, Bellangry S.F., Macleay River, Bellingen Island, Pine Creek S.F., Coramba Reserve, Cloud's Creek S.F., Washpool S.F., Alstonville, Eltham, Lismore, Moore Park, Toonumber S.F., Yabbra S.F., Beary S.F., Koreelah S.F., Mt. Clunie, Mt. Nothofagus F.R., Sawpit Creek, Lever's Plateau, Wiangaree S.F., Whian Whian S.F., South Pumpenbil Creek and Eungella.



0 2 4 6 cm

Plate No. 27

*Syzygium francisii* (F.M. Bail.) L. Johnson

**Timber and Uses**—A pink, close grained timber, rather too heavy and hard for general cabinet work, but an excellent building and flooring hardwood. It is used locally for axe, mallet, and chisel handles and is suitable for cases. 800 kg. per cubic metre.

## **SYZYGium HODGKINSONIAE** (F. Muell.) L. Johnson

**Synonym**—*Eugenia hodgkinsoniae* F. Muell.

**Reference**—Cont. N.S.W. Nat. Herb. III, 3, 99, 1962.

**Derivation**—After Miss M. Hodgkinson, a collector of plants in the Richmond River area.

**Common Name**—Smooth-bark Rose Apple.

**Standard Trade Name**—None.

A small tree attaining a height of 11 m and a stem diameter of 15 cm.

**Trunk**—Cylindrical or irregular.

**Outer Bark**—*Dark brown, smooth.*

**Inner Bark**—Blaze on a tree 15 cm diameter *deep purplish-brown with fine white and pale brown streaks* and markings. The brownish layer next to the sapwood changes to a dull darker brown after a few minutes exposure. No distinct smell, but astringent to taste. About 5 mm thick.

**Branchlets**—Brown, smooth.

**Leaves**—Opposite, simple, entire, *lanceolate-ovate, 8-15 cm long, shortly and bluntly pointed* at the tip. Leaves green both surfaces, paler beneath. Oil dots not visible. Leaf stalks 6-8 mm long.

**Venation**—Midrib and lateral veins visible both surfaces, but more conspicuous on the underside.

**Flowers**—White, honey fragrant, 25 mm diameter in terminal cymes. Stamens conspicuous, 2-3 cm long. Flowering period February to May.

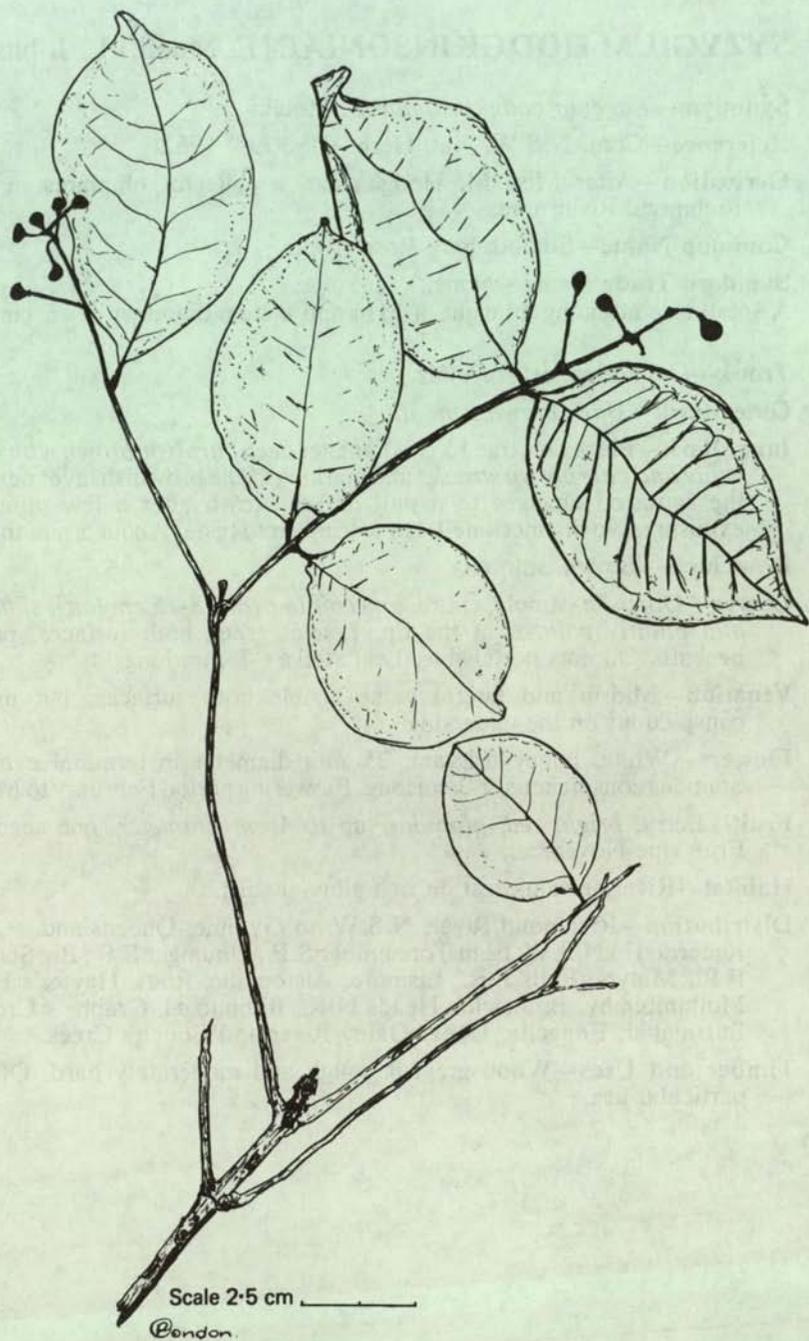
**Fruit**—Berry, *bright red, globular*, up to 4 cm diameter, one seeded. Fruit ripe November.

**Habitat**—Riverine rainforest on rich alluvial soils.

**Distribution**—Richmond River, N.S.W. to Gympie, Queensland.

Recorded in N.S.W. from Toonumbar S.F., Unumgar S.F., Big Scrub F.R., Minyon Falls F.R., Lismore, Alstonville, Rous, Hayter's Hill, Mullumbimby, Brunswick Heads N.R., Billinudgel, Crabbe's Creek, Burringbar, Eungella, Upper Oxley River and Couchy Creek.

**Timber and Uses**—Wood greyish, tough and moderately hard. Of no particular use.



Scale 2.5 cm \_\_\_\_\_  
Bendon.

Plate No. 28  
*Syzygium hodgkinsoniae* (F. Muell.) J. Johnson

## SYZYGIUM LUEHMANNII (F. Muell.) L. Johnson

**Synonym**—*Eugenia luehmannii* F. Muell., *Eugenia parvifolia* C. Moore.

**Reference**—Contrib. N.S.W. Nat. Herb. III, 3. 99, 1962.

**Derivation**—After J.G. Luehmann, Director of Botanic Gardens, Melbourne.

**Common Name**—Small-leaved Water Gum, Riberry, Cherry Alder.

**Standard Trade Name**—Cherry Satinash.

A handsome tree attaining a height of 30 m and a stem diameter of 90 cm with a *dense crown of small leaves which are bright pink when young*.

**Trunk**—Usually buttressed in large trees, often tall and straight.

**Outer Bark**—*Reddish-brown or grey, fairly smooth*, the surface usually marked by irregular shallow depressions, inside of which there are usually semi-circular or irregular raised lines. A few partly detached flakes or bark may be adhering to the trunk. Underbark mid-brown. Outer surface of live bark pale salmon with light green vertical patches. Resembles *S. francisii*.

**Inner Bark**—Blaze on a tree 75 cm diameter *pinkish-brown* becoming paler near the sapwood. Fibrous or wooly in texture, turning purplish after a few minutes exposure. Slightly astringent taste. Sugar cane smell. 20 mm thick.

**Branchlets**—Smooth and very slender.

**Leaves**—Opposite, simple, entire, lanceolate to ovate, 4-5 cm long *drawn out to a long prominent point. Glossy on both surfaces*. Upper surface dark green, paler beneath. Leaf stalks 2-3 mm long.

**Venation**—Midrib alone visible on the upper surface, raised and distinct on the underside. Lateral veins indistinct on the upper surface, visible on the underside and terminating in a conspicuous intramarginal vein. Oil dots conspicuous.

**Flowers**—White, in small panicles at the ends of the branchlets, shorter or as long as the leaves. Flower stalk often scarcely distinct from the funnel-shaped calyx with four to five rounded lobes. Flowering period November to December.

**Fruit**—Berry, *dull red, pear-shaped*, about 13 mm long, the single seed 4 mm diameter and surrounded by a white mealy pulp. Fruit ripe December to January.

**Habitat**—In riverine, littoral rainforest on deep sand and subtropical rainforest on volcanic soils.

**Distribution**—Coastal rainforests from the Macleay River, N.S.W. to Cairns, North Queensland. Recorded in N.S.W. from Shark Island, Yarrahapinni, Nambucca, Bundagen F.R., Iluka N.R., Woodburn, Whian Whian S.F., Rous, Hayter's Hill, Mullumbimby, Nullum S.F., Crabbe's Creek, Mooball and Couchy Creek.

**Timber and Uses**—Somewhat similar in texture and weight to *Syzygium francisii* but darker in colour. Could be used for scantling, flooring, brush stocks and cases.

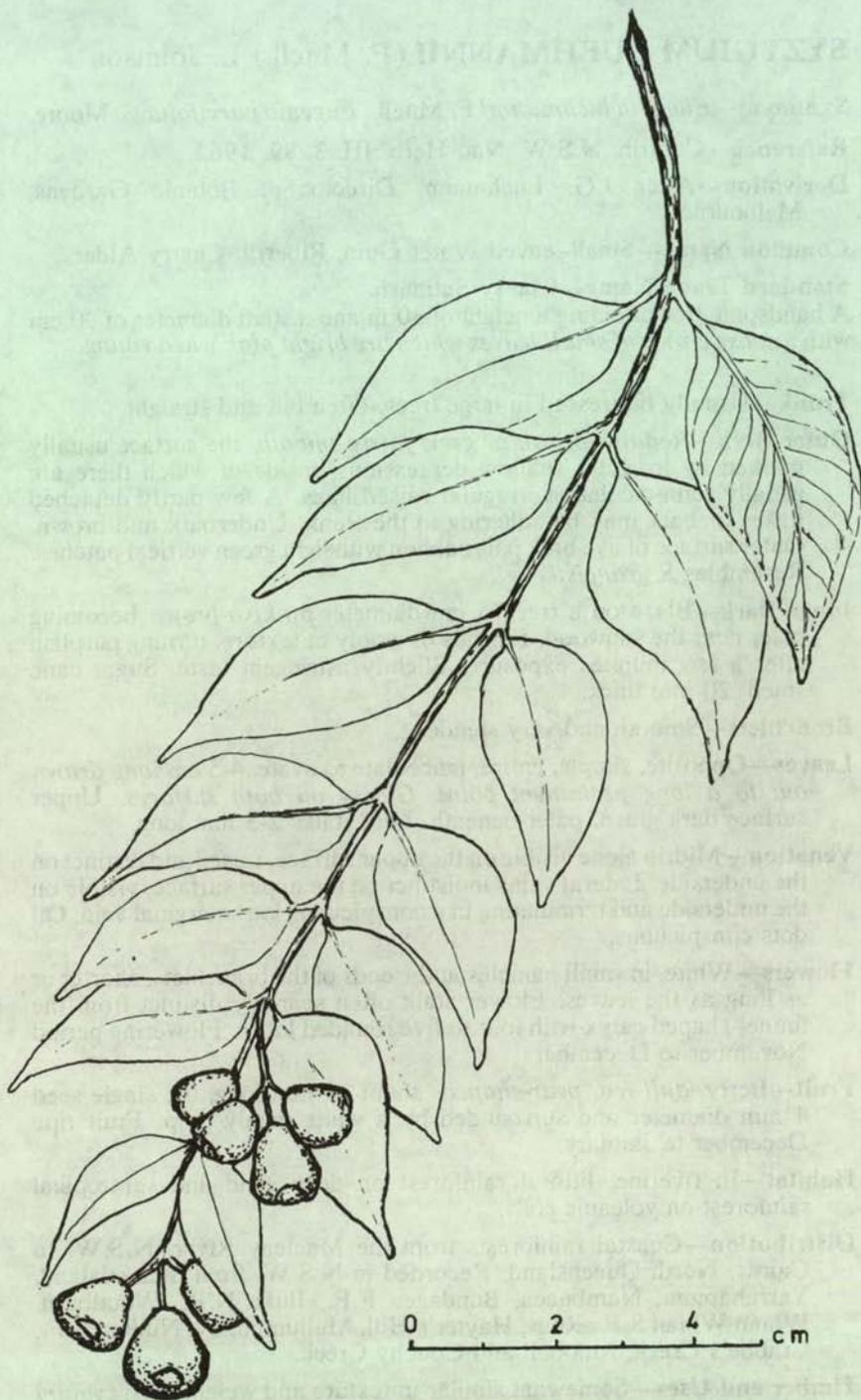


Plate No. 29

*Syzygium luehmannii* (F. Muell.) L. Johnson

## **SYZYGium MOOREI** (F. Muell.) L. Johnson

**Synonym**—*Eugenia moorei* F. Muell.

**Reference**—Contrib. N.S.W. Nat. Herb. III, 3, 99, 1962.

**Derivation**—After C. Moore, who collected the first specimen in the Tweed River district and was later N.S.W. Government Botanist and Director of Sydney Botanic Gardens.

**Common Name**—Rose Apple, Coolamon, Robby, Durobby.

**Standard Trade Name**—None.

A tree attaining a height of 40 m and a stem diameter of 60 cm. A handsome tree with a dense crown of large glossy leaves.

**Trunk**—Large trees sometimes slightly flanged at the base.

**Outer Bark**—*Red-brown*, light grey or pinkish-grey, with *soft papery scales*. Underbark orange-brown, arranged in numerous distinct layers.

**Inner Bark**—Blaze on a tree 55 cm diameter *pinkish-brown* with fine vertical fibrous paler bands with darker concentric rings. Becoming paler next to the sapwood but changing to brown after a few minutes exposure. Astringent to taste. No characteristic smell. 11 mm thick.

**Branchlets**—*Brown, thick and scaly*, becoming smooth and green towards the tips. Branchlets and *leaf stalks red* on young growth.

**Leaves**—Opposite, simple, entire, ovate lanceolate or elliptical, 8-20 cm long, rounded, obtuse or rarely protracted into a *short blunt point* at the tip, upper surface dark green and glossy, paler and dull beneath. Oil dots obscure. Leaf stalks 3-10 mm long.

**Venation**—Midrib and lateral veins visible on both surfaces. The oblique lateral veins terminate in a looping intramarginal vein. Midrib grooved on the upper surface, raised on the underside.

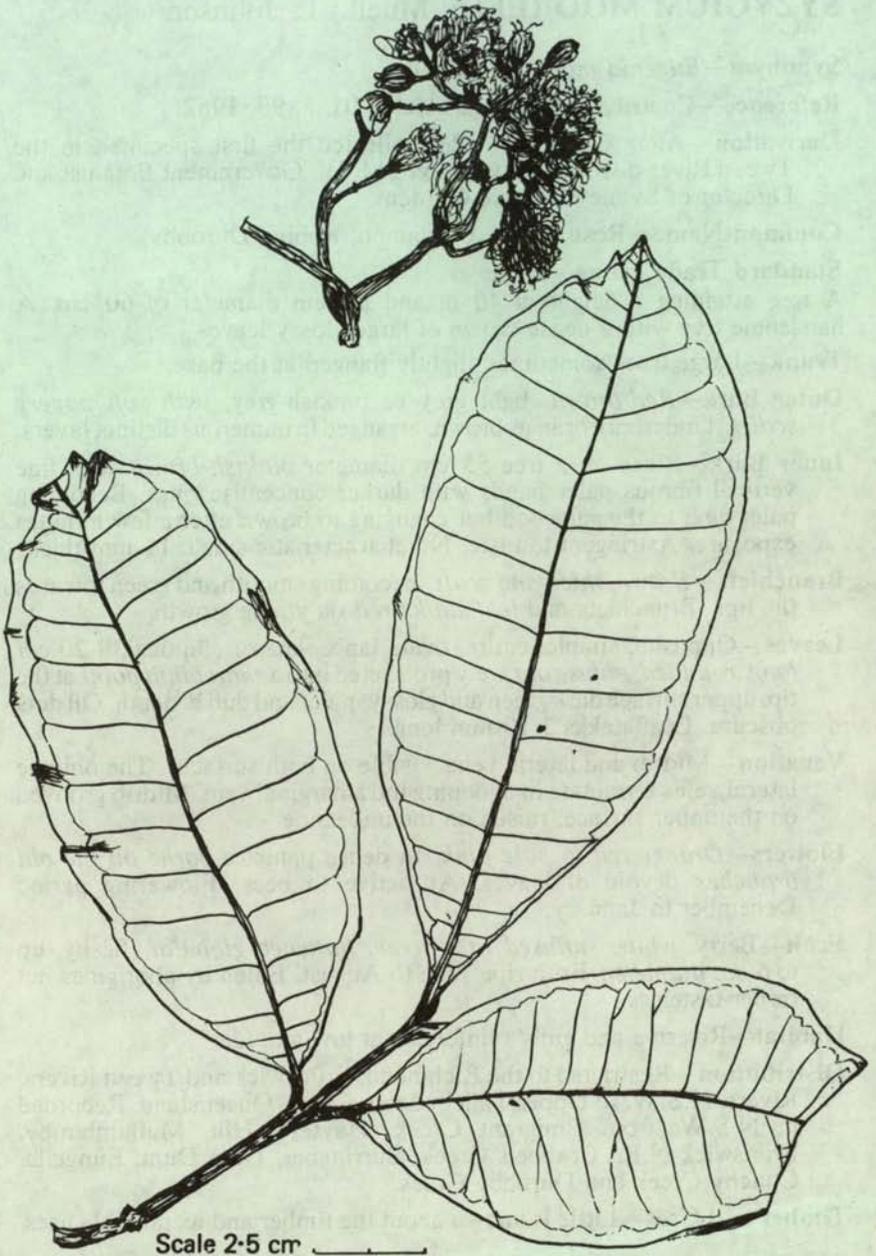
**Flowers**—*Orange-red to pale pink*, in dense panicles borne on the old branches devoid of leaves. Attractive to bees. Flowering period December to January.

**Fruit**—Berry, *white, suffused with green, flattened globular*, fleshy, up to 6 cm diameter. Fruit ripe June to August. Eaten by aborigines but rather tasteless.

**Habitat**—Riverine and gully rainforests at low altitude.

**Distribution**—Restricted to the Richmond, Brunswick and Tweed Rivers, N.S.W. to Upper Tallebudgera Creek, Queensland. Recorded in N.S.W. from Emigrant Creek, Hayter's Hill, Mullumbimby, Brunswick N.R., Crabbe's Creek, Burringbar, Dum Dum, Eungella, Couchy Creek and Durobby Creek.

**Timber and Uses**—Little is known about the timber and its possible uses.



Scale 2-5 cm

©enden.

Plate No. 30

*Syzygium moorei* (F. Muell.) L. Johnson

## SYZYGium PANICULATUM Gaertn.

**Synonym**—*Eugenia australis* Wendl., *Eugenia myrtifolia* Sims., *Eugenia paniculata* (Gaertn.) J. Britt.

**Reference**—Fruct. and Sem. 1, 167, t33, 1788.

**Derivation**—Paniculatum from Latin “panicula” a tuft referring to the branched (paniculate) inflorescence.

**Common Name**—Brush Cherry, Scrub Cherry, Creek Lilly Pilly, Creek Cherry, Woolgoolga.

**Standard Trade Name**—Creek Satinash.

A tree attaining a height of 18 m and a stem diameter of 35 cm. Crown usually dense and generally forms an attractive shady tree when growing in the open.

**Trunk**—Often short and irregular, shortly buttressed in large trees.

**Outer Bark**—*Brown* and somewhat *softly scaly*. Sometimes finely fissured. Underbark of cream and brown layers. Outer surface of live bark pale creamy-pink.

**Inner Bark**—Blaze on a tree 25 cm diameter *pinkish-brown*, darkest towards the outer margin and gradually becoming paler towards the inner surface. *Numerous paler and darker wavy lines* run horizontally through the blaze which darkens after some minutes exposure. The inner margin and surface of the sapwood changes more slowly to a darker shade of brown than the rest of the blaze. Astringent to taste with a sappy smell. 4 mm thick.

**Branchlets**—Brown and smooth. *Young stems red, four-angled* or even winged.

**Leaves**—Opposite, simple, entire, lanceolate, 4-8 cm long, drawn out to a short fine point at the tip, or sometimes bluntly pointed. Upper surface glossy, dark green, underside paler. Oil dots scattered and indistinct. Young leaves pink or red. Leaf stalks 3-10 mm long.

**Venation**—Midrib sunken on the upper surface, raised on the underside. Lateral veins visible on both surfaces, terminating in a looping intramarginal vein.

**Flowers**—White in panicles of one to three flowers borne on slender stalks, either shorter, or seldom exceeding the leaves in length, situated either at the ends of the branchlets or in the forks of the leaves. The funnel-shaped calyx is crowned by four to five rounded lobes. Flowering period January to July or irregular.

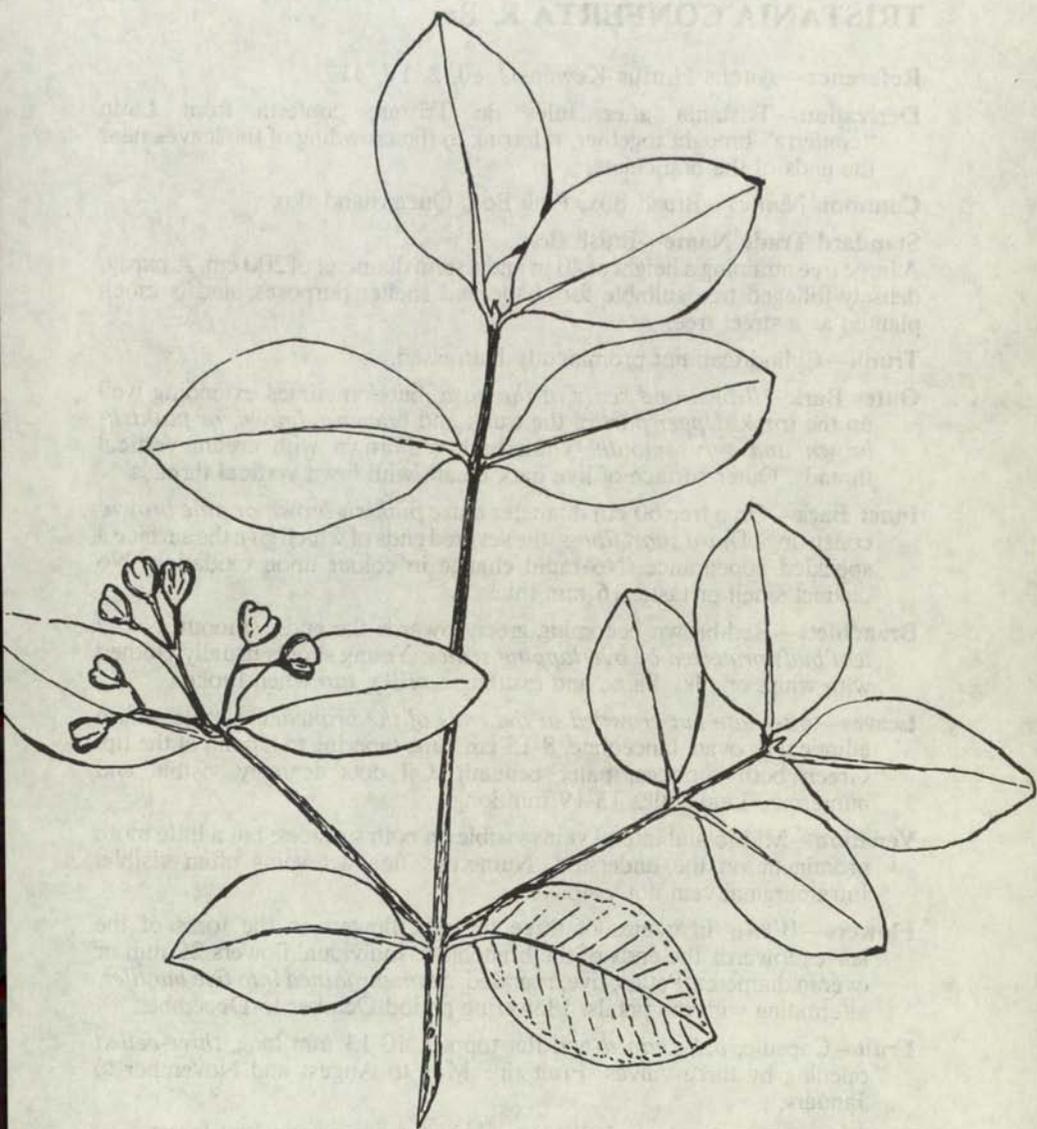
**Fruit**—Berry, *dark red, oval to pear-shaped*, 15-25 mm long, smooth and glossy, crowned by the persistent calyx lobes. Containing a single round seed and surrounded by the *crisp watery slightly acid pulp* which is pleasant to eat raw or in jams and pies. Fruit ripe April to August.

**Habitat**—In, or bordering on rainforest of all types, generally along and overhanging fresh water streams and on all types of soils. Very common in littoral (beach) rainforest on sand.

**Distribution**—A common coastal tree from Batemans Bay, N.S.W. to North Queensland. Recorded in N.S.W. from Batemans Bay, Milton, Minnamurra, Cambewarra, Mt. Keira, Gosford, William's River, Gloucester, Bulahdelah, Comboyne, Wauchope, Doyle's River S.F.,

Bellangry S.F., Bril Bril S.F., Kunderang Brook, Chandler Gorge, Bellingen, Pine Creek S.F., Orara West S.F., Coffs Harbour, Coramba Mountain, Orara East S.F., Wedding Bells S.F., Coramba Reserve, Wild Cattle Creek S.F., Moonpar S.F., Cloud's Creek S.F., Ramornie, Lismore, Bex Hill, Byron Bay, Moore Park, Toonumbar S.F., Unumgar S.F., Koreelah S.F., Mt. Lindsay, Lever's Plateau, Wiangaree S.F., Channon, Nullum S.F., Limpinwood N.R. and Tumbulgum.

**Timber and Uses**—Wood greyish, moderately hard and somewhat tough. Sometimes used for tool handles but generally too short-stemmed and small to be of much commercial value.



0 2 4 6 cm



Plate No. 31  
*Syzygium paniculatum* Gaertn.

## TRISTANIA CONFERTA R. Br.

**Reference**—Aitons Hortus Kewensis, ed. 2, IV, 417.

**Derivation**—Tristania after Jules de Tristan; conferta from Latin "conferta" brought together, referring to the crowding of the leaves near the ends of the branchlets.

**Common Names**—Brush Box, Pink Box, Queensland Box.

**Standard Trade Name**—Brush Box.

A large tree attaining a height of 40 m and a stem diameter of 200 cm. A hardy, densely-foliaged tree suitable for shade and shelter purposes; and is much planted as a street tree.

**Trunk**—Cylindrical, not prominently buttressed.

**Outer Bark**—*Brown and scaly at the base*, but sometimes extending well up the trunk. *Upper part* of the trunk and branches *brown, or pinkish-brown and very smooth*. Underbark red-brown with cream vertical threads. Outer surface of live bark cream with fawn vertical threads.

**Inner Bark**—On a tree 60 cm diameter blaze *pinkish-brown or pale brown*, consisting of *hard short fibres*, the severed ends of which give the surface a speckled appearance. No rapid change in colour upon oxidation. No distinct smell or taste. 16 mm thick.

**Branchlets**—Red-brown becoming green towards the ends, smooth, *young leaf buds protected by overlapping scales*. Young shoots usually clothed with white or silky hairs, and exuding a *milky sap* when broken.

**Leaves**—*Alternate but crowded at the ends of the branches*, simple, entire elliptical or ovate lanceolate, 8-15 cm long, tapering to a point at the tip. Green both surfaces, paler beneath. Oil dots scarcely visible and numerous. Leaf stalks 13-19 mm long.

**Venation**—Midrib and lateral veins visible on both surfaces; but a little more prominent on the underside. Numerous fine net veins often visible. Intramarginal vein not visible.

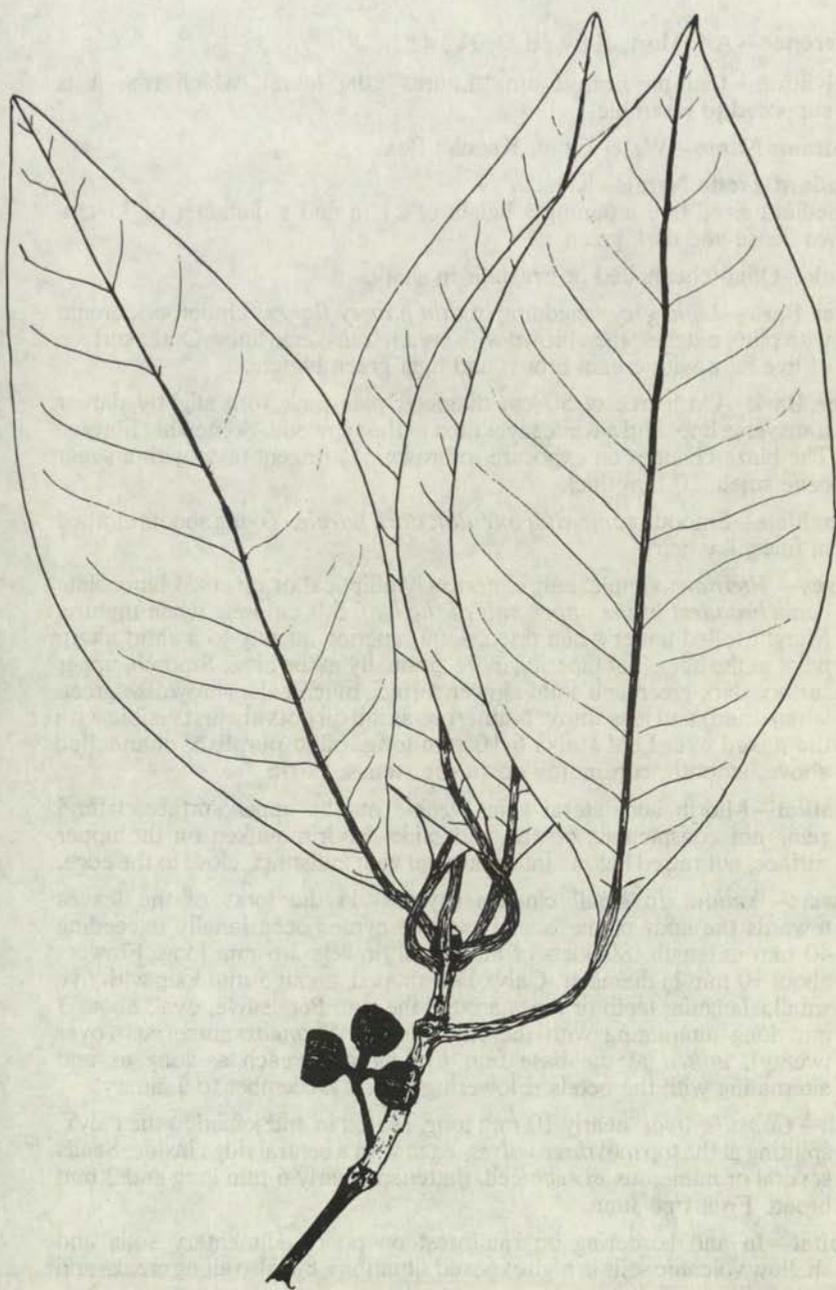
**Flowers**—*White*, in cymes of three to eight flowers in the forks of the leaves towards the ends of the branchlets. Individual flowers 25 mm or over in diameter. Petals, five, rounded. *Stamens joined into five bundles*, alternating with the petals. Flowering period October to December.

**Fruit**—Capsule, *bell-shaped* and flat topped, 10-13 mm long, *three-celled* opening by three valves. Fruit ripe May to August and November to January.

**Habitat**—On the borders of all types of rainforest and eucalypt forest.

**Distribution**—From Port Stephen's N.S.W. to Bowen, Queensland. Recorded in N.S.W. from nearly all rainforest areas within its range.

**Timber and Uses**—Wood red-brown, hard and tough, close-grained. Suitable for flooring, scantling, wharf and bridge decking, turnery. 900 kg per cubic metre.



Scale 2.5 cm 

Condon

Plate No. 32  
*Tristania conferta* R. Br.

## TRISTANIA LAURINA R. Br.

**Reference**—Ait. Hort. Kew ed. 2, IV, 417.

**Derivation**—Laurina from Latin "Laurus" the laurel, which tree it is supposed to resemble.

**Common Name**—Water Gum, Kanuka Box.

**Standard Trade Name**—Kanuka.

A medium sized tree attaining a height of 27 m and a diameter of 75 cm. Crown dense and dark green.

**Trunk**—Often channelled or irregular in shape.

**Outer Bark**—*Light grey*, shedding in *thin papery flakes*. Underbark cream with plum patches, then brown with cream transverse lines. Outer surface of live bark with cream-brown and light green blotches.

**Inner Bark**—On a tree of 50 cm diameter pale pink with slightly darker transverse lines and a white layer next to the sapwood. Somewhat fibrous. The blaze changes on exposure to brown. Astringent taste with a sugar cane smell. 10 mm thick.

**Branchlets**—Smooth, *somewhat angular, dark purple*. Young shoots clothed in fine silky hairs.

**Leaves**—*Alternate*, simple, entire, narrowly elliptical or reversed lanceolate being *broadest in the upper half of the leaf*, 5-9 cm long when mature. Margin rolled under when dried. Leaf tapering quickly to a short sharp point at the apex; but tapering more gradually at the base. Smooth, upper surface dark green and shiny, lower surface much paler (brownish-green when dried) and less shiny. Numerous small oil dots are just visible with the naked eye. Leaf stalks 6-10 mm long, often purplish, channelled above, smooth, continuing down the stem as a rib.

**Venation**—Midrib and lateral veins visible on the upper surface, lateral veins not conspicuous on the underside. Midrib sunken on the upper surface, but raised below. Intramarginal vein indistinct, close to the edge.

**Flowers**—*Yellow*, in small clusters (cymes) in the forks of the leaves towards the ends of the branchlets, the cymes occasionally exceeding 40 mm in length. Stalklets of individual flowers 3-6 mm long. Flowers about 10 mm in diameter. Calyx bell-shaped, about 5 mm long with five small triangular teeth or lobes around the rim. Petals five, oval, about 3 mm long alternating with the calyx lobes. *Stamens* numerous (over twenty), *united* at the base *into five bundles*, each as long as and alternating with the petals. Flowering period December to January.

**Fruit**—*Capsule, oval*, nearly 10 mm long, seated in and joined to the calyx, splitting at the top into *three valves*, each with a central ridge inside. Seeds several or numerous in each cell, flattened, nearly 6 mm long and 2 mm broad. Fruit ripe June.

**Habitat**—In and bordering on rainforest on poor sedimentary soils and shallow volcanic soils in high exposed situations, but also along creeks and in riverine rainforest.

**Distribution**—From Gippsland, Victoria to Eumundi, Queensland. Recorded in N.S.W. from Narrabarba Creek, Bodalla S.F., Otford, Bulga S.F., Mt. Boss S.F., Bellangry S.F., Newry S.F., Pine Creek S.F., Never



Scale 2.5 cm 

London.

Plate No. 33

*Tristania laurina* R. Br.

Never S.F., Orara West S.F., Bruxner Park F.R. Coramba Mountain, Orara East S.F., Lower Bucca S.F., Wedding Bells S.F., Conglomerate S.F., Coramba Reserve, Wild Cattle Creek S.F., Moonpar S.F., Mt. Nothofagus F.R., Mt. Lindesay, Mt. Glennie, Moore Park, Wiangaree S.F., Whian Whian S.F., Mebbin S.F., Limpinwood N.R. and Couchy Creek.

**Timber and Uses**—Tobacco pipes, handles and golf heads.



## APPENDIX

### LIST OF LOCATIONS OF STATE FORESTS, FLORA RESERVES (INCLUDING FOREST PRESERVES), NATIONAL PARKS & NATURE RESERVES

Forest	Location
Bagawa S.F.	23 km NW of Coffs Harbour
Banda Banda F.R.	40 km WSW of Kempsey
Barcoongere S.F.	35 km SE of Grafton
Barrington Tops N.P.	95 km W of Taree
Beaury S.F.	20 km SW of Urbenville
Bellangry S.F.	27 km NW of Wauchope
Bellinger River S.F.	13 km SSW of Dorrigo
Bielsdown S.F.	4 km N of Dorrigo
Big Fella Gum Tree F.R.	8 km SSW of Kendall
Black Ck F.R.	30 km SW of Port Macquarie
Boambee S.F.	6 km SW of Coffs Harbour
Bodalla S.F.	8 km NW of Narooma
Boonoo Boonoo S.F.	15 km NNW of Tenterfield
Boorganna N.R.	32 km N of Taree
Boundary Ck S.F.	40 km NNW of Dorrigo
Boyne S.F.	8 km N of Bateman's Bay
Bril Bril S.F.	34 km NW of Port Macquarie
Broken Bago S.F.	20 km WNW of Port Macquarie
Broken Head N.R.	20 km SSE of Brunswick Heads
Brunswick Heads N.R.	1 km N of Brunswick Heads
Bruxner Pk F.R.	6 km NW of Coffs Harbour
Buckra Bendinni S.F.	27 km WNW of Macksville
Bulga S.F.	37 km NW of Taree
Bundagen F.R.	11 km S of Coffs Harbour
Bungabee S.F.	15 km NE of Casino
Cangi S.F.	48 km W of Grafton
Carrai S.F.	52 km W of Kempsey
Chapman's Plain F.R.	20 km NNW of Dorrigo
Cherry Tree S.F.	30 km SW of Casino
Chichester S.F.	53 km WNW of Bulahdelah
Cloud's Ck S.F.	24 km NNW of Dorrigo
Comboyne S.F.	42 km SW of Port Macquarie
Conglomerate S.F.	21 km NNW of Coffs Harbour
Dingo S.F.	30 km NW of Taree
Donaldson S.F.	16 km N of Urbenville
Dorrigo N.P.	3 km SE of Dorrigo
Doyles River S.F.	75 km W of Port Macquarie
Edinburgh Castle S.F.	10 km E of Urbenville
Ellis S.F.	29 km NW of Dorrigo
Ewingar S.F.	42 km E of Tenterfield
Forestland S.F.	15 km SW of Tenterfield
Gibraltar Range S.F. & N.P.	47 km NE of Glen Innes
Girard S.F.	32 km NE of Tenterfield
Gladstone S.F.	25 km NNW of Macksville
Glenugie S.F. & F.R.	19 km SE of Grafton
Goonimbar S.F.	25 km W of Brunswick Heads
Guy Fawkes N.P.	45 km NW of Dorrigo
Hyland S.F.	31 km WNW of Dorrigo
Ingalba S.F.	18 km SW of Macksville
Kangaroo River S.F.	34 km NW of Coffs Harbour
Killungoondie S.F.	13 km NE of Dorrigo
Kiwarrak S.F.	5 km S of Taree
Koreelah S.F.	20 km NW of Urbenville
Livers Plateau F.R.	35 km NNW of Kyogle
Limpinwood N.R.	20 km W of Murwillumbah
Lower Bucca S.F.	14 km NNW of Coffs Harbour
Madman's Ck F.R.	27 km NNW of Coffs Harbour
Marengo S.F.	34 km NW of Dorrigo
Massey's Ck S.F.	89 km WNW of Bulahdelah
Mebbin S.F.	24 km NNE of Kyogle

Forest	Location
Minnamurra N.P.	28 km N of Nowra
Minyon Falls F.R.	17 km SW of Brunswick Heads
Mistake S.F.	23 km W of Macksville
Mobong Ck F.R.	16 km NNE of Dorrigo
Mooball S.F.	8 km SE of Murwillumbah
Moonpar S.F.	16 km NNW of Dorrigo
Mt. Belmore S.F.	42 km SW of Casino
Mt. Boss S.F.	57 km NW of Port Macquarie
Mt. Lindesay S.F. & F.R.	19 km NE of Urbenville
Mt. Pikapene S.F.	39 km SW of Casino
Mt. Warning N.P.	10 km SW of Murwillumbah
Myall Lakes N.P.	13 km SE of Bulahdelah
Nambucca S.F.	10 km NNE of Macksville
Never Never S.F.	11 km E of Dorrigo
New England N.P.	75 km E of Armidale
Newry S.F.	19 km N of Macksville
Norfolk Falls F.R.	110 km SW of Tamworth
Nothofagus Mtn F.R.	20 km NNE of Urbenville
Nulla Five-Day S.F.	48 km NW of Kempsey
Nullum S.F.	17 km WNW of Brunswick Heads
Oakes S.F.	40 km NW of Macksville
Olney S.F.	24 km NW of Wyong
Orara East S.F.	10 km NW of Coffs Harbour
Orara West S.F.	18 km W of Coffs Harbour
Ourimbah S.F.	6 km SW of Wyong
Pine Brush S.F.	24 km NE of Grafton
Pine Ck S.F.	16 km SSW of Coffs Harbour
Red Cedar F.R.	18 km NNW of Dorrigo
Red Scrub F.R.	24 km SW of Brunswick Heads
Riamukka S.F.	75 km E of Tamworth
Richmond Range S.F.	35 km NW of Casino
Roseberry S.F.	32 km NNW of Kyogle
Roses Ck S.F.	18 km S of Dorrigo
Rowley's Ck F.R.	39 km NW of Taree
Royal N.P.	32 km SSW of Sydney
Sea Acres Reserve	Port Macquarie
Shea's Nob S.F.	34 km NNW of Dorrigo
Sherwood N.R.	34 km NNW of Coffs Harbour
Stott's Island N.R.	12 km NE of Murwillumbah
Strickland S.F.	64 km SSE of Newcastle
Styx River S.F.	53 km E of Armidale
Toooloom S.F.	19 km SW of Urbenville
Toonumbar S.F.	23 km WNW of Kyogle
Tuckers Nob S.F.	13 km SW of Coffs Harbour
Unungar S.F.	14 km NE of Urbenville
Victoria Pk N.R.	36 km ESE of Casino
Waihou F.R.	30 km NW of Coffs Harbour
Warung S.F.	107 km SW of Tamworth
Washpool S.F.	72 km WNW of Grafton
Way Way S.F.	10 km SE of Macksville
Wedding Bells S.F.	19 km N of Coffs Harbour
Whian Whian S.F.	21 km SW of Brunswick Heads
Wiangaree S.F.	24 km N of Kyogle
Wild Cattle Ck S.F.	32 km W of Coffs Harbour
Wilson River F.R.	37 km SW of Kempsey
Wollumbin S.F.	16 km WSW of Murwillumbah
Woodburn S.F.	42 km NNE of Batemans Bay
Woolgoolga Ck F.R.	21 km N of Coffs Harbour
Yabbra S.F.	16 km S of Urbenville
Yarrapinni S.F.	5 km SE of Macksville

Forestry Commission of N.S.W. Photofile:

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