

Wonderful world of wattles



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Outline

- Acacias = wattles
- Diversity of acacias
 - flowers, foliage, fruit
- Local acacias
- Aboriginal and cultural significance
- Acacias in the garden



Wattles – why wonderful?

- About 1,000 *Acacia* species in Australia
- Found in most ecosystems including rainforest
- Shrubs to trees
- Tough, quick growing, opportunistic
- Flower through the year inc winter
- A blaze of bright colour
- Food source
- Fix nitrogen in the soil through soil bacteria that inhabit and form nodules on the roots



All about acacias

Acacia vs wattle

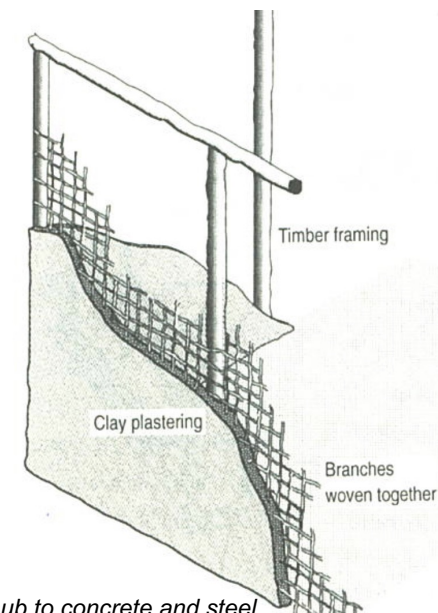
- *Acacia* genus has a complex history – genus and family
- *Acacia* is in Fabaceae family (subfamily Mimosoideae), related to peas and sennas

Acacia first adopted in 1754 for an African species
Acacia derived from Greek 'ake' or 'akis', a sharp point



Acacia carneorum www.anbg.gov.au

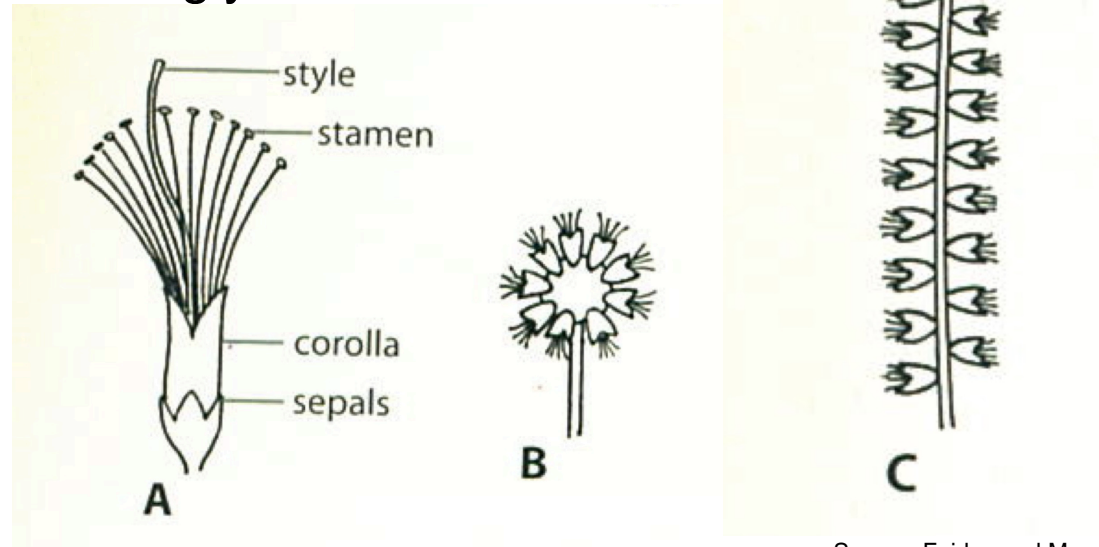
Wattle = Anglo-Saxon word for interwoven saplings used in clay/plaster walls for “wattle and daub” huts



From wattle and daub to concrete and steel

Diversity of flowers

- Two types of inflorescence: ball or cylindrical spike
- Cream, lemon, yellow or gold flowers
- Many flower in winter, some strongly scented
- Pollinated by insects



Source: Fairley and Moore

Yellow pigment

- Yellow pigment of *A. longifolia* is a derivative of kaempferol, a natural sunscreen which absorbs UV strongly
- Stamens are yellow in normal light, but black in UV to insects
- UV-absorbing pigments act to prevent UV-induced damage to genetic material in flowers



Inflorescence – ball



Acacia terminalis Coastal Plants of RNP CD



Acacia ulicifolia Coastal Plants of RNP CD



Acacia suaveolens Coastal Plants of RNP CD



Not a wattle



Callicoma serratifolia Coastal Plants of RNP CD
(Black wattle, Cunoniaceae)





Acacia leprosa 'Scarlet Blaze'

www.gardeningwithangus.com.au

Also

Acacia leprosa x *howittii* 'Twilight Glow'



Inflorescence – rod





Acacia denticulosa (Sandpaper wattle)

Deskgram.net

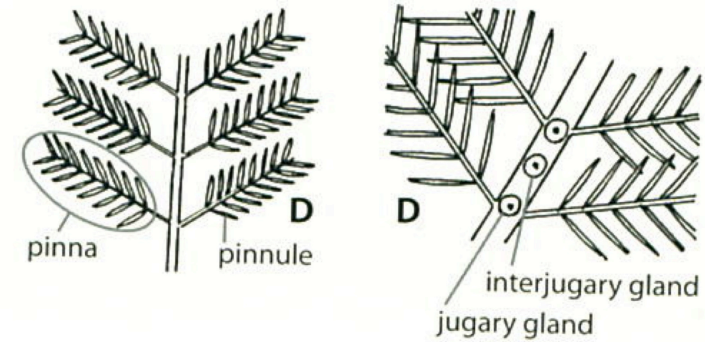
Diversity of foliage

Two groups of acacias:

- feathery bipinnate (fern-like) leaves
- leaves reduced to phyllodes which are flattened leaf stalks performing the function of leaves
- All acacias have the bipinnate leaves as seedlings
- Great diversity in phyllode form

Evolution

- Bipinnate is ancestral form (from Africa) with many glands, but leaf vulnerable to heat and dryness
- As Australia dried out, feathery wattles survived in damp, sheltered habitat
- Phyllode forms evolved in dry continent
- Tough to reduce evaporation, with one gland and aligned vertically



Foliage – bipinnate



Acacia terminalis Coastal Plants of RNP CD

Foliage – phyllodes



Acacia myrtifolia Coastal Plants of RNP CD



Acacia ulicifolia
Coastal Plants of RNP CD



Acacia linifolia
Coastal Plants of RNP CD

Fruit and seeds

- Bean-like pods vary in size and shape and split open when ripe
- Single row of seeds
- Seeds have tough coat
- Seeds harvested by ants, stored underground
- Important food source for birds and people (not all seeds are edible)

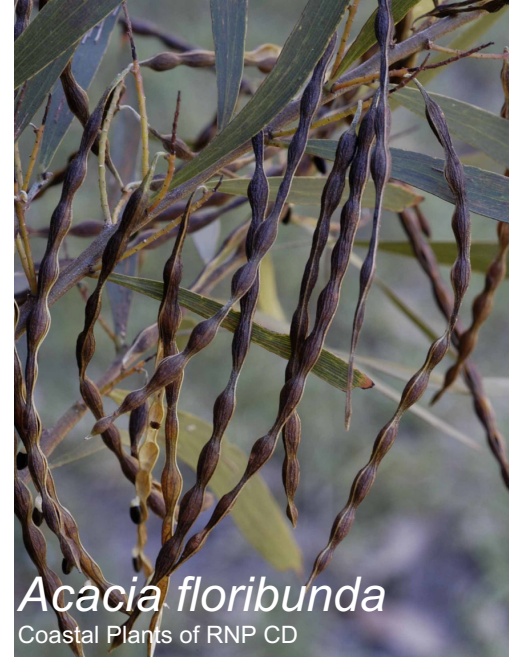




Acacia longifolia Coastal Plants of RNP CD



Acacia terminalis
Coastal Plants of RNP CD



Acacia floribunda
Coastal Plants of RNP CD



Acacia linifolia Coastal Plants of RNP CD

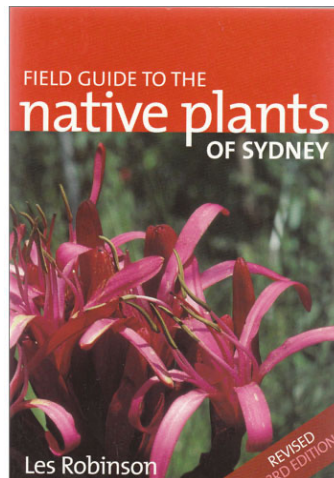


Acacia maidenii Coastal Plants of RNP CD

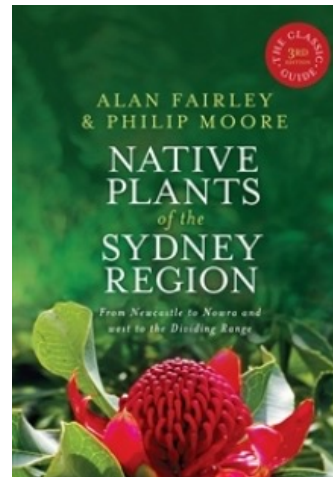
Acacias – identifying local species

- Foliage: feathery or phyllode
- Flower:
 - Shape: ball or rod/spike
 - Colour: cream/lemon or yellow
- Pod: shape, colour, texture

36 species



60 species + 12



11 species



Acacia pubescens (Downy wattle)

- Rare species found in open forest on clay soils
- Found inner western Sydney
- *pubescens* = finely hairy (branchlets)
- Bushy shrub 1–3 m, bright yellow flowers, blueish pods



Acacia pubescens www.anpsa.org.au

Aboriginal uses of acacias

- Seeds extracted from pods ground into a flour and roasted
(check reference books before eating)
- Gum from some species (eg *Acacia decurrens*) mixed with water and used for food (also gum arabic)
- Bark and leaves thrown into water as fish poisons, with the tannins used to stupify fish
- Bark and leaves used for medicinal purposes
- Grubs under bark and roots eaten
 - witchetty grubs (witjuri) under *Acacia kempeana*
- Timber used for weapons and tools



Cultural significance – other uses

- Wattle saplings used to make wattle and daub huts
- Bark of pinnate-leaved trees boiled in water as a tea substitute due to the tannins
- Tannins from acacias used in the leather industry:
 - *A. pycnantha* has almost 50% tannic acid
 - *A. decurrens* and *A. mearnsii* have 20–30% tannic acid
 - 150 kg of bark from 1 tree
- Wood (eg *Acacia melanoxylon*) used in furniture making
- Now: wattleseed flavouring for biscuits, icecream, drinks

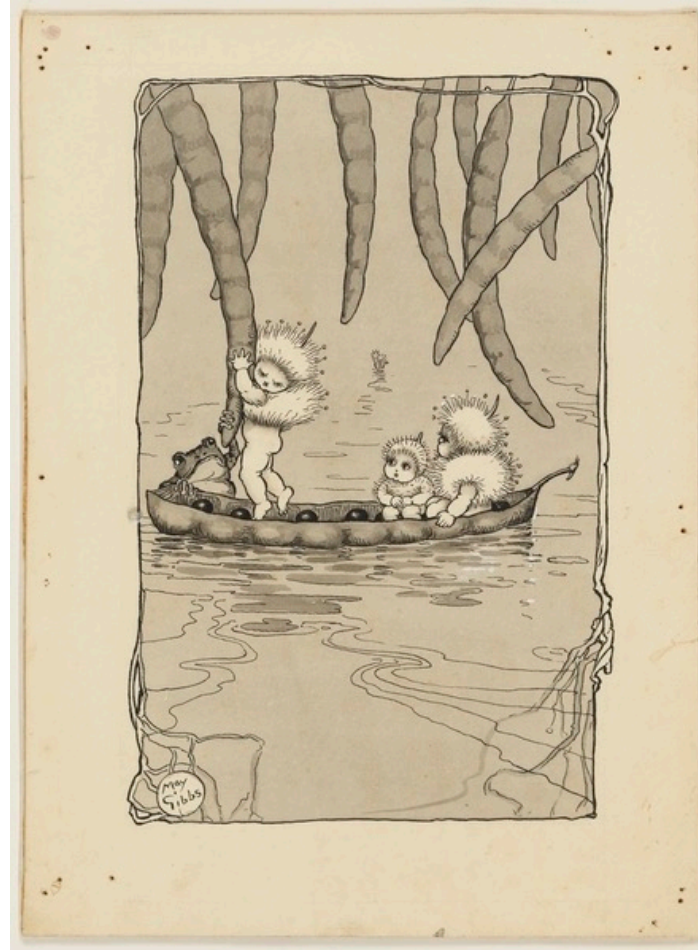
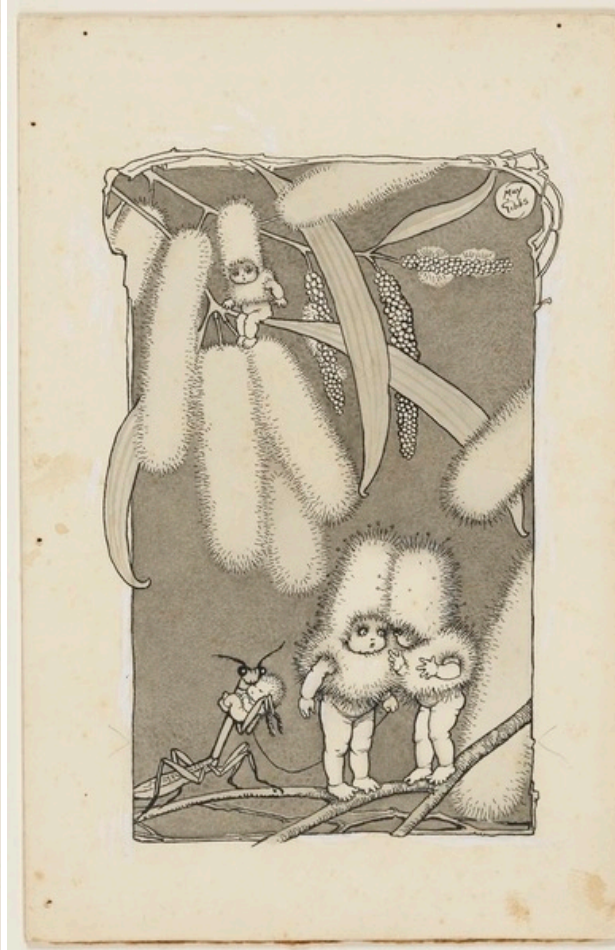


Did you know?

- Our national floral emblem is *Acacia pycnantha* (Golden wattle), proclaimed in 1988
- *Pycnantha* from the Greek words *pyknos* (dense) and *anthos* (flowers)
- Widespread and important in tanning industry



May Gibbs' wattle babies



From State Library of NSW
Copyright: The Northcott Society and Cerebral Palsy Alliance

Symbols – Order of Australia

- Designed by Stuart Devlin in 1975,
inspired by individual wattle blossom





Possibly *Acacia buxifolia*

www.worldwidewattle.com

National Wattle Day – 1 September

- Floral emblem gazetted in 1988
- Wattle Day declared in 1992
- Wattle Day Association founded in 1998 to raise awareness of the day: “a celebration of Australia – its land and its people”
- www.wattleday.asn.au

Celebrate!

- Wear a sprig of wattle
- Go for a walk to enjoy local wattles
- Organise a picnic, lunch, tea or BBQ



Acacias in the garden

Growing acacias

- Acacias are fast growing, but look out for borers
- Prune after flowering

Propagating acacias

- Seeds have a very hard coat and need fire or abrasion to germinate
- Scarify (wear away) the seed coat with sandpaper or pour boiling water over and soak to soften the coat
- Harder to grow by cutting
- Roots smell like garlic (nitrifying root bacteria nodules)

Buying acacias

- Local: Sutherland Council Nursery, 345 The Boulevarde, Gymea
- Cultivars: Sydney Wildflower Nursery, 9 Veno St, Heathcote

Acacias in the garden – cultivars



Acacia cognata 'Lime Magik'

www.gardeningwithangus.com.au

Shrubs

Acacia cognata

'Limelight', 'Mini Cog', 'Fettucine',
'Green Mist', 'Bower Beauty'

Groundcover / Standard

Acacia cognata 'Waterfall'



Acacia howittii 'Honey Bun'

www.gardeningwithangus.com.au

Groundcover

Acacia howittii 'Green Wave'



Acacia baileyana prostrate

www.gardeningwithangus.com.au



Acacia amblygona www.austplants.com.au



Acacia howittii 'Green Wave'

www.bushlandflora.com.au

Groundcovers

Acacia saligna 'Springtime Cascade'

Acacia cultriformis 'Cascade'

Too common!



Acacia podalyriifolia www.anbg.gov.au
(Queensland silver dollar wattle)



Acacia baileyana (Cootamundra wattle)

Myths

False: Acacias cause allergies

Fact: Acacias have large, sticky, heavy pollen which is dispersed by insects, not blown by wind, and is unlikely to cause allergies
People may be sensitive to fragrant oils

False: Acacias are too short-lived for gardens

Fact: Fast-growing, provide canopy and ecosystem, subject to borers

Fact: *Acacia aneura* (mulga) is very long lived



Acacia aneura (mulga wattle)

Joseph Banks Native Plants Reserve, Kareela

- Established in 1969 by Sutherland Council as a Cook bicentenary project 1770–1970
- 50th anniversary in 2020
- Named after Sir Joseph Banks, naturalist and patron of the sciences
- Acacia garden plus natural areas with labelled plants
- Similar reserves established at similar time:
 - Sylvan Grove at Picnic Point
 - Stony Range at Dee Why
 - Ku-ring-gai Wildflower Garden





Ralph Cartwright

Acacia garden



Acacia aphylla (leafless wattle) wikipedia



Acacia triptera (spurwing wattle)
wikipedia





Acacia fimbriata



Acacia podalyriifolia



Acacia macradenia



Acacia glaucoptera RD





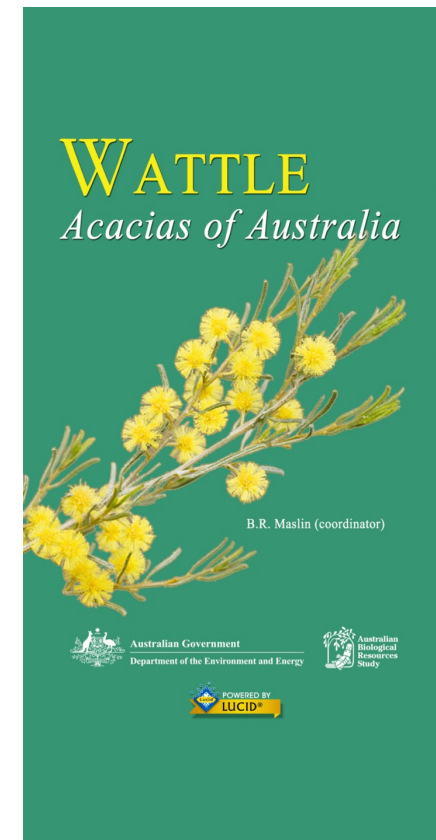
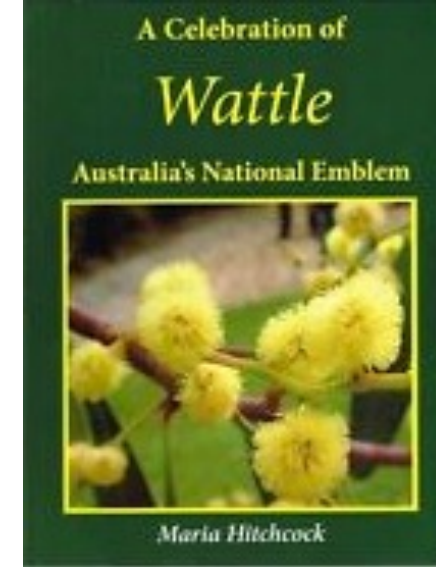
Acacia binervia RD



Acacia fimbriata RD

More on acacias

- Acacia Study Group of the Australian Native Plants Society (Australia) with regular newsletter **FREE**
www.anpsa.org.au
- Hitchcock, M. (2012) *A Celebration of Wattle: Australia's National Emblem*.
- Robinson, L. (2003) *Field Guide to the Native Plants of Sydney*, Kangaroo Press.
- WATTLE version 3 (2023)
interactive identification online + app \$9.95,
<https://apps.lucidcentral.org/wattle>
- www.worldwidewattle.com (WA Herbarium)
- *Coastal Plants of Royal National Park CD-Rom* (2006) Australian Plants Society Sutherland



Amazing acacias!

- 1,000 species in Australia + cultivars = there's one for every spot
- 2 types of flower arrangements and 2 types of foliage
- Our national floral emblem is *Acacia pycnantha*
- Celebrate Wattle Day on 1 September
- Acacias unlikely to cause allergies as pollen is dispersed by insects
- Acacias are fast growing and good for gardens
- Have a closer look at an amazing acacia near you!

