



Eucryphia

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Robertson Environment Protection Society – to promote the protection and enhancement of the Robertson environment.
PO Box 3045, Robertson NSW 2577 www.reps.org.au

PUBLIC MEETING

Friday, 13th June at 7.30
Robertson Community Hall

Dr John Black AM, FTSE, FAIAST

‘The Burrup’

The rock art on the Burrup Peninsula in the Western Australian Pilbara region is unique in the world. The carvings show a continuous record of how humans adapted to changes in climate and distance from the sea for more than 30,000 years. They record life from before the last ice age until 200 years ago.

The rocks contain the oldest known records of the human face. There are depictions of the *Thylacine* (Tasmanian tiger) and fat-tailed kangaroo, both extinct on the Australian mainland for thousands of years. The petroglyphs show men netting a dugong, intricate geometric symbols and many other human forms and wildlife.



The Burrup Peninsula rock art is far older than the Lascaux cave paintings in France (19,000 years ago) or Stonehenge in England or the pyramids of Egypt (4,500 years ago).

This extraordinary – and little known – heritage is being threatened by heavy petrochemical industries.

John Black is a Research Management Consultant. He previously worked as a Chief Research Scientist in CSIRO, Assistant chief of the Division of Animal Production and Officer-in-Charge of the Prospect laboratory in Sydney. His research specialised in comparative physiology and nutrition across animal species and the development of computer simulation models.



John left CSIRO in 1996 to establish a research management company where he now manages research programs for a wide range of rural Research & Development organizations and private companies. His activities include work for the beef, dairy, pig, poultry, grains, fodder, and honeybee industries. He is interested particularly in understanding factors constraining the application of science to practical agriculture and how these constraints may be overcome. Another area of interest has been saving the ancient rock art on the Burrup Peninsula from industrial encroachment.

Dr Black is the director of John L Black Consulting, Warrimoo, NSW.

All welcome, informal discussion, light refreshment, gold coin donation

President's Report

Dear Members,

Last month we were privileged to hear a presentation by an eminent geologist and mineralogist, Dr Lin Sutherland, on the geology of Robertson and its position in the world. Although necessarily condensed, it presented the main characteristics that shape our land and provide the soil to allow our environment to thrive. Please see the separate report on his talk below.

Winter is approaching, but we may still have a few weeks left of warmer and sunny weather, until the last leaves of the deciduous trees turn and get blown off. At the moment the cherry trees in and around Hoddle Street look at their autumn best. Robertson appears a bit too wet and perhaps the soil has too many goodies to stress the deciduous trees to get the absolutely fantastic autumns of Bowral and Moss Vale, but nevertheless, if you choose the right trees, and put them in the right spot, they will reward. It may also be true that the trees in the drier areas were planted a long time ago and have reached their mature height, whereas in Robertson, not so many have been planted for that long. However, just as I think that a certain tree cannot do well here, I come across one in someone's garden that is absolutely fantastic and hope springs anew. Also autumn is a time to enjoy the various fungi that pop out of the ground and woodwork everywhere. We should try to have a talk and demonstration on this subject. Any volunteers to lead?

Some of us have been planting new Waratahs in Pinkwood Park lately. Some of the early plantings have died, some as a result of poor drainage. However, having tried to swing a mattock to dig a hole there and finding rocks and road base, we may have some disappointment down the track. I would like to hear members' views as to their concept for the future of this lovely little park, the only one on that side of Hoddle street. Everyone who collects their mail at the PO will spend a few moments looking at it. We are trying to make it inviting for people to enjoy, by planting local plants such as Pinkwoods, Waratahs, and others. I also would like to have it used as an exhibition area for local artists to display their outdoor sculptures and artworks.

The front page of this issue of *Eucryphia* has the details of our next talk, to take place on the second Friday in June. If members have any ideas for future activities, or have an expert in some environmental topic in the family or as friends,

who would like to talk to us, please let me or any of the committee members know. We have almost enough speakers for this year, but next year we will require four at least. Someone to talk at the AGM this November to inspire attendance would be helpful.

Here's to a cosy winter beside the wood fire, relaxing. Winter is a time when the grass doesn't need mowing and hooray for that. Unfortunately a lot of weed seeds spring into life waiting for the next burst of warmth. Get on top of them early.

Cheers

David Mee

Early May, 2014.

Report by David Mee on the talk by Dr. Lin Sutherland

given at Robertson Community Centre on 11th April 2014 entitled: 'In Depth Robertson, Its geological foundations, their origins and landscaping'.

I had the privilege of introducing Lin and welcoming him and his wife Gayle to Robertson. Lin is a professional earth scientist, who has spent his working life in many aspects of the Australian mineralogical scene. Now officially retired, he nevertheless retains active affiliations with the Australian Museum where he was formerly the curator of minerals, and he is also a part-time Professor at the University of Western Sydney. As I mentioned in Lin's introduction, we are both members of the Mineralogical Society of NSW, which is where I have known him, but whereas I am an amateur, he is the full professional. Helen Tranter also knew Lin from the days when she worked at the Australian Museum, so you can see that Lin was a shoe-in to speak at REPS and we were glad that he was receptive to the idea when approached.

We were gratified that there was a good audience, including quite a few visitors. As we had hoped, the extra publicity, plus the topic and speaker drew a wider audience than just the REPS members. It has been a long time since an earth scientist spoke at REPS.

Lin was well prepared for his presentation with a tailor-made set of slides. Using our new sound system allowed Lin to be heard right up the back of the room, even though the mike attachment caused Lin a bit of inconvenience.



The first two slides showed Robertson as we see it, beautiful views and dark rainforest. From there, Lin took us back to the origins of the earth, solar system, moon, and meteorites. He then focused on the geological history of our region and the mantle below Robertson. This is where gemstones such as diamonds and sapphires are created by the immense pressures and temperatures present deep in the earth below the crust. As with many previously volcanic regions on the East Coast of Australia, the volcanic action can sometimes bring the gemstones to the surface and although they seem pretty thin on the ground around Robertson, there is the potential for them to be in the creek gravels all over eastern Australia. (Lin has published books on Australian Gemstones in addition to many other publications.)

According to the theory of continental drift, over the aeons, much of the earth's land mass has coalesced and split up many times since the earth's beginnings and Robertson today is composed of rock materials that were previously in America and other continents. Much of the Sydney Basin, of which Robertson is a part, was formed in the Permian and Triassic periods. Older rocks form the base on which these newer rocks formed. The Permian was the last era of the Paleozoic (old life) period. This was about 300 to 250 million years ago. Australia was much closer to the South Pole then and consequently colder, experiencing periods of glaciation. There were many periods of volcanic activity then, and Lin had a great slide of lavas around the Illawarra. Also at the beginning of the Permian period the coal measures were formed. Lin told us that the end of the Permian was abrupt and defined by a mass extinction event, where around 90% of species became extinct, including the huge glossopteris forests. Lin showed some images of fossil glossopteris leaves in sandstone from this period. The next period, the first in the

era of the Mesozoic (middle life) was the Triassic, where life began to recover and the sandstones of the Sydney basin were formed, thought to be by the erosion of huge mountains in Antarctica. New life forms included the Wollemi Pine, a Triassic survivor to this day.

Following the Triassic Period and the recovery of life, the Jurassic (the period of the dinosaurs) began, and an event called the Gondwana flood basalt occurred, the most famous local legacy of which is Mt Gibraltar between Bowral and Mittagong. Lin showed close up images from the old quarry of the basalt rocks. Images of Bombo quarry and basaltic rocks at Minnamurra Falls were shown, all locations fairly close to our home. The last slide discussed the more recent volcanics around Robertson, about 90 million years ago.

The question time was lively, with Lin doing a great job fielding questions from the audience. A big point of discussion was the likelihood of finding gemstones and where one might look. Finally David Tranter was called upon to formally thank Lin for his talk, which he did with some kind words and by presenting Lin with a gift of some local wine and produce. The meeting was closed so we could all participate in tea and cake and informal discussion. A great evening!

Robertson Rainforest Plant Species

Sassafras (Doryphora sassafras)

by Denis Wilson and Allan Stiles

No tree could be more appropriate to begin such a series than this, one of the characteristic species of the rainforest remnants here. William Wools, a botanist who visited the early settlement in the early 1860s (before it was called Three Creeks or later Robertson), wrote in his *Contributions to the Flora of Australia* (1867) that this was:

the part of the range called "The Sassafras."

He also reported that:

the Sassafras (*Doryphora sassafras*) is very common in some parts where the sandstone gives way to the trap [basalt] formation. This fine tree affords timber for flooring boards and house purposes, and the bark is used in decoctions for its medicinal properties.



Tree in flower

These trees seem to flower heavily only every two or three years. In this image you can see the tip of a finger, for scale.



The bright green leaves of this plant are heavily aromatic. To my nose they seem to have a scent reminiscent of rind of Mandarin fruits, but other people describe it as having a nutmeg odour. Either way, the presence of the strong odour in the leaves is used by 'plants' people to confirm the identity of a Sassafras tree in the rainforest, where many plants have similarly shaped, dark green leaves.

Alex Floyd in *Rainforest Trees of Mainland South-East Australia* (1989) explained that:

Doryphora is from the Greek 'doratus' a spear and 'phoreus' carrier, referring to the bristle-like points of the anthers; sassafras after the North American Laurel, *Sassafras albidum*, with a similar fragrance.



Flower and two buds in profile. Note long stamens.



Seed capsules

The flowers have a sweet scent which hangs on the air. Despite cold winds, one can smell them many metres away. Sassafras flowers develop in threes. One single flower in the centre, and two buds which will develop as the first flower fades. The

flowers are seldom unblemished for some reason. Possibly it is because of their sweet perfume, which means they have evolved to attract insects. Robertson abounds in insects - moths and midges and other small creatures.



Blemished flower



Unblemished flower

The botanical texts say that Sassafras is pollinated by mosquitoes, but when they are in flower there are few if any mosquitoes around - because of the cool weather. So that fact calls into question the botanist's assertions.

For those in other districts who are familiar with another plant known as "Sassafras" those might be the Black (or Southern) Sassafras (*Atherosperma moschatum*). Both these trees are in the family Monimiaceae. They derive their name from a superficial resemblance to an American plant of the same name, which is also highly aromatic in all its parts. The Australian plants and the American plant are not closely related.

"Sassafras" is used as a place name as well. There is a district at the southern end of the Shoalhaven Valley (NSW) named after this tree,

and a village in the Dandenongs named after the more southerly "Sassafras" plant - the Black Sassafras.

The Sassafras trees flower heavily some years, but not others. From tracking back, there was a really good flowering season for Sassafras in July 2009. Prior to that flowering season, the previous "good year" for Sassafras was 2006. So they seem to flower heavily every three or four years. Presumably seasonal rainfall is a factor. After a heavy flowering season these trees produce masses of fluffy seeds, (hard black seeds with hairs which allow the seeds to blow on the wind). After the July 2009 flowering, the seeds were dispersed heavily in May 2010. The seeds and their fluff formed thick carpets under trees and against fence lines - like a brown snow-drift. That suits the Sassafras, as they like to germinate in the shade of tall trees, and dense shrubbery. I know that because I have been collecting self-sown Sassafras seedlings from under my Camellia bushes. These young seedlings in their fourth year are about 150mm high, so they're not fast to establish.



Receptacle releasing hairy fruits

Important distinguishing features, apart from the smell of the crushed leaves, are the leaves, which have serrated margins and are in opposite pairs. The trunks are usually tall and straight and may be up to fifty meters high with stem diameter to 120 cm. Trees which, however, have been damaged by wind or otherwise disturbed have multiple trunks. Some that have suffered years of slashing in paddocks have been observed to once again grow from what remained below the soil.



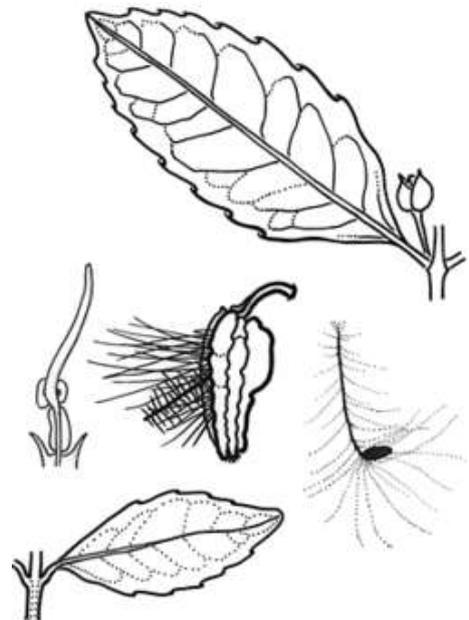
Seed with hairy achene



Seeds on the ground



Seed separated from hairy achene



Drawing showing leaves and their venation, flower structure, receptacle, and hairy achene with seed.

Sassafras is a widespread species occurring from near Bega in NSW to Nerang in South Queensland. With Coachwood, it is a dominant tree in warm-temperate rainforests. The Southern Sassafras prefers higher altitudes than Robertson. It reaches its northern limit at the Tia River, Barrington Tops, and the upper Blue Mountains, but is more common in Victoria and Tasmania.

Another local member of the same family is the small tree, the Native Mulberry (*Hedycarya angustifolia*), a common pioneer plant in rainforest breaks.



The Drover's Cook by Tom Quilty

The drover's cook weighed fifteen stone,
 He had one bloodshot eye,
 He had no laces on his boots,
 No buttons on his fly.
 His pants hung loosely round his hips,
 Hitched by a piece of wire,
 They concertinered round his boots,
 In a way that you'd admire.
 He stuck the billy on to boil,
 Then emptied out his pipe,
 And with his greasy shirt sleeve,
 He gave his nose a wipe.
 With pipe in mouth he mixed a sod,
 A drip hung from his chin,
 And as he mixed the damper up,
 The drip kept dripping in.
 I walked quietly over to him,
 And said "Toss that mixture out,
 And in future when you're working,
 Keep your pipe out of your mouth."
 He stood erect and eyed me with such a dirty look,
 And said in choice Australian,
 "Get another — blinking cook."
 "A cook," I said, "you call yourself,
 You dirty slop-made lout,
 You should be jailed for taking work
 You cannot carry out."
 He then uncorked some language,
 I felt a thrill of fear,
 As he swung his hairy paws about,
 And said "Trot your frame out here."
 In outback brawls there are no rules,
 Nor limits to the weight,
 So I had to squib, or meet him,
 With my meagre nine stone eight.
 We both bounced into action,
 And fell into a clinch,
 I put a headlock on him,
 But I could not make him flinch.



I then tried other tactics,
 To force him to submit,
 But the more I tried to force him,
 The fiercer he would hit
 I felt I should have held my tongue,
 I thought of home and Billie,
 And on the road to sure defeat,
 Made me sick, sore, and silly.
 For hours we fought in deathly grips,
 Swung upper-cuts and crosses,
 We floundered and staggered in distress,
 Like broken winded horses.
 Then gaspingly he muttered,
 "I've fought all through the north,
 You're the gamest thing I've ever struck,
 Give me your hand, old sport".
 Well, I can't explain my feelings,
 With joy I nearly cried,
 As we staggered to a shade close by,
 Where he sank down and died.
 You talk about that Saltbush scrap,
 Why! It was only play,
 Compared to the gruelling battle
 We fought that fatal day.
 And now above his resting place,
 Where the grass has grown to seed,
 On stone, is carved this epitaph,
 For travellers to read:
 "Here lies the son of Donald Gunn,
 None gamer ever stood,
 He died in a dinkum battle,
 With Jimmy Underwood".

Thomas John Quilty (1887-1979) was an Australian station owner, pastoralist, philanthropist and bush poet. To this day he still holds the record for the largest freehold land acreage in Australia's history, over three million acres for a single property. In total he controlled over 4.5 million acres. In 1966 he donated 1,000 pounds for the Tom Quilty gold cup, a 160 km.-long endurance horse event still held annually today. The poem featured above hangs in the cookhouse of the Old Telegraph Station in Alice Springs today.

*Alistair Clark is a local Robertson resident.
 He and his wife Barbara breed Angus cattle.
 Alistair was born in Scotland*

Scotland V Robertson by Alistair Clark

So what's the deal
 I hear you say
 When I compare that far off land
 of mountain glens and islands fair,
 of funny accents and strange men's wear,
 to dear old Robertson.
 It's not the heather covered moors
 or snowy alpine mountain peaks
 or bonny lochs that make you sigh
 or Mother's home-made Shepherd's Pie.

So let's come clean and spit it out,
 I'll tell you what's it's all about.
 The mist is first as it should be
 You canna see twa feet in front of thee.
 Next comes the peltin' rain
 that soaks you deep
 good mushroom weather so to speak.
 The muddy fields your wellies love
 to sink in deep,
 they leave your feet,
 your body sprawled in one great heap.

And what about the icy wind
 that chills your bones and make you ache.
 It makes you want to emigrate.
 But heaven praise those magic days
 of sun, still air and cloudless skies
 contented cows and people too.
 Robertson's a paradise,
 but yet, let's make it crystal clear
 the land and odd exotic natives here
 are every bit as strange as there.

If you have a poem, we would welcome your contribution - send to Peter Glass, 65 Vandenberg Rd, Robertson, 2577

Future REPS Meetings in 2014

The dates for this year's future public meetings are listed below. They will be at 7.30 pm in the Community Hall. All are welcome.

Friday 13th June

Dr John Black AM will speak about saving the ancient rock art on the Burrup Peninsula in WA from industrial encroachment.

Friday 8th August – speaker TBA

Friday 10th October

Brian Cooke will talk about rabbit calicivirus, officially rabbit haemorrhagic disease (RHD), and will concentrate on what it has meant for conservation. This will include examples of better regeneration and the return of native vegetation and some endangered desert rodents, such as the Hopping Mouse. He will also talk about the difficulty of getting other ecologists, like some in National Parks, to take this on board and build on those benefits.

October – Bushwalk TBA

Friday 14th November - Annual General Meeting with speaker TBA

Free Eucalypt Identification Workshops

To be run over 2 days in July-August (date to be finalised) by Eucalypt expert Van Klaphake. To register interest, phone Paul Marshall ASAP, on 4868 0772 or 0418 424 524

Help Care for Our Nature Reserve

1st Wednesday of each month from 9:30am till noon. Please bring garden gloves. More volunteers would be greatly appreciated. Everyone is welcome. Details: Helen Tranter 4885 1394 or NPWS in business hours: 4887 8253.

Caalang Creek Working Bees:

31st May, 28th June, 26th July

Caalang Creek working bees are usually held on the last Saturday of each month from 9:30am onwards, subject to the weather.

Please come and join us for as long as you are able. Don't forget water, hat and gloves. We have tools available, but bring your own if you can.

Caalang Creek volunteers meet at the footbridge in Hampden Park.

Queries to Steve Douglas 4271 4957 or Leon Hall 4888 2222.

Contact REPS

Those who are interested in supporting our aim are welcome to join REPS. Our aim is to promote the preservation and enhancement of the Robertson environment. We welcome contact with individuals and other community groups. For further information and subscriptions please contact:

The Vice-President – Karen Guymer,
PO Box 3045, Robertson, NSW 2577 or
The President – David Mee on 4885 1483

2014 World Environment Week

(Activities can be found on the [wsc.nsw](http://wsc.nsw.gov.au) website)

There will be a display at the CTC of Art works by Yr 4 children from Robertson Public School. Charcoal drawings and tiles of plants, animals and birds of Robertson, with a Powerpoint record of the artists creating their works guided by artist Celeste Coucke. Official Opening is at 9am Tues 3rd June. The display will run until the end of the month.

Canwin presents Dr Andrew Glikson

This climate scientist at ANU will be speaking on the evolution of the atmosphere.

7.00 pm on Friday, 6th June, at the Council Theatre, Donkin Avenue, Moss Vale.

Articles for *Eucryphia* may be sent to the editor, Allan Stiles, on stilesajen@bigpond.com