



Association Of Societies For Growing Australian Plants
Banksia Study Group Newsletter

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Introduction

My name is Cas Liber and I am a 35 year old doctor living on a frustratingly small ~200 square metre garden in Dulwich Hill in Sydney. Dulwich Hill has generally slightly acid clay soil (well, did anyway), though luckily my garden is on a sandstone outcrop on top of a hill overlooking a railway cutting (and hence well drained).

My interest began as a child when I was given a copy of Australian Banksias by Douglass Baglin & Barbara Mullins, which I found amazing. However, my interest went into dormancy for many years until I finally bought a house 4 years ago for my growing family.

I have only been growing banksias since then (and hence am fairly green on the personal experience) but I feel that with banksias, the length of time to flowering and size of the plants means that it is essential for a large number of personal experiences with these plants to be amalgamated to improve knowledge on cultivation (and preservation) of these wonderful plants as well as developing or discovering of new forms.

Don't get me wrong, I love the east coast banksias, but many I can see in my local bushland or amenity planting. When I started I discovered quickly the misery that came of trying WA banksias in Sydney. What compounded this was that I would see more *Banksia coccinea* in nurseries than *B. robur* or even *B. media*. Luckily, this seems to be changing and nurserymen have been bringing over WA Banksias with some hope of growing here such as *B. dryandroides*, *B. media* (normal & prostrate forms), *B. repens* & *blechnifolia*.

I currently have:

- *Banksia aculeata* (in pot, 1 left from 5 seedlings)
- *B. brownii*, grafted onto *B. integrifolia* 01/00 - plenty of new growth
- *B. canei* (on a south facing wall, lots of new growth. 1.5m tall after 2 years)

- *B. dryandroides* (has 2 buds now, 1 year after purchase in a 6" pot)
- *B. ericifolia* "white candles" (growing OK, 1 flower in 1st season, 3 in 2nd)
- *B.* "Giant Candles" (doing well, likes iron)
- *B. paludosa paludosa* (x2)(growing slowly but steadily)
- *B. paludosa astrolux* (1 out of 10 seeds germinated after 5-6 weeks. Slow growing)
- *B. plagiocarpa* (x2 - both have new growth, 1 died in record time from phosphorus, 2nd stolen)
- *B. praemorsa* (growing OK in elevated bed)
- *B. repens* (in terracotta pot)
- 2 *B. robur* (2m high and flowering after 2 years – they have had loads of extra grey water, up to a bucket every second day or so, and look lush and green)
- *B. serrata* (growing steadily now, occasionally looked unhealthy for about 18 months or so.)
- *B. solandri* grafted onto *B. integrifolia*, 01/00 (new growth)
- *B. speciosa* grafted onto *B. aemula* (growing OK – 1m high ~2 years old?)
- *B. spinulosa collina* (doing well, likes iron - flowering after 2.5 years, 11 blooms on one, 1 on the other - larger one is still only 1.5m though)
- *B. spinulosa* "Birthday Candles" (doing well but slowly after foliage browning off in 1st winter, no flowers in 2nd winter, 2 in third)
- *B. spinulosa* "lemon glow" (slow growth in shady position)

Failures include *B. caleyi*, *coccinea* (hasn't everybody?), *blechnifolia* (x4), *baxteri*, *baueri*(x2), *aemula*, *media*, *nutans* (x2), *marginata* "mauve". All died in summer and after a period of heavy rain. The two eastern ones had never been vigorous and I replanted both in summer. I have also tried *B. serrata* as bonsai but it died in summer (I was told I put it into a same size pot after root pruning and the dead space probably accumulated water), and have poisoned a *B. plagiocarpa* which was growing well with Dynamic Lifter (oops). I must point out I haven't learnt to graft yet and those listed have been done by talented horticulturalists I know.

Aims of the Study Group

I see the group as having an initial aim of creating a forum to report on various aspects of banksias which are difficult to report elsewhere, such as cultivation experiences in specific parts of Australia (difficult to cover in published texts, though I feel there should be more of an emphasis on this in the Regional Society journals), reporting of odd forms and facilitating exploration and cultivation of them for horticulture and/or conservation.

Banksias take a long time to grow, and apart from Kevin Collins and a handful of other people in Australia, most of us will not have personal experience of growing most taxa; thus shared information is very useful in learning how to grow banksias.

Some more specific aims:

- given banksias very rarely hybridise, the hunt is on to look for potentially **horticultural forms** (especially of eastern species) where Mother Nature has done the job already. Established examples here include *B. "Giant Candles"* and *B. spinulosa* "Birthday Candles".
- gathering more information or reporting on trials of **grafting** various western banksias on eastern rootstock. This may also assist in the conservation of some species such as *B. brownii*.
- investigating the **weed potential** of certain species and possibly advising nursery bodies, councils and/or Society members about this (see below)
- Update on **Species cultivation notes**, especially of western species (including hardiness to frost & humidity). As has been noted in previous reports, cultivation information in a variety of settings is sparse on many species, particularly ones described in the last 20 years or so.

To all members, please drop me a note or a line and let me know what you're growing (successes and failures) and what soil, drainage, aspect and extra water or nutrients you're supplying and we can map out which species information is most lacking on. I will clarify this more next issue. Also, I will look into the location of existing forms with horticultural potential and see if anyone near them wishes to look for them.

At some stage we may organise meetings and outings once I see how many members there are and where we all are.

Seed Bank

Unfortunately the Banksia Study Group doesn't have a seed bank as such presently. Luckily, there are two places which have a comprehensive range of species:

- Nindethana Seeds (08) 9844 3533
- Banksia Farm (08) 9851 1770 phone/fax

The other options are the Region seed banks, addresses and availability being listed in the corresponding Region journals.

Given that seeds stay freshest in their pods (well, of those species that hold onto them anyway), I have a living seed bank near me; there are numerous examples *Banksia ericifolia* *ericifolia* and *B. serrata* used as street and amenity plants near me (with loads of seed pods) and I am happy to pick them for members. *B. oblongifolia* and *B. robur* are around and with a bit of looking I could find some with pods too. If other members can oblige with this please let me know and I can get a database going.

***Banksia candolleana* – colour variants**

The Propeller or Duck's Bill Banksia is described in detail in *The Banksia Book* (George, 1996) and *Flora of Australia* 17B. In summary, a many-stemmed lignotuberous shrub found in deep sand or sand over laterite in flat, scrubby areas from Gin Gin to Arrowsmith in Western Australia. It is up to 1.5m tall and 2.5m wide with golden yellow inflorescences from April to July. It was reported to take up to ten years to flower in cultivation.

The *Banksia Atlas* (1991) reported an unusual attractive pink-flowered form with green tips (photograph in the 'Atlas).



Subsequently, Kevin Collins of the Banksia Farm has reported a red-flowered form; he had grown 5 plants from seed, one of which produced red flowers. It is currently unknown if colour variants come true from seed. Sadly, the plant has since died but he was able to photograph it prior to it succumbing.

The other fact of interest was that the plants had all flowered 3-4 years from seed, which makes it considerably more attractive horticulturally than previously thought (well, by me anyway!).

It is related to *B. speciosa*, which seems to be showing promise when grafted onto *B. aemula*. Thus, it may be worthwhile trying to graft Propeller Banksia onto one of these species (the only literature I can find is a report from Doug McKenzie, who tried *B. candolleana* on *B. serrata*. The plant survived at least 2 years but grew slowly. Anyone with further information please let me know.

Banksia epica, media & praemorsa in ANBG, Canberra

In Banksia Study Report 10, Trevor Blake requested cultivation information on *Banksia epica*, then a new species. Kevin Collins provided some excellent information that is featured in Australian Plants 171. Following on from the article, I contacted John Nightingale, Curator of the Living Collection at the ANBG in Canberra and he wrote:

“It is hard to say which of *Banksia media* or *B. praemorsa* is hardier in cultivation at the ANBG. We have examples of both growing here with some being in the ground for 25 years or more (*B. praemorsa* on its own roots and our oldest examples of *B. media* grafted onto *B. serrata* rootstock). We have also lost many examples of these two banksia species which have been planted into the ground at the Gardens. The best new plant of *Banksia praemorsa* we have, planted out two years ago, is doing well in competition with the roots of an overstorey *Eucalyptus mannifera*. I am convinced that this is one way of ensuring that plants do not stand in free water for any length of time, with the roots of the overstorey trees draining the soil very effectively.”

.....

”Two plants of *Banksia epica*, propagated from a seed sowing made in February 1996, were planted into our mallee eucalypt section (100) in November 1997. Both are now doing well and are about 1 metre tall and flowering profusely. Part of this success must be due to the excellent drainage in this section as other plants from the same seed sowing which were planted into other less well drained locations have since died.”

Banksias As Weeds

To date, 3 species have shown potential in this area:

- *Banksia integrifolia* : has become naturalised in North Island, New Zealand. Also, Kevin Collins, of the Banksia Farm in Albany, WA, reports that he has removed seedlings of this plant, sometimes at some distance away from the original plants. He thinks it is because cockatoos break off the cones and fly off with them to a safe place to eat them, in the process seeds may be dropped off. Furthermore, *B. integrifolia* has been known to hybridise with *B. marginata*, *B. paludosa* & *B. oblongifolia* (Banksia Atlas, Hopper & Taylor, 1991). Given this, it would seem that one should attempt to obtain local provenance forms if living near local bushland, or otherwise attempt to prune after flowering (which may get rather difficult as the plant gets a bit larger!). I have been

informed by Irene Champion of Mackay SGAP in Queensland that local nurseries stock forms from NSW rather than local provenanced forms. I would like to look into this in the future and see if we can talk with the local nursery industry at a later date when I have more information. I would be grateful to hear from anyone knowing more about this issue.

- *Banksia canei* has been reported to have naturalised near Albany in WA (Flora of Australia 17B). This is odd as in cultivation the seed needs to be stratified for germination.
- *Banksia ericifolia* has been flagged as a potentially highly invasive species in the Fynbos region of South Africa in a study (The invasive potential of Australian banksias in South African fynbos: A comparison of the reproductive potential of *Banksia ericifolia* and *Leucadendron lauroolum*. AU: HONIG-M-A; COWLING-R-M; RICHARDSON-D-M SO: AUSTRALIAN JOURNAL OF ECOLOGY 17(3): 305-314) due to the very large number of viable seeds on an 8 year old plant and the greater distance they can travel.

Anyone with any further information on species naturalizing, please let me know.

Banksia Growing in Sale, Victoria

I spoke with James Frew, who has grown WA banksias for cut flowers in Sale in Eastern Victoria. He receives 6-700mm rainfall a year and his farm is on acid (pH 4.5-6) sand. He has grown successfully *Banksia media*, *tricuspis*, *occidentalis*, *speciosa*, *coccinea* & *candolleana* – all of which flowered in 3-4 years from seed. He uses no antirot compounds nor organic fertilizers (they increase the risk of collar rot). Instead, he irrigates and uses commercial inorganic fertilizers such as nitrophoska.

The banksias he was unable to grow were *B. victoriae* & *hookeriana*.

Interestingly, James' reporting of *B. tricuspis* flowering differs to Kevin Collins in Albany (14 years), and Trevor Blake (25 years and counting.....), and the Banksia Book (up to 10 years). The main difference I can see is the irrigation. Has anyone else grown this plant?

Internet Resources

I intend setting up a Study Group homepage on the internet soon, where out-of-print newsletters will be available to read. Currently, the most comprehensive summary on banksias is on the ASGAP web page at:

<http://farrer.riv.csu.edu.au/ASGAP/banksia.html>

I also have listed all taxa and known forms at:

<http://www.ozemail.com.au/~casliber/banksialist.html>

I set up a discussion group where people can join and exchange information about banksias at:

<http://groups.yahoo.com/group/banksias>

(to become a member you must first get a Yahoo ID (this is free), on the Yahoo page (follow the links). Let me know if you have trouble with this and I can help you out.

I have summarised some of the information gained from the group at a page here:

<http://www.ozemail.com.au/~casliber/banksiahints.html>

Banksia meeting – October 3rd 2002

Finally, the local 'Plants Society group I belong to (Inner Sydney District Group) is having an Audio-Visual presentation on Banksias at our Group meeting at 6pm, Thursday October 3rd 2002 (right in the middle of Sydney in the Function Room, Sydney

Mechanics' School of the Arts, First Floor, 280 Pitt Street, between Park & Bathurst Sts.). I would welcome all Society members interested in banksias here and I will talk about banksias and the Banksia Study Group there. See you there!

A note on Eastern Tropical Banksias in cold weather

One promising piece of news appears to be the hardiness of the eastern tropical species (*Banksia dentata*, *aquilonia* & *plagiocarpa*) to cold weather:

Jo O'Connell of Ojay, California wrote:

Yes my *Banksia dentata* is very happy and about 3' tall in a pot with a base the size and shape of a good sized carrot! It is in a plastic house that is open ended and this morning the outside temperature is 24F (4.4C). I tried looking up my seed records but can't find a date the seed was sown (some pages have faded from getting wet) My guess is it was 1996-97. It is getting to be quite a "character". In Dec 1998 we had a very cold spell where it went down to 19F (7C)(for 3(?) mornings) and I had several small *B. dentata* in an open-ended plastic house near the doorway. The foliage was frosted back, but then new leaves appeared in spring and the remaining plant is currently in my plastic house. (I sold another 2 last summer)

I can add that I have seen *B. aquilonia* and *B. plagiocarpa* growing in the ANBG in Canberra.

All three are plants of great character and deserve to be more widely grown. I am very interested to hear others' reports of cultivating these plants.

Past Reports & Newsletters

For 20 years until 1995, the Banksia Study Group printed detailed reports rather than newsletters. Most are out of print now and I intend to scan them and make them available at some stage. Reports 7 and 8 are still available from the NSW Region Office (phone 02 9621 3437 on a Thursday, email office@austrplants-nsw.org.au, postal: PO Box 744 Blacktown NSW 2048). Some of the contents of these reports are:

Report 7 (28 articles/38 pp)....AUS\$5.00 + postage

- Grafted banksias
- Fertilization in the genus *Banksia*
- *Banksia* pollinators
- The effects of fire on 4 species of banksias
- *Banksia* growing in Britain
- *Banksia* germination times

Report 8 (41 articles/ 70 pp)....AUS\$6.00 + postage

- Grafting banksias by irrigated approach grafting
- Banksias at the Royal Botanic Gardens Annexe at Cranbourne, Victoria
- *Banksia* growing in northern California
- Commercial growing of *Banksia* in South Africa
- Botrytis on *Banksia* seedlings

References

The Banksia Book (3rd Ed.), AS George, 1996

Australian Flora & Fauna Series No. 8: The Banksia Atlas, SD Hopper & A Taylor, 1988

Flora of Australia 17B. Melbourne, CSIRO Australia, 1999