



## Topic 16: Acacias

### **Did you know that,**

- An acacia is the national floral emblem of Australia.
- Australia's green and gold sporting colours arose from the colours of the leaves and flowers of acacias.
- It is the largest group (genus) of plants in Australia with more species than the eucalypts or grevilleas.
- Acacias are used by Aboriginal peoples for food, weapons, tools and ornaments.
- Acacias are easy to grow and grow rapidly.

Acacias (or wattles as they are commonly known), members of the *Acacia* genus, are widespread across Australia. The Golden Wattle, *Acacia pycnantha* is Australia's national flower. Together with the peas and the cassias the acacias are legumes, possessing the remarkable ability to "fix" nitrogen – that is, convert nitrogen gas into soluble nitrates. (Strictly it is bacteria within the root nodules that achieve this feat!) Also, like the other legumes, acacias produce their seeds in pods.

Botanically, the *Acacia* genus is a member of the Fabaceae family, and the sub-family Mimosoideae, so acacias are usually labelled "Fabaceae-Mimosoideae". There are over a thousand species of acacias in Australia.

### **The Leaves**

The ancestral forms of Australian acacias are believed to have developed in tropical Gondwanaland regions and with bipinnate leaves. When Australia separated from Gondwanaland and became much drier the acacias adapted to this new climate. Many species developed modified leaf-like structures called "[phyllodes](#)" which are essentially flattened and enlarged leaf stalks. (The juvenile leaves of these species, though, are still pinnate.)



Bipinnate leaf



Phyllode

The acacias that developed in Africa and the Americas have [bipinnate](#) true leaves and are often armed with large thorns. They differ so greatly from Australian acacias that most of them have now been placed in new genera.

## The Flowers

The flowers of acacias are very small and coloured pale cream to golden. They can provide an impressive display, because many flowers can be clustered together in either globe-shaped heads (up to 130), or cylindrical-shaped spikes (up to 500).



A flower showing the petals

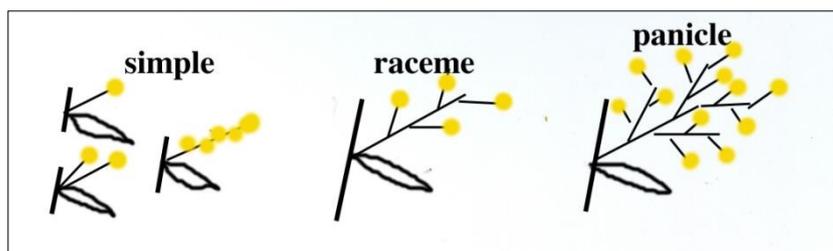
Globular flower heads

Cylindrical flower spikes

(Note the "ball-shaped" flower buds on both the heads and spikes. The number of flowers on a head or spike is best determined when the flowers are in bud form.)

The arrangement of heads or spikes within the whole inflorescence may be classified as "simple", or as a "raceme" or as a "panicle":

### Inflorescence Arrangement



Finally, the **fruit** of all *Acacia* species is a pod (or legume) the shape of which is often useful in identification of the species.

### Acacias in Ku-ring-gai Wildflower Garden

KWG contains at least 21 species of acacias many of which have been introduced (indicated below with an asterisk). This is a good representative collection of many types of the Australian acacias.

#### A simple classification of Acacias

Many features are used in the identification of acacias including flower type, flowering times, the pods and the leaves. A simple initial classification of Acacias based on leaf characteristics is given below for the Acacias in KWG.

**Bipinnate leaves**, \**A. baileyana*, *A. decurrens*, *A. parramattensis*, *A. terminalis*, \**A. elata*

**Prickly phyllodes**, *A. ulicifolia*, *A. echinula*, *A. oxycedrus*

**Phyllodes which are not prickly**. \**A. binervia*, \**A. falcata*, \**A. fimbriata*, *A. floribunda*, \**A. implexa*, *A. linifolia*, *A. longifolia*, *A. longissima*, \**A. melanoxyton*, *A. myrtifolia*, \**A. prominens*, *A. suaveolens*, \**A. vestita*.

## Bipinnate Species (*sp*= meaning of species name)

### \*[Acacia baileyana](#) (*sp*, Bailey original collector)

Tree or shrub 3-10 m high.

**Foliage:** silvery, blue-green (several different coloured leaf forms available from nurseries), bipinnate, 2-6 pairs of pinnae each with 8-24 pairs of [pinnules](#), each 3-8 mm long x 0.7-1.6 mm wide, gland at base of each [pinna](#) or on top few only.

**Flowerheads:** numerous, bright lemon-yellow, globular heads on racemes with 20-25 flowers on each of 8-30 heads.

(Potential weed species)

**Flowers:** June-September.

**Distribution:** NSW.

### Cootamundra Wattle



### [Acacia decurrens](#) (*sp*, ridges on leaf stalk continuing on stem) **Green or Black Wattle**

Tree or shrub 3-10 m high.

**Foliage:** smooth, dark green, fine, bipinnate, 5-12 pairs of pinnae each with 20-35 pairs of pinnules which are more widely spaced than in other species, pinnules 6-14 mm long x 0.5-0.8 mm wide, dark green above, pale beneath, jugary glands present.

**Flowerheads:** perfumed, small, clear yellow, globular heads on racemes or panicles with 21-30 flowers on each of 10-45 heads.

**Flowers:** July-early September.

**Distribution:** NSW.



### [Acacia parramattensis](#) (*sp*, collected from Parramatta)

### Parramatta Green Wattle

Shrub or tree 2-15 m high.

Minute raised veins down outside of stem.

**Foliage:** dark green, bipinnate, 6-18 pairs pinnae, pinnules 3-5 mm long x 0.5-1 mm wide. [Jugary](#) and interjugary glands.

**Flowerheads:** pale yellow, globular heads on racemes with 25-40 flowers on each of 10-20 heads.

**Flowers:** Late November – early February.

**Distribution:** NSW.



### [Acacia terminalis](#) (*sp*, terminal inflorescences)

Erect shrub to 6 m high.

**Foliage:** dark green above, paler below, bipinnate, 2-6 pairs of pinnae each with 8-20 thick, tough, pointed and hairless pinnules, 8-29 mm long x 2-5 mm wide. One large gland.

**Flowerheads:** pale to mid-yellow, globular heads on racemes or panicles with 6-15 flowers on each of 15-40 heads.

**Flowers:** December – February.

**Distribution:** NSW, Vic, Tas.

### Sunshine Wattle



\****Acacia elata*** (*sp*, tall)

Large tree to 20 m with large bipinnate leaves.

**Foliage:** dark green, 3-5 pairs of pinnae each with 10-20 pairs of pinnules which are 30-60 mm long x 7-12 mm wide. One gland.

**Flowerheads:** creamy yellow, globular heads on racemes or panicles with 30-50 flowers on each of 10-60 heads.

**Flowers:** December-February.

**Distribution:** NSW, Vic, Tas.

**Mountain Cedar Wattle**



**Prickly Phyllode Species**

***Acacia ulicifolia*** (*sp*, prickly leaves like Gorse/*Ulex*)

Sprawling to erect shrub to 2m high.

**Foliage:** phyllodes short (8-14 mm long), stiff, slightly flattened, swollen at the gland, if present along the margin. Phyllodes taper gradually from base to apex.

**Flowerheads:** cream, globular heads, 8-10 mm diameter, solitary.

**Flowers:** Winter – Spring.

**Distribution:** NSW, Qld, Vic, Tas.

**Prickly Moses**



***Acacia echinula*** (*sp*, spiny like sea urchin *Echinus*)

Spreading low shrub to 2 m high.

**Foliage:** phyllodes cylindrical (5-9 mm long), very sharply pointed. One small gland at base. Phyllodes contract abruptly at apex

**Flowerheads:** bright yellow, globular heads, solitary, axillary.

**Flowers:** Spring (from June).

**Distribution:** NSW.

**Hedgehog or Hooked Wattle**



***Acacia oxycedrus*** (*sp*, leaves sharp, cedar-like)

Erect to spreading shrub to 3 m high.

**Foliage:** phyllodes rigid, sharply pointed 1.5-4 cm long, 2-6 mm wide, usually with 3 or 4 longitudinal veins prominent.

**Flowerheads:** cylindrical, bright to pale yellow, 1-3 in leaf axil.

**Flowers:** July-October

**Distribution:** NSW, Vic, Tas.

**Spike Wattle**



## All Other Species (i.e., ones with phyllodes, not prickly and not bipinnate)

### \**Acacia binervia* (sp, leaves two veined)

Erect or spreading tree to 16 m high. Bark very dark, and flaky.

Wood hard and fragrant – used for pipes and boomerangs.

**Foliage:** silver grey, finely furry phyllodes, 3 main veins, 70-150 mm long x 5-20 mm wide. Glands absent or one conspicuous at base.

**Flowerheads:** bright yellow, cylindrical spikes on short racemes.

**Flowers:** September – October.

**Distribution:** NSW, Vic.

### Coast Myall



### \**Acacia falcata* (sp, leaves curved like scythe)

Erect or spreading tree or shrub to 5 m high.

**Foliage:** grey-green to green, 7-19 cm long, 9-40 mm wide, with a prominent midvein. One inconspicuous gland near base.

**Flowerheads:** pale yellow to cream-coloured globular heads on racemes or panicles with 12-20 flowers on each of 6-20 heads.

**Flowers:** April-August.

**Distribution:** NSW, Qld.



### \**Acacia fimbriata* (sp, fringed leaf edges)

Erect or spreading shrub or tree to 6 m high.

**Foliage:** Mid-green phyllodes with fringed margins (a hand lens is needed) tapering to a non-sharp point, 20-50 mm long x 2-5 mm wide. One gland near base.

**Flowerheads:** bright yellow, globular heads on long racemes with 10-20 flowers on each of 8-25 heads

**Flowers:** July – October.

**Distribution:** NSW, Qld.

### Fringed Wattle



### *Acacia floribunda* (sp, abundant flowering)

Erect or spreading shrub or tree 3-8 m high.

**Foliage:** thin, textured phyllodes, 50-150 mm long x 2-10 mm wide with one branching vein and one slightly stronger central vein. One gland near base.

**Flowerheads:** inflorescence arrangement is simple (solitary or twinned), pale yellow, cylindrical spikes.

**Flowers:** July – October.

**Distribution:** NSW, Vic, Qld.

### White Sallow, Sally Wattle



\****Acacia implexa*** (*sp*, relating to twisted pod)

Erect or spreading tree 5–12 m high. Bark hard, smooth becoming corrugated or fissured at base.

**Foliage:** dark green, , 7–18 cm long, 6–25 mm wide with 3–7 longitudinal veins prominent and 1 inconspicuous gland at base.

**Flowerheads:** pale yellow to white globular heads on racemes with 30-50 flowers on 4-8 heads.

**Flowers:** December-April.

**Distribution:** NSW, Qld, Vic.

**Hickory Wattle**



***Acacia linifolia*** (*sp*, flax-like leaves)

Erect or spreading shrub to 4 m high.

**Foliage:** soft, crowded phyllodes, 20-40 mm long x 1-2 mm wide, on slender branches. One small gland about 1/3 distance along phyllode from base.

**Flowerheads:** cream, globular heads on racemes with 6-12 flowers on each of 5-9 heads.

**Flowers:** January – April.

**Distribution:** NSW.

**Flax-leaved Wattle**



***Acacia longifolia*** (*sp*, long-leaved)

Erect or spreading shrub or tree 1–8 m high.

**Foliage:** fairly stiff phyllodes 60-200 mm long x 4-20 mm wide with two main veins (var. *sophorae* is a lower growing variety common on sand-dunes and in coastal and estuarine regions).

**Flowerheads:** inflorescence arrangement is simple (solitary or twinned), golden yellow cylindrical spikes

**Flowers:** July – November.

**Distribution:** NSW, Vic.

**Sydney Golden Wattle**



***Acacia longissima*** (*sp*, very long-leaved)

Erect or spreading shrub/tree 2–6 m high.

**Foliage:** drooping, long slender phyllodes, 60-300 mm long x 1-6 mm wide with one main vein. Glands absent.

**Flowerheads:** solitary, pale yellow cylindrical spike.

**Flowers:** December - January (some flowers at other times).

**Distribution:** NSW, Qld.



**Acacia melanoxylon** (*sp*, dark-coloured wood)

Erect or spreading tree 6–30 m high.

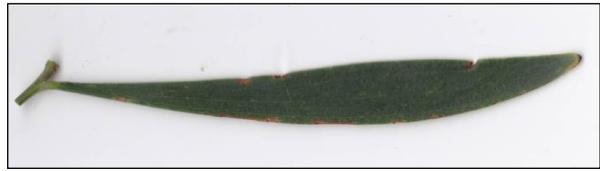
**Foliage:** dark green 6–14 cm long, 7–30 mm wide with 3–5 or more longitudinal veins prominent, and 1 gland near base.

**Flowerheads:** pale yellow-white globular heads on axillary racemes with 30–50 flowers on 2–8 heads.

**Flowers:** July–December.

**Distribution:** NSW, Vic, Qld, Tas.

**Blackwood**



**Acacia myrtifolia** (*sp*, myrtle-like leaves)

Prostrate to erect shrub 0.3–3 m high.

**Foliage:** tough, hairless phyllodes, 20–60 mm long x 5–30 mm wide with thickened and usually red margins and red stems. One small gland along margin.

**Flowerheads:** pale yellow, globular heads on axillary racemes with 2–8 flowers on each of 3–8 heads.

**Flowers:** May – August.

**Distribution:** NSW, Vic, Qld, Tas, SA, WA.

**Myrtle or Red-stem Wattle**



**Acacia prominens** (*sp*, prominent gland)

Erect or spreading tree 4–18 m high.

**Foliage:** slightly grey-green phyllodes, 30–50 mm long x 8–12 mm wide with one main vein. Very prominent gland on margin.

**Flowerheads:** lemon yellow, globular heads on axillary racemes with 8–15 flowers on each of 10–25 heads.

**Flowers:** July – September.

**Distribution:** NSW.

**Gosford Wattle**



**Acacia suaveolens** (*sp*, sweet smelling)

Prostrate to erect shrub 0.3–2.5 m high.

**Foliage:** blue-green, stiff, thick, smooth, slightly curved phyllodes, 50–150 mm long x 2–10 mm wide arising at 90 degrees on slightly flattened stems and spirally arranged. One or two small glands near base and apex.

**Flowerheads:** buds at first enclosed in conspicuous scaly deciduous bracts, fragrant, pale lemon yellow, globular heads on short axillary racemes with 20–50 flowers on each of 8–17 heads.

**Flowers:** April – September.

**Distribution:** NSW, Vic, Qld, Tas, SA.

**Sweet-scented Wattle**



\****Acacia vestita*** (*sp*, clothed=hairy)  
Spreading shrub 1–4 m high.

**Foliage:** crowded, softly and markedly hairy, grey-green phyllodes, 10-20 mm long x 6-10 mm wide narrowing sharply at tip into a fine, hairy, hooked soft point. No glands.

**Flowerheads:** bright yellow, globular heads, on racemes with 10-30 flowers on each of 10-20 heads.

**Flowers:** August – October.

**Distribution:** NSW.

**Hairy Wattle, Weeping Boree**



## References

### Keys

WATTLE: Acacias of Australia, B.R. Maslin CD.

<http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&lvl=gn&name=Acacia>  
(a key to Acacia of NSW on PlantNET)

### General

<http://www.worldwidewattle.com/>  
<http://anpsa.org.au/acacia.html>

## Acknowledgement

These notes contain hyperlinks to materials, including images, illustrations, plant descriptions and a glossary from PlantNET, with the courtesy of The Royal Botanic Gardens & Domain Trust, 2011.

For general access to PlantNET see also <http://plantnet.rbgsyd.nsw.gov.au/>

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