



AUSTRALIAN
PLANTS SOCIETY
— Geelong —

Correa Mail

Newsletter No. 301 – October 2014

SEPTEMBER MEETING

Brad Ferrier

Our speaker at the September meeting was Brad Ferrier. Brad is a self-employed landscape architect, designer and constructor, dealing in all aspects of garden design and construction. His business card lists, among others, Landscape design, Landscape construction, Stabilised rammed earth construction, Concrete formwork, Concrete water features, Concrete grinding and polishing, Stone masonry, Decks and Pergolas.

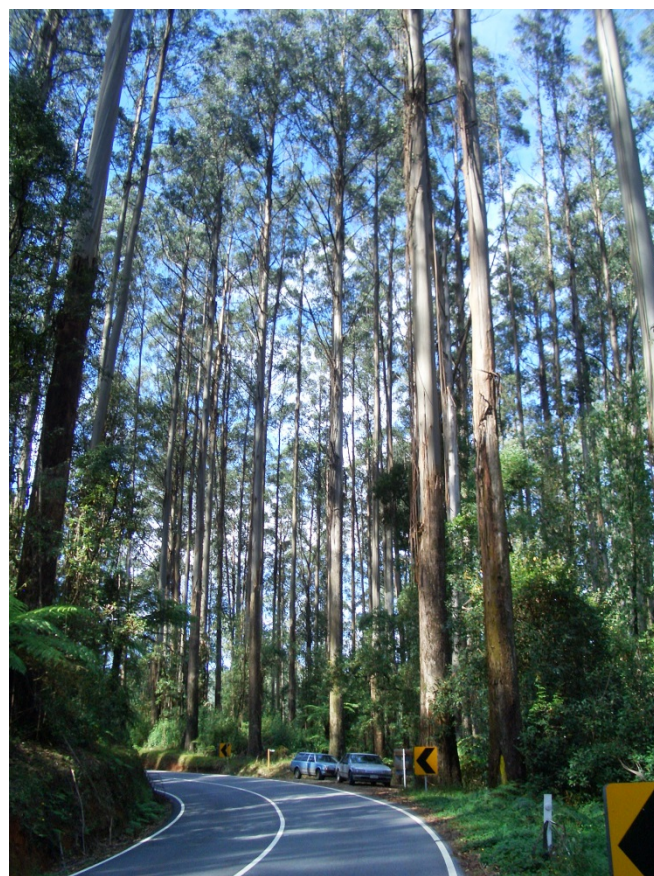
He is a self-confessed 'plant nerd' with a particular interest in our indigenous native flora, and its origins. When he is not exhausted from his day's work, he does some university session-lecturing.

Australia is one of the oldest continents with the oldest geology and oldest rainforests in the world. Thirteen of the oldest nineteen plant families on the planet occur in the Daintree. We also have the oldest surviving plant. The Idiot fruit, *Idiospermum australiense*, is the only member of the genus. It is polycotyledinous, and fossil evidence shows its morphology to be unchanged for at least 140,000,000 years.



Fruit of *Idiospermum australiense*, Idiot Fruit

Brad's aim is to better educate his clients about Australian Plants and demonstrate that plants should be planted where the geology and climate suits them. His aim at the meeting was to talk to us about Australian flora and the influences both internal and external to Australia, which influence where they grow and why. He started with three examples ...



The tallest flowering plant in the world, the Mountain ash, *Eucalyptus regnans*, a plant of the lower montane forests; *Agathis robusta* or Kauri pine, which can be found from Tasmania to far-north Qld and equatorial rain-forests; and the Coral fern – *Gleichenia sp.* All require considerable moisture. Brett took us through a quick lesson in the evolution of plants from cyano-bacteria – the blue-green algae, through seedless vascular plants – mosses, ferns etc.,

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gymnosperms, like the kauri pine, through to the flowering plants. All are still to be found today. Then he described the influences he believes have determined Australia's flora.

Australia's floral history – The Wallace line separates Lombok from Bali, with Asian flora and fauna to the west and more Australian-type animals and plants to the east. During the last ice-age New Guinea and Tasmania were joined to the Australian continent, allowing more ready dispersal of plants and animals. For example, *Banksia serrata* occurs in the sandy soils of the east coast of mainland Australia, but there are huge stands of the plant on the north-west coast of Tasmania.

Climatic determinants. Water currents play a huge role in controlling the world's weather. These are created by the spinning of the earth on its axis. Water currents bring cold Antarctic water along the south coast of Australia (and the west coast of South America). There is little evaporation from these cold waters, and the low pressure systems that spiral up from Antarctic waters do not warm sufficiently to provide rain. So, southern Australian plants have evolved in a drier environment. This gives rise to what is referred to as the 'Kwong An' flora. In S.W. Western Australia there are over 1000 species flowering each spring. By comparison, the next most prolific is the Fynbos area of the African Southern Cape has about 300 species, while the USA and Europe have fewer still.



Western Australia wildflower diversity

Interestingly, Mountain Ash occurs roughly between altitude of 400 – 1100 metres on mainland Australia, but on the coast at sea-level in Tasmania. A decrease in latitude creates similar climatic conditions to an increase in altitude, enabling the plant to thrive in seemingly different environments.

Geological determinants. Australia has some of the oldest geology on the planet. The soils created by these ancient rocks, have not been added to in any great degree by glaciers or mountain formation. Australian soils are generally poor in phosphorous and nitrogen. So our plants have evolved to grow in these depleted soils in many ways. Proteaceae have developed an interesting root system to cope with the poor nutrient levels, called proteoid roots. They are essentially a matted mass of tiny

roots which increases the surface area available to the plant for nutrient capture.

Topography. Australian is basically a flat land mass. In world-wide terms, there is very little variation in altitude from the highest to the lowest point. However cold air from the Antarctic currents hits the dividing range, rises, condenses and falls as rain on the eastern side. Considerably less falls on the western slopes. The remainder of the continent is basically dry. There are two great drainage basins in south eastern Australia ... the Great Dividing Range basin which drains the eastern side of the range, and the Murray Darling system which drains the western side.

ON THE TABLE

Presented by Annette Packett

I was away for the September meeting, and I'm grateful to Bruce for these notes and photos from the plant table. – Ed.

Plants brought in by Annette:

Hypocallyma angustifolia: good cut flower

Conostylus aculeatus: grows in a hot/dry spot, produces lots of flowers

Chorizema cordata: good vibrant flowers, Annette has a couple of these plants, cut back hard with hedge clippers after flowering.



Flame Pea – *Chorizima cordata*

Dampiera "Malley Mauve": From Mitre 10, five years old, suckers transplant well, Matt cannot get it to grow, needs well drained soil.

Acacia drummondii: 7 years old, cut back last year, flowering well this year.

Plants brought in by other members

A number of Acacias brought in:

Acacia pravissima, *Acacia cognata*, *Acacia glaucoptera*, *Acacia acinacea/rotundifolia* brought in by Matt.

Darwinia "Cranbrook Bell": Grafted, 1.5m high, flowering very well. *Darwinia "Cooligan Pink"*: (I don't think that is the correct spelling) Matt, growing it on its own roots, a brilliant plant.

Thomasia undulatum: Grown by Matt, self sown, great plant, tolerates dry shade, one metre high.

Philotheca myoporoides: Tough plant that can suffer from scale, 1.5m high .

Grevillea "Winparra Gem": Large shrub grown by Carmel.

Indigofera australis: Lovely blue flowers, plant contains cyanide.(comment by visiting speaker).

Hardenbergia violaceae: Brought in by June Parrot, vigorous plant growing wild on the fence.

Pandorea pandoreana "Golden Showers" Very vigorous.

Kunzea affinis: mauve flowers.

Dryandra praemorsa

Eremophila maculate and Eremophila brevifolia

Some grand *Banksias* brought in by John Bell:

Banksia coccinea

Banksia ashbyi

Banksia praemorsa "High noon": Had a 20cm inflorescence, beautiful yellow.

Banksia praemorsa "Port Wine" Like the name says a lovely red port wine colour.

Stypantra glauca

Hakea unknown: John Bell

Ricinocarpus pinifolius: Wedding bush

PLANT OF THE MONTH (brought in by Sheila...best of luck trying to get a write-up on that.) *Telopea hybrid* (hybrid name:- Sheila, "*I don't bloody know*")

Anyhow, Sheila brought in 4 inflorescences of a beautiful red Waratah which we all decided Annette could keep because she did a marvellous job of talking us through the plant table.

PLANT OF THE MONTH *Telopea speciosissima*

As Bruce says above, *Telopea speciosissima* , the Waratah is the plant of the month. I am reasonably confident, having spoken to Roger about them recently, that these flowers are from the cultivar 'Shady Lady'. These are the notes on growing *T. speciosissima* from the RGB website ...

Transplant in autumn to a wind protected area. Partially shaded with morning sun is best, although waratahs will grow in full sun.

Plant at least 1.5 m apart or into very large pots. Mulch soil with composted leaf mulch to prevent roots drying out. Waratahs need regular watering. The roots should never be allowed to dry out, however they hate 'wet feet' - so ensure their medium is free draining (whether in a container or in the ground). It can be beneficial to mound up topsoil - to 0.5 m high - and to incorporate leaf mulch into the soil. You can see an example of mounding with sand in the Banksia Garden at the Australian Botanic Garden Mount Annan.



Annette with the fabulous Waratahs.

Fertilise with a low-phosphorus slow-release fertiliser or 'blood and bone' in late winter or early spring.

Cultivated waratahs require heavy pruning once established. About 3/4 of the plant should be removed immediately after flowering to reinvigorate the plants. New shoots should flower the following year. Prune off any weak stems as this will stimulate re-shooting.

UP-COMING EVENTS

OCTOBER MEETING

16th September

The speaker at the October meeting is Carly Bronk. Carly Bronk, who will speak to us about the fascinating world of marine algae.

PRE-MEETING DINNERS

Some of the members meet at the Dragon's Bistro, just across the footy oval from the Ballroom, for dinner before our monthly meetings. Meals are good and cheap – just \$10 or \$12 – and drinks are very reasonably priced. If you would like to come and join us pre-meeting, please phone Denise Cromer, by Sunday night, to confirm your attendance. Then, she can let management know how many seats we'll need. Denise's mobile number is 0417117460, or email deniseandphill@gmail.com

GARDEN VISIT – Indented Head / Drysdale

Sunday 19th October will see those of us not attending the FJC Rogers seminar visiting some gardens in Indented Head and Drysdale. We will meet at Indented Head for morning tea at 9.30, then travel to a group of four predominantly native gardens in Glenrana Drive. A couple of hours here, then we'll move to Drysdale for lunch and a wander around 'Red Gums' in Drakes Road. An impressive stand of remnant red gums was the inspiration for designer Sam Cox in this beautiful Australian plant garden. Extensive rock work, large naturalistic water features and grassed areas complement a wonderful variety of species including eucalypts, callistemons, acacias, banksias and grevilleas.

CHRISTMAS BREAK-UP BBQ.

Roger and Sheila have volunteered their house for the break-up this year. **Saturday, December 6th** is the date, and **5.00 pm** is the time. After input from members, and much discussion at the Committee meeting, it was decided that the club will provide sausages, hamburgers, vegie-burgers and bread. You are asked to bring a salad or desert to share, and your own eating utensils, plates, glasses and chairs. Most importantly, you should bring your own drinks. In a departure from previous years, the club **will not be providing any drinks** except tea and coffee.

We have given you plenty of advanced warning so there is no reason why you can't be there to celebrate the wonderful club we have forged over the years.

PLANT SALE 2015

The dates are set for our Plant Sale in 2015. Put 11th and 12th April in your diaries now, and be the first to volunteer to help at our major fund-raiser.

Not only will you get the joy that comes from helping out, but we'll even feed those who come along to work. And, as an added bonus, there is a BBQ dinner for the growers, and all those who have worked (or will work) over the weekend. This is on the Saturday night, starting at 5.00 pm.

WIDER GEELONG FLORA LECTURE

Hosted by the Geelong Field Naturalists Club, the lecture will be in the Geelong Botanic Gardens, in the friends room, on Tuesday October 14, 7.30 pm

The speaker is John Arnott, the Manager of Horticulture at Cranbourne Botanic Gardens.

The title of this lecture: Plant Conservation: The role played by botanic gardens and other agencies.

FJC ROGERS SEMINAR

Bendigo

The FJC Rogers Seminar is on **18th and 19th October 2014** at the [All Seasons International Conference Centre, 171-183 Mclvor Road, Bendigo](http://www.allseasonsinternational.com.au)

Brachychitons and Related genera

The *Brachychiton* genus is a member of the *Sterculiaceae* sub-family which includes

- *Androclava*
- *Brachychiton*
- *Commersonia*
- *Guichenotia*
- *Keraudrenia*
- *Lasiopetalum*
- *Pterospermum*
- *Sterculia*
- *Thomasia*



These genera contain the plants from which chocolate and cola extract are derived. The name "Sterculiaceae" comes from Sterculius, an ancient Roman god who concerned himself with fertilization.

A number of species of *Brachychiton* are well known in cultivation. The best known is the spectacular Illawarra Flame Tree (*B. acerifolius*) and others widely grown are the Kurrajong (*B. populneus*) and the bottle tree (*B. rupestris*). This seminar is open to all interested persons

So don't be shy, we need you all to put your volunteer faces on and join in the fun.

AUSTRALIAN OPEN GARDEN SCHEME

5th October *Bickleigh Vale Village* – Edna Walling's Masterpiece. Bickleigh Vale Rd and Edna Walling Lane, Mooroolbark.

Bickleigh Vale still remains the finest example of Walling's ability to achieve harmony between buildings and landscape. Eight of these magic gardens will be open: Abbotsley, Badgers Wood, Devon Cottage, Mistover, Sonningfield, The Barn, The Sheilan and Wimborne. \$35 for eight gardens. Not all native at all, but a rare and fascinating insight into what a famous early OZ female landscape designer achieved.

11th and 12th October

Debbie's Aussie Garden, 24 Flowerdale Rd, Glen Iris. Completely redesigned in recent years, this vibrant and healthy garden brims with a rich diversity of Australia plants including many grevilleas. Raised beds feature drought tolerant and foliage plants. Repeat plantings of viminaria, *Eucalyptus perriniana* and adenanthos. Unusual persoonia hybrid. Pond with indigenous plants; dry creek bed. Children's activities and a sausage sizzle.

Flowerdale Road Native Garden, 1/29 Flowerdale Rd, Glen Iris. An exquisite small garden jam packed with a great range of native plants chosen for foliage and flower colour. The strong and thoughtful design links the front and back areas, and many pretty pots are successfully woven into the whole. The garden is an inspiring lesson in elegant small space harmony.

\$14 joint entry with Debbie's Aussie Garden and Flowerdale Road Native Garden, or \$8 each garden.

Fairview Garden, 7b Fairview Ave, Wheelers Hill. A stunning garden featuring lush repeat plantings in an elegant and serene design, with the native plant area near the stunning gates a lesson in design.

BUSH TOMATO BUSINESS

Another story from the ABC Radio website. I thought this was interesting, as I had always believed Solanum fruits to be poisonous.

They call it Plant Business: bringing traditional bush knowledge together with the latest plant genetic techniques to create a business for indigenous people in remote Australia.

The plant in question is the bush tomato, *Solanum* sp., also known as the bush raisin, a very close relative of the more familiar tomato. It is already used in a small range of commercial chutneys and sauces. Some is collected the traditional way, by indigenous women on their country in the desert, while some is being cultivated.

Ninti One, a not-for-profit organisation that builds opportunities for people in remote Australia, is overseeing the project. Indigenous people work as researchers and plant collectors, and are deeply involved in the process. It is a long way from the old model, when plant hunters just took what they wanted without acknowledgement.

Slade Lee, a plant breeder from Southern Cross University, is the principal researcher with Plant Business. He says the bush tomato is a small, scrubby, prickly desert plant, and collecting the little dried tomatoes is an arduous business.

He is working on the genetic profile of plants collected from 68 different sites. Professor Slade says they are looking to develop a plant that has fruit that is borne high, which would make picking easier for both hand harvesters, and for mechanical harvesting if the industry wants to go down that route.

He says breeding for flavour is well down the list. 'Why would you bother, it has so much flavour to start with. The subtle nuance between one flavour and another are a long way in the future.'



***Solanum* in flower, Larapinta Drive in Central Australia. Photo: Caddie Brain**

Further research led be to the 'Outback Pride' website www.outbackpride.com.au

Kutjera (Kampurarpa - Pitjantjatjara language) is a small desert plant approximately 30cm in height, with grey to bronze leaves and attractive mauve/blue flowers. It grows naturally through the central deserts from Tennant Creek, NT to Marla, SA. Part of the tomato family (which includes potatoes and capsicums), there are over 100 species of Solanums (Wild Tomatoes) in Australia. However, only six are known to be edible, and Kutjera - Desert Raisins - are the most well known and certainly the most consumed species of the "bush tomatoes".

In the red, sandy desert, the plants grow quickly after summer rains, mainly from dormant root stock which can last for many years between favorable seasons. The plant also responds and grows rapidly

after soil disturbance (along roadsides) or after bushfires.

This arid lands fruit has been a staple food of the indigenous desert dwellers of Central Australia for many thousands of years. A rich source of minerals, particularly potassium, they are also high in vitamin C. The traditional harvesting method is to collect the sun dried fruits of the small bush in the autumn and winter months. In the dried form, the Desert Raisins can be stored for several years.

Desert Raisins are now being cultivated in commercial plots on indigenous communities in the desert regions of Australia. With the use of water-wise irrigation systems, the fruiting cycle has been expanded to eight months instead of just two months (as in the wild).

WULGURUKABA PLANT TRAIL - Townsville Qld.

Penny and I had a short holiday to Queensland last month, where we stayed at Saunder's Beach, about 20kms north of Townsville. Apart from the weather, the beach, the weather, the view, the weather, the bird-life and the weather, Saunder's Beach has quite a bit to offer the weary traveller (did I mention the weather?). One of these is the Wulgurukaba Plant Trail, in a little park at the end of town, where the Althaus Creek flows into the sea.



In February, 2011 Cyclone Yasi crossed the coast about 200km north of Saunders Beach. Its effects were far-reaching. The combination of strong winds and storm surge moved massive amounts of sand, destroyed trees and damaged infrastructure. About a third of the native vegetation along the beachfront was gone. The Wulgurukaba Plant Trail was established not only to replant many of the devastated trees but to explain to visitors what uses the Wulgurukaba people had for these and other plants of the area.

There are interpretive signs at each of the trees or plants giving Scientific, English common names and Wulgurukaba names, along with an explanation of

their uses. While many of the trees are still small, and some have suffered, perhaps through neglect or the attentions of the local vandals, the trail is very interesting and informative.

Some of the more interesting plants and uses included ...

The Beach Hibiscus, *Hibiscus tiliaceus*. This plant has large, yellow, edible flowers with striking red centres. The inner bark is used to make twine, fishing line and nets. Heated leaves are used as poultice dressings on wounds and sores. Straight stems are used to make spears and to start friction fires.



Beach Hibiscus - *Hibiscus tiliaceus*

The Beach She-Oak *Casuarina equisetifolia*. Needles from the tree are chewed into a ball to numb toothache. The inner bark is smashed and mixed with water to make a medicine for sore throats which is then gargled and spat out. The timber is used for firewood.

The Burdekin Plum, *Pleiogynium timorense*. The large, deep purple fruit is eaten raw after being buried in the sand for several days to ripen. The bark and roots of the tree can be used as a 'fish poison' stunning fish, in order that they float to the surface of the water for easy capture.



Burdekin Plum – courtesy Black Diamond Images

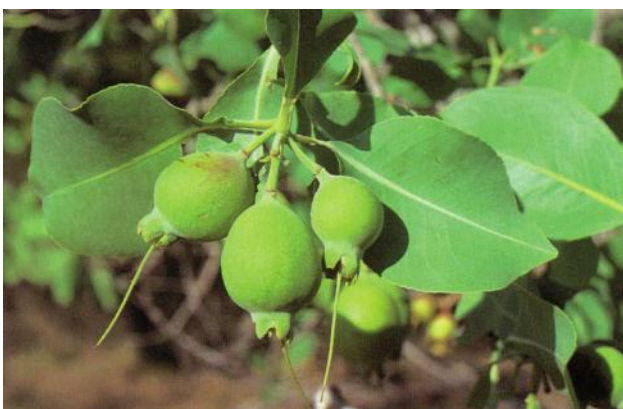
Sandpaper Fig, *Ficus opposita*. The rough side of the leaves are used as sandpaper for shaping spears, boomerangs, woomeras etc. Figs can be eaten raw when ripe and have a sweet taste. A medicine is made by boiling and straining the inner bark and roots of the tree to treat diarrhoea; this medicine can also be used as an eyewash. When the leaves are soaked in water, a liquid is produced which can be applied to soothe itchy skin conditions.



Sandpaper Fig - *Ficus opposita*

Soap Tree, *Alphitonia excels*. The green leaves are crushed and rubbed together with water to make soap. The soap can also be used to soothe headaches or treat skin ailments. Alternatively, a paste can be made by mixing ash from the burned timber with water. This paste can be easily applied as a skin treatment. Leaves and berries from the tree are used to stun fish for easy capture.

The Cocky Apple *Planchonia careya*. The cocky apple has a wide range of uses. The inner bark of the tree is smashed and mixed with water to make medicine for skin conditions and headaches. The roots and bark of the tree are used as 'fish poison.' Timber is used to make boomerangs. Fruit can be eaten raw or roasted. When the tree flowers it provides a signal that it is time to fish for barramundi.



Cocky Apple - *Planchonia careya*

Heart Leaf - *Macaranga tanarius*. Straight stems are used to start friction fires and to make spears. The red sap from the stems is used as a glue to bind spearheads. The inner bark is used to make twine for nets and to weave baskets. Witchetty grubs are found in the roots of the tree.



Heart Leaf - *Macaranga tanarius*

Mangroves found in this area include stilt-rooted; grey; black; yellow; myrtle and blind-your-eye mangroves. Mangroves provide materials for tools, shelter, medicine and food. The grey mangrove is particularly useful for building canoes, spears and boomerangs. Its seeds can also be roasted and ground into flour. The sap from the blind-your-eye mangrove is used to treat marine stings, but can cause blindness if it gets into the eyes.

The Bat's Wing Coral Tree, *Erythrina vespertilio*. The brilliant orange flowers of this tree are said to attract edible frogs. Its roots can be chewed to obtain water. Leaves are boiled and the steam provides relief from colds and flu when inhaled. The timber is soft and easy to carve and is used to make coolamons (carrying baskets) and shields. The poisonous red seeds contained in the pods are used to make necklaces.



A necklace of Coral Tree seeds