Issue 29: Summer 2023.

Australian Native Plants Association (Australia)



Banksia Study Group Newsletter No. 29.

ISSN 1444-285X

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Wind evolved dwarfing banksias in the F.N.P.

(Fitzgerald National Park)

On a recent field trip to Cave Point, at the eastern end of the park we located three banksia species growing less than half their normal size. Banksias *media*, *lemanniana* & *nutans* var. *nutans* growing alongside each other. None of these exceeded knee-height. A low form of *violacea* with mauve flowers grows 100m away.

Media, grandis & other WA species from very windy coastal environments have proven to grow true to type from seed. I believe these will do likewise. Due to pollination often from larger shrub forms growing nearby, further inland, seed progeny varies greatly. As the plants grow their habit becomes distinguishable. Pollinators such as birds & bees can travel some distance and this determines the progeny.

WA species are mostly difficult to grow from cuttings unlike eastern species whose dwarfing and floriferous individuals have been grown & promoted as registered cultivars.



Cave Point in the Fitzgerald National Park.

B. media (LHS) B.lemmaniana (centre with bronze new foliage) B. nutans var. nutans (RHS).





B. lemmaniana low form.

B. nutans var. nutans low form.



Hidden treasures.

B. media low form.

B. nutans var. nutans flaky paper barked trunk & fruiting cone.

Eastern Banksia Cultivars (synopsis) courtesy Karlo Taliana as presented at the Biennial Wildflower Conference held at Kiama, NSW. 2022.

Over the past thirty years, many low growing forms of Banksia from seaside locations have been recognised by nurserymen and plant breeders. Some have been quick to stamp their breeder's rights on whatever plant forms they have propagated. The vast majority of today's cultivars are taken from locations along the NSW and Vic. coasts where they are exposed to the strong coastal winds.

The result is that some of the common eastern species (in particular, those from the *Banksia spinulosa* complex, *B. ericifolia* and *B. serrata*), tend to grow as dwarf or lower forms. The full wind force of Mother Nature turns them into bonsai-like specimens that remain true to form making them the perfect garden subjects – even when cultivated under more benign conditions.

With some dwarf banksia varieties found across areas of prime real estate, they may face the threat of extinction due to urban development.

The link for Karlo's fabulous talk is shown below. (Right click on the link, then click on 'open hyperlink'). The YouTube presentation will appear after a short wait for the advertisements to clear. ENJOY the 20-minute video presentation courtesy of the Wildflower Society, NSW.

Eastern Banksia cultivars - YouTube

Banksia Study group display at the Kiama, NSW Wildflower Conference held 10-16th September 2022.

A selection of all banksia species in bloom at that time of the year were sent from our garden in Mount Barker, WA and members Karlo & Michael below, kindly displayed them for attendees of the conference to admire.



Karlo Taliana and Michael Squire with the banksias displayed at the conference venue.

Kathy and I wish to sincerely thank Karlo and Michael for their superb effort in holding the Banksia Study Group banner, manning the display and giving talks at the conference.

Albany Branch of the W.A.W.S. Annual Display.

20 -24th September, 2022.

Banksia Farm again donated named banksia displays for the Albany wildflower show. This year we split the displays into Eastern Species as shown on the left, below and Western Species on the right.





Each species was individually labelled and the displays drew a lot of attention during the festival.

This number of flowering species is closely matched or exceeded with Autumn flowering species. Banksias provide a wealth of nectar for marsupials, bees & honey eaters. They provide food for cockatoos with seeds & grubs from April through to October during the lean flowering period of most other families & genera of plants.

Ongoing B. coccinea dieback research.

Following on from the first round of dieback trials. Ref: Banksia newsletter No.26. P20, Kevin & Kathy of Banksia Farm held an Open Garden Day in 2021 and donated the gate takings for further research. An incredible 528 people attended.

With the aid of Meredith & Jeremy Spencer, partners in the research programme, we visited the two labelled plants in the wild which had in the first round of testing, see newsletter No. 26 P20, provided 1 from 6 and 2 from 6 respectively Phytophthora cinnamomi-resistant seedlings.

More seed was collected from these two parent plants. These were the two of 30 original labelled plants that produced any resistant progeny. A further 23 seedlings from plant 1 and 44 from plant 2 have germinated and were recently potted from 70mm pots into 180mm pots ready for research testing later this year.

Students at Murdoch University under the supervision of retired Dr. Giles Hardy will conduct the tests. Giles led the initial trial.

Surprise self-seeded B. integrifolia pops up in a Tasmanian garden.

Banksia enthusiast, Johanna Allen, reports thru' Ritta Boevik that one of her several self-seeded plants from her original yellow flowered *B. integrifolia* has larger leaves than the others and delicate pink inflorescences. All the others are yellow flowered like the parent plant. She does not have any other *integrifolia* with which it may have been pollinated. (Ed. *I suggest the integrifolia parent may well be integrifolia var. monticola or integrifolia var. compar which both occasionally have pink flowered forms. The large leaves suggest it may well be var. compar. What a stunner.)*



Banksia paludosa subsp. astrolux? found on the Illawarra Escarpment.

Article from study group member, Michael M. Squire.

This began in April 2020. I believed I had found a hybrid, B. Integrifolia X B. paludosa.

I rallied experts to provide feedback and over 12 months gathered more photographs. The Botanic Gardens, Sydney (BGS), were asked and said they would have a look. They took cuttings and after comparing with herbarium specimens, they made with caution, a determination of *B. paludosa subsp. astrolux*? They concluded, however, that more taxonomic work needs to be carried out to double-check the identification and the subspecies concepts, a process that will take some time. This is a very rare taxon currently only known with certainty from a single stand in Nattai National Park near Hill Top.

This population was entirely burnt in the 2019/20 fires and which were recently assessed to find almost all mature plants either dead or dying. While caution was required moving forward, the NPWS, were contacted, a local ranger and Royal Botanic Gardens (RBG) delegates were happy to meet and discuss management options. There is still a lot we don't know about this taxon and so making the correct conservation decisions to protect the Illawarra SCA plants with NPWS, while the more complex research is undertaken in the background is the best option. Shortly after talks with NPWS signs were posted close by to this Banksia to protect it while it was being assessed.

In late August 2022, a group of botanists/ecologists including one who's been working on the population at Hill Top, had a look at the Illawarra Escarpment State Conservation Area plant in question. It was noted straight away that the fruits were shedding seasonally which had not been previously noted, as it was a different time of the year from the initial visit. Shedding seeds annually is an *integrifolia* trait.

Extra specimens were taken and compared to *astrolux* and after talking to the Proteaceae botanist at RBG, all agreed that despite them looking very, very similar to *astrolux*, they can't be as it has serotinous fruit. Despite the findings it is an interesting plant, hybrids of *integrifolia* and *paludosa* are a rarity compared to the copious very common parents, so it's cool ecologically to find one. Discussions are happening about this Banksia hybrid being a good fieldwork candidate.

(Ed. Michael relayed this information at the time to Kathy & myself and stated he'd keep us up to date with further findings.)



Hybrid B. paludosa X B. integrifolia.? Inflorescence close-up.



Hybrid B. paludosa X B. integrifolia large shrub.

Illawarra escarpment.

Photos courtesy M.M. Squire.

Amazing grove of large shrub B. epica in Victorian plantings.

I sought contact with David Pavlou after seeing his wonderful *B. epica* blooms posted on the Banksia Lovers facebook site. He is manager of the property owned by his brother. It is a 7-acre property on a pure sandy hill at Cobram East close to the Murray River so has good access to quality ground water. The property is appropriately named "Sandy Hill Banksia Farm".

This property was established in the early nineties, over 30 years ago, by the late Morris Gould, an avid banksia collector & grower on his hobby farm. We believe he exhibited some of his blooms in the Chelsea Flower show in U.K. This rivals Kathy & myself with provision of stunning B. coccinea blooms which we grew and were exhibited, topiary tree fashion, at Chelsea in the 2000 award winning display by Kings Park & Botanic Gardens personnel from Perth, W.A.

David's property boasts over 35 terminal flowered species which they pick and supply fresh blooms for the floriculture industry in Melbourne primarily through a florist called BUSH. He subsequently sent me videos of their *B. epica* grove which really astounded us. They have 26 long- established trees which range from 5m to 7m tall. This species is rarely grown as it originates from a remote, difficult to access coastal location at Toollina Cove south of Cocklebiddy on the Great Australian Bight. A more accessible low shrub form can be found to the east of this location on the cliff tops.

We have both forms growing in our Banksia Farm collection. The tall flowered, tall shrub form, our sole plant grew to 6m on our property, flowered several seasons before recently dying. Young replacement plants have been grown.

Most *epica* blooms harvested by David are plain yellow but some produced more vibrant yellow blooms with grey-brown anthers later in the season after May. Looking very similar to one of the *B. media* colour variants. *B. media*, *epica* and *praemorsa* are all very closely related. The key difference between *epica* and *media* is that *epica's* retained old florets are curly and dense on the cones whereas *media* are straight and less dense. *Epica* has lime green young buds unlike *media* which has yellow/gold buds. *Epica* flowers earlier than *praemorsa*. One of our low coastal shrub plants produces similarly coloured blooms. David puts the colour intensity down to the colder weather they experienced this season. David's property may well be the only one in the world growing this species for floriculture.

Although Morris was a grower/collector he did not establish it as a floriculture venture. The property has had another family own it prior to David's involvement. Morris was undoubtably a trail blazer growing many of our wonderful West Aussie floricultural species in Victoria; *menziesii*, *prionotes*, *speciosa*, *ashbyi*, *burdettii*, *praemorsa*, *media*, *baxteri*, *epica*, *attenuata* & *sceptrum*. *Menziesii* is the most utilised species with hundreds of trees on the property. Other terminal flowered eastern candle species are also grown and various small quantities of other species not necessarily suitable for picking.

Many growers around Mt. Gambier in S.A. established floriculture plantings of WA species around the same time. Coccinea was very popular.

Click on the envelope below to open videos of the B. epica groves.



Achieving differing colour forms of B. coccineas & other WA species.

Rare and unusual colour forms of many WA species are difficult to acquire, unlike their eastern Australian counterparts that can mostly be grown readily from cuttings.

At Banksia Farm in W.A., we have sourced seed from rare colour variants over a 20-year period in the hope some grow true to colour type. The rare golden yellow *B. coccinea* was one of our goals but from seed after 4 years the progeny flowered orange or red. This was because the gold one in the wild was surrounded by a forest of red flowered ones with which it was pollinated. Here years ago, after many attempts we finally managed to get one to flower gold. An interesting observation was that its new foliage was also gold whereas red flowered plants have silver or pink new foliage.

This plant has since produced seed and has self-pollinated away from red ones and we now have 4 yellow or gold flowered plants. In the process we also had one plant flower apricot- pink, a colour which we have never witnessed in the wild. Add orange, two-toned orange/red, small dark red button with black upper central pistils and dark red giving us a suite of colour forms. We have also, after many trials, managed to grow just a few coccineas from cuttings and this will enable us to multiply up the number of various colour forms.

We have also achieved bronze flowered *B. menziesii* along with pale salmon pink. Bright yellow and maroon colour forms are still on our 'yet to achieve' list.

The other species we have many colour forms of is *B. baueri*. Many natural populations have differing colour forms which we have successfully cultivated from seed.

It is anticipated that if a compatible rootstock for *B. coccinea* can be found then these could be grafted. I am also trying to grow more of each trialling cuttings.

To-date I have grown 5 coccinea from cuttings in my open nursery without bottom heat or misting and have had success with one of six gold cuttings planted in April 2022.



Our farm emblem. Chocolate centred dark red B. coccinea.



Finance and membership.

Our current account balance is **\$1809.29**. (\$285.48 was expended in Sept.2022 to express freighting blooms from our garden in WA to Kiama for the Banksia Study Group display at the conference.).

Our membership is now 119. Welcome to our new members. Trust you enjoy participating in the group.

Remember we always appreciate reports on your sightings, banksia excursions, home garden successes & failures. We want to focus on 1. pollinators witnessed in your garden & 2. Fungi seen on banksia trees, cones or rotting banksia wood for forthcoming newsletters.

Kevin & Kathy.