APAB—N

The Newsletter of the Australian Plants as Bonsai Study Group

(Dec 2014) Feb 2015

No. 27

ISSN 1445-7407

Grevilleas

By Ruth McLucas

This is an update to an article I wrote in 2009, when I only had three grevilleas. Some photos do not show them at their flowering best, however I think it is important that they have a pleasing structure that I can enjoy when they are not flowering.

My first bonsai grevillea was *Grevillea rosmarinifolia* 'Scarlet Sprite', purchased in 2003 and consciously developed to look as 'natural as possible'. I now have three 'Scarlet Sprites' of different ages and have found them to be quite hardy in pot culture. They will produce new shoots on branches up to 5-6mm if the growth is young, but on older wood new shoots only appear on branches up to about 3mm in diameter. Branches cut back leaving no foliage will die. 'Scarlet Sprite' also responds quite well to being wired and tolerates the odd wire scar. I cut back after the flowering season (August to October) finishes, and as needed during summer to keep in shape. It generally flowers prolifically (Photo 1) however last year I did not do the post-flowering trim until mid-March, and last spring's flowering was very poor. I have reshaped it a bit in recent years and I like the change (Photo 2).

Photo 1. *Grevillea* 'Scarlet Sprite' in flower (2012).

Photo 2. *Grevillea* 'Scarlet Sprite' (2015).

G. curviloba (Photo 3) is also hardy and grows quite vigorously, even in this shallow pot. I would not have bought it if I realised it was *G. biternata* renamed. I remembered it from 40 years ago as a straggly, short-lived

CONTENTS

APAB—N

The Newsletter of the Australian Plants as Bonsai Study Group

(Dec 2014) Feb 2015

No. 27

ISSN 1445-7407

garden plant. Until it was transferred into this pot in spring, I allowed its growth to be a bit shaggy and it has flowered well during August to October. I trimmed it quite seriously in mid-February and will leave it now until spring and hope for many sweet-scented flowers. The specimen pictured was purchased in 2008 in a 10cm pot and first shaped in 2009.

Photo 3. *Grevillea curviloba.*

Grevillea 'Pink Lady' (Photo 4), a hybrid with *G. juniperina* as one parent, has similar needle-like leaves to 'Scarlet Sprite' but is less vigorous. As a young plant purchased in 2004, it flowered quite prolifically from late October into November. Now I find it has flowers from late winter to autumn; however the flowers are sparser than they used to be. I am not sure if this is due to its age or a changed care and fertilising regime (details later). Looking at the photo, perhaps it just needs a bigger pot.

Photo 4. *Grevillea* 'Pink Lady'.

I have tried three forms of *G. australis*: upright, prostrate and 'Hollybank'. Only the uprights survive and they are vigorous and hardy, although they have quite different growth forms. Specimen 1 (Photo 5) started out with prostrate growth and I thought I had mixed up the labels. I was quite enjoying working with its interesting shape when it suddenly started producing strong upward shoots from just about everywhere. It has finer, more compact foliage than specimen 2 (Photo 6) and flowers more prolifically. Both produce new shoots on young wood up to 1cm in diameter and tolerate wiring and recover from wiring scars.

Photo 5. *Grevillea australis* - specimen 1.

APAB—N

The Newsletter of the Australian Plants as Bonsai Study Group

(Dec 2014) Feb 2015

No. 27

ISSN 1445-7407

Photo 6. *Grevillea australis* - specimen 2.

Other grevilleas I am growing that seem quite hardy include:

G. iaspicola, native to the ACT area. I bought this one 18 months ago as tube stock. It has grown vigorously and been cut back just as vigorously. So far it has had few, but delightful , flowers. If it does not flower well over the coming winter I will let it grow more freely and develop it into a bigger plant.

G. jephcotti grows well and its flowers are delicate and unusual.

G. 'Poorinda Marion' (Photo 7) grows well and has a magnificent display of red flowers, however its pruning scars do not heal as well as some, for example *G.* 'Scarlet Sprite' and *G. australis*.

G. lanigera 'Honeyeater Heaven' does not shoot back very well and is slow to thicken, but is worth persevering with for its generous display of red and cream flowers (Photo 8).

Others I am working with include *G. juniperina* 'New Blood', *G. obtusifolia*

Photo 7. *Grevillea* 'Poorinda Marion'.

'Gingin Gem', and *G.* 'Big Red', which have flowers all survived a year in my care. I have given up on *G.* 'Winparra Gem'. It seems prone to root rot, averse to being wired and

Photo 8. *G.* 'Honeyeater Heaven'.

APAB—N

The Newsletter of the Australian Plants as Bonsai Study Group

(Dec 2014) Feb 2015

No. 27

ISSN 1445-7407

very unforgiving of wire scars. It could well work for someone else under different growing conditions. I have had similar problems with *G. diminuta* and now enjoy it in the garden. I think the intolerance of wire scars and poor scar healing of some grevilleas may reflect different thicknesses of their bark, as the ones I have had the most trouble with all seem to have darker, harder and thinner bark than the 'forgiving' ones.

My grevilleas receive the same basic care as all my bonsai: a fairly open mix with *Osmocote*; same watering regime via an automated system; fertilised every 2-4 weeks with *Powerfeed* and *Seasol* from September to February, occasionally sprinkling a bit of Osmocote on the soil surface; then *Thrive Fruit and Flowers* until May. I rely on the *Osmocote* to get them through the winter.

There are many more grevilleas to explore as bonsai. The rewards are great when they flower magnificently and worth the occasional loss when a plant turns out not to work, at least for you. The main downside has been the nectar feeding birds. I used to find it quite charming to have a honeyeater feeding off my bonsai, however this last season they have broken several branches by landing on the tree rather than the bench. If I had the space I would plant lots of grevilleas in my back garden and hope they left the bonsai alone.

==========

[Study Leader's note: I thought the following article, by Doug Mohr, from the Society for Growing Australian Plants, Queensland's newsletter of Sept 2014, supplied with permission by their editor Jan Sked, might be of interest to some of our members. I found it a great read about one of our iconic group of plants. R Hnatiuk.]

Ancient Eucalypt Discovered in South America

Doug Mohr

While many of us associate eucalypts as an emblematic Australian icon, a recent fossil discovery is believed to have provided a linkage for the Eucalyptus *genus with Patagonia, South America.*

The eucalypt fossil record is relatively poor due to a number of factors, including the size of Australia, the small number of people looking for this type of plant and the age of suitable sedimentary deposits. Due to this paucity of records, palaeobotanists have had difficulty determining the exact age and movement of the genus from fossils, with few published records of fossils of reproductive organs thought to exist within Australia. From these records and other sources, there has been speculation that the genus dates to the Late Cretaceous (making it 66 to 100.5 million years old). The paper further speculates that *Eucalyptus* distribution may have been established somewhat earlier than this time.

Estimated extent of Gondwanan remnants during the Late Cretaceous Period (100.5–66 MYA) – one of the earliest times that* Eucalyptus *may have dispersed to South America (Imagery: Blakey Paleogeography Mapping).

APAB—N

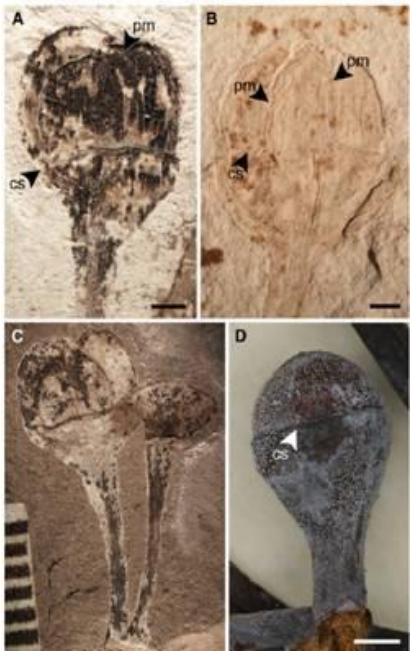
The Newsletter of the Australian Plants as Bonsai Study Group

(Dec 2014) Feb 2015

No. 27

ISSN 1445-7407

In 2012, researchers from Cornell University and the University of Buenos Aires published a paper that introduced an important chapter to the eucalypt story, by providing evidence for the existence of a eucalypt within the Chubut Province of Patagonia (Argentina). The Eucalyptus fossils that formed the basis of the discovery are around 52 million years old, putting them in the early Eocene Epoch (56-33.9 MYA). The fossils include leaves and reproductive material that are similar to *Eucalyptus*, although in some cases also similar to the closely related genus *Corymbia*.



One of the newly discovered eucalypt fossils* Eucalyptus lynchiae sp. nov *(A, B, C) and* Eucalyptus alba *(D - a species with current distribution in Australia, Timor, and Indonesia). Note the similarity of the calycine scar (cs) within each record.

This fossil material is significant on many levels. Not only does it add precious reproductive material-evidence to the scarce fossil record, but it includes the oldest eucalypt macrofossils currently known. They also represent credible evidence of *Eucalyptus* fossils occurring outside of Australasia and suggest a broader geographic distribution. They do this by showing that eucalypts once inhabited the far western locations within the continents associated with the supercontinent, Gondwana.

A fossil of* Eucalyptus caldericola sp. nov. *with leaf venation and capsule form typical of living eucalypt species.

While Gondwana began breaking up in the mid-Mesozoic Era (160-80 MYA), South America, Antarctica, and Australia remained connected until more recently. Although these continents have since drifted apart, the paleontological evidence suggests that organisms were able to cross amongst these continents into the Late Cretaceous and probably the earlier part of the Paleogene Period (approximately 23 to 66 MYA). This connection was apparently maintained through the Antarctic Peninsula on the South America-

APAB—N

The Newsletter of the Australian Plants as Bonsai Study Group

(Dec 2014) Feb 2015

No. 27

ISSN 1445-7407

Antarctica side of Gondwana. The biotic connection amongst these three landmasses was eventually broken by them continuing to move away from one another as well as by Antarctic cooling.

Estimated extent of Gondwanan remnants during the Eocene Epoch (56 to 33.9 MYA) – a time including the estimated date for the Patagonian Fossils (Imagery: Blakey Paleogeography Mapping)

Whatever the case, eucalypts form a key part of Australia's native forests and woodlands and these new fossils highlight the journey that this remarkable genus has made. They also fill an important knowledge gap in the natural history of the environment we rely on and impact every day.

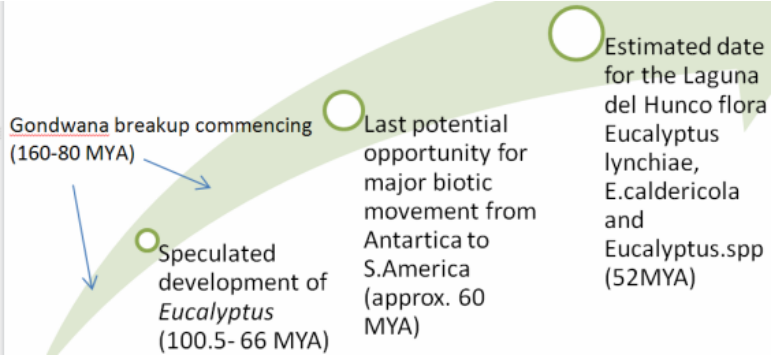
Special thanks goes to John Moss for drawing my attention to the article and Elizabeth Hermsen (Assistant Professor at the Ohio University) who helped undertake the original study and confirmed details about the significance of the find. For those of you keen to visualise global reconstructions, two websites exist that may help:

The PALEOMAP Project – http://www.scotese.com/

Blakey Paleogeography Mapping - http://www2.nau.edu/rcb7/

References:

Hermsen, E. *et. al*. The fossil record of *Eucalyptus* in Patagonia. American Journal of Botany 99(8): 1356–1374. 2012.



Kunzea pulchella.

About 25 years old.

Newsletters

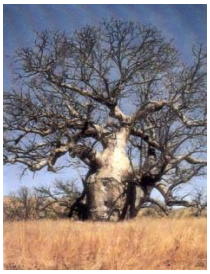
My apologies for it being so late. Volunteering can take much time.

The deadline for APAB-N 28 is 7 June. Unless something comes in from YOU, it could be a very thin issue indeed :) :) .I'm sure others have similar stories to Ruth's Grevilleas, with a favourite 'native'. Please take a few minutes to jot down some notes on what you've done over the past 5 years or so.

Which trees have done really well for you, and how have you treated them? Which ones have not done too well at all, and do you know why? Have you changed the soil mix and what difference has it made?

Your experiences, however simple or complex, are really good news to others in the group. So please take a few minutes to share these. That is the way we all can learn.

Roger



Australian Plants as Bonsai

If not delivered, please return to PO Box 450, Jamison Post Office, Macquarie ACT 2614.

Study Group Information

The Australian Plants as Bonsai Study Group was formed in mid 2001. Its aims are:

- to determine which species of native Australian plants are grown as bonsai;
- to determine the horticultural characteristics and requirements of each species;
- to determine the artistic and aesthetic qualities of species; and
- to publish information to help people grow and enjoy Australian plants as bonsai.

To become a member, please send a cheque for $14 (Aus.$20 overseas) or postal money order to:

'Australian Plants as Bonsai', PO Box 450, Jamison Post Office, Macquarie ACT 2614, Australia.

Direct credit transfers can be made to Community CPS, **BSB 805-022, account no. 03276718;**

account name: ASGAP. INCLUDE YOUR NAME IN TRANSFER

The Study Group Leader is Roger Hnatiuk. Contact him at the above postal address or at

Email: rjhnatiuk@yahoo.com.au