



Association Of Societies For Growing Australian Plants  
**Banksia Study Group**  
**Newsletter**

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Dear all,

Good news on the Banksia book front as Alex George and Kevin Collins (see below) are gathering information for publishing a new title on Banksias. Alex felt that a comprehensive reworking and new title were preferable to a fourth edition of *The Banksia Book*. Simultaneously, Ivan Holliday and Geoff Watton are in the latter stages of getting a third edition of their book on Banksias published sometime this year.

I am very sorry about the delay, but don't worry – you all will get two newsletters this financial year. As usual, life events seem to crop up with monotonous regularity and I waited until my return from Western Australia in December before getting this issue together. Then I had the good luck to track down a contributor on the current status of the Ironcap Banksia, Wendy Johnston of the CALM office in Merredin. However there was a last minute holdup as Wendy was delayed fighting bushfires in Dwellingup.

**Rare & Threatened Banksia #9 – Ironcap Banksia**  
**(*Banksia sphaerocarpa* var. *dolichostyla* = *Banksia dolichostyla*)**





(*Ironcap banksia* – new growth)



(*Ironcap banksia* – colour variations in inflorescences)

Collected in 1978 by Alex George and described 3 years later in his official revision, the Ironcap Banksia is a declared Rare Flora. It grows in laterite in shrubland and open woodland in the Ironcap district, 100 km to the north and east of Hyden.

**Description:** While it resembles *Banksia sphaerocarpa* var. *caesia* it is much larger in all parts, being an open spreading shrub 3-4m high by up to 4m wide, with glaucous (pale blue-grey) foliage, with green new growth. Flowering occurs in autumn, the golden-yellow inflorescences are larger and more elongate than spherical as in the other *sphaerocarpa* subspecies, It derives its epithet from its longer pistils (50-65mm), the longest of any banksia, and perianth (49-55mm). Grey old flowers are persistent on old cones



**Taxonomy:** The Ironcap Banksia was initially described as a variety in 1981, George noting its similarity to var. *caesia* apart from its very long pistils and somewhat larger follicles.

Kevin Thiele felt, after morphometric analysis in his cladistic paper of 1996, that the Ironcap banksia warranted specific status. He analysed *Banksia micrantha* as the sister group to the pair of *B. sphaerocarpa* var *sphaerocarpa* and *B. sphaerocarpa* var *caesia*, noting that the Ironcap banksia, which was a sister taxon to this combined group, had stouter old styles on old cones which did not curl around, while those of the other varieties curled around the infructescence to form a ball.

In reply in the 1999 Flora of Australia treatment of *Banksia*, Alex noted that he did not feel this character alone justified specific rank and that otherwise the plant was merely larger in all parts to *caesia* but essentially similar.

In 2002, Mast's molecular study yielded a surprise when molecular analysis mapped out the Ironcap banksia as a sister taxon to its geographical neighbour *B. violacea* in a larger group together with *B. laricina* and *B. incana*. *Banksia micrantha* and the two remaining *sphaerocarpa* varieties form a related group.

**Conservation:** it is a declared Rare flora, its status is deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

Recently, new populations have been located as a result of flora surveys associated with the increased mining exploration in the areas. Another new population was found in the far northern range of the species, that shows characteristics of both *Banksia sphaerocarpa* var. *dolichostyla* and var. *caesia*, the WA herbarium are currently reviewing the specimen to determine if it is in fact a new variation.

### **Grafting of Banksias in horticulture (interim)**

Banksias, in particular Western Australian banksias, are generally more challenging to grow than many other Australian plants. Many soil or climate conditions may render them almost impossible to grow in many gardens.

Grafting is a tool utilized by plantsmen in many plants to achieve hardy specimens and to facilitate mass propagation in a wide variety of plants. To date, little commercial headway has been made though new results are promising.

Both these reasons are valid to pursue with banksias; a great many species are short-lived in most garden situations, and they can be tricky to propagate via vegetative means. Though commercial nurseries can and do propagate by cutting successfully, most home gardeners have a low success rate with banksias cuttings. This is important as horticultural forms need to be propagated vegetatively to ensure subsequent plants

### **Rootstocks**

Realistically, if one considered grafting for any commercial purposes, the only realistic option is *Banksia integrifolia* as it is the only idiot-proof eastern species with seed readily available in commercial quantities. Other common species such as *B. ericifolia*, *B. serrata* and *B. marginata* can all be rather unforgiving in their requirement for a light, well-drained soil, and other species which may be adaptable to heavy soils such as *B. aquilonia*, *B. saxicola* or even *B. plagiocarpa* are simply not available at a commercial price nor quantity.

### **Results**

Over the years many growers have reported isolated successes amid a compost heap of failures. What seems to be the case is that timing and process of grafting are more important than actual species combination in terms of what works or not.

### **Best horticultural prospects**

The orange acorn banksias (*B. prionotes*, *B. hookeriana* and *B. burdettii*) have all been successfully grafted onto *B. serrata* and *B. integrifolia* though to date they have not entered the garden trade. *Banksia speciosa* has been grafted successfully onto *B. aemula* and *B. serrata*, sold and flowered. Success with *B. coccinea* remains elusive. More on this next issue.

## Banksias Grown In Dick Burns' Garden At Penguin Tasmania

I bought my home and garden site in 1976. Conditions at Penguin are summarised on the accompanying sheet.

### Species Tried But Died Within 4 Years

<i>B. ashbyi</i>	<i>B. lufitzjii</i>	<i>B. prionotes</i>
<i>B. brownii</i> (twice)	<i>B. meisneri</i>	<i>B. quercifolia</i>
<i>B. candolleana</i>	<i>B. menziesii</i> (several)	<i>B. robur</i>
<i>B. hookeriana</i> (several)	<i>B. nutans</i>	<i>B. sceptrum</i>
<i>B. ilicifolia</i>	<i>B. oreophila</i>	<i>B. sphaerocarpa</i>
<i>B. laevigata</i>	<i>B. petiolaris</i> (twice)	
<i>B. laricina</i>	<i>B. praemorsa</i>	

### Species that survived.

Almost all were bought from nurseries. Two forms of *B. marginata* were grown by me from cuttings (marked **c**). Two that were established early on when most of the site was under grass, *B. grandis* and *B. occidentalis*, but died have been difficult to replace in the mature garden.

SPECIES	PLANTED	DIED	CONDITION	FLOWER	SET FRUIT
<i>aemula</i>	1981	?1998 I cut it down	open	yes	?
<i>baueri</i>	1978	alive	healthy	prolific	occasional
<i>baxteri</i>	1977	1985	healthy (died because of excess watering)	yes	yes
Birthday Candles	1983	alive	poor - overshaded	yes	no
<i>blechnifolia</i>	1980	?1998. replacement in 2002, doing well	not vigorous	rare	no
<i>caleyi</i>	1978	alive	healthy	yes	rare
<i>canei</i>	1986	alive	Ok	yes	yes
<i>coccinea</i>	1999 (earlier attempts had died quickly)	2005	strong growth; died after fence built or dry summer	yes	no
<i>dryandroides</i>	1980	alive	healthy	yes	prolific
<i>ericifolia</i> <b>c</b>	1990	alive	healthy	prolific	yes
<i>gardneri</i>	1978	alive	little growth	no	
<i>grandis</i>	1978	?1985, strangled by nursery tie	erect 4 m	yes	prolific
<i>grandis</i>	?1998	alive	slow	no	
<i>integrifolia</i> tree	1978	alive	10 m	yes	occasional
<i>integrifolia</i> prostrate	1984	alive	3 m spread	yes	occasional
<i>marginata</i>	1980	alive	healthy	yes	yes

<i>marginata erect c</i>	1990	2000 blown over	healthy	?	
<i>marginata spreading c</i>	2000	alive	healthy	no	
<i>media</i>	1980	alive	small	yes	occasional
<i>occidentalis</i>	1980	?1995	healthy but split in half and died	yes	?
<i>serrata tree</i>	1976 ex Sisters Beach	alive	to 8 m	yes	prolific
<i>serrata spreading</i>	1988	alive	80 x 120 cm	occasional	yes
<i>speciosa</i>	1990	alive	poor	occasional	no
<i>spinulosa</i> var. <i>spinulosa</i>	1985	alive	OK	yes	no
<i>spinulosa</i> var. <i>collina</i>	1982	alive	OK	yes	no
<i>spinulosa</i> var. <i>cunninghami</i>	1976	?1990	healthy; to about 4 m	yes	prolific
<i>violacea</i>	1982	2003	healthy	occasional	no

**List of banksias growing in Don Ablitt's garden, Redpa/Marawah, Tasmania**

Don's farm in the north west corner of Tasmania has a wet temperate maritime climate. Annual rainfall is around 1000 mm. The average January temperature is about 14 °C with extreme high 32°C. Average July temperature is 7 °C, with extreme low about -4 °C. The site is exposed to strong westerly or south-westerly winds (sometimes easterly) The farm is hilly, on Tertiary basalt. The soil is a krasnozem, a high-nutrient but sticky clay that can block penetration by water.

Other *Banksia* species have been tried, some reaching flowering (including *B. coccinea*), but died. The list is of those alive in January 2007 that have survived at least 2 years.

species	years old	flowered	Comments
<i>aemula</i>	12	yes	
<i>ashbyi</i>	6	no	no sign of growth
<i>attenuata</i>	6	no	slow growing
<i>baueri</i>	10	yes	
<i>baxteri</i>	10	yes	
<i>blechnifolia</i>	6	yes	
<i>brownii</i>	6	yes	
<i>burdettii</i>	2	no	
<i>caleyi</i>	6	yes	
<i>candolleana</i>	12	yes	growing in a pot (its days are numbered)
<i>canei</i>	12	yes	
<i>conferta</i>	3	no	
<i>dryandroides</i>	15	yes	
<i>ericifolia</i>	26	yes	
<i>gardneri</i>	3	yes	
<i>grandis</i>	15	yes	
<i>grossa</i>	6	no	
<i>hookeriana</i>	6	no	slow growing
<i>integrifolia</i>	15	yes	

<i>lemniana</i>	6	yes	
<i>leptophylla</i>	6	no	
<i>littoralis</i>	3	no	
<i>marginata</i>	15	yes	
<i>media</i>	8	yes	
<i>menziesii</i>	10	yes	
<i>nutans</i>	6	no	not thriving
<i>oblongifolia</i>	8	yes	
<i>occidentalis</i>	12	yes	
<i>paludosa</i>	3	no	
<i>petiolaris</i>	6	yes	
<i>pilostylis</i>	6	yes	
<i>praemorsa</i>	10	yes	
<i>quercifolia</i>	6	yes	
<i>repens</i>	6	yes	
<i>robur</i>	6	no	
<i>saxicola</i>	10	yes	
<i>seminuda</i>	6	yes	
<i>serrata</i>	17	yes	
<i>solandri</i>	15	yes	
<i>speciosa</i>	10	yes	
<i>spinulosa</i>	12	yes	
<i>telematiaea</i>	6	no	
<i>verticillata</i>	12	yes	
<i>violacea</i>	3	no	

### **Notes on “Waite Crimson” (letter)**

Here is a note Craig Beeching wrote after a query I had about *Banksia coccinea* “Waite Crimson”;

‘Cas, The regular coccineas can be variable in flower color, flower size and style presentation. The Waite Crimson is a late flowering bright red coccinea that has reliable head size and color; hence making it great for export. The smaller head size means more fit in boxes, the consistency of head size is also why it is so attractive for cut flowers. The Waite Flame is similar to Waite crimson, but more orange. It wasn't as popular for cut flowers 3 years ago but am unsure now. We personally prefer Crimson for its color. The Waite varieties also put out lots of long lateral stems which is also great for cut flower production but can make them leggy as a garden specimen if not pruned.

### **Update on grafted *Banksia praemorsa***

Jonathan Lidbetter, Research Horticulturist (Ornamentals) in the NSW Department of Primary Industries at Gosford wrote in August:

‘We have had success with *B. praemorsa* on *B. integrifolia* with the first flowering in the ground at 3 years from grafting seedling onto seedlings. No signs of any compatibility problems at this stage. We have also had some but less success grafting older plant material. Below is an image showing the top of the now 2.5m high shrub



**The largest *Banksia ericifolia* I've heard of**

Recently I went for a walk with our local 'Society Group to a local bush regen/reveg area. This area in Bexley in Sydney's inner southwest has had SGAPPers planting things for over 30 years. One of the earliest plantings was a *Banksia ericifolia*, now a tad senescent which was around 6 metres high. Flora of Australia 17B and the Banksia Book both list 6 metres as maximum height.

I was a bit of a slob and didn't measure it around the trunk but it must have been around 40cm diameter at least, growing on quite an incline in a pretty degraded patch of soil with a fair few weeds about the place.

The plant itself was fairly straggly but the trunk had character, I felt.  
(photo right)





## **Banksias Growing at Rydalmere, NSW January 2007**

Ken Culp, Banksia Study Group Member, reports:

*Banksia dentata*- Grown from seed obtained from Darwin 2004. Currently in a pot. Plant is now 0.5m. Plant has a bulbous base which now has a small split in it. When leaves were showing a yellowish tinge plant was treated with chelated iron November 2006. Plant now has good show of growth and looks much healthier.

*Banksia meisneri meisneri* - Has been in pot since I received it as a seedling in 2003. As it grew it was transplanted into bigger pots but always kept in a small shade house. On the odd occasion that it was placed out of the shade house it seemed to suffer during prolonged periods of rain. It recovered when placed back in shade house. No fertiliser used. Plant now has shown considerable growth with lateral branchlets evident and hopefully flowers in the near future.

*Banksia aemula*- Grown from seed obtained from north coast of NSW. Plant now in the garden and is 1m. high. Up from seed in late 2004. Only native plant fertiliser used.

*Banksia robur*- Grown from seed in 2003. Plant is multi-branched and a touch over 1m in height. Leaves showed yellowing and spotting and treated with iron chelates and urea. Plenty of new growth. Plant appears much healthier.

*Banksia media*- Prostrate. Obtained as a small plant. Now in the garden as of late 2006. Plant showed initial yellowing of leaves and was treated with chelated iron. Seemed to respond positively but plant still struggling.

*Banksia spinulosa* var. *neoanglica*- Grown from a cutting in 2002. Has had a very rough time of it. Attacked by caterpillars then lost most of its leaves not long after being planted in the garden in mid 2006. Treated with native plant fertiliser. Plant now showing signs of recovery, 0.5m in height

*Banksia spinulosa* "Birthday Candles"- Has been in a pot from 2000 until late 2006, now in the garden. Has flowered profusely two years ago but only a few flowers since then. Native plant fertiliser only used with some chelated iron.

*Banksia baneri*- From seedling. Has been in the garden from 2004. Plant has suffered possibly from incorrect dosages of native plant fertilisers. Leaves have adopted a burnt appearance but plant has reacted well to pruning and extra water. Now has plenty of new growth. At present it is under 0.5 m.

*Banksia* "Giant Candles" (x *ericifolia*?) - From seed. Only in the garden from mid 2006. Plant doing well. Native plant fertiliser used.

*Banksia grandis*- From seedling. In garden from late 2004. Plant has struggled. It's never looked good for long. New growth emerges but leaves show yellow spots not long after. Plant treated with native plant fertiliser with no phosphorus plus iron chelates and urea. Slow growing in this environment. Definite growth period noted. When it stops for the year it stops. Plant just under 1m.

*Banksia paludosa paludosa* - Slow growing, multi-branched and spreading. Has been in the garden since 2002 but so far no flowers. Plant has never looked that healthy.

*Banksia dryandroides*- From seed. In garden from 2003. Suffered from weather and most of leaves have turned brown. Recently showed good new growth.

*Banksia oblongifolia*- From seed obtained locally. Multi-branched habit. In garden from early 2005.

*Banksia plagiocarpa*- From seed. In Garden from mid 2005. Showing good growth and looks healthy. Native plant fertiliser containing no phosphorus used. Plant now 1m in height.

*Banksia ericifolia*- From seed. In garden late 2003. Plant healthy and 1m in height. Native plant fertiliser used.

*Banksia spinulosa* var. *collina*- From seedling and in garden from 2001. Plant healthy and now is flowering for the first time. Four flowers present and looking good. Native plant fertiliser used. Plant 1.5m x 1.5m in size.

*Banksia serrata*- As a seedling from 1996. Now 5 metres with profuse growth and flowers.

*Banksia integrifolia*- From seed in garden in late 2005. Plant is now .5 metre tall.

*Banksia blechnifolia*- From small plant. In garden mid 2001. Plant is now 1.5m x 1m and has flowered for the past three years. Number of flowers has increased with every flowering year. Plant reacted badly to native plant fertiliser with too high a percentage of phosphorus. Leaves looked burnt and took a long period of time to recover. Plant now has profuse growth and is looking good. No seed yet on cones.

*Banksia spinulosa*- Dwarf plant. From small plant and in garden in mid 2003. Good growth no flowers.

*Banksia caleyi*- From a seedling. In garden in Mid 2004. Yellowing of leaves noted with some yellow spots. Treated with urea and iron chelates. No visible effects from treatment. Plant has grown and seems to picking up in condition.

*Banksia conferta* var. *penicillata*- From seed in 2003. Only just planted in garden. Plant .5m tall.

*Banksia petiolaris*- Obtained from Banksia Farm, Western Australia via post in 2004. Plant now in garden but has shown adverse reaction to native plant fertiliser. Iron chelates and urea made matters only worse. Plant now recovering but growth is slow. New leaves look fine with no "burning" showing .

*Banksia ashbyi*- From seed in 2004 and only recently in garden. Holding its own.

*Banksia media*- As a small plant in 2002. In garden from that time. Difficult time in 2004 when plant showed yellowing in leaves and lack of vigour. Has since come good and is now flowering for the first time with four flowers showing. Plant is 1.75m x 1m in size.

When garden beds were established they were dug down to a depth of 40 cm. . Beds were then filled to a height of 40cm. above original soil line with a mixture of native plant soil and crushed sandstone obtained from local nursery suppliers. Some plants are growing in predominately clay in certain parts of the garden. These plants are mainly used as screening. They are *Banksia serrata* and *Banksia integrifolia*. The growth is slow but it seems to be constant.

Propagation is mainly from seed and is in small shade houses. At present *Banksia baxteri*, *paludosa* and *marginata* are up and will be potted on soon. Seed propagating mix is perlite P500 or a mixture of propagating sand mixed with coco peat. Watering is on an irregular basis. No growth hormone or fertilizer is used on seedlings or watered onto seeds.

Fertiliser is only used on garden plants or seedlings when they look to be struggling or leaves yellowing. Interesting to note that some species if left in a pot for extended periods of time develop a bulbous growth habit at base. *Banksia aemula* and *Banksia dentata* are two that I have had this happen to.

### WA banksias at Killcare NSW

Iain Urie writes:

We currently have a *B. burdettii* flowering at Killcare NSW. 4 flowers this year, 2 last year and 1 the previous year. These have been summers without too much humidity. From memory I think the plant is about 6 years old from a packet of commercial mailorder seeds. I have been trying to cross pollinate the flowers but without any of the flowers setting any seed.

Also beside the *B. burdettii* is a small form of *B. menziesii* which I got from a native nursery in Sydney. It had 2 attractive flowers last year.

### Endnote

As I finally get this issue printed (we're into March...), a few new things of interest are on the horizon. The recombined names of all Dryandras (bar *D. prionotes*) have been published as banksias. I will get you the lists and some feeling for how unanimous this is next issue, which I'll get out in April/May