

Eucalyptus Study Group

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Welcome everybody to the Eucalyptus Study Group, and hello to all members, old and new. It seemed wrong somehow to have an Australian plants society without a Eucalyptus Study Group, so with Elspeth Jacob's generous help we're back in business again. The group has become a true national event, with the NLs originating from me, here in the West, and Elspeth overseeing the finances and seedbank from Victoria.

I am indebted to Jan Sked, the Study Group Liaison Officer, for her all incredibly hard work in forwarding on all extant documents, and contacting everyone with the news about the study group. I am in awe of her dedication, efficiency, and steady hand at the helm of all those study groups.

- The **annual subscription** will continue for the time being at \$10 for Australian members, and \$20 for overseas. I would also like to introduce the option of receiving the newsletter by email, for a \$5 annual fee. This will be in PDF format, with full colour photos. Subscription form at the end of the newsletter.
- I have put up a **website** on my space for the group, at <http://members.westnet.com.au/olivehill/esg>. Do have a look and give me your feedback. At the moment, it has the seedbank list, and the NL photos in colour, as well as other images and general information.

Elspeth will be managing the finances and the seedbank, but please send subs to me initially. When renewing next year, I will be asking you all to send your subs directly to Elspeth. I look forward to your input, information, inspiration and anecdotes.

About me:

Taking on the study group leadership has effectively increased by 100% the study group leaders from WA, it would certainly be great to see the trend continue! [the other leader is Margaret Pieroni, Dryandras]. My husband and I live on a 145 acre property in the Margaret River countryside, 12k NE of the township. We have 15 acres of olive trees producing extra virgin olive oil, and offer self-contained holiday accommodation in the original 1920s jarrahwood farmhouse on the property. We formerly ran our own breeding herd of Murray Grey cattle on the remainder of the property under pasture, but ceased to do so in December of 2003, and now lease the paddocks to another beef breeder.

Our farm is on the banks of the Margaret River, and I have been very active for many years in conservation and catchment activities, river rehabilitation, public education on local flora and landcare, and some public and private consultancy work.

So far, we don't have a local regional branch of the WSWA, but I'm negotiating to change that, and hope to get one underway. I'll just need some members! I do rather feel that our wonderful WA flora [like the prophet in the bible] is without honour in its own country. Hopefully the many people working on changing that, will be successful and we'll start to see more and more of our plants appearing in our garden centres, and in our gardens and public places.

A way that I feel we could all get to know one another a little better, is by having a Eucalypt Tour...I'd like to know which Eucalypts are native to your region, and perhaps a little about them. Please drop me a line or email [\[olivehill@wn.com.au\]](mailto:olivehill@wn.com.au) and tell me about your locals. Even if they don't grow there any more! I'll kick start the series with some information on the trees of the Margaret River forests. This is my back yard.

Margaret River, so much more than wine.

The Eucalypts of the Margaret River forests.

Fortunately for those of us that value the Australian bush and its biodiversity, the Margaret River region has more than 60% of its land as National Parks, Conservation reserves, or State Forest. In many areas, there is also a considerable amount of privately owned bush in good to reasonable condition. This contributes to the green, leafy ambiance of the area.

But these trees are much more than just stage props for tourists, they are outstanding eucalyptus of character, beauty and size, which are veritable condominiums for myriads of forest creatures, vertebrate and spineless.

The region has an average 1200-1400mm rain in a strongly mediterranean climate with cold wet winters and warm dry summers. Most of the rain falls from June-September, with July usually the wettest month, and January the driest. The forested soils are mostly acid ironstone gravelly duplex soils, the terrain undulating, with abundant ephemeral or rarely permanent, creek systems.

More on WA biodiversity and forests

http://www.designingfutures.com.au/DF/Travel/south_western_australia/Hopper_essay a wonderful essay by Stephen Hopper.

***Corymbia calophylla* [marri, redgum]**

from Latin, *corymbium*, a "corymb" referring to floral clusters where all flowers branch from the stem at different levels but ultimately terminate at about the same level.

calophylla...from Greek *calo*, beautiful, and *phyllon*, a leaf. 3-60m.

This is the tree which perhaps gives the region its unique character more than any other. It is a widespread and adaptable tree, growing tall and majestic on good soils, short and gnarled on poor sand and by the coast. It is widespread as a lone paddock tree, remaining as a remnant of the forests which were cleared for farming.

When given space it spreads to become a broad crowned, broad leaved shade tree. [but beware the shedding of branches].

The flowers are huge and beautiful, as are the leaves, very like that of their close relative, the red flowering gum, *Corymbia ficifolia*. In fact the trees are very similar in leaf, bud, flower and fruit, the major differences are the cream colour of the marri flowers, bark character, [it has grey-brown tessellated bark] and its larger stature. The marri is a stunner in full flower, the blossoms are huge, and born at the tips of the branches, so the tree looks like a virtual cauliflower of bloom. Because of the numbers of marris in the area, lining every road and throughout the bush, in a good flowering season [Feb-March] the whole region appears to be in bloom, and the strongly honey scented blossoms provide a show as good as any wildflower display anywhere.

The blooming of the marri provides a bonus for vineyards and orchards, as the birds will feed exclusively on the nectar, and leave the grapes and fruit alone while it lasts. Although the marri blossom is cream or white, which would normally lead us to expect it to be primarily intending to attract invertebrates to perform pollination, it is actually equally sought out by birds and possums. The huge gumnuts are a staple of the diet of lovely and increasingly rare white and red-tailed black cockatoos, while the tree hollows of mature trees are at a premium for the nests of both the cockies and any number of other birds and marsupials.

Phytophthora resistant, but many trees are starting to be infected with a canker which may have serious implications. [two other species of SW forest eucalypts are suffering severe die back and mass death from as yet unidentified causes, the tuart, *E. gomphocephala*, and the flooded gum, *E. rudis*.]

More on the marri

<http://farrer.riv.csu.edu.au/ASGAP/APOL14/jun99-4.html> [a lovely account of marri-love]

http://birdswa.iinet.net.au/projects/carnaby/carnaby_plants.htm [marri is essential to the endangered Carnaby Cockatoo, and also to the even more endangered red-tailed black cockatoo]

***Eucalyptus marginata* [jarrah] 1-30m**

The second major tree species to be a component of our forests. Formerly very common and reaching its best form on well-drained ironstone gravels, it has been much depleted by logging, clearing and phytophthora. Timber cutting has taken place in the area on a colossal scale since the 1860s, much of the wood being exported both to the other states and overseas. The roads of London and Berlin were laid with jarrah before macadamizing. I don't know what to say about that, really. The timber is a superb hardwood, and is/was used for every building purpose as well as furniture, fence posts [very resistant to white ants] and firewood. Bad luck for the jarrah to be so incredibly useful and profitable. Even nowadays when one hears a chainsaw, it will a jarrah paying the price for its versatility, endurance and good burning properties.

It is very rare indeed to see old growth jarrah, and what there is will be on private property remnants. We can only dream of what it must once have been.

Jarrah is a majestic tall tree, with rough, dark brown to black bark, and fine, narrow leaves. It flowers abundantly in season, [late winter-early summer] attracting numerous insects. It has a remarkable suite of mycorrhizal fungi, and it is possibly some dysfunction of this symbiosis that allow the dieback fungus to wreak such havoc.

When planting a jarrah seedling, I always plant it with some associated acacias, [A. pulchella, alata, extensa, etc] these seem to enhance the mycorrhizal activity and help give dieback resistance. It is an incredibly slow growing species, taking up to 10 years to make moderate growth. Apparently up to the first decade of its life may be spent developing a massive lignotuber, so that it can survive the frequent fires and other depredations of its habitat.

More on jarrah

http://www.worldwildlife.org/wildworld/profiles/terrestrial/aa/aa1210_full.html all the facts and figures on jarrah forest biodiversity.

http://mycorrhiza.ag.utk.edu/latest/latest01/01_1grier1.htm mycorrhizal dependence of the jarrah.

***Eucalyptus diversicolor* [karri] 10-90m**, is the third icon species of the region, and is probably familiar as a symbol of anti-logging protests. One of the two tallest hardwood flowering plants in the world [E. regnans is the other], its habitat is only where both rainfall and soils are suitable. Oddly, it is remarkably adaptable when planted elsewhere in the region, and provided winter rainfall is sufficient [at least 1200mm] seems to tolerate any soil type. It too has suffered much depletion because of the timber industry, but unlike jarrah it is very fast growing and adaptable, so fine stands of regrowth trees abound. It reaches its optimum height in less than one hundred years, and then puts on girth. The Boranup Forest in Margaret River, is a remarkable valley of 100 year old regrowth, now reserved in National Park.

A most attractive and majestic tree, the karri has a stocking of grey bark that peels seasonally to show the smooth pale salmon trunk. Phytophthora resistant.

More

http://www.calm.wa.gov.au/plants_animals/tree_karri.html description of the karri

***Eucalyptus megacarpa* [bullich]**. Sometimes referred to as bastard karri, this tree has a strong resemblance to karri, although it is much smaller in growth. The greyish bark peels to show the similar fresh and smooth sunset, buff and salmon tones, and in its favoured riparian, valley and swampy habitat it grows straight and upright, to about 2-35m, but the flowers and fruit are much larger, and quite distinctive. [flowers winter-spring] Makes a fine ornamental garden tree, and I use it as such here. Fairly slow growing, foliage distinctively blue-grey. Tolerates waterlogging, heavy clay, and is adaptable. Phytophthora resistant. Deserves to be better known and more widely planted, although for garden use, be aware of a great deal of bark drop.

Eucalyptus patens [Swan River blackbutt, yarri]. A really superb tree of stature and spreading canopy, up to 45m, a denizen of moist riparian habitat only. Many fine specimens line the Margaret River here at Olive Hill Farm, that would be up to several centuries old. Very imposing girth and spread, what the oldtimers sometimes referred to as an “80 acre gum”. Has the rather unique facility of being actually fire resistant, simply will not burn and takes a very long time to decompose after falling. All useful riparian characteristics, retarding fire on streambanks and making excellent and enduring in-stream habitat. Tolerates waterlogging and inundation for quite extended periods. [I have seen them almost submerged for up to 2 months], even infant seedlings can take complete immersion for up to a week and survive. A very robust pioneer species in its favoured habitat, it will self seed abundantly on cleared riversides when protected from stock.

Much used formerly when more abundant for cabinetry and floorboards, but not for firewood! This has really now become quite a rare tree, certainly the bigger ones, and I can only hope it will be spared any more logging under any circumstances.

Flowers abundantly and rather unpredictably, often twice a year. Phytophthora resistant.

More

<http://www.featuretimbers.com.au/blackbutt.html> well, we had to have at least one by the timber people!

Growers note:

After more than a decade of revegetation work with local species on our riverfront, I've observed an interesting species succession hierarchy in terms of the Eucalypt seedling volunteers. For the first 3 years after stock were removed, we planted large numbers of seedlings of marri, yarri, bullich and jarrah. Since then we have no longer needed to plant the eucalypts, as they are self seeding prolifically. The yarri [patens] was first, as soon as a slight softening of the compacted clay allowed. Another year or so later, marri [calophylla] started appearing, but it is only now, 10 years down the track, that seedlings of jarrah and bullich are coming up. I can only hypothesize that they needed a greater degree of humus, soil tilth, and perhaps mycorrhizal presence. Certainly, I have only been seeing the fungal fruit bodies for a year or so.



Illustration 2C. *calophylla*, fruit and leaves, Olive Hill



Illustration 1C. *calophylla* bark



Illustration 3C. *calophylla* flowers



Illustration 4C. *calophylla*, kino



Illustration 5E. megacarpa, fruit and bark



Illustration 6E. megacarpa, tree, OliveHill



Illustration 7E. megacarpa, flower and early fruit



Illustration 9E. patens, juvenile leaves



Illustration 10E. patens, adult leaves, buds

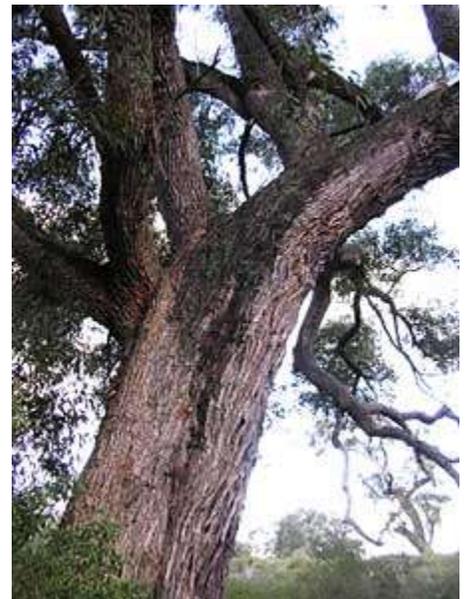


Illustration 8E. patens, Olive Hill



Illustration 11jarrah forest, 1 month after fire, Whicher Range



Illustration 12jarrah forest [state forest, not conserved] Whicher Range



Illustration 13karris, Boranup forest, National Park



Illustration 14karri bark

Flowering now

It has become almost a gardening cliché I know, but I still can't go past the wonderful *Eucalyptus caesia*, gungunnu, for winter flower. My personal preference is for the ssp *caesia* for general garden planting, but I've seen a few fine looking ssp *magna* in heavier soils.

I don't think the ssp *magna* is at home on lighter soils, being prone to windthrow, and often having quite an unthrifty appearance. The ssp *caesia*, on the other hand, keeps a good appearance on sand, but unfortunately is nowhere near as widely planted or available as the ubiquitous "Silver Princess". Over thirty years ago I planted quite a number of both types in my first garden in one of the newly burgeoning sandy soiled, baby-boomer suburbs of Perth. I'm pleased to report that several still remain, including a really superb ssp *caesia*, one of the best I have seen in Perth; and a ssp *magna*, which even then I had the sense to cut back to the lignotuber, forcing numerous fine and sturdy trunks. Now, to continue my luck with this species, I wonder if I might have a hybrid between the two types. As they are all grown from seed, I guess anything can happen, and perhaps it has. It was meant to be ssp *caesia*, but now as a youngster of 4, it has the large flowers and large leaves of *magna*, but the upright habit and form of the *caesia*. It is a superb little tree which has flourished on our acid sandy loam over clay. It seems to have no problem with our wet winters, a useful characteristic I find of the plants of the granite tors, which are exposed to such extremes of drought and wet, cold and hot, that little seems to phase them. [except probably summer wet and humidity, I would imagine]At the moment, it is covered in silver buds and pink blooms, [rather hacked at by the parrots unfortunately], and the bronze-red bark is stripping down to the pale green trunk, in most fetching minneriche style. I really couldn't get a decent pic of the form because of the constant rain we've been having, but here are some photos of the flowers and bark.



Last Words

Thanks to those who have sent me their subs, your receipts are enclosed. **Seed list** attached, and may also be found on our website. Please send an adequately stamped, self addressed envelope to Elspeth with your seed requests. Elspeth also has the slide library, and this may be borrowed.

I would like us to start thinking about projects and interesting subjects, all contributions are welcome, most especially if they are emailed or posted on disk, to save my poor typing skills! Regular themes will be

- Your locals.
- What's flowering now
- Eucalypts and invertebrates.

and I await further suggestions.

Until next time,

Margaret.



ASGAP Eucalyptus Study Group
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COMMENTS OR SUGGESTIONS:.....
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