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Editorial

Maria Hitchcock

This edition of *Australian Plants* celebrates the special relationship that Australians have with their beloved Acacias. Our first settlers found it hard to come to terms with the so-called 'drab' colours of the Australian bush and it was the golden *Acacia* in all its glory that lifted their spirits. It was therefore fitting that an *Acacia* became our national floral emblem. The name *Acacia* is intrinsic to Australian society and culture and in this edition Bruce Maslin and Tony Orchard discuss the current debate concerning this name, *Acacia*. I am delighted to see that the Committee for Spermatophyta has now recommended approving Bruce and Tony's proposal that the genus *Acacia* be retypified with an Australian species. I would encourage others to similarly support this decision.

It is hoped that this edition will encourage you to grow at least one *Acacia*, whether it be the emblem, or one of the smaller Acacias described in the text. It is also hoped that this edition will enlighten you about the symbolism and traditions in which Acacias played an important part in the history of this nation and encourage you to celebrate our *Acacia* heritage on National Wattle Day each year. I would like to thank all the contributors, the editorial committee and Wendy Goonan for assistance with this publication. I would also like to thank my very patient husband, Don, for his enormous support and assistance over the years.

Maria Hitchcock is responsible for the gazettal of the National Floral Emblem. She is author of *Wattle*, a life member of the Australian Plants Society NSW and Leader of the ASGAP Correa Study Group.

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Front cover: *Acacia amblygona* - photo: Bruce Maslin (pp. 319 & 324)

Back cover: *Acacia puichella* var. *glaberrima* - photo: Bruce Maslin (p. 314)

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A is for Acacia, symbol of Australia

Maria Hitchcock - the Wattle Lady

Although the Australian National Floral Emblem is a single *Acacia* species, *Acacia pycnantha*, Australians are a very pragmatic people and tend to recognise the whole genus of Acacias as a national symbol. Thus Australians may use any *Acacia* in bloom to celebrate National Wattle Day or any other festivities of a patriotic nature.

It was only during the lead up to Federation in 1901, that pressure became fairly intense for an actual species to be recognised and depicted on insignia, banners and on any other form of official signage or documentation. *Acacia pycnantha* was selected because of its importance to the tanning industry at the turn of the century (the bark of the species has a very high tannin content) and also because of its widespread distribution throughout inland parts of southern Australia. It must seem curious to modern conservationist Australians that our forebears would choose an emblem that was to be cut down in the thousands for industrial reasons. The populations that exist in the wild today are largely re-growth stands of *A. pycnantha* which were allowed to flourish once the motor car displaced horses and carriages and the tanning industry collapsed.

Acacia pycnantha Benth. is a small or middle-sized tree which may grow from 3 to 10 metres in height. It has dark brown or grey bark, which may be rough at the base of the trunk but is mostly smooth up to the reddish branchlets. After the seedling stage, the bipinnate juvenile leaves are replaced by leathery, sickle-shaped, reddish-coloured phyllodes ranging in size from 6–20 cm long and 1–5 cm wide, which are pendulous, giving the tree a weeping appearance. Flowers are arranged in golden-yellow flower heads on axillary racemes with zigzag stems. The racemes, which contain 6–12 flower heads each, are profuse on the plant giving this species a glorious appearance when in flower from July to October. There is an autumn flowering form with narrower phyllodes that grows on Mt. Arapiles, but the emblem itself is the spring-flowering form.

Acacia pycnantha grows naturally in the understorey of open forest or woodland and in open scrub formations in South Australia, Victoria, New South Wales and the Australian Capital Territory, in temperate regions with a mean annual rainfall of 350–1000 mm. It occurs on dry stony ground or in sandy soils. It regenerates freely from seed after fire and this may result in dense thickets in forests and woodlands along roadsides. It has also been known to naturalise readily, particularly in parts of Tasmania and south-west Western Australia; it is also regarded as a weed species in parts of South Africa.

It is a very adaptable species and can be grown in a wide variety of soils and climates, although it does best in well-drained soil in warmer areas. It has been grown successfully in colder areas when planted under shelter. *Acacia pycnantha* may be short-lived in cultivation (eight to ten years) and successive plantings may be necessary. It is not suitable for tropical gardens but may be grown in a large tub and lightly pruned.

Reference

1. Hitchcock M 1991, *Wattle*, AGPS
2. Maslin B, McDonald M 2004, *AcaciaSearch*, RIRDC Publication No 03/107



Left: *Acacia pycnantha* (p. 291)

Centre Left: *Acacia ulicifolia*
(pp. 307, 315)

Below: *Acacia varia* var. *varia*
(p. 307)

Bottom: *Acacia sulcata* var.
platyphylla (p. 314)

OPPOSITE

Top Left: *Acacia tindaleae*
(p. 318)

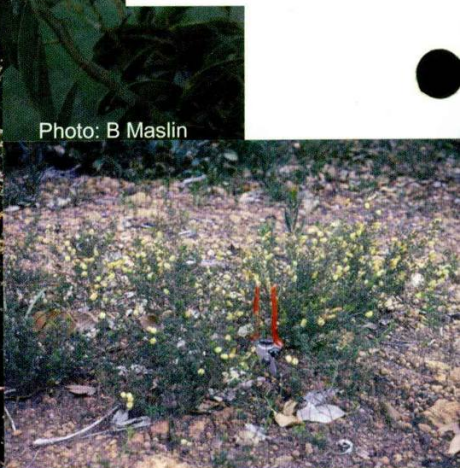
Centre Left: *A. tindaleae* habit

Top Right: *Acacia flexifolia*
(p. 310)

Bottom: *A. flexifolia*



Photo: B Maslin



Photos: B Maslin ↑↓





↑
Photos: A O'Halloran
↓

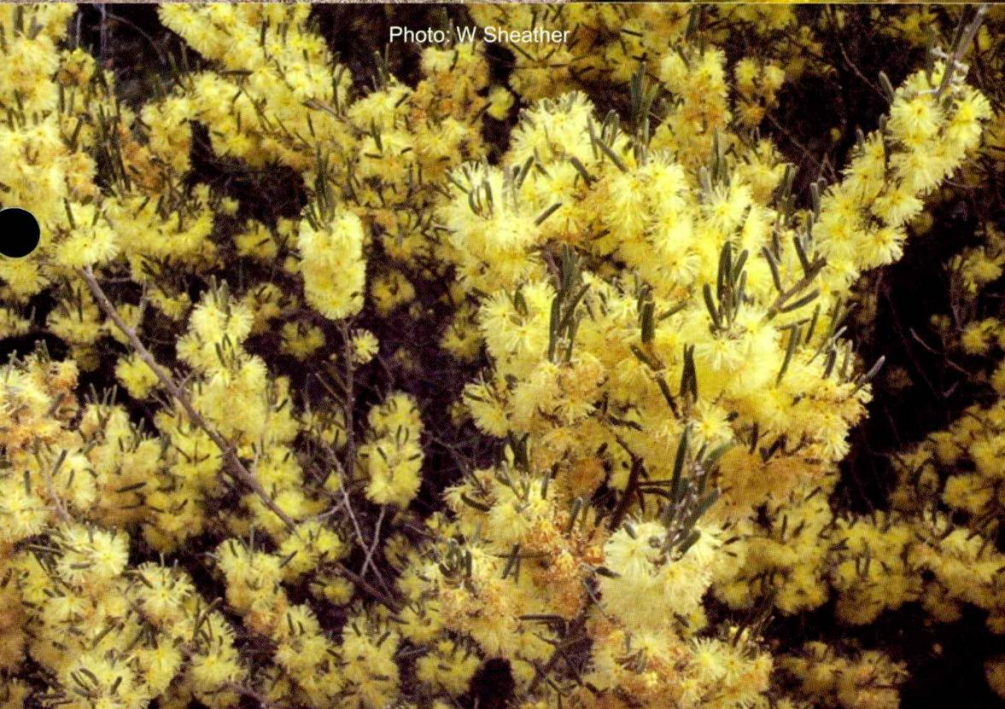


Photo: W Sheather

History of Wattle Day

Maria Hitchcock

National Wattle Day was officially gazetted on 23rd June, 1992. It had been a long journey, beginning in 1838 in the early days of colonial history and culminating in the proclamation 154 years later. At the same time the concept of an official floral emblem for Australia took hold in the hearts and minds of Australians but *A. pycnantha* was not gazetted until 1st September 1988. The wattle's colours, green and gold, also gained wide acceptance among sporting bodies and became our official colours at international functions, particularly at the Olympics. So why did recognition take so long?

The Regatta

The story begins in Hobart Town in the penal colony of Van Diemen's Land. A regatta was suggested to commemorate the anniversary of Tasman's discovery of the island in 1642. The idea of a regatta was greeted enthusiastically by the townsfolk because celebrations were rare in the colony. Someone suggested that all citizens wear a sprig of silver wattle (probably *Acacia dealbata*) tied with a navy blue bow. The festivities were held in 'Wattle Park' and the pavilions were decorated with black wattle blossom (most likely *Acacia melanoxylon*). The regatta was a big success and marked the first usage of wattle blossom as some form of patriotic emblem.

Fifteen years later, *Acacia* blossoms were once more used in a symbolic manner during the 50th anniversary celebrations of the colony. A parade of citizens and dignitaries marched under a triumphal arch decked with fronds of *Acacia* blossom in the streets of Launceston on 10th August 1853. The colonists had struggled for abolition of transportation and used the *Acacia* as a symbol of freedom.

An Emblem for Australia

The next mention of wattle as a symbol of Australia came from Will Sowden, a journalist with the Adelaide Register and Vice-President of the Australian Natives Association. As membership of the ANA was restricted to males only, Will Sowden proposed in 1889 the formation of a ladies group, 'The Wattle Blossom League', who would wear a sprig of wattle on all official occasions and promote a national patriotic sentiment among the women of Australia. The League encouraged patriotic literature and music and created a forum for the premiere performances of songs and poetry. The song *Australia* by C C Presgrave and M Heuzenroeder was performed during this time as well as 'When the yellow wattle was in bloom' by F J Packer. The League had a short life but made a definite impact on the citizens of Adelaide and Melbourne.

On the 14th February 1891, the Melbourne *Herald* published an article in response to the news that Canada had recently adopted the maple leaf as its emblem and encouraging readers to suggest a suitable emblem for the new Federation of Australia. David Scott of Mount Lonarch suggested using wattle as an emblem mainly because of its importance to the tanning industry. At the time *Acacia pycnantha* was the most popular wattle harvested because of its very high tannin content.

By 1899, sufficient interest in a wattle emblem led to the formation of a 'Wattle Club' by Mr Archibald James Campbell, a well-known ornithologist. Each year after that, the club invited members to 'Wattle Day' outings on the 1st September to various parts of Victoria to view the wattles in bloom. In a speech to the Melbourne Photographers Club in 1908, Campbell advocated the honouring of a Wattle Day. His call was taken up the following year by J H Maiden, Government Botanist and Director of the Botanic Gardens in Sydney. Maiden was the leading expert on Acacias at the time and was in the process of writing his definitive volumes, *Forest Flora of New South Wales*.

The Wattle Day League

Maiden, together with Agnes Kettlewell and Hannah Clunies-Ross called a public meeting to form a Wattle Day League and to co-ordinate the States into accepting and celebrating the first Wattle Day. They suggested the Commonwealth set aside a day on which the Australian national flower - the wattle blossom - might be worn and its display encouraged. They also suggested that a date in September would be universally accepted but it didn't need to be a holiday. Interestingly, it was the *Acacia* genus as a whole that was proposed to be the emblem rather than a particular species.

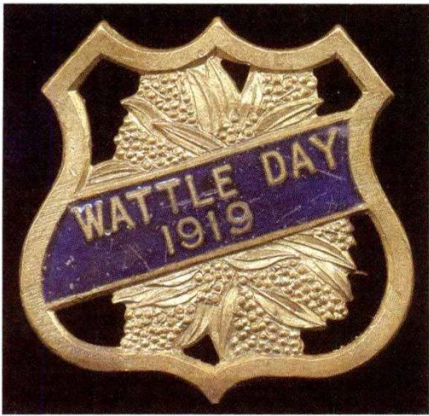
It wasn't to last as a decision had to be made for a single species that could be depicted in insignia and on the coat of arms. *Acacia pycnantha* was finally selected, even though the public continued to use any *Acacia* that was available for festivities and for sending abroad. A debate also raged through newspapers and public gatherings as to the suitability of *Acacia pycnantha*. The Waratah (*Telopea speciosissima*) was considered by some to be superior. It lost out due to its narrow distribution. A glimpse of the debate lingers in Henry Lawson's poem, *Waratah and Wattle*.

The First Wattle Day

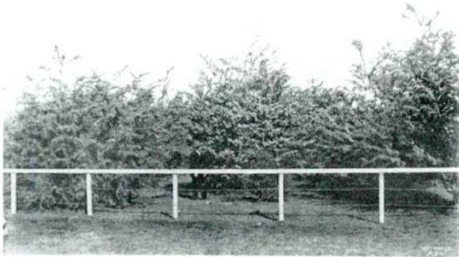
By 1910, there were branches of the Wattle Day League in Sydney, Melbourne and Adelaide and the first major Wattle Day celebrations were held in the three States simultaneously on the 1st September. The *Sydney Morning Herald* called the wattle an 'Emblem of Patriotism and Love'. Acacias were planted in school grounds, blooms were on display in shop windows and on sale in stalls near the GPO. Everyone was asked to wear a sprig of wattle to show their patriotism. The *Herald* also published a poem by Veronica Mason whose first lines were 'The bush was grey, A week today ...' This poem was later set to music and became the definitive Wattle Day song for many schoolchildren.

Enthusiasm for wearing a sprig of wattle continued in 1911, but the concept was not confined to Wattle Day. The emblem appeared at a number of celebrations held in Adelaide that year. Many Acacias were planted in parks and school grounds and a Commonwealth poster, designed to advertise Australia abroad, featured wattle. The first steps were then taken to formalise the day and a submission was sent to the Commonwealth government to formally gazette Wattle Day.

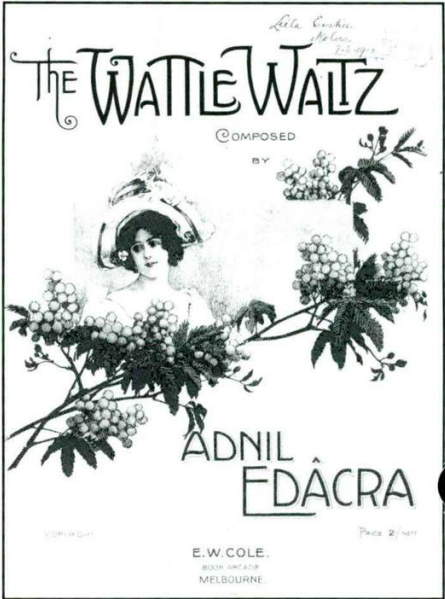
By 1913, a Federal Wattle Day League was formed with the aim of having the emblem officially proclaimed and having Wattle Day celebrations observed on the same day throughout the Commonwealth. An *Acacia* had already been included in the Coat of Arms by Andrew Fisher.



One of the many badges sold on Wattle Day to raise money for charity.



200 A. baileyana trees were planted on Wattle Day in Centennial Park, Sydney.



c. 1913 One of the many works of art inspired by national sentiment for Wattle. The author's name is fictitious - it spells Linda Arcade backwards. Cole's Book Arcade in Melbourne was famous.

Jubilee procession in 1851 through the streets of Launceston marched under arches decked with wattle bloom.



Two hundred *Acacias* (*A. baileyana*) were planted in Centennial Park, wattle blooms were placed on Adam Lindsay Gordon's grave, and in December, a wattle blossom stamp was issued featuring *Acacia pycnantha*.

World War I

Unfortunately, the outbreak of World War I interrupted the work of the Commonwealth and the Wattle Day League's submission was laid aside for more important matters. It would lie undisturbed in some forgotten drawer for another 73 years. The League now threw itself into helping the war effort. They combined forces with the Red Cross and Patriotic Fund to raise as much money as possible by selling sprigs of wattle in the streets of Sydney on 1st September. The league obtained permission for soldiers to wear a sprig of wattle on their uniforms, sprigs were handed to wounded soldiers in hospital and military camps and cardboard boxes filled with pressed sprigs were sent abroad for distribution to wounded soldiers.

By 1816, the League had such a huge demand for wattle, they had to change the date to the 1st August. The most common *Acacia* in Sydney gardens was the Cootamundra Wattle (*Acacia baileyana*) and this species flowers in winter. By the 1st September, it would have been hard to find decent *A. baileyana* flowers, so a request was made to move the date forward in order to be sure of enough supplies. A photograph of a sprig sent to a soldier in France clearly shows a sprig of *A. baileyana* tied with a purple ribbon.

Sprigs of wattle were also enclosed in letters sent to soldiers abroad. A poem in the *Australian Worker* by an anonymous author encouraged mothers to enclose wattle with their letters to their sons fighting at Gallipoli. A poem in reply written by A H Scott and entitled *A Little Sprig of Wattle* told of how the enclosed sprig reminded him of the homestead and the Australian landscape blazing with wattle in the springtime.

After the massacre at Gallipoli, the League arranged for the planting of *Acacias* near the graves of the Anzacs who died on the peninsula. It is not known how many trees still survive or if there has been regeneration, but the sight of *Acacias* blooming on the hills of Gallipoli stirred many an Australian expatriate heart for some years.

The war years also saw the introduction of *Acacia* designs into home furnishings, along with the Waratah and Flannel Flower. Some of these decorations are still evident today in older homes and buildings. Australians had begun a love affair with their flora and the wattle in particular that is still evident today. Almost every newsagent carries postcards depicting our flora and several series of stamps have been produced over the years under a variety of themes.

Somehow their warm glow towards the flora and the wattle didn't seem to be reflected in conservation of the landscape. Warnings were issued by concerned citizens as far back as 1918 about the drastic destruction of our hardwood forests and the over-clearing taking place for grazing. A call was made to Australians to be reminded of this when they celebrate Wattle Day.

Between the Wars

Many older Australians remember celebrating Wattle Day at school with some fondness. Annual ceremonies were held in school halls across Australia,

featuring wattle fairies and the crowning of a wattle queen. Children sang 'The bush was grey ...' and recited poetry. They wore sprigs of wattle to school and it didn't seem to matter which species was worn, the genus as a whole was considered symbolic of the nation. Much poetry was written during this time and the School Magazine featured unpublished work, including stories and plays as well as poetry. An anthology of these works is included in my book *Wattle*.

Fundraising continued with many hospitals and other charities becoming beneficiaries. The tradition of Wattle Day seems to have been strongest in NSW, where it was supported from year to year in the School Magazine. Observance of Wattle Day gradually died out in schools and in the community and a couple of generations of children had never heard of it.

A Modern Tradition

The raising of environmental awareness in the 1980s in Australia led to a close look at our flora and landscape. Suddenly many people became aware of Huon Pine and the Franklin River and the need to preserve our native flora. The Greenhouse Effect and Ozone layer were widely discussed and people started to think seriously about soil degradation, salinity on our farmlands and in our river systems and the problems associated with wood-chipping old growth forests. Suddenly everyone was planting trees and farmers joined groups such as Landcare. Government initiatives and funding supported their efforts and research went into rehabilitating degraded landscapes. Australians began to look at their flora with new eyes.

The stage was set for a revival of Wattle Day and Arbour Day and these have been joined by National Tree Day, World Environment Day and the list goes on. However, only one of these days had an historical link to nationalism and that was Wattle Day. Schools had begun to include Wattle Day in their calendar, the National Botanic Gardens celebrated a Wattle Week in early September and continues to do so to this day and community celebrations inspired by energetic citizens were starting to appear spontaneously. The historical context, however, was missing from this revival.

Somehow the real story of Wattle Day had been hidden away in archives and few people were aware of the significance that this day played in the process of Federation and Australia's developing independence until World War I yanked us back to fight alongside the British. This was a story that needed to be told and the campaign for national recognition began.

The campaign

In 1986, after a request for the words of the Wattle song, I began a quest which took me along a path that would affect my life forever after. My hunt for the song opened up a treasure chest of Australian history and led me to write to the Prime Minister, Bob Hawke, requesting formal recognition of a National Wattle Day. The reply that came from his Minister for Arts, Heritage and Environment, Mr Cohen, contained a surprise. Apparently, although *Acacia pycnantha* had enjoyed popular acceptance as Australia's national flower, it had never been proclaimed as our emblem. My submission was then revised to include the formal recognition of *Acacia pycnantha* as our emblem.

The next step was to gain widespread support from anyone who would listen.

Acacia Appreciation Club of Hiroshima, Japan

Australian National Botanic Gardens

Each Wattle Day since 1992, the Australian National Botanic Gardens have received hundreds of yellow ribbons as a gesture of friendship from the Acacia Appreciation Club of Hiroshima. Club members visited the gardens several years ago and since then have continued to supply ribbons for visitors to take home and attach to their favourite trees. The ribbons are made by children of the Hiroshima Shudo-in orphanage, who have been sending and receiving messages from Canberra school children since 1999.

It is believed that the first plant to rise from the ashes of Hiroshima after the atomic bomb devastated the city at the end of World War II was an Australian Acacia. The Acacia Appreciation Club was formed to celebrate Acacias and the Club was delighted with the gazettal of National Wattle Day in Australia in 1992. The group has planted Acacia trees in the streets of Hiroshima, most recently near the University of Shodo. During 2005, they hope to arrange a special Wattle event in Hiroshima and visit the ANBG.

I enlisted the aid of Ian McNamara of 'Australia All Over' on ABC radio and struck gold. Ian gave me some very valuable air time to explain the significance of the day and why it should be gazetted. Before too long letters from Australians all over the country came flooding in. Ian dubbed me the 'Wattle Lady' and the name stuck. My local Primary school recorded the *Wattle Song* and it began an annual feature of the show.

A petition was circulated through the branches of the 'Society for Growing Australian Plants', articles were sent to journals, people wrote to politicians for support and the campaign began to develop some momentum. It was helped enormously by enthusiasts like Jean McCall who had been handing out wattle sprigs to schoolchildren for years. Jean set up wattle displays at the Sydney Wildflower shows, collected many signatures and wrote letters. In December 1987, I requested an interview with Senator Graham Richardson, who would be visiting my town. It was one of those defining moments. I was permitted only five minutes with the Senator and somehow managed to convince him that this would be a good move for the government in the lead-up to the Bicentennial celebrations.

Nine months later I was informed that *Acacia pycnantha* would be formally proclaimed as Australia's National Floral Emblem on the 1st September, 1988. It was a wonderful victory but no decision had been made on Wattle Day itself. At the ceremony I approached Senator Ray to ask him about it and was informed that I would need to get support from every State Premier and Chief Minister. This was to take another four years.

While most people accepted *A. pycnantha* as the emblem, there was some debate about the date for Wattle Day. Those Australians from NSW and Queensland, who had celebrated Wattle Day on the 'temporary' date of August 1, were adamant that this was the correct date. The historical record stated otherwise. September 1 had been selected originally for its significance as the first day of Spring.

Continued on page 322

Proposed Name Changes for *Acacia*

and how these might affect Australian species

Bruce Maslin¹ and Tony Orchard²

Introduction

In recent years there has been considerable discussion concerning a probable split of the large cosmopolitan genus *Acacia*, and the nomenclatural repercussion that would follow such an action. In the event of this happening the important question arises as to which of the segregate genera the name *Acacia* should apply. If the normal provisions of the *International Code of Botanical Nomenclature* (ICBN) are followed then the name *Acacia* would go with a relatively small cosmopolitan group of species which is very poorly represented in Australia. It would then follow that the majority of the 957 Australian species of *Acacia* would require a new generic name, probably *Racosperma*. Such a change involving this large and important iconic Australian genus understandably caused concern among some people. This in part prompted Orchard & Maslin (2003) to publish a proposal to retypify *Acacia* with an Australian type and in so doing to ameliorate the nomenclatural impact should the genus be divided. After due consideration the Orchard & Maslin proposal was recommended for approval by an international panel of nomenclatural experts, the Committee for Spermatophyta. Assuming that the Committee's decision is not overturned it means that most Australian species of *Acacia* will not need to change their name in the event of the genus being split.

Our aim here is to briefly detail the above history and to discuss the likely impact within Australia regarding the name *Acacia* should the genus be divided.

The genus *Acacia*

As currently defined *Acacia* is a large genus of about 1350 species that are distributed throughout tropical and warm temperate areas of the world, with the largest concentration of species in Australia (957 species) and lesser numbers in the Americas (185 species), Africa (144 species) and Asia (89 species). At present these species are treated as belonging to a single genus, *Acacia*, and depending upon what classification system is used they are arranged in either three or five infrageneric groups (see Maslin, Miller and Seigler 2003 for discussion).

Proposed subdivisions of *Acacia*

Recent taxonomic research has indicated that *Acacia* as currently defined is unlikely to be maintained as a single entity and there is a growing consensus among specialists that the genus will be split. Indeed, about 20 years ago Pedley (1986) proposed that *Acacia* be divided into three genera but this scheme was not widely adopted. Under Pedley's classification the majority of the Australian *Acacia* species would be renamed as *Racosperma* (many

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Racosperma combinations were published by Pedley in 1987 and 1988). The reasons for not adopting Pedley's classification are detailed in Maslin (1989), but most importantly it was considered that the evidence presented for recognising three genera was inconclusive and/or incomplete and that there was a need for broad-based comparative studies of *Acacia* that encompassed genera from tribes *Ingeae* and *Mimoseae*.

Molecular and phylogenetic studies conducted subsequent to 1986 lend considerable support to the fragmentation of *Acacia*, but not necessarily along the exact lines proposed by Pedley (see Maslin, Miller and Seigler 2003 for discussion). Of particular relevance are the cladistic analyses of Chappill (1995) and Chappill & Maslin (1995), and the exciting new molecular information that is being generated by Miller and his colleagues (Miller & Bayer 2000, 2001 & 2003, Miller *et al.*, 2003 and Luckow *et al.*, 2003). Most of these broad-based studies included not only species of *Acacia* but also genera from related taxonomic groups. When the new molecular data began to appear Pedley flagged his intention of renaming the rest of the Australian *Acacias* as *Racosperma* (these combinations were published in 2003). This in turn prompted Maslin, Orchard and West (2003) to reassess the nomenclatural implications of splitting *Acacia* and subsequently a proposal to retypify *Acacia* was prepared by Orchard & Maslin (2003).

Orchard & Maslin proposal to retypify *Acacia*

The case prepared by Orchard & Maslin involved changing the Type species of *Acacia* and was motivated by the desire to minimise nomenclatural disruption in the event of the genus being split. Historically the Type of *Acacia* is *A. nilotica* (syn. *A. scorpioides*), a species of tropical Africa and western Asia which is now naturalised in some other parts of the world (including Australia). If the genus were to remain typified by this species it would mean that the name *Acacia* would be applied to a relatively small group (subgenus *Acacia*) which contains about 160 species found in Africa (73 species), Asia (36 species), the Americas (about 60 species) and Australia (only seven species). It would then follow that most of the 948 Australian species of Wattle would most likely be called *Racosperma*.

The Orchard & Maslin (2003) proposal aimed to replace *A. nilotica* with a new type (*A. penninervis*) selected from the largest group within the genus (subgenus *Phyllodineae*). This group predominates in Australia (there are a few species in the Asia-Pacific and Madagascan regions) and contains a number of species which are commercially important. The proposal was made under Article 14 of the ICBN (numerous other proposals have utilised this Article in the past decade).

Details of the Orchard & Maslin proposal are comprehensively discussed in Maslin *et al.* (2003) and a summary of the main points may be found on the WorldWideWattle website at:

www.worldwidewattle.com/infogallery/taxonomy/brm-response.pdf (as at Dec. 2004). A simplified discussion of these rather complex issues can also be found at: www.worldwidewattle.com/infogallery/taxonomy/genussplit.php (as at Dec. 2004).

The Orchard & Maslin proposal was subsequently judged by an international panel of nomenclatural experts, the Committee for Spermatophyta, which is a

specialist committee of the International Association for Plant Taxonomy. This Committee was in a difficult position because whatever their decision there would be those who would be unhappy with the outcome.

Reactions to the Orchard & Maslin retypification proposal

Prior to the Spermatophyta Committee making its decision a vigorous debate ensued concerning the Orchard & Maslin proposal. Apart from submissions made direct to the Committee (see Brummitt 2004) a number of articles were published in response to the proposal. Concern was expressed, primarily by amateur groups, at the prospect of most Australian *Acacias* requiring a new generic name (see Burns 2003, Simmons 2003 and Williams 2003). *Acacia* was viewed as an iconic Australian group which, apart from being the largest genus of vascular plants in the country, has significant historical and cultural relevance to Australians. However, not everyone supported the proposal. Walker & Simpson (2004) and Pedley (2004) both argued against it, and advocated the adoption of *Racosperma* (Maslin 2004 and 2004a responded to their arguments).

Spermatophyta Committee votes to accept Orchard & Maslin proposal

Around the middle of 2004 the Committee for Spermatophyta voted 9:6 in favour of recommending acceptance of the Orchard & Maslin proposal to conserve *Acacia* with a new (Australian) Type species, *A. penninervis*. This had been the most extensively and vigorously debated case in the history of that Committee and its Chairman therefore published a detailed report outlining the reasons for the decision (Brummitt 2004). As can be seen from this report the two points that tipped the balance strongly in favour of the proposal were the following: the number of species is far greater in the Australian group than in any of the segregates in other continents (or indeed, in all other continents together), and nearly half the species outside Australia will change their name (most to *Senegalia*) irrespective of what recommendation the Committee made.

The Committee's decision has now been publicised in a number of places (e.g. Maslin & Orchard 2004, Orchard & Maslin 2004) and has received attention in the Australian popular press (e.g. an article in the *Sydney Morning Herald* by James Woodford) and radio (a number of interviews by the author have been conducted on ABC stations around the country).

Where to from now?

The Spermatophyta Committee's decision to accept the Orchard & Maslin proposal to retypify *Acacia* now has to be endorsed by the General Committee of IAPT and then ratified at the International Botanical Congress in Vienna in July 2005. Assuming that it gets through these final two steps, it means that should the genus be split in the future, the name *Acacia* will still apply to the 948 species of Australian phyllodinous wattles (plus the seven related species in the Pacific Islands, one or two in the Madagascar region and 10 in tropical Asia). Less than 10 Australian species will need to change their generic name, about seven to *Vachellia* and two to *Senegalia*. Table 1 shows the new generic names globally following acceptance of the Orchard & Maslin proposal. However, until such time that a formal proposal is made to dismantle *Acacia* sens. lat. nothing will change and group will continue to be regarded as a single genus.

Because *Acacia* has a world wide distribution it would be appropriate that taxonomic specialists in the countries concerned attempt to reach a consensus as to the best course of action for the future.

Table 1: Species numbers for the five genera that will probably be recognised following subdivision of *Acacia* sens. lat. (these numbers follow those given in Maslin, Orchard & West 2003). Generic names (column 1) are those that apply following acceptance of the Orchard & Maslin proposal.

Genus	Numbers of species				
	Americas	Africa ¹	Asia	Australia & Pacific	Total
<i>Vachellia</i>	c. 60	73	36 (incl. c. 15 also found in Africa)	7	161
<i>Senegalia</i>	97	69	43 (incl. 7 also found in Africa)	2 (incl. 1 also found in Asia)	203
<i>Acaciella</i>	15	-	-	-	15
New genus	13	-	-	-	13
<i>Acacia</i>	-	2 ²	10 (incl. 7 also found in Australia)	955 ³	960
Total number of species	185	144	89 (incl. c. 29 occurring also outside the region)	964 (incl. 1 also found in Asia)	1352

¹ Includes Madagascar, Reunion and Mauritius.
² 2 species in Madagascar, Reunion and Mauritius. (Note: Du Puy & Villiers 2002 consider that only one species of this group occurs in this region.)
³ 948 species in Australia; 7 species in the Pacific.

References (NB: Web-page references are as at Dec. 2004 and subject to change)

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History of the Acacia Study Group

Thais Eisen

The Society for Growing Australian Plants was founded by Mr A J Swaby of Melbourne at a meeting held in the Horticultural Hall, Victoria Street, Melbourne on the 12th March 1957. Groups were quickly formed in other states and Bill Payne was the Managing Editor of the first issue of *Australian Plants* remaining in that position for many years. Bill was also instrumental in the establishment of Study Groups within the SGAP. The first mention of the Acacia Study Group was in Volume 1 of *Australian Plants* (December 1959) and Dr A C Keane of North Fitzroy, Victoria was listed as the Leader. The Group produced its first newsletter (circular letter) in June 1961. Seven members joined from Tasmania, Victoria, New South Wales and South Australia.

There have been seven leaders from 1961 to the present. Dr A C Keane of North Fitzroy, Victoria led the Group from 1961 to 1967, the year that he died. Mrs Inez Armitage, author of *Acacias of new South Wales* from Terrey Hills, NSW, reactivated the group in March 1971 and it continued under her leadership until November 1976 when it was taken over by Mr John Arnold of Armidale, NSW. He led the group until August, 1978 and then handed over to Mrs Marion Simmons of Legana, Tasmania. Marion was leader for 13 years from August 1978 to June 1991. During her leadership she produced the two volume set called *Acacias of Australia* together with her husband John. The books are notable for Marion's fine drawings of the species she described and for John's beautiful photographs of many of them.

Mr Bruce Clark of Panmure, Victoria took over from Marion when she retired in October, 1991 and led it for five years until June 1996. In 1995 Bruce produced *Wattles are Golden* to mark the publication of 100 newsletters by the Group during the period 1961 to 1995. The booklet includes extracts from each of the newsletters. The Group went into recess until January 1998, when Peter Reynolds of Tamworth, NSW took on the leadership. It was not a successful reactivation and the Study Group went back into recess in November 1999. Mrs Thais Eisen of Annerley, Queensland reactivated the Group in February, 2001 and remains the present leader.

In spite of some periods in recess the Acacia Study Group is the oldest ASGAP Study Group still functioning. Four members have had books on Acacias published. The Study Group maintains a Seed Bank which has grown over the years so that it now contains seed of almost 500 Acacia species and varieties. A photo library of almost 1000 images has been built up from member's contributions and these are now available on CD. With increasingly user friendly technology available, coloured photos have recently been added to the newsletter which is now available via email. The Newsletter and the list of species contained in the Seed Bank have been available on the World Wide Wattle website since its launch in March 2004. (www.worldwidewattle.com)

The Acacia Study Group welcomes new members. Membership is \$5 (Newsletter provided by email), \$8 (posted as hard copy within Australia), \$12 (overseas postage). Contact Thais Eisen (86 Taunton St, Annerley, Brisbane 4103; email: 4thais@optushome.com.au). My thanks to Jan Sked for extracts from her *Notes on the History of the Study Groups*.



Above: *Acacia multispicata* (p. 319)

Right: *Acacia gonocarpa* (p. 306)

Centre Left:

Acacia multispicata habit

Bottom Left:

Another form of *Acacia multispicata* showing the extensive variability of the species

Photos: B Maslin except for bottom left which is from the Acacia Study Group



Small Acacias for the Australian Garden

Maria Hitchcock

No Australian garden would be complete without at least one Acacia. As there are 1000 plus species in this continent to choose from, there's really no excuse. The limiting factor as always is the size of the garden. Those of us with acreage can afford to indulge ourselves with the larger Acacias which form the understorey of much of the typical Australian bush. The trend in recent years, however, is for larger houses and smaller gardens. Town house developments, retirement villages and communal estates have all put a brake on the species which we can now plant with confidence and this is where the smaller Acacias come into their own.

Surprisingly, about a fifth of Australia's Acacia species have a maximum height of under 2 metres. This article describes some of the better forms for cultivation and lists others which could be experimented with. While the species are organised according to the climatic zones they occur in naturally, many are very adaptable and will overlap from one climatic zone to another in the garden providing the right cultivation requirements are met. It is hoped that this article will inspire you to plant at least one Acacia in your garden, whether it be a few pots on the balcony or a large sprawling yard. This zoning information is highly simplified to help with selection of suitable species. All species can be propagated from seed.

Tropical Zone (Summer wet - Winter dry)

***Acacia gonocarpa* F.Muell.**

Flowers from October to February

Small erect, many-stemmed, spindly or spreading shrub to 2 m high with drooping branches and sparse canopy. Linear to narrowly elliptic, straight or up-curved phyllodes up to 14 cm long, with minute bent tips and with prominent veins. Pale yellow or cream flower spikes up to 3 cm long, solitary or in pairs. Occurs in northern NT from Melville Is. south to Darwin and Kakadu National Park, and in the Kimberley region of WA. Grows in open eucalypt or mixed woodland, sometimes with *Melaleuca nervosa*, on top of sandstone escarpments or on the lower slopes or alluvial fans, sometimes on laterite, on sandy, gravelly soil.

***Acacia whitei* Maiden**

Flowers March to December

Prostrate to small shrub up to 2 m high. Thick, linear straight or slightly curved phyllodes up to 16 cm long with conspicuous veins and a basal gland. Rod-like perfumed bright yellow flower heads up to 1.8 cm long. Occurs in north-eastern Qld in the Davies Ck region (SE of Mareeba), the Herberton-Watsonville area and Paluma Ra. (NW of Townsville). Grows in open eucalypt woodland in shallow stony or rhyolitic soils, often in rugged, hilly areas. It is a good groundcover for hot dry northern areas and flowers at an early stage.

Acacia wickhamii* Benth. subsp. *wickhamii

Flowers from November to September

Very showy dwarf to small shrub up to 1 m high. Phyllodes mostly spreading at acute angles to branchlets, usually green or bright green,

sometimes becoming grey-green or slightly glaucous, with 3 or more veins. Rod-like, bright yellow flowers heads, up to 3.5 cm long. Occurs in the Kimberley region of W.A. east from the Dampier Peninsula to the Lake Argyle region, and into the NT as far east and north as Willeroo. Grows in red or yellow sandy loam or gravelly soil, in eucalypt woodland or open woodland with grassy or shrubby undergrowth, savannah woodland, open scrub or shrubland, often with *Spinifex*, on plains, low hills or steep stony hillsides, often in undulating country. Suited to northern inland areas. Requires a hot position in well-drained soil.

Other small tropical *Acacias* worth trying in the garden are: *A. asperulacea*, *A. calyculata*, *A. conjunctifolia*, *A. galioides*, *A. galioides* var. *glabriflora*, *A. galioides* var. *leioclada*, *A. hippuroides*, *A. humifusa*, *A. linarioides*, *A. longipedunculata*, *A. lycopodiifolia*, *A. nuperrima*, *A. phlebocarpa*, *A. stigmatophylla* (reaches 3 m), *A. subternata* and *A. yirrkallensis*.

Sub-tropical Zone (Eastern coastal strip from Tropic of Capricorn south into northern NSW)

***Acacia saxicola* Pedley**

Flowers from January to June

Dwarf, spreading shrub to 1.5 m high. Crowded lanceolate to narrowly triangular straight phyllodes, up to 14 mm long, rigid, dark glossy green, glabrous with a prominent midrib and a sharp tip. Globular, pale yellow flower heads on stout peduncles up to 15 mm long. Similar to *A. ulicifolia* but with broader phyllodes. Known only from Mt Maroon, Maroon National Park, south of Boonah in south-eastern Qld. It is a major constituent of heath on the summit of the mountain (alt. c. 900 m) and grows on rocky slopes in soil pockets within rock crevices. Should be grown in rockeries or in low shrubberies in full sun or light shade in well-drained soil.

***Acacia uncifera* Benth.**

Flowers from June to September

Small willow-like shrub with erect, narrowly oblong, green, velvety pubescent phyllodes up to 5 cm long, with prominent midrib and 2–3 glands. Globular bright golden flower heads in 10–20 headed racemes 5–8 cm long and exceeding phyllodes. Most closely related to *A. podalyriifolia* but with smaller flower heads. Known only from the White Mountains, Pentland–Torrens Creek area and the headwaters of the Nogoa River (type locality, c. 550 km south of Pentland), Qld. Grows on sandstone in *Eucalyptus*–*Angophora* low open forest or woodland. This is a very attractive shrub which is suited to a sunny position in the garden in well-drained soil. It may grow up to 5 m tall in certain conditions.

Other small sub-tropical *Acacias* worth trying in the garden are: *A. brachycarpa* and *A. purpureapetala*.

Coastal and Near Coastal Zone (Exposure to coastal winds, salt-spray, humidity)

Almost all the smaller *Acacias* which occur in coastal areas come from WA. On the east coast of Australia, the *Acacias* tend to be larger. Many of our temperate smaller species can also be grown in coastal areas along the eastern and southern seaboard and in Tasmania. The species selected here have proven adaptable in cultivation.



Photo: J Brooks



Photo: L Jessup
Queensland Herbarium

Above: *Acacia hubbardiana* habit
Left: *A. hubbardiana* (p. 310)
Below: *Acacia sclerophylla* (p. 310)
OPPOSITE
Top: *Acacia williamsonii* (p. 319)
Inset: *A. williamsonii* habit
Centre Left: *Acacia leptoclada* (p. 319)
Bottom Left: *Acacia lateriticola* (p. 319)
Bottom Right: *A. lateriticola* pods

Photo: Acacia Study Group





↑
Photos: B Maslin →
↓

Photo: J Simmons



Photo: B Maslin



Acacia baueri* Benth. subsp. *baueri

Flowers from September to November

Dwarf spreading shrub growing to 1 m in height with a spread of 1.5 m. Whorled straight or recurved terete phyllodes up to 15 mm long, with a longitudinal groove on each face when dry and inconspicuous veins. Globular golden flower heads occur singly in the axils, on peduncles up to 15 mm long. Occurs from Fraser Is., Qld, south to Sydney, NSW. Two subspecies are recognised but intermediates occur at a few localities near Sydney, e.g. La Perouse, Molly Morgan Swamp and near Mt Keira. This showy species is adaptable to most soil types and will withstand some flooding and waterlogged soils. *A. baueri* subsp. *aspera* (Maiden & Betche) Pedley, occurs in coastal low heath south of Sydney at Royal National Park and near Wilton, also at Wentworth Falls in the Blue Mountains, where it grows in rocky sandstone areas and should be grown in a well-drained position.

Acacia hubbardiana

Flowers from July to October

Spreading but compact shrub up to 2 m in height. Triangular, bright green, glabrous phyllodes up to 10 mm long and 8 mm wide, with thickened margins, a curved midrib and a pungent tip. Creamy yellow globular flower heads on peduncles up to 12 mm long or on short racemes to c. 3 cm long, 1 per axil. Occurs naturally on the coastal fringe of south-eastern Qld from Bundaberg south to near Brisbane. On coastal lowlands it often grows in poorly drained sand in open forest or heath associated with swamps, it also occurs on rocky slopes above about 150 m alt. on peaks of the Glasshouse Mtns. This attractive small plant is also suited to tropical and sub-tropical gardens. It will grow in a wide range of conditions including wet and swampy situations.

***Acacia spathulifolia* Maslin**

Flowers from September to November

Dense, spreading shrub growing to 2 m or more in good situations. Obtuse, thick, fleshy green to yellow-green, glabrous phyllodes horizontally flattened and narrowly oblong-oblancheolate, 1–2 cm long and 1.5–4.5 mm wide. Gland on upper surface above middle of phyllode. Single globular golden flower heads on peduncles up to 15 mm long. Occurs in coastal areas from Cape Range National Park south to Tamala but most common from Kalbarri to Jurien, extending inland to Mullewa and Piawaning WA, commonly forms large populations. Grows in sand over limestone in coastal heath, shrubland and low woodland. This species has adapted well to cultivation preferring well-drained soils and a sunny position. Drought hardy and will withstand light frosts.

Other small wattles from WA which are suitable for coastal gardens are: *A. alata* var. *tetrantha*, *A. biflora*, *A. cochlearis*, *A. delphina*, *A. leioderma*, *A. nitidula*, *A. phlebopetala*, *A. robiniae*, *A. truncata*, *A. littorea*, *A. lasiocarpa* var. *lasiocarpa* and *A. uliginosa*.

Temperate Zone (Hot summers-high evaporation, cold to cool winters with frosts)

***Acacia flexifolia* A.Cunn. ex Benth.**

Flowers from May to November

Dense spreading small shrub to 1.5 m high. Linear dull green to grey-green and glabrous, phyllodes normally kinked or bent upwards near the base, 1–2 cm long and up to 2.5 mm wide. Sometimes glutinous with a raised

midrib. Globular pale yellow or lemon yellow perfumed flower heads on short peduncles, mostly in pairs in the axils. Found scattered on the inland slopes of the Great Divide and adjacent plains from near Miles, Qld, south through NSW to Wedderburn Vic. Grows in shallow soil in open forest or mallee scrub. This is a very adaptable species for the garden and can be grown in well-drained light to heavy soils in full sun or light shade. Highly frost and drought hardy. Should be pruned lightly to maintain a compact shape.

***Acacia gordonii* (Tindale) Pedley Flowers from August to September**

Dwarf spreading shrub to 1.3 m high. Spirally arranged, crowded, terete phyllodes, recurved at apex, up to 15 mm long and 1 mm wide, with fine hairs. Bright deep golden perfumed globular flower heads on long hairy peduncles occurring singly in the axils. Restricted in NSW to the eastern slopes of the Blue Mountains from near Bilpin south to Linden, also near Hornsby (a northern suburb of Sydney). Grows in sand on sandstone in dry sclerophyll forest. This outstanding shrub is very ornamental when in flower. It requires a well-drained position in a sunny or lightly shaded position and may be lightly pruned to retain a compact shape. Frost hardy.

***Acacia lateriticola* Maslin Flowers from May to October**

Dwarf shrub 0.5–1.5 m high with bipinnate shiny green foliage. Pinnae mostly in 2 pairs and up to 20 mm long. Gland on rachis at base of pinnae. Globular light golden flower heads, 7–10 mm in diameter, on long peduncles up to 30 mm long in the axils either singly or in pairs. Occurs from Chittering south to Manjimup, south-western WA. Grows in lateritic sand in Jarrah (*Eucalyptus marginata*) and Marri (*Corymbia calophylla*) forest and woodland. Closely related to *A. browniana*. This ornamental species requires well-drained, light to medium soils, in particular laterite gravels. It should be grown in full sun or part shade.

***Acacia leptoclada* A.Cunn. ex Benth. Flowers from August to October**

Small open spreading shrub to 2 m high (occasionally 3 m) with pendulous branches. Bark smooth, grey, brown or greenish brown and branchlets sparsely to densely covered with white or fawn hairs, or sometimes glabrous. Young foliage-tips cream-coloured. Bipinnate leaves dark green, up to 2.5 cm long and subsessile with 1 or 2 minute glands at the base of the uppermost pinnae. Pinnae arranged in 1–5 pairs, and up to 1.2 cm long with 5–13 pairs of oblong pinnules. Golden or dark yellow flowers in axillary racemes and up to 4 times longer than the leaves. Occurs naturally in NSW on the western side of the Northern Tablelands from Tingha south to Guyra, the North Western Slopes, and rarely on the North Western Plains, from the Yetman area south to Barraba. Grows in scrubland, *Eucalyptus*–*Callitris* woodland and open forest, in stony places at high elevations, in sandy soils over granite or porphyries. Very showy when in flower and requires a well-drained position in full sun or light shade. Prune lightly to encourage bushiness. Drought and frost hardy.

***Acacia macnuttiana* Maiden & Blakely Flowers from July to September**

Bushy compact small shrub usually 1.5 m to 3 m high. Narrow linear, thin, glabrous, shallowly incurved phyllodes, usually up to 14 cm long with delicate and mostly incurved tips and an inconspicuous midrib. Globular golden flower heads in racemes up to 4 cm long.



Above: *Acacia erinacea* (p. 315) Photo: S Armstrong

Opposite Top: *Acacia gunnii* (p. 315) Photo: B Maslin

Opposite Bottom: *Acacia aspera* var. *aspera* (p. 315) Photo: B Maslin

Below: *Acacia chinchillensis* (p. 318) Photo: J Plaza, Royal Botanic Gardens & Domain Trust



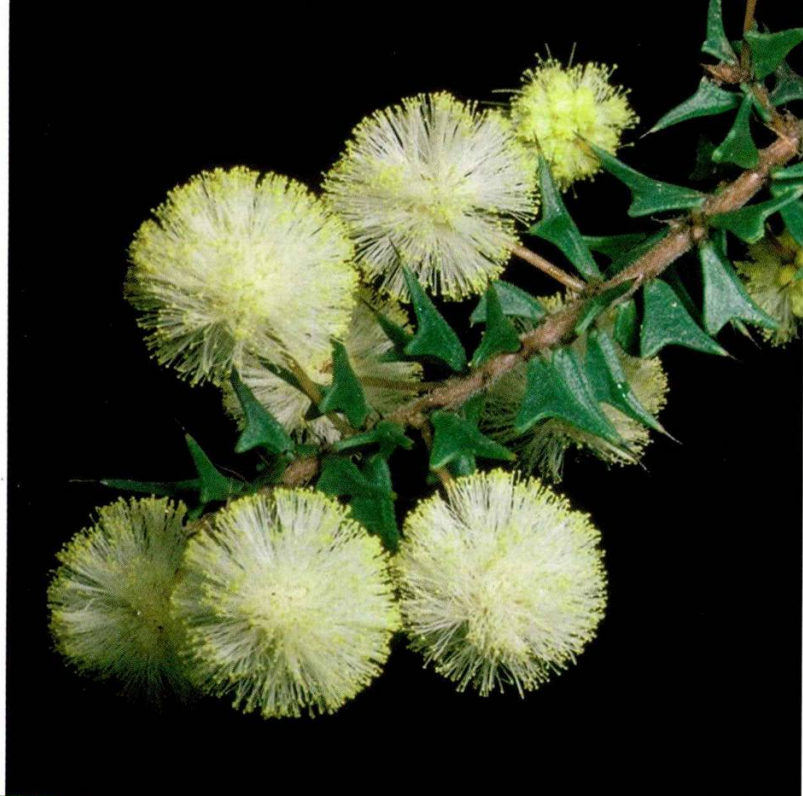




Photo: Acacia Study Group

Photo: B Maslin



Left:
Acacia glandulicarpa (p. 318)
Below:
Acacia merrallii habit (p. 319)
Bottom: *Acacia merrallii*

OPPOSITE

Top:
Acacia glaucoptera (p. 321)
Left:
Acacia wickhamii subsp.
wickhamii (p. 306)
Centre Right:
Acacia ruppii (p. 314)
Bottom Right:
A. wickhamii subsp.
wickhamii habit



Photo: B Maslin



Photo: C Liber



Photo: B Maslin

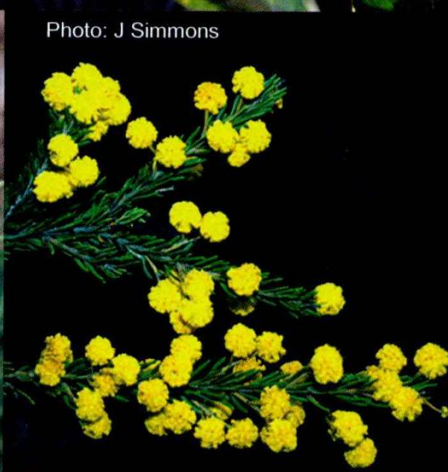


Photo: J Simmons

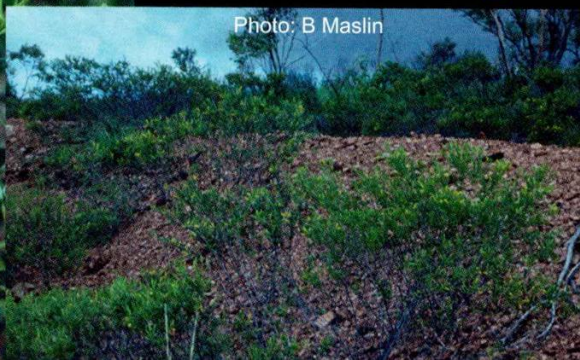


Photo: B Maslin

Eastern Inland Zone (Hot summers - low rainfall, high evaporation, mild winters)

***Acacia aspera* Lindl.**

Flowers from July to November

Spreading, resinous shrub to 2 m high. Oblong-linear, leathery phyllodes are up to 3 cm long, are rough to the touch and have a prominent midrib. Pale yellow to golden globular flower heads on stout peduncles up to 10 mm long occur singly or in pairs in the axils. Buds are usually burr-like in appearance due to acuminate, exerted bracteoles. Occurs naturally in south-eastern Australia, from The Grampians to Warby Range, Vic., northern ACT and adjacent NSW, also Peak Hill south to the Ardlethan–Temora area, and at Sutton Forest, NSW. Normally grows on ranges, in shallow stony or gravelly soil, in *Eucalyptus* open forest or mallee communities. This highly ornamental species requires a well-drained site in full sun to part shade, such as under a canopy of *Eucalypts*. Drought and frost hardy.

***Acacia chinchillensis* Tindale**

Flowers from July to September

Dwarf, multi-stemmed, glaucous shrub growing up to 2 m high with smooth grey-brown, greenish brown or yellow-brown bark and greenish-white foliage tips. Silvery glaucous bipinnate leaves with 2–4 pairs of pinnae, each bearing 5–11 pairs of pinnae and two glands at the base of the bottom and top pairs of pinnae. Golden or yellow flower heads in axillary racemes at the ends of branches. Occurs in south-eastern Qld north of Chinchilla and near Tara. Grows in ironbark eucalypt (*Eucalyptus melanophloia* etc.)–*Callitris columellaris*–*Casuarina* woodland, in sandy or gravelly soils. This very decorative species has been shown to be adaptable to cultivation especially in the Brisbane district. It requires a well-drained situation in full sun to part shade and should be lightly pruned after flowering to promote bushiness.

***Acacia glandulicarpa* Reader**

Flowers from July to October

Dense, rounded resinous shrub up to 2 m high. Glabrous phyllodes on short stem-projections, erect, asymmetrically ovate to ovate-elliptic, up to 13 mm long by 6 mm wide. Bright yellow globular flower heads on short slender peduncles occurring singly or in pairs in the axils. Occurs naturally in the Burra Gorge, Hanson and Bordertown areas of SA and the Little Desert–Dimboola area, Vic. Grows in alkaline soil on rocky hills in open scrub (Burra), or in *Eucalypt* open forest. This ornamental species prefers well drained soils, is lime tolerant and suited to full sun or part shade. It is drought and frost hardy.

***Acacia tindaleae* Pedley**

Flowers from August to September

Small, dense shrub to 2 m high, with ribbed hairy branchlets. Phyllodes have persistent, rather long, fine, weak, appressed hairs which impart a silvery grey appearance. Large globular flower heads on long peduncles which stand out from the foliage and occur singly in the axils. Occurs on the western slopes and plains of NSW from Cuttabri south to Dubbo and west to near Mt Hope, common in the Pilliga Scrub; uncommon in Qld where it is known only from Mantuan Downs. In NSW the species grows on sand in *Eucalyptus*–*Callitris* dry sclerophyll forest, woodland and mallee communities. This highly ornamental species is often confused with *A. conferta*. It is very adaptable and can be grown in sub-tropical and coastal areas, such as

around Brisbane as well as in temperate and inland zones. Requires a well-drained site in full sun to dappled shade.

***Acacia williamsonii* Court**

Flowers from June to September

Bushy spreading shrub to 2 m high with narrowly linear, shallowly incurved glaucous phyllodes up to 9 cm long by 3 mm wide. Bright golden globular flower heads on short racemes up to 3 cm long occurring in the axils towards the ends of branches. Occurs from Inglewood east to Rushworth, Vic.; it is especially common in the Bendigo 'Whipstick' where it grows in stony gravel or clay loam, in open *Eucalyptus* forest and Mallee open scrub. This highly decorative small *Acacia* does best in full sun and good drainage but will withstand heavy shallow soils and partly shaded positions. It is very drought hardy and frost resistant.

Other small *Acacias* suitable for eastern inland gardens are: *A. aculeatissima*, *A. amblygona*, *A. bynoeana*, *A. chalkeri*, *A. continua*, *A. echinula*, *A. enterocarpa*, *A. hispidula*, *A. lauta*, *A. pravifolia*, *A. rheticocarpa*, *A. rhizophylla* and *A. spinescens*.

Semi-arid Zone (Very hot summer - very low rainfall - high evaporation)

***Acacia merrallii* F.Muell.**

Flowers from August to October

Dense, rounded, spreading shrub to 1.5 m high with obovate to elliptic-orbicular phyllodes up to 25 mm long, which are thick, leathery, smooth, grey-green to glaucescent and finely hairy when young and having prominent yellowish margins with a gland on the lower half of the phyllode. Golden globular flower heads in simple 1–3 headed racemes in the axils. Occurs from Wubin to Pingrup, south-western WA east to Madura, WA and the Moonta–Maitland area, Yorke Peninsula, SA. Grows in clay, sandy clay, sand, sandy loam and clay loam. This species is very adaptable and will grow in a variety of soil types including heavy soils. Will tolerate periods of dry and moist conditions. Suited to alkaline soils. Can be grown in full sun to part shade.

***Acacia multispicata* Benth.**

Flowers from July to October

Dense, spreading, multi-stemmed shrub mostly about 2 m high. New shoots white to grey, sometimes with golden tips. Terete to compressed phyllodes, occasionally flat and linear, straight to slightly curved, up to 10 cm long by 1.5 mm wide, with 8–20 fine veins. Golden cylindrical flower heads up to 15 mm long, on short peduncles, occurring singly or in pairs in the axils. Widespread from Ajana (around 60 km east-south-east of Kalbarri) south to Cranbrook. This species is adaptable in a variety of soil types and climatic zones. It requires a well-drained site and regular light pruning to maintain bushiness.

***Acacia sclerophylla* Lindl.**

Small, spreading dense shrub up to 2 m high, often wider than high. New shoots often resinous. Erect linear to oblanceolate phyllodes, straight to shallowly incurved up to 6 cm long, and 5 mm wide, thick, coriaceous, glabrous or hairy, with 8 or more veins, the veins impressed or raised when flat. Globular, light golden flower heads on short peduncles, occurring in pairs in the axils.



Acacia cognata 'Waterfall' (p. 324)



'Little Nugget' new gro



Sigma™ Weeping Wattle (p. 324)



Acacia cognata 'Waterfall'

All photos: S Forrester & W Molyneux - Austraflo



Acacia cognata 'Waterfall'



Acacia cognata 'Mop Top' (p. 324)



Acacia pravissima 'Little Nugget' (p. 323)

Principally an eastern Australian species, occurring most commonly in south-eastern SA, north-western Vic. and south-western NSW, but also found in a small area in south-western WA. This is a very adaptable species that will tolerate a wide range of soils and climatic conditions. Frost and drought tolerant and suitable for alkaline soils. This species is also well suited to roadside and amenity plantings and is useful in erosion control.

***Acacia redolens* Maslin**

Flowers from August to October

Spreading, low-domed, fragrant (vanilla scented) shrub to 0.5–2 m high (sometimes taller) with narrow green to grey-green oblanceolate phyllodes up to 7 cm long and usually 13 mm wide bearing 3–4 prominent veins. Globular golden flower heads on short peduncles in 2–6 headed racemes. Occurs mainly from Ongerup east to near Ravensthorpe but also found near Newdegate, Pingrup and in Scaddan–Salmon Gums–Kau Rock area, south western WA. Found in slightly alkaline loam, clay or clay loam, often with Salmon Gums (*Eucalyptus salmonophloia*) or Stocking Gum (*E. kondininensis*) and frequently around the margins of salt lakes. This is an adaptable species for light to heavy soils, (including alkaline and slightly saline) and good to poor drainage. It can be grown in full sun to partly shaded positions and is drought and frost tolerant. This commonly cultivated species has been widely planted in California and is recommended for embankments and roadside plantings.

Other small *Acacias* suited for Semi-arid gardens are: *A. acanthoclada*, *A. acellerata*, *A. aciphylla*, *A. andrewsii*, *A. assimilis*, *A. bidentata*, *A. binata*, *A. cedroides*, *A. chrysocephala*, *A. comans*, *A. costata*, *A. crassuloides*, *A. curvata*, *A. daviesioides*, *A. dermatophylla*, *A. diaphylloidea*, *A. drewiana*, *A. ericifolia*, *A. erinacea*, *A. fagonioides*, *A. glaucoptera*, *A. hemiteles*, *A. heteroclita*, *A. huegelii*, *A. incurva*, *A. insolita*, *A. intricata*, *A. jacksonioides*, *A. latipes*, *A. leptospermoides* var. *leptospermoides*, *A. ligustrina*, *A. merrickiae*, *A. moirii* subsp. *moirii*, *A. moirii* subsp. *recurvistipula*, *A. nigripilosa*, *A. oxyclada*, *A. pachypoda*, *A. phaeocalyx*, *A. pulviniformis*, *A. restiacea*, *A. saxatilis*, *A. sedifolia*, *A. shuttleworthii*, *A. spinosissima*, *A. stenoptera*, *A. tetanophylla*, *A. ulicina*, *A. uncinella* and *A. unifissilis*.

Arid Zone (Extreme climate - maximum heat-stress - low rainfall)

***Acacia perryi* Pedley**

Flowers from June to August

Small spreading shrub to 1.5 m high. Stems pubescent with fine, white hairs. Phyllodes in whorls of 10–15, spreading, flattened, straight or incurved in lower half and recurved at the tip, up to 15 mm long. Globular flower heads on long axillary peduncles which stand out from the leaves. This unusual species occurs in the eastern Kimberley region, WA, and in north-central NT. Grows on rocky hillsides with *Spinifex* and open woodland and is best suited to arid gardens but will adapt to other areas provided it is grown in well-drained sandy soils in a sunny position.

Acacia spondylophylla

Spreading sticky shrub to 2 m high, with 8–12 whorled slightly flattened bright to dark green phyllodes, 6–10 mm long and less than 1 mm wide, which may be straight or recurved towards apex, with a short sharp point. The phyllodes are aromatic with a curry-like scent. Globular bright yellow flower

heads on long sticky peduncles which stand out from the leaves. Occurs commonly in the Pilbara region and at scattered localities east to the Rawlinson Ra., WA, in the Macdonell and Musgrave Ranges, NT and east to Dajarra, Qld. Grows in shallow, sandy or rocky soil. This species may be confused with *A. perryi*, which has larger phyllodes. It is an ornamental species which has not been widely cultivated. It is best suited to well drained gardens in warm dry climates.

Another small *Acacia* suited for an arid garden is *A. orthocarpa*.

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1. World Wide Wattle site www.worldwidewattle.com
2. ANBG site www.anbg.gov.au
3. Elliot & Jones 1982, *Encyclopaedia of Australian Plants*, vol. 2, Lothian.
4. Simmons M 1981, *Acacias of Australia*, vol. 1, Nelson.
5. Simmons M 1988, *Acacias of Australia*, vol. 2, Viking O'Neil.
6. Simmons M 1988, *Growing Acacias*, ISBS.
7. Armitage I 1977, *Acacias of New South Wales*, SGAP.

History of Wattle Day

continued from page 299

This fitted perfectly with the birth of the new nation in 1901. Victoria, South Australia and Tasmania had always celebrated Wattle Day in September, so there was no consensus around the nation for an August date. The wide range of Acacias being grown in gardens and on roadsides removed the dependence on *Acacia baileyana* for blooms. The only solution was to support the original concept of Wattle Day and request that September 1 be set aside for National Wattle Day.

The task of writing to the Premiers began and one by one they agreed to support formal recognition. Whenever a negative reply came, I sat down and wrote again arguing the case as strongly as possible. Finally the last letter of support arrived from the Queensland government. All the letters were bundled up and sent to the Prime Minister. There should be no excuse.

National Wattle Day was duly gazetted on the 23rd June, 1992. It had been a struggle and a test of patience but it was worth it.

Significance

Wattle Day was originally conceived as a day to demonstrate patriotism for the new nation of Australia by wearing its emblem. Now the day has wider significance as a day to celebrate our natural environment, our flora, our rainforests and bushland, our coastal heathlands and desert dunes. The sprig of wattle should encourage us all to preserve our environment, so that future generations will experience the joy of seeing our bushland light up each Spring with golden bloom.

Reference

1. Hitchcock M 1991, *Wattle*, AGPS.

The Dwarf Acacia Cultivar Revolution

compiled by Maria Hitchcock

Over the past few years a new trend has emerged in the nursery trade centred around a few species of acacias. This revolution in developing some highly ornamental forms of dwarf acacias has grasped our imaginations and it has become a kind of status symbol to boast of actually owning one of these gems. Several nurseries have led the movement and continue to explore the possibilities of new cultivars, which will appeal to the general public, releasing one or two each year and promoting them widely.

These new cultivars fit well into the small display type garden that seems to be a compulsory feature of the large number of McMansions that have overtaken outer suburban areas of our major cities. Thus they are being grown for their ornamental shapes and foliage by gardeners, who might otherwise flinch at growing an *Acacia* species. For this reason alone, they are important in introducing a new generation of gardeners to growing native plants. The majority of gardens in Australia are created by people who are not really concerned with the names of plants or their origins - they are attracted to flower colour, foliage and shape and want low maintenance, reliable plants, which will enhance their homes.

These cultivars are generally hardy and require very little care apart from an annual pruning, which is really just to tidy up the shape. Some can be grown as hedges and would therefore need more regular pruning, similar to their exotic cousins. All should be fed with a controlled release low phosphorus fertiliser in early spring or late summer. In the garden, the cultivars named below require little water after establishment except during dry spells or times of high evaporation. Most can be grown in containers and these should be filled with a premium mix and kept lightly moist.

If you haven't yet tried to grow one of the new dwarf *Acacia* cultivars, the descriptions below will help you select the best variety for your garden. A rule of thumb is, if you can grow the parent species, you should be able to grow the cultivar.

***Acacia pravissima* 'Little Nugget'**

This dwarf shrub, released by Austraflores has dense triangular mid-green foliage and vivid golden new growth. It provides excellent protection and nesting habitat for small birds such as scrubwrens. It is suited to gardens in cool temperate, sub-tropical and semi-arid climates and thrives in full sun or light shade, in well-drained clay loams or sandy soils with neutral to slightly acid pH. It is tolerant of heavy frost and suitable for second line coastal conditions. With minimal pruning, it develops an upright narrow habit to around 1 m high and 45 cm wide, making it ideal for formal use in containers beside an entrance, or against a wall in narrow pathways. With regular pruning, it forms an excellent low hedge for edges and borders. Trim to shape in early spring and late summer and tip prune regularly to encourage golden new growth.

***Acacia cognata* 'Mop Top'**

Released by Austraflo, this low mounding dense shrub, which grows up to 90 cm high by 1.2 m wide, has aromatic foliage, plum-coloured new growth and bright-yellow perfumed flowers in spring. It grows well in temperate to sub-tropical and arid climates, in moist clay or sandy loams with neutral to acid pH. This variety likes full sun or light shade, tolerates medium frosts and is suitable for second line coastal planting. It could be used as soft low hedging along pathways, mass planted on banks or in wide garden beds where impact is required, or as an accent container plant for courtyard or patio. Minimal but regular tip-pruning will promote density.

***Acacia cognata* 'Waterfall'**

This variety, released by Austraflo, was named for its cascade of fine green foliage which measures up to 2.5 metres in length and spreads 1–1.5 metres across with a dense canopy from top to bottom. In spring it is decorated with soft lemon perfumed flowers. The base from which the stems emerge will, over time, develop an interesting architectural framework. It grows well in temperate to sub tropical and semi arid climates, in moist clay or sandy loams and in neutral to acid pH. It will tolerate full sun to part shade, moderate frosts and is suitable for second line coastal gardens. For dramatic impact, plant this variety in tall containers or large pipes along walkways, or beside waterfalls or cascades, or on sloping banks where landscape design calls for an especially strong note. Trim foliage ends if they trail along the pathway; otherwise no pruning is required.

***Acacia amblygona* 'Winter Gold' (syn. 'Austraflo Winter Gold')**

Acacia 'Winter Gold' is a seedling which arose spontaneously in a batch of normally upright *Acacia amblygona* seed sown about 1973 by Molyneux Nurseries Pty Ltd, Montrose, Victoria. This cultivar reaches a height of about 30 cm and spreads about 2 m. The phyllodes taper to a sharp point from a broad base. They are up to 10 mm long by 4 mm wide. A number of prominent veins are visible. Globular, rich yellow flower heads on short flower stalks are borne in clusters. This prostrate cultivar is different from the normal form of this species, which can reach a height of 1.5 m.

Sigma™ Weeping Wattle (syn. *Acacia* aff. *verniciiflua* 'Avenel')

This small softly weeping shrub which grows up to 1.5 m in height and spreads to 1.8m, has aromatic foliage and bright yellow perfumed flowers in spring. It will grow in well drained clay or sandy soils, in temperate to sub tropical and semi arid climates, likes full sun or light shade and withstands heavy frost. It is suitable for second line coastal planting, as a specimen plant, for light hedging or mixed with other shrubs to create a natural habitat. Flowers attract butterflies and pigeons forage for seed under plants during early summer. Prune lightly for shape if required. No feeding or extra watering is needed once established. The variety was selected and developed by Austraflo Pty Ltd for Sigma Pharmaceuticals Pty Ltd, which supports Landcare with 20 cents from each plant sold.

***Acacia cultriformis* 'Cascade'**

Acacia 'Cascade' is a prostrate form of *A. cultriformis* originally selected from a number of seedlings raised by Austraflo Nursery of Montrose, Victoria in 1974. This cultivar is a prostrate form which grows up to 2 m across. The

maximum height attained is only 10 cm. All other features of the plant are as for *Acacia cultriformis*. The flowers are of a similar size to those of the normal form, although flowering has been noted to be a little sparse and irregular on the cultivar. The main value of this cultivar is its prostrate habit. It must be propagated by vegetative means to ensure retention of the cultivar form.

***Acacia cognata* 'Green Mist'**

Acacia 'Green Mist' is a dwarf form of the Bower or River Wattle from south-east NSW to Victoria and is a particularly ornamental species offering attractive weeping foliage for year round interest. Fast growing with no pruning requirements, this undemanding shrub is valuable in establishing a structural base to any garden design whilst at the same time offering a focal point as a specimen planting. During spring, on established plants, a light display of soft lemon coloured flowers may also be produced although it will be short lived and not as dramatic as the foliage itself. Another form called 'Limelight' was introduced by Philip Dowling of Mt Gambier.

***Acacia pravissima* 'Golden Carpet'**

Acacia 'Golden Carpet' is a chance seedling which arose in a batch of normal *Acacia pravissima* seedlings about 1969. The cultivar was registered by Mr D L Jones. It is a prostrate plant that will reach a height of about 400 mm and attain a spread of about 6 m. The phyllodes are triangular, being about 10 mm long by about 8 mm wide. The lower edge of each phyllode ends in a sharp point. The yellow flowers are produced in profusion. Each globular head of flowers is 4 mm in diameter. This cultivar is different from the known normal forms of its parent in its completely prostrate habit. *Acacia pravissima* is normally a tall shrub or small tree.

***Acacia cardiophylla* 'Gold Lace'**

This variety was selected for its prostrate growth habit in 1980 from seedlings of *Acacia cardiophylla* sown and grown by E P Clucas of Kurunga Native Nursery. It is a perennial shrub with a trailing prostrate growth habit. Its flowering is observed to differ from the standard *A. cardiophylla* form. Flowering occurs from August to mid September, when the plants produce many mildly perfumed golden yellow globular heads about 1 cm in diameter in dense ancillary racemes 3–5 cm long. The foliage is typical of *A. cardiophylla* but it differs in its prostrate growth habit and stems becoming tortuous with age.

***Acacia dealbata* 'Kambah Karpet'**

The variety 'Kambah Karpet' was selected from a mature plant of *Acacia dealbata* growing in a garden bed near the Health Centre in the Canberra suburb of Kambah. It was the only prostrate plant growing amongst a number of plants of this species. The selection was made by Mr R B Hadlow of the Australian Botanic Gardens in 1982. This cultivar is a dense, prostrate form of the species, growing up to 3 m across. The plant forms a small mound about 20 cm high where the main stem arises from the soil. Other than the decumbent to prostrate habit, the features are as for *A. dealbata*. All suckers that arise from this plant retain the prostrate habit. It has been grown in the Australian National Botanic Gardens and has proven to be a hardy, dense groundcover, well suited to a variety of soil and moisture conditions. It is very drought resistant and frost hardy in Canberra. It has been most successfully propagated from firm (semi-hardened) material taken in autumn.

Kimberley Ghost Wattle

A New Discovery _____ Marj. King of Darwin

It was in May 1998 while walking with a group near the lower Mitchell River falls in the Kimberley area of Western Australia that some large bright yellow ball shaped flowers attracted my attention. I took a photograph and collected a pod with the intention of identifying it when I returned to Darwin but because it came from Western Australia the Northern Territory Herbarium staff suggested I contact Bruce Maslin at the Herbarium in Perth. Time passed, and one of the seeds produced a shrub, which during the wet season has an ongoing mass of yellow ball like flowers. The mature needle like phyllodes are up to 400 mm in length, arranged spirally at an obtuse angle around the branch about 10–15 mm apart. In 4 years it has grown to 4 metres and this may be its maximum height.

Two years ago I travelled to Perth and made contact with Bruce who was most surprised that it came from the Mitchell plateau as that area has been 'surveyed to death'. Bruce's conclusion was that it was an unnamed species and I was asked to verify its location. I returned to the area later that year and much to my surprise it was quite common but due to being later in the year than when I first discovered it the plants were not flowering and were very easy to over look. It naturally grows on the shallow sandy out-wash areas formed by erosion of outcrops of sandstone. It is very difficult to photograph, as the plant itself has no substance (thus the provisional common name, Ghost Wattle) but it is most attractive when flowering. See photographs on page 333.

Tip material 75 to 100 mm long can be used as well as taking a further cutting down the stem. No success has been recorded at the Australian National Botanic Gardens for spring or early summer cuttings of soft tip material. Indolebutyric Acid (I.B.A.) at 2000 ppm in 50% alcohol used as a five second dip has been the most successful hormone used in propagation. Suckers taken from the cultivar also retain the same form.

***Acacia iteaphylla* 'Parsons Cascade'**

Acacia 'Parsons Cascade' is a low growing form of *Acacia iteaphylla*, which originated as a variant in a batch of seedlings raised at Parsons Native Plant Nursery in Victoria. It differs from other known forms of the species in its low arching, almost pendulous habit. It grows to a height of about 0.5 m and has a width of up to 4 m. Other features of this cultivar are as for *A. iteaphylla*. This variety has good vigour, growing to a spread of 2 m in heavy clay soils in one year. It flowers from April to July and is frost and drought hardy. To retain its low spreading form, it should only be propagated by cuttings.

Permission to use information about cultivars in this article was granted by:

- Bill Molyneux and Sue Forrester, Austraflo Pty Ltd, Dixons Creek, Victoria (www.austraflo.com)
- Australian Cultivar Registration Authority (acra@anbg.gov.au)
- Plant Growers of Australia

Indigenous use of Australian Acacias

For food and medicine _____ Suzette Searle

Introduction

Indigenous Australians found many uses for the Acacias growing around them. Their practical knowledge regarding the selection and safe use of Acacias, gained through experimentation over the last 40,000 years or more, was passed on from generation to generation. Over the last two hundred years of European settlement in Australia, the loss of traditional knowledge is unknown as indigenous family groups, fragmented and dispossessed from traditional lands, adopted different ways of living, different medicines and different foods. Documentation of the existing traditional knowledge is far from complete and there is particular knowledge, related to ceremonial uses and cultural sensitivities that will never be made publicly available.

Although early European explorers, colonial settlers and scientists wrote down some of the traditional uses of Acacias; and some colonial doctors, impressed by the healing powers of wattles, used them to treat dysentery, diarrhoea and sore eyes, it was the latter 1900s before a number of reliable, comprehensive reports of indigenous use of Australian plants for food and medicine were produced. Some were researched and written by local groups of indigenous Australians and others by academics and government researchers. It is only over the last few decades that plants, including Acacias, used by indigenous Australians, have begun to be studied and screened, and in some cases cultivated, for their medicinal (antibiotic, anti-pesticidal, anti-herbicidal and anti-tumour activity) and nutritional properties.

Indigenous knowledge recorded to date shows that different groups had different biological knowledge, and very specific preparations and uses for different Acacias. Different groups used the same Acacias for different purposes, or selected different Acacias for the same purpose. Some Acacias were of no particular use and others were avoided because of their toxicity.

How commonly Acacias were used by indigenous communities, rather than other plants, depended on what was readily available and easier to prepare. For example, many of the most favoured plants foods in the Daly River area NT, produced edible fruit flesh that was generally sweet and required little, if any preparation. In Victoria, Acacia gum was a more important food source than Acacia seeds. However in the arid areas in central Australia where Acacias are abundant and other food sources are limited, staple foods were prepared from Acacia seeds, gums, roots and associated insects.

As stated by Peter Latz (2001): *Central Australian wattles are probably unique in the world in being the dominant organism over most of the deserts' various habitats. They range from being large long-lived trees which live in undisturbed habitats, to smaller quick-growing shrubs which thrive in highly disturbed areas. Because wattle seed from more than 30 species was such an important part of their diet, central Australian Aborigines had an intimate knowledge of all aspects of their utilisation, including use of fire to maximise production.*

Indigenous Australians used all parts of the Acacia plant for a myriad of everyday purposes. For example; the phyllodes of *Acacia holosericea* were used to make a soapy lather for washing and to poison fish; its bark was used in an infusion to drink for laryngitis and to make string and rope and its roots were used to make fibre dyes. The following briefly describes some of the medicinal and food uses they found for Acacias. (Where first mentioned, a common name for an Acacia species, if known, is given).

Medicines

Preparations from at least 30 of the more than 950 Acacia species in Australia were traditionally used by indigenous Australians for medicinal purposes. Different parts of the Acacia plant; leaves, branchlets, bark, gum, roots, pods and seeds, were prepared in different ways to drink or apply externally to cure ailments. The following examples indicate the range of illnesses treated by indigenous peoples in the NT and WA using different Acacia preparations:

Flu, coughs and colds

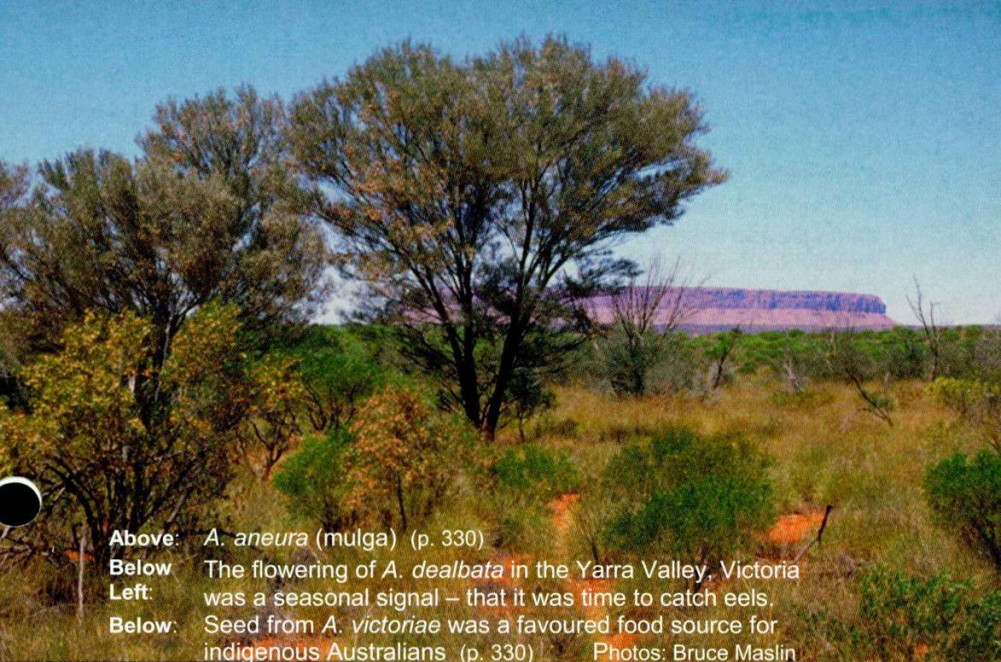
The symptoms of flu, coughs and colds were treated with Acacia leaves, branchlets or bark freshly prepared as poultices, washes, tonics, or inhalations. Examples include a large handful of crushed *A. oncinocarpa* leaves, made into a decoction drunk for chest infections or used as a wash for fever by people living on Bathurst and Melville Islands NT. New season's leaves and twigs of *A. lysiphloia* (turpentine bush) were either used as an aromatic wash to relieve the symptom of colds and flu or made into a poultice by heating on embers or hot stones until they were soft and scorching, and held firmly over painful areas such as the head or small of the back to provide relief from the aches of colds and flu.

To clear nasal congestion a handful of crushed fresh leaves of *A. multisiliqua* was boiled in about 800–900 ml of water and the steam inhaled. In WA the inner bark of *A. tetragonophylla* (dead finish) was prepared as a decoction and an infusion to be taken for coughs. An infusion from *A. holosericea* bark was swallowed for laryngitis and a decoction of *A. kempeana* (witchetty bush) leaves was used as a wash for severe colds. If preparation of the leaves was inconvenient; while travelling for example, they would simply be chewed. To treat colds, sore throats and headache, the bark from the smaller roots of *A. estrophiolata* (southern ironwood) was crushed and infused with hot water until the liquid became dark red to black. This infusion was poured over the affected part and rubbed in gently.

Skin ailments

Acacias such as *A. auriculiformis*, *A. holosericea*, *A. lysiphloia*, and *A. pellita* were used to treat itching as a symptom of a number of skin conditions such as allergies, various diseases and rashes; including those caused by hairy, stinging caterpillars (itchy grubs).

A handful of ripe pods with seeds and their funicles attached were crushed and rubbed together with a small amount of water in the palms of the hands to form a soapy lather. The pods and lather were then rubbed vigorously onto the skin where it was itchy.



Above: *A. aneura* (mulga) (p. 330)

Below The flowering of *A. dealbata* in the Yarra Valley, Victoria
Left: was a seasonal signal – that it was time to catch eels.

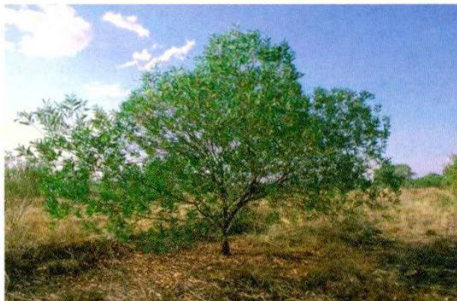
Below: Seed from *A. victoriae* was a favoured food source for
 indigenous Australians (p. 330) Photos: Bruce Maslin



Root of *A. kempeana* with a witchetty grub - see page 330

Photo: J Simmons





Top Left: *A. holosericea* (p. 328)

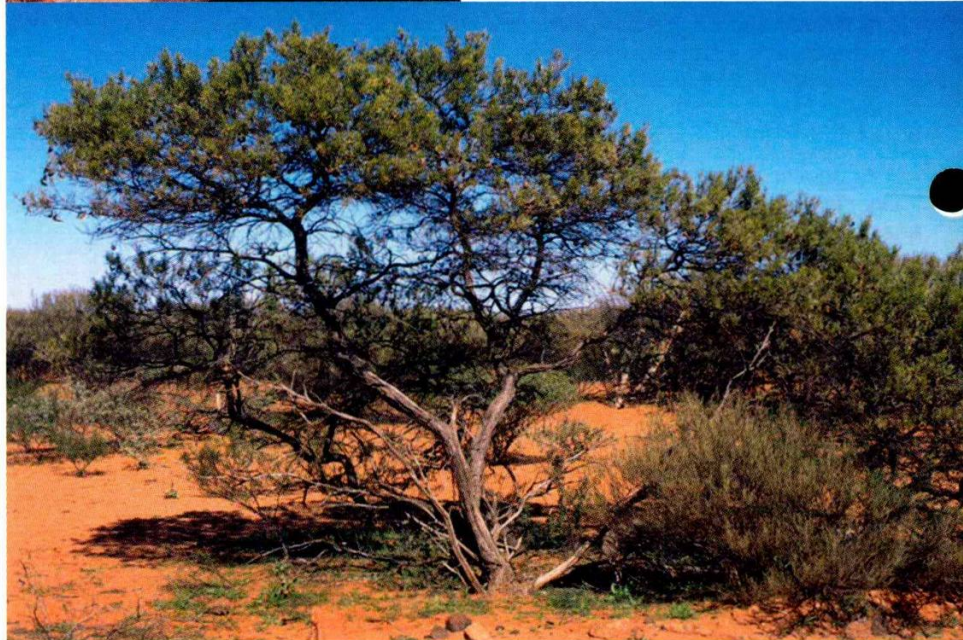
Top Right: *A. holosericea* - Photo: Eric Anderson

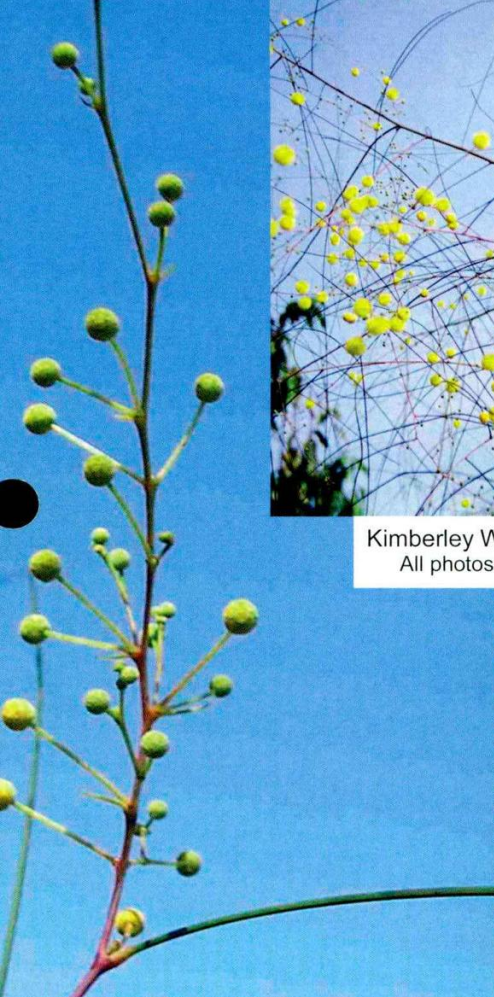
Mid Left: *A. tetragonophylla* (p. 330)

Left: *A. colei* seed with traditional indigenous grinding stones (p. 331)

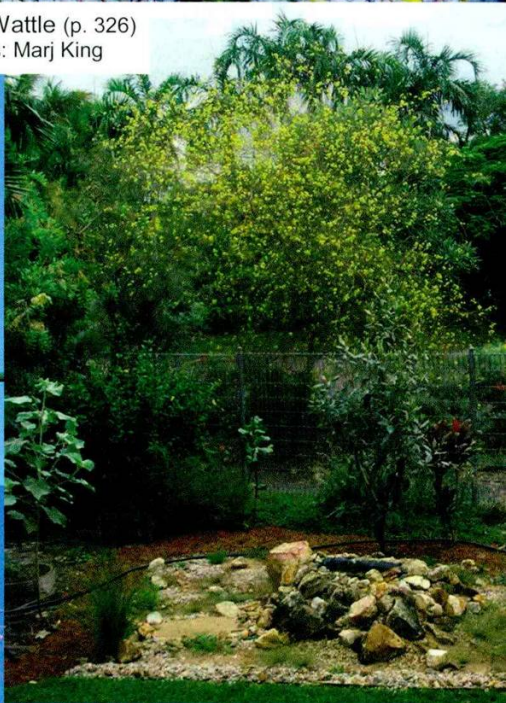
Below: *A. cuthbertsonii* (p. 330)

All photos (except top right): B Mas





Kimberley Wattle (p. 326)
All photos: Marj King



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